

Kopy Goldfields AB (publ) Press release 10/2019 Stockholm, June 19, 2019

Net present value (NPV) for Krasny varies from MUSD 100 to MUSD 300 pre-tax according to new Scoping study

Kopy Goldfields AB (publ) ("Kopy Goldfields" or "the Company") is pleased to announce new positive results from the independent scoping study for its 49% stake in the Krasny gold project, located in the Irkutsk region of Russia. The scoping study, performed by AMC Consultants Pty Ltd from Perth, Australia (AMC), provides several production scenarios for developing the Krasny project either as an open pit alone, or combined open pit and underground mine, with annual processing plant throughput capacities varying from 0.4 Mt to 3 Mt. All scenarios would return positive NPVs before application of potential tax benefits.

The Krasny project is a joint venture between PJSC GV Gold (51%) and Kopy Goldfields AB (49%).

The recommended production option for Kopy Goldfields, providing the highest internal rate of return (IRR) but not the highest NPV for the investments, is one that uses an annual 1 million tonne plant throughput rate and a combined open pit and underground mine at the Krasny deposit in combination with an open pit mine at the Vostochny mineralization. This option was evaluated using a gold price of USD 1,300/ounce and features the following\*:

- Pre-tax NPV of USD 90 to 104 million at 6% discount rate and pre-tax IRR of 20% to 26%
- Mine life of approximately 16 years and a discounted pre-tax payback period of 6 years
- Total capital expenditure (CAPEX) of approximately USD 107 million with upfront CAPEX of USD 66 million
- Average metallurgical recovery over mine life of 87% using a gravity-flotation-CIL flowsheet
- Average gold head grade of 1.8 g/t
- Average life of mine (LOM) annual gold production of 40,000 to 50,000 ounces
- Average LOM stripping ratio (including both open pit and underground) of 7 tonnes waste per tonne of ore

\* Cautionary Statement: The reader is advised that, in general, the level scoping study, incl. the one summarized in this press release, is based on technical and financial assessments that are insufficient to support Ore Reserve estimates or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the scoping study will be realized. It is only intended to provide an initial review of the project potential and design options. The scoping study's mine plan and economic model is partially supported by Inferred Mineral Resources. For the featured case, the proportion of Krasny Inferred Mineral Resources in the overall Mineral Resource considered in the mine plan was 17%. There is no guarantee that Inferred Mineral Resources can be converted to Indicated or Measured Mineral Resources or that the indicated average grades can be achieved, and as such, there is no guarantee the project economics described herein will be achieved. Economic modeling was conducted at the project level and there has been no consideration of the owner's taxation or financing matters. Supporting information is provided in a technical memorandum available on the Kopy Goldfields website at: www.kopygoldfields.com.

"We are very pleased with the results. The new scoping study was ordered as part of the Krasny sale process and was based on the latest Mineral Resource report completed in September 2018. We have always been confident that Krasny will eventually become a mine and the new report reconfirms that. I should stress that all the PEA/scoping studies we have completed over the past few years have shown positive values for mine development. This scoping study offers several approaches to developing production at Krasny, varying from 0.4 Mt to 3 Mt of ore production per year. Large-scale operations provide better operating cash margins but imply high upfront capital costs and require further exploration activities to convert Inferred Mineral Resources into Indicated and Measured," says Mikhail Damrin, CEO of Kopy Goldfields AB.



"Krasny is in a prospective region, where there are several existing projects in operation and others in the exploration or development stages, including the Sukhoi Log Project. AMC reviewed the provided reports and data for Krasny and developed several alternative approaches to resource modeling and mining the mineralization utilizing common mining and processing techniques. The results from this preliminary study show positive attributes for consideration by the project owners and warrant further investigation to lift the confidence of the Mineral Resource estimate and modifying factors to a point where feasibility studies may be completed and Ore Reserves could be estimated by the owners," says Adrian Jones, Principal Mining Engineer from AMC.

# **Possible mining options**

Different production scenarios were developed within the scoping study, and four of them are summarized in Table 1 below. In general, most of the modeled cases were limited to the Krasny deposit only, and all cases have positive NPV values.

The recommended mining option is based on open pit and underground mining at the Krasny deposit, combined with open pit mining at the Vostochny mineralization (marked in grey in Table 1). Inclusion of gold resources from the Vostochny mineralization extends the mine's life and financially strengthens the project. The production scenario to achieve this involves a plant throughput of 1 Mt per year for an initial 8 years of operation, focusing primarily on the Krasny Upper structure. A total of 258 koz of gold could be produced at this stage. In parallel, exploration of the Krasny Lower structure and the Vostochny structure could proceed to allow the application of the Modifying Factors via a pre-feasibility study (PFS) or feasibility study (FS) to convert Mineral Resources to Ore Reserves and to prepare for production. Starting from year 8 and until the end of mine life, the Vostochny open pit mine could then produce an average of 500,000 tonnes per annum (tpa) of plant feed containing approximately 200 koz of gold. An additional 500,000 tpa could be sourced from a Krasny underground operation, with total production in excess of 400 koz of gold at full capacity until approximately 2035.

Although this mining scenario does not provide the highest NPV, it is recommended as the base case scenario as it offers the shortest payback period, the highest IRR and modest up-front CAPEX of USD 66 million to commence gold production. Further CAPEX of USD 42 million will be required after 7 years of operation to proceed with underground mining at Krasny. By then, the initial CAPEX would already be repaid, and free cash flow would be generated. This production scenario could be launched with limited further exploration needed to complete an FS.

The highest NPV and lowest operating costs are achieved with the 3 Mtpa open pit mine production scenario with no underground mining. However, this scenario requires higher upfront capital cost expenditure. In order to justify this and reduce project risks, additional exploration studies and drilling at Krasny would be required to convert the majority of Inferred Mineral Resources of the Krasny Lower structure into Measured and Indicated Mineral Resources before detailed production planning could begin.

A production scenario for developing the Krasny project has not yet been chosen. Some production scenarios reviewed below do not include mining the Vostochny mineralization, not because of the merits of Vostochny itself but due to the preliminary nature of the scoping study level review. Apparently, adding development of Vostochny to the mining plan improves the mining economics as can be seen by comparing mining methods 2 and 4 in Table 1 below. All the mining options return positive NPV and advocate further project development. The choice of mining scenario will influence the timing of the production start and initial CAPEX required for the project.

Table 1. Comparison of Krasny production scenarios – gold price of USD 1,300/oz

Production Scenario	0.4 Mtpa Open Pit**	1 Mtpa Open Pit and Under- ground**	3 Mtpa Open Pit**	1 Mtpa Krasny Open Pit and Underground with Vostochny
	1	2	3	4
Pre-tax NPV at 6% discount rate, MUSD	16	62	301	104
Pre-tax IRR, %	11	23	20	26
LOM, years	16	15	12	16
Mill capacity pa, Mt	0.4	1.0	3.0	1.0
Average gold grade, g/t	1.2	2.0	1.6	1.8
Total CAPEX, MUSD	38	105	150	107
Average open pit stripping ratio, t/t	5.0	4.5	13	7
Average LOM annual gold production, koz	13	39	110	47
Average operating costs, USD/oz	860	1 100	930	1 100
Pre-tax undiscounted payback period, years	11	5	8	5

<sup>\*\*</sup>Indicates options that include production from Krasny open pit only.

All figures are stated before Russian income taxes are applied. In general, the Russian income tax rate is 20%. However, for capital investment projects in the Russian Far East and Baikal region, various tax benefits relating to royalties, profit and property taxes are scheduled and we expect that Krasny will qualify for at least some of them. In addition, costs for repatriating profits from Russia were not analyzed at this study level.

AMC recommends the following additional feasibility level assessments before deciding to proceed:

- Additional resource drilling to improve the confidence level of Inferred Mineral Resources to at least the Indicated category to support estimation of sufficient Ore Reserves to support an economically viable project.
- Mine planning to optimize the pit configuration, waste and stockpile design, and ore loss and dilution characteristics for the chosen equipment. A comprehensive cost estimate for mine operating and capital costs can then be prepared.
- Development of a comprehensive environmental, health and safety management system.
- Hydrogeological and geotechnical drilling to support comprehensive analysis and further studies, including targeted drilling and structural mapping programs.



Sensitivity of the base case production scenario to the gold price, discount rate and resource grade variations (base case in bold)

Table 2. Krasny and Vostochny base case sensitivity analysis

Parameter	Sensitivity		Base Case	Sensitivity	
Gold price (USD/Oz)	1,200	1,250	1,300	1,350	1,400
DCF at 6%, pre-tax (MUSD)	63.6	83.9	104.2	124.5	144.8
IRR (%)	19	22	26	29	32

Parameter	Sensitivity	Base Case	Sensitivity		
Discount rate (%)	5	6	7	8	9
DCF, pre-tax (MUSD)	118.2	104.2	91.9	80.9	71.2

Parameter	Sensitivity		Base Case	Sensitivity	
Gold Grade, variance (%)	90	95	100	105	110
DCF, pre-tax (MUSD)	51.6	77.9	104.2	130.6	156.9
IRR (%)	16	21	26	30	34

## **Mineral Resource estimate**

The scoping study is based on the Indicated and Inferred Mineral Resource estimates completed by Micon International Co Ltd in 2018 and reported as at 30 August 2018 in the report "Mineral Resources and Ore Reserve estimate of the Krasny Gold Deposit and the Vostochny Mineral Occurrence, Irkutsk Region, Russian Federation" and available at this web address:

http://media.kopygoldfields.com/2019/02/Krasny\_Final\_Report\_ENG\_signed.pdf.

The Mineral Resource estimates and supporting Table 1 disclosures were publicly reported on 4 June 2018 and are summarized in Table 3 below.

Table 3. Mineral Resource Statement for the Krasny License area, Irkutsk Region, Russia, Micon International, February 18, 2018

Mineral Resource	Ore type	Tonnage (kt)	Gold grade (g/t)	Contained Gold (kg)	Contained Gold (koz)
Krasny					
Indicated	Oxide	2 900	1.2	3 400	108
	Transition	2 400	1.1	2 800	89
	Primary	2 200	1.3	2 900	93
Indicated total		7 500	1.2	9 000	290
Inferred	Oxide	580	1.0	560	18
	Transition	730	1.6	1 200	38
	Primary	17 000	2.1	36 000	1 100
Inferred total		19 000	2.0	37 000	1 200
	l .				
Vostochny					
Inferred		6 700	1.6	11 000	340



#### Notes to Micon statement:

- Mineral Resources are not Ore Reserves and do not have demonstrated economic viability, though the Competent
  Person believes there are reasonable prospects for eventual economic extraction. There is no certainty that all or
  any part of the Mineral Resources estimated will be converted into Ore Reserves estimate;
- Stated Mineral Resources are above a 0.4 g/t Au cut-off and contained within a potentially economically minable open pit;
- The Mineral Resources were limited by a pit optimization shell generated using a gold price of USD 1,250/oz; metallurgical recovery of 77.5% for oxide ore, 87.8% for transition ore and 88.5% for primary ore; open-pit slope angles between 40 and 52 degrees; operating costs of USD 1.38/t for waste mining, USD 1.82/t for ore mining, USD 6.95/t for processing, and G&A costs of USD 5.54/t;
- Mineral Resource tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers may not total exactly due to rounding.

AMC cautions that a significant portion of the Mineral Resource is Inferred and speculative. There is no guarantee that the project economics based on these Mineral Resources will be achieved. AMC recommends that a robust kriging estimation strategy should be introduced to replace the inverse distance method applied in the current estimates.

## **Processing**

The scoping study investigated processing options for ore from the Krasny deposit and the Vostochny mineral occurrence.

The AMC review considered the ore to be a low-sulfide gold-quartz type. Tested samples were composed of quartz sandstones, siltstones and shales. An oxidation zone extending down 20 m to 100 m from the surface is present in the deposit. Samples referred to as "primary", "transitional" and "oxide" were tested. Gold predominantly occurs in association with pyrite in primary ore and iron hydroxides in the oxide zone. Oxide ore is considered to be free milling, with 91% cyanide-leachable, while primary ore is deemed refractory with 85% able to be placed in solution by cyanide.

Preg-robbing carbon (organic carbon) was analyzed in the samples that were tested, with 0.4% to 0.8% in oxide ore, 1.2% to 2.8% in primary ore and 4% to 5% in flotation concentrate being reported.

Previous project study activities recommended a gravity-flotation-CIL flowsheet, which is typically used to process gold ores of this type. The estimated gold recovery adopted in these studies was:

Primary 88.5%Transition 87.8%Oxide 77.5%

AMC noted that metallurgical tests were conducted on composite samples to represent the three ore types based on weathering state. This approach does not provide information on local variability throughout the orebody of characteristics such as comminution, gold recoverability, and presence of preg-robbing carbon. Further work is also required to establish a reliable relationship between the degree of oxidation and the gold recovery. AMC recommends performance of a geometallurgical examination to model the metallurgical parameters during the next phase of study.

The process plant will produce doré bars, which will be sent on to the refinery to produce bank quality gold bars. A detailed flowchart is presented and discussed in the recent Mineral Resource report by Micon International Co Ltd in 2018 available on the Company web site.

## Opportunities to add value

There are many opportunities identified to add further value to the project. Mineralization at both Krasny and Vostochny is open along strike and down dip. Together with exploration opportunities at



the neighboring Batiy license area, Kopy has a strong expectation that the total resources of the Krasny project will grow if more exploration is completed.

Considering metallurgical aspects, an overall gold recovery of 89% to 90% for Krasny and Vostochny is realistic considering achievements of other projects in the area processing similar ore types. The development of the Sukhoy Log project will enhance infrastructure and mining services in the area, which should reduce operational costs in the future. Mining sequence and development schedules focusing on higher-grade initial production, stockpiling and trade-off studies on mine infrastructures could be further developed and optimized, leading to increasingly better economic viability. These opportunities can be summarized in future feasibility studies.

This scoping study is an update of the two previous scoping studies of the Krasny deposit that were released on December 20, 2017 and May 12, 2016.

This scoping study was ordered and financed solely by Kopy Goldfields AB and has been developed using information from the Krasny project as provided by Kopy Goldfields AB. It was not reviewed by GV Gold nor by OOO Krasny.

#### Consultant

The scoping study was prepared by AMC, a firm of independent geological, mining geotechnical, mine engineering and mine management consultants offering expertise and professional advice to the exploration, mining and mining finance industries from offices in Adelaide, Brisbane, Melbourne, Perth, Toronto, Vancouver, Moscow, Singapore, and Maidenhead. The study team was led by Adrian Jones, an AMC Principal Mining Engineer with 25 years of experience in the mining industry focused on feasibility study management, contract negotiation, project commissioning and business unit rationalization. Note that AMC has performed a desktop analysis for the scoping study activities and has not yet visited the Krasny site. This study does not qualify for reporting of an Ore or Mineral Reserve estimate under recognized reporting codes.

## **Next Steps**

In 2018, Kopy Goldfields and GV Gold decided to evaluate the possibility of exiting the Krasny project if the market offered the right price. This scoping study provides an approach for valuing the Krasny project for a potential transaction. The target is that the project should generate the best return to the shareholders. In parallel with the marketing process, other options on how to proceed with Krasny to achieve the best outcome for all parties are being discussed with GV Gold.

# For more information, please contact:

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# **About Kopy Goldfields AB**

Kopy Goldfields AB (publ), listed on NASDAQ First North in Stockholm, is a Swedish gold exploration company operating in the Irkutsk and Amur regions of Russia, which are two of the most gold rich areas in the world. The Company currently holds 15 licenses, grouped into four projects, which entitle the holder to explore for and produce gold. Kopy Goldfield's strategy is to create value by identifying and acquiring high potential gold projects, and then prospecting and exploring them until they reach the stage of being ready to be sold for cash or further developed in cooperation with a partner.

Kopy Goldfields AB applies International Financial Reporting Standards (IFRS), as approved by the European Union. Hagberg & Aneborn Fondkommission acts as Certified Adviser, contact number: +46 8 408 933 50, e-mail: info@hagberganeborn.se.



# **The Share** Ticker: KOPY

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Outstanding shares: 103,825,869

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