THIS EDITION PRESENT AT THE AMERICAN EXPLORATION AND MINING ANNUAL CONVENTION & EXHIBIT

THE INDUSTRY'S LEADING NEWSPAPER SINCE 1889 — THE VOICE OF THE MINING INDUSTRY

THE MINING RECORD

INTERNATIONAL MINING NEWS™

128 YEARS OF MINERAL COVERAGE

www.miningrecord.com

Vol. 128, No. 12 — December 2017 — Denver, Colorado, USA

Metals Watch (11/21/17): Gold $1,296.00 • Silver $17.31 • Copper $3.07 • Lead $1.11 • Zinc $1.45 • Platinum $921.00 • Palladium $982.00 • Molybdenum $7.25 • Lithium(X) $39.76

BARRICK GOLD CORPORATION

Cortez Hills Deep South To Expand Mining In Lower Zone

TORONTO, ON - Barrick Gold Corporation reported that the Cortez Hills Deep South Underground Project, Nevada is expected to contribute average underground production of more than 300,000 ounces per year. The project remains on schedule and within budget, with initial capital costs estimated to be $153 million. The Deep South project will utilize infrastructure which has already been approved under current plans to expand mining in the Lower Zone. This includes construction of new twin declines, a conveyor haulage system, fuel and lubrication system, shotcrete and cemented rock fill plants, and an underground maintenance shop.

At the end of the third quarter, the twin declines had advanced a total of 6,581 feet, or 44 percent of the total distance, in line with schedule. Mass excavations for key underground infrastructure have also begun, and contracts for underground construction works have been awarded. Activities in the fourth quarter will include mobilizing contractors, advancing the twin declines, and completing temporary warehouses, in addition to continued procurement for construction activities.

The Deep South project will utilize infrastructure which has already been approved under current plans to expand mining in the Lower Zone.This includes construction of new twin declines, a conveyor haulage system, fuel and lubrication system, shotcrete and cemented rock fill plants, and an underground maintenance shop.

Permitting for Deep South was initiated in 2016 with the submission of an amendment to the current Mine Plan of Operations to the Bureau of Land Management. Permitting is expected to take approximately three to four years, including the preparation of an Environmental Impact Statement. A record of decision is expected by 2020. On this basis, initial production from Deep South could commence by 2023.

The Goldrush Project in the Cortez District has the potential to become the company's newest underground operation in Nevada, with first production expected as early as 2021, and sustained production by 2023. The mine is expected to produce approximately 450,000 ounces of gold per year during its first full five years in operation. The first phase of the project involves the construction of an exploration twin decline to provide access to the orebody at depth, which will enable further exploration drilling, as well as the conversion of existing resources to reserves. The exploration declines can be converted into full production declines in the future.

Initial site preparation works for the portal have been completed, and construction on the portal pad is now under way. Barrick has also completed a surface drilling program in the Red Hill zone of the deposit, which is expected to support additional resource conversion.

Work during the fourth quarter will focus on advancing portal pad construction, and the selection of an underground contractor for decline development, which is expected to begin in early 2018. Permitting is expected to commence in 2018, initiating a three- to four-year Environmental Impact Statement process.

At the Turquoise Ridge Third Shaft Project, Nevada, the development of a third shaft, combined with improvements in mining productivity, Turquoise Ridge has the potential to increase output to an average of 500,000 ounces per year (100 percent basis). The project is expected to require additional underground development and shaft construction. All necessary permits for a third shaft are already in place.

Surface preparation works began in the third quarter, and included moving 95,000 cubic yards of earth, setting up storm water diversion infrastructure, and extending utilities to the shaft site. This work is expected to be complete by the end of 2017. Contracts and materials to support medium and high voltage electrical distribution, water handling and sewage treatment have been purchased, and a tender process is now open for the shaft sinking contract.

In keeping with the phased approach, construction on a ventilation shaft could begin in the second half of 2018, at roughly half the total capital expenditure of a full production shaft. This ventilation shaft would allow for expanded underground mining using existing infrastructure, and could be equipped and converted to a full production shaft to increase the mine's output to approximately 500,000 ounces per year.

During the quarter, Turquoise

Continued On Page 8

Dated Material — RUSH

News

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

TonaTec Exploration, LLC

Salt Lake City, Utah
Office: 801.446.2400
Cell: 801.310.1628
steve@tonatec.com

www.tonatec.com

PROFESSIONAL & EXPERIENCED CREWS

Gold Recoveries Averaging 86.5% For Dark Star Oxide

VANCOUVER - Gold Standard Ventures Corp. reported highly encouraging metallurgical results from continuing work designed to determine the processing characteristics of the Dark Star oxide gold deposit, on its 100%-owned/controlled Railroad Project in Nevada's Carlin Trend. Column recoveries from -12.5 mm size material averaged 86.5% for Dark Star oxide and 70.0% for partially oxidized transitional material. These results confirm that Dark Star material is likely to support heap leach processing.

Column testing for gold cyanide leachability of Dark Star core samples was completed by Kappes Cassiday and Associates of Reno, Nevada, under the direction of Gary Simmons, consulting metallurgical engineer.

According to Mr. Simmons: "Data from metallurgical column testing to date at Dark Star point to high gold leach extraction from oxidized and transitional materials and suggest that simple heap leaching of crushed and/or run of mine material appears to be the preferred process option at Dark Star."

Jonathan Awde, CEO and Director of Gold Standard said, "Step by step we are increasing the value of our Railroad Project by reducing risks and establishing the viability of its gold deposits. The recovery rates in these tests are beyond our expectations. We now know how the gold can be recovered at Dark Star and that crushing requirements and reagent consumption are favorable. The next step is to complete a PEA defining economic parameters."

A total of 40 drill core composites, representative of the gold deposit were column tested. All 40 samples were crushed to reduce 80% of the material (known as P80) to a size of 12.5 mm or less. Splits from five of the composites were also tested at a column feed size of P80 of 25 mm. Gold extraction for oxide material ranged from 66-95%, with an average gold extraction of 86.5% while transitional material gold extraction ranged from 58-90% with an average gold extraction of 70%.

The company's address is 815 W. Hastings St., Vancouver, BC V6C 1B4, 604-687-2766.

Fire Creek Surface Drilling Discovers High Grade Mineralization

RENO, NV – Klondex Mines Ltd. reported an update on the 2017 surface and underground exploration drill programs at its Fire Creek Mine ("Fire Creek") located in northern Nevada. Three surface drill holes totaling 4,171 ft (1,271 m) have been completed to-date on the Zeus target. A total of 52 underground drill holes totaling 30,843 ft (9,401 m) were drilled from current underground workings.

This surface exploration drill program was to follow up on the 2016 exploration program which successfully tested a north-south geophysical anomaly located approximately 4,000 ft (1,219 m) west of the current mine workings. These drill results discovered a zone of high grade mineralization within the Zeus structure. Drilling to-date has delineated a mineralized area within the structure approximately 650 ft (198 m) in length and 400 ft (122 m) vertically, within 400 ft (122 m) of surface and is open in all directions. Additional follow up holes are in progress to continue to expand and infill this significant high grade mineralization.

The underground drill program was designed to extend mineralization up and down-dip on the existing veins currently in production. Results continue to support high grade mineralization continuity in both directions outside the currently defined resource. These drill results are not included in the current resource estimate. The up-dip underground drilling above the veins currently in production has returned significant assay results along a strike of 275 ft (84 m) and up-dip by 100 ft (31 m). The down-dip underground drilling below the Karen vein has returned significant assay results along a strike of 150 ft (46 m) and down-dip by 75 ft (23 m).

Brian Morris, Senior Vice President, Exploration, said, "The surface drill results are extremely exciting. These results demonstrate that the potential for high grade mineralization, similar to what is currently being mined at Fire Creek, exists within the Zeus structure about 4,000 feet northwest from our current underground development. Geophysics suggest this is a major 6,500 ft structure. We will continue step-out and infill drilling in this area to fully delineate this high grade structure with the intent to bring it into an inferred resource category in our year-end resource update to be released in Q1 2018." Mr. Morris continued, "Additionally, the up and down-dip underground drilling was extremely productive, having the potential to add significant new near mine resources to our production profile."

The company's address is 6110 Plumas St., Reno, NV 89519, (775) 284-5757.

Publisher/CEO/Chairman: Don E. Howell
President/COO: Dale P. Howell
Editor: Don Harrison
Accounting: Angela Anderson
Advertising U.S: Don E. Howell
Dale P. Howell

Advertising: Display and Classified Advertising Rates and Media Kit Available upon request.

Subscription Rate
For U.S.: $55 per year, Canada & Mexico: $82 per year
Foreign: $99 per year

Published monthly - $8.00 per copy

Subscriptions, Advertising and Contacts also available at: www.miningrecord.com

THE MINING RECORD
INTERNATIONAL MINING NEWS™
Volume 128, Number 12

HEADQUARTERS:

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: questions@miningrecord.com
Electronic Editorial Submissions: Email: editor@miningrecord.com
Customer Service Requests: Email: customerservice@miningrecord.com

Published by: The Mining Record Company

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

Products and/or Services advertised in The Mining Record are not endorsed by The Mining Record.

The publisher reserves the right to refuse advertising that is competitive with his publications or which, in the publisher's opinion, does not meet with the format of mining publications.

Postage:
Periodicals Postage Paid at Sedalia, Colorado and additional mailing offices.

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, 2700 Butte Circle, Sedalia, Colorado 80135.

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

USPS 593360
ISSN No. 0026-5241

GOLDSTRIKE

Drill Results From The Western-Dip Slope Zones

VANCOUVER - Liberty Gold Inc. reported drill results from the Western Zone and Dip Slope Zone at the 100% controlled Goldstrike Oxide Gold Project in southwestern Utah.

Throughout the Historic Mine Trend, the aggressive exploration program is focused on building continuity between the target areas and linking them together over large areas into continuous zones of mineralization.

The current drill results from the Western Zone are from holes drilled along the north margin of the Moosehead-Caribou Pit. Goldstrike is located in the eastern Great Basin, immediately adjacent to the Utah/Nevada border, and is a Carlin-style gold system.

Approximately 1000 grams of coarse reject material are pulverized and screened. Two splits of the fine fraction are assayed, as well as all material that does not pass through the screen (the coarse fraction). The final gold assay reported is a weighted average of the coarse and fine fractions. QA/QC for all drill samples consists of the insertion and continual monitoring of numerous standards and blanks into the sample stream, and the collection of duplicate samples at random intervals within each batch. Selected holes are also analyzed for a 51 multi-element geochemical suite by ICP-MS. ALS Geochemistry-Reno is ISO 17025:2005 Accredited, with the Elko prep lab listed on the scope of accreditation.

Goldstrike is an early-stage exploration project and does not contain any mineral resource estimates as defined by NI 43-101. The potential quantities and grades disclosed herein are conceptual in nature and there has been insufficient exploration to define a mineral resource for the targets disclosed herein. It is uncertain if further exploration will result in these targets being delineated as a mineral resource.

The company's address is Suite 1900, 1055 West Hastings Street, Vancouver, BC V6E 2E9, (604) 632-4677, email: sbell@libertygold.ca.

Final 2017 Drill Results At Yerington Copper Project

VANCOUVER- Quaterra Resources Inc. and its subsidiary Singatse Peak Services LLC (SPS) announced results from the last three holes of a 13-hole, 26,056-foot drill program at its Yerington Copper Project. Drilling, which began in March 2017, tested targets across the Company's 51-square-mile land package located in the historic Yerington Copper District of Nevada.

The three holes reported (YM-043-17, YM-044-17 and YM-045-17) tested the depth extension of mineralization in and around the historic Yerington pit. (Hole YM-043-17, drilled at – 55 degrees, intersected 1,269.5 feet averaging 0.15% copper. Hole YM-045-17, also drilled at – 55 degrees, collared in the pit about 900 feet further east, intersected several thinner intervals with grades ranging to 0.55% copper, including a shallow oxide zone. Hole YM-044-17, drilled on the northwest rim of the Yerington pit at – 50 degrees, intersected several narrow zones of mineralization averaging less than 0.2% copper.

These results, in combination with previously announced holes YM-041A-17 and YM-042-17, have extended sulfide mineralization from 600 to 800 feet below the currently defined resource across a strike length of 4,400 feet. The absence of higher grade mineralization in these widely spaced holes decreases the likelihood that better grades over appreciable widths exist at greater depth below the pit.

Mineralization, primarily chalcopyrite, is hosted in a quartz monzonite-quartz monzonite porphyry complex and occurs as sheeted veins and vein swarms that are steeply dipping and strike northwesterly parallel to the long axis of the pit. Copper grades are directly related to vein intensity and spacing, which vary markedly over short distances.

Quaterra's Yerington Copper Project is located in the historic Yerington Copper District, about 70 miles southeast of Reno, Nevada. It consists of the Yerington pit sulfide and oxide deposit previously mined by Anaconda; the MacArthur oxide and sulfide deposit; the Bear porphyry copper deposit; and several untested exploration targets. Quaterra's 51-square-mile land package is situated in a mining-friendly jurisdiction with a history of copper production and good infrastructure. It also owns valuable water rights in the district. Quaterra has been active in the Yerington District since 2006, and has released NI 43-101-compliant oxide and sulfide resources at both MacArthur and Yerington, and a preliminary economic assessment at MacArthur.

The company's address is Suite 1100, 1199 West Hastings Street, Vancouver, BC V6E 3T5, (778) 898-0057, email: info@quaterra.com.

Mexican Hat Gold Deposit Has Significant Mineralization

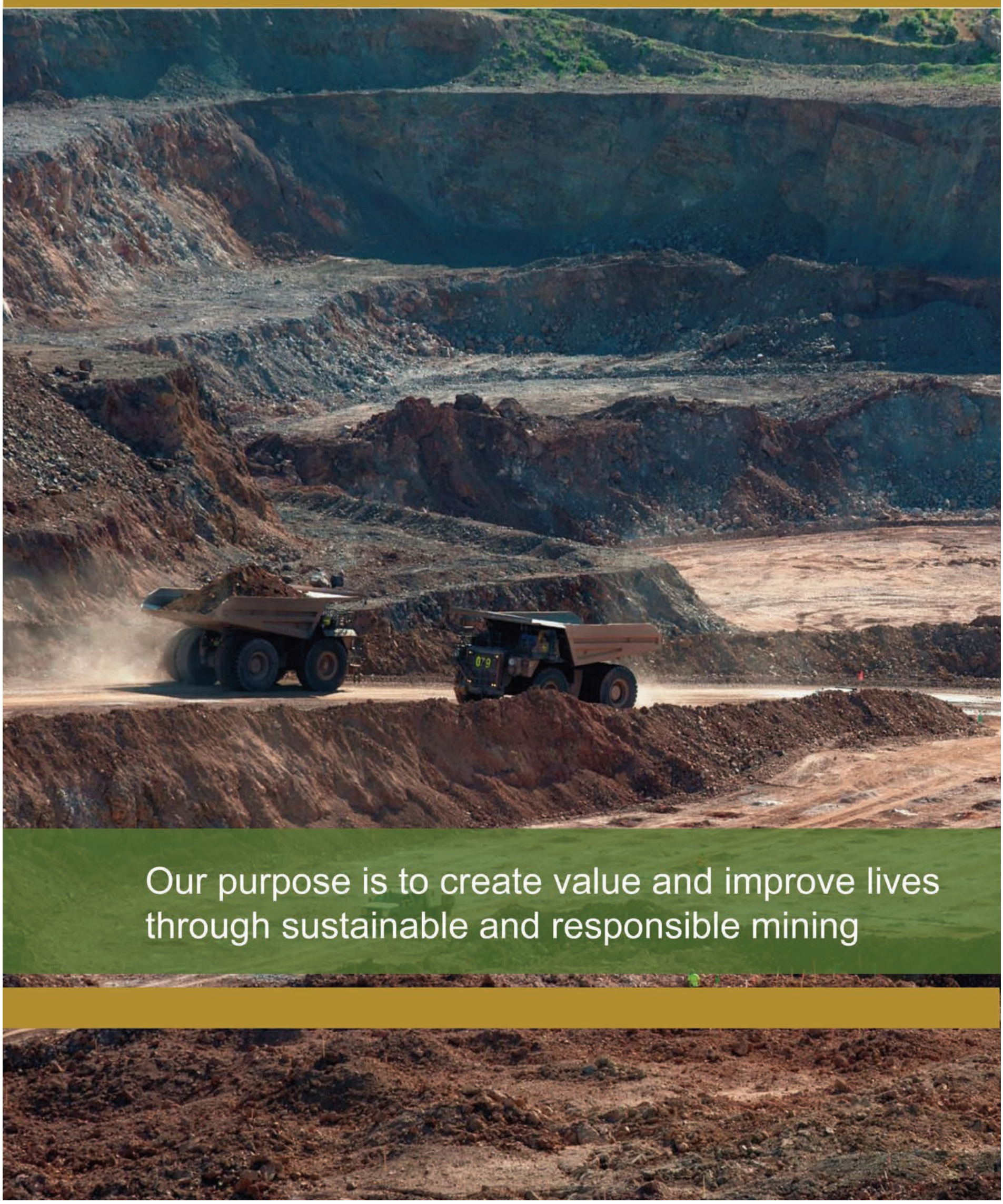
VANCOUVER, BC - GMV Minerals Inc. has received assay results from the six drill holes testing the eastern limits of the known extent of the Mexican Hat gold deposit. All drill holes intersected significant gold mineralization including 2.07 gpt gold over 18.3 m and 0.73 gpt gold over 18.3 m in MHRC 17-6. Drill hole MHRC 17-3 terminated in mineralization with the last 21.3 m of the hole returning 0.39 gpt gold.

All drill holes reported here encountered multiple intercepts of hematized and/or limonitized volcanic rocks that are typically associated with gold mineralization. Samples were collected throughout the extent of the drilling and submitted to Bureau Veritas labs together with certified standards and blanks.

The eastern margin of the mineralization at the Mexican Hat deposit was not well defined by previous drilling, with many of the drillholes completed in a less than optimal orientation to define either the 060° or 120° trending zones. The Company's latest drill holes, together with those it completed in 2016 will allow for better modeling of the mineralization in this area which should allow for one or more 060 degree trending zones to be added to the seven already identified. Additional zones appear to exist to the northwest of the established resource as identified from the 2017 core drilling.

NEWMONT®

www.newmont.com



Our purpose is to create value and improve lives through sustainable and responsible mining

CONTINUED FROM PAGE 1

Barrick Gold Continues Building On Successful Use Of Technology

Ridge also took delivery of its first road header. Building on the successful use of this technology at Cortez, the road header will enable the mine to transition to mechanical cutting, rather than traditional drilling and blasting, improving overall productivity and throughput at the operation, and supporting the increased hoisting capacity that a third shaft will support.

Barrick reported that in the third quarter, lower revenues, earnings, and cash flow for the quarter reflect lower gold production compared to the prior-year period. Despite these factors, a stronger balance sheet and robust cash flow generation allowed us to increase investments in the future of its business, with the ultimate objective of growing free cash flow per share over the long term.

The company allocated more capital to its pipeline of low risk, organic projects, located at or near Barrick's core operations. These projects have the potential to contribute more than one million ounces of annual production to Barrick, beginning in 2020. In addition to organic growth and exploration, the impact of the ongoing investments in digital transformation and innovation, including improvements in safety, productivity, efficiency, and transparency, are expected to accelerate as the company broadens the implementation of these projects across operations.

President Kelvin Dushnisky, said, "Achieving and maintaining a strong balance sheet remains a top priority. So far this year, we have reduced our total debt by nearly $1.5 billion, exceeding our target of $1.45 billion for 2017. During the third quarter, we completed the redemption of approximately $731 million of May 2023 notes, and fully repaid the amounts outstanding on our Pueblo Viejo project financing agreement. Our goal is to reduce our total debt to $5 billion by the end of 2018, using cash flow from operations, and through further portfolio optimization, including potential divestments and the creation of new joint ventures and partnerships. The Company will continue to pursue debt reduction with discipline, taking only those actions that make sense for the business, on terms we consider favorable to our shareholders.

Barrick produced 1.243 million ounces of gold in the third quarter. This compares to 1.381 million ounces, in the prior-year period. Production levels were expected to be lower in the third quarter, with higher gold production and lower costs expected in the fourth quarter. We have narrowed our full-year gold production and cost guidance ranges. We expect full-year gold production to be 5.3-5.5 million ounces, at a cost of sales of $790-$810 per ounce, and all-in sustaining costs of $740-$770 per ounce. This compares to our most recent production guidance of 5.3-5.6 million ounces, at a cost of sales of $780-$820 per ounce, and all-in sustaining costs of $720-$770 per ounce.

The Company produced 115 million pounds of copper in the third quarter, at a cost of sales of $1.67 per pound, and all-in sustaining costs of $2.24 per pound. This compares to 100 million pounds, at a cost of sales of $1.43 per pound, and all-in sustaining costs of $2.02 per pound, in the third quarter of 2016. Our full-year copper production guidance range has narrowed to 420-440 million pounds. We have increased our copper cost of sale guidance to $1.70-$1.85 per pound, primarily as a result of higher costs in Zambia. Our copper all-in sustaining cost guidance range has narrowed to $2.20-$2.40 per pound."

The company aims to cultivate a high-performance culture defined by the following principles: a deep commitment to partnership, consistent execution, operational excellence, disciplined capital allocation, and continual self-improvement. Barrick is obsessed with talent, and seek out fresh perspectives from other industries, challenging it to think differently as it transforms into a leading 21st century company.

Beartrack Drilling Completed/Encouraging Results At Arnett Creek

TORONTO - Revival Gold Inc. reported the completion of the Company's 2017 core drilling program at the Beartrack Gold Project located in Lemhi County, Idaho. The Company further reported encouraging rock sample results from its 2017 field program at the adjoining Arnett Creek Gold Project. "In less than six months Revival has permitted and successfully completed 3,024 meters of core drilling at Beartrack", said Hugh Agro, President and CEO. "We expect to announce initial assay results from the 2017 Beartrack core drilling program before year-end and are encouraged by today's release of rock sample results at Arnett Creek".

Revival completed the 2017 portion of the Company's planned 11,000-meter core drilling program at Beartrack in November. The 2017 portion of the program commenced on September 23rd and consisted of 3,024 meters of core drilling in twelve holes in the Ward's Gulch and South Pit areas. Two deep holes, totaling 1,247 meters, were completed in the Ward's Gulch area. These holes targeted deep mineralization identified by Meridian Beartrack Co. during their 2012 and 2013 drilling program. The focus was around diamond drill hole BT12-175D, which intersected 71.0 g/t Au over 9.75 meters drilled width (estimated true width of 4.88 meters). A second drill rig targeted shallower oxide and mixed oxide-sulphide mineralization in the Ward's Gulch and South Pit areas. Five shallow holes totaling 986 meters were completed in the Ward's Gulch area and five shallow holes totaling 791 meters were completed in the South Pit area.

Shallow drilling in these two areas is intended to confirm historic drilling completed by Meridian Beartrack and lay the groundwork for additional drilling in 2018. Ward's Gulch is located between the North and Mason-Dixon pits, both of which were mined by Meridian Beartrack in the 1990's when the price of gold was below US$300 per ounce. Initial assay results from the 2017 Beartrack core drilling program are expected before year end with the balance of assay results expected to be released in the first quarter of 2018.

During the 2017 field season, Revival prospected and collected 107 rock samples from Arnett Creek. Samples were generally taken selectively rather than in a representative fashion in order to gain an understanding of mineralization outside the known historic resource on the property. Assay results were received for all 107 samples. Gold values ranged from below detection limit to 91.1 g/t Au. Thirty-seven samples yielded gold values greater than 1.00 g/t Au. Areas of interest identified, or validated, at Arnett Creek during the 2017 field program are the Roman's Trench area, near the northern contact of the Arnett Creek stock, and the Italian Mine, Twin Long Drops, Thompson-Hibbs, Shenon Gulch and the Porcupine areas, which occur over approximately 2.5 kilometers of strike near the southern contact of the Arnett Creek stock.

The company's address is 145 King St. W., Toronto, ON M5H 1J8.

Greens Creek Produced 2.3M Oz. Of Silver In Q3

COEUR D'ALENE, ID - Hecla Mining Company reported that at the Greens Creek in Alaska, drilling in the third quarter targeted the Deep 200 South, East Ore, Gallagher and the Upper Plate zones. Exploration drilling on the Deep 200 South Zone extended the 200 South Bench mineralization south of current resource. Drilling on the East Ore, Gallagher and Upper Plate zones upgraded and expanded the known resource. Strong assay results were also received from previous drilling on the East Ore, Gallagher and Upper Plate zones.

Drilling of the East Ore Zone compares favorably to previously modeled resource estimates at higher elevations and indicate expanded resources to the south and at depth. Drilling intercepted 75.1 oz/ton silver, 0.16 oz/ton gold, 5.32% zinc and 2.67% lead over 9.5 feet in an area without previously identified resources and another exploration drill hole intercepted 11.0 oz/ton silver, 0.13 oz/ton gold, 12.8% zinc and 7.3% lead over 7.7 feet within an area of no previously identified mineralization.

Aggressive drilling of the East Ore Zone is planned to continue well into 2018 with the goal of confirming reserves and expanding the known resource.

Assays received for the Upper Plate Ore Zone further upgraded the existing resource and included 75.2 oz/ton silver, 0.09 oz/ton gold, 6% zinc and 3% lead over 5.4 feet. This Upper Plate mineralization is close to underground mine infrastructure and only 300 feet below the mine portal. Drilling of the Gallagher Zone identified new mineralization between current resources and included 11.6 oz/ton silver, 0.09 oz/ton gold, 5.2% zinc and 2.5% lead over 32.3 feet.

Surface drilling was completed on targets in the Gallagher, East Ore and 5250 zones. Drilling on the Gallagher Zone intersected mineralized sheared veins and breccia intervals of up to 100 feet thick containing higher-grade intervals of 1.5 to 4 feet wide that have up to 15% zinc and 4.0 oz/ton silver. This mineralized structure appears to be the same Klaus Shear identified within the mine workings east of the Gallagher fault. The mineralized Klaus Shear now extends 1,500 feet west of the mine and over 3,000 feet north to south.

Drilling successfully intercepted the main mine horizon of the 5250 Zone over 2,000 feet south of the known resource showing promising alteration at the contact. Assays from the drilling of a number of holes on the Gallagher and 5250 zones are pending.

Greens Creek mine reported 2.3 million ounces of silver and 12,563 ounces of gold were produced in the third quarter with lower silver production resulted from lower grades due to mine sequencing. The mill operated at an average of 2,391 tons per day (tpd) in the third quarter, a record and 9% higher than the third quarter of 2016.

At the Lucky Friday Mine in Idaho, 88,298 ounces of silver were produced in the third quarter, compared to 887,364 ounces in the third quarter of 2016, with the decrease due to the ongoing strike by unionized employees. Limited production and capital improvements are being performed by salaried staff.

The Casa Berardi mine in Quebec, reported a record 44,141 ounces of gold were produced in the third quarter, including 8,949 ounces from the East Mine Crown Pillar (EMCP) pit, compared to 31,949 ounces in the third quarter of 2016, with the increase primarily due to higher ore throughput and gold grades.

Automation of the 985 drift, which is under construction, is on track for commissioning by the end of the year, as are several other innovations such as the control room.

"Exploration success continues at San Sebastian with the discovery of additional high-grade mineralization that has the potential to extend the mine life. When we restarted San Sebastian we had less than a two-year mine plan and now we see potential through 2020 and beyond.

As well, new zones are emerging along both the Middle and Francine veins with similar mineralogy as the Hugh Zone, a 1.5 million ton polymetallic resource, so we see the underground sulphide deposit potentially growing to further extend mine life," said Phillips S. Baker, Jr., President and CEO."

Pulling together

Ames delivers uncompromised performance no matter the size or complexity of your project. With safety our priority, we self-perform the majority of work, while collaborating with our clients, internal talent and external partners for seamless integration of collective skills. By pulling together, we achieve total project excellence for every client on every project. To learn more about Ames, contact John Tripi or Tim Odell at 801-977-8012 or visit us at AmesConstruction.com

NEVADA

Exploration Progress On Projects

WHITE ROCK, BC - Renaissance Gold Inc. reported exploration progress on several fronts including reverse circulation ("RC") drilling on the Diamond Point, Spruce East and Buffalo Canyon projects in Nevada, all funded by and subject to earn-in agreements with Kinross Gold, Inc.

Drilling on the Diamond Point project is complete and was designed to target Carlin-style mineralization under shallow cover. Widely spaced holes were drilled targeting blind mineralization projected beneath pediment from the north striking West fault zone which has a 1.6 km coincident Au and as in soils surface expression. The program consisted of 6 RC holes, totaling 1,200 meters (3,940 feet).

RC drilling at Spruce East is now underway, targeting Carlin-type gold mineralization approximately 30 miles southwest of Newmont's recently opened Long Canyon gold mine. Gold mineralization at Spruce East is associated with north and northeast trending fault zones cutting the east limb of an antiform. This drill program is targeting extensions of the north trending Cicada fault zone where 6 rock chips of decalcified and locally silicified limestones range from 0.16 to 1.3 ppm Au and are associated with Carlin-type geochemistry.

RC drilling at Buffalo Canyon will test for intrusion-related mineralization laterally and below historic drilling which intercepted long runs of low-grade gold mineralization. Many historic holes bottomed in anomalous gold. 3-D modeling has been used in conjunction with a magnetic inversion to target feeder structures which may be associated with an underlying intrusive body where higher grades are targeted.

200m x 400m gravity survey was recently completed at the Company's wholly owned Wood Hills South project. The gravity data maps a distinct, northeast-trending horst block interpreted to be an upthrown block of carbonate rocks coincident with a magnetic low. These features occur on a regional NE magnetic trend believed to be associated with intrusive rocks at the nearby West Pequop and Long Canyon gold deposits.

The Company is currently conducting additional gravity and magnetic surveys on other early-stage exploration targets as part of its ongoing target generation efforts.

Robert Felder, President stated, "We are pleased to see the start of drilling on our projects and look forward to getting a number of targets drilled during the remainder of 2017 and more in 2018. We are also making good progress on our generative exploration program with the aim to continue generating new high-quality projects while a good portion of our existing portfolio is getting drill tested."

Ronald Parratt, CEO and Executive Chairman stated, "Our integration with Kinetic Gold has progressed seamlessly in terms of people and projects and has accelerated our joint venture business model with several new agreements, active project work, and importantly, new project generation."

Completion Of Drilling At The Bolo Gold Project

VANCOUVER, BC - Columbus Gold Corp. has completed drilling at its 100% owned Bolo gold project located in Nevada. The company has completed 14 reverse circulation drill holes, totaling 2,806 metres, at its 100% owned Bolo gold project, located 90 km northeast of Tonopah, Nevada. Eleven of the holes tested the previously undrilled Uncle Sam patented claim, which was acquired by Columbus in 2016. Uncle Sam covers a 500 metre strike extension of a fault zone immediately south of an area that Columbus previously drilled, which included drill hole BL-38, which returned 133 metres of 1.28 g/t gold from the surface (including 30.5 m. of 3.24 g/t gold), drill hole BL-39, which returned 89.9 metres of 1.0 g/t gold from surface (including 40.9 m. of 2.05 g/t gold), and drill hole BL-41, which returned 51.8 metres of 1.27 g/t gold from surface. Holes BL-38, 39, and 41 were drilled approximately 100 metres north of Uncle Sam. In addition to drilling at Uncle Sam, three holes were drilled in the fault zone to test extensions to the west and north.

Twelve of the fourteen drill holes encountered strong alteration, including decalcification, quartz veining and stockworks, strong iron oxide staining, and intense silicification (jasperoid) replacement. The thickness of the alteration encountered varied from 30 metres to 100 metres, with the alteration beginning at surface in some of the drill holes. Alteration occurred in several Paleozoic rock formations, including the Cambrian Windfall Formation in the hanging wall of the fault, and the Ordovician Hanson Creek Formation and Silurian Roberts Mountain Formation in the footwall.

The last drill hole of the program, drill hole BL-67, was an exploration hole drilled along the fault, 200 metres north of where the majority of drilling has occurred and near an area where a surface sample in jasperoid returned 3.24 g/t gold. Drill hole BL-67, an angle hole, encountered 100 metres of strong alteration, including jasperoid and strong iron oxides, from surface to 100 metres. This hole will require offset drilling, especially to the north along the fault.

All drill samples have been stored in sealed and wire strapped containers in Tonopah. The samples will be shipped to the lab when the spin-out of Allegiant Gold has been completed.

Newmont Reports Gold Production Increase Over Prior Year

DENVER, CO - Newmont Mining Corporation President and Chief Executive Officer, Gary J. Goldberg said, "We delivered exceptional results and another profitable project this quarter with the completion of the Tanami expansion in Australia. Our free cash flow more than doubled to nearly $500 million and gold production rose seven percent compared to the prior year quarter as lower cost production from our two newest mines – Merian and Long Canyon – offset lower production at more mature operations. This performance gives us the means to fund our Quecher Main project in Peru – which will extend mine life to 2027 and enable future development at Yanacocha – and increase our dividend for the third quarter by 50 percent."

Newmont's capital-efficient project pipeline supports stable production with improving margins and mine life. Near-term projects are presented below. Funding for the Tanami Ex-pansion, Subika Underground, Ahafo Mill Expansion, Twin Underground and Quecher Main projects has been approved and these projects are in execution or in production. Additional projects represent incremental improvements to production and cost guidance.

Tanami Expansion in Australia includes a second decline in the mine and incremental capacity in the plant to increase profitable production and serve as a platform for future growth. The project achieved commercial production at the end of August 2017 and is expected to maintain Tanami's annual gold production at 425,000 to 475,000 ounces. The project has an IRR of more than 35 percent at a $1,200 gold price.

The Subika Underground in Africa commercial production expected in the second half of 2018. The project is expected to increase average annual gold production by between 150,000 and 200,000 ounces per year for the first five years beginning in 2019 with an initial mine life of approximately 11 years.

Also the Ahafo Mill Expansion is designed to maximize resource value by improving production margins and accelerating stockpile processing. The project also supports profitable development of Ahafo's highly prospective underground resource. First production is expected in the first half of 2019 with commercial production expected in the second half of 2019. The expansion is expected to increase average annual gold production by between 75,000 and 100,000 ounces per year for the first five years beginning in 2020.

Together the Ahafo expansion projects (Ahafo Mill Expansion and Subika Underground) improve Ahafo's production to between 550,000 and 650,000 ounces per year for the first five full years of production (2020–2024).

At the Twin Underground mine in Nevada is a portal mine beneath Twin Creek's Vista surface mine with similar mineralization. First production was achieved in August 2017 with commercial production expected mid-2018. The expansion is expected to average between 30,000 and 40,000 ounces per year for the first five years (2018 to 2022).

The South America Quecher Main will add oxide production at Yanacocha, leverage existing infrastructure and enable potential future growth at Yanacocha. First production is expected in early 2019 with commercial production in the fourth quarter of 2019. Quecher Main extends the life of the Yanacocha operation to 2027 with average annual gold production of approximately 200,000 ounces per year between 2020 and 2025 (100 percent basis).

Production guidance for 2017 remains between 5.0 and 5.4 million ounces on Full Potential improvements in North America and Africa. Compared to the prior year, full year production at Merian and Long Canyon more than offsets declines at Twin Creeks and Yanacocha. North America production guidance is unchanged. Production guidance for 2017 remains between 2.1 and 2.2 million ounces following changes to blend management at Twin Creeks and improved mill grade and leach volumes at Cripple Creek & Victor. South America production guidance is unchanged.

Expanding High-Grade Zones & New Targets At The Mother Lode Project

VANCOUVER - Corvus Gold Inc. has received assays results from three new drill holes at its Mother Lode project in southern Nevada. The new results are from the Main Target area and continues to confirm and expand the Upper and Lower Zones of the deposit to the North and at depth with broad intercepts. These most recent holes have also intersected a new upper zone of low-grade mineralization in the Crater Flat Tuff (CF Zone), with oxide mineralization that the Company believes could be potentially similar to Corvus' Sierra Blanca deposit at the North Bullfrog property, as well as the Secret Pass deposit and the Bullfrog deposit to the west. There was little to no historical data on the CF Zone as many parts of this area were never assayed when it was previously drilled. Additionally, hole ML17-005 ended in low-grade mineralization below the Lower Zone target which the Company believes could be indicating a low-grade halo from the Deep Target Zone. Corvus has recently began a series of deeper holes to 450 metres to evaluate the Deep Target potential in the main intrusive center area of the gold system.

Corvus Gold also reported that overall North Bullfrog Mineral Resource estimation has expanded with the Measured and Indicated categories increasing by 30% from the 2015 Mineral Resource estimation to now account for 64% of contained ounces. 99% of the proposed mill material is now in the Measured and Indicated Mineral Resources categories. The new Phase 1 Measured and Indicated Mineral Resource contains 904,000 ounces of gold & 5,459,000 ounces of silver at an average grade of 0.80 g/t gold and 4.86 g/t silver in 35 million tonnes. The maiden sulphide Measured and Indicated Mineral Resources estimations were defined for the Phase I project with 89,000 ounces of gold and 343,000 ounces of silver at a grade of 1.46 g/t gold and 5.64 g/t silver in 1.89 million tonnes utilizing Ambient Atmospherics Oxidation (AAO) processing in the proposed mill facility. Total Phase 2 Measured and Indicated Mineral Resources estimations of 855,000 ounce of gold and 2,565,000 ounces of silver at 0.22 g/t gold and 0.65 g/t silver in 123 million tonnes of material.

Corvus reported updated Mineral Resource estimations incorporating all drill results through to 2017 at its 100% owned North Bullfrog Project (NBP). The updated Mineral Resource estimation is a two phase approach with "Phase 1" as an early stage, higher grade mix of predominantly oxide mill processing and oxide heap leach processing. "Phase 2" includes mainly heap leach mineralization.

The company's address is Suite 1750, 700 West Pender Street, Vancouver, BC V6C 1G8, (604) 638-3246, email: info@corvusgold.com.

Strong Drill Results For Seven Exploration Holes In Arizona

VANCOUVER - Arizona Mining Inc. reported strong results for seven exploration holes from the current drill program focused on expansion of the Taylor Sulfide Zone (TS) and Taylor Deeps Zone (TDS) located on its 100%-owned Hermosa Project in Santa Cruz County, Arizona. The drill holes highlighted in this release are successful step-out exploration and infill drill holes highlighting the continued potential for resource growth and increased grades, as distinct from the Preliminary Economic Assessment (PEA).

"Our exploration drilling continues to expand both the Taylor Sulfide and Taylor Deeps Zones, while the infill drilling is demonstrating great continuity between areas," said Chief Operating Officer Don Taylor. "Although several of the 15 active drills on site are working to acquire necessary geotechnical data for the feasibility study, the balance continue to upgrade both zones. As the resource continues to grow, one impressive aspect of the recent drill results is the continued increase in silver content of the assays, especially in the Taylor Deeps Zone."

HDS-481 is an angle drill hole on the Hardshell claim targeting the extension of the Taylor Sulfide and Taylor Deeps Zones south from the PEA resource outline. The drill hole is located 120 feet south of the PEA Deeps resource outline and encountered six significant mineralized intervals in the Taylor Sulfide Zone with a cumulative thickness of 469.5 feet. Additionally, the drill intercepted a 53-foot thick section of Taylor Deeps mineralization assaying 6.0% zinc-lead and 2.2 opt silver.

The company's address is #555-999 Canada Place, Vancouver, BC V6C 3E1, (604) 687-1717. fax: (604) 687-1715.

Permitting Advancing At Pine Grove Project

VANCOUVER, BC – Lincoln Mining Corporation reported an update on the permitting progress for its Pine Grove property in Nevada. The Company had engaged a team of consultants to assist it through the permitting process for the Pine Grove project. The permitting process is under the direction of Del Fortner, Director of Permitting and Environmental Compliance. Plan of Operations (PoO) had already been submitted to the United States Forest Service (USFS) regarding geotechnical investigations that are needed to complete the mine facilities design. Most recently the Company has delivered to the USFS a map showing an outline of the area of direct impact that will be made by the Pine Grove mining operations. This map is critical to the overall permitting process as it will determine the extent of the studies that need to be completed for the Environmental Impact Study ("EIS").

The PoO for the overall project will be made available to the USFS in early 2018 and will include all pertinent information regarding the design, construction and operation of the proposed mine along with a closure plan.

CONTROLS

HEADFRAMES

HOISTS

SHEAVES

SKIPS

FIELD SERVICES

BRAKEMAN CARS

CAGES/ ELEVATORS

WIRE ROPE NDT

VERTICAL BELTS

DESIGN. BUILD. INSTALL.

FKC-Lake Shore serves the underground heavy civil and mining industries throughout North and South America. We offer design-build-install services for innovative hoisting, elevator, and vertical conveyance systems used to transport personnel and material. Our Field Services Division provides routine maintenance, inspections, wire rope NDT, and **24/7 emergency repair** of electrical and mechanical systems.

FK LAKE SHORE
A DIVISION OF FRONTIER-KEMPER CONSTRUCTORS, INC.

1.877.554.8600 | information@frontierkemper.com
For more information, visit us at: **www.frontierkemper.com**

MONTANA

Winston Gold Doubles Strike Length Of The Parallel Vein

WINNIPEG - Winston Gold Corp. reported initial drill results from its 10-hole drilling campaign on the Winston Gold Property, near Helena Montana. Recent drill results have more than doubled the strike of the Parallel Vein to 385 ft. and the vertical extent has increased from 65 ft. to 277 ft. "We are very pleased with the drill results received to date," commented Murray Nye, CEO and Director of Winston Gold Mining. "The results have not only significantly expanded the strike length of the Parallel vein but also identified a number of previously unknown veins between the Block 93 and the Parallel veins."

Hole W78 was recently completed and assays are pending. It was collared on the same drill pad as hole W77 and tested the southwestern extension of the Parallel Vein. Hole W79 has just been collared on a new drill pad to the west and drilling is now underway. The last two holes of the drill program should be completed within the next month. Hole W75 was drilled to test the northeastern extension of the Parallel Vein intersected high-grade gold mineralization in the structure and effectively doubled its strike length from 150 ft. to almost 330 ft. The vertical extent of the vein was also increased from 65 ft. to 277 ft.

Hole W75 intersected 1 ft. averaging 1.756 ounces per ton (60.2 g/t) gold within a 4-ft. section of the Parallel vein. This intersection occurred 114 ft. down hole. Two other holes (W74 and W76) were drilled from the same pad to test the northeastern extension of the Parallel vein but intersected previously unknown workings at 47 ft. down-hole and were abandoned. Due to the variable nature of vein orientation, the true width of mineralization is not known at this time.

Hole W75 also intersected a vein at 53 ft. down-hole located just above the workings where holes W74 and W76 were lost. It averaged 0.281 oz./ton (9.63 g/t) gold over 3 ft. including a 1 ft. interval averaging 0.656 oz./ton (22.5 g/t) gold over 1 ft. Hole W77 was drilled to test both the Parallel Vein and the Block 93 vein west of previously reported hole W1728. It intersected a 6-ft. interval of the Parallel Vein at a down-hole depth of 344 ft. that averaged 0.338 oz./ton (11.59 g/t) gold. This intercept increased the strike length of the Parallel Vein by about 55 ft. to the west bringing the total strike length to about 385 ft.

In the footwall zone of the Parallel vein, hole W77 intersected a previously unknown vein averaging 0.124 oz./ton (4.25 g/t) over 7 ft. This included a 2-ft. interval averaging 0.385 oz./ton (13.2 g/t) gold. Hole W77 also intersected three separate mineralized zones in the Block 93 vein system stretching across 16 ft. of core from 121 to 137 ft. down hole. These three zones together averaged 0.214 oz./ton (7.34 g/t) gold over 16 ft. The true width of this zone is estimate at about 6.5 ft. Highlights within this zone included a 1 ft. section averaging 0.568 oz./ton (19.47 g/t) gold.

A new vein was discovered in the hanging wall between the Block 93 and Parallel veins at a down-hole depth of 183 ft. It averaged 0.199 oz./ton (6.82 g/t) gold over 1 ft. "In addition to drilling the Block 93 and Parallel Veins, we tested the Upper Hyantha vein 100 ft. west and 75 ft. below historic workings and determined that mineralization was still present but it was low grade," commented Nye. "Neverthe-less, the intercept was very encouraging since the structure remains well defined and we believe there is still excellent potential to identify higher-grade mineralization below the old workings."

The Winston Gold Project is central to a historic precious and base metal mining district in which most of the ore was mined from tightly structurally controlled high angle fissure veins and lode/replacement zones. Reports indicate that more than 100,000 ounces of gold was recovered from these underground mines in the late 19th to early 20th century from about 150,000 tons of ore.

The company's address is 919 Notre Dame Avenue, Suite 201, Winnipeg, MB R3E 0M8, 204.989.2434, info@winston-goldmining.com

High Grade Mineralization At Midas Mine In Nevada

VANCOUVER - Klondex Mines Ltd. reported results on the Trinity zone surface exploration drill program at its Midas Mine located in northern Nevada. The following drill results are not included in Midas' current Mineral Resource estimate. Midas Mine Surface Drilling Highlights – Trinity: DMC-00337: 7.83 opt AuEq over 1.5 ft, or 268.36 g/t over 0.5 m; DMC-00350: 0.65 opt AuEq over 6.6 ft, or 22.22 g/t over 2.0 m - Including: 3.14 opt AuEq over 1.1 ft, or 107.58 g/t over 0.3 m; DMC-00338A: 0.51 opt AuEq over 3.8 ft, or 17.39 g/t over 1.2 m - Including: 1.12 opt AuEq over 1.5 ft, or 38.50 g/t over 0.5 m and DMC-00348: 1.04 opt AuEq over 1.5 ft, or 35.71 g/t over 0.5 m.

Ten surface core holes totaling 10,105 ft (3,080 m) were drilled at Trinity during this phase of surface exploration. This program was designed to test the new Trinity structural corridor model and extend mineralization north towards the existing underground workings and planned development.

Most of the production in the Midas district is controlled by east-dipping structures. Historically, drilling at Trinity used the same east-dipping structural model returning inconsistent results. However, a reinterpretation suggested the mineralized structures are actually west-dipping. During this drill program, the company tested the new structural model and it returned positive, consistent results supporting the continuity of high grade mineralization controlled by west-dipping structures in an east-dipping structural corridor.

Continuous mineralization has been extended north along strike by approximately 600 ft bringing the current known mineralization within 1,500 ft of the existing underground workings. The updated model has proven to be robust in targeting and returning consistent, high grade mineralized intercepts within the structural corridor.

Brian Morris, Senior Vice President, Exploration said, "The success we are having with the new structural model provides an excellent opportunity to extend the Trinity mineralization to the north and south along strike, as well as down dip. The northern extension of the Trinity corridor is open 2,200 ft to the Southern Owyhee fault.

Future drill plans will continue to use the new structural model to guide drilling and will focus on further extending mineralization both to the north and south within the Trinity corridor. These exploration results will extend the life of Midas."

New Near Surface Oxide Gold Zones At Pamlico Project

VANCOUVER - Newrange Gold Corp. reported drilling at the Company's Pamlico project in Nevada has delineated two new high-grade gold zones now referred to as the K-Zone and N-Zone. Both new trends were initially recognized from Newrange's surface geologic mapping in the area of the Merritt Zone (M-Zone). The Company has received assay results for two of the four drill holes currently completed in the K-Zone, with an intercept of 16.87 grams gold per metric tonne (g/T Au) over 4.6 meters as reported for P17-32.

In addition, assay results for holes P17-21, 28 and 29 indicate the N-Zone is parallel to the adjacent M-Zone, with results of 12.60 g/T Au over 3.0 meters in P17-29 and 4.19 g/T Au over 21.3 meters in P17-21.

The exploration results to date strongly support the presence of a NW-oriented gold corridor with a width of approximately 65 meters (~220 ft) within a broader corridor. Mapping along trend to the SE of the current drill area indicates that the same NW-oriented structures are still present for at least 365 meters (~1,200 ft) in historic workings and other exposures.

Tailings Stewardship: Training From The Tailings Beach To The Board Room

By Matt Fuller, CPG
Tierra Group International, Ltd.

DENVER, COLORADO - Implementing a Corporate Tailings Stewardship Strategy begins in the Board Room with a corporate pledge to zero-tailings dam failures and, like a safety culture, extends throughout the organization to the boots-on-the-ground TSF operations team personnel. Tierra Group International, Ltd.'s (Tierra Group) Tailings Stewardship implementation strategy includes operations management training (OMT) tailored to (TSF) operations, mine and corporate management teams, after carefully assessing:

- TSF operational safety (dam and facility inspection);
- Routine maintenance and monitoring activities;
- TSF "conditions-reporting" practices;
- Interaction between the mines' TSF operations team, and the engineer of record (EoR);
- Operations Maintenance and Surveillance Manual (OMS);
- Emergency Action/Preparedness Plan (EAP/EPP); and
- Operational conformance with design.

Tailings Stewardship training is important as it provides the Tailings Steward insight to:

- TSF operations personnel' institutional knowledge and "standard of care" practices;
- Maintenance and monitoring activities comprehensiveness and appropriateness to the specific TSF; and
- Both the site and corporate management teams' commitment and preparedness to respond to extraordinary circumstances.

Insight gained from the initial assessment allows the Tailings Steward to tailor training to the specific TSF operations personnel needs and to communicate potential good management practice (GMP) improvements to the operators, mine and corporate management.

There is no question that safely operating a TSF requires experience, and understanding at the day-to-day TSF operations level. Field observations, even and particularly, the "slightest changed condition(s)" are potential indicators of potentially-developing problems. A critical component, to successfully implementing a "corporate" tailings stewardship strategy however, is the upward-reporting of those observations; and mine and corporate managements' conscientious preparedness, willingness and diligence to provide the appropriate attention necessary to avoid potentially disastrous consequences. To this end, tailings stewardship training adds value to a mining company's operation from the beaches of the TSF, to the board room.

TSF good management practices are compromised for a variety of reasons, not the least of which are:

1. Limited understanding of the potential liabilities poor tailings management practices present.

It is not this articles intent to elaborate the negative economic consequences a TSF failure can present to the mining industry, which are well documented elsewhere. Suffice it to say that the economic consequences of a TSF failure can reach into the hundreds-of millions, if not billion-dollar range, impacting not only the mining company experiencing the failure; but the entire mining-industry investment community. This fact alone emphasizes the importance of the boot-on-the-ground TSF operators' role in the grand scheme of corporate sustainability.

2. Lack of understanding between TSF operations personnel, and the EoR's TSF design and facility operations intent.

Design engineers notoriously assume that a TSF design and operational intent are obvious to the practitioner (management and operations personnel). Inevitably however, many of the most important aspects of a TSF operational intent are not clearly articulated in the TSF engineering design report, or the Operations Maintenance and Surveillance (OMS) manual.

A TSF engineering design report sets forth safe and stable TSF design, assuming it is operated within specific operational parameters set forth in a facility=specific OMS manual. The OMS manual prescribes operational parameters under which the TSF should be operated to assure the engineering design intent is fulfilled. As such, the engineering design and the OMS manual are interdependent.

It is not uncommon for a mining company to develop a TSF design to support financing and mine construction; build the TSF; and move right into production (operating the TSF) before preparing an OMS Manual (or, obviously, providing operations training to the TSF operations or mine management personnel). It is imperative that mine management and TSF operations personnel, be intimately familiar with not only the operational protocols prescribed in the OMS; but also, how and why the protocols pertain to safely operating the TSF, to assure the engineering design intent is fulfilled.

3. TSF operations personnel' job mobility.

Commonly TSF operations fall under the responsibility of the mill/plant manager/supervisor. The mill-super typically delegates day-to-day TSF oper-

Tailings Stewardship: Training From The Tailings Beach To The Board Room

ations to a team member (who has other responsibilities as well), commonly as a "stepping-stone" to positions of higher-priority responsibilities. Combined with natural industry transitions (within or between companies); tailings-operations is commonly a short-lived experience (how many individuals in the mining industry have made a career solely out of tailings operations management?). An ever-changing work force introduces discontinuity, and varying levels of expertise and understanding with respect to facility-specific tailings operations management.

4. Limited (if any) university curriculum specific to tailings management.

Classic engineering curriculums (including mining engineering) taught in universities today provide a foundation in the fundamental geotechnical and hydrologic) engineering principles, which apply to TSF design and management (soil, rock, and fluid mechanics, etc.). The combined application of all these engineering principles in real-world tailings management is typically not realized until an engineer is exposed to TSF operations.

On-the-job training is therefore, the primary education vehicle available to engineers entering the mining industry, other than perhaps industry short-courses. Furthermore, on-the-job training only provides TSF operational education specific to the TSF that the engineer is engaged with.

If one considers the potential types of tailings dam construction methods (downstream, upstream, centerline, modified centerline); tailings types (conventional, thickened, paste, filtered); climatological settings (arid, semi-arid, sub-tropical, tropical, sub-arctic, arctic); foundation conditions (sedimentary, volcanic, glacial, karstic, lacustrine, marine, etc.); the myriad of potential tailings "systems", becomes nearly incalculable. No two TSF are the same; and something learned at one TSF site, may or may not be relevant at another. Conversely, years of experience and exposure to all (or at least, most) of these TSF scenarios provides a keen understanding of tailings management principles in a broader variety of applications.

Understanding the interdependency between TSF engineering design, TSF operations, and safety; must be categorically embraced from the TSF operations Team, to the Board Room. Tierra Group's tailings stewardship expertise has experienced shortfalls in this understanding at both ends of the corporate spectrum. In one case operators in the field were not familiar with observation reporting protocols and failed to report-up a small seepage emanating from the toe of a tailings dam.

In another instance, corporate management (the C-suite) were not familiar with the OMS protocols regarding operating water pool elevation constraints, and directed the operators to store more water in the TSF than the OMS protocols prescribed. Both these instances resulted in TSF upset conditions that suspended mining operations.

These two case studies demonstrate the critical importance of Tailings Stewardship Training, top to bottom. Tierra Group's Corporate Tailings Stewardship Strategy includes site-specific training to the TSF operations, mine and corporate management teams to ensure safe tailings operations, for all stakeholders. While universities are encouraged to include the fundamentals of TSF operations in mining and environmental curriculums; it is wise for mining companies around the world to engage a professional tailings steward with the requisite broad-based experience to help guide good management practices and operational excellence towards zero TSF failures, or upset conditions.

Matt Fuller, CPG is a Founding Principal with Tierra Group International, Ltd. Tierra Group's Engineering Team has been providing tailings stewardship services around the world since 1990.

National Mining Hall Of Fame Seeks Nominations

LEADVILLE, CO - Telling the story of mining, its people, and its importance to the American public, the federally chartered National Mining Hall of Fame and Museum (NMHFM), located in Leadville, CO is seeking inductee and Prazen Living Legend of Mining Award nominations for our 31st Annual National Mining Hall of Fame Induction Banquet.

The National Mining Hall of Fame (NMHF) is home to 240 inductees whose work in the industry have significantly advanced America's quality of life through their contributions in areas such as business acumen, ore body discovery, education, workplace safety, technological innovation, environmental stewardship, reclamation, social justice/corporate responsibility, and governmental policy.

Requirements for Induction:

1. Inductee candidates must have had a personal impact on the mining industry for 30 years or more.

2. Inductee candidates must be at least 55 years of age.

3. Inductee candidates may be nominated while still living or posthumously.

If you have knowledge of an exceptional candidate that should be considered for induction into the NMHF, and the individual meets the outlined qualifications, please submit a letter of nomination and supporting documents including, at a minimum, the following information: Date of the nomination; Nominator's contact information including phone number and email; Full name of the individual being nominated and preferred name/nickname known by; Date and place of birth; if the individual is deceased, include a copy of the obituary if possible; Nominated individual's contact information specifically personal phone numbers and personal email or if deceased, family members contact information; Military service/honors; Universities from which the individual graduated and/or from which he/she received honorary degrees; List prior awards/recognition, if any, the individual has received; Endowments/university chairs/awards named in his/her honor; A letter of nomination (narrative) summarizing the significant and lasting impact the individual has had on the mining industry; Include supporting documents in the form of articles, names of technical papers and books, company documents, etc., that add to our knowledge of the nominee's contributions to the mining industry; Additionally, include a digital high definition, preferably color photograph of the individual. A head-and-shoulders shot is preferred.

Submit requested information by December 31, 2017, to Barb Filas, NMHF Board of Governors Chair, via email to barbfilas@gmail.com.

Prazen Living Legend Of Mining Award

Along with inductions to the NMHF, The Prazen Living Legend of Mining Award is presented annually to an entity (individual, foundation, museum, corporation, or other entity) that has demonstrated a continuing commitment and successful efforts to educate the public on the importance of the minerals and mining industry to the American public. The award recognizes ongoing, innovative work educating the general public, lawmakers, students, educators, and other audiences about the importance of the mineral and mining industry to our everyday lives.

To submit a nomination for the Prazen Living Legend of Mining Award, send a cover letter and supporting documents by December 31, 2017, to Jackie Dorr, NMHF Prazen Living Legend of Mining Award Committee Co-Chair via email to dorr@smenet.org.

The letter of nomination should include: Date of the nomination; Nominator's contact information including phone number and email; Individual/organization/program name; Contact information for the individual or entity being nominated; A summary narrative detailing the program, activities, and successes of the individual and/or entity being nominated in educating the public about the necessity of mining to our everyday lives; Include brochures and materials that convey the purpose and target audience of the program along with samples of media coverage, testimonials, or other materials that evidence the quality and benefits of the programs.

CHERIE M. TILLEY - A TRUE MINER AT HEART

Authored by: Mark & Cherie Tilley

THE EARLY YEARS: Some people have the opportunity to work in a career that brings them intense happiness. For Cherie Tilley, being born in Anaconda Co.'s Rio Tinto Mining Camp was a fitting start to a miner's life. Rio Tinto was located in northern Nevada near the current town of Mountain City. Cherie was born on July 25, 1941, and his father worked for Anaconda as a miner. During the war years, his family moved to the Los Angeles, CA area, and then to Darwin, CA, where his father worked as a mine foreman and mine superintendent, continuing with The Anaconda Co. In order to find something constructive for his boys to do in a small mining camp, Cherie's father decided to have them learn how to mine. In a location near the Darwin Mine, 11-year-old Cherie and his 9-year-old brother Larry became miners, stoping out a leased area with Scheelite mineralization, hoisting the material via a hand windlass up a 40 foot shaft. All of the material that they mined was produced using hand steel and a single-jack. Once enough ore was produced; Cherie was able to then work in the mill to process the ore. The mill was gravitational, utilizing a mineral jig and a set of tables. After Darwin, Cherie's family followed his father Mack to Los Angeles, CA area where Cherie had the chance to visit many mines during the summers with his dad who was a salesman for Thor PowerTools. Cherie's family then moved to Shirley Basin, WY, in 1958, where his dad became the Mine Superintendent for Utah Construction & Mining Corp (UC&MC). Cherie worked for UC&MC with their geologists, staking and proving claims. He enjoyed football, baseball, surfing, and climbing (he and his early 1970's climbing partners held the record for the fastest climb of Devil's Tower in Wyoming into the 1990's). He graduated from Natrona County High School in 1958, and completed 3 years of college, including Casper College, Casper, WY, Orange Coast College, Costa Mesa, CA, and Black Hills State College in Spearfish, SD. In between his mining jobs, Cherie also enjoyed coaching baseball, basketball, and football.

THE MINER: During his career, he loved spending time with geologists to understand how the minerals were formed and deposited, which indicators existed within the variety of rocks and minerals in the deposit, and other interesting aspects related to the regional geology and structure within the proposed mining area. He also enjoyed discussing the milling, processing, and refining aspects of mining and had many contacts to help him with side prospects that he continually tried to start up.

Cherie had a headhunter call him when Kennecott crews were struggling with a major fault at the Lark Mine, near Salt Lake City, UT, and were looking for a miner with soft ground experience. By taking his time to adjust for conditions, he was able to advance faster through the faulted ground than the local crews could advance in normal ground. When asked how he did it, he said that he drilled the complete round, but only loaded the portion that could be supported. Sometimes he drilled for 2 feet depth, sometimes for 1. If he felt it was necessary, he would only drill out the top half or the top quarter. He mentioned that in that ground he would drill the perimeter, but never load it. He had an innate ability to read the ground which is a talent that some miners are able to refine after drilling and shooting many, many rounds in varied conditions. Cherie refined his skills in stopes, shafts, development headings, cross-cuts, mass excavations, and civil tunneling projects over the space of many years.

While working for AMS, Cherie was asked to provide grouting and dewatering expertise in Honduras at the El Mochito Mine, and then to provide mixed-ground tunneling expertise during the construction of the Water Diversion Tunnels outside of San Juan, Puerto Rico.

THE LEADER: The story that Cherie told of his transition to supervision is that his boss called him to the surface early one shift and said that he had a telephone call. Cherie had been preparing a stope and wrapped things up to head to the surface. On the phone was a Mine Superintendent from another mine who said that he had heard of the excellent work that Cherie had done as a miner and asked him if he would take a job as a supervisor at their mine. Cherie was surprised that anyone knew about him, and that just by working efficiently in the bottom of a mine, he was able to prove to someone at another location that he was the right man for the job. From that moment on, he did his best and received many calls similar to that one.

The stories that come from those who worked with him echo the fact that he truly mentored them and looked out for their career and their family. He wasn't afraid to help someone because they might become his boss in the future.

THE SHAFT SINKER: Cherie was involved with many shaft sinking projects, including the Lisbon Shaft near Gas Hills, Wyoming; at the Lark Mine near Salt Lake City, Utah; the Atomic Energy Commission's Nevada Test Site; shafts near Crown Point, UT; Crooks Gap, Wyoming; and Eureka, UT. He started his shaft supervision roles as a Shaft Foreman for Mine Contractors Inc. (a Kerr McGee Corporation) at the Bill Smith Mine in Glenrock, Wyoming, then was asked to be the General Mine Superintendent, then Area Superintendent for Gulf Mineral Resources Co. at the Mariano Lake Mine; and the Mt. Taylor Project, in New Mexico. Phillips Uranium Corporation courted him to become the Development Manager for the Nose Rock Shaft Sinking Project in New Mexico; and then sent him to their Denver, Colorado office as Mine Development Director.

THE INNOVATOR: While working as the Vice President of Mine Operations for AMS, Cherie was tasked with assisting with the early development and planning at what would be called the Stillwater Mine. When the mine owners realized the quality of person that they had found and the depth of experience that he had, they offered the position of Mine Manager to him, and he accepted the opportunity to get started building that new mine. After reviewing the details of the project, it became clear to Cherie that the right tool for the job was one that hadn't been tried in underground mining. He looked to his experience with civil tunneling and his ability to adapt new approaches and saw a geometry that lent itself to utilizing a Tunnel Boring Machine (TBM) which could deliver the required footage faster than the most efficient drill-and-blast crews. He wanted a new machine, but with unproven technology for mining and little geotechnical data, the decision was made to send him to Melbourne, Australia to see if a used TBM that had just completed a sewer tunnel would work for them. The TBM was purchased and shipped while preparations were being made and the first TBM was implemented at the Stillwater Mine. The fact that Cherie was involved in the process and had a great team working with him helped the TBM complete over 35,000 lineal feet at 13.8 ft of excavated diameter tunnel on the Stillwater side of the mine (as well as many more feet in other areas of the mine and at the San Manuel and Ray Mines in Arizona before returning to Stillwater). The TBM was modified for bad ground with muck fingers and at times concrete was poured ahead of the machine to stabilize the ground, then the TBM would advance through the concrete.

Another innovation at the Stillwater mine was an underground sand silo that consisted of a piloted and reamed raise. It took a while to convince the Board of Directors that this was a viable solution, as they wanted a more traditional silo erected on surface. The final approval came during a Board Meeting when Cherie mentioned that the raise had just been completed and the reamer was being removed. The Board unanimously approved the raise version at that time.

The list of innovations is long, and many have become presentations or papers. Cherie was an avid member of SME, the NWMA, and other technical organizations, and has published and partnered in publishing various papers to share his team's accomplishments with the mining and civil communities.

THE CONTRACTOR: Cherie had worked for both contractors and owners during his career, and after his tenure at Stillwater, he was hired by Dynatec Mining Corporation as an Area Manager. During his time with Dynatec, he worked in project management, safety, estimating, business development, and training. He was certified to train all shaft sinking and development positions from Hoistman to Jumbo Operator and everyone in between. Cherie managed the sinking of the Meikle Mine Shaft and over 9,000 feet of early mine development. He also managed some low cover tunneling projects in Salt Lake City. Cherie retired from Dynatec upon completion of the last civil tunnel which was driven for the City Creek Center, a world class shopping center.

THE CONSULTANT AND PROSPECTOR: Cherie performed consulting work for a uranium mine in New Mexico when he first retired, and was able to utilize his firsthand experience from his past career to provide quality information to his client.

After his stint as a consultant, he focused on something that he had been doing on weekends and evenings his entire career, even enlisting his family members and friends for help; he prospected and tried to look for that next new mine to start up. He seemed to get very close many times, but eventually had to go back to work each time it fell through. His retirement finally afforded him the ability to travel to the locations which he could peruse to re-visit his mining past, many of which were areas that had closed down due to various economic events and still appeared to have potential.

THE LINGERING INFLUENCE: Cherie will be remembered by many who had a chance to work with him and know him. Those who he has mentored will continue to find ways to help others in the industry. Many of his innovations continue in the mines where he worked and in other mines that have the correct conditions to apply the technology. We miss his physical presence, but as many others who have come and gone, his accomplishments, training, and ideas will live on through us.

THE MINING RECORD
PROFESSIONAL DIRECTORY

THE INTERNET CONNECTION DIRECTORY

CONTRACT MINING

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

CONSULTANTS - MINERAL INDUSTRY

Golder Associates
www.golder.com
bthompson@golder.com

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

SRK Consulting
www.srk.com
info@srk.com

CRUSHERS - MINING AND AGGREGATE

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

HEAP LEACH/TAILINGS DAM GEOTECHNICAL/ENVIRONMENTAL

SRK Consulting
www.srk.com
info@srk.com

HEAVY MINING EQUIPMENT

Wagner Equipment Company
www.wagnerequipment.cat.com

MATERIAL HANDLING SYSTEMS MINE PLANNING • MODELING SOFTWARE

Hexagon Mining
www.hexagonmining.com
contactus@hexagonmining.com

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
markhanna@millmansteel.com
tbrez@millmansteel.com
timhulse@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
rsidwell@raisebor.com

USED/NEW HEAVY EQUIPMENT

Arnold Machinery Company
www.arnoldmachinery.com

Cashman Equipment Company
www.cashmanequipment.com

Wagner Equipment Company
www.wagnerequipment.cat.com

www.miningrecord.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

SAVE THE DATE!

VISION, INNOVATION AND IDENTITY:

STEP CHANGE FOR A SUSTAINABLE FUTURE

SME 2018 SME ANNUAL CONFERENCE & EXPO

MN 2018 91ST ANNUAL MEETING OF THE SME-MN SECTION

FEBRUARY 25 – 28, 2018 · MINNEAPOLIS, MN

BE A PART OF THE MINING INDUSTRY'S PREMIER EVENT!

Join more than 6,000 of your peers – the mining industry's best and brightest – at the 2018 SME Annual Conference & Expo, co-hosted by the SME Minnesota Section.

- Attend technical sessions that match your professional interests.
- Share experiences with seasoned professionals from all over the world.
- Explore one of the largest exhibitions featuring the latest in mining equipment and technology.
- Get insights on hot topics and find solutions to common challenges.
- Learn more about Minnesota's iron ore and taconite mining innovations.

SME is the leading resource for the most current science and technology for individuals and businesses that discover, develop and distribute the world's mineral resources.

www.**smeannualconference**.com

IMPORTANT DATES:

Call for Papers
NOW OPEN

Abstracts Due
AUGUST 1, 2017

Registration and Housing Opens
OCTOBER 2017

Conference Dates
FEBRUARY 25 – 28, 2018

EXHIBIT SALES NOW OPEN!

For more information, email ***meetings@smenet.org*** *or call* ***(800) 763-3132*** *(U.S. only) or* ***(303) 948-4200****.*

SME Society for Mining, Metallurgy & Exploration

www.**smenet**.org
#SME2018ACE

Kinross Tracking Towards High End Of 2017 Production

TORONTO, ON - J. Paul Rollinson, President and CEO of Kinross Gold Corporation said, "The company delivered strong third quarter results, bolstered by outperformance at our two Nevada mines and at Tasiast. We are on target to meet our annual guidance range for the sixth consecutive year, and are tracking towards the high end of our production and the low end of both our cost of sales and all-in sustaining cost guidance.

We also generated solid cash flow and maintained one of the best balance sheets. Development at our suite of organic projects continues to proceed well. Tasiast Phase One is on track for full commercial production towards the end of Q2 2018 and engineering at Phase Two is now 25% complete. We also expect to start construction at Tasiast Phase Two, Round Mountain Phase W and the Vantage Complex at Bald Mountain early next year, as initial development work at all three projects is already in progress."

Kinross produced 653,993 attributable Au eq. oz. in Q3 2017, compared with production of 684,129 attributable Au eq. oz. in Q3 2016.

Production cost of sales per Au eq. oz.2 decreased to $662 for Q3 2017, compared with $719 for Q3 2016, mainly as a result of lower cost of sales per ounce at Round Mountain in Nevada, Bald Mountain in Nevada, and Fort Knox in Alaska.

At Fort Knox, production increased compared with Q2 2017 mainly due to more ore processed and ounces recovered from the heap leach, but decreased slightly compared with Q3 2016 primarily due to lower tonnes placed on the heap leach pad. Cost of sales per ounce was largely in line with Q2 2017 and was lower compared with Q3 2016 mainly as a result of a decrease in operating waste mined and lower contractor costs as the site began to transition more of its maintenance function to self-perform.

Kinross' Nevada operations outperformed during the quarter as both Round Mountain and Bald Mountain increased production and lowered cost of sales per ounce quarter-over-quarter and year-over-year. Round Mountain increased production by 30% over Q3 2016 mainly due to the highest mill grades since 2003, the year Kinross first started operating the mine. Production increased quarter-over-quarter mainly due to higher mill grades and recoveries. The high mill grade was also the main driver for the decrease in cost of sales per ounce, which was at its lowest level in five years.

Bald Mountain achieved record production during the quarter and continues to be on track to double annual production for 2017 compared with full-year 2016. Production increased compared with Q2 2017 and Q3 2016 mainly due to higher grades and a significant increase of tonnes placed on the heap leach pads. Additionally, maintenance costs decreased compared with Q3 2016.

Kettle River-Buckhorn in Washington produced approximately 17,000 gold equivalent ounces from its stockpiles during the quarter, as the last batch of ore was hauled from Buckhorn in July. Reclamation is now well underway at the site and exploration is continuing in the region. At Paracatu in Brazil, production was lower quarter-over-quarter and year-over-year due to the temporary curtailment of mining and Plant 2 operations as a result of lower than average rainfall in the region. The curtailment of mining and Plant 2 began in early July and continued through October, with Plant 1 running intermittently during that month mainly due to the slow start of this year's rainy season. The decrease was partly mitigated by production from the tailings reprocessing at Plant 1, which was higher than expected. Mining and processing activities re-started in early November at Paracatu, as the area received sufficient rainfall in late October. Paracatu is expected to resume normal production in Q4 as sufficient water becomes available. The Company continues to advance its water mitigation efforts to prepare for potential lower rainfall levels going forward. These efforts include securing ground water rights and installation of wells around the site.

In Russia, the region performed well in Q3 2017 with production from Kupol and Dvoinoye largely in line with Q2 2017. Production decreased compared with Q3 2016 mainly due to anticipated lower grades. Cost of sales per ounce was lower compared with Q2 2017 primarily as a result of lower fuel and maintenance costs and continued to be among the lowest in Kinross' portfolio.

Tasiast In Africa performed well during the quarter, as production increased 10% compared with Q2 2017 primarily due to strong mill grades, the highest since 2010, and more tonnes processed from the dump leach. Production was higher and cost of sales per ounce lower compared with Q3 2016 due to higher mill grades and the impact of the temporary suspension of mining last year. And in Africa at Chirano, production was higher compared with Q2 2017 and Q3 2016 mainly due to, respectively, better mill performance as a result of a more stable supply of electricity from the country's power grid, and higher grades. The company's address is 25 York St., 17th Floor, Toronto, Ontario M5J 2V5, (416) 365-5123, fax: (416) 363-6622, email: info@kinross.com.

HARRIS EXPLORATION

DRILLING & ASSOCIATES INC.

AN INDUSTRY LEADER

61 YEARS

SETTING THE STANDARD

Harris Exploration Drilling and Associates offers a full array of drilling capabilities including dual tube reverse circulation, air/fluid rotary, air rotary casing hammer, down hole casing advance (Symetrix & Holte Systems) on both vertical and angle projects.

EXCELLENCE

ALL TERRAIN DRILLING WITH WIRE LINE CORE & DUAL TUBE RC METHODS

SPECIALIZING AND EXPERIENCED IN LITHIUM EXPLORATION , TESTING, AND DEVELOPMENT OF BRINE WELLS UTILIZING RC, MUD ROTARY AND WIRE LINE CORE.

We also offer coring, reclamation/pad construction and heavy haul transportation of equipment between drill sites. Harris operates truck, track and buggy mounted equipment, We have a facilities yard in Fallon Nevada and our administration office is located in San Diego, California. We have equipment in Nevada, California and Arizona.

HEADQUARTERS:
Mailing Address
P.O. Box 81805
San Diego, CA 92138 USA

Telephone: (619) 226-3350
Fax: (619) 226-3351

EQUIPMENT YARD & SHOP:
19 Scheckler Cutoff
Fallon, NV 89406 USA

Pat Harris, President
Cell: (760) 822-7886
Email: ph1756@gmail.com

http://harrisexploration.com

ACCIDENTS STOP HERE.

HxGN Mine VIS prevents accidents by automatically slowing down or stopping vehicles when the operator does not respond to a Collision Avoidance System warning.

Protect your people and your bottom line.
Visit **hexagonmining.com/VIS**

HEXAGON
MINING