

THE MINING RECORD™

Published by: The Mining Record Company
Volume 130, Number 7

THIRTEEN DECADES OF CONTINUOUS INDUSTRY COVERAGE
www.miningrecord.com

July 2019



Denver, Colorado, USA

Metals Watch (06/13/19): Gold \$1,335.40 • Silver \$14.79 • Copper \$2.65 • Lead \$.87 • Zinc \$1.19 • Platinum \$806.00 • Palladium \$1,417.00 • Molybdenum \$12.46 • Lithium \$101.63; Coal: \$55.05

Murray Energy Positioned To Produce 76 Million Tons Of Coal Per Year

CLARKSVILLE, OH - Murray Energy Corporation and its Subsidiary Companies employ nearly 7,000 employees and currently operate 17 active coal mines, consisting of 12 underground longwall mining systems and 42 continuous mining units in Alabama, Illinois, Kentucky, Ohio, Utah, and West Virginia.

The company also operates two surface mines in Colombia, South America. Murray Energy is positioned to produce about seventy-six million tons of coal per year. Murray Energy holds approximately three billion saleable tons of coal reserves.

In March, Murray Energy Corporation was selected as the Successful Bidder to acquire the Oak Grove, Seminole Alabama, and Maple Eagle Mining Complexes (the "Mission Assets"), located in Alabama and West Virginia, from Mission Coal Company, LLC, through the Mission bankruptcy proceedings.

Mission accepted Murray Energy's bid and filed notice with the bankruptcy court in March. Murray Energy has formed a new, majority owned unrestricted subsidiary company, Murray Metallurgical Holdings, LLC, to acquire and operate the Mission Assets, with its existing JV partner, Javelin Global Commodities (UK) LTD. (Javelin), as the minority owner of the newly formed unrestricted subsidiary.

Murray Energy's acquisition

of the Mission Assets provides a significant entrance into the metallurgical coal market, allowing for diversification of its portfolio of quality mining assets.

The Mission Assets will benefit from Murray Energy's best-in-class longwall mining and operational expertise, that will further enhance the value of these high quality metallurgical coal properties.

Additionally, this acquisition leverages Javelin's existing global marketing platform, bringing further value to these newly acquired assets. Murray Energy looks forward to utilizing our management and marketing expertise in order to ensure the maximum success of these operations.

Murray Energy also engages in related business operations and activities, including owning and operating four mining equipment manufacturing and rebuild facilities along with a number of river, truck and rail terminals, and twenty-six river towboats and over 500 barges on the inland waterway system. Many of its mining complexes are strategically located near customers' electric generating stations, and all have, low cost transportation infrastructures to its markets.

The company's address is 46226 National Road, Street, Clairsville, OH 43950, Tel: (740) 338-3100, murrayenergy.com.

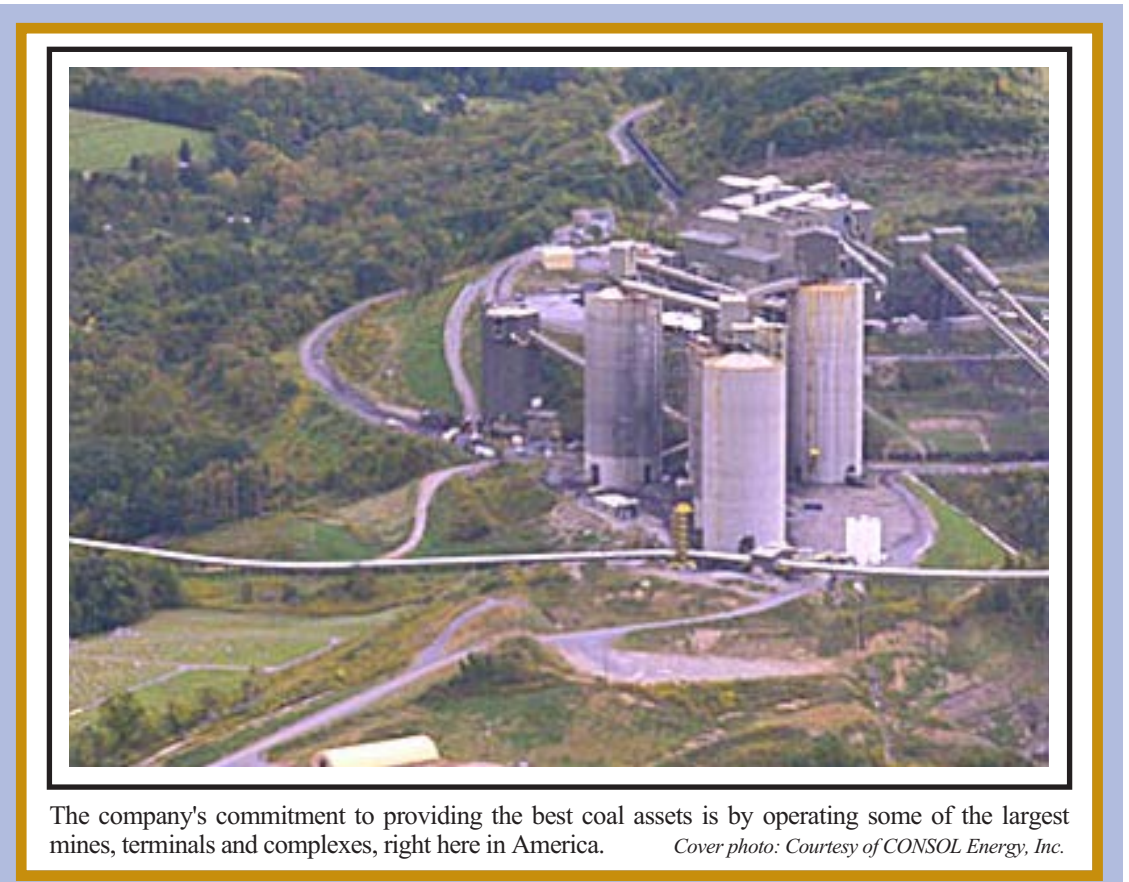
CONSOL ENERGY

Itmann Mine Project Development In Wyoming County, West Virginia

CANONSBURG, PA - CONSOL Energy Inc. has commenced the development of a new low-vol

we have meaningfully de-levered our balance sheet and improved our liquidity through strong opera-

meanwhile, the Itmann Mine is targeted at the domestic low-vol production space, which recently



The company's commitment to providing the best coal assets is by operating some of the largest mines, terminals and complexes, right here in America. *Cover photo: Courtesy of CONSOL Energy, Inc.*

metallurgical coal mining operation in Wyoming County, West Virginia, with an anticipated completion date of 2021.

"We are very pleased to announce the commencement of the Itmann Mine project, our first major growth initiative," said Jimmy Brock, Chief Executive Officer. "Since becoming an independent publicly-traded company,

tional performance and completion of our 1Q19 refinancing. The Itmann Mine begins the next phase of our evolution, as we are now focusing on strategic and controlled growth as an additional avenue to increase our per-share value.

Consistent with our goal of being a low-cost, high-margin producer of high-quality products, we believe the Itmann Mine will align perfectly with our current asset base. It will further diversify the portfolio by adding a new metallurgical coal product stream to the mix. When combined with our current crossover metallurgical product from the Pennsylvania Mining Complex, which we anticipate will continue to become more attractive in the marketplace with an upcoming improvement in sulfur content, the addition of this new Itmann product should allow us to consistently produce 2.5+ million tons of metallurgical quality coal annually, after the mine and preparation plant are constructed and fully functioning in 2021. We are also excited about the timing of the Itmann project, as coking coal prices remain attractive. While other new metallurgical coal supply is expected to emerge in the U.S. in the coming years, we believe that most of this new supply will be focused on high-vol metallurgical products;

has seen some supply come offline, and which we believe could continue to remain constrained going forward due to limited availability of high-quality reserves. Our initial market outreach has indicated a strong interest level among domestic and international customers in the Itmann product."

The company's address is 1000 Consol Energy Drive, Suite No. 100, Canonsburg, PA 15317, Tel: (724) 416-8300, www.consolenergy.com.

Drilling Commences At Keystone-Jumbo Goldwedge Property

VANCOUVER - Scorpio Gold Corporation reported the commencement of drilling at its 100% owned Goldwedge property located in Manhattan Nevada. The drilling program will focus on the Keystone-Jumbo claim block, for which the Company received drilling approval from the U.S. Forest Service in January 2019. The program calls for drilling of up to 29 exploration holes with the intention of building on historic drilling and previously reported surface sampling results within the Keystone-Jumbo claim block.

Dated Material — RUSH

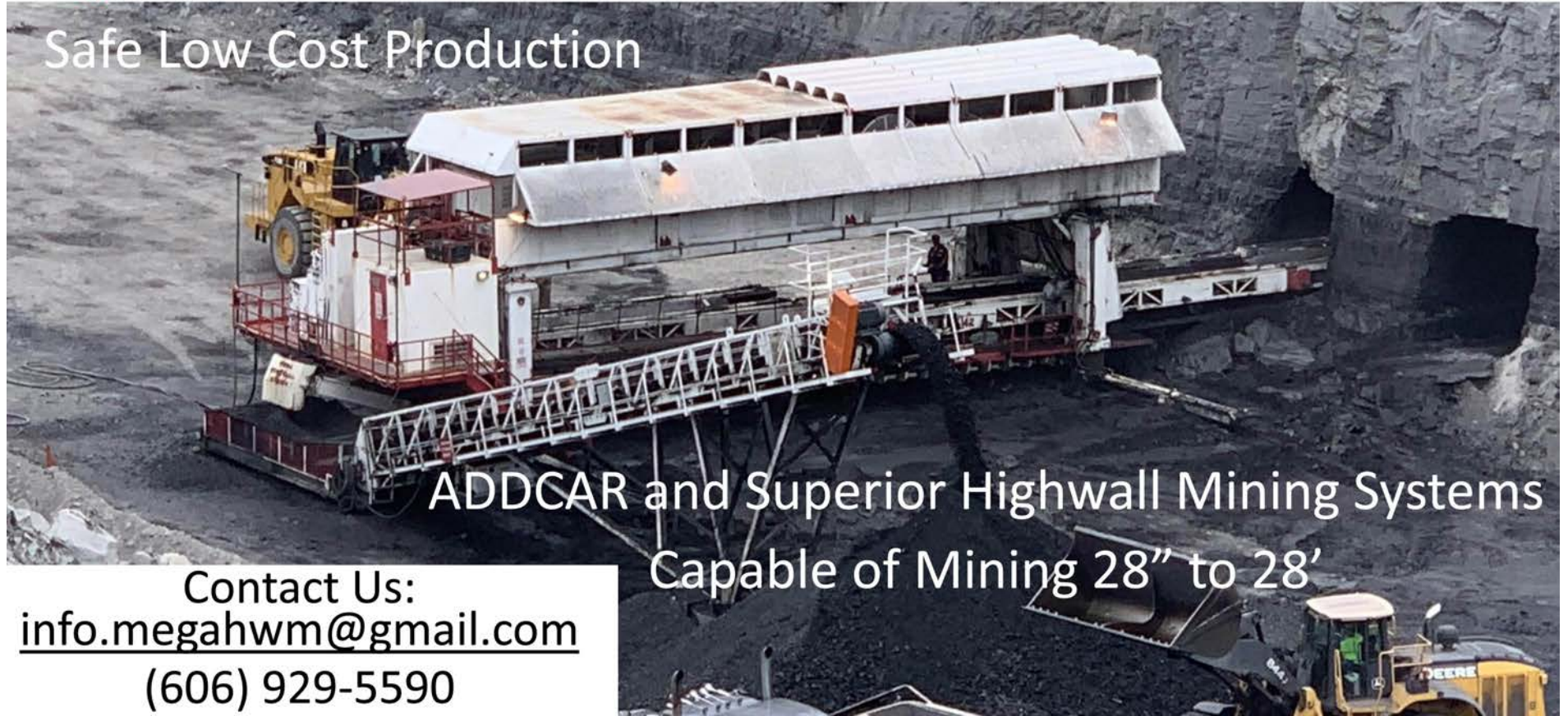
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PEABODY ENERGY

Reventilation Of First Segment Of The North Goonyella Mine

ST. LOUIS, MO - Peabody reported that it is proceeding with the ventilation of the first segment of the North Goonyella Mine in consultation with the Queensland Mine Inspectorate as part of a comprehensive phased reventilation and re-entry plan and expected longwall production in 2020. In the first quarter North Goonyella results include \$36.9 million in project costs that were more than offset by comparable insurance benefit of \$33.9 million and \$4.3 million in Adjusted EBITDA related to the sale of North Goonyella inventory. The company completed segmenting of the mine into multiple zones to facilitate a phased reventilation and re-entry of North Goonyella. In addition, all physical activities in advance of reventilating the first segment of the mine have been completed. Peabody is currently complying with a directive concerning documenta-



tion from the Queensland Mines Inspectorate, following a thorough review, which has resulted in a multi-week delay to the initial project plan.

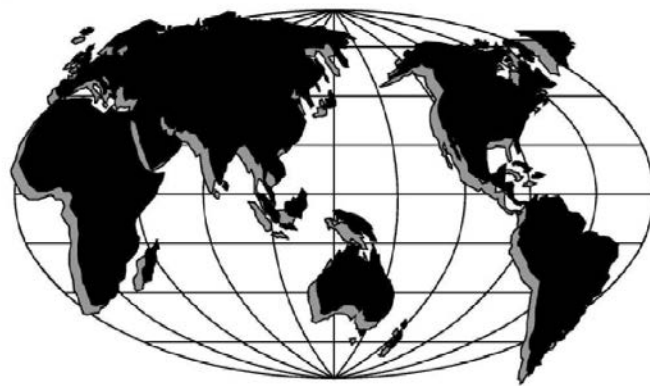
"This marks an important first step in the next phase of activities aimed at resuming normal operations at North Goonyella," said Glenn Kellow, Peabody President and Chief Executive Officer. "As we move forward in the process, we appreciate the ongoing support of our many stakeholders including our employees, the union, customers, the Inspec-

torate, neighboring mines, the community of Moranbah and countless others."

The mine, located in a remote area of Queensland, produces premium quality, medium-vol, high-strength coking coal with exceptional coking qualities. North Goonyella coal is exported through the Dalrymple Bay Coal Terminal, south of Mackay to global seaborne demand centers.

The company's address is 701 Market St., St. Louis, MO 63101-1826, (314) 342-3400, www.peabodyenergy.com.

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Alliance Resource Partners, L.P. Coal Sales Increased To

TULSA, OK - Alliance Resource Partners, L.P. (ARLP) reported coal sales revenues for the 2019 Quarter increased 12.4% to \$476.0 million, compared to \$423.6 million for the 2018 Quarter, due to increased coal sales volumes and prices. Coal sales volumes of 10.3 million tons were 9.8% higher than the 2018 Quarter, primarily reflecting strong sales performance at our Tunnel Ridge mine, increased volumes from our River View mine due to the addition of two production units in the second half of 2018 and the resumption of operations in the second quarter of 2018 at our Gibson North mine. Coal sales price realizations increased 2.3% to \$46.12 per ton sold in the 2019 Quarter, compared to \$45.07 per ton sold during the 2018 Quarter. Transportation revenues and expenses increased to \$30.2 million in the 2019 Quarter from \$19.8 million in the 2018 Quarter primarily due to an increased transportation cost of coal shipped to international markets.

Compared to the 2018 Quarter, operating expenses increased 9.2% to \$302.7 million, resulting from increased coal sales volumes. Total Segment Adjusted EBITDA Expense per ton for our coal operations decreased 1.9% in the 2019 Quarter to \$29.17 per ton, compared to \$29.74 per ton in the 2018 Quarter, due to increased volumes from our lower cost mines.

"ARLP opened 2019 with strong financial and operating results, posting increased coal sales and production volumes, higher per ton coal price realizations and lower costs per ton during the first quarter," said Joseph W. Craft III, Chairman, President and Chief Executive Officer. "With completion of the AllDale transaction in early January, the increased contribution from our oil & gas royalty platform also contributed to ARLP's increased revenues, net income and EBITDA for the 2019 Quarter."

Financial and operating results for the quarter ended March 31, 2019 (the "2019

Quarter"). Increased coal sales volumes, improved coal sales prices and the addition of oil & gas royalty revenues in the 2019 Quarter drove total revenues higher by 15.2% to \$526.6 million, compared to \$457.1 million for the quarter ended March 31, 2018 (the "2018 Quarter"). Higher revenues, combined with gains related to the AllDale transaction and the redemption of our preferred interest in Kodiak (each described in more detail below) led to increased net income attributable to ARLP, which rose 77.3% to \$276.4 million for the 2019 Quarter, or \$2.12 per basic and diluted limited partner unit, compared to \$155.9 million, or \$1.16 per basic and diluted limited partner unit, for the 2018 Quarter. EBITDA also increased 57.0% in the 2019 Quarter to \$358.8 million compared to \$228.5 million in the 2018 Quarter. Excluding the impact of the gain related to the AllDale acquisition in the 2019 Quarter and a gain on settlement of litigation in the 2018 Quarter,



Adjusted EBITDA increased to \$188.8 million in the 2019 Quarter, compared to \$148.5 million for the 2018 Quarter.

The resumption of operations at our Gibson North mine in the second quarter of 2018 and the addition of two production units at the River View mine in the second half of 2018 drove Illinois Basin coal sales volumes in the 2019 Quarter higher by 9.5% to 7.7 million tons compared to the 2018 Quarter. Sequentially, coal sales tons in the Illinois Basin decreased 3.9% due to lower

sales volumes from our Gibson Complex mines, partially offset by increases at River View. Strong sales performance at our Tunnel Ridge longwall operation led coal sales volumes for the 2019 Quarter higher in Appalachia by 10.8% and 6.6% compared to the 2018 and Sequential Quarters, respectively.

ARLP ended the 2019 Quarter with total coal inventory of 1.6 million tons, a reduction of 0.2 million tons compared to the end of the 2018 Quarter. Coal inventory increased 1.0 million tons com-



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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: Highlands Ranch, CO 80129 USA
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Vancouver, BC Canada, SA-MEX-ARG

THE MINING RECORD

INDUSTRY NEWS™

Volume 130, Number 7

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Electronic Editorial Submissions: Email: editor@miningrecord.com

Published by: The Mining Record Company
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Business Hours: Monday - Friday 8:00 a.m. - 5:00 p.m.

Distribution Mail House: Denver, CO USA • Publication Printing Facility: Aurora, CO USA

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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



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\$476 Million In Q1

pared to the end of the Sequential Quarter, primarily due to increased in-transit tons resulting from river transportation disruptions in the 2019 Quarter.

Illinois Basin coal sales price per ton sold in the 2019 Quarter increased 5.0% due to improved domestic market conditions and higher export sales prices compared to the 2018 Quarter.

In Appalachia, coal sales price per ton decreased 7.1% compared to the Sequential Quarter due to decreased price realizations at our MC Mining and Tunnel Ridge mines, partially offset by an increased mix of higher-priced metallurgical coal at our Mettiki mine.

In the Illinois Basin, Segment Adjusted EBITDA Expense per ton decreased 1.6% compared to the 2018 Quarter primarily due to increased sales of lower-cost production from our River View and Gibson North mines and improved recoveries from our Hamilton mine in the 2019 Quarter. Increased production from our lower-cost mines in the 2019 Quarter also resulted in a 2.4% reduction of Segment Adjusted EBITDA Expense per ton in the Illinois Basin compared to the Sequential Quarter.

In Appalachia, Segment Adjusted EBITDA Expense per ton decreased 2.7% and 3.4% compared to the 2018 and Sequential Quarters, respectively, due to increased volumes and improved recoveries from our Tunnel Ridge mine in the 2019 Quarter.

Total Segment Adjusted EBITDA increased 25.1% compared to the 2018 Quarter primarily due to improved performance from our coal operations as discussed above.

In addition, Total Segment Adjusted EBITDA compared to the 2018 and Sequential Quarters benefited from the Acquisition in the 2019 Quarter. Segment Ad-justed EBITDA from our Royalty segment increased by \$5.5 million and \$1.8 million compared to the 2018 and Sequential Quarters, respectively.

"Focusing on the U.S., ARLP's teams effectively managed around the disruptive weather conditions encountered during the 2019 Quarter," said Craft. "Unprecedented flooding and high water levels significantly disrupted barge deliveries throughout the river and port systems, delaying the shipment of approximately 750,000 tons of ARLP's expected deliveries during the 2019 Quarter. Looking ahead, once river and gulf port conditions return to normal, we anticipate ARLP's delayed shipments will be made up over the next several months.

We also expect lower customer inventory levels in the eastern U.S. should support utility coal purchases in the second half of 2019, allowing us to meet our domestic sales target of approximately 32.5 million tons for the year — a 10% gain over 2018 results."

The company's address is 1717 South Boulder Ave., Suite 400, Tulsa, OK 74119, (918) 295-7600, www.arlp.com.

Permit For Proposed Grassy Mountain Underground Mine

WINNEMUCCA - Paramount Gold Nevada Corp. reported that the Malheur County Planning Commission has approved the Conditional Use Permit (CUP) for the proposed Grassy Mountain underground mine located in eastern Oregon.

In a public meeting held in May, in Ontario, Oregon, the Malheur County Planning Commission voted unanimously to approve the proposed CUP for Grassy Mountain and to recommend approval of a Sage Grouse Rule Permit to the Malheur County Court. As the permit name states, the County issued the CUP with conditions, which in the case of Grassy Mountain, are the following: The applicant will subscribe to the Vale rangeland fire protection Association; The applicant shall collaborate with the Malheur County sheriff's office in regard to a security plan as well as law enforcement and emergency response plans; Any road improvements necessary to serve Grassy Mountain must be constructed according to county design standards to the satisfaction of the County Road Master; and The applicant shall obtain approval for its reclamation plan from Oregon Department of Geology and Mineral Industries (DOGAMI), prior to beginning mining operations. Unless otherwise prohibited by DOGAMI, the Applicant may conduct pre-construction and construction activities prior to

obtaining approval for its reclamation plan.

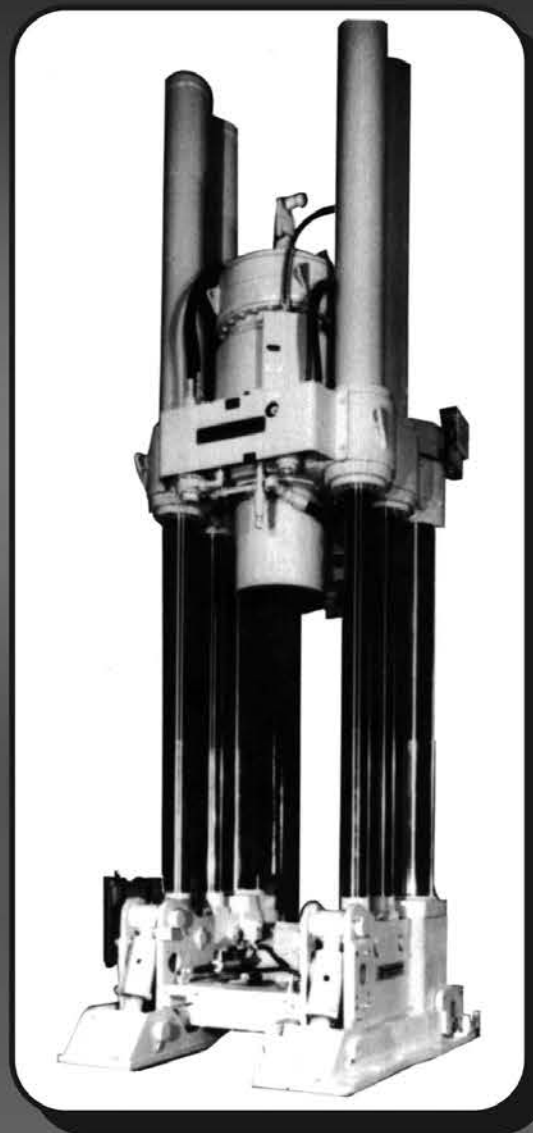
CEO, Glen Van Treek, commented, "The final acceptance of the CUP is a major accomplishment in our permitting

efforts of Grassy Mountain and indicates the commitment and support that the local communities & authorities have towards advancing Grassy Mountain into operation."



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Positive Metallurgical Results At Baner Project

TORONTO - Idaho Champion Gold Mines Canada Inc. reported that metallurgical work at the Company's Baner Project returned favourable scoping level leach test results of 87.1% Au recovery at 10 mesh.

Highlights of the metallurgical testing results are as follows: Gold readily leached from the sample. Gold extractions ranged from 87.1% to 93.2% with higher extractions coming from the finer ground material. The majority of gold was extracted in the first 24 hours with slower kinetics observed with the 10 mesh leach test; Little silver was extracted from the sample. Silver extractions ranged from 19.7% to 30.5%, which appeared to be independent of grind size. Cyanide consumptions ranged from 0.19 kg/mt to 1.45 kg/mt, with the higher consumption coming from the finer ground material. Lime consumptions ranged from 3.4 kg/mt to 4.53 kg/mt. Head analyses indicate that the composite sample contains approximately 1.0 g/mt Au and 2 g/mt Ag. There is virtually no organic carbon or sulfides present in the sample. The gold present in the composite sample is free milling with extractions over 87% even at a coarse particle size of 10 mesh. A maximum gold extraction of 93% was achieved at 100 mesh and 200 mesh grinds, but with significantly higher cyanide consumption than observed at the 10 mesh particle size.

Jonathan Buick, Champion's President and CEO, said,

"The favourable leach test result compares to similar projects in North America and adds further positive understanding to Idaho's newest gold discovery. We will continue with additional leaching test work to characterize the deposit. We will look at static leach tests with the coarse material to determine if heap leaching would be a reasonable processing option."

The Baner Project is located within the Orogrande shear zone (OSZ), a 20-kilometre-long and up to 1 kilometre wide regional shear zone located in Central Idaho.

The OSZ resembles a series of grabens composed of metamorphosed Proterozoic belt sedimentary rocks, Cretaceous Idaho batholith intruded by Tertiary rhyolites and dacitic dikes. The BC claim block covers a series of parallel shear zones on the eastern margin of the OSZ. Hydrothermal alteration is spatially associated with the OSZ and consists of silicification, seritization, and chloritization. Mineralization is hosted by three types of broadly defined deposit types; Tertiary epithermal deposits, Cretaceous intrusive related gold systems and orogenic shear zone deposits hosted within the batholith.

Mineralization includes disseminated low-grade precious metal mineralization in associated stockwork veins, hydraulic breccias and extensive widespread alteration; high-grade gold associated with discrete structurally controlled quartz veins and silicified zones.



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Mammoth Has Returned To Normal Production Levels

BRISTOL, TN - "Following Contura Energy, Inc.'s transformational merger in the fourth quarter of last year we placed substantial focus this past quarter on the company's already solid balance sheet and unlocking additional cash generation potential for our shareholders," said Board Chairman Neale Trangucci. "We are pleased to announce commitments to refinance our outstanding term loan facility, which provides our company with significantly greater flexibility to allocate capital to maximize shareholder value."

Mark Manno, Interim CO-CEO said, "As we worked to integrate our expanded asset portfolio over the past quarter and a half, certain operational challenges arose that negatively impacted production efficiency, particularly at one of our CAPP - Met complexes, while a temporary, partial idling of one of our CAPP - Thermal mines was required to bring mine infrastructure up to Contura standards. Both issues are being addressed to better position these assets for long-term success."

Results for the first quarter of 2019 include the full quarter impact of the Alpha merger, which closed in November 2018. The Trading and Logistics (T&L) segment sales in the first quarter of 2018 were largely driven by Alpha-related shipments, which are now included in the Central Appalachia Met (CAPP - Met) segment for the first quarter of this year.

Contura reported net income from continuing operations of \$8.0 million for the first quarter 2019. In the first quarter 2018, the company had net income from continuing operations of \$58.3 million. Total adjusted EBITDA was \$83.4 million for the first quarter, compared with \$99.0 million in the prior year quarter, adjusted to remove the impact of discontinued operations. The first quarter 2019 EBITDA was negatively influenced by three primary factors that the company does not consider fundamental in their nature. First, the Marfork complex encountered less productive mining conditions than expected, resulting in an EBITDA impact of approximately \$15 million. The issues affecting Marfork are being addressed and the complex is expected to improve its cost structure in the second half of the year. Second, our met shipment volumes were approximately 400,000 tons below our internal estimates, lowering EBITDA by approximately \$13 million. The company expects to recoup this shipment volume by the end of the year. Third, the Central Appalachia Thermal (CAPP - Thermal) segment EBITDA was negatively impacted by approximately \$13 million due primarily to infrastructure issues within the Mammoth complex, where half of a mine's productive capacity was idled for the quarter as we brought it up to the company's operational standards. The mine returned to normal production levels in April.

Total revenues in the first quarter were \$609.1 million.

Coal revenues in the first quarter, excluding freight and handling fulfillment revenues, were \$529.8 million, with CAPP - Met coal revenues accounting for \$345.8 million, CAPP - Thermal totaling \$57.3 million, T&L accounting for \$55.8 million, and Northern Appalachia (NAPP) coal revenues totaling \$70.9 million. Comparatively, in the first quarter 2018, CAPP revenues were \$134.6 million, T&L revenues were \$206.7 million, and NAPP revenues were \$61.5 million of the \$402.7 million in total coal revenues.

CAPP - Met coal shipments for the first quarter 2019 were 2.8 million tons at an average per-ton realization of \$123.68, compared to 1.0 million tons at \$141.06 per ton in the prior year first quarter. CAPP - Thermal coal shipments totaled 1.0 million tons in the first quarter, at an average price of \$57.78 per ton. Contura shipped 1.7 million tons of NAPP coal during the quarter at an average per-ton realization of \$42.89, an increase from 1.4 million tons at \$43.46 per ton in the first quarter 2018. In the T&L segment, coal volumes decreased from 1.4 million tons in the prior year period to 0.4 million tons in the first quarter 2019, primarily due to the shift from Alpha-related T&L tons to the captive CAPP - Met segment. The average T&L realization decreased from \$142.63 per ton in the prior year's first quarter to \$124.80 per ton during first quarter 2019.

The cost of coal sales in CAPP - Met for the quarter averaged \$92.90 per ton, up from \$80.45 per ton in the prior year period. The cost of produced coal sold was \$87.96 per ton compared with \$75.73

per ton in the first quarter of 2018. The cost of produced coal sold excludes the impact from purchased coal, coal inventory fair value adjustment and idle costs. The main drivers of higher than expected CAPP - Met costs were increased use of purchased coal, which impacted the cost of coal sales per ton by approximately \$2.00 and production issues at the Marfork operations due to lower than planned clean tons per foot, further increasing cost of coal sales by approximately \$3.00 per ton. Among operating categories, labor and benefits contributed approximately \$2.00 to higher

costs, mainly via a qualified, non-elective 401(k) contribution, and supplies and maintenance added approximately \$2.00 per ton. Idle costs of \$0.54 per ton are also included in CAPP - Met cost of coal sales for the first quarter of 2019.

The company's board of directors has approved investment in a new metallurgical coal project in Logan County, West Virginia, unlocking a high-quality, High Vol met coal reserve of over 25 million tons. The project is expected to produce approximately 1 million to 1.2 million tons annually at its full estimated run rate,

with a projected cash cost per ton in the low \$60 range. The capital allocation required to bring the project online is estimated at approximately \$25 million to \$30 million and does not require an increase to previously guided capital expenditures. Production is expected to commence in the second quarter of 2020.

Contura Energy is a Tennessee based coal supplier with affiliate mining operations across major coal basins in Pennsylvania, Virginia and West Virginia.

The company's address is 340 Martin Luther King Jr. Blvd., Bristol, TN 37620, (423) 573-0300.



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RC/Core Drill Holes Phase I Completed

VANCOUVER, BC - Gold Standard Ventures Corp. reported final drill results from its 2019 Phase 1 drilling at Dark Star. Results have now been reported for all RC and core holes completed in the Dark Star 2019 Phase 1 drilling program deposit, located on GSV's 100%-owned/controlled Railroad-Pinon Project in Nevada's Carlin Trend.

In the northern portion of the deposit, two RC holes confirm extensions to thick zones of oxide mineralization identified during the 2018-19 step out and infill program.

DR19-73 intersected 138.7m grading 1.12 g Au/t, including 38.1 m of 2.61 g Au/t; and DR19-74 intersected 65.5m of 1.33 g Au/t, including 30.5m of 1.80 g Au/t. Additionally, core hole DC19-01, which was suspended at 231m, confirmed oxide mineralization, with 117.3m of 1.54g Au/t, including 44.3m of 2.55 g Au/t.

In the 2019 Phase 1 program, 10,729m of drilling was completed in 71 RC holes and 231m in one core hole. The program was designed to test new targets at depth below the current resource model, and lateral resource expansion opportunities adjacent to the current Dark Star resource. The 2019 program also infilled the current resource to approximately 30m drill spacings for conversion to

measured and indicated classification necessary for reserve estimation. The full suite of assays and drilling will be incorporated into the ongoing model update and resource estimate currently in progress.

Jonathan Awde, CEO and Director, said, "Phase 1 Dark Star infill and step out drilling was an unqualified success. We confirmed the deposit's consistently high-grade oxide character and achieved the drill density ultimately required for reserves in the Preliminary Feasibility Study now in progress.

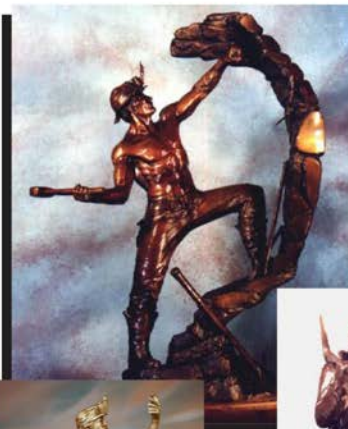
We also learned that oxidation extends deeper than expected, especially to the north, where grades improve at depth and where we believe we have further room to grow," Awde said.

"This summer, the focus will shift from infill and step out to exploration. Phase 2 drilling will return to the zone between the Ridgeline and IDK Faults, which appear to be feeders to the Dark Star deposit, where we will test for deeper sulfide mineralization below the current resource. This is the type of target that has made Carlin so prolific as a gold producer."

The company's address is Suite 610, 815 West Hastings St., Vancouver, BC V6C 1B4, (604) 687-2766.

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Red Mountain Zinc/Precious Metals VMS Project Exploration Program

AUSTRALIA - Diversified explorer and near-stage producer, White Rock Minerals Ltd with joint venture partner Sandfire Resources NL reported the commencement of a comprehensive airborne electromagnetic (EM) geophysical survey being flown at the Company's globally significant Red Mountain high-grade zinc and precious metals VMS project in central Alaska. White Rock's comprehensive exploration program for 2019 has started with the commencement of an airborne electromagnetic geophysical survey.

This programme is the next step in identifying key drill targets after a successful drilling campaign in 2018 which included intersections of 4.7m @ 19.5% zinc, 7.8% lead, 466g/t

silver, 6.9g/t gold and 1.5% Cu and 4.3m @ 4.8% zinc, 2.3% lead, 1,435g/t silver, 2.2g/t gold and 0.5% Cu.

White Rock's Managing Director, Matthew Gill said, "The airborne EM survey, which commenced flying over the Easter weekend, is an exciting step forward for the project and signifies the start of the summer field season in Alaska. This is the first time that a modern technology time-domain airborne EM survey has been used at Red Mountain to explore for massive sulphide mineralisation. The previous survey done by the Alaskan government in the mid 2000's used shallow looking frequency domain technology to map the surface geology. We are really pleased to be using a modern, high-power

ered technique over our 475km² strategic belt-scale regional tenement package as the first step in our comprehensive exploration program for 2019. The 3,000 line kilometre SkyTEM airborne electromagnetic (AEM) survey is capable of identifying conductivity anomalies to depths of 300 metres below the surface that could fast-track a significant new discovery.

This exploration season will be the first in the joint venture relationship between White Rock and Sandfire, with Sandfire having recently signed an earn-in and joint venture agreement to work with White Rock on this prospect. The regional targets identified by this EM survey will form a key part of our comprehensive exploration program this field season.

Approvals Allow Cloud Peak Normal Course Of Operations

GILLETTE, WY - Cloud Peak Energy Inc. President and CEO, Colin Marshall said, "We are pleased to have received interim approval allowing us to continue operating as normal, as we continue the sale process for all of Cloud Peak's assets. As we move through this process, we remain focused on safely and efficiently meeting our customer commitments. I would like to thank our employees, customers and business partners for their continued support."

The Court granted Cloud Peak Energy interim approval to access \$10 million of up to \$35 million in debtor-in-possession (DIP) financing. The \$35 million DIP financing, combined with the Company's cash on hand and funds generated from ongoing operations, is

expected to provide sufficient liquidity for the Company to continue operating in the ordinary course during the sale process. In addition, Cloud Peak Energy received Court approval to, among other things, continue payment of employee wages, salaries and benefits without interruption, and to pay vendors, suppliers and other providers essential to the Company's business in full for goods and services provided after the filing date. The Company also received approval to continue entering into and fulfilling orders under sales contracts with customers in the ordinary course of business.

The company's address is PO Box 3001, Gillette, WY 82717, (307) 687-6000, cloudpeakenergy.com.

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High Purity Cobalt And Nickel Sulphate From The Vermelho

LONDON - Horizonte Minerals Plc, reported the successful completion of the previously announced test work on samples of limonite ore from the Company's 100% owned Vermelho nickel-cobalt project (Vermelho) located in the southern part of the Carajás mining district in Pará state, northern Brazil.

CEO Jeremy Martin said, "Producing high purity nickel and cobalt sulphate from the Vermelho project of suitable quality and grade for use in EV battery production is a major milestone in the development of the project. The Vermelho project is a value driver for the Company, it is a high-grade scalable resource, with good infrastructure and has the poten-

tial to be fast tracked to development.

The successful completion of this sulphate test work confirms that the selected process flow sheet is suitable to treat the Vermelho ore and when combined with the earlier successful RKEF test work demonstrates that alternate process routes exist for the project. The data from the test programmes will be incorporated into the Vermelho Pre-feasibility Study, for release in early H2, with the objective of demonstrating a robust set of economics for the project.

The company's address is Rex House, 4-12 Regent Street, London, SW 1Y 4RG UK, 44 (0)203 356 2901, horizonteminerals.com/uk/en/.



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Copperstone Mine Expansion Program Drilling Results

TORONTO - Kerr Mines Inc. reported further drilling results from its resource expansion program at the Copperstone Mine located in Arizona. Drilling is being accomplished entirely from existing underground access and will affect an area of 500 meters of strike length and 200 meters of elevation, representing approximately 30 per cent of the current resource strike length.

The program was designed to increase confidence in the mineral resources and reserves, particularly the portion scheduled for the first three years of production in the recently-completed Pre-Feasibility Study.

The objective of the underground resource expansion program of up to 10,000 meters of drilling, of which we have currently completed 5,000 meters which is currently focused on the D and C zones to increase mine life by adding additional Inferred resources and converting new and existing Inferred resources into Measured and Indicated resources. Updating the mine plan with the new resources will be the final step towards extending mine life once all drilling results have been received.

Giulio T. Bonifacio, Chief Executive Officer said, "We continue to be very encouraged with the positive drill results to date. Building off the success of the previously announced results from holes 18-21-04(16.8 meters of 40.0 g/t gold) and 18-21-06(10.7 meters of 17.5 g/t gold) our current reported drilling

results as shown in "Drill Stations Close View Looking West" further confirm that results are upgrading and expanding our currently defined resources beyond the various

mineralized domains with both high grades and further continuity."

Future drilling programs, with the objective of further mine life extension, will target

areas beyond the current 2019 Phase II affected area of 500 meters of strike length. The ultimate goal would be the addition of resources along all sections encompassing the entire current

resource strike length of over 1,500 meters.

The company's address is 18 King Street East, Suite 902, Toronto, ON M5C 1C4, (416) 855-9305, kerrmines.com.

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Next Coking Coal Mine Development Progress Continues For Arch Coal

ST. LOUIS, MO - John W. Eaves, CEO of Arch Coal, Inc. said, "The Company is out of the gates in excellent fashion in 2019 with yet another strong operating performance, a robust level of capital returned to shareholders, and significant progress in the development of our next world-class coking coal mine. During the first quarter, we captured record margins from our coking coal portfolio, exhibited solid cost control in our Metallurgical segment during a lighter-than-ratable shipping quarter, and overcame flood-related rail service disruptions at our Powder River Basin operations. In addition, we returned \$86 million to shareholders under our capital return program, bringing the total returned since the program's inception to \$726 million. All told, Arch has now bought back nearly one third of our initial shares outstanding. Given our outlook for strong and continued free cash generation through the balance of the year, Arch expects to be in excellent position to drive ahead with our capital return program while simultaneously laying a powerful foundation for future volume and earnings growth at the new Leer South mine"

Net income of \$72.7 million in the first quarter of 2019, compared with net income of \$60.0 million in the prior-year period. The company earned adjusted earnings before interest, taxes, depreciation, depletion, amortization, accretion on asset retirement obligations, and non-operating expenses (adjusted EBITDA) of \$107.3 million in the first quarter of 2019, which includes a \$13.0 million non-cash mark-to-market gain associated with the company's coal-hedging activities. This compares to \$104.9 million of adjusted EBITDA recorded in the first quarter of 2018. Revenues totaled \$555.2 million for the three months ended March 31, 2019, versus \$575.3 million in the prior-year quarter.

During the first quarter, Arch repurchased 872,000 shares of common stock, representing 3.5 percent of initial shares outstanding, at a total investment of \$78.3 million. In the past eight quarters, Arch has invested a total of \$662.1 million to buy back 8.1 million shares, which has served to lower the corporation's outstanding share count from 25.0 million to 16.9 million.

In addition to the buybacks, Arch returned \$7.8 million to shareholders through its recurring quarterly dividend, bringing total capital returned to \$86 million for the quarter just ended. The \$86 million returned to shareholders during the first quarter represented an 11 percent increase over the quarterly average achieved in 2018, even with the expenditure of roughly \$18 million on the development of Leer South. Since launching the capital return program in May 2017, Arch has returned a total of \$725.6 million to shareholders via buybacks and dividends.

"Our coking coal operations performed exceptionally well during the quarter as we captured record per-ton realizations

on coking coal sales, delivered a solid cost performance and achieved record margins, even with the anticipated, lower-than-ratable shipments," said Paul A. Lang, President and COO. "This strong performance more than offset lower volumes in both our Powder River Basin and Colorado operations, where we were adversely affected by widespread rail outages stemming from flooding in the Midwest in February and March."

The company's address is One City Place Dr., Suite 300, St. Louis, MO 63141, Tel: (314) 994-2700, www.archcoal.com



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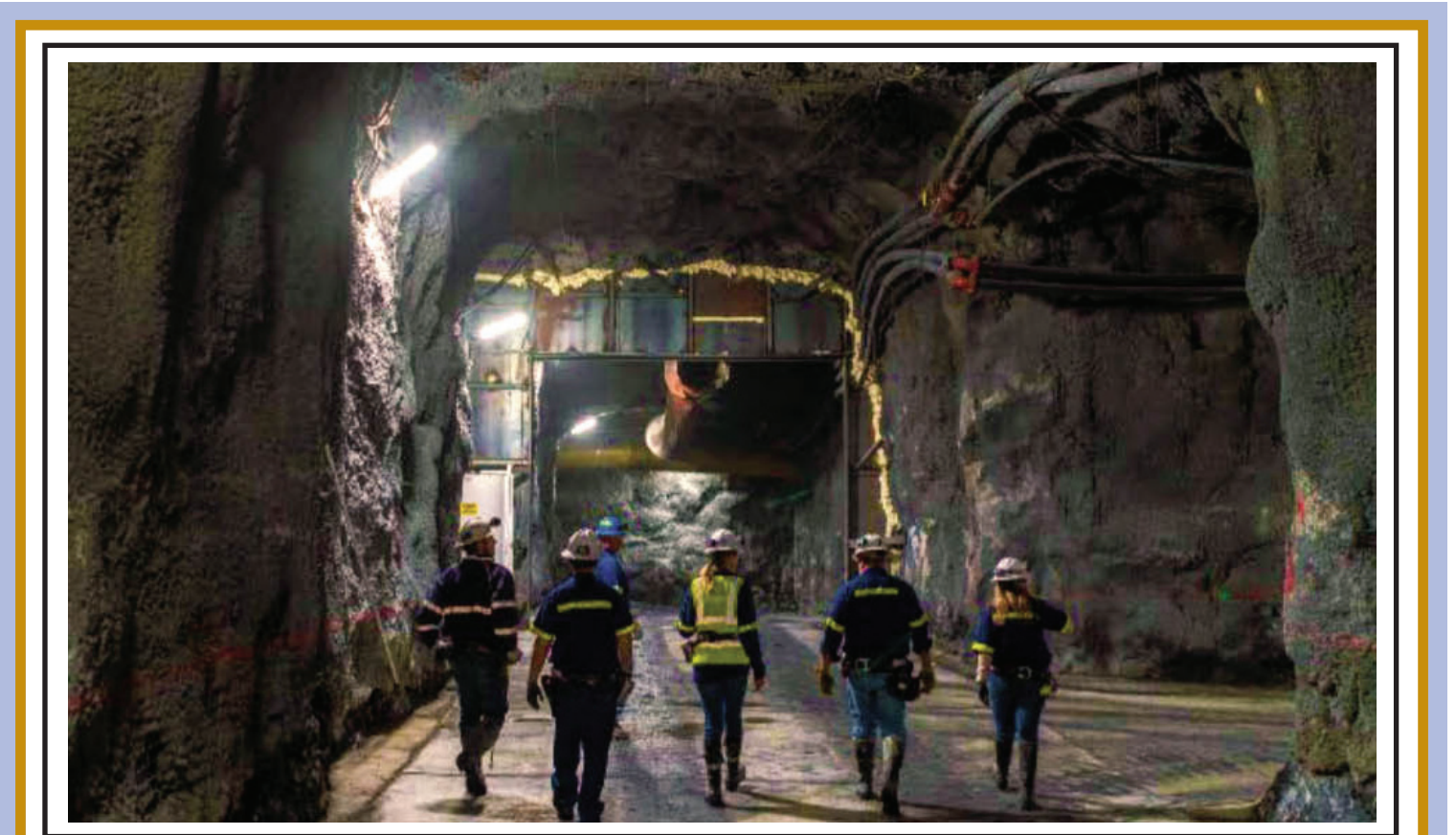
NEWMONT GOLDCORP

Nevada Operations Expected To Produce 1.9M Ounces

DENVER, CO - Newmont Goldcorp Corporation Chief Executive Officer Gary J. Goldberg said, "Our joint venture in Nevada will generate synergies and create the world's largest gold mining complex, and our combination with Goldcorp will create the world's leading gold business as measured by assets, prospects and people. North America production is expected to be 1.9 million ounces in 2019 as higher grade production from Nevada operations: Northwest Exodus and Twin Underground are offset by the depletion of Silverstar ore at Carlin and lower gold production at Phoenix as mining shifts to higher copper grade ore from the Bonanza pit. Production remains at 1.9 million ounces in 2020 and 2021 as higher grades at Long Canyon following the stripping campaign.

The Company has been pouring gold in Nevada for over 50 years along a 100-mile corridor in the northern part of the state. The Nevada properties operate as an integrated unit and, together, they boast the widest variety of processing methods of any gold mining complex in the world. This allows the company to maximize economic recovery of gold from a wide range of ore types and grades. In addition to gold, our operations produce silver and copper.

The Company delivered \$349 million in free cash flow in the quarter while meeting production and cost targets on the back of continued operational excellence. This performance gave us the means to deliver superior shareholder value in the form of a spe-



The Nevada properties operate as an integrated unit and, together, they boast the widest variety of processing methods of any gold mining complex in the world, which allows maximization of economic recovery of gold from a wide range of ore types and grades. *Photo Courtesy of Newmont Goldcorp*

cial dividend, and to build a stronger future by advancing profitable projects on three continents, and by progressing two historic transactions."

The Company entered into an implementation agreement with Barrick Gold Corporation to establish a joint venture that will combine certain mining operations and assets located in Nevada and historically included in the Company's North America reportable segment and certain of

Barrick's Nevada mining operations and assets (the Nevada JV Agreement). Pursuant to the terms of the Nevada JV Agreement, Barrick and the Company will hold economic interests in the joint venture equal to 61.5 percent and 38.5 percent, respectively. Barrick will operate the joint venture with overall management responsibility and will be subject to the supervision and direction of the joint venture's Board of Managers, which will be com-

prised of three managers appointed by Barrick and two managers appointed by Newmont. The Company and Barrick will have an equal number of representatives on the joint venture's technical, finance and exploration advisory committees. Establishment of the joint venture is subject to the usual conditions, including regulatory approvals, and is expected to be completed in the coming months. Newmont's capital-efficient project pipeline supports sta-

ble production with improving margins and mine life.

The Company reported its 2019 and longer-term outlook. The outlook reflects steady gold production and ongoing investment in its operating assets and most promising growth prospects. Attributable gold production is expected to be 5.2 million ounces in 2019, primarily driven by a full year of higher grade production from the recently completed Subika Underground project in Africa. Production is expected to be 4.9 million ounces in 2020 and longer-term production is expected to remain stable at between 4.4 and 4.9 million ounces per year through 2023 excluding development projects which have yet to be approved.

South America production is expected to be 650,000 ounces in 2019 as productivity improvements at Merian offset the transition to harder ore. Production is expected to decrease to 560,000 ounces in 2020 and 450,000 ounces in 2021 as the Tapado Oeste pit and Yanacocha laybacks are mined out and Merian transitions from saprolite to hard rock. The Company continues to advance near-mine growth opportunities at Merian and both oxide and sulfide potential at Yanacocha.

Australia production is expected to be 1.5 million ounces in 2019 with the higher grades and

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Florida Canyon Mine Phase 2 Heap Leach Pad

VANCOUVER, BC - Alio Gold Inc. reported that the Florida Canyon Mine, in Nevada, produced 12,263 gold ounces and 8,648 silver ounces in Q1 2019. Gold production decreased as a result of the winter weather conditions in February and low overall equipment availability resulting in lower crusher production. Work continues to evaluate numerous opportunities to increase production and reduce costs from historic levels. Areas of primary focus are improving mining and mine fleet efficiency, improved mine planning functions which are expected to result in more efficient mining practices and grade optimization, exploitation of low strip ratio ore, increased ore in process by improved efficiency in crushing and possible inclusion of run-of-mine ore to the heap leach pad. The Company expects to see improvement in production and costs over the course of this year but at this time formal guidance is not possible until further work is completed with respect to the mine plan and the ultimate outcome of improvement in mining equipment availability. Planned capital expenditures in 2019 total approximately \$13.5 million and will primarily be employed for construction of Phase 2 of the heap leach pad and construction of a storm

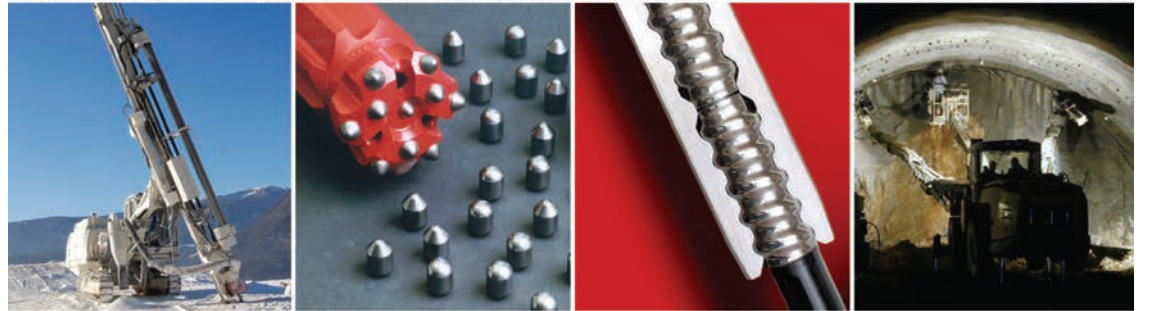
water diversion system to address permitting requirements.

The San Francisco Mine, in Mexico, in Q1 2019 produced 10,968 gold ounces and 6,274 silver ounces. Gold and silver production was lower as a result the cessation of open pit mining activity and low-grade stockpile material being processed through the crushing circuit. In January 2019, the Company made the decision to stop active mining in the San Francisco pit and focus on processing the low grade stockpile, as a result of the San Francisco pit not meeting planned ore production rates at an acceptable strip ratio in the upper levels of the planned pit laybacks. The Company investigated a number of mine planning options to potentially restart active mining; however, while the options were economic the Company does not have the ability to fund the capital required for the various options. As a result the decision was made to continue leaching and processing low grade ore from the stockpiles until the end of the year at which time the stockpiles are expected to be depleted. Following the depletion of the stockpiles the operation will go into residual leach.

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Further Drilling To Test New Mother Lode Zone

VANCOUVER, BC - Corvus Gold Inc. has received results from three additional holes including one testing the deep intrusive zone below the existing Mother Lode deposit. Hole ML19-109 highlights include 41.1m @ 2.83 g/t gold & 30.5m @ 1.71 g/t gold ending in 4.14 g/t gold, tested the depth extension potential of the central part of the Mother Lode gold system in the lower plate carbonate rocks along the main intrusive dike trend.

The new discovery is now outlining an intrusive related deep gold zone below the main deposit which the Company's believes could offer additional resource expansion potential. Further follow-up drilling will be testing this new lower Mother Lode zone over the next few months. The new deep zone intersection in hole ML19-109 was targeted on the central, north trending dike swarm, about 100 metres below the main Mother Lode deposit (the initial resource estimate announced in September 2018). The new, deep zone, has an upper oxide zone in the Paleozoic carbonate rocks (6.1m @ 0.81 g/t Au) and then a main intrusive hosted zone of 30.5m @ 1.71 g/t gold which is dominantly sulfide, with the hole ending in 4.1 g/t gold, where the hole was lost due to very strong alteration. The Deep Zone lies below the main Mother Lode deposit, which returned an upper oxide zone totaling 25 metres at 0.5 g/t

and a main zone with 9.1m @ 1.17 g/t gold and 41.1m @ 2.83 g/t gold. This new deep intersection could be defining an important intrusive connection to the main Mother Lode deposit and is separate from the Northern Extension (NR19-05, Mar.19, 2019), Western Feeder zone (NR18-17, Oct.17, 2018) and yet untested Western Deep FCF Target.

Jeff Pontius, President and CEO of Corvus, said, "The results we have received from the deep intrusive zone are encouraging and highlight what might be a large intrusive related deposit at depth."

This drilling as well as our other deep exploration to the north and west continue to point to a rapidly expanding gold system at Mother Lode. We believe that this continued expansion of the system and the style of mineralization could support multiple gold horizons and could potentially lead to a much larger deposit being defined in the future.

The Mother Lode system is emerging as a promising discovery and we expect it may form a cornerstone for the Company's District-wide resource development program, this is a potential re-emergence of a Nevada Gold District."

The company's address is 700 West Pender Street, Vancouver, BC V6C 1G8, (604) 638-3246, www.corvusgold.com.

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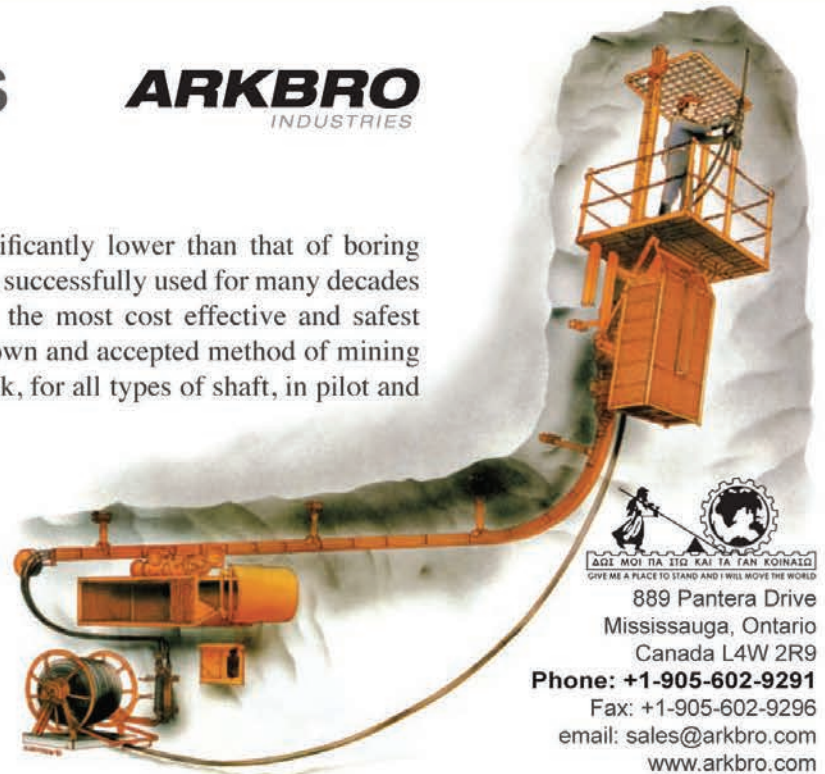
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Publisher/CEO/Chairman: Don E. Howell
President/COO: Dale P. Howell
Editor: Don Harrison, editor@miningrecord.com
Accounting HQ: accounting@miningrecord.com
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Published monthly - \$8.00 per copy

Regional Office: Highlands Ranch, CO 80129 USA
Associate Offices: Littleton, CO USA, Gunnison, CO USA
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THE MINING RECORD

INTERNATIONAL MINING NEWS™

Volume 130, Number 6

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www.miningrecord.com • Email: questions@miningrecord.com
Electronic Editorial Submissions: Email: editor@miningrecord.com

Published by: The Mining Record Company
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Business Hours: Monday - Friday 8:00 a.m. - 5:00 p.m.

Distribution Mail House: Denver, CO USA • Publication Printing Facility: Aurora, CO USA

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

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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



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Fourmile Discovery To Be Consolidated With Goldrush

TORONTO - Barrick Gold Corporation reported that the combination of the Fourmile discovery, which is expected to eventually be consolidated with the Goldrush project, is shaping up as the portfolio's next megamine. Since the high-grade maiden resource was reported, widely-spaced drilling beyond the deposit footprint has intersected high grades in multiple directions, signaling significant growth potential. Drilling resumed in January and funding may be increased to continue scoping extensions. In the meantime, exploration and project teams are working together to maximize the value from a consolidated and optimized Fourmile-Goldrush. Fourmile and Goldrush are classic Carlin-style orebodies of the kind that has made this region one of the world's most prospective.

Another is Turquoise Ridge, adjacent to the Twin Creeks mine and included in the Nevada joint venture.

President and Chief Executive Officer Mark Bristow said. "The key operations have all performed on plan. Nevada exceeded plan as the Cortez Hills open pit ramps down, Veladero posted encouraging improvements and Pueblo Viejo progressed its expansion project and benefited from operational efficiencies. Led by Kibali, the African operations made a good start to the year and the copper operations delivered significant improvements. Key growth projects were on track and greenfields and brownfields exploration were augmenting reserves and identifying new opportunities. We have gone a long way towards integrating the organizations, streamlining the processes and ensuring that all the sites have the geological, operational and technical capability to meet their business objectives."

We're also well advanced in establishing our new joint venture with Newmont, which has been named Nevada Gold Mines. We're working together with Newmont to realize the synergies and cost reduction opportunities offered by the joint venture. Given our solid operational per-

formance for the first quarter, Barrick is on track to deliver against its plans for the year. We believe we are well positioned as the industry's value leader. This quarter has seen a great start for our first year as the 'new and improved' Barrick and I am confident that we are well on the way to

achieving our strategic objective of becoming the world's most valued gold mining business. It is our commitment to get there by finding, developing, owning and operating the best assets in our industry, with the best people, to deliver stand out returns for our owners and partners."

Barrick Gold Corporation's first quarterly results since its merger with Randgold Resources Limited show solid results across the board from the new group, which also reported rapid progress with the integration of the two businesses and implementation of key strategic initiatives.



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Construction Focus At The Relief Canyon Project

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TORONTO, ON - Americas Silver Corporation reported on a financing package to fully-fund the development of the Relief Canyon Project. "The closing of the Pershing acquisition is a landmark event for Americas Silver shareholders," said Darren Blasutti, President & CEO of Americas Silver. "The Company can immediately begin construction at Relief Canyon. The high-return Relief Canyon Project is anticipated to



add substantial precious metal production and cash flow growth for the Company in 2020 and beyond.

Relief Canyon is located approximately 95 miles northeast of Reno in Pershing County, Nevada. The Project includes three historic open-pit mines and a state-of-the-art, fully permitted and constructed heap-leach processing facility. The Company's landholdings in and around Relief Canyon cover over 11,700 hectares. This land package provides the Company with the opportunity to expand the Relief Canyon Mine deposit and to explore and make new discoveries close to existing

processing infrastructure.

Based on the Feasibility Study filed by Pershing on July 11, 2018, Relief Canyon is expected to have an average life of mine production of approximately 91,000 oz of gold per year over a 5.6 year mine life with an all-in sustaining cost of \$801/oz Au. The Project includes gold proven and probable reserves of 635,000 ounces, a measured and indicated resource of 789,000 ounces, and inferred resources of 45,000 ounces.

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Liberty Gold Provides Update Summary On Operations

VANCOUVER - Liberty Gold Corp. reported that the Black Pine in Idaho began the 16,000 metre (m) Reverse Circulation (RC) drill program in 80 to 100 holes, designed to test an oxide gold system estimated at over 12 square kilometres (km²) in size. In addition it has received approval of a Plan of Operations (PoO) that provides comprehensive access to the 7.3 km² core of the gold system.

A 9,600 m RC drill program at the Goldstrike property has commenced pursuant to expanding the existing resource that is included in a recently completed Preliminary Economic Analysis (PEA). The Company secured an Amendment to the PoO2 and received expanded access along the deposit trend, from a fragmented area of approximately 5.11 square kilometres (km²), to a contiguous 8.66 km² area. The remaining drill results reported from the 2018 RC drill program showed continued southern expansion of the mineralisation in the West Goldstrike Deposit: Including highlight intercepts of

0.98 g/t Au over 15.2 m and 0.81 g/t Au over 27.4 m, demonstrating mineralization is higher than average grade, and starts from surface, extending mineralization over 400 m west from the western edge of the historic Beavertail Pit with intercepts of 1.49 g/t Au over 16.8 m including 3.37 g/t Au over 6.1 m in PGS690, and continued to demonstrate the poten-

tial of areas currently classified as waste stockpiles within the PEA pit, with the results at Moosehead showing intercepts starting at surface, consisting of strongly oxidized, unconsolidated material. Highlights include 0.52 g/t Au over 12.2 m in PGS663 and 0.31 g/t Au over 18.3 m in PGS664.

The Black Pine (formerly called Mineral Gulch) is a

Carlin-style, sediment-hosted gold property located in Cassia County, southern Idaho. It is host to a past-producing heap leach gold mine that operated from 1991 through 1998. During this time, it produced approximately 435,000 ounces of gold at a historical grade of 0.7 grams per tonne from seven shallow pits. In June 2016, Liberty Gold acquired the Black

Pine Property from Western Pacific Resource Corporation for US\$800,000 cash, 300,000 shares of Liberty Gold and a 0.5% NSR reserved to Western Pacific. At present, the project consists of 400 federal lode claims (31.7 km²).

The company's address is Suite 1900 - 1055 W. Hastings, Vancouver, BC V6E 2E9, (604) 632-4677, www.libertygold.ca.

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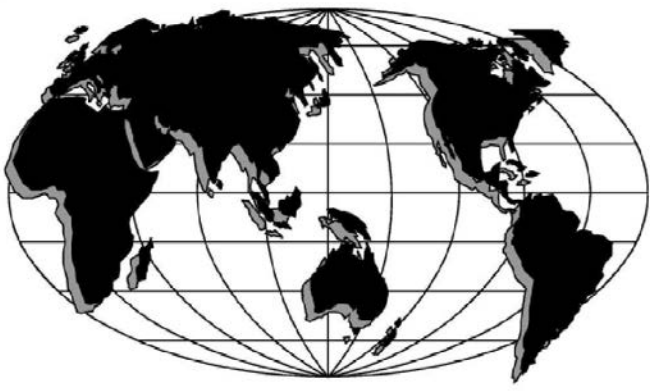
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Newmont Goldcorp Outlook Reports Steady Gold Production

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throughput and productivity gains at Tanami, offset by lower mining rates at KCGM following the wall slips and the continuation of stripping at Boddington. Production is expected to be 1.5 million ounces in 2020 and 1.6 million ounces in 2021 as Boddington accesses higher grade ore. KCGM's near-term production has been lowered due to the wall slips, but optimization work continues to recover the impacted ounces as part of the broader Golden Mile Growth Study. The Company continues to advance studies for a second expansion at Tanami and expects to reach a full-funds decision in the second half of 2019.

Africa production is expected to be 1.1 million ounces in 2019 with a full year of production from Subika Underground, higher grades from the Subika open pit and improved mill throughput in the second half of the year with the Ahafo Mill Expansion. Production is expected to be 930,000 ounces in 2020 with lower grades at Akyem and Subika open pit which are partially offset by higher underground grades at Ahafo and a full year of production from the Ahafo Mill Expansion.

In 2021, production is expected to be 1 million ounces as



Akyem reaches higher grades near the bottom of the pit. The company continues to advance the Ahafo North project and other prospective surface and underground opportunities.

Gold cost outlook – CAS is expected to be \$710 per ounce for 2019 following higher production at Ahafo, lower mining costs at Yanacocha and lower operational costs at Tanami with the completion of the Tanami Power Project. The Company continues to implement Full Potential cost and efficiency improvements and advance technology initiatives to offset inflation and input cost pressures. CAS is expected to be

\$750 per ounce for 2020 and between \$690 and \$740 per ounce longer-term through 2023. AISC is expected to be \$935 per ounce in 2019 on improved CAS in Africa and South America partially offset by higher sustaining capital. AISC is expected to be \$975 per ounce in 2020 and between \$875 and \$975 longer-term through 2023. Future Full Potential savings and profitable ounces from projects that are not yet approved represent additional upside not currently captured in guidance.

Attributable gold production increased two percent to 1.23 million ounces primarily due to a full quarter of mining at Subika Underground and higher grade at Merian and Yanacocha, partially offset by reduced mining and lower grade at KCGM. Attributable copper production decreased 17 percent to 10,000 tonnes for the quarter, primarily due to lower grades and throughput at Boddington, partially offset by higher grades at Phoenix. Copper CAS totaled \$43 million for the quarter. Copper CAS was \$1.94 per pound, an 11 percent increase over the prior year quarter due to lower production at Boddington, partially offset by higher production at Phoenix and a favorable Australian dollar foreign currency exchange rate. Copper AISC for the quarter rose nine percent to \$2.26 per pound primarily from higher CAS per pound.

Attributable Copper production is expected to be 45,000 tonnes in 2019 and 2020 as Phoenix reaches higher grade copper ore from the Bonanza pit which is offset by lower production at Boddington.

Copper production increases to between 45,000 and 65,000 tonnes longer-term through 2023 driven primarily from higher grades at Boddington following completion of the next stripping campaign. CAS is expected to rise to \$2.05 per pound in 2019 and \$2.10 per pound in 2020 due to higher stripping at Boddington. CAS is expected to improve to \$1.55 to \$1.75 per pound longer-term through 2023.

The Company's portfolio of assets, prospects is anchored in favorable mining jurisdictions in North America, South America, Australia and Africa. Newmont Goldcorp was founded in 1921 and has been publicly traded since 1925.

The company's address is 6363 South Fiddler's Green Circle, Suite 800, Greenwood Village, CO 80111, (303) 863-7414, www.newmont.com.

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Drilling Continues At The North Dark Star

VANCOUVER, BC - Gold Standard Ventures Corp. reported final drill results from its 2019 Phase 1 drilling at Dark Star. Results have now been reported for all RC and core holes completed in the Dark Star 2019 Phase 1 drilling program deposit, located on GSV's 100%-owned/controlled Railroad-Pinion Project in Nevada's Carlin Trend.

ties adjacent to the current Dark Star resource. The 2019 program also infilled the current resource to approximately 30m drill spacings for conversion to measured and indicated classification necessary for reserve estimation. The full suite of assays and drilling will be incorporated into the ongoing model update and resource estimate currently in progress.



Jonathan Awde, CEO and Director, said, "Phase 1 Dark Star infill and step out drilling was an unqualified success. We confirmed the deposit's consistently high-grade oxide character and achieved the drill density ultimately required for reserves in the Preliminary Feasibility Study now in progress. We also learned that oxidation extends deeper than expected, especially to the north, where grades improve at depth and where we believe we have further room to grow," Awde said.

In the northern portion of the deposit, two RC holes confirm extensions to thick zones of oxide mineralization identified during the 2018-19 step out and infill program.

DR19-73 intersected 138.7m grading 1.12 g Au/t, including 38.1 m of 2.61 g Au/t; and DR19-74 intersected 65.5m of 1.33 g Au/t, including 30.5m of 1.80 g Au/t. Additionally, core hole DC19-01, which was suspended at 231m, confirmed oxide mineralization, with 117.3m of 1.54g Au/t, including 44.3m of 2.55 g Au/t.

"This summer, the focus will shift from infill and step out to exploration. Phase 2 drilling will return to the zone between the Ridgeline and IDK Faults, which appear to be feeders to the Dark Star deposit, where we will test for deeper sulfide mineralization below the current resource. This is the type of target that has made Carlin so prolific as a gold producer."

In the 2019 Phase 1 program, 10,729m of drilling was completed in 71 RC holes and 231m in one core hole. The program was designed to test new targets at depth below the current resource model, and lateral resource expansion opportuni-

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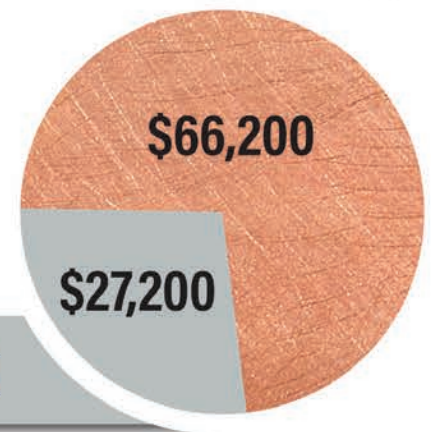
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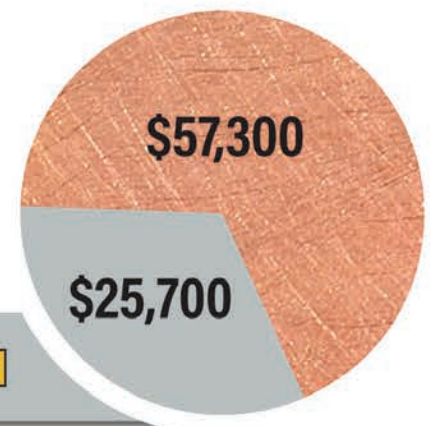
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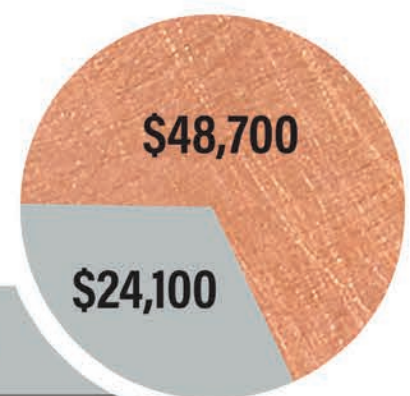
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FCX Advancing The Lone Star Copper Leach Project

PHOENIX, AZ - Freeport-McMoRan Inc. (FCX) President and Chief Executive Officer, Richard C. Adkerson said, "During the first quarter, our global team maintained its focus on providing products necessary to support growing economies around the world in a cost-efficient, safe and environmentally responsible manner. Our transition to underground mining at Grasberg, in Indonesia, is advancing according to plan, and we are encouraged by recent milestones. In North America and South America, FCX is advancing the Lone Star copper leach project in eastern Arizona and continuing to focus on opportunities to enhance operating performance from existing

mines. As we look forward, we are optimistic about the future that our asset base and copper market fundamentals are expected to provide shareholders. Our strategy will continue to focus on maximizing the value of our existing resource base through rigorous cost management, productivity and technology, executing our plan to successfully transition from open-pit mining to large-scale underground mining at Grasberg, generating cash flows to enhance shareholder returns and creating value organically from our large undeveloped resource position." Adjusted net income attributable to common stock totaled \$67 million in first-quarter 2019.

FCX has significant undevel-

oped reserves and resources in North America and a portfolio of potential long-term development projects. Future investments will be undertaken based on the results of economic and technical feasibility studies, and are dependent on market conditions. FCX continues to pursue projects to enhance productivity through innovative technologies and to study opportunities to reduce the capital intensity of its potential long-term development projects.

Through exploration drilling, FCX has identified a significant resource at its wholly owned Lone Star project located near the Safford operation in eastern Arizona. An initial project to develop the Lone Star leachable

ores commenced in first-quarter 2018, with first production expected by the end of 2020. Initial production from the Lone Star leachable ores is expected to average approximately 200 million pounds of copper per year, with the potential for future expansion options. The project also advances exposure to a significant sulfide resource. FCX expects to incorporate recent positive drilling and ongoing results in its future development plans.

North America's consolidated copper sales volumes of 320 million pounds in first-quarter 2019 were lower than first-quarter 2018 sales of 384 million pounds, primarily reflecting timing of shipments. North

America copper sales are estimated to approximate 1.4 billion pounds for the year 2019, similar to 2018.

FCX's mining exploration activities are generally associated with its existing mines, focusing on opportunities to expand reserves and resources to support development of additional future production capacity. Exploration results continue to indicate opportunities for significant future potential reserve additions in North America and South America. Exploration spending is expected to approximate \$70 million for the year.

The company's address is 333 N. Central Ave., Phoenix, AZ 85004, (602) 366-8100, www.fcx.com.



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TAILINGS & HEAP LEACH STEWARDS

Tierra Group sends our sincerest sympathies, thoughts and prayers to those affected by the Feijão tailings dam failure near Brumadinho, Brazil. May Peace be with them all.

Tierra Group envia nossas simpatias, pensamentos e orações mais sinceras aos afetados pela falha da barragem de rejeitos de Feijão perto de Brumadinho, Brasil. A paz esteja com todos eles



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HPGR At Rochester Mine To Benefit Operational Results

CHICAGO - Coeur Mining, Inc. reported that production is on-track to achieve full-year guidance ranges. Full-year finan-

cial and operational results expected to benefit from higher second half production driven by the anticipated impact of high-

pressure grinding roll (HPGR) technology at the Rochester Mine in Nevada.

Installation of HPGR unit at Rochester on-track despite unseasonably high snowfall levels, commissioning of the HPGR unit remains on-budget and on-schedule. Commissioning activities now underway and impact on silver recovery rates expected to be seen beginning mid-year.

At the Kensington, in Alaska, the company is now shifting focus at Jualin from development activities to production - Mining activities at Jualin transitioned from development to production during the first quarter, with the high-grade deposit contributing approximately 10% of Kensington's production at an average grade of 0.41 ounces per ton ("oz/t").

Jualin is expected to account for approximately 20% of Kensington's total production in 2019. Higher mining rates from Jualin are expected to contribute to higher production levels and lower unit costs throughout the remainder of 2019.

Continued commitment to success-based exploration program following last year's strong reserve and resource increases, 2019 drilling programs commenced by investing a total of \$6.6 million in resource expansion and conversion drilling tar-

geting Palmarejo and Kensington as well as the new Sterling and Crown deposits.

The Company is reaffirming full-year 2019 production guidance of 334,000 - 372,000 ounces of gold, 12.2 - 14.7 million ounces of silver, 25 - 40 million pounds of zinc and 20 - 35 million pounds of lead. In addition, full-year cost guidance is being reaffirmed.

First quarter 2019 financial results, includes revenue of \$154.9 million. Prior to changes in working capital, cash flow from operating activities totaled \$21.5 million. Including a non-cash write down of \$15.4 million taken in the quarter, the Company reported GAAP net loss from continuing operations of \$24.9 million.

Coeur's exploration activities during the first quarter focused on resource expansion and infill drilling at Palmarejo and Kensington as well as the Sterling and Crown projects, which were acquired in October 2018 as part of the acquisition of Northern Empire. The drill programs at Rochester and Silvertip are scheduled to resume in the second quarter. During the first quarter, the Company completed 27,724 feet of resource expansion drilling, a decrease of approximately 36% quarter-over-quarter. During the quarter, Coeur also

completed 62,402 feet of resource infill drilling, an increase of approximately 72% quarter-over-quarter. Total feet drilled during the first quarter was approximately 13% higher compared to the prior period, reflecting Coeur's continued commitment to its success-based exploration program.

The Sterling and Crown exploration properties located in southern Nevada, one reverse circulation rig was active during the first quarter. Exploration activities were initially focused on both infill and expansion drilling at the Sterling property. In March, the rig was moved to focus on expansion drilling at the South Daisy resource, which is contained in the Crown Block. Surface exploration mapping and sampling at the Crown Block has resulted in two new drill targets. As a result of this newly sampled area, new drill pads are being permitted for testing in the second quarter.

Drilling is planned to continue with one rig focused on the Daisy and SNA deposits in the Crown Block until the third quarter. Coeur expects to add additional rigs at the Crown Block later in the year.

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Operations Nearing Completion/Entering Commissioning Phases

TORONTO, ON - J. Paul Rollinson, President and CEO of Kinross Gold Corporation said, "The Company is on track to meet 2019 annual guidance for production, production cost of sales per ounce, all-in sustaining cost per ounce, and capital expenditures. During the quarter we advanced work on our development pipeline. The Nevada projects at Round Mountain Phase W and Bald Mountain Vantage Complex are nearing completion and entering their commissioning phases. The Fort Knox Gilmore project is on schedule and heap leach construction activities are ramping up."

The Round Mountain Phase W project, in Nevada is near completion, and continues to be on schedule and on budget. Construction of the new heap leach pad is now complete, with Phase W ore currently being placed on the pads. Commissioning of the processing circuit has commenced ahead of schedule, with initial solution being applied to the pads to prepare for completion of the vertical carbon-in-column (VCIC) plant, which is approximately 80% complete. Construction of mine infrastructure, including the truck shop, warehouse, wash bay and fuel island, is now 60% complete. Also in Nevada, the Bald Mountain Vantage Complex project is well-advanced, as the VCIC plant is approximately 70% complete, and the heap leach pad is approximately 90% complete, with ore being placed on completed portions of the pad. While unusually severe winter

weather has challenged the project budget and schedule, commissioning of the processing circuit commenced as scheduled at the end of Q1 2019 with solution now being applied on the heap to build solution grade. The project cost forecast is now expected to be approximately \$130 million, mainly due to weather challenges, higher than anticipated construction contract rates, and issues with the supply of some of the fabricated components. Construction of support infrastructure, including the truck shop, warehouse and wash bay, is 60% complete. An operations readiness task force has been established to ensure a smooth transition of the project to Operations.

In Alaska, the Fort Knox Gilmore project is progressing on schedule and on budget, with initial ore expected in early 2020. Procurement and contracting for 2019 heap construction activities are proceeding well, with the majority of contracts issued and awarded, and contractors mobilizing to site. Stripping is on schedule to commence in Q3 2019, with expansion of the dewatering system continuing on plan.

"We had an excellent first quarter built on strong operational performance and disciplined cost management. We continue to maintain our financial strength and solid liquidity and are once again well positioned to deliver on our annual production and cost guidance for the year. Our three largest operations – Paracatu, Tasiast and Kupol – all exceeded expectations.

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RENO, NV - Nevada Copper Corp. reported the filing of a new technical report for its 100%-owned Pumpkin Hollow property near Yerington, Nevada. This technical report supersedes all previously filed technical reports for the property. The underground project is currently in construction, with initial production forecast for the end of 2019, while the open pit project is in a study phase of development.

The technical report describes the Pumpkin Hollow property and its advancement based on a phased development approach of the underground and open pit deposits as stand-alone projects. The technical report includes a prefeasibility study for the stand-alone underground project initially completed in 2017, and a newly completed prefeasibility study for the open pit project at Pumpkin Hollow. The underground project is currently in construction, with initial production forecast for the end of 2019, while the open pit project is in a study phase of development. Development options and timing of the open pit project construction and operations remain flexible.

The open pit PFS demonstrates enhanced economics for Nevada Copper's open pit project as Nevada Copper continues to advance the open pit project towards an ultimate construction decision. The open pit PFS continues to apply the company's philosophy of phased development and low-capital intensity growth. The open pit project has all the material permits required for mine construction and operations.

Matt Gili, President and Chief Executive Officer, said, "We are very pleased with the new PFS for our open pit project at Pumpkin Hollow. The results clearly illustrate the potential to put this large, open pit project into production with a further improved internal rate of return and continued low capital and operating costs. The 2018 completed drill program included in the open pit PFS has successfully extended the open pit mineralization. Importantly, it also highlights the need for further drilling to test the full extent of the deposit and to continue expanding and upgrading the open pit resources. We continue to apply our strategy of pursuing low-capital intensity and staged production growth to generate shareholder returns. This same philosophy was applied in the development of the underground project, which we expect to commence production in Q4 2019. The study's focus of generating project value through an improved internal rate of return, has resulted in a higher grade driven mine plan. This means we expect the open pit project to be more robust with regards to lower copper prices, while also affording potential flexibility for mining more of the mineral resource under differing market conditions."

The company's address is 100 W Liberty Street, Suite 765, Reno, NV 89501, (775) 277-3127, nevadacopper.com.

Columbus LOI For Gold Project

VANCOUVER - Columbus Gold Corp. has signed a Letter of Intent (LOI) to acquire a pending exploration permit from a third party as part of its strategy to consolidate a portfolio of high-quality gold exploration projects in French Guiana, France.

The exploration permit covers the core of one of the most prominent placer gold mining districts in French Guiana, which is currently exposed to illegal artisanal hard rock mining of high-grade quartz-gold veins. The project area is interpreted to be underlain by prospective greenstone belt volcanic rocks, although the local geology remains poorly understood and unexplored despite intense placer mining activity in the past. The exploration permit has good access by well-maintained forestry roads, which provides for simple and low-cost logistics for transportation and exploration.

Columbus has conducted a preliminary geological evaluation of the project area. An important shear-tension vein system exposed by mine workings was prospected over a lateral distance of 1.6 kilometers. Quartz vein material sampled on the dumps of workings returned best gold values of 13.10, 24.35, 67.40, 96.25 and 160.00 g/t gold. Other mineralized vein and vein stockwork prospects sampled outside this structural corridor returned best values of 4.86 g/t gold and 20.21 g/t gold.



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Drilling Results And Summer Field Program At South Grass Valley

RENO, NV - Nevada Exploration Inc. (NGE) reported results from its recently-completed 4,000-metre core drilling program at its South Grass Valley Project, where, as previously announced, the Company has discovered a large mineralized Carlin-type hydrothermal system, successfully achieving the objective of the Phase 1 drilling program.

By integrating the geologic logging and assay results from the eight, wide-spaced, Phase 1 core holes with the Company's other geophysical and geochemical datasets, NGE has: (1) confirmed the presence of the critical components required to host a Carlin-type gold deposit ("CTGD"); (2) confirmed that the scale of the geologic system is consistent with that required to host a significant deposit; (3) built a geologic model to guide continued exploration at this otherwise blind, covered target; and (4) designed a program for the next stage of exploration at what NGE considers to be one of the most important projects in Nevada in terms of its potential to host a major new CTGD.

Wade Hodges, NGE's CEO, said, "If we look at the major Carlin-type systems in Nevada - company-making assets - these deposits are the product of critical geologic components, or building blocks, coming together at the same place at the same time, namely: the right bedrock needs to have been in contact with the right faults and structures that have been used to transport the right hydrothermal fluids that have contained the right concentrations of gold - which in these Carlin-type systems is also found along with a characteristic suite of pathfinder elements.

"Based on this known architecture, if there is a large CTGD at South Grass Valley, we would

expect massive volumes of characteristic lower-plate limestone bedrock, within a structurally complex setting, showing evidence of intense hydrothermal alteration, and containing enriched concentrations of gold and associated pathfinders. Establishing that these critical components are present together at South Grass Valley, and importantly that each exists at a scale consistent with those same features responsible for Nevada's major CTGDs, was the specific objective of the program; and as we've announced, this is exactly what we've found.

"We have literally uncovered a brand-new, potential Carlin-type district, and as the first exploration company to enter this search space, we believe we have the best opportunity of making a significant discovery here. Having successfully achieved our objective for our Phase 1 program, our job now turns to domaining the Project into smaller, discrete targets and identifying which of these targets provides the best geologic architecture to support higher-grade gold mineralization. Driven by the logging and analyses of the more than 2,500 core samples collected during Phase 1 drilling, we have decoded the bedrock layer cake at the Project, and have integrated this new information with the geophysics, mapping, groundwater, and soil sampling to build a geologic model for the Project including, importantly, structural geology, to drive our next phase of exploration.

With the clear and specific goal of giving us the best information to ultimately select the best targets for follow-up infill drilling, our plan for the coming months is to improve and expand our data coverage at what are now the edges of our geologic model, beyond the limits of the

Phase 1 drill holes, by collecting additional step-out core drilling, Scorpion drilling, and soil samples. We believe our progress to date is a good example of how to

systematically and responsibly de-risk a covered exploration project, and we look forward to advancing one of Nevada's largest new Carlin-type projects."

The company's address is Suite 1500, 885 West Georgia Street, Vancouver, BC V6C 3E8, (604) 601-2006, www.nevadaexploration.com.



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The Infamous Legacy of Upstream Tailings Dams

By Matt Fuller, LEG, P.Geo.
Tierra Group International, Ltd.

The mining industry was traumatized by the Feijão tailings dam failure in Minas Gerais (Brumadinho), Brazil on 25 January 2019. The Feijão failure occurred a mere 38 months since

the Fundao tailings dam failure (also in Minas Gerais) in November 2015, brought heightened awareness of the inherent risks associated with tailings dams constructed by the "upstream method" to retain conventional "wet" (slurry) tailings. The Fundao and Feijão tailings inci-

dents caused untold negative environmental impacts, more than 200 fatalities and total economic consequences to the mine owners exceeding billions of dollars. This article provides a "layman's" explanation of the upstream tailings dam construction method, its challenges, and potential consequences.

Dam Construction Methods

Tailings dam design/construction methodologies can be grouped into three fundamental categories with respect to the direction that the dam crest centerline advances horizontally as the dam crest is raised vertically (Figure 1).

All things considered, the three dam construction methods shown in Figure 1 can be considered to have a higher to lower potential dam failure risk from top (upstream) to bottom (downstream). Figure 1 shows that the upstream dam construction method results in a tailings dam crest constructed upon a larger profile of fine tailings (slimes). Tailings slimes are very fine grained, have low permeability and are susceptible to "liquefaction".

Liquefaction is a geotechnical phenomenon whereby a seemingly solid or semi-solid saturated soil mass subjected to increased pore pressure (pore pressure is the force that water occupying the space between soil particles imparts on the soil particles) morphs into and behaves as a fluid. Liquefaction can be triggered by earthquake shaking ("dynamic" liquefaction), or by a steady increase in pore pressure due to static loading, i.e. "static" liquefaction. Case studies have shown that pore pressure within

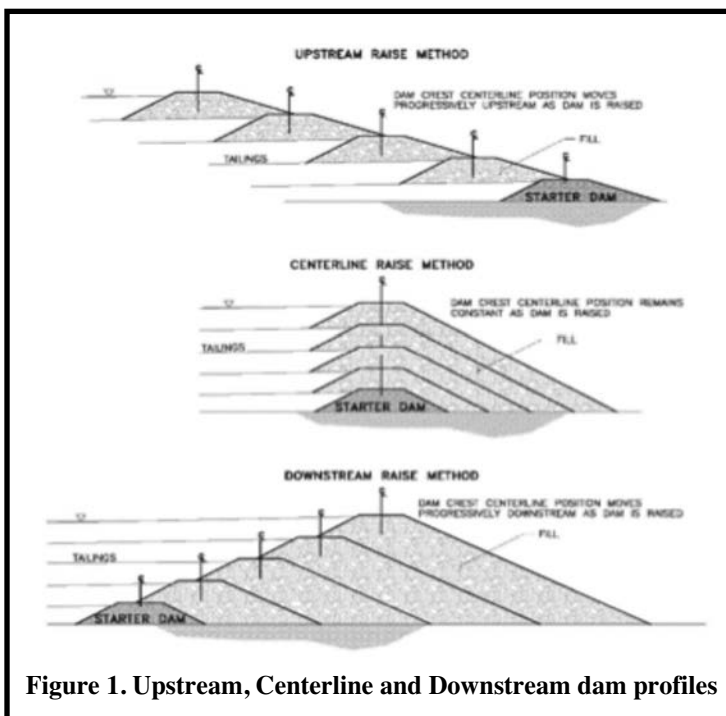


Figure 1. Upstream, Centerline and Downstream dam profiles

liquefiable tailings have increased to a point where they overcome resisting forces (dam geometry), causing the tailings to liquefy, leading to a tailings dam slope failure. The essentially instantaneous failure is typically followed by a release of saturated tailings and water in a tailings or "mud" wave to downstream environs.

Upstream Tailings Dam-History

In the 1800's and early 1900's nearly all mineral extractive processes resulted in a mixture of finely crushed ore and water (slurry). A high water to solids ratio slurry allowed operators to discharge tailings from the process plant by gravity. Typically, this was accomplished by positioning the plant on a topographic high point adjacent to a waterway (stream or river). Proximity to a stream allowed operators to cap-

ture fresh water upstream of the plant, use it in the process plant, and then discharge plant effluent (tailings) downstream of the plant (typically back into the stream).

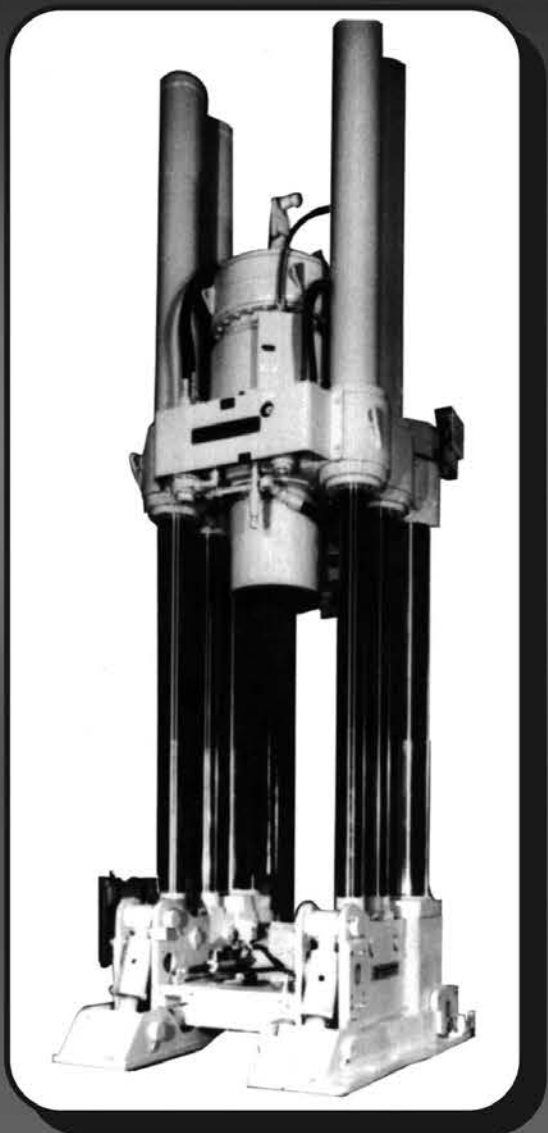
In the mid-20th century mine operators initiated the concept of tailings "storage" as an alternative to tailings "discharge". Tailings storage could be accomplished by constructing a dam in a valley and depositing the tailings behind (upstream of) the dam (much like a water storage reservoir). Operators were however challenged by capital tailings dam-construction costs, which as a capital cost, which hurts the bottom line. To minimize up-front capital expenditures to construct a dam capable of storing tailings for the life-of-mine, operators looked for ways to economically initiate tailings storage, and then cost-effectively



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increase tailings impoundment storage capacity over time.

This ingenuity resulted in the “upstream tailings dam” construction method. Operators discovered whole tailings slurry from the plant could be separated into a course (cyclone-underflow, “sand”) and fine (cyclone-overflow, “slimes”) fraction at the dam using hydro-cyclones. Tailings sand (underflow) provided a free-draining “dam” construction medium, which could be used to construct an embankment to retain tailings slimes on its upstream side. Operators accomplished this by:

- Initially constructing a small (“starter”) dam using locally available earthen materials near the end of a valley;
- Cycloning tailings near the starter dam and depositing the underflow sands atop the starter dam, while simultaneously depositing tailings slimes behind (upstream) the dam;
- With time, free and interstitial water in the tailings slimes would segregate away from (upstream) the dam creating a “tailings beach” adjacent to the upstream side of the cyclone-sand dam;
- Subsequent tailings dam raises were realized by depositing underflow tailings sand atop the tailings beach to create a higher “lift” of the dam crest, behind which additional slimes were deposited to create another beach, over which a future dam raise could be constructed;
- By repeating this cycle, the dam could be raised in the upstream direction until the dam reached the full-height of the valley ridges (dam abutments) forming the valley (Figure 1).

The Legacy

Upstream tailings dam construction has been utilized for close to a century. In the mid-20th century the engineering community began to intensely study and understand liquefaction, which lead the industry towards avoiding the upstream dam construction method. In fact, several high-seismic mining jurisdictions have banned the upstream tailings dam construction method entirely (e.g. Chile and Perú). There are however those jurisdictions where the upstream method has been used for many, many generations and is continued to this day. Brazil is one such jurisdiction, and the Marianas (2015) and Feijão (2019) tailings dam failures are symptomatic of the inherent associated risks thereof.

Closing and reclaiming upstream tailings dams will lower the risk of future failures however it is not fool-proof. The very low permeability of tailings slimes prevents them from dewatering “quickly” resulting in their remaining saturated for decades in many cases (particularly in tropical climates where rainfall is high and low-permeability soils underly the tailings basins). The Feijão tailings impoundment was reportedly “in closure”, hadn’t received tailings in two to three years, and was undergoing active care and maintenance when it failed.

There are hundreds (if not thousands) of upstream tailings dams in various states of activity, or inactivity around the world (reportedly there are 88 in Brazil alone). Tierra Group is currently working at a mine in Mexico that has six upstream tailings dams on the property (five are legacy tailings storage facilities). Another Tierra Group site has three (two active, one legacy). It is Tierra Group’s experience that it is quite rare to visit a mine site in Mexico more than a decade or two old

that has not historically utilized the upstream dam construction method. To this end the worldwide inventory of legacy upstream tailings dams is likely unknown.

An associated concern with the upstream construction method legacy is what the author refers to as the “that’s the way we’ve always done it...” commonality amongst these facilities. The upstream dam construction method was developed long before the advent of modern geotechnical engineering understanding, analyses, technology, and design. The author has personal experience with:

- Two separate centerline tailings dam designs (at the same mine) that were developed in the 1960’s and 1970’s decades without any engineering analyses whatsoever;
- A current operating tailings storage facility in Brazil whose operators stated that they were using certain design-slopes because, “that’s the way they did it at a previous mine site they worked at”; and
- Being told an unaccountable amount of times over the past 30-years working in Latin America that tailings design’s and operations are done the way they are because...you guessed it... “that’s the way we’ve always done it...”.

The author just returned from a site reconnaissance to a mine in South America that has been operating for more than 100 years. The latest tailings dam in operations is a single-stage earth fill dam. All previous tailings dams however were constructed by either the upstream or centerline method.

This is not to say that mining company’s tailings dam designers have not advanced their engineering analytics and design expertise over the past several decades. In fact, they certainly have, by:

- Utilizing modern-day geotechnical sampling and laboratory testing procedures;

- Applying contemporary geotechnical analytical software programs; and

- Implementing new and advancing technologies (i.e. geosynthetics, drainage products, etc.) into their designs.

Quite often however these approaches are used in a highly “prescriptive” manner, which may or may not be specifically applicable in the case of upstream tailings dam construction. A case in point is the application of traditional 2-dimensional slope stability analyses to estimate factors of safety against slope instability. While traditional seepage and slope stability computer models are an acceptable industry practice for dams constructed using soil and rock and considering a phreatic surface (water level) through the dam, it is not necessarily appropriate for an upstream tailings dam where the dam crest is constructed over a “liquefiable mass” (that once liquefied behaves like a fluid). In this case more sophisticated liquefaction and deformation analyses considering non-Newtonian flow characteristics (a media whose flow characteristics change under vary-

ing forces) of liquefied tailings may be more appropriate to understand the potential dam failure mechanism, and post-failure impacts.

Today’s Engineers’ Challenge

Inevitably today’s tailings design engineers are asked to find ways to technically (and economically) extend tailings storage at existing (legacy) operations where upstream tailings disposal methods have been traditionally utilized. This request presents can present a myriad of challenges, including but not limited to an operator’s:

- Lack of knowledge of the true environmental, social and economic risks and liabilities associated with tailings dams constructed by the upstream method (although this is becoming ever more transparent considering recent tailings dam failures);
- Cultural hesitance towards the rigors of current engineering practice required to best characterize an historic (operational or non-operational) facility prior to determining the technical and economic feasibility of its continued use;
- Lack of appreciation for the

rigorous engineering analysis and design necessary to bring an existing upstream tailings dam design up to a standard of care consistent with current, internationally accepted engineering practice; and

- Pressure to maintain (or increase) production while minimizing capital and sustaining capital expenditures.

Closing

Following on the Feijão and Marianas tailings dam failures it is with a heavy heart that this article is written. To lose but one more life to an upstream tailings dam failure knowing what is known today about the associated risks is senseless. It is therefore incumbent on the engineering community to educate and advocate mine operators and regulators on behalf of society and the environment, to the risks and liabilities associated with the continued use of upstream tailings dam construction, which is why this article was written.

Tierra Group extends their sincerest condolences and heartfelt sympathy to those affected by the recent Feijão tailings dam failure near Brumadinho, Brazil.

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EARN-IN AGREEMENT

Northwestern Nevada Gold-Silver Exploration Project

GOLDEN, CO - Golden Minerals Company has entered into an earn-in agreement with Golden Gryphon Explorations for the Sand Canyon project in northwestern Nevada, where surface work has identified a large unexplored system of epithermal veins. The project consists of 527 claims totaling approximately 16 square miles.

It is located 50 miles northwest of Winnemucca and 18 miles northwest of the historic Sleeper Gold Mine that was operated by Amax Gold Inc. and produced approximately 1.7 million ounces of gold and 2 million ounces of silver between 1986 and 1996. Initial sampling and mapping conducted by Golden Gryphon and confirmed by

Golden Minerals have identified multiple sets of epithermal veins on the property exposed at a high level and generally trending north to slightly northeast.

Warren Rehn, President and Chief Executive Officer, said, "Sand Canyon is an exciting prospect that hasn't been drilled despite being located in an area of several major modern gold

mines. We are optimistic about the strength of the epithermal system that is expressed at surface by clear geochemical anomalies associated with high-level quartz veining and breccias. This is an excellent exploration-stage project with multiple targets that appear to be similar in surface expression to the discovery outcrops related to the

Sleeper Mine. We anticipate moving rapidly through the targeting stage and expect to begin drill testing late this year. I am quite pleased to be exploring in Nevada again, particularly at this highly prospective property."

The company's address is 350 Indiana Street, Golden, CO 80401, Tel: (303) 839-5060, www.goldenminerals.com.



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Robertson Project Activities Continue To Advance In The Cortez Region, NV

VANCOUVER - Coral Gold Resources Ltd. reported that Barrick Gold continues to advance activities on the Robertson Project in the Cortez region of Nevada where Coral retains a net smelter returns royalty (NSR). Barrick recently delivered its summary of work completed at Robertson, reporting that the 2019 core drilling program (13,920-meters) began in early March. Drilling has focused on infill and comparison drilling at the Porphyry and Altenburg Hill zones and infill drilling at the Gold Pan/39A zone.

Barrick is also developing updated geological and metal models for completion by end of Q2 2019. This work includes data addition from 45 core holes drilled in 2018 to develop the mineral inventory, upgrade the geology understanding and advance metallurgy. Barrick noted that, "Results from 2018 whole core assaying increased the grade thickness and highlights a previous under sampling trend."

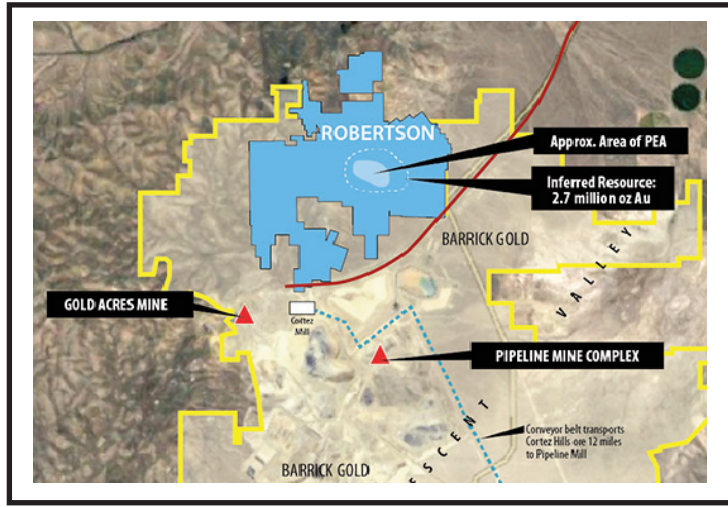
"We're very encouraged to hear about the increasing grade thickness and also that past work at the property under-reported grades," said Coral's President and CEO David Wolfin. "This is positive news, and it speaks to Barrick's thoroughness and methodical approach to completing prefeasibility work, modifying their sampling program to utilize large volume, whole core assaying to overcome analytical vari-

Marathon Drilling Further Confirming Main Zone Gold

TORONTO - Marathon Gold Corporation reported continued success of the infill drilling campaign at the Marathon deposit, located in Newfoundland and Labrador. The new drilling has returned excellent results proving further lateral and vertical continuity of the high-grade gold between adjacent drill holes and confirming significant gold intervals in both hanging wall and footwall zones of the deposit to help reduce the strip ratio for the open pit. These drilling results continue to provide further confirmation of Marathon's geological model and will assist in upgrading existing inferred resources within the Marathon Deposit into the Measured and Indicated resource categories.

"The 2019 drilling program is producing impressive results at the Marathon and Leprechaun deposits. At Marathon, the Main Zone is being drilled at a spacing of 10 to 20 meters between holes to give Measured and Indicated resources showing very good correlation with most of the high-grade intercepts in adjacent holes," said Phillip Walford, President and CEO. "All of the holes we are reporting are in the Marathon PEA pit shell and the longer intercepts will have a positive impact on the resource grade."

The company's address is 10 King Street East, Toronto, ON M5C 1C3, (416) 987-2366, www.marathon-gold.com.



ables. As I have said a number of times, there is absolutely no better partner for us in this region than Barrick."

Barrick also reported that baseline study work, including waste/mineralized material characterization is ongoing, along with Phase II heap leach column testing. Baseline study

work must be completed prior to the permitting stage. SEM (Scanning Electron Microscopy) mineralogy analysis was also completed on 2018 rock samples.

The company's address is Suite 900, 570 Granville Street, Vancouver, BC V6C 3P1, (604) 682-3701, www.coralgold.com.

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Drill Holes Intersect Cu At The Knife Lake Project

VANCOUVER, BC - Rockridge Resources Ltd. reported results from the first two drill holes of its inaugural winter drill program at its flagship Knife Lake Project located in Saskatchewan. Interpretation and QA/QC has been completed on the first two holes and additional results on the remaining ten holes will be released as interpretation and QA/QC work is completed. Rockridge recently entered into an Option Agreement with Eagle Plains Resources Ltd. to acquire a 100% interest in the Property that covers the majority of the historical Knife Lake Cu-Zn-Ag-Co VMS deposit. The contiguous claims total approximately 85,196 hectares and are located approximately 50 km northwest of Sandy Bay, Saskatchewan.

Analytical results ranged from trace values to broad and high grade intercepts. Drill hole KF19001 intersected net-textured to fracture-controlled sulphide mineralization between 7.5m to 40.6m, returning 33.1m (core length) of 1.28% Cu, 0.12 g/t Au, 4.80 g/t Ag, 0.13% Zn, and 0.01% Co for an estimated 1.49% CuEq. Drill hole KF19002 intersected net-textured to semi-massive sulphide mineralization between 9.7m to 53.5m, returning 43.8m (core length) of 0.78% Cu, 0.07 g/t Au, 2.54 g/t Ag, 0.07% Zn, and 0.01% Co for an estimated 0.93% CuEq. Of note, anomalous gallium of up to 23.1 ppm and indium of up to 15.2 ppm were intersected in both the mineralized zones from holes KF19001 and KF19002. Drill holes KF19001 and KF19002 successfully confirmed mineralization in historical drill holes.

President and CEO, Jordan Trimble said, "We are excited to report the results from the initial two holes of the winter drill program as they illustrate the shallow, strong tenor of copper mineralization at the Knife Lake Project. Results from ten additional drill holes are pending which will provide steady news flow and catalysts over the near term. This inaugural drill program represents the first meaningful exploration carried out on the project in over eighteen years as we execute on our strategy of going back into overlooked projects in favourable jurisdictions and

applying modern exploration techniques and methodologies to make new discoveries."

The Company has completed twelve holes consisting of 1,053m of diamond drilling in the 2019 winter drill program. This represents the first work on the property since 2001 and has two primary objectives: confirm the tenor of mineralization reported by previous operators and expand known zones of mineralization. All activities will advance the project toward the goal of completing a NI 43-101 compliant mineral resource estimate.

Compilation and initial modelling indicates potential for expansion of the historical deposit at depth. The current drilling has been focused on resource upgrade and expansion as well as infill drilling between historical holes. The program will also give the Company's technical team valuable insights into the property geology, alteration, and mineralization that will be applied to future regional exploration on the highly prospective and underexplored land package.

Knife Lake contains typical VMS mineralogy which has been significantly modified and partially remobilized during the emplacement of granitic rocks. Therefore, the known historical deposit may represent a remobilized portion of a presumably larger "primary" VMS deposit based on general observations about the mineralogy, mineral textures and metal ratios in the deposit. Most of the historical work consisted of shallow drilling at the deposit area with little regional work carried out and limited deeper drilling below the deposit. As a result, there is strong discovery potential both at depth and regionally.



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PERMITTING

Grassy Mountain

WINNEMUCCA, NV - Paramount Gold Nevada Corp. reported that it received acceptance of the Noise Baseline Data Report (BDR) as complete from the Oregon Department of Geology and Mineral Industries (DOGAMI). The purpose of the Noise BDR is to document the existing noise levels at several locations near the proposed Grassy Mountain Mine, along the access road and at a nearby campground prior to the commencement of mining operations.

The company's address is 665 Anderson Street, Winnemucca, NV 89445, (866) 481-2233, www.paramountnevada.com.



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EM Survey Commences At Alaska Red Mountain Project

AUSTRALIA - Diversified explorer and near-stage producer, White Rock Minerals Ltd with joint venture partner Sandfire Resources NL reported the commencement of a comprehensive airborne electromagnetic (EM) geophysical survey being flown at the Company's globally significant Red Mountain high-grade zinc and precious metals VMS project in central Alaska. White Rock's comprehensive exploration program for 2019 has started with the commencement of an airborne electromagnetic geophysical survey.

This programme is the next step in identifying key drill targets after a successful drilling campaign in 2018 which included intersections of 4.7m @ 19.5% zinc, 7.8% lead, 466g/t silver, 6.9g/t gold and 1.5% Cu and 4.3m @ 4.8% zinc, 2.3% lead, 1,435g/t silver, 2.2g/t gold and 0.5% Cu.

White Rock's Managing Director, Matthew Gill said, "The airborne EM survey, which commenced flying over

the Easter weekend, is an exciting step forward for the project and signifies the start of the summer field season in Alaska. This is the first time that a modern technology time-domain airborne EM survey has been used at Red Mountain to explore for massive sulphide mineralisation. The previous survey done by the Alaskan government in the mid 2000's used shallow looking frequency domain technology to map the surface geology. We are really pleased to be using a modern, high-powered technique over our 475km² strategic belt-scale regional tenement package as the first step in our comprehensive exploration program for 2019. The 3,000 line kilometre SkyTEM airborne electromagnetic (AEM) survey is capable of identifying conductivity anomalies to depths of 300 metres below the surface that could fast-track a significant new discovery.

This exploration season will

be the first in the joint venture relationship between White Rock and Sandfire, with Sandfire having recently signed an earn-in and joint venture agreement to work with White Rock on this prospect. The regional targets identified by this EM survey will form a key part of our comprehensive exploration program this field season. Other activities this season will involve using satellite spectral analysis, and on-ground geological reconnaissance and soil sampling.

These activities will complement planned electrical ground geophysics (CSAMT and MT) and a diamond drill program to follow-up the successful discovery at the Hunter prospect in 2018 and to test the best of the regional targets defined by this cutting edge multidisciplinary use of airborne EM, stream geochemical anomalies, new satellite defined alteration, whole rock lithochemical.

American Pacific Mining Announces JV With OceanaGold

VANCOUVER, BC - American Pacific Mining Corp has entered into an earn-in agreement in respect of APM's Tuscarora Gold Project with OceanaGold U.S. Holdings Inc. OceanaGold is an Australian-based, mid-tier mining company with numerous producing assets, including the largest producing gold mine in New Zealand, the Macraes Goldfield Mine.



Warwick Smith, CEO of APM, said, "We are very pleased to partner with OceanaGold at Tuscarora in Elko, Nevada. Both sides will work to add value to the project and define further drill targets across the large and historic land package. This announcement adds excitement to the project and the company as we enter a new exploration season. OceanaGold is the perfect partner in our eyes, especially with the success they have had at Waihi in New Zealand—a similar high-grade epithermal system. For a company of our size, this transaction is a big milestone."

Eric Saderholm, President of APM said, "A joint venture with a mid-tier producer, such as OceanaGold, adds to the merit of this high-grade, epithermal gold project. Nevada is the top investor-friendly jurisdiction for mining, and I look forward to working alongside the OceanaGold team as we move this gold discovery ahead at Tuscarora."

The company's address is Suite 910, 510 Burrard Street, Vancouver, BC, V6C 3A8, (866) 646-5389, americanpacific.ca.

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First Gold Production At The Isabella Pearl In Nevada

COLORADO SPRINGS, CO - Gold Resource Corporation reported first gold production from Isabella Pearl in its Nevada Mining Unit ahead of schedule. The Company broke ground on the Isabella Pearl project in June 2018 with the goal of first gold production by twelve months in June 2019. After ten months of construction progress, the Company previously announced that it had

begun the initial stages of gold processing by applying and circulating leach solution to ore loaded on the heap leach pad. With the focus on reaching cash flow at the earliest possible time, two panels under leach, and final construction of the project's ADR processing facility ongoing, management decided to utilize a third-party to process gold loaded carbon accumulating in the ADR plant and

pour gold dore ahead of schedule. The dore will be shipped and sold to a refinery in the coming days. The spent carbon was regenerated and will be returned to the process cycle at the Isabella Pearl project. Additional gold loaded carbon shipments are planned in the next few days.

"It is a tremendous milestone to have produced our first gold dore from Isabella Pearl in

just over ten months from breaking ground on the project," said Jason ReidGold, CEO and President. Building a project like this is so exciting. An incredible amount of planning, work and problem solving goes into bringing a project like this online. Our team is still working hard to complete the final portions of the ADR process facility, from which we expect to pour dore bars on site

in the future; however, after evaluating the ease of delivery and reasonable cost to utilize a third-party to process our gold infused carbon, it was an easy decision to achieve cash flow sooner than anticipated. These initial first several hundred ounces of gold are the beginning of what we believe will be a great gold project for Gold Resource Corporation shareholders.

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Production At Greens Creek Mine Exceeds Expectations

COEUR D'ALENE, ID - Phillips S. Baker, Jr., Hecla's President and CEO of Hecla Mining Company said, "Because of Greens Creek's exceptional performance, Hecla's first quarter was largely as expected, financially." said Phillips S. Baker, Jr., Hecla's President and CEO. "Greens Creek exceeded expectations for both gold and silver production due to higher grades and recoveries. Casa Berardi and our Nevada operations both produced less cash flow than expected.

Casa Berardi's gold production was lower in part due to lower grades, which were expected, and also due to the lower mill throughput resulting from some temporary issues in the mill that have now been addressed, and we expect results to improve over the rest of the year. While Nevada operations had better development advance rates, the operating metrics including cost, grade and negative cash flow, were unacceptable. We are reviewing our Nevada operations to determine the best path forward and expect the results of this review in the second quarter. In the meantime, we are suspending our annual Nevada estimates for production and cost. We are maintaining our annual estimates for capital and exploration spending to maintain our liquidity and balance sheet."

At the Greens Creek mine in Alaska, 2.2 million ounces of silver and 14,328 ounces of gold were produced, compared to 1.9 million ounces and 13,118 ounces, respectively, in the first quarter of 2018. The increase was the result of higher silver and gold grades and recoveries, partially offset by reduced ore throughput. The mill operated at an average of 2,298 tons per day (tpd) in the first quarter compared to 2,349 the first quarter of 2018.

In Quebec, the Casa Berardi mine produced 31,799 ounces of gold, including 6,535 ounces from the East Mine Crown Pillar (EMCP) pit, compared to 40,177 ounces in the first quarter of 2018. The decrease was expected due to lower grades and to lower mill throughput and recovery as a result of adjustments to mill components to accommodate a higher throughput and the requirement for a new carbon in leach (CIL) drivetrain, which is being installed in early May. The shortfall in production in the first quarter is expected to be made up over the remainder of the year. The mill operated at an average of 3,664 tpd in the first quarter, a decrease of 5% compared to the first quarter of 2018.

San Sebastian Mine in Mexico produced 441,079 ounces of silver and 3,530 ounces of gold in the first quarter, compared to 512,192 silver ounces and 4,513 gold ounces in the prior year period. The decreases were due to lower grades, as expected, upon transitioning to increased throughput coming from underground mine material, versus higher-grade open pit. The mill operated at an average of 494 tpd in the first quarter, a 29% increase over the first quarter of 2018. A review of the sulfide ore continues, including a bulk sample to test the capabilities of the third-party plant and the suitability of long-

hole stoping for the ore body, with results expected by the fourth quarter of 2019.

Hecla's Nevada operations produced 10,364 ounces of gold and 67,438 ounces of silver. Advance rate increased 27% from the fourth quarter of 2018 but milled tons declined 30%. Capital investment increased from the fourth quarter by \$4 million to \$21.8 million. Of that

amount, \$15.8 million was for development at Fire Creek and Hollister, including \$4.2 million for the Hatter Graben decline.

The Company is demobilizing the mining contractor, mining some previously-developed remnant stopes at Midas and considering other alternatives to reduce the cash spend and improve the cash flow at the Nevada operations. Some of the

possible alternatives include third party processing, reducing development, and changing grade control procedures. Pending the outcome of the review, the annual production and cost estimates for Nevada are being suspended.

Silver production of 173,627 ounces increased 74% over the prior year period at the Lucky Friday Mine in Idaho. This is

mainly due to a shift in focus from development to production by the salaried staff. The higher level of production is helping to defray more costs associated with the strike at Lucky Friday than originally anticipated. The mine recently celebrated two years of operations without a Restricted Work Duty Injury (RWDI) or Lost Time Injury (LTI).

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