COMPETENT PERSONS REPORT ON THE MINERAL RESOURCES AND ORE RESERVES OF AMUR ZOLOTO, FAR EAST RUSSIA

Prepared For

Kopy Goldfields AB

Report Prepared by

SRK Consulting (Russia) Limited
RU00747

SRK Legal Entity:		SRK Consulting (Russia) Limited
SRK Address:		5th Floor Churchill House 17 Churchill Way Cardiff, CF10 2HH Wales, United Kingdom.
Date:		September 2020
Project Number:		RU00747
SRK Project Director:	Mikhail Sivkov	Director, Principal Consultant
SRK Project Manager:	Vladimir Kozlov	Principal Consultant, (Mining Engineering)
Client Legal Entity:		Kopy Goldfields AB
Client Address:		Skeppargatan 27, 114 52 Stockholm, Sweden

Table of Contents: Executive Summary

List of Tables: Main Report

List of Figures: Main Report

EXECUTIVE SUMMARY
COMPETENT PERSONS REPORT ON THE MINERAL RESOURCES AND ORE RESERVES OF AMUR ZOLOTO, FAR EAST RUSSIA

1 EXECUTIVE SUMMARY

1.1 Background

This Competent Persons Report (report or CPR) comprises SRK Consulting (Russia) Ltd (SRK)'s independent technical review of the mineral assets (the Mineral Assets) held by Amur Zoloto LLC (AZ), 100% subsidiary of Kopy Goldfields AB (Kopy).

The Mineral Assets comprise a number of developing and operating gold mines (both hard rock and alluvial), as well as exploration assets in the Khabarovsk region of the Russian Federation. Specifically, this includes:

- the Yubileyniy Complex, which comprises the operating Krasivoe underground mine, the planned Ulun underground mine, and the Yubileyniy processing plant which has a current capacity of 130,000 tonnes per annum (tpa) and a planned extension in capacity to 250,000 tpa in 2022 and further increase to 400,000 tpa in 2025;
- the Perevalnoe open pit mine and concentration (gravity and flotation) facility which has a planned capacity of 125,000 tpa through the processing plant and 210,000 tpa through the heap leach facility;
- the Malyutka open pit and heap leach facility which has a planned capacity of 1,500,000 tpa; and
- a number of placer operations with a combined capacity of 1,000,000 m^3 of gravel washed per season, which together currently produce some 14,000 oz of gold per year.

The confirmed Mineral Resource and Ore Reserve statements included in this CPR are reported in accordance with the 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves as published by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (the JORC Code).

1.2 Verification, Validation and Reliance

In the course of undertaking this mandate, SRK has:

- conducted a review and assessment of all material technical issues likely to influence the future performance of the Mineral Assets, and therefore the stated Mineral Resources and Ore Reserves, which included:
  - inspection visits to the material Mineral Assets in April 2016;
  - meetings and discussions with Company management and staff during the first quarter of 2019;
  - another inspection visit to the material Mineral Assets in August 2020; and
  - a review of the feasibility studies, life of mine plans and supporting documents;
- accepted macro-economic parameters and commodity prices provided by AZ and relied on these as inputs into the verification of AZ's Ore Reserves and projected cash flows. All currencies are quoted as either $ (USD) or RUB (Russian roubles); and

- satisfied itself that such information is both appropriate and valid as reported herein.

SRK considers that with respect to all material technical-economic matters, it has undertaken all necessary investigations to ensure compliance with the JORC Code.

It should however be noted that SRK has not directly generated the technical information presented in this CPR, but rather reviewed information generated and/or technical work completed by others. As a result, the projections and forecasts presented here may not directly reflect those presented in the life of mine plans as they also incorporate judgements made by SRK not necessarily incorporated into these.

1.3 Location

The Mineral assets reviewed as part of this mandate are located in the Ayano-Maisky District of the Khabarovsky Region, about 1,150 km from the city of Khabarovsk.

The Khabarovsky Region is located in the central part of the Russian Far East and is one of the largest administrative-territorial establishments of Russia. Locally, the region borders with the Primorsky Region, the Yevreysky autonomous Okrug, the Amur and Magadan Oblasts and the Republic of Sakha (Yakutia). Internationally the region borders with China to the south. To the east lies the Sea of Okhotsk and the Sea of Japan.

There are no summer roads to the districts and supplies are generally transported by truck along ice-roads during winter and air freighted to the mining areas during summer. Some parts of the district are accessible along the Maya River (to Nelkan) from Yakutia by boat or barge.

There are no permanent settlements associated with any of the mining areas. The nearest settlements (Aim, Belkachy, Nelkan) are between 170 and 250 km from the sites. The population of these settlements ranges from about 300 to about 1,500 people.

The project sites span two climatic areas. The new Tas-Yuryakh processing plant and Tukchi ore deposit experience a coastal climate, whereas the remainder of the project sites experience an extreme-continental climate.

1.4 Licences

A total of 24 non-contiguous licences cover the Mineral Assets, with a combined area of 2,060 km^2. SRK has seen copies of the licences and confirms that the Mineral Resources and Ore Reserves stated in this report fall within the boundaries of such licences.

2 GEOLOGY AND MINERAL RESOURCES

As part of this CPR, SRK audited the Mineral Resource statements prepared by AZ for each of the Mineral Assets, including the models and supporting data. While, in SRK's opinion, the global estimates reported by AZ for the Mineral Assets are reasonable and suitable for the purposes of Ore Reserve estimation, SRK notes that in certain cases (in particular Perevalnoe and Ulun), the local estimation of gold grade may be insufficiently reliable to support detailed mine planning and that achieving the grades stated in the life of mine plan will likely require a high degree of mining selectivity informed by effective grade control programs, for both open pit and underground mining.

For the Krasivoe deposit, SRK notes that a proportion of Mineral Resources at a depth below the 750 m horizon is not well supported by exploration data and are consequently classified at

the Inferred level of confidence. SRK understands that AZ is planning further drilling in this area and intends to progressively update the mine plan as this work is completed.

For Perevalnoe, the silver grade is based on a global relationship between gold and silver grades as not all samples were assayed for silver. SRK is satisfied that there are sufficient indications that silver is present and that it can be recovered. The silver grade is confirmed by mining statistics therefore SRK included silver in the valuation.

A summary of SRK's audited Mineral Resource statements for the hard rock assets is presented in Table ES 1 and Table ES 1.

Table ES 1: Hard Rock Assets - SRK Mineral Resource statement as at 1 July 2020*

Site	Tonnage	Au grade	Au metal	Au metal	Ag grade	Ag metal	Ag metal
	Mt	g/t	t	koz	g/t	t	koz
Open pit Measured							
Perevalnoe CIP	0.3	9.0	2.7	86	59.7	17.9	576
Perevalnoe Heap Leaching	2.2	1.2	2.7	85	23.4	51.5	1 662
Total Open Pit Measured	**2.5**	**2.2**	**5.4**	**171**	**27.8**	**69.4**	**2 238**
Open pit Indicated							
Perevalnoe CIP	0	11.1	0.2	6	24.3	0.4	14
Perevalnoe Heap Leaching	0.1	2.0	0.2	6	29.0	2.9	95
Malyutka Heap Leaching	9.2	1.4	12.8	411	1.2	11.4	366
Total Open Pit Indicated	**9.3**	**1.4**	**13.2**	**423**	**1.6**	**14.7**	**475**
Underground Measured							
Perevalnoe CIP	0.3	9.8	2.6	84	23.3	6.2	201
Total Underground Measured	**0.3**	**9.8**	**2.6**	**84**	**23.3**	**6.2**	**201**
Underground Indicated							
Perevalnoe CIP	0.1	5.0	0.5	15	16.0	1.6	52
Yubileyniy CIP	3.7	6.5	24.1	777	2.4	8.7	280
Total Underground Indicated	**3.8**	**6.5**	**24.6**	**792**	**2.7**	**10.3**	**332**
Open pit Measured + Indicated							
CIP	**0.3**	**9.7**	**2.9**	**92**	**59.7**	**18.3**	**589**
Heap Leaching	**11.5**	**1.4**	**15.7**	**502**	**5.7**	**65.8**	**2 123**
Underground Measured + Indicated							
CIP	**4.1**	**6.6**	**27.2**	**876**	**4.0**	**16.5**	**533**
Heap Leaching							
Total Measured + Indicated							
CIP	4.4	6.8	30.1	968	7.9	34.8	1 122
Heap Leaching	11.5	1.4	15.7	502	5.7	65.8	2 123
Total Measured + Indicated	**15.9**	**2.9**	**45.8**	**1 470**	**6.3**	**100.6**	**3 245**
Inferred							
Yubileyniy Underground CIP	1.7	5.6	9.6	308	2.0	3.4	108
Total Inferred	**1.7**	**5.6**	**9.6**	**308**	**2.0**	**3.4**	**108**
Total Measured + Indicated + Inferred	**17.6**	**3.1**	**55.4**	**1 778**	**5.9**	**104**	**3 353**

*Notes:

- Mineral Resources presented are inclusive of Ore Reserves;
- Tonnages and metal content have been rounded to the nearest 0.1 Mt, 0.1 t and koz;
- Perevalnoe complex: Heap leaching cut-off grade of 0.5 g/t; CIP cut-off grade of 3.1 g/t;
- Malyutka deposit: Heap leaching cut-off grade of 0.5 g;

- Yubileyniy complex: Krasivoe deposit: underground cut-off grade of 2.5 g/t;
- Yubileyniy complex: Ulun deposit: underground cut-off grade of 2.3 g/t;
- Gold price for Yubileyniy and Perevalnoe – 1500$/oz, for Malyutka – 1200$/oz.

For the placer deposits, the existing Russian GKZ estimates were reclassified by SRK in accordance with JORC guidelines. Notably, all the C1+C2 resources were reclassified into the Indicated Mineral Resource category of this code. A summary of SRK's audited Mineral Resource statements for the placer deposits is presented in Table ES 2.

Table ES 2: Placer - SRK Mineral Resource statement as at 1 July 2020*

Placer	Gravel	Au grade	Au Metal	
	000'm^3	g/m^3	t	koz
Indicated resources				
Lower Buor Creek	133	0.6	0.1	2.2
Hayund and Chohcho creek	426	1.5	0.6	20
Upper Kagkan and Chudnyy	202	1.0	0.2	6.2
Kurun-Uryakh Creek - p. Iotkan	3,894	0.4	1.6	51.0
Total Indicated Resources	**4,655**	**0.54**	**2.5**	**79.4**
Inferred Resources				
Lower Buor Creek	9	1.3	0.01	0.4
Creek Dzhemkiye	8	2.9	0.02	0.7
Total Inferred Resources	**17**	**2.1**	**0.03**	**1.1**
Total Resources	**4,672**	**0.5**	**2.5**	**80.5**

*Notes:

- Mineral Resources presented are inclusive of Ore Reserves;
- Mineral resource estimation is based on 5GR inventory.

The AZ deposits are situated at the margins of the Siberian platform and within the Okhotsko-Chukotsky volcanic belt, an area which is considered by SRK to be prospective for further discovery of both hard rock and placer gold deposits.

AZ has experience of exploration and discovery in the region and holds several exploration licences covering early stage assets where further work is planned.

3 MINING AND ORE RESERVES

The Mineral Assets comprise both open pit and underground mining projects.

Krasivoe is a high grade, underground gold mine which feeds the nearby Yubileyniy processing facility. The mine commenced production in 2004, initially using open pit methods and then switched to underground mining 2010. The mine was closed in 2012 following a fire in the processing plant and was re-opened in 2015. The Krasivoe underground mine is accessed by adits. The Ore Reserve comprises the portion of the deposit above 750 mRL, about 300 m below surface. Mineral resources are classified as Indicated to this depth and Inferred below that. AZ is developing decline access to reserves below the lowest adit at 950 mRL. The mining method is sub-level open stoping. The production rate is planned to be 130 ktpa in 2020, increasing to 250 ktpa from 2022 when a second concentrator line is fully commissioned and further capacity increase to 400,000 tpa. Gold price used for the Ore reserves estimation performed by AZ is 1500$/t.

Mining from the Perevalnoe open pit commenced in 2015 and the processing plant was commissioned in 2017. The facility produces concentrate which is leached at the Yubileyniy

process plant. Ore is currently mined from the Brekchiyevaya Pit and from the Priyatnoe pit and in future, will be mined from an underground mine below the open pit at Brekchiyevaya. Open pit mining at the Brekchiyevaya Zone will continue to 2021 when the pit to 1080 m horizon is completed. The underground mine will be developed and start producing in 2021, following the open pit. Production will continue until the reserves are exhausted in 2023. Mining at Priyatnoe commenced in 2019 and will be completed by the end of 2021. Gold price used for the Ore reserves estimation performed by AZ is 1250$/t.

The Malyutka Heap Leach project will use conventional, small-scale, selective mining fleets with all material drilled and blasted. Planned production – 1.5 Mt per year. Gold price used for the Ore reserves estimation performed by AZ is 1200$/t.

The placer operations comprise a number of small operations located near a central logistical hub. The operations use the dry mining method (that is, do not use dredges) with overburden and gold-bearing gravels mined using trucks and shovels. The Company has been managing placer operations for a number of years, the mining and processing equipment exists, and the only proposed investment is associated with replacing the mining fleet as it ages and for expanding the waste stripping operations as deeper, higher grade deposits are accessed. Altogether mining is planned at four places two of which are currently are in production. Planned production in going to be 400 kg of gold per year (14 thousand ounce per year). Production will continue until the reserves are exhausted in 2022

SRK's confirmed Ore Reserve statements are presented in Table ES 3 and Table ES 3. All Ore Reserves are classified as Probable Reserves.

Table ES 3: Hard rock Ore Reserve Statement as at 1 July 2020*

Hard Rock Source	Tonnage	Au Grade	Au Metal		Ag Grade	Ag metal	
	Mt	g/t	t	koz	g/t	t	koz
Probable Reserves							
Yubileyniy							
Krasivoe UG	3.1	6.3	19.8	640	2.8	8.7	279
Total Yubileyniy	**3.1**	**6.3**	**19.8**	**640**	**2.8**	**8.7**	**279**
Perevalnoe							
Brekchiyevaya OP	0.2	6.8	1.4	45	25.9	5.2	167
Brekchiyevaya UG	0.2	7.8	1.3	55	21.4	4.3	138
Brekchiyevaya HL	0.3	1.3	0.4	15	16.8	5.0	162
Stockpiles	0.4	1.5	0.5	17	7.6	3.0	98
Priyatnoe	0.1	5.0	0.7	24	62.0	6.2	199
Priyatnoe HL	0.16	1.2	0.2	6.2	46.3	7.4	238
Total Perevalnoe	**1.4**	**3.3**	**4.5**	**162**	**22.9**	**31.1**	**1,002**
Malyutka							
Malyutka	9.3	1.2	11.2	360			
Total Malyutka	**9.3**	**1.2**	**11.2**	**360**			
Total Hard Rock	**13.8**	**2.6**	**35.5**	**1,162**	**2.9**	**39.8**	**1,281**

*Notes:

- Tonnages and metal content have been rounded to the nearest 0.1 Mt, 0.1 t and koz;
- Ore reserves estimation is based on mine schedule;
- Perevalnoe complex gold price: 1,250 $/oz;
- Malyutka deposit gold price: 1,200 $/oz;
- Yubileyniy complex gold price: 1,500 $/oz.

Table ES 4: Placer Ore Reserve Statement as at 1 July 2020*

Placer Source	Volume	Au	Au Metal	
	000'm^3	g/m^3	t	koz
Probable Reserves - Placers				
Lower Buor Creek	133	0.6	0.1	2.2
Hayunda and Chohcho creek	426	1.5	0.6	20
Upper Kagkan and Chudnyy	113	0.6	0.1	3.2
Total Placer	**672**	**1.2**	**0.8**	**25.4**

*Notes:

- Placer deposits gold price: 1,185 $/oz.

4 MINERAL PROCESSING

The existing and proposed processing hard-rock facilities are as follows:

- **Yubileyniy**: The plant has a design crushing capacity of 130 ktpa and a gravity and flotation section. The plant produces gravity and flotation concentrates that are processed further by cyanidation. A second gravity and flotation line is planned to be commissioned to increase capacity to 250 ktpa and a further extension to 400 ktpa to process increased feed from Krasivoe and possibly Ulun when developed. This project allows to more than double the productivity of the operation. The project includes modern gold processing technologies with high processing indicators. It involves modern high-performance equipment of well-known domestic and foreign manufacturers certified in Russia. In the first half of the year, the Yubileyniy Processing Plant has delivered 107% of the planned production or 625 kg against the plan of 621 kg. Gold production was 106% from gravity concentrate, 136% from flotation concentrate, and 84% from the Krasivoe deposit feed. Low results for the Krasivoe deposit are due to a lower head grade by 11%, due to the higher dilution at flanks of the ore body in the stopes at +950m horizon of the UG mine. A general sampling program during the processing of this ore would make it possible to identify the reasons. In general, the performance indicators of the Yubileyniy Processing Plant are positive, which indicates that the selected processing flowsheet is appropriate.
- **Perevalnoe**: This is a mobile plant and is recently commissioned (2017) with the capacity to treat ore at a rate of 125 ktpa. This plant produces gravity and flotation concentrates which are trucked to the Yubileyniy facility for cyanide leaching. A heap leach plant to process lower grade "halo" ore is planned to be operating from 2021 at a rate of 210 ktpa. Brekchiyevaya and Priyatnoe zones of the Perevalnoe deposit have been well studied in the laboratories of leading institutes – Irgiredmet, Irkutskgeophizika and TOMS. The results were used as the basis for the Process Operating Procedures (the Reglament) and the Mobile Processing Plant design with high processing indicators, with gold grade in the ore at 7.24 g/t:
  - Gravity concentrate with grade of 855 g/t and the recovery of 47.42%;
  - Flotation concentrate with grade of 61.65 g/t and the recovery of 42.58%;

- Overall recovery is 90.0%; and
- Tailings grade of 0.77 g/t and recovery of 10.0%.

The plant uses high-tech equipment certified in Russia from well-known European, Chinese and Russian manufacturers. An advanced solution of dry stacking of the process tailings has been adopted, minimising the environmental impact. Consumption rates for reagents, balls, lining, etc. are at the typical industry level, taking into account the material and mineral composition of the feed. For a more complete and rational usage of the reserves, the low-grade ore mined on site is stockpiled for heap leaching.

The performance indicators of the Mobile Processing Plant at Perevalnoe in H1 of 2020 are:

- Actual grade in feed – 5.6 g/t; design grade is 7.24 g/t;
- Actual grade in gravity concentrate – 763 g/t, with design grade being 855 g/t; the difference is due to the lower actual gold grade in feed than projected in the design;
- Actual grade in flotation concentrate – 99.2 g/t, with design grade being 61.65 g/t; and
- Actual overall recovery – 94.2% versus 90.0% designed.

Therefore, the plant performed well considering the relatively low gold grade in the feed. The performance of the plant is higher than planned and this allows it to achieve the planned production.

- **Malyutka**: Gold recovery at Malyutka is proposed to be via heap leaching, with an eventual production rate of 1.5 Mtpa of ore, 1 year after commencing operations in 2023. Production planned to start at an initial capacity of 670,000 tonnes per year. The feed grades are 1.2-1.3 g/t Au and 1.0 g/t Ag. Based on the testwork review, SRK concurs that heap leaching is probably the most appropriate process flowsheet option for the Malyutka ore. While the testwork conducted has been of good quality, SRK notes that only a limited amount of testwork has been conducted to assess the potential variability within the deposit, both in terms of head grade, but also with respect to depth and lateral position within the orebody.
- **Placer deposits.** Gold is processed by panning using equipment available at each site. During this period, it is planned to work at four placer sites, two of which are already in production. It is planned that the placers will produce a total of about 400 kg (14 thousand ounces) of gold per year. The placers are developed using proven technologies with sluice boxes to produce rough concentrate and concentration tables or concentrators to upgrade the concentrate. This technology of developing placers using existing fleet and equipment is reasonable and cost effective. Given that two placer areas are mined, and several other areas are proposed to be mined, it would be appropriate to consider upgrading the sluice box concentrate at Yubileyniy site using modern equipment (centrifugal separators). This will reduce losses during cyanidation of tailings. When coarse material is run through the PPM 5 sluice boxes, large pieces may not be washed completely, which results in gold losses. A mini hydromonitor could be installed to address this issue.
- In the first half of the year, the gold production plan for the Kagkan site was 29% of plan - 62.4 kg against the plan of 215.7 kg. The main reasons include low volumes of

gravel washing - 60% of the plan or 150,000 cubic meters against the plan of 255,900 cubic meters, as well as lower than expected gold grades - 48% or 408 mg/m^3 against the plan of 842.8 mg/m^3. The gold production plan at Buor site was 68% of plan - 56.9 kg against the plan of 84 kg. The main reason is the low head grade - 67% of the planned level or 665.3 mg/m^3 against the plan of 998.2 mg/m^3.

The Company's forecast for AZ shows that production in 2020 will be some 1.8 t Au (some 57 koz). Then, from 2023 onwards, production is expected to grow steadily to 3.1 tonnes (some 100 koz ounces) due to commissioning of additional mining and processing capacities for ore and placer gold.

5 ENVIRONMENTAL MANAGEMENT

Not all of the Russian legislation requirements are currently fully satisfied. In particular, there is no data on the registration of waste dumps and on the establishment of the sanitary protection zones. Not all the necessary permits have been received.

However, SRK does not consider the lack of some environmental documentation as a serious risk because the design documentation was approved, and no environmental penalties have been applied in the past three years. But if the regulatory bodies change their approach and inspect the company with site visits, or in case of other unfavourable circumstances, these non-compliances can lead to unforeseen minor to material financial consequences.

Without an Environmental Impact Assessment (OVOS) and ongoing environmental monitoring to understand the environmental impacts, it can become difficult to obtain the Complex Environmental Permit, especially for the Malyutka Project, given its scale.

The non-compliances can be addressed through suitable environmental management programmes both at mine sites and at the corporate level. SRK believes that these issues can be resolved and, if addressed appropriately and in a timely manner, will not pose a significant risk.

6 VALUATION

For the purposes of the technical evaluation presented here, SRK has reviewed the production plans, historical costs, investment program and the financial model prepared by AZ. SRK has not generated its own financial model but has rather reviewed AZ's models, which SRK has adjusted where appropriate to reflect its views and derive a consolidated valuation.

The annual production of gold from AZ's assets is shown in Table ES 5. SRK's estimate of Consolidated Valuation is shown in Table ES 6 (see Chapter 10 for details).

Table ES 5: Gold Production

	Units	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	2026 Plan	2027 Plan	2028 Plan	2029 Plan	Total from 2020-2029
Perevalnoe Processing	oz	29,435	28,958	30,981	27,265	9,421	-	-	-	-	-	**126059**
Perevalnoe HL	oz	-	-	6,296	6,332	5,799	5,825	-	-	-	-	**24,252**
Yubileyniy	oz	16,686	22,711	34,275	32,306	32,308	52,485	74,059	74,811	78,993	78,748	**497,381**
Placer Deposits	oz	7,502	6,687	13,508	-	-	-	-	-	-	-	**27,697**

Malyutka	oz	-	-	-	32,932	43,769	43,920	43,920	38,354	39,447	-	**242,341**
Total	**oz**	**53,622**	**58,356**	**85,060**	**98,835**	**91,297**	**102,230**	**117,979**	**113,165**	**118,439**	**78,748**	**917,730**

Table ES 6: Consolidated Valuation

Description	Units	Value
Project period		2020-2029
Total AU production	koz	918
Revenue	$M	1,456
OPEX	$M	619
Capex	$M	134
Unit cash cost	$/oz	675
EBITDA	$M	780
% EBITDA	%	54%
NPV at 10%	$M	269

7 RISKS AND OPPORTUNITIES

There are a number of risks inherent to the mining industry, including the stability of the markets, uncertainties related to Mineral Resource and Ore Reserve estimation, equipment and production performance. The specific risks SRK has identified relating to AZ's Mineral Assets are:

- Design. The designs for the Perevalnoe, Priyatnoe and Malyutka pits have some aggressive features when compared to the design criteria supplied by AZ. The risk can be mitigated by adopting more conservative design parameters. SRK considers there is a small risk of pit wall instability, with accompanying interruption to production and cashflow. AZ should consider design modifications to comply with the prescribed design parameters. SRK would expect a small negative impact on cashflow from the redesign.

- Project implementation risk. AZ has a number of significant projects that remain to be fully implemented. In particular, Malyutka is planned to contribute an increasing part of gold production, from commissioning in 2021 to more than 50% of total gold production in 2025. Similarly, the successful construction and commissioning of the second process line at Yubileyniy is important to the growth of gold production and revenue forecast from 2021 and further increase to 400 ktpa in 2025. Therefore, there is a risk of construction being delayed should any problems arise due to the long logistics chains involved in these projects.

- The mining loss and dilution, and recovery parameters are estimates determined through Prefeasibility Studies. Despite implementing good grade control and metallurgical operating practices, the actual Run-of-Mine tonnage and grade, and metal recovery, could differ from the estimates. Further metallurgical test-work, especially for Malyutka, is required to confirm the likely parameters.

- Exchange rate. The costs are based on an exchange rate of RUB 75 / USD 1. It is unclear what the future exchange rate will be, which is subject to changes in oil price and inflation among other factors.

A number of opportunities have also been identified and discussed at a high-level. SRK considers the most material of the opportunities to be:

- general exploration success, both near mine and greenfield, within existing licences and the opportunity to exploit any success within a relatively short time frame using existing AZ plant and infrastructure;
- increasing the Ore Reserves at Krasivoe, where reserves are currently constrained to the Indicated Resources above the 750 m horizon;
- for the open pit mines, consider smaller pit limits to improve robustness and efficiency of investment;
- potential to increase metallurgical recovery at Malyutka, as the modelled metallurgical recovery is considered to be conservative; and
- in the placer fields where opportunities for acquisition remain.

8 CONCLUDING REMARKS

SRK's key conclusions regarding the Mineral Assets are as follows:

- The consolidated post-tax net present value of the Mineral Assets is $269 million, assuming a discount rate of 10%.
- The deposits are generally small but require little capital to develop.
- There is good upside potential from the optimisation of heap leach recoveries at Malyutka.
- AZ has good knowledge of finding deposits and operating in the Far East region, although historically it has tended to look for small, high grade deposits which required significant development effort. AZ now has a record of success in evaluating and establishing a development proposal for the large low grade Malyutka deposit. This experience will improve AZ's chances of identifying similar opportunities.
- As the projected production will rely heavily on new and expanded projects, there is a project implementation risk of delays and worse performance than expected due to the early stage of the studies used to define the development plans. SRK, however, considers that this risk is likely to be low as the first line at Yubileyniy is operating, Perevalnoe is nearing capacity and there is opportunity for Malyutka to relocate existing facilities.
- The RUB exchange rate and inflation is uncertain. Should the RUB strengthen, and should inflation increase, operating costs could rise.
- Due to poor infrastructure, the Far East region is relatively under-explored for medium to large sized gold deposits. SRK considers that there is reasonable potential to find and develop medium sized deposits if good target generation techniques are used in conjunction with AZ's knowledge of the regional geology.

Overall, SRK considers AZ has more opportunities to add to its consolidated value than risks of it being reduced.

The observations, comments and conclusions presented in this report reflect SRK's opinion as of July 1, 2020 and are based on the review of documents provided by AZ and on the information obtained through discussions with AZ.

Branch office
of Private limited company
«SRK Consulting (Russia) Limited»
4/3 Kuznetsky Most Street,
build.1, 3rd Floor,
125009, Moscow, Russia

T: +7 (495) 545-44-16
F: +7 (495) 545-44-18

COMPETENT PERSONS REPORT ON THE MINERAL RESOURCES AND ORE RESERVES OF AMUR ZOLOTO, FAR EAST RUSSIA

1 INTRODUCTION

1.1 Background

SRK Consulting (Russia) Limited (SRK) has been requested by Amur Zoloto LLC (AZ), a 100% subsidiary of Kopy Goldfields AB (Kopy) to prepare a Competent Persons Report (CPR) on the Mineral Assets of Amur Zoloto LLC (AZ) (the Mineral Assets) in support of potential future transactions.

The Mineral Assets comprise a number of developing and operating gold mines (both hard rock and alluvial), as well as exploration assets, in the Khabarovsk region of the Russian Federation. Specifically, this includes:

- the Yubileyniy Complex, which comprises the operating Krasivoe underground mine, the planned Ulun underground mine, and the Yubileyniy processing plant which has a current capacity of 130,000 tonnes per annum (tpa) and a planned extension in capacity to 400,000 tpa;
- the Perevalnoe open pit mine and concentration (gravity and flotation) facility which has a planned capacity of 125,000 tpa and a heap leach with a planned capacity of 210,000 tpa;
- the Malyutka open pit and Heap Leach facility which has a planned capacity of 1,500,000 tpa; and
- a number of placer operations with a washing capacity of 1,000,000 m^3 of gravel per season which together are planned to produce up to 14,000 oz of gold per year.

The confirmed Mineral Resource and Ore Reserve statements included in this CPR are reported in accordance with the 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves as published by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (the JORC Code).

1.2 Verification, Validation and Reliance

This CPR is dependent upon technical, financial and legal input from AZ. Notably, the technical information as provided to, and taken in good faith by, SRK, has not been independently verified by means of re-calculation. SRK has however:

- conducted a review and assessment of all material technical issues likely to influence the future performance of the Projects, and therefore the stated Mineral Resources and Ore Reserves, which included:
    - referred to inspection visits to the material Mineral Assets by SRK in August 2020;
    - meetings and discussions with Company management and staff; and

    - a review of the feasibility studies, life of mine plans and supporting documents;

- accepted macro-economic parameters and commodity prices provided by AZ and relied on these as inputs into the verification of AZ's Ore Reserves and projected cash flows; and
- satisfied itself that such information is both appropriate and valid as reported herein.

SRK considers that with respect to all material technical-economic matters, it has undertaken all necessary investigations to ensure compliance with the JORC Code.

It should however be noted that SRK has not directly generated the technical information presented in this CPR, but rather reviewed information generated, and/or technical work completed by others. As a result, the projections and forecasts presented here may not directly reflect those presented in the life of mine plans as they also incorporate judgements made by SRK not necessarily incorporated into these.

1.3 Limitations, Reliance on Information, Declarations, Consent and Copyright

1.3.1 Limitations

AZ has agreed that, to the extent permitted by law, it will indemnify SRK and its employees and officers in respect of any liability suffered or incurred as a result of or in connection with the preparation of this report albeit that this indemnity will not apply in respect of any material negligence, wilful misconduct or breach of law. AZ has also agreed to indemnify SRK and its employees and officers for time incurred and any costs in relation to any inquiry or proceeding initiated by any person, except to the extent SRK or its employees and officers have been materially negligent or acted with wilful misconduct or in breach of law in which case SRK shall bear such costs.

AZ has confirmed in writing to SRK that to its knowledge the information provided was complete and not incorrect or misleading in any material aspect. SRK has no reason to believe that any material facts have been withheld and AZ has confirmed to SRK that it believes it has provided all material information.

The achievability of the life of mine plans, budgets and forecasts presented here are neither warranted nor guaranteed by SRK. The forecasts as presented and discussed herein have been proposed by AZ management and adjusted where appropriate by SRK to reflect its opinion but cannot be assured. Notably, for example, they are necessarily based on economic and market assumptions, many of which are beyond the control of AZ and SRK.

1.3.2 Reliance on Information

SRK's opinions given in this document are effective at 1 July 2020 and are based on information provided by AZ throughout the course of SRK's investigations, which in turn reflects various technical-economic conditions prevailing at the date of this report and AZ's expectations regarding the gold market, gold prices and exchange rates as at the date of this report. These and the underlying technical-economic conditions can change significantly over relatively short periods of time.

1.3.3 Declarations

SRK will receive a fee for the preparation of this CPR in accordance with normal professional consulting practice. This fee is not contingent on the outcome of any transaction and SRK will receive no other benefit for the preparation of this report. Neither SRK or any of the individuals involved in preparing this report have any pecuniary or other interests that could reasonably be regarded as capable of affecting its ability to provide an unbiased opinion in relation to AZ's Mineral Resources and Ore Reserves.

SRK does not have, at the date of this report, and has not ever had, any shareholding in or other relationship with AZ or Kopy Goldfields AB and consequently considers itself to be independent.

1.3.4 Consent and Copyright

SRK consents to the publication of this report on the Kopy's web site.

Neither the whole nor any part of this report nor any reference thereto may be included in any document without the prior written consent of SRK regarding the form and context in which it appears.

1.4 Statement of Qualification

SRK is part of an international group (the SRK Group), which comprises some 1,400 professional staff offering expertise in a wide range of resource and engineering disciplines. The SRK Group's independence is ensured by the fact that it holds no equity in any project. This permits the SRK Group to provide its clients with conflict-free and objective recommendations on crucial judgment issues. The SRK Group has a demonstrated track record in undertaking independent assessments of resources and reserves, project evaluations and audits, CPR and independent feasibility studies on behalf of exploration and mining companies and financial institutions worldwide. The SRK Group has also worked with a large number of major international mining companies and their projects, providing mining industry consultancy service inputs.

This CPR has been prepared by a team of consultants sourced from the SRK Group's offices in Russia and the UK over a three-month period. These consultants are specialists in the fields of geology, resource and reserve estimation and reporting, mining, rock engineering, hydrogeology and hydrology, tailings management, infrastructure, environmental management and mineral economics.

The individuals listed in Table 1-1 have provided the material input to this CPR, have extensive experience in the mining industry and are members in good standing of appropriate professional institutions. The Competent Persons responsible for this CPR are Mr Sergey Shestak and Mr Peter Myers.

Table 1-1: SRK Project Team

Name	Position	Responsibility
David Pearce	General Director SRK Consulting (Russia) Ltd	Peer reviewer
Sergey Shestak	Principal Geologist	Geology, Competent Person
Peter Myers	Principal Mining Engineer	Mining, Competent Person
Vladimir Kozlov	Principal Mining Engineer	Mining, Competent Person
Alexey Pozelov	Consultant mechanics	Mining equipment
Evgeniy Nemtsov	Consultant infrastructure	Infrastructure
Ksenia Dyachkova	Environmental Consultant	Environment / Health and Safety
Mikhail Bryksin	Consultant Metallurgist	Processing / metallurgy
Mikhail Sivkov	Principal Valuation Consultant	Valuation/Report compilation

1.5 Report Format

The sections of this report cover each of the technical disciplines reviewed and, for each, summarise the key conclusions of SRK's review. This report does not repeat all of the information or assumptions in the life of mine plans and should be read in conjunction with those.

2 ASSET SUMMARY

The Yubileyniy Complex comprises the Krasivoe underground mine and the Yubileyniy processing plant. Krasivoe is a high grade, underground gold mine which feeds the nearby Yubileyniy processing facility. The mine commenced production in 2004, initially using open pit methods and then switched to underground mining 2010. The mine was closed in 2012 following a fire in the processing plant and was re-opened in 2015. The Krasivoe underground mine is accessed by adits, the mining method is sub-level open stoping. The Ore Reserve comprises the portion of the deposit above 750 mRL, about 300 m below surface. Mineral resources are classified as Indicated to this depth and Inferred below that.

Yubileyniy is an historical processing facility that was shut down following the serious fire incident in 2012. The plant has now been rebuilt and produces gravity and flotation concentrates that are processed further (by cyanidation) on site. The plant has a crushing capacity of 190 ktpa and the gravity and flotation section has a capacity of 130 ktpa. A second gravity and flotation line is planned to be constructed from 2020 to 2021 and fully commissioned in 2022, for a total processing capacity of 250 ktpa. Crushing capacity will be increased accordingly.

Mining from the Perevalnoe open pit commenced in 2015 and the processing plant was commissioned in 2017. The facility produces concentrate which is leached at the Yubileyniy process plant. Ore is currently mined from the Brekchiyevaya Pit and in future, will be mined from the Priyatnoe pit and from an underground mine below the open pit at Brekchiyevaya. A low-grade halo will be mined from the open pits until 2023 at a rate up to 210 ktpa and treated at a heap leach facility.

Malyutka is an open pit deposit where gold is planned to be recovered using a heap leaching circuit. Ore will be stacked and leached at a rate up to 1,500 ktpa.

During this period, it is planned to work at four placer sites, two of which are already in operation. Together the placers produce nearly 400 kg (14 koz) of gold per year.

AZ's production in 2020 is expected to amount to 1.8 t (57,8 koz) Au and thereafter is expected to rise steadily to 4.0 t (141 koz) in 2023 as other AZ hard rock mines and processing capacity increases come into production.

3 LOCATION

The AZ mineral assets reviewed as part of this mandate are located in Ayano-Maisky and Tuguro-Chumikansky municipal districts of Khabarovsk Region of the Russian Federation (Figure 3-1).

Khabarovsk Region is one of the five largest regions of the Russian Federation and belongs to the central part of Far Eastern Federal District. The region consists of 17 municipal districts and two urban districts (cities). The region borders with five other regions of Russia, and with the People's Republic of China to the south. The Sea of Okhotsk and the Sea of Japan are to the East from the region.

Most of the assets are located in Ayano-Maisky municipal district of Khabarovsk Region 900 to 1,150 km from the city of Khabarovsk (Figure 3-1). The Perevalnoe Complex (licence areas of Perevalnoe, Uchur, Maimakan and Dzhana deposits and alluvial cluster Uchur) is partially located in Tuguro-Chumikansky municipal district about 820 km from the city of Khabarovsk.

Both Ayano-Maisky and Tuguro-Chumikansky municipal districts are the largest and least populated in the region. Each of them covers an area of over 16 million ha and belongs to the Far North.

The population of the districts has been constantly declining since the 1990s (dissolution of the USSR). As of 1 January 2018, the population of Ayano-Maisky municipal district is 1,942 people with 872 people living in the administrative centre, the village of Ayan; the population of Tuguro-Chumikansky municipal district is 1,964 people with 1,039 people living in the administrative centre, the village of Chumikan.

There are no permanent settlements associated with any of the mining areas of AZ. The nearest settlements are located in a range of 110-250 km from the sites with a population ranging from 60 to 1,039 people (Figure 3-1). There are many shift camps in the area; some are functioning seasonally (e.g. Buor) and some are populated year-round (e.g. Yubileyniy, Perevalnoe, Kondyor). In summer, the population of those camps increases to 600 to 700 people.

The districts are not highly developed and have limited infrastructure; there are no permanent roads, railway connection or power supply. The main economic activity is represented by the extractive industry (alluvial gold and other mining). One of the biggest deposits of alluvial platinum, Kondyor, is developed in Ayano-Maisky district by Russian Platinum Group.

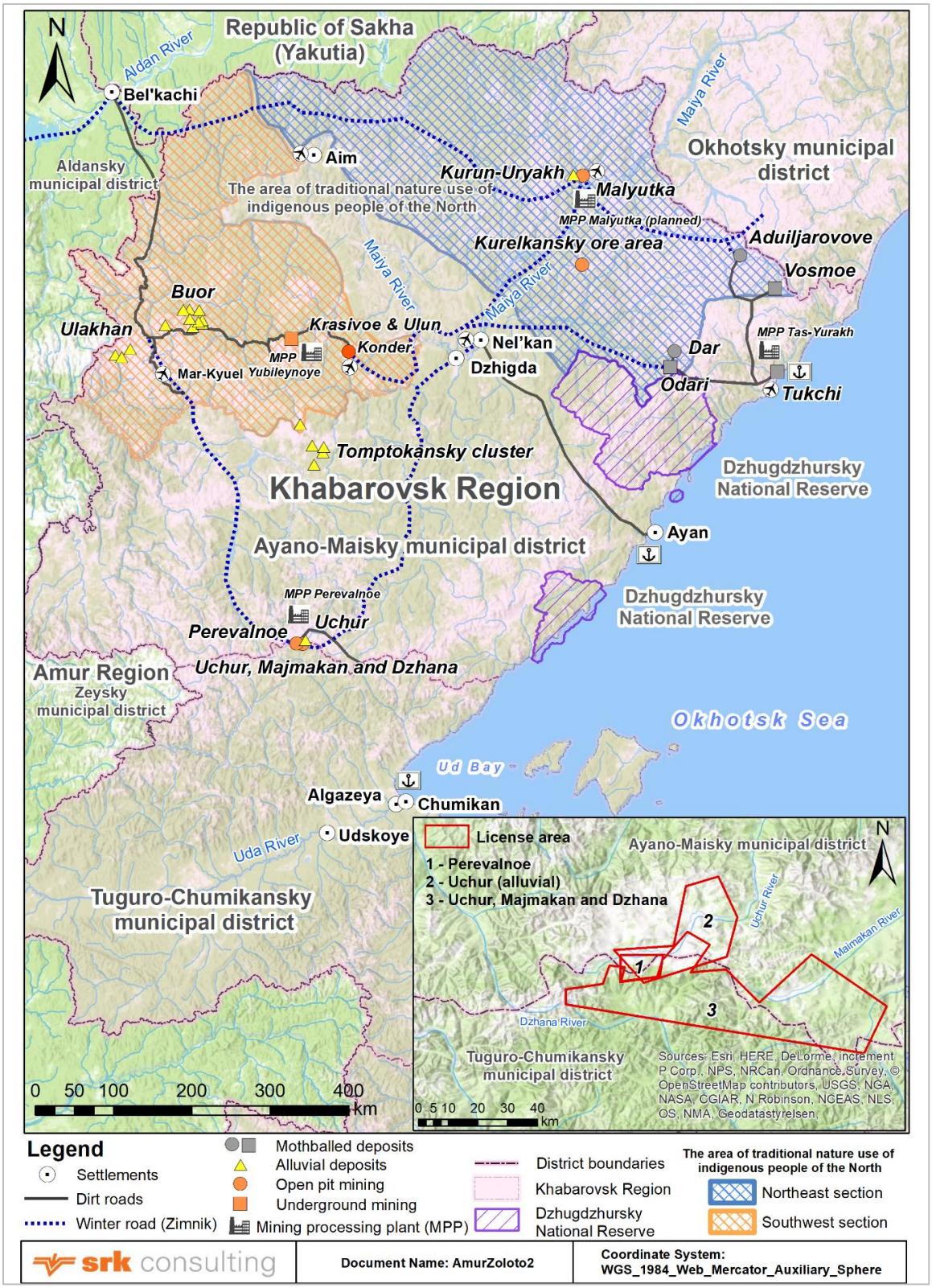


Figure 3-1: Assets Location Map

The Belkachy-Kondyor dirt road is used to supply Yubileyniy Complex (mineral processing plant (MPP), alluvial deposits and Krasivoe mine). About one-fourth of the road lies within the Aldansky municipal district (ulus) of Sakha (Yakutia) Republic. The road finishes at the port base on the Aldan River with access to Tommot railway station by boat and barge in summer, and winter road in winter. The A360 Lena/Amur-Yakutsk Highway and Amur–Yakutsk railway

passes through the ulus and is used to supply the AZ operations.

All the remaining assets (including Perevalnoe and Malyutka Complexes) are mainly supplied through airfreight by planes of An-24, and An-26 types, and helicopters. During the cold season, winter roads are developed, and supplies are brought in by trucks.

3.1 Climate

The assets' sites span two climatic areas. The Tas-Yuryakh processing plant and Tukchi sites (enclosed since 2015) are in a coastal climate zone, whereas the remainder of the assets' sites are in a zone with a sharply extreme-continental climate.

The coastal climate is subject to elevated precipitation, many overcast days, frequent storm winds and snowstorms. Average winter temperatures range from -16^{o}C to -20^{o}C and average summer temperatures ranges from +18^{o}C to +20^{o}C. The coastal climate is influenced by the Okhotsk Sea; the influence of which decreases in a westerly direction to the Dzhugdzhur mountain ridge which represents the transition from coastal-continental to an extreme-continental climate.

The extreme-continental climate is characterized by high yearly temperature ranges (from -60^{o}C to +40ºC). The average annual temperature is -6.4ºC, and temperatures are above 0^{o}C for only about 60-70 days per annum. Winters vary in length from about 7.5 to 8 months. The prevailing wind direction is westerly in winter and southerly in summer. Annual precipitation is not high, distributed unevenly through the year and ranges from 230 mm to 450 mm. Most of the precipitation occurs during the summer months over about 40 rainy days.

The extreme continental climate area is subject to discontinuous to continuous permafrost. Taliks (discontinuous permafrost areas) exist primarily in the valleys of large rivers. The seasonal thaw depth is typically up to 0.8 m on northern slopes and 0.5-1.5 m on southern exposures. Snow cover lasts for 200-205 days a year and may accumulate to between 1.5 m to 2 m.

3.2 Geomorphology and seismic conditions

The relief of the Ayano-Maisky region is undulating, with elevations ranging from 700 m to 1,500 m above sea level (ASL), with exposed alpine mountain peaks and levelled watersheds typically at 800-900 m ASL. River valleys are sloped at about 10-30º. Valley widths range from hundreds of metres to kilometres (up to 3 km) and are often swampy. Streams in the area are typically shallow and fast flowing in the mountainous areas and meandering in the valleys.

The maximum expected earthquake strength in the area is assessed as 7 in accordance with the Richter scale. Meanwhile, the probability of such events is assessed as low.

3.3 Fauna and Flora

The flora and fauna of the district are typical for Mountainous Taiga Forest.

About 75% of the area of the district is covered by forest which is clearly influenced by elevation. The valley floors typically support mixed forests of fir, larch and birch which are replaced by the dwarf pine and birch at increases of height. The mountain peaks above 1,200 m are covered by tundra with the dominance of moss and lichen species.

The fauna of the area is characterized by predatory mammals (brown bear, wolf, bobcat, fox, sable, erminea, otter, mink, Siberian striped weasel,) rodents (squirrel, chipmunk, blue hare), hoofed mammals (moose, wild reindeer, mountain sheep, musk deer), and birds (wood grouse, hazel grouse, ptarmigan, raven, nutcracker, hawk, eagle, owl).

Commercially hunted species in the area include squirrel, fox, erminea, sable, mink, and muskrat for fur production as well as predatory mammals (wolf and bear).

The ichthyofauna of the rivers and lakes includes taimen (Siberian salmon), lenok, pike, grayling, lake herring, crucian carp and sturgeon.

3.4 Land Use

Land-use in the districts includes mining, reindeer herding[1], hunting and fishery. Forestry is difficult due to a lack of timber transportation infrastructure and difficult relief conditions.

Several deposits lie within the borders of conferred hunting lands. Lakes and rivers are fished by local residents to meet their own needs.

Both Ayano-Maisky and Tuguro-Chumikansky districts are classified[2] as places of traditional residence and economic activity of indigenous minorities of the Russian Federation, who comprise over 40% of districts' population. Most of the deposits are located in the traditional land use areas[3] of indigenous minorities (Figure 3-1). Regional governments have been supporting activities of indigenous communities by special programs since 2002.

4 MINING TITLE AND LAW

4.1 Background

SRK has not reviewed the rights of AZ to mine from a legal perspective. Consequently, SRK has relied on advice by AZ to the effect that AZ will be entitled to mine all material reported here, and that all necessary statutory mining authorisations and permits are being put in place. SRK's review has rather been restricted to confirming that the confirmed Mineral Resources and Ore Reserves in this document are located within the respective licence areas and understanding the technical work required to be done by AZ to maintain the rights and so ensure that these requirements are satisfied by AZ's Development Plan.

The comments in this section of the report refer to the mining rights only. Details relating to relevant environmental permits are included in Section 10 of this report.

4.2 Mining Rights in the Russian Federation

4.2.1 Overview

All subsoil situated within the territory of Russia is deemed state property. The use of such property is controlled and regulated by a variety of state authorities through an intricate system of federal and regional licensing laws and regulations. The responsibilities, however, are not clearly divided between federal and regional authorities, regulation is often unclear or

[1] The total deer population in Ayano-Maisky district comprises about 500 animals, and 288 animals in Tuguro-Chumikansky district; which represents about 16% of all home deer in Khabarovsk Region.
[2] Order #631-p of the Government of the Russian Federation dated 08/05/2009 (amended 29/12/2017).
[3] Resolution N 252 of the Head of Administration of Khabarovsk Region dated 11/05/1994 (amended 06/06/2017).

contradictory and not all the significant provisions of laws or regulations are enforced in letter and spirit. The most fundamental law governing subsoil use in Russia as a whole is the Law of the Russian Federation No. 2395-I "On Subsoil", dated 21 February 1992 (the Subsoil Law).

The Subsoil Law allocates jurisdiction in the mining sector between federal and regional authorities, sets out the basic principles and features of the licence-based regulatory framework, and contains the rules governing the issuance, transfer, surrender and revocation of mineral licences. Detailed rules relating to licensing in Russia are set out in the Subsoil Law and in a number of regulations issued by the Russian federal government through its ministries and agencies. Regulations passed by various regions of Russia also play an important part.

The licences themselves typically only set out the basic terms of the arrangement, notably the name of the licensee, the licence area and the term of the licence, and the mineral rights granted there-under. Notwithstanding this, the key terms and conditions, including those concerning work programmes (which are essentially the licensee's developmental commitments and its applicable milestones or deadlines, that is, its Business Plan), fiscal levies payable by the licensee, geological data ownership, safety, abandonment and confidentiality are documented in a licensing agreement entered into between the licensee and the relevant federal or regional authorities which is deemed to be an integral part of a licence. Compliance with the terms of the licensing agreement is a requirement for the validity of the licence. While holders of licences are in practice often able to obtain waivers and amendments to the licensing agreements, the grant of such waivers and amendments falls within the discretionary powers of the relevant federal/regional authorities and is therefore not guaranteed

The Federal Agency for Subsoil Use (the Federal Agency) is an executive body, responsible for providing state services and managing state property in the field of subsoil use.

The Federal Service for Environmental Technological and Nuclear Supervision also plays an important part in the functioning of the Russian mining sector. Amongst other things, it controls the technical aspects of mineral deposit exploitation, issues instruments creating mining allocations, approve the boundaries of mining allotments (mining allotments define the subsoil blocks from which natural resources forming the subject matter of any licence may be exclusively extracted) and grants licences covering hazardous industrial production.

A significant number of exploration and production licences in Russia were issued between 1992 and 1993 on a tender-free basis pursuant to Section 19 of the "Regulations for the Procedure of the Licensing the Use of Mineral Resources" (approved by resolution of the Supreme Soviet on 15 July 1992) which essentially permitted the then state-owned mining companies to retain their pre-1992 primary mineral rights. This process ensured the stability of the Russian mining sector during a difficult transitional period through the continued involvement of legal entities possessing the necessary expertise. Most of the new production licences issued since 1992 have been granted on the basis of a tender or auction, now the most common mode of issuance of a production licence under the provisions of the Subsoil Law.

A number of current licensees obtained their licences through transfers from one entity to another permitted under certain circumstances specified in the Subsoil Law (such cases, in particular, include corporate reorganisations and establishment of a subsidiary at least 50% of

which is owned by the original licensee and subject to simultaneous transfer of assets necessary to continue mining).

There is an extensive list of grounds for termination of the right to subsoil use, which in light of the general interpretation of such grounds, allows a great degree of discretionary power to the Federal Agency and regional authorities over the activities of subsoil users.

It is noteworthy that, in practice, the expression "violation of the material terms of the licence" as used by the relevant regulatory bodies from time to time, is often interpreted quite broadly, which makes it necessary for licence holders to exercise extra care and caution in their compliance with the terms of their licensing agreements. Obtaining and maintaining in force the licences required for a successful exploration and production operation in Russia typically involves a series of detailed filings. Even minor errors or omissions in respect of any documents that must form part of such filings amount in theory to illegal subsoil use, although in practice such violations are widely encountered.

In practice, if a material violation of a subsoil use licence comes to the attention of the appropriate federal or regional authorities, the typical action taken is the issuance by the Federal Agency of a written direction to the licensee to cure the violation within the deadline of fulfilment of requirements. If the licensee fails to cure the violation within this time period, the Federal Agency may revoke the licence.

It is an interest of both sides to reach a compromise by meeting the requirements. During the licence renewal the Agency Commission may suggest changes of liabilities.

Changes to the license agreement are possible in accordance with the Order of the RF Ministry of Natural Resources of 29 September 2009 N 315 (as amended 4 October 2012).

4.2.2 Licences

Table 4-1 provides an overview of licences which cover the Mineral Assets under discussion in this report. SRK has seen copies of the licences and confirms that the Mineral Resources and Ore Reserves stated in this report fall within the boundaries of such licences.

Table 4-1: Licence Summary – Hard Rock

Type	Complex	Assets	License No	License type	Valid from	Mining to commence from (date)	Expiry	Area km2	Comments
Hard rock	Yubileyniy	Krasivoe	ХАБ 02344 БР	Prospecting, Exploration & Mining	2010-08-10	Unspecified	2021-12-31	95.8	
	Perevalnoe	Perevalnoe	ХАБ 02351 БЭ	Exploration and Mining	2010-08-01	Unspecified	2028-12-31	35.0	
	Malyutka	Malyutka	ХАБ 02347 БР	Prospecting, Exploration & Mining	2010-08-10	Not later than 2018	2020-12-31	6.3	
	Perevalnoe	Uchur Maimakan and Dzhana	ХАБ 02440 БР	Prospecting, Exploration & Mining	2011-09-02	Unspecified	2021-12-31	585.0	Not in the statement, Exploration potential C2 -0.8 tn, P1 - 1.5 tn, P2 - 5.4 tn

Table 4-2: Licence Summary – Placer

Type	Complex	Assets	License No	License type	Valid from	Mining to commence from (date)	Expiry	Area km^2	Comments
Alluvial	Placers	Buor	ХАБ 02424 БР	Exploration and mining	2011-06-17	Unspecified	2031-12-31	27.5	
		Hayunda and Chohcho	ХАБ 02627 БЭ	Exploration and mining	2013-12-11		2033-12-31	10.8	
		Kurun-Uryakh	ХАБ 02628 БЭ	Exploration and mining	2013-12-11		2033-12-31	17.0	
		Buor-Sala	ХАБ 02736 БР	Exploration and mining	2015-06-24		2040-07-31	26.2	
		Dzhemkiye	ХАБ 02748 БЭ	Exploration and mining	2015-11-11		2035-12-31	5.3	
		Buor	ХАБ 02341 БР	Exploration and mining	2012-10-12		2014-12-31	not available	Mined out, Expired, Located next to the license ХАБ 02424 БР Buor

5 YUBILEYNIY COMPLEX

5.1 Introduction

The Yubileyniy Complex comprises the Krasivoe underground mine, the Ulun deposit and the Yubileyniy processing plant. The assets are situated about 5 km apart, in the north-western part of Ayano-Maisky administrative region of the Khabarovsk territory, within the Dansky Ore Field.

The site layout for the Krasivoe Mine and Yubileyniy Plant is shown in Figure 5-1.

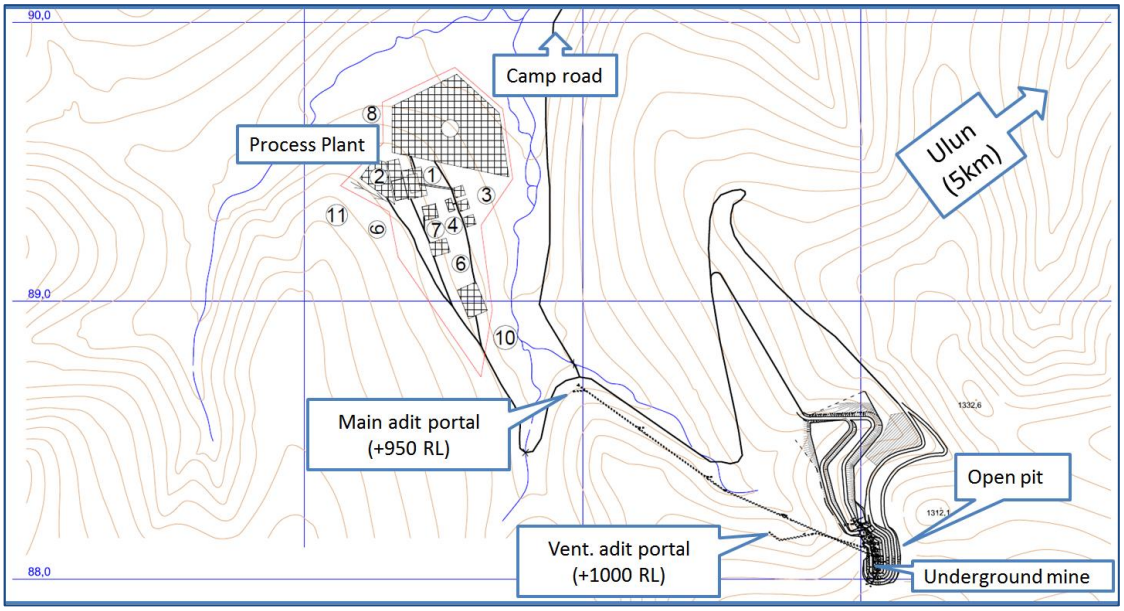


Figure 5-1: Yubileyniy Complex: General Layout, Krasivoe Mine and Yubileyniy Processing Plant

5.2 Geology and Mineral Resources

5.2.1 Regional Geological Setting

The Krasivoe and Ulun deposits are situated at the eastern margin of the Siberian platform and correspond to the Batomsly inlier of the crystal basement, which is overlain by sediments of the platform base and platform cover. The territory was subjected to Devonian-Carbonaceous tectono-magmatic activation, with roughly 90% of the area thought to be represented by magmatic bedrock.

5.2.2 Krasivoe: Local/Deposit Geology and Mineralisation

The Krasivoe deposit comprises sub-vertical arc-shape mineralised zones which extend along strike for some 300 m and below surface to a depth of some 450 m. The gold occurs in association with pyrite in metasomatised quartz and sericite-quartz zones, within granodiorite-porphyries. The pyrite content ranges from 2% to 4% and locally up to 10%. One orebody has been delineated to date, shown in Figure 5-2.

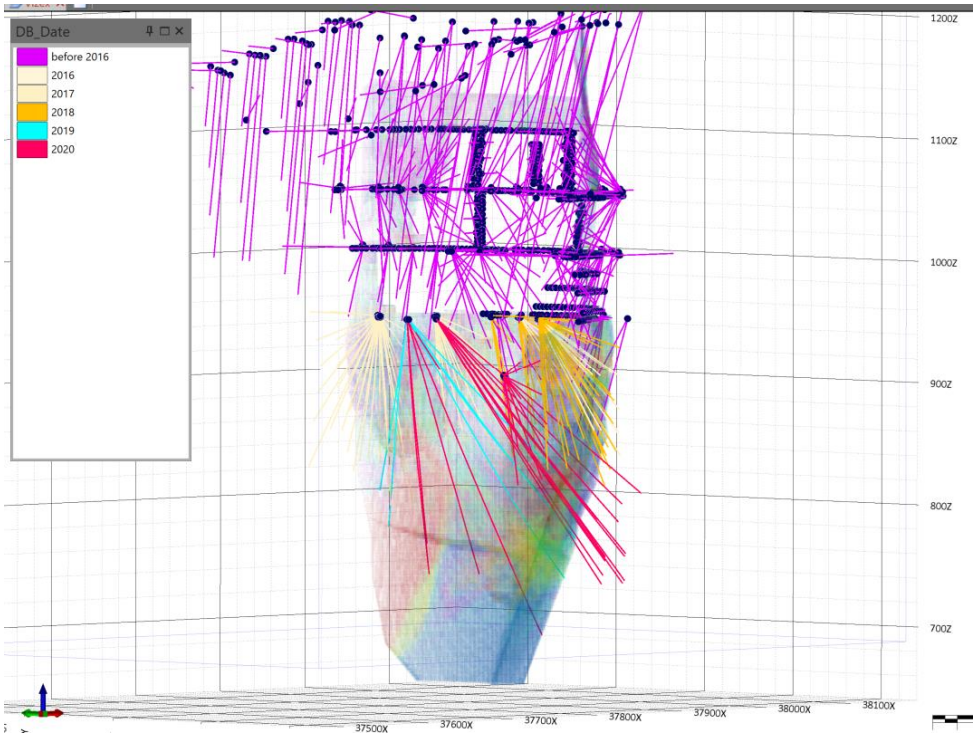


Figure 5-2: Krasivoe: Block Model of the orebody and exploration stages

The surface of the orebody lies at 1200 m ASL and has been explored to a depth of 450 m below surface.

The orebody above level 800 m comprises two ore shoots intersected by faults. The strike extent of the mineralisation is up to 300 m at surface. The average thickness of each shoot is just under 8 m, ranging from 20 m in the centre, thinning to 1 m at the flanks

Geological exploration work carried out in 2019 and 2020 showed that below level 800 m, two ore bodies are combined into one with a thickness of up to 40 m.

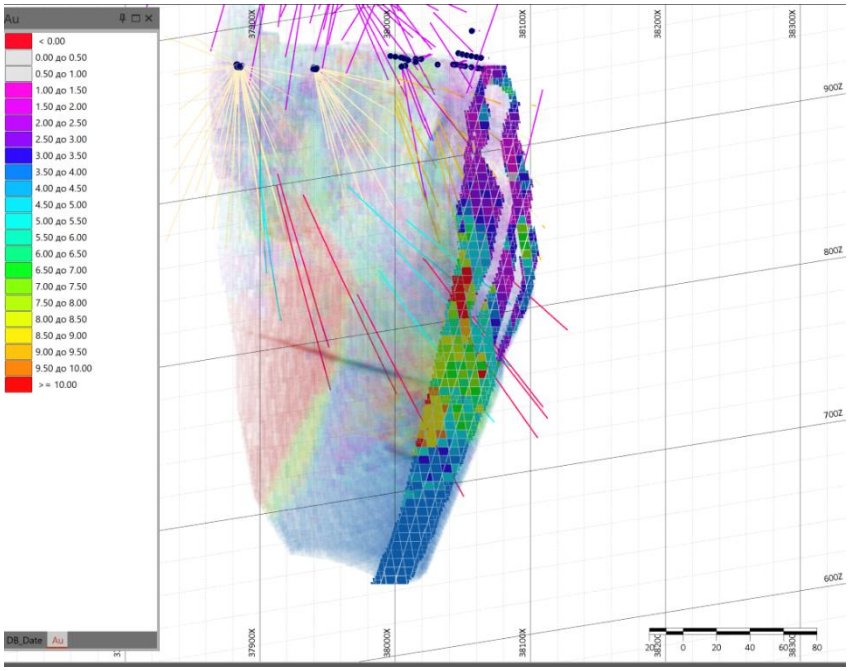


Figure 5-3: Krasivoe: Block Model of the orebody and exploration stages. Crossline

The grade distribution within the mineralised zone is uneven.

5.2.3 Krasivoe: Mineral Resource

5.2.3.1 Introduction

The most up to date mineral resource estimates for the project was signed by Alexander Polonyankin in July 2020 as in internal CP.

5.2.3.2 Exploration

Artel Starateley Amur, the fore-runner to AZ, began exploration in the area in 1997 and the maiden Mineral Resource estimate was prepared in 2007.

The last exploration program was carried out in 2019-2020. The last stage included drilling of 35 boreholes with a diameter of 76 mm. A total of 7,053 meters were drilled.

Exploration at the deposit includes surface tranches, underground workings (shafts with cross-cuts) and core drilling from surface and underground, the core diameter ranging between 93 mm and 59 mm.

SRK has not been provided with detailed information regarding core recovery, but available reports suggest this may have been in the order of 96% for the 2012-2018 drilling campaigns and close to 100% for the 2020 campaign.

Underground workings were channel sampled. The exploration grid constitutes 20-25 x 15-20 m on average, based on underground and surface drilling, and underground channel sampling.

Table 5-1 summarises the exploration completed to date.

Table 5-1: Krasivoe: Summary of Exploration Activities

Exploration type	Number	Metres
2016-2018 drilling campaign		
Trenches	42	1,400
Drillholes	227	17,315
Underground workings	541	5,308
Grade control workings	191	742
2019-2020 drilling campaign		
Drillholes	35	7,053

5.2.3.3 Data Quality and Quantity

Sample preparation and analysis was carried out at AZ's Kurung Laboratory during both exploration and production phases. SRK has reviewed the QAQC data available for Krasivoe, as presented in the 2007 GKZ report, in the 2012 Mineral Resource estimation report prepared by Micromine, and in the 2018 Mineral Resource estimation report and has concluded that exploration was accompanied by an appropriate QAQC programme, which included internal and external laboratory control.

QAQC data available for the 2019-2020 drilling campaign included internal geological control

(duplicates) and internal laboratory control (replicates)

The results of these programmes do not suggest any material issues with precision and repeatability of assays. SRK notes that grade control samples analysed during mining did not have an accompanying QAQC programme. The grade control assays do, however, confirm the existence of the high-grade zones delineated by exploration drilling.

SRK notes that core recovery was improved during the 2016-2018 drilling campaign and has increased from 70%-80% up to 95%.

5.2.3.4 Mineral Resource Statement (2020)

The 2020 Mineral Resource estimate at 1 July 2020 is reproduced below, using a cut-off grade of 2.5 g/t Au for underground mining (Table 5-2).

Taking into account the results of block model validation, SRK believes that the Mineral resources below level 750 m. can be classified as inferred

Table 5-2: Krasivoe deposit: Mineral Resource statement as at 1 July 2020

Classification	Quantity	Grade	Au Metal		Grade	Ag Metal	
	Mt	Au g/t	t	koz	Ag g/t	t	koz
Indicated	2.9	6.9	20.1	647	3.0	8.7	280
Inferred	1.6	5.8	9.1	293	2.2	3.4	108
Total	**4.5**	**6.5**	**29.2**	**940**	**2.7**	**12.1**	**388**

Note:

1. The Mineral Resources are inclusive of Ore Reserves.
2. The Mineral Resource Estimation was conducted based on the cut-off grade of 2.5 g/t; gold price used 1500$oz

Previous Mineral resource calculation

The 2019 Mineral Resource estimate is reproduced below, using a cut-off grade of 1.0 g/t Au for underground mining

Table 5-3: Krasivoe deposit: Mineral Resource statement as at 1 December 2019

Classification	Quantity	Grade	Au Metal	
	Mt	Au g/t	t	koz
Indicated	2.5	4.9	12.4	398
Inferred	0.2	5.1	1.2	38
Total	**2.7**	**5.0**	**13.6**	**436**

The increase of the resource is justified by the increase of the resource base until 750 level.

5.2.3.5 SRK Comments and Conclusions

Following its review of the 2020 Mineral Resource estimate and supporting data, SRK notes the following:

- Considering the results of validation of the block model using the swath plot method, SRK believes that mineral resources below level 750 m can be classified as inferred.
- There is a risk that average gold grade may be over-estimated in the Inferred material at depth.

- The classification of the material which may be over-estimated in the Inferred category should perhaps be lowered to Unclassified to reflect the absence of drill intersections in this area.
- The 2020 block model was prepared using 5 x 5 x 5 m blocks with 1.25 x 1.25 x 1.25 sub-blocks which SRK considers to be small, considering the density of supporting drilling.
- An effective grade control strategy will need to be maintained in order to mine selectively.

Notwithstanding the above comments and recommendations, SRK has undertaken its own check interpolations which support the tonnages and grades assumed by the Krasivoe life of mine (LoM) plan as presented in AZ's financial model and therefore SRK considers this achievable from a Mineral Resource perspective.

5.2.4 Ulun: Local/Deposit Geology and Mineralisation

The bedrock of the Ulun area comprises terrigenous-sedimentary strata of the Kondyor and Omninsky suites which dip sub-horizontally to the south-west and have been intruded to varying degrees by hornfelsed early Cretaceous intrusions of the Oblachny and Ketkapsky sequences. The southern part of the area (outside the immediate vicinity of the deposit) is located on the northern end of the Oblachny massif, represented by sub-alkaline rocks of the Ketkapsky sequence.

Dykes and sills of granodiorite-porphyries and diorite porphyries of the Oblachny sequence are also common in the area. A block (possible xenolith) of lower Archean metamorphic formations formed by amphibolite of the Odolinsky suite was mapped on the right bank of the Khangas-Yulyun stream.

Fault patterns of various displacement scales are quite intense. Mineralised formations outcrop at surface in the northern part of the area. The sandstone layer that hosts the mineralisation is found in the upper part of Kondyor suite. The mineralisation tends to be located at the upper part of this layer, although in some cases can be found throughout the layer and underlying siltstones.

The mineralisation is partially controlled by thin sill intrusions of diorite porphyries (in the order of a few meters thick) of the Oblachny sequence. The gold is erratically distributed, associated with quartz veinlets and often accompanied by clusters of hydrous iron oxides with pyrite and hematite.

A series of thin (2-3 m) interlayers of magnetite containing sandstones (silty sandstones) occur in the overlying siltstones and sandstones of the Omninsky suite,

5.2.5 Ulun: Mineral Resource

5.2.5.1 Introduction

The mineral resource estimate for Ulun reviewed by SRK was produced in 2016 by AZ and reported according to the JORC Code.

SRK notes there has been no change to the available data, information or estimation of mineral resources since 2016.

5.2.5.2 Exploration

Artel Starateley Amur commenced exploration in the area in 1997, with the majority of work carried out between 2002 and 2007. The exploration undertaken comprises surface tranches and surface drilling (with a core diameter of 76 mm). No production has yet taken place from the deposit. A summary of exploration activities is shown in Table 5-4.

Table 5-4: Ulun: Summary of Exploration Activities

Exploration type	Number	Metres
Surface Trenches	39	664
Drillholes	42	4,441

5.2.5.3 Data Quality and Quantity

The sample preparation and routine analysis was carried out at AZ's own laboratory at Kurung. The samples were first analysed by spectral analyses and then samples with a grade of greater than 0.2 g/t Au were subsequently subjected for fire assay.

The QAQC programme included internal and external control samples. The 2016 Mineral Resource estimation report for Ulun provided HORD plots for the results of internal and external control, which show good precision and repeatability of assay based on the results of control assays.

5.2.5.4 Mineral Resource Statement

The Mineral Resource statement prepared for the Ulun deposit by AZ in 2016.

The assumptions used to limit the model to material with reasonable prospects for eventual economic extraction are:

- gold price: 1,500 $/oz;
- process recovery: 87%;
- processing cost 36 $/t; and
- cut-off grade: 2.3 g/t Au.

The deposit has not been ever mined therefore the estimated performed in 2016 is valid. Therefore, the statement is presented in Table 5-5.

Table 5-5: Ulun: 2020 Mineral Resource Statement prepared by AZ

Category	Quantity	Grade	Au Metal	
	Mt	Au g/t	t	koz
Indicated	0.8	5.0	4.0	130
Inferred	0.1	4.1	0.5	15
Total	**0.9**	**4.9**	**4.5**	**145**

Note:

1. The Mineral Resources are inclusive of Ore Reserves.
2. The Mineral Resource Estimation was conducted based on the cut-off grade of 2.3 g/t; gold price used 1500$oz

5.2.5.5 SRK Comments and Conclusions

Following a review of the 2016 Mineral Resource estimate and supporting data, SRK notes the following:

- The selected block size is considered to be small, given the density of drilling. This combined with a small search ellipse results in a low number of samples considered in each run, which may lead to an unreliable local estimate.
- The resource classification applied is considered to be reasonable.
- High grade domain wireframes may be considered as optimistically extrapolated along strike.
- SRK produced a check model which suggests the 2016 estimate may be overly influenced by the modelled high-grade domain. SRK's single domain model may result in "smearing" of high grades but is considered to represent better overall grade distribution through the model.

In summary, while SRK's check model returned lower gold grade and contained metal at a 2.6 g/t Au cut-off grade than assumed by AZ, the deposit is at an early stage of evaluation and does not form part of the reported Ore Reserve. The exploration planned should in due course confirm the achievable grade and this will then be reflected in the Ore Reserve when this is reported.

5.3 Yubileyniy Complex: Exploration Potential

The high-grade portions of Ulun deposit do seem to be properly explored along strike and at depth, although there is some doubt as to whether extensions to these zones exist.

In an area adjacent to the Krasivoe licence, historical prospecting revealed a mineral occurrence situated 12 km to the south-west. The occurrence has been outlined based on surface geochemical data. No exploration work (trenching or drilling) has been carried out to date and further work on this anomaly is warranted.

5.4 Mining and Ore Reserves

5.4.1 Mining Operations

Krasivoe

Krasivoe is a high grade, underground gold mine which feeds the nearby Yubileyniy processing facility. The mine commenced production in 2004, initially using open pit methods and then switched to underground mining 2010. The mine was closed in 2012 following a fire in the processing plant and was re-opened in 2015. The Krasivoe underground mine is accessed by adits. A schematic diagram of the Krasivoe Underground Mine is presented in Figure 5-4.

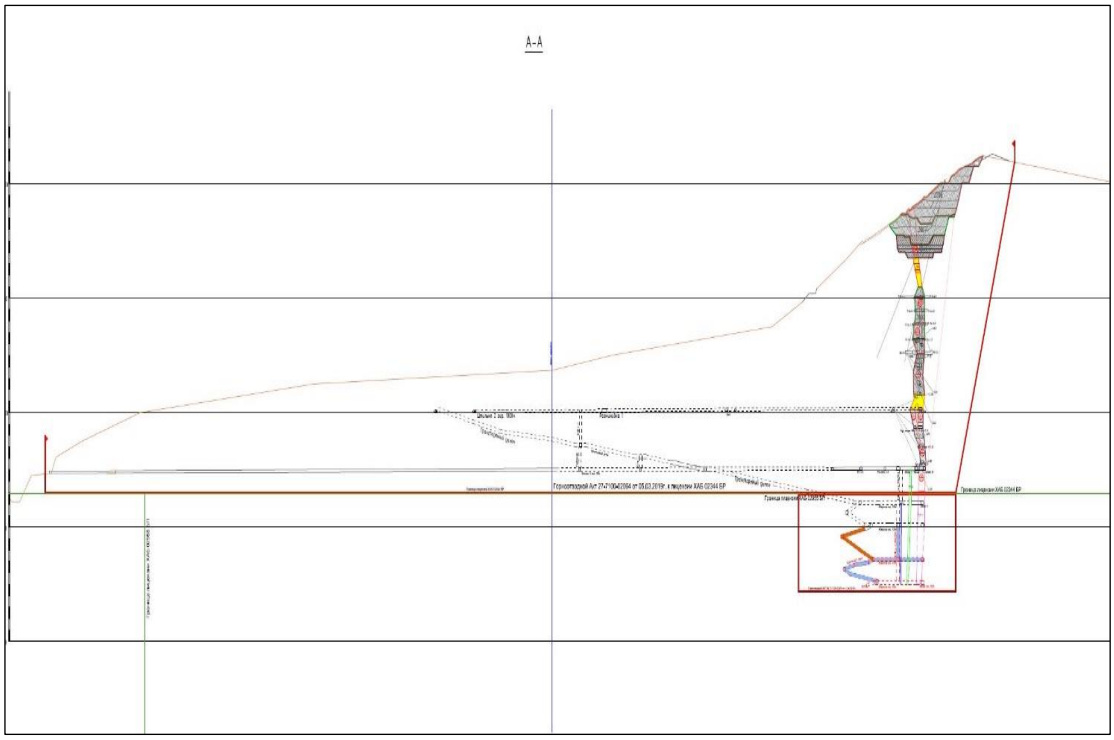


Figure 5-4: Yubileyniy Complex: Schematic Diagram of Krasivoe Underground Mine

The mine design, Ore Reserve and production schedule are based on Russian technical studies prepared in 2014 and updated in 2018. The Project for mining of 950-850 levels is planned to be confirmed by August 2020. AZ has also prepared a 3D block model, and this was used by SRK to verify the projected production. SRK verified the production rates, mining losses and dilution from historical production.

The Ore Reserve comprises the portion of the deposit above 750 mRL, about 450 m below surface. Mineral resources are classified as Indicated to this depth and Inferred below that. AZ is developing decline access to reserves below the lowest adit at 950 mRL.

The mining method is sub-level open stoping. The stopes above 950 m level are up to 50 m high, split into sub-levels every 15 m, up to 18 m wide and up to 40 m long. Below 950 m level, sublevels are planned to be 20 m or 30 m apart. The ore is blasted in fans 2 m apart.

The orebody is near-vertical, and the ground is unsupported other than by a 20 m crown pillar. The access rib pillars are extracted when the stope is exhausted. The sill pillar associated with the 1,000 m level is being progressively recovered as the stopes below are mined out. To date, some 100 vertical metres has been mined and the walls appear to be stable. The Ore Reserve assumes the mining of a further 200 vertical metres to the 750 m level. The project accepts the option of opening with an inclined ramp from the site of adit No. 2 at elev. 1000 m.

SRK notes that the geotechnical stability studies conducted to date follow the traditional Russian method which focuses on rock strengths rather than the presence and orientation of weaknesses. Leaving the sill pillar in place until the stopes below have been mined out provides temporary support which should minimise the risk of side wall collapse for the bulk of the ore. Unplanned losses and dilution are therefore likely to be limited to recovering the sill pillar. SRK recommends that modern geotechnical studies are conducted to verify whether the current sill pillar on the 1000 m level should remain or be blasted, and to verify the

appropriate strategy for pillar establishment and recovery at lower levels.

Based on the previous experience, the majority of horizontal and inclined exploration workings below the +950 m level are not supported, except junctions and areas with fractured or disturbed rock mass. The junctions and disturbed areas are supported with bolting (reinforced concrete bolts) and shotcrete of at least 30 mm thickness. It is also allowed to support these areas with double frames and continuous timber coverage between the frames.

Rock excavation and transport is by rail mounted compressed air and electrically powered equipment or by fully mobile diesel equipment. Blasted ore is initially drawn by gravity into sill drifts from where it is loaded by pneumatically powered overhead rocker shovels into 2.4 t railway wagons, or by 4 t capacity diesel loaders into 12 t capacity diesel haul trucks. The rail wagons are hauled by electric locomotives on the 950 m level to the portal, where they are tipped, and the ore is rehandled onto on-highway trucks for transporting to the process plant. Broken rock is hauled by the diesel haul trucks via a transport ramp to the surface at 1000 m, or to a loading point for transhipment by the 950 m rail transport system. All rock from below 950 m level will be hauled by diesel haul trucks to the 950 m level rail transport system, or to surface.

The mining equipment used is simple and well suited to small-scale operations. The drilling is by jacklegs for development and bar-drill for the 105 mm production holes. The drills are all powered by compressed air. There is two 4 t diesel loader, one 20 t and one 12 t capacity haul trucks in use, another two 20 t haul trucks will be purchasing to the site by November 2020.

5.4.2 Ore Reserve

The mine designs for Krasivoe were originally defined in a Proekt (the Russian equivalent of a Feasibility Study) in 2004, updated in 2014 and again in 2018. The 2020 Proekt further extends the designs. AZ's cost modelling includes forecast Life of Mine parameters based on actual operating experience:

- Mining loss and dilution 3% and 15% respectively
- Gold price: 1,500 $/oz
- Royalty 6%
- Mining cost 16 $/t
- Transportation 2 $/t
- Processing 42 $/t
- General and Administration 28 $/t
- Total operating costs 88 $/t
- Reserve cut-off grade 2.7 g/t Au

SRK reviewed the cut-off grade and current cost estimates and considers them to be reasonable.

SRK notes that the dilution parameters for Krasivoe are based on actual historical performance. SRK considers that the dilution could be improved through better geological modelling and drilling control. Should the stopes collapse, SRK notes the mining losses and

dilution will be higher. AZ has assumed similar mining losses and dilution for Ulun, although SRK would expect the mining losses to be marginally higher, but dilution to be lower due to the more accurate, short range drilling despite the narrower orebody.

The Ore Reserve statement given in Table 5-6 is based on the Indicated Resources within the mining block, adjusted for modifying factors, which, in this case, are the cut-off grade and mining losses and dilution. Stockpile balances at the reporting date are also included. All Ore Reserves are classified as Probable. No metallurgical or other constraints were identified.

Table 5-6: Yubileyniy Complex: Ore Reserve Statement as at 1 July 2020*

Ore source	Quantity	Grade	Au Metal		Grade	Ag Metal	
	Mt	Au g/t	t	koz	Ag g/t	t	koz
Krasivoe Mine	3.1	6.3	19.8	640	2.8	8.7	279
Total Probable Reserve	**3.1**	**6.3**	**19.8**	**640**	**2.8**	**8.7**	**279**

*Notes
1. Ore Reserves are included in the Mineral Resource Estimate dated 1 July 2020.
2. Ore Reserves for open pit are reported at HL 0.5 g/t and CIP 4.0 g/t cut-off grade.
3. Ore Reserves includes average loss and dilution 3.0% and 15%
4. Gold price of 1500$/oz

The mining of Ulun deposit is not in the Company plan, therefore Ore Reserves were not stated.

5.4.3 Production Schedule

The production rate from Krasivoe Mine is forecast to be 130 kt in 2020, increasing to 250 ktpa from 2022 and further increase to 400 ktpa when the second concentrator line is fully commissioned. This is higher than historical production rates but SRK considers operations have not yet reached their practical maximum. The forecast production rates are supported by comparisons with analogue operations. The Life of Mine production schedule is shown in Table 5-8. The production schedule includes a mining inventory comprising Probable Ore Reserves from Krasivoe deposit down to 750 horizon.

The scheduled grades for Krasivoe are derived from the planned mining sequence.

The processing inventory is exclusive of production from leaching of concentrates transported from the Perevalnoe Complex.

Based on the results of work in July 2020, there is a significant shortfall in terms of the main production indicators, namely: in the driving of mine workings, ore breaking, rock output, and the content and amount of metal in the ore. It is recommended that measures are developed to reduce the reported lag in key production indicators based on the results of work for seven months of 2020 and to carry out an analysis or additional studies on the issue of reducing or not confirming the metal content and the quality of the ore mined.

Continuance of the lag compared to Plan will affect the LOM plan and impact the timing of cashflow generation.

5.4.4 Mining Equipment Requirements

The mining fleet for Krasivoe will be expanded by two diesel loaders and three haul trucks as the depth of mining increases. The technology used for development and production drill and

blast will increase two times.

The main mining equipment is shown in Table 5-7.

Table 5-7: Krasivoe main mining equipment

Equipment	Year					
	2021	2022	2023	2024	2025	2026
Surface fleet						
Dozer (Liebherr PR 764)	4	1	1	1	1	1
Excavator (Volvo EC 700/Liebherr R966)	3	2	2	2	2	2
Loader V=3m3	2	2	2	2	2	2
Loader V=3m4	1	1	1	1	1	1
Dozer T-11 (waste stack)	2	2	2	2	2	2
Trucks Volvo (haulage)	8	3	3	3	3	3
Trucks – Kamaz (waste)	2	2	2	2	2	2
Trucks - Terex	1	1	1	1	1	1
Underground fleet						
Trucks KAMA UK-20 LP	1	4	4			
LHD UL-50	1	3	3			
Percussion Drill rig	1	1	1			
Percussion Drill rig		1	1			

Table 5-8: Yubileyniy Complex: LoM Production Schedule

Item	Year											
	Total	**2H2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
Mining inventory - Krasivoe												
Tonnage, kt	**3,130**	40	250	250	250	330	400	400	400	400	250	40
Grade Au, g/t	**6.33**	5.36	5.36	5.11	5.11	6.04	6.84	6.90	7.22	7.22	6.26	7.77
Metal Au, kg	**19,802**	216	1,339	1,277	1,277	1,993	2,736	2,760	2,889	2,889	1,566	313
Metal Au, koz	**637**	7	43	41	41	64	88	89	93	93	50	10

5.5 Mineral Processing

Yubileyniy is an historical processing facility that was shut down following a serious incident in 2012. The plant has now been rebuilt with a design capacity of 130 ktpa and has been operating since 2015. The plant produces gravity and flotation concentrates that are processed further (by cyanidation) on site. Concentrates produced at Perevalnoe are also treated at Yubileyniy.

The original plant design was for a recovery to the combined concentrate of 92.5%, although historical production records available to SRK indicate that this level of recovery was not commonly attained. A plant sampling campaign conducted by Irgiredmet in 2010 indicated flotation recoveries of the order of 85% and a final gold recovery of the order of 73%.

- The company has developed the Process Operating Procedure ("Reglament") for the technical upgrade of Yubileyniy Processing Plant to increase the processing throughput from Krasivoe deposit up to 250 ktpa and to process the gravity and flotation concentrates from the Perevalnoe Mobile Processing Plant. The proposed total recovery for Krasivoe ore is 83.2% for gold and 53.81% for silver.
- The production forecast shows plant feed rates of 130 ktpa in 2020, increasing to 250 ktpa in 2022 onwards and further to 400 ktpa by 2025. Au head grades decrease from 5.36 g//t Au in 2020 to 5.1 g/t Au from 2022 and from 2025 increase to 6.8-7.2 g/t.
- Currently the plant is processing ore from Krasivoe deposit and flotation and gravity concentrates from Perevalnoe deposit.
- The 2020 actual operating data shows that the plant processed an average of 75 ktpa of ore for the two-year period, at an average head grade of 5.5 g/t Au. The recoveries for Krasivoe ore averaged 76% for Au. SRK considers that low indicators from the Krasivoe deposit are associated with a lower by 11% head grade, due to the higher dilution at flanks of the ore body in the stopes at +950m horizon UG mine.

While only a limited amount of testwork has been reported, the operational history of Yubileyniy confirms the appropriateness of the selected flowsheet. Further testwork should, however, be undertaken to better understand the variability in the orebody's response to the selected flowsheet, particularly with regard to the influence of grind size and the variation with head grade.

The processing inventory for the Yubileyniy plant is given in Table 5-9.

Table 5-9: Yubileyniy processing inventory

	Processing inventory - Yubileyniy									
	2020	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
Tonnage, Mt	0.13	0.16	0.25	0.25	0.25	0.33	0.40	0.40	0.40	0.40
Grade Au, g/t	5.2	5.5	5.4	5.1	5.1	6.0	6.8	6.9	7.2	7.2
Metal Au, kg	674.9	881.5	1,339.2	1,277.3	1,277.3	1,990.8	2,736.3	2,759.6	2,889.3	2,889.3
Recovery %	76.7	80.0	79.5	78.5	78.5	81.8	83.9	84.1	84.8	84.8
Gold sold, kg	517.9	705.2	1,064.2	1,002.3	1,002.3	1,627.8	2,296.3	2,319.6	2,449.3	2,449.3
Gold sold, koz	4.1	5.4	8.2	7.8	7.8	13.4	20.7	20.9	21.8	21.8

SRK notes that the processing inventory is supported by the mining plan.

5.6 Tailings Management

Tailings material from the Yubileyniy plant will be stored in the existing tailings storage facility (TSF). Tailings storage design parameters include the assumptions:

- current rate of tailings disposal is 130,000 tpa;
- the forecast maximum rate of tailings disposal is 400,000 tpa;
- tailings are of the filtered cake type;
- the existing TSF is lined to prevent/reduce seepage to the environment; and
- AZ's intention is that all plant and mining operations circulate water within an internal system, with minimal discharge to the local environment from TSF.

SRK considers the tailings management plan at Yubileyniy to be reasonable.

5.7 Mine and Associated Infrastructure

At present, the mine is serviced by an all-weather road from Belkachy-Kondyor. Supplies are currently shipped from the river port of Tommot in Yakutia. Consequently, supplies are delivered to Tommot either during the summer by barge or via the ice road in winter, with no supplies delivered during the spring and autumn periods.

As the mine was previously fully operating, a camp for 300 people exists.

Logistics and maintenance are the responsibility of Yubileyniy GOK. Routine maintenance and repair service of the mining equipment is provided by the mine maintenance team or, if necessary, by the maintenance service of Yubileyniy GOK.

A diesel power plant supplies the operations with electricity.

SRK considers that these facilities are reasonable for a mine of this size and remaining mine life.

6 PEREVALNOE

6.1 Introduction

Mining from the Perevalnoe open pit commenced in 2015 and the processing plant was commissioned in 2017. The facility produces concentrate which is leached at the Yubileyniy process plant. Ore is currently mined from the Brekchiyevaya Pit, Priyatnoe pit and in future, will be mined from an underground mine below the open pit at Brekchiyevaya.

A general site layout for Perevalnoe is shown in Figure 6-1.

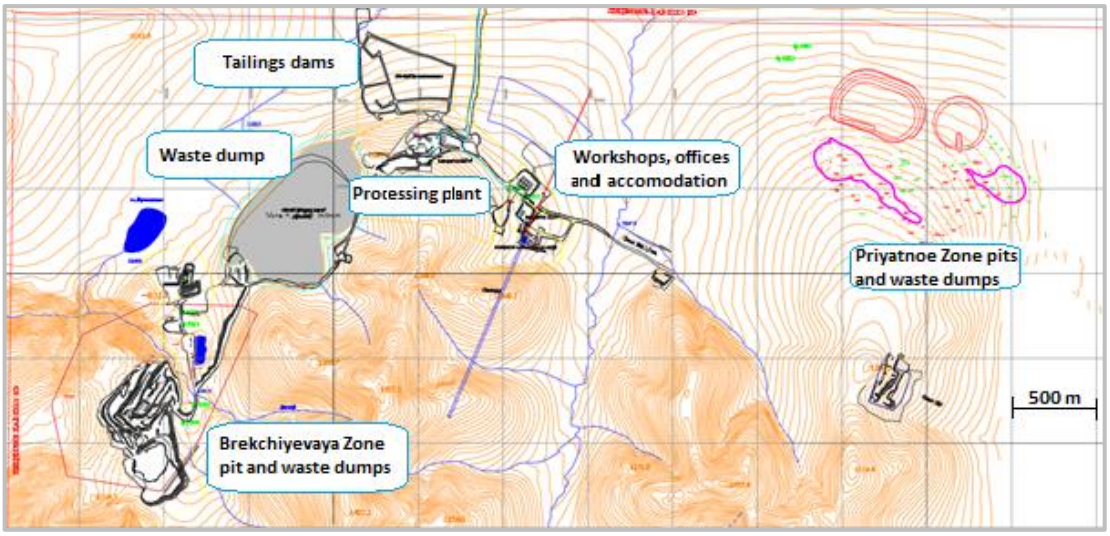


Figure 6-1: Perevalnoe: General Site Layout

6.2 Geology and Mineral Resources

6.2.1 Regional Geological Setting

The deposit is situated at the Western flank of the Preddjugjursky volcanic zone within the volcano-tectonic area of Lower Cretaceous age. Bedrock in the area is represented by volcanic rocks and anorthosites, intersected by basalts, andesites, dacites and rhyolites.

6.2.2 Local/Deposit Geology and Mineralisation

The deposit is hosted by Verkhne-uchurskaya volcanics which are of Lower Cretaceous in age. This sequence was formed during the Late Mesozoic orogeny and hosts the Perevalnoe ore bodies. These volcanics are dominantly andesitic in composition and lie unconformably over Archaean coarse grained anorthosites and gabbros, that outcrop to the north of the region.

The Perevalnoe deposit is represented by two zones, which are considered as two separate deposits; Brekchiyevaya Zone and Priyatnoe Zone.

The Brekchiyevaya deposit is hosted at a structural contact between the volcanics and anorthosites and is often described as a quartz-carbonate cemented pseudo-breccia. The Priyatnoe deposit by contrast is hosted within a silicified/brecciated north-northwest striking

structure within the Archaean anorthosites to the northeast of Brekchiyevaya.

The Brekchiyevaya zone corresponds to the faulted contact between anorthosites of the Djugdjur intrusive complex and volcanics of upper Neymunkansky suite. The zone consists of quartz-quartz-feldspar and quartz-sericite metasomatites which were brecciated and cemented by quartz, carbonate and sulphides of different generations. Multi-phase low sulphidation epithermal mineralisation has overprinted previous mineralisation with many phases containing significant quantities of sulphides, namely pyrite, chalcopyrite, galena, sphalerite and pyrrhotite. These phases of mineralisation have also resulted in chlorite, calcite, albite and potassium feldspar secondary alterations more strongly developed within the anorthosites.

The Priyatnoe deposit consists of up to 40 discrete mineralised bodies hosted within the anorthosite complex. The mineralisation is hosted within linear structural zones and is associated with quartz, arsenopyrite and chalcedony and constitutes a quartz–carbonate multi-phase epithermal mineralisation with a secondary chlorite, calcite and albite alteration zone. The thickness of the bodies averages between 3 m to 5 m.

6.2.3 Mineral Resources

6.2.3.1 Introduction

The most up to date geological models and Mineral Resource estimates for Brekchiyevaya and Priyatnoe deposits were produced by AZ in 2016 and were reported using the JORC Code. These form the basis of SRK's audit.

6.2.3.2 Exploration

In 2005, AZ commenced regional exploration with the aim of defining a hard rock occurrence likely to be the source of previously mined placers in the region. The work originally concentrated around the Brekchiyevaya occurrence, at the structural/brecciated contact between andesitic tuffs and Archaean anorthosites. In 2006 and 2007, drilling of Brekchiyevaya over a 40 x 20 m grid in combination with 20 m spaced channel samples, defined a small mineral resource. In 2008, an additional 8,000 m of drilling was carried out, mostly targeting down dip extensions of surface mineralised zones.

Priyatnoe was discovered in 2005 from regional soil sampling, within the Archaean anorthosites to the east of Brekchiyevaya. During 2009, four trenches were completed, one across the main Brekchiyevaya zone and three across Priyatnoe. A further 7,000 m was drilled on a 40 x 20 m grid southeast of Priyatnoe.

During 2010 and 2012, metallurgical samples were taken from both deposits. A summary of exploration activities completed to date is presented in Table 6-1.

Table 6-1: Perevalnoe: Summary of Exploration Activities

Exploration Type	Number	Meterage
	Brekchiyevaya	
Trenches	75	3,427
Drillholes	49	21,171
	Priyatnoe	

Trenches	121	834
Drillholes	318	30,326

6.2.3.3 Data Quality and Quantity

Sample preparation and routine analysis was carried out at the Artel Starateley Amur laboratory between 2006-2010 and the AZ laboratory between 2011-2012. Between 2006 and 2007, analysis was also carried out at the Kurung laboratory.

Samples with a gold grade of 0.2 g/t and more were subjected to fire assay. The limit of determination was 0.1 g/t Au and 5 g/t Ag. Not all of the routine samples were sent for analysis and consequently not all samples have silver grades.

The QAQC program included internal and external control. The Mineral Resource estimation report presented for the Perevalnoe deposits presents HARD plots for the results of these control assays, which seem to demonstrate good precision and repeatability.

The silver grade was not recorded for all samples and the following relationships were used to estimate the silver content for the block models and resource statements, as per the requirements of the Russian State authority, the GKZ:

- Priyatnoe Zone: Ag = 46.635833+3.059736*Au(g/t).
- Brekchiyevaya Zone Ag = 15.637229 + 0.781627*Au(g/t).

6.2.3.4 Brekchiyevaya Zone

The following assumptions were applied in order to limit the Brekchiyevaya resource model to material considered to have reasonable prospects for eventual economic extraction.

- Pit surface updated on 01/07/2020.
- The Open pit resource reports material failing into a final pit design above level 1080 m.
- The Underground resource reports material failing outside a final pit design and below level 1080 m.
- Heap leaching cut-off grade of 0.5 g/t; Mill Feed cut-off grade of 3.1 g/t. for Open Pit Mineral Resources.
- Mill Feed cut-off grade of 3.1 g/t. for Underground Mineral Resources.

The 2020 Mineral Resource statement for the Brekchiyevaya Zone is shown in Table 6-2 and the previous (2019) Mineral Resource statement is shown in Table 6-3.

Table 6-2: Brekchiyevaya Zone: Mineral Resource statement as at 1 July 2020

Classification	Ore Type	Quantity	Au Grade	Au Metal		Ag Grade	Ag Metal	
		Mt	g/t	t	koz	g/t	t	koz
Open Pit Mineral Resources								
Measured	Mill Feed	0.1	11.4	0.9	28	24.6	1.9	60
Measured	Heap Leach	1.2	1.1	1.3	40	16.5	19.1	615
Measured	Stockpiles	0.4	1.8	0.7	22	19.7	7.8	243
Indicated	Mill Feed	0.0	11.1	0.2	6	24.3	0.4	14
Indicated	Heap Leach	0.1	1.3	0.2	5	16.7	1.9	61
Underground Mineral resources								
Measured	Mill Feed	0.3	9.8	2.6	84	23.3	6.2	201
Indicated	Mill Feed	0.1	5.8	0.5	15	20.2	1.6	52
Total Brekchiyevaya Zone		**2.2**	**2.9**	**6.4**	**200**	**17.7**	**38.9**	**1245**

Note:

1. The Mineral Resources are inclusive of Ore Reserves.
2. The Mineral Resource Estimation was conducted based on the cut-off grade of HL:0.5 g/t, CIP: 3.1 g/t for Op and UG, gold price used 1500$oz
3. Silver grade is estimated based on Au/Ag ratio

Table 6-3: Brekchiyevaya Zone: Mineral Resource statement as at 1 January 2019

Classification	Ore Type	Quantity	Au Grade	Au Metal		Ag Grade	Ag Metal	
		Mt	g/t	t	koz	g/t	t	koz
Open Pit Mineral Resources								
Measured	Mill Feed	0.1	19.3	1.6	52	30.8	2.6	83
Measured	Heap Leach	2.6	0.9	2.5	79	16.4	42.8	1,375
Indicated	Mill Feed	0.0	16.0	0.2	7	28.1	0.4	12
Indicated	Heap Leach	0.3	1.0	0.3	10	16.4	4.9	159
Underground Mineral resources								
Measured	Mill Feed	0.2	11.2	2.4	77	24.4	5.2	168
Indicated	Mill Feed	0.0	8.7	0.3	9	22.4	0.7	24
Total Brekchiyevaya Zone		**3.3**	**2.2**	**7.3**	**234**	**17.4**	**56.6**	**1,820**

Following its review of the 2019 Mineral Resource estimate and supporting data, SRK noted the following:

- the approach to wireframing the high-grade zone, whilst attempting to follow the gold-bearing structure, may exclude too many lower grade intersections which are part of the mineralised system, which may result in over-estimation of grade in this domain;
- the chosen block size is considered to be reasonable for the current drilling density; however, the small search ellipse and relatively low number of samples could result in an unreliable local estimate;
- the resource classification as applied appears reasonable; and

- the silver grade was not recorded for all samples and a relationship was used to estimate the silver content for the missing samples, as per the requirements of the Russian State authority, the GKZ.

6.2.3.5 Priyatnoe Zone

The following assumptions were applied in order to limit the Priyatnoe resource model to material considered to have reasonable prospects for eventual economic extraction.

- Pit surface updated on 06/07/2020.
- The Open pit resource reports material failing into a final pit design.
- Heap leaching cut-off grade of 0.5 g/t; Mill Feed cut-off grade of 3.1 g/t. for Open Pit Mineral Resources.

The 2020 Mineral Resource statement for the Priyatnoe Zone is shown in Table 6-4.

Table 6-4: Priyatnoe Zone: Mineral Resource statement as at 1 July 2020

Classification	Ore Type	Quantity	Au Grade	Au Metal		Ag Grade	Ag Metal	
		Mt	g/t	t	koz	g/t	t	koz
Open Pit Mineral Resources								
Measured	Mill Feed	0.2	8	1.8	58	71.1	16	516
Measured	Heap Leach	0.5	1.4	0.6	21	50.9	23	753
Measure	Stockpiles	0.1	1	0.1	2	31	1.6	51
Indicated	Mill Feed							
Indicated	Heap Leach	0.0	2.3	0	1	53.7	1.0	34
Total Priyatnoe Zone		**0.8**	**3.1**	**2.5**	**82**	**52.0**	**41.6**	**1354**

Note:

1. The Mineral Resources are inclusive of Ore Reserves.
2. The Mineral Resource Estimation was conducted based on the cut-off grade of HL:0.5 g/t, CIP: 3.1 g/t for Op and UG, gold price used 1500$oz.
3. Silver grade is estimated based on Au/Ag ratio.

Previous Mineral Resource estimation

The 2019 Mineral Resource statement for the Priyatnoe Zone is shown Table 6-5.

Table 6-5: Priyatnoe Zone: Mineral Resource statement as at 1 December 2019

Classification	Ore Type	Quantity	Au Grade	Au Metal		Ag Grade	Ag Metal	
		Mt	g/t	t	koz	g/t	t	koz
	Open Pit Mineral Resources							
Measured	Mill Feed	0.1	12.8	1.5	49	85.6	10.2	329
Measured	Heap Leach	0.8	1.8	1.4	46	52.0	42.2	1,358
Indicated	Mill Feed							
Indicated	Heap Leach	0.0	2.1	0.1	2	53.2	1.4	46
Total Priyatnoe Zone		**1.0**	**3.1**	**3.0**	**97**	**56.2**	**40.5**	**1,733**

The Mineral resource base has decreased due to depletion.

SRK comments

Following its review of the 2019 Mineral Resource estimate and supporting data, SRK notes the following:

- the logic applied for selection of the high-grade domain is unclear and separate modelling of this may not be necessary in this case. The influence of this domain on the overall estimation is, however, considered to be limited;
- the chosen block size is considered to be reasonable for the current drilling density; however, the small search ellipse and relatively low number of samples could result in an unreliable local estimate;
- the resource classification applied is reasonable; and
- the silver grade was not recorded for all samples and a relationship was used to estimate the silver content for the missing samples, as per the requirements of the Russian State authority, the GKZ.

6.2.4 Perevalnoe: Exploration Potential

The Brekchiyevaya Zone has been fully explored at depth and at the south flank. At the north flank, the deposit is cut by a stream, which is probably the surface expression of a faulted contact. There is considered to be some exploration potential along strike to the north and north of the stream.

The Priyatnoe Zone has not been fully explored and several grab samples taken at surface suggest good potential for further discoveries in this area.

Within the license area, several occurrences were discovered on the basis of surface geochemistry during road construction (Zaozerny and Moytruk). Detailed exploration has not been carried out to date on these assets, although indications are that these may be limited in size.

The license immediately to the east of the Perevalnoe deposit covers ground which has seen extensive exploration undertaken by AZ. This area is considered to have good potential for the delineation of further, albeit limited, high grade gold mineralisation.

6.3 Mining and Ore Reserves

6.3.1 Ore Reserves

The Perevalnoe mine is producing from the Brekchiyevaya open pit. An underground mine will be developed below the Brekchiyevaya pit, so an attractive head grade is maintained.

A heap leach operation will be established to recover gold from the lower grade fractions of ore stockpiled from the open pits.

All open pit material requires blasting and ore is selectively mined using 5 m^3 backhoes in 5 m benches.

The Ore Reserves were initially defined in the TEO Konditsii for both the Brekchiyevaya Zone pit and Priyatnoe Zone pit. The mine design for the Brekchiyevaya Zone was further defined in the Proekt (Russian equivalent of a Feasibility Study) which was approved in 2015, whilst

the mine design for Priyatnoe was defined using an international consultant using the same criteria as was used for Brekchiyevaya.

AZ has defined the future mining plan at Brekchiyevaya by preparing a design based on an optimised ultimate pit shell above 1080 m horizon and optimising the underground potential ore below 1080 m horizon using the Datamine software Mining Shape Optimiser (MSO). The transition is planned to occur at the 1080 m horizon, 25 m below the pit floor at 1 July 2020. Figure 6-2 shows the Perevalnoe pit design from its 1 July 2020 position to the 1080 m horizon.

AZ's cost modelling includes forecast Life of Mine parameters based on actual operating experience:

- Gold price: 1,250 $/oz
- Mining cost 2.6 $/t
- Transportation 2 $/t
- Processing cost 12.4 $/t
- General and Administration 52 $/t
- Recovery 94% for CIP and 61% for HL

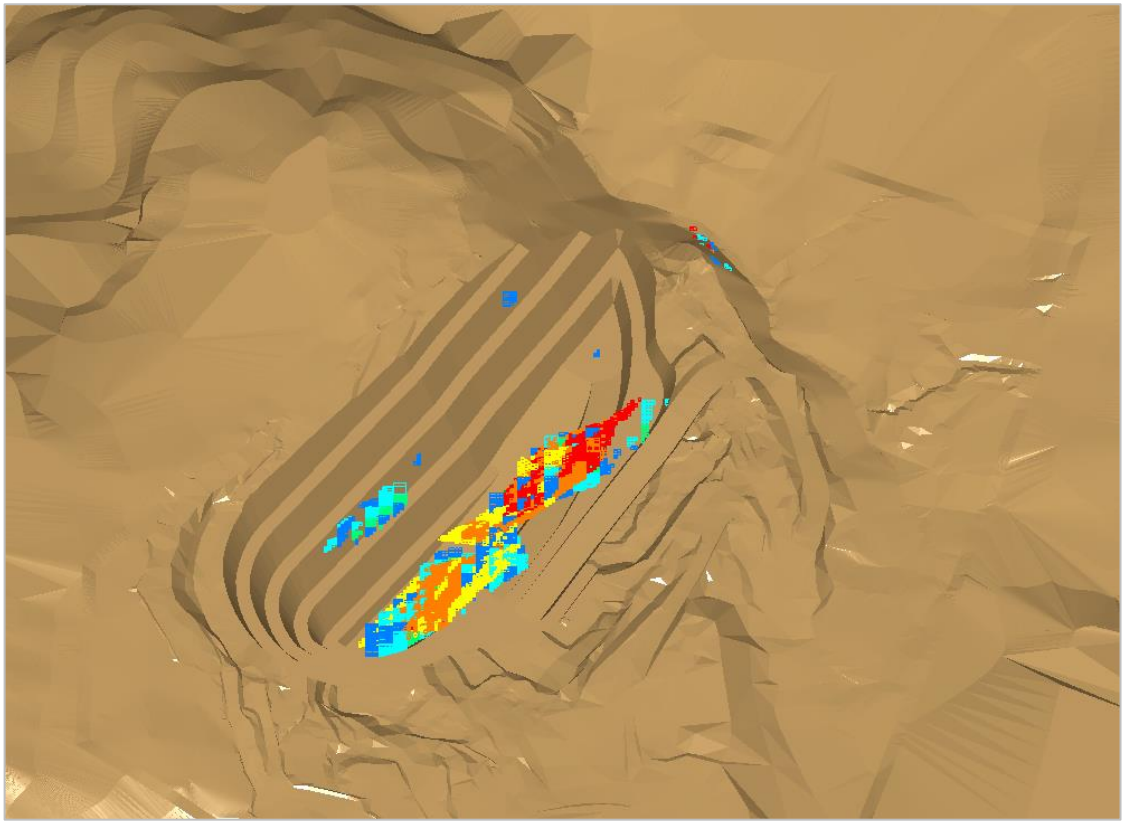


Figure 6-2: Brekchiyevaya pit to 1080 m horizon

The pit design uses the parameters shown in Table 6-6. Ore loss and dilution are calculated as 2.95% and 12.0% respectively in accordance with the classical Russian methodology.

High grade ore is defined at a cut-off grade of 4.0 g/t Au, and low-grade ore at a cut-off grade of 0.5 g/t Au.

Table 6-6: Brekchiyevaya pit design parameters

Parameter	Unit	Design Value	Actual Value
Bench face angle	deg	65-West, 75-East	70
Final bench height	m	20	30
Safety berm width	m	7	10
Ramp width	m	20	21
Overall slope angle (hanging wall)	deg	38 - 56	57
Ramp gradient	deg	8 (max)	5

Figure 6-3 shows the mining plan for the Brekchiyevaya underground mine. An access decline will be mined from the northern end of the pit at the 1100 m horizon and spiral down the footwall side of the orebody. Development will be undertaken with an electro-hydraulic single boom drill jumbo. The mining method for 65% to 75% of the reserves will be sublevel open stoping with blastholes drilled by a mobile electro-hydraulic ring drill. 10% to 20% of the ore is expected to be mined by mechanised cut-and-fill with dry waste backfill. Production development will provide 15% of the ore. Blasted ore will be loaded by 7 t capacity diesel powered loaders and transported to the crushing plant in 20 t capacity haul trucks.

A minimum mining block size of 3 m x 5 m x 1.2 m was adopted with a mined block cut-off grade of 6 g/t gold. For open stoping, ore loss and dilution of 2% and 8% were calculated, for cut-and-fill stoping, 5% and 10%, and for pillar recovery, 20% and 25%.

SRK reviewed the cut-off grade and current cost estimates and considers them to be reasonable.

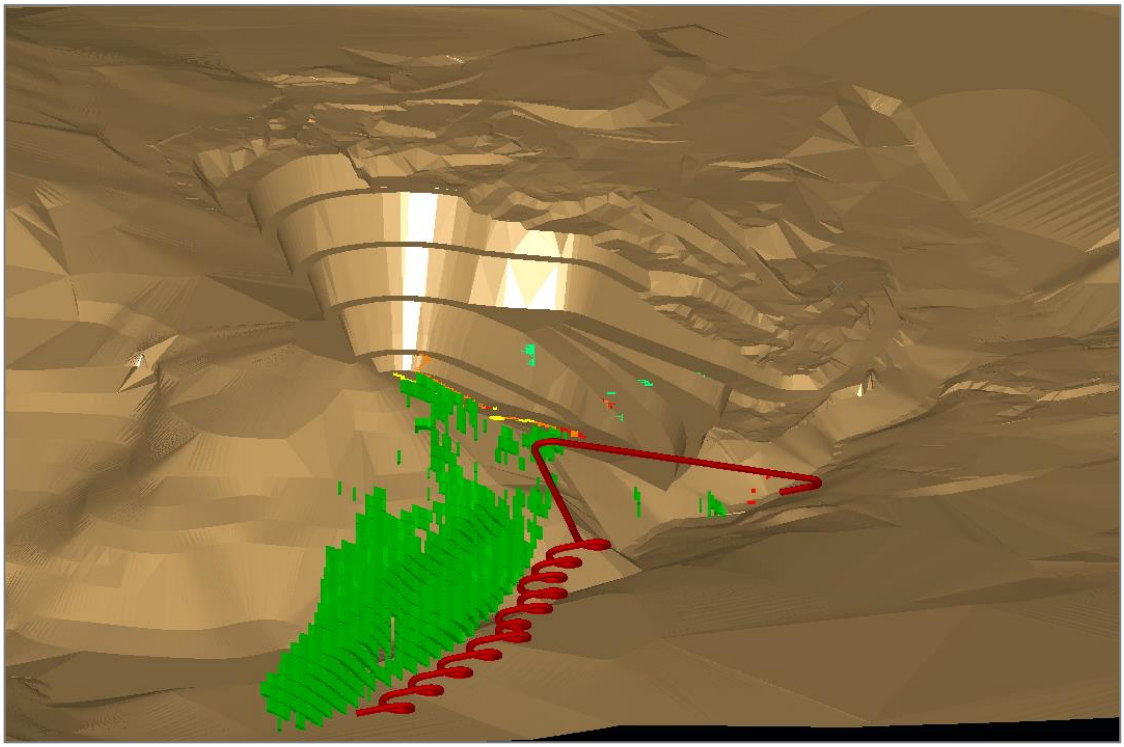


Figure 6-3: Brekchiyevaya underground mine below 1080 m horizon

Two pits are designed at Priyatnoe, the West and East pits, following conventional optimisation methodologies. The pits are designed with the parameters shown in Table 6-7. Mining losses of 12.9% and dilution of 44% are provided for. High grade ore is defined at a cut-off grade of 4.0 g/t Au, and low-grade ore at a cut-off grade of 0.5 g/t Au. The larger western pit, the deepest of the two pits is 100 m deep, the eastern pit is 65 m deep.

Table 6-7: Priyatnoe pit design parameters

Parameter	Unit	Design Value	Actual Value
Bench face angle	deg	75	75
Final bench height ore	m	20	20
Safety berm width	M	7	7
Ramp width – one way	M	12	15
Ramp width – two way	m	20	23
Overall slope angle (hanging wall)	deg	50	50
Ramp gradient	deg	8 (max)	4.5

SRK has reviewed the mining designs, schedules, costs and cut-off grades applied to the different ore types and mining zones and considers them reasonable. AZ's economic model confirms the profitability of the mining inventories which form the basis of the Ore Reserves. The Ore Reserves include material stockpiled at Perevalnoe. The 1 July 2020 statement of Ore Reserves is shown in Table 6-8. All Ore Reserves are classified as Probable.

Table 6-8: Perevalnoe complex: Ore Reserve Statement as at 1 July 2020*

Ore source	Quantity	Grade	Au Metal		Grade	Ag Metal	
	Mt	Au g/t	t	koz	Ag g/t	t	koz

Brekchiyevaya OP	0.2	6.8	1.4	45	25.9	5.2	167
Brekchiyevaya UG	0.2	7.8	1.3	55	21.4	4.3	138
Brekchiyevaya HL	0.3	1.3	0.4	15	16.8	5.0	162
Stockpiles	0.4	1.5	0.5	17	7.6	3.0	98
Priyatnoe	0.1	5.0	0.7	24	62.0	6.2	199
Priyatnoe HL	0.16	1.2	0.2	6.2	46.3	7.4	238
Total Perevalnoe	**1.4**	**3.3**	**4.5**	**162**	**22.9**	**31.1**	**1,002**

*Notes:

1. Ore Reserves are included in the Mineral Resource Estimate dated 1 July 2020;
2. Brekchiyevaya Ore Reserves for open pit are reported at HL 0.5 g/t and CIP 4.0 g/t cut-off grade;
3. Brekchiyevaya Ore Reserves for underground are reported at CIP 6.0 g/t cut-off grade;
4. Priyatnoe ore Reserves are reported at HL 0.5 g/t and CIP 4.0 g/t cut-off grade;
5. Brekchiyevaya ore Reserves includes average loss and dilution 2.95% and 12.0%;
6. Priyatnoe ore Reserves includes average loss and dilution 12.9% and 44% respectively;
7. Gold price of 1250$/oz

6.3.2 Mining Equipment Requirements

The planned main mining equipment and number of units to be used are shown in Table 6-9:

Table 6-9: Perevalnoe: Mining Fleet

Equipment	2021	2022	2023
Surface fleet			
Dozer (Liebherr PR 764)	4	1	1
Excavator (Volvo EC 700/Liebherr R966)	3	2	2
Loader V=3m3	2	2	2
Loader V=3m4	1	1	1
Dozer T-11 (waste stack)	2	2	2
Trucks Volvo (haulage)	8	3	3
Trucks – Kamaz (waste)	2	2	2
Trucks - Terex	1	1	1
UG			
Trucks KAMA UK-20 LP	1	4	4
LHD UL-50	1	3	3
Percussion Drill rig	1	1	1
Percussion Drill rig		1	1

Based on the production profile, with waste stripping peaking in 2019, open pit mining ceasing by 2021, and underground mining finishing in 2023, no further replacement equipment is proposed. SRK considers this approach to be reasonable.

The fleet will be available after completion of mining to exploit additional resources which may be identified at that time.

6.3.3 SRK Comments

From the July 2020 performance results, the open pit of Brekchiyevaya ore zone has a significant shortfall in the key production indicators: drilling, ore mining, grade and amount of

metal in the ore:

Performance from the beginning of the year shows variable results:

- Metal grade in the ore has been 3.8 g/t or 50% greater than planned.
- At the same time, SRK notes that the other key indicators were significantly below the plan: ore mining, stripping, production drilling, etc.
- The increase in the metal grade mined could not compensate for the decrease in the production tonnage; from the beginning of the year, the amount of metal in the ore mined has been significantly below plan by 68.3 kg or 20%.
- Since 2017, there has been a sharp increase in the stripping ratio at the Brekchiyevaya ore zone amounting to 12.8 t/m^3.

6.4 Mineral Processing

Processing testwork of the Perevalnoe ore samples using flotation methods was carried out by Irgiredmet, TOMS and Irkutskgeofizika.

Mineralogical and diagnostic leach analyses of samples showed that the ore contains a significant amount of free gold. The practice of testing this type of ore has shown that the presence of coarse free gold significantly complicates the prospection stage due to the uneven distribution of gold in the processing products and a significant scatter of the assay results. Therefore, the optimal flotation parameters were selected based on the gravity process tailings.

Key findings from the processing studies:

1. The testwork data correlate well with the material composition studies of ore samples.
2. No final tailings were produced by gravity concentration of all the ore samples studied; the gravity methods can therefore be included in the flowsheet only to capture free gold in the head of the process. The maximum recovery of gold is achieved only when using combined processing methods.
3. Given that the ore contains gold of up to 0.5 mm in size, it is recommended to apply gravity concentration in the grinding cycle to continuously recover free gold particles from the circulating flow.
4. Low content of impurities in the ore allows good processing performance by metallurgical methods.
5. A gravity-flotation flowsheet is recommended for industrial implementation based on the completed testwork of Perevalnoe ore. The recommended flowsheet provides for gravity and flotation processes in the grinding cycle and separate hydrometallurgical processing of gravity and flotation concentrates.
6. All tested ore samples from the Perevalnoe deposit are characterized by a high proportion of free (gravitated) and cyaniding metal.
7. The processing parameters established by the testwork can be used to prepare Process Operating Procedures for the design and construction of a processing plant at the Perevalnoe deposit.

In 2013 TOMS carried out pilot testing using ore blend from the Priyatnoe and Brekchiyevaya zones of the Perevalnoe deposit with a gold grade of 6.15 g/t and silver grade of 19.88 g/t and applying the recommended flowsheet. The recoveries into saleable products amounted to 90.87% for gold and 29.71% for silver.

AZ's plant at Perevalnoe produces gravity and flotation concentrates on site which are then transported to the Yubileyniy facility for leaching.

The performance of the Perevalnoe Mobile Processing Plant in H1 of 2020 was:

- Actual grade in ore - 5.6 g/t, versus 7.24 g/t planned in the design.
- Actual grade in gravity concentrate – 763 g/t, versus 855 g/t designed, which is largely due to the feed grade being lower than planned;
- Actual grade in the flotation concentrate – 99.2 g/t, versus 61.65 g/t designed;
- Actual overall recovery – 94.2% versus 90.0% designed. Therefore, good processing performance was achieved from a relatively low gold grade in the feed.

These recovery figures (at least for Au, where data is more readily available than for Ag) are broadly consistent with the testwork results, although for Priyatnoe ore the testwork gravity / flotation recoveries were higher and the subsequent leach recoveries lower than the forecast figures, although the overall result is consistent.

SRK notes that the design capacity of the Perevalnoe plant is 125 ktpa. SRK has not been provided with any documentation justifying the forecast production figures of up to 160 ktpa, but it has been achieved by 1 July 2020.

While the testwork conducted has been appropriate in terms of the flowsheet options investigated, and the scale and quality of the work was satisfactory, further testwork should be undertaken in order to better understand the variability in the orebody's response to the selected flowsheet. This is particularly the case for the Priyatnoe ore zone, where the testwork to date has shown some variability in leaching response and the level of refractory gold present. Given the presence of arsenopyrite in this ore zone, and its absence in the Brekchiyevaya Zone, it seems reasonable to assign the refractory component to this mineral. However, the testwork conducted to date has not demonstrated any consistent relationship between the As content and the Au and Ag recoveries achieved.

The processing plan in resented in Table 6-10.

Table 6-10: Perevalnoe plant processing schedule

	Units	Total	2020	2021	2022	2023
Total ore processed at Mobile Processing Plant	kt	581	157	160	135	129
Average Au grade in ore	g/t	6.7	6.70	6.30	7.73	6.08
Average Ag grade in ore		20.8	24.15	16.53	22.10	20.60
Gold in feed	kg	3,893	1,053	1,008	1,047	785
Silver in feed		12,090	3,795	2,645	2,991	2,659
Gold recovery	%	93	93%	91%	94%	95%
Silver recovery	%	83	83%	92%	79%	79%
Gold in concentrate	kg	3,635	981	919	989	745.5
Silver in concentrate	kg	10,057	3,153	2,440	2,363	2,101

SRK notes that the processing plan is supported by the mining schedule.

The plan for processing the low grade ore using heap leach is presented in Table 6-11.

Table 6-11: Perevalnoe HL processing schedule

	Total	2021	2022	2023	2024
Ore to HL, t	830	200	210	210	210
Average Au grade in ore, g/t	1.5	1.5	1.5	1.5	1.5
Gold recovery	%	60	60	60	60
Gold produces, kg	740	178	187	187	187
Gold produces, koz	24	6	6	6	6

The amount of material planned for heap leach is supported by the mining schedule. The proposed recovery for gold constituted 60% which is supported by Process Operating Procedures (Reglament). The recovery for silver is not stated in the documents provided.

6.5 Mine and Associated Infrastructure

At present, the mine is serviced by an all-weather road from Kiran, a port and airport on the Okhotsk Sea. Kiran lies about 160 km from the Perevalnoe site. Supplies are currently shipped from the river port of Tommot in Yakutia. Consequently, supplies are delivered to Tommot either during the summer by barge or via the ice road in winter, with no supplies delivered during the spring and autumn periods.

The concentrate is shipped from Perevalnoe to Yubileyniy for processing via an ice road, open for approximately four months of the year.

Mine maintenance facilities, assay laboratory and diesel fired power station are established near the processing plant. An accommodation camp for 200 people is available.

The construction of the heap leach facilities is due to be finished on site during 2020.

SRK considers that these facilities are reasonable for a mine of this size and life.

6.6 Production Schedule

Open pit mining at the Brekchiyevaya Zone will continue until 2021 using West and East pit. The underground mine will be developed and start producing in 2022, following the open pit. Production will continue until the MSO optimised reserves are exhausted in 2023.

Mining at Priyatnoe commenced in 2019 and will be completed by the end of 2021.

Production cut-off grades of 0.5 and 4.0 were used to define the low- and high-grade ores for heap leach and CIP processing.

The LoM production schedule is shown in Table 6-12.

The mining schedule at Brekchiyevaya primarily targets high-grade ore and mines the high-grade reserves bench by bench. Low-grade and waste is advanced in subsequent cut-backs as required to prepare for future high-grade ore mining. The mining sequence for Priyatnoe follows the schedule defined using pit optimisation software Figure 6-4 and Figure 6-5 show the site layout for each of the Perevalnoe open pits.

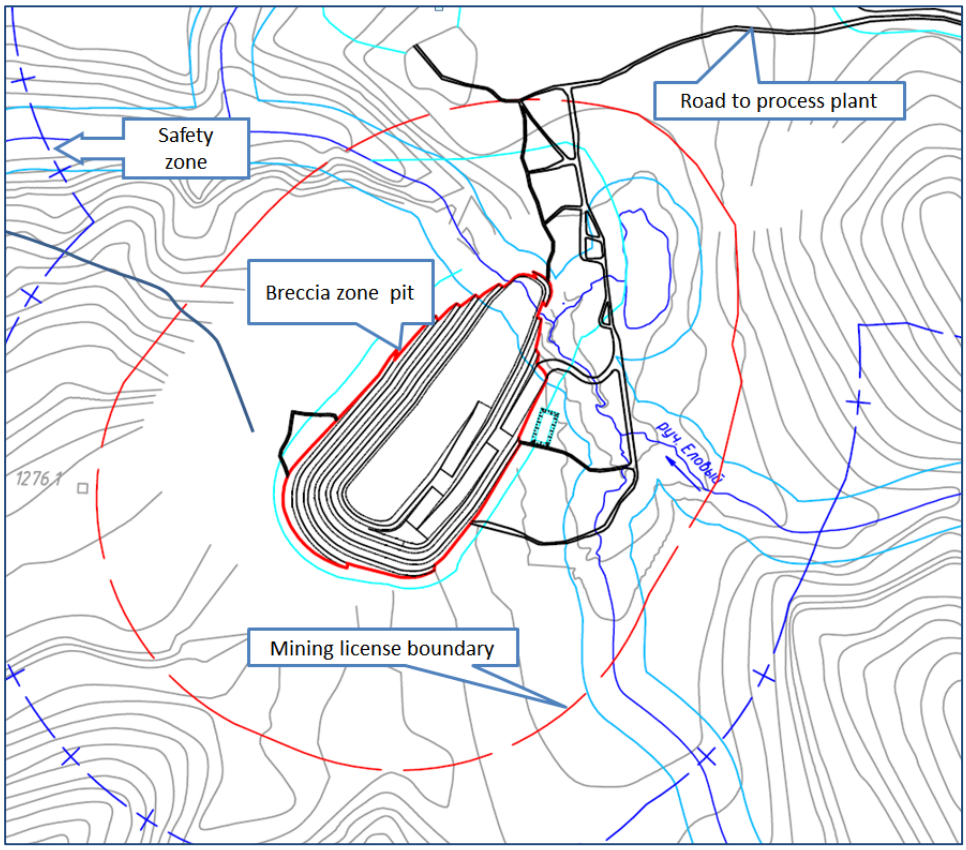


Figure 6-4: Perevalnoe: Brekchiyevaya Pit

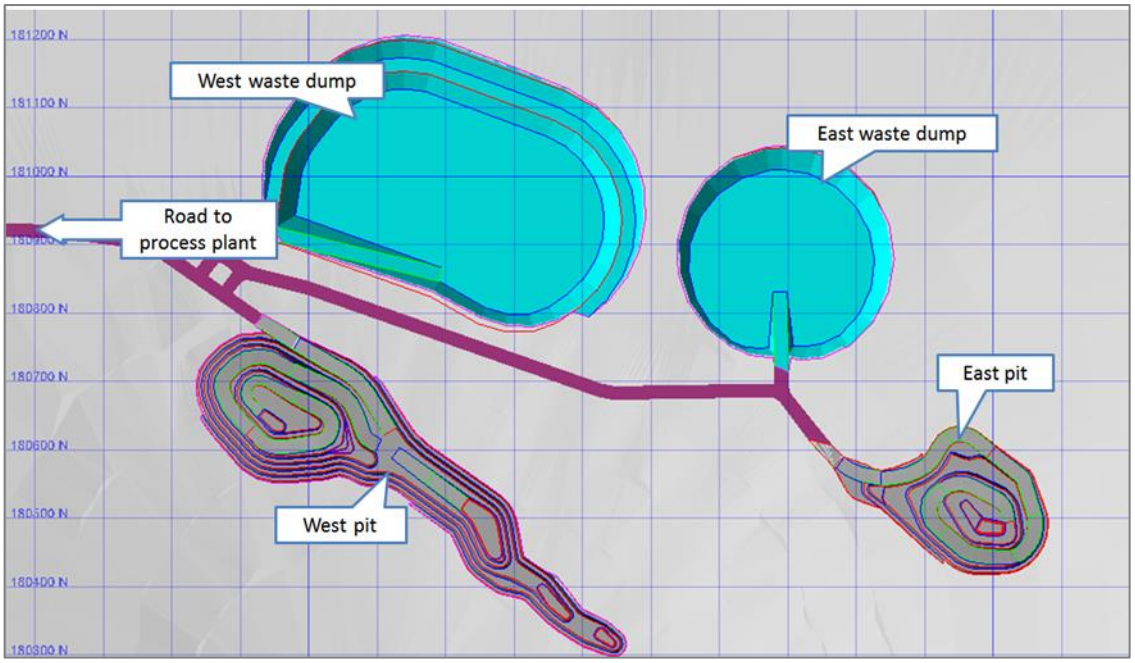


Figure 6-5: Perevalnoe: Priyatnoe Zone Pit

Table 6-12: Perevalnoe: LoM Production Schedule

Parameters		Units	Stockpiles	H2, 2020	2021	2022	2023
Brekchiyevaya Pit	Total material mined	km^3		852.875	337.9		
	Waste mined	km^3		767.873	234.5		
	HG Ore mined	kt	7.572	30.611	40.2		
	Au grade	g/t	4.84	14.77	12.26		
	Au in ore	kg	36.63	452.19	492.8		
	LG Ore mined	kt	37.049	19.130	49.7		
	Au grade	g/t	3.48	2.72	2.68		
	Au in ore	kg	128.90	51.95	133.3		
	Ore HL	kt	351.478	146.912	182.1		
	Au HL, g/t	g/t	1.52	1.33	1.24		
	Au HL	kg	534.89	195.50	224.9		
Total Brekchiyevaya Pit	**Ore**	kt	**396.1**	**196.7**	**272.0**		
	Grade, g/t	g/t	**1.77**	**3.56**	**3,129.0**		
	Au	kg	**700**	**700**	**851**		
	Au	koz	**23**	**23**	**27**		
Priyatnoe	Total material mined	km^3		767.167	103.4		
	Waste mined	km^3		701.684	84.2		
	HG Ore mined	kt	4.576	30.151	22.4		
	Au grade	g/t	7.29	6.39	7.08		
	Au in ore	kg	33.36	192.54	158.42		

Parameters		Units	Stockpiles	H2, 2020	2021	2022	2023
	LG Ore mined	kt	3.173	37.3	17.788		
	Au grade	g/t	3.16	2.51	2.46		
	Au in ore	kg	10.03	93.66	43.81		
	Ore HL	kt	44.805	61.8	16.59		
	Au HL, g/t	g/t	1.20	1.12	1.21		
	Au HL	kg	53.62	69.46	20.03		
Total Priyatnoe	**Ore**	kt	52.554	129.3	**56.8**		
	Grade, g/t	g/t	1.85	2.75	**3,915.9**		
	Au	kg	97	356	**222**		
	Au	koz	3	11	**7**		
Brekchiyevaya underground	**Capital development**	m			**703**	**1,509**	
	Preparatory development	m			**140**	**651**	
	Capital development	kt			**25**	**55**	
	Preparatory development	kt			**8**	**23**	
	Ore					**116**	**100**
	Grade	**g/t**				**8.3**	**6.4**
	Au					**955**	**704**
	Au	koz				**31**	**23**
Perevalnoe	Total material mined	km^3		1,620	441.3		
	Waste mined	km^3		1,470	318.6		
	Capital development	m			25.4	55	
	Preparatory development	000 t			7.7	23	
	HG Ore mined	kt	12.148	60.76	62.6		
	Au grade	g/t	5.76	10.6	10.4		
	Au in ore	kg	69.99	644.7	651.2		
	LG Ore mined	kt	40.2	56.4	67.5		
	Au grade	g/t	3.45	2.58	2.6		
	Au in ore	kg	138.93	145.6	177.1		
	Ore HL	kt	396.283	208.7	198.7		
	Au HL, g/t	g/t	1.49	1.27	1.2		
	Au HL	kg	588.51	264.96	244.9		
	Ore underground	kt				**116**	**100**
	Grade underground g/t	g/t				**8.3**	**6.4**
	Au underground	kg				**955**	**704**

Parameters		Units	Stockpiles	H2, 2020	2021	2022	2023
Total Perevalnoe	Ore production	kt	449	326	329	116	100
	Average Au grade in ore	g/t	1.78	3.2	3.3	8.3	6.4
	Gold in ore mined	kg	797	1,055	1,073	955	704
	Au	koz	26	34	34	31	23

7 MALYUTKA

7.1 Introduction

Malyutka is an open pit deposit where gold is planned to be recovered via heap leaching. The following sections provide an overview of geology, Mineral Resources, mining and Ore Reserves as well as mineral processing.

7.2 Geology

7.2.1 Regional Geological Setting

The Malyutka deposit is located in the Tas-Yuryakh area, in Verhneulinskaya placer district. Structurally, the area is in the southern part of Ulinskaya volcanic depression, which corresponds to the Ulinskaya metallogenic province.

This area is composed of 70% Cretaceous volcanics and 30% intrusive rocks. In the valleys of watercourses, igneous rocks are covered by loose alluvial and Quaternary sediments.

7.2.2 Local/Deposit Geology and Mineralisation

The mineralized body corresponds to the south-west nose of the Lotkansky syncline with its south-east limb, constituting rocks of the Ustudimmsky suites and Inikanchansky suites. Mineralisation is hosted within the monoclinal bedded Ustkirbinsly siltstones whose axial plain forms a sigmodal path to the north east. Secondary alternation of this host is represented by widespread carbonatisation (0 to 10%) and sericitization (0 to 30%). Oxidation and weathering are not well developed across the area.

Mineralisation at Malyutka exists as low-sulphidation epithermal hematite-pyrite type, typical for the gold-sulphide-quartz Allah-Unsky province and is hosted in the gently folded siltstone. The core zones constituting the high-grade material contain 1-8 cm wide, short strike length (5-70 m) quartz, hematite-quartz and quartz-calcite vertically dipping veinlets trending 50 – 70º. This core zone corresponds well with the core of the folded siltstone, possibly associated with cleavage, and the northeast trending soil anomalies, and is often surrounded by a halo of lower grade pervasive silicification. Both these veinlets and zones of silicification dip within a cataclastic zone at around 75-90º.

7.3 Mineral Resources

7.3.1 Introduction

The most up to date Mineral Resource estimate was prepared by the Company in accordance with JORC, in 2016. This is the basis of SRK's audit.

7.3.2 Exploration

Exploration campaigns at Malyutka were carried over various stages:

1998-2000: Exploration programmes were carried out by the Tas-Yurah mining company. Tas-Yurah drilled multi-directional holes (18,500 m total) which intersected gold mineralisation but fell short of assessing the full extent of the quartz veinlet mineralisation. In 1998, three metallurgical samples from core were composited and analysed by Kappes, Cassiday and Associates, Reno, Nevada with the aim of developing Malyutka as a low-grade blend material for the nearby Tas-Yurah mine.

2002-2003: AZ carried out 4,274 m of drilling and 1,437 m of trenching and, in 2003, the first resource estimation report was prepared and confirmed by GKZ.

2004-2005: AZ carried out trenching across strike at 20-40 m spacing and inclined drilling (85-70°) on a 40 x 20 m grid. Most of the samples were prepared in the laboratory at the Tas-Yurah plant and assayed at AZ laboratory in Kurung.

In total, during the 2002-2005 exploration programmes, 9,503 m of core drilling from 126 holes and 12,153 m of channel sampling was completed.

2008: Exploration carried out by AZ assessed known mineralised zones by trenching over 80 m, separate ore bodies were intersected by core drilling up to the depth of 200 m.

2011-2012: Exploration performed by AZ and JSC TOMS engineering under the contract.

Based on the results of exploration between 1996 and 2013, the TEO and mineral resource estimation reports were prepared for open pit mining.

7.3.3 Data Quality and Quantity

Analysis of samples was carried out in a number of laboratories during these exploration campaigns:

1996-1999: Khabarovsk GGGP laboratory.

2002-2011: Amur Zoloto laboratory in Kurung.

2012: The majority of the samples analysed in the laboratory of GRE "Vostokgeoldobycha", with the remainder sent to JSC "Irgiredmet" in Irkutsk (methods NCAY №497-XC, NCAY # 505-X).

SRK notes that all laboratories are certified by the Russian Federal Scientific and Methodological Centre for Laboratory-Governmental Research and Certification of Mineral Raw Materials.

Most of the samples were subjected to spectral analysis for Au, Ag and accompanying elements Sn, W, Mo, Cu, Pb, Zn, Bi, As, Sb, and P.

Samples with a grade of 0.2 g/t Au and more were subjected to fire assay. The limit of determination was 0.1 g/t Au and 5 g/t Ag.

SRK has reviewed the QAQC data available for the deposit presented in the TOMS engineering report and Resource Estimation report prepared by Micromine CS.

SRK concluded that exploration work was accompanied by QAQC which included internal and external control. The results of this control did not reveal any problems in precision and repeatability of analytics.

7.3.4 Mineral Resource Statement

Certain assumptions were applied by AZ in a pit optimisation exercise, in order to limit the Malyutka resource model to material considered to have reasonable prospects for eventual economic extraction.

The Resource statement reports material falling into a final pit design based upon the following assumptions:

- Mining Cost Ore – 1.74 $/t ore
- Mining Cost Waste – 1.67 $/t waste
- Mining Losses – 18.8%
- Mining Dilution – 19.4%
- Ore Processing Fixed Cost – 7.5 $/tore
- G&A – 6.67 $/tore
- Royalty – 6%
- Gold price – 1,200 $/oz
- Silver price – 17.5 $/oz
- Gold cut-off grade – 0.4 g/t
- Gold processing variable recovery with fixed tailings gold grade 0.41 g/t (av. 67.5%)
- Silver processing fixed recovery – 10%
- Mineral resources are constrained by Ore reserve pit

The 2020 Mineral Resource statement for the Malyutka is shown in Table 7-1.

Table 7-1: Malyutka deposit: Mineral Resource statement as at 1 July 2020

Classification	Ore Type	Quantity	Au Grade	Au Metal		Ag Grade	Ag Metal	
		Mt	g/t	t	koz	g/t	t	koz
	Open Pit Mineral Resources							
Indicated	Heap Leach	9.2	1.4	12.8	411	1.2	11.4	366
Total Malyutka		**9.2**	**1.4**	**12.8**	**411**	**1.2**	**11.4**	**366**

Note:

- The Mineral Resources are inclusive of Ore Reserves.
- The Mineral Resource Estimation was conducted based on 0.4 g/t,
- Gold price used 1200$/oz
- Mineral resources are reported within Ore reserve pit

SRK emphasize that Mineral Resource estimation has been done using conservative metal cost which does not show full resource potential of the deposit.

7.3.5 Previous Mineral Resource Statement

The 2019 Mineral Resource statement is shown in Table 7-2. Due to the fact that there were no mining operations at Malyutka deposit Mineral resources has not changed.

Table 7-2: Malyutka deposit: Mineral Resource statement as at 1 January 2019

Classification	Ore Type	Quantity	Au Grade	Au Metal		Ag Grade	Ag Metal	
		Mt	g/t	t	koz	g/t	t	koz
			Open Pit Mineral Resources					
Indicated	Heap Leach	9.2	1.4	12.8	412	1.2	11.4	366
Total Malyutka		**9.2**	**1.4**	**12.8**	**412**	**1.2**	**11.4**	**366**

7.4 Exploration Potential

AZ considers there to be potential for a zone of mineralisation, similar in nature to Malyutka, to be situated either parallel to, or as a strike extension of the Malyutka Zone and certainly further exploration in this area is justified.

7.5 Mining and Ore Reserves

7.5.1 Ore Reserves

The deposit is proposed to be developed as a series of shallow, open pits: the South, Central and North pits. Production is currently scheduled to begin in 2023. The maximum combined mining rate will be 1.5 Mtpa with the Central pit being the main source, 74% of the total 9.3 Mt to be mined. The South pit holds 25% and the North pit 1% of the planned mining inventory.

The proposed mining method will be open pit mining with all material being blasted. Ore is to be selectively mined using 5 m^3 backhoes in 5 m benches. The mineralisation is hosted in pale carbonate rock, which will assist with selective mining as this will contrast with the darker host rocks.

The original Ore Reserves were defined in the project TEO Konditsii (Russian equivalent of a Prefeasibility Study) in 2014 as 11.2 Mt at a grade of 2.08 g/t Au (Balance plus Off-Balance). This analysis was based on a gold price of 1,200 $/oz, mining costs of 3.14 $/t.ore and 4.30$/m^3 waste, and processing cost of 10 $/t.ore (converted at RUB 35/USD 1) to give a cut-off grade of 1.2 g/t Au. Metallurgical tests include column leach tests.

SRK notes that the geotechnical stability studies conducted to date follow the traditional Russian method and overall slopes have been determined as 50º. Pit design parameters are presented in Table 7-3. The proposed layout is shown in Figure 7-1.

AZ commissioned a new resource model and mining optimization study in 2017 to update the Malyutka Project with contemporary resource, cost and revenue factors.

The optimisation study used the following costs:

- Mining loss & dilution allowed for in model block regularisation;
- Pit slopes: various for pits and sectors;
- Gold price: 1,200 $/oz;

- Production rate: 1.5 Mtpa;
- Ore Mining cost: 2.94 $/t;
- Waste Mining cost (no haul) 2.20 $/t;
- Waste Mining haulage 0.74 $/t;
- Processing cost: 7.50 $/t.ore;
- General & Administration: 6.40 $/t.ore;
- Recovery By formula (av. 67,5%);
- Royalty (State) 6%;
- Discount rate: 10%.

Geotechnical review determined design slope for different pits and pit sectors and depending on the number of haul roads on the wall from 40 deg to 52 deg.

The optimisation parameters result in an economic cut-off grade of 0.74 g/t Au which is consistent with the limits defined with the TEO Konditsii. AZ intends processing low grade ore between 0.6 g/t Au and 0.74 g/t Au as marginally economic.

Other design parameters are shown in Table 7-3.

Table 7-3: Malyutka pit design parameters

Parameter	Unit	Design Value	Actual value
Bench face angle	deg	65	70
Bench height	m	20	20
Ramp gradient	deg	8 (Max)	4.5
Safety berm width	m	7	5
Ramp width – one way	m	16	7
Ramp width – two way	m	23	12.5
Overall slope angle (hanging wall)	deg	63	55
Minimum mining width	m	36	

The resulting pit and waste dump layout is shown in Figure 7-1.

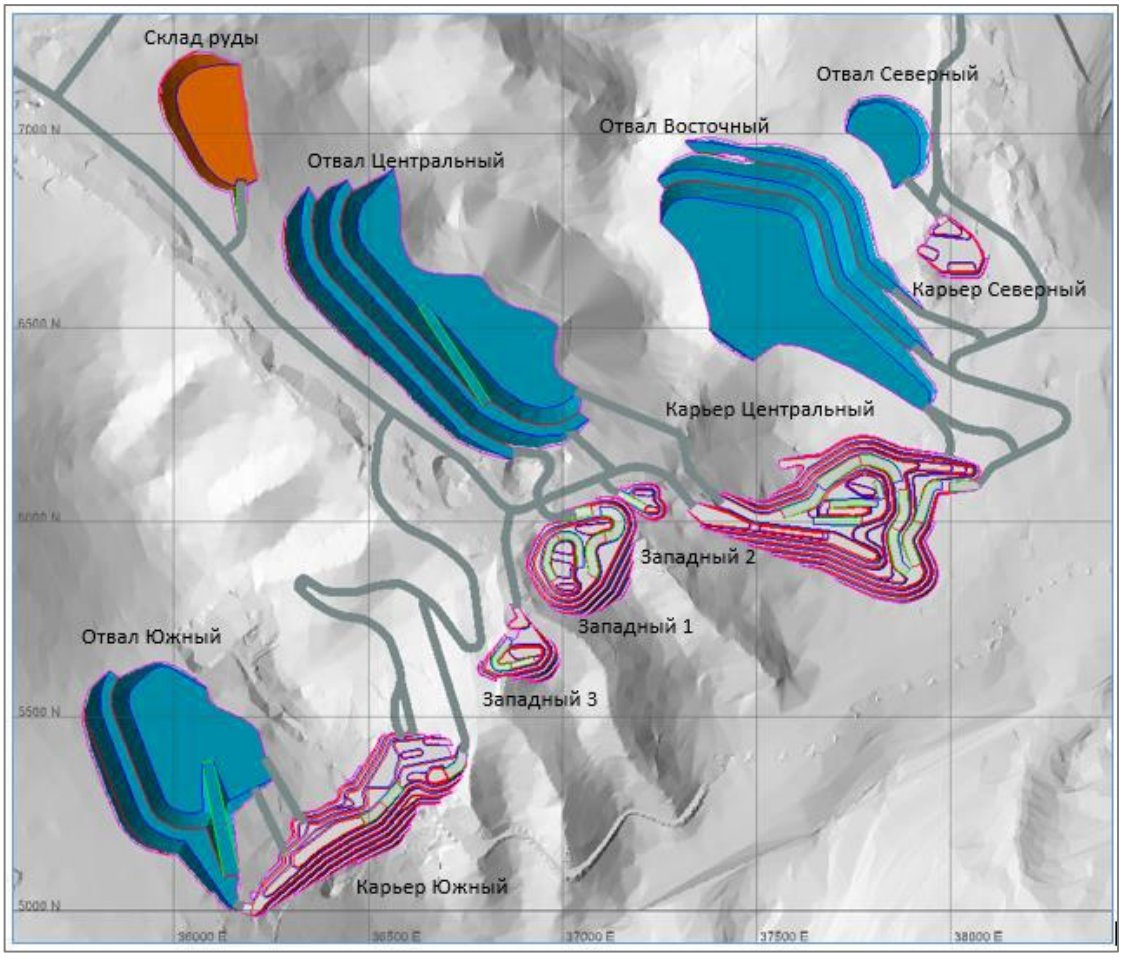


Figure 7-1: Malyutka: Pit layout

The resulting Ore Reserve statement for Malyutka is shown in Table 7-4. The Ore Reserve classification is based on the conversion of Indicated Resources to Probable Reserves. Some Inferred Mineral Resources exist on the flanks of the deposit, but this material does not affect the definition of the Ore Reserve. The Ore Reserve estimate is based on a long-term gold price of 1,200 $/oz. The average gold recovery used was 67.5 %.

SRK has confirmed the ore reserves within the pit designs and that they are demonstrated as economic in AZ's economic model.

Table 7-4: Malyutka deposit: Ore Reserve Statement as at 1 July 2020

Source	Tonnes	Au Grade	Au Metal	
	Mt	g/t	t	koz
Heap Leach Probable Reserve	9.3	1.2	11.2	360
Total Probable Reserve	**9.3**	**1.2**	**11.2**	**360**

Notes:

1. Ore Reserves are included in the Mineral Resource Estimate dated 1 July 2020.
2. Ore Reserves are reported at 1.2 g/t cut-off grade.
3. Includes ore loss and dilution as reported from a regularised block model.
4. Gold price of 1200$/oz

7.5.2 Production Schedule

Operations are planned to start in 2022. The LoM production schedule is shown in Table 7-5. The production schedule is based on Probable Reserves only and excludes any Inferred resources.

Table 7-5: Malyutka: Production Schedule

Item	Units	Year							
		Total	2022	2023	2024	2025	2026	2027	2028
Rock mass	Mm^3	15.2	1.3	2.7	2.8	2.8	2.8	2.2	0.7
Waste	Mt	11.7	1.0	2.1	2.1	2.2	2.1	1.7	0.5
Ore	Mt	9.3	0.7	1.6	1.9	1.8	1.7	1.2	0.3
Au grade	g/t	1.2	1.3	1.2	1.2	1.2	1.2	1.1	1.3
Au metal	kg	11,191	963	2,011	2,226	2,144	2,018	1,404	425
Au metal	koz	360	31	65	72	69	65	45	14
Ag grade	g/t	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9
Ag metal	kg	9,496	760	1,688	1,885	1,854	1,763	1,244	303
Ag metal	koz	305	24	54	61	60	57	40	10

The mining schedule targets higher-grade zones first and subsequently lower grade zones. SRK notes that this will involve developing multiple working areas. Mining commences in the South and Central Pits and finishes in the Central and North Pits. SRK has verified the mining schedule by checking the tonnages and grades by bench. SRK considers that it is likely that the final schedule will be smoothed to optimise mining recoveries by simplifying the number of working areas.

7.5.3 Mining equipment requirements

The planned equipment and number of units is shown in Table 7-6:

Table 7-6: Malyutka: Mining Fleet

Mine fleet							
Equipment	Requirements						
	2022	2023	2024	2025	2026	2027	2028
Drill rigs Ø 135 - 165 mm	2	2	2	2	2	2	1
Excavator (V = 4 m^3)	2	3	3	3	3	3	2
Loader (V = 5 $м^3$)	2	2	2	2	2	2	2
Trucks 55t	11	15	16	16	15	12	7
Trucks 40t articulated haul	2	2	2	2	2	2	2
Dozer (60t)	1	2	2	2	2	1	1
Dozer (40 t)	1	2	2	2	2	1	1
Wheel dozer	1	1	1	1	1	1	1
Grader	2	2	2	2	2	2	2
Mixing &charging machine	1	1	1	1	1	1	1

No purchases have yet been agreed with suppliers and the equipment details should be interpreted as being indicative rather than fixed.

Based on the production profile, with a mine life of 6 years, no equipment replacement is planned. SRK considers that this approach to be reasonable. The mining fleet will be available for use if further reserves are confirmed as economic during the life of Malyutka.

7.5.4 SRK Comments

SRK notes the actual design parameters adopted for the Malyutka pits differ from those described by the design process. Final bench face angles are steeper, and safety berm widths are less than design. This suggests a risk of local scale instability and operational risk. The flatter overall slope angles mitigate the risk of wall scale instability. The narrow haul road design widths effectively limit all haulage to one-way traffic. The risk of congestion is mitigated to an extent by the existence of multiple exits from each pit. AZ will need to employ suitable short-term planning processes to ensure haulage efficiencies do not suffer from in-pit congestion.

Regardless, to minimise operational risk and maximise efficiency, AZ should consider preparing modified pit designs which satisfy the design criteria as determined by appropriate technical studies. SRK considers that modified designs complying with the design criteria will necessarily have a negative effect on cashflow.

SRK notes that the pit designs are based on optimisation Shell 37, which generates the highest NPV for the planning assumptions. However, for Malyutka, only small increments of NPV are gained for substantial increments in pit size, as seen in Figure 7-2. The last stage of pit increment, Stage 4, from Shell 26 to 37, adds 3% to NPV while increasing the waste volume by 33%. The final 2 stages of pit increment, Stage 3 and Stage 4, from Shell 21 to 37, together add 14% to NPV but increase the waste volume by 60%.

SRK notes that selecting a smaller ultimate shell than shell 37 as the basis of design would result in more efficient use of investment capital, be less demanding for waste dump footprints and rehabilitation, and be more robust against negative movements in costs and price due to real movement or uncertainty in model estimates. This may be a more attractive option for AZ.

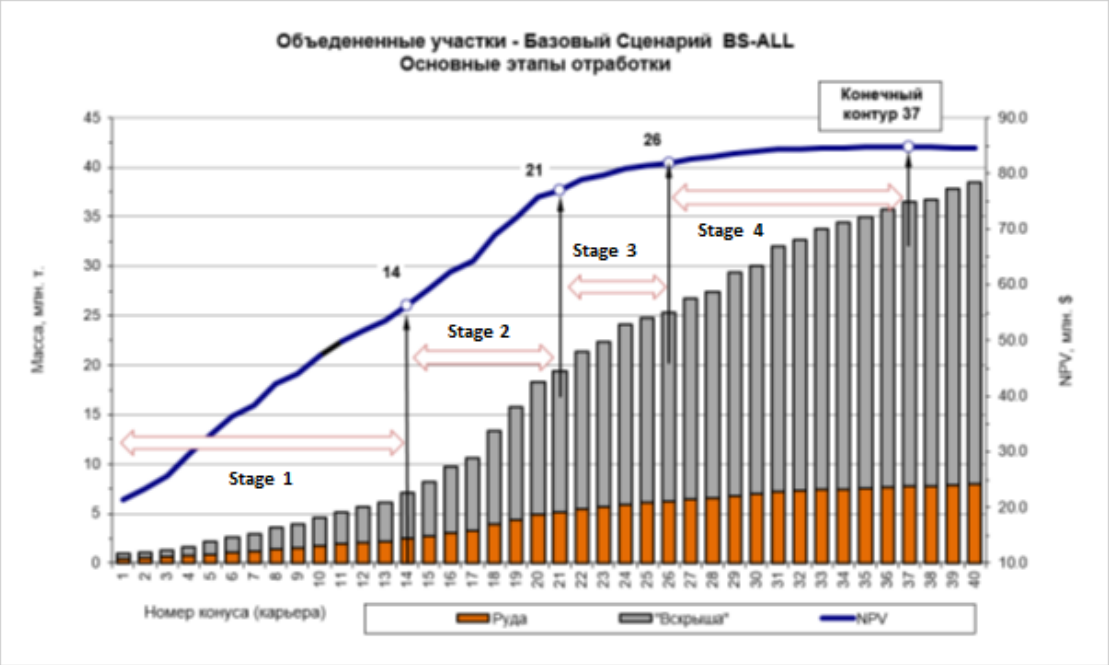


Figure 7-2: Optimisation results

7.6 Mineral Processing

A number of metallurgical testwork programs have been conducted on samples from Malyutka.

Testwork was conducted by Kappes, Cassiday and Associated (KCA) in the USA in 1998 and 2000. Two samples were tested, one high grade (6.3 g/t Au) and one lower grade (1.9-2.5 g/t Au). Leach tests on ground ore resulted in high gold recoveries (>97%) for both samples. A column leach test on the high-grade sample reported a gold recovery of 94%, however this sample appears to have been much finer than would typically be used for heap leaching (68% -45 □m). Column leach tests were undertaken on the lower grade sample, at crush sizes of -37.5 mm and -9.5 mm. The gold recoveries for these tests were 66% and 82% respectively.

Testwork undertaken by the Orient Research Institute of Gold and Rare Metals consisted of diagnostic leach tests on three samples. The result of this testwork indicated that between 22% and 62% of the gold in the samples was gravity recoverable, and that recoveries from gravity separation followed by cyanidation were 91-92%.

The main body of testwork undertaken for this project was conducted by TOMS in 2012. Four samples were tested, a bulk sample (1,500 kg) with a head grade of 1.68 g/t Au, and three smaller samples (60-90 kg) with head grades ranging from 0.85 g/t Au to 1.19 g/t Au.

Diagnostic leach tests indicated gravity recoverable gold levels of between 25% and 52%, with total “free” gold (gravity and cyanide recoverable) levels of between 92% and 95% for three of the samples, with the fourth reporting a free gold level of 86%. These values were confirmed by a cyanidation test on the large sample (96.0% Au recovery). Comminution testwork indicated material of moderate strength with regard to crushing and grinding, and moderate abrasiveness.

Head assays and mineralogy indicated low levels of Ag (up to 1.3 g/t), and relatively low

levels of sulphide (<1.2%), essentially all of which was pyrite. The host rock is feldspar, quartz and mica. Free gold particles were typically fine (<50 □m).

Initial column leach tests (150 mm diameter column, 1.5 m high) were conducted using the large sample at crush sizes of -30 mm, -20 mm and -10 mm. The respective gold recoveries were 76.8%, 76.4% and 76.1%, indicating little sensitivity to crush size. A large column leach test (440 mm diameter, 6 m high, 828 kg of ore) reported a gold recovery of 70.6% from a head grade of 1.39 g/t, with reagent consumptions of 0.54 kg/t for NaCN and 2 kg/t for lime.

Column leach tests on the three smaller samples resulted in gold recoveries of between 63% and 75%.

A relationship between head grade and recovery was developed based on the TOMS and KCA column leach test results, and a small discount was then applied to this recovery to account for scale-up. Based on this, a recovery at the expected head grade of 1.88 g/t Au was determined to be 72.6%. The TOMS documentation describes a production plan for heap leaching at a rate of 950 ktpa.

The production plan provided to SRK by AZ shows an eventual production rate for the heap leach of 1.5 Mtpa, with operations commencing in 2023 at an initial production rate of 670 ktpa. Head grades are 1.2-1.3 g/t Au and 1.0 g/t Ag. The plan uses a relationship between head grade and recovery that does not appear to be based on the testwork reviewed. SRK has not seen the basis of the relationship used; however, SRK notes that the recovery figures are slightly lower than those implied from the TOMS documentation, and that therefore the figures used in the AZ production plan are likely to be slightly conservative.

Based on the testwork review, SRK concurs that heap leaching is probably the most appropriate process flowsheet option for the Malyutka ore. While the testwork conducted has been of good quality, SRK notes that only a limited amount of testwork has been conducted to assess the potential variability within the deposit, both in terms of head grade, but also with respect to depth and lateral position within the orebody.

7.7 Mine and Associated Infrastructure

Due to the remote location, the mine is intended to be operated on a 6-month rotational basis. Staff will be flown to site from Khabarovsk. Most operating staff will be sourced from the Far East region with specialist staff recruited from elsewhere in Russia.

The site is located 215 km from the former Tas-Yuryakh operation. To access the deposit, it is necessary to use the ice road during winter. AZ envisages that mine maintenance facilities will be constructed in 2020. These will enable routine maintenance and component exchange capabilities.

SRK considers that these assumptions are reasonable for a mine of this size and life.

8 PLACER OPERATIONS

8.1 Introduction

AZ currently produces from several small-scale placer deposits, near its operating centres of the Kondyor platinum mine and Yubileyniy mine (Figure 8-1). These are essentially shallow stream placers which are dozed and loaded into articulated haul trucks and hauled to semi-mobile processing plants. The waste stripping is conducted largely in the autumn with washing of gravels from May to October.

8.2 Geology

The geological structure of the area is formed by clastic carbonate rocks of the Siberian platform, with intrusions of various complexes. The deposits occur within a complex of unconsolidated Quaternary sediments represented glacial deposits and modern alluvial gravels and sands. Productive formations hosting alluvial gold are located at the bottom of alluvial sediments and have a thickness of a few metres.

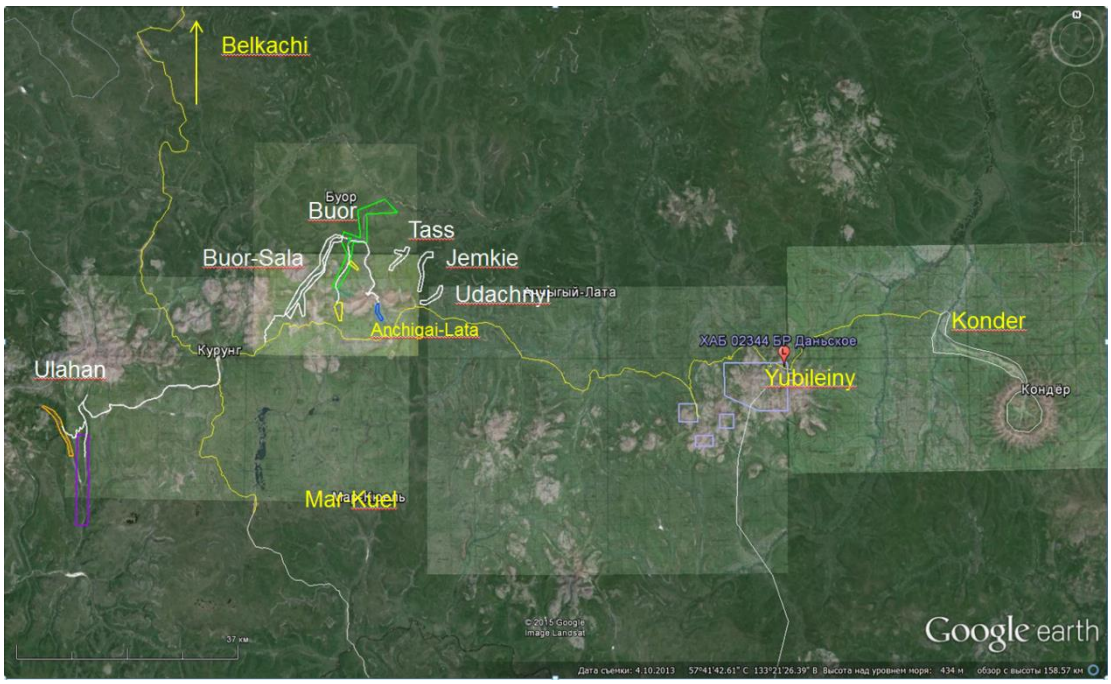


Figure 8-1: Placer Operations Locations

8.3 Mineral Resources

8.3.1 Data Quality and Quantity

AZ provided the following information to SRK for review:

- mineral resource statements;
- scanned copy of 5GR technical reports; and
- scanned copies of geological reports.

8.3.2 Mineral Resource Statement

Table 8-1 shows the Mineral Resource statements of the placer deposits under review, issued by AZ as at 1 July 2020. Placer Au grade is gravity recoverable only, defined by the following method: gravity concentration on site with subsequent separation of all free gold, coarse and fine, from concentrate in laboratory.

Table 8-1: Placer Deposits: GKZ Mineral Resource Statements as at 1 July 2020

Placer	Gravel	Au grade	Au Metal	
	000'm3	g/m^3	t	koz
Indicated resources				
Lower Buor Creek	133	0.6	0.1	2.2
Hayund and Chohcho creek	426	1.5	0.6	20
Upper Kagkan and Chudnyy	202	1.0	0.2	6.2
Kurun-Uryakh Creek - p. Iotkan	3,894	0.4	1.6	51.0
Total Indicated Resources	**4,655**	**0.54**	**2.5**	**79.4**
Inferred Resources				
Lower Buor Creek	9	1.3	0.01	0.4
Creek Dzhemkiye	8	2.9	0.02	0.7
Total Inferred Resources	**17**	**2.1**	**0.03**	**1.1**
Total Resources	**4,672**	**0.5**	**2.5**	**80.5**

Note:

1. The Mineral Resources are inclusive of Ore Reserves.
2. The Mineral Resource Estimation based on 5GR inventory.

8.3.3 Previous Mineral resources Estimation

Table 8-2 shows the Mineral Resource statements of the placer deposits under review, issued by AZ as at 1 January 2019.

Table 8-2: Placer Deposits: GKZ Mineral Resource Statements as at 1 January 2019

Placer	Gravel	Au grade	Au Metal	
	000'm3	g/m^3	t	koz
Indicated Resources				
Lower Buor Creek	56	1.3	0.1	2
Hayund and Chohcho creek	545	1.3	0.7	23
Kurun-Uryakh Creek - p. Iotkan	3,894	0.4	1.6	51
Buor-Sala Creek	455	0.5	0.2	7
Creek Udachny	148	0.8	0.1	4
Total Indicated Resources	**5,098**	**0.5**	**2.7**	**87**
Inferred Resources				
Lower Buor Creek	9	1.3	0.0	0
Creek Dzhemkiye	8	2.9	0.0	1
Creek Udachny	13	0.5	0.0	0
Total Inferred Resources	**30**	**1.4**	**0.0**	**1**
Total Resources	**5,128**	**0.5**	**2.7**	**88**

8.4 Exploration Potential

By the time the existing placers are depleted, AZ expects to have proved up and gained permission to develop new deposits. Consequently, AZ expects production will continue at a comparable production rate of approximately 400 kg (14,000 oz) per year.

SRK considers that there is good potential to increase placer resources with further exploration in licences ХАБ 03106 БП (Onno), ХАБ 03107 БП (Ulakhan-Kharyyalakh), ХАБ 02660 БП, the upper part of the valley at Left Ulakhan River.

SRK notes that AZ has been locating and developing placer operations for some 40 years and considers that it is a reasonable expectation that the placer operations can continue at a comparable rate into the future.

8.5 Mining and Ore Reserves

8.5.1 Ore Reserve

The economic limits are determined by calculating the economic strip ratio for each block. The economic parameters used for the most recent analysis in 2014 were:

- mining loss zero;
- dilution not included for placer deposit;
- gold price 1,185 $/oz;
- royalty 6%;
- stripping cost 0.9 $/$m^3$;
- gravel mining & washing cost 1.9 $/$m^3$; and
- General & Administration 2.0 $/$m^3$.

SRK checked the costs against current operating costs, given the forecast exchange rate, and confirmed that AZ's economic model demonstrates the Ore Reserves are economic Table 8-2.

Ore Reserves are based solely on Indicated Mineral Resources only and are therefore classified as Probable.

Table 8-3: Placer deposits: Ore Reserve Statement as at 1 July 2020

Placer	Gravel	Au grade	Au Metal	
	Mm^3	g/m^3	kg	koz
		Probable Reserves		
Lower Buor Creek	133	0.6	0.1	2.2
Hayunda and Chohcho creek	426	1.5	0.6	20
Upper Kagkan and Chudnyy	113	0.6	0.07	3.2
Total Probable Reserves	**672**	**1.15**	**0.77**	**25.4**

Notes:

1. Ore Reserves are included in the Mineral Resource Estimate dated 1 July 2020.
2. Ore Reserves are reported based on 5GR inventory
3. Ore Reserves for placers exclude loss and dilution
4. Gold price 1185$/oz

8.5.2 Production Schedule

The placer production schedule is summarised in Figures 8-2, 8-3 and Table 8-4. The placers are located at the Buor, and Kagkan Creeks, and the Tomptokanskiy Group, comprising placers on the Kurun-Uryakh, Hayund and Chohcho Creeks. In general, the trend is towards mining deeper but higher-grade deposits, the reason behind the increase in stripping from 2020.

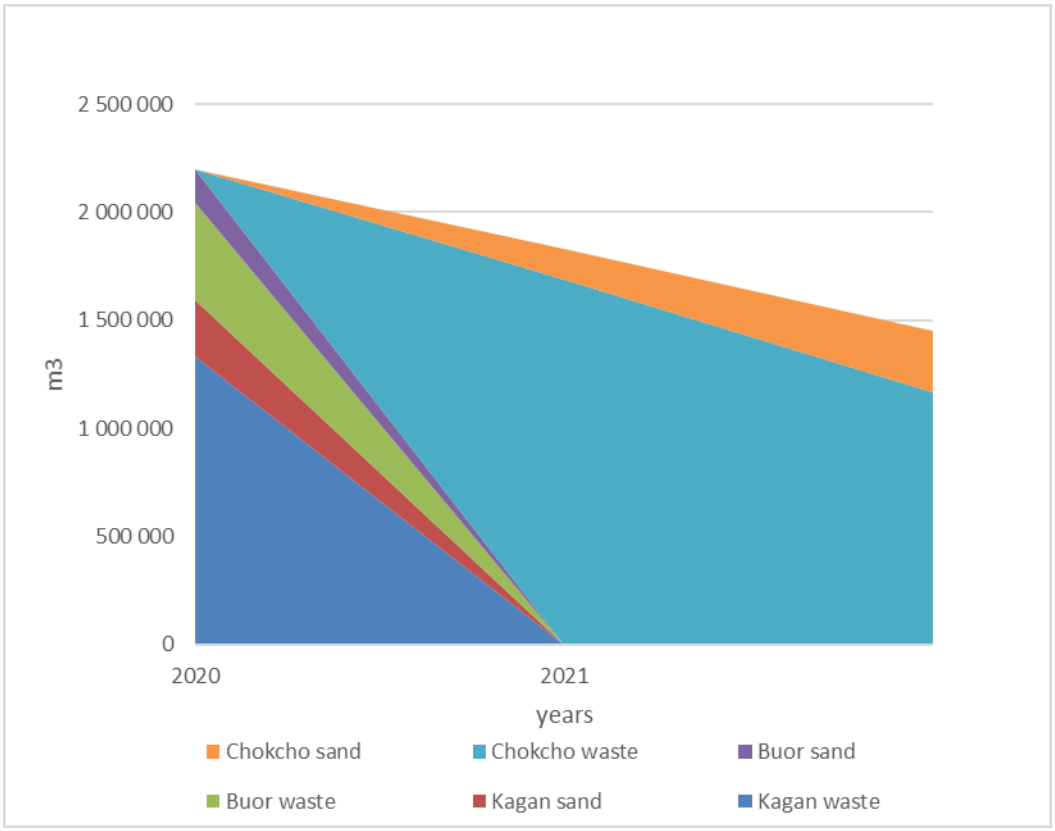


Figure 8-2: Total material mined

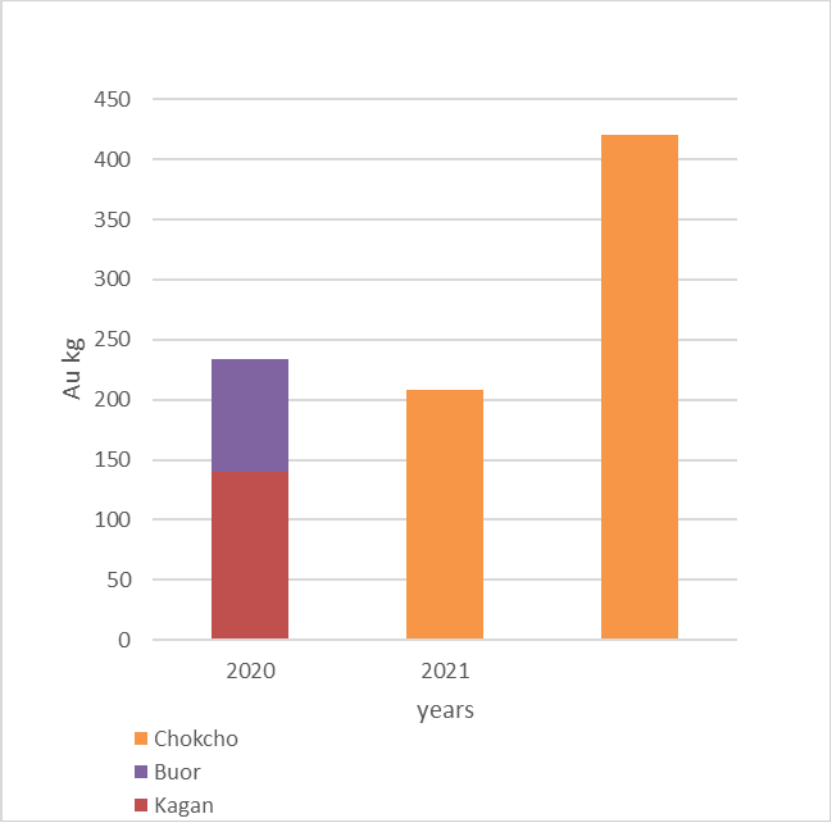


Figure 8-3: Gold produced

Table 8-4: Placer Operations: Summary Production Schedule based on Ore Reserves

Item	Units	Year			Total
		2H2020	2021	2022	
Overburden	km^3	647	1,691	1,168	3,506
Gravel washed	km^3	302	143	284	729
Grade Au	g/m^3	0.6	1.5	1.5	1.1
Produced Au	**kg**	170	208	420	798
	koz	**5.46**	**6.69**	**13.5**	**25.65**

8.5.3 Mining equipment requirements

The placer operations are expected to continue using the existing equipment with units replaced as required.

8.6 Mine and Associated Infrastructure

The placer operations are near the operating centres of the Kondyor platinum mine and Yubileyniy mine. They are well supported by accessible services and infrastructure.

9 ENVIRONMENTAL MANAGEMENT

9.1 Introduction

Most internationally recognized reporting standards require that the Resource and Reserve estimates take into account mining, metallurgical, economic, marketing, legal, environmental, social and governmental modifying factors[4]. This chapter describes the environmental and social aspects that may lead to risks for the Project.

The Chapter was prepared based on secondary data review. SRK is not liable for any errors of gaps in the provided information. Environmental and social issues specialists visited the deposits at the previous stage of studies in 2016. The photographs made by SRK mining department specialists were reviewed during preparation of this report[5].

All assets are at various stages of development or closure:

- **Yubileyniy**: operational stage. The asset includes Dansky ore field (mined by the underground Krasivoe complex and planned Ulun), a group of alluvial deposits (Ulakhan-Kharyyalakh, Buor, Buor-Sala, Dzhemkiye, Iurtovy, Khvoinyi, Hayund, Chohcho) and Yubileyniy gold extraction plant with 130 Ktpa capacity (using flotation and cyanidation) and trial heap leaching. The end product is Dore gold.

  Even though PP started operation in 2007, it was shut down in 2012 it for 2 years because of a fire and subsequent reconstruction process.

- **Perevalnoe**: is currently in operation which has started in 2015. The asset includes Perevalnoe ore deposit, Upper Kagkan-Chudnyy placer which is 80 km away. Processing plant (gravitation and flotation) with 125 Ktpa capacity, and a 210 Ktpa heap leaching unit.

- **Malyutka**: is at the stage of engineering and design; construction works have not started yet. The complex will include open pit at Malyutka deposit and Kurun-Uryakh Iotkan placer. The complex construction is planned, which will use heap leaching process at the capacity of 1,500 Ktpa.

- **Tas-Yuryakh**: the asset has been mothballed since 2015 when production stoped. It has been in operation since 2005 and includes several deposits: Tukchi, Vos'moe, Dar with CIP unit (200 Ktpa) at processing plant.

Only operating assets – Yubileyniy and Perevalnoe – are reviewed in detail in this report.

9.2 Status of Environmental and Social Studies

CJSC "Artel Starateley Amur" commenced regular prospecting, exploration and gold mining operations within the Dansky Ore Field in 1997.

Baseline studies (environmental engineering surveys) required by law were undertaken for the Perevalnoe (2013), Yubileyniy (2005 and 2015) and Malyutka assets. This type of surveys may not meet the good international practice standards, as they are conducted in limited amount and scope. In accordance with the Russian legislation (as opposed to the good international practices), all types of surveys are carried out only within the area of the main

[4] Factors concerning the mineral deposit which may have significant impact on the mineral recovery process and/or economic value of this deposit for the company, and result in suspension/termination of the project.
[5] The visit to Perevalnoe, Yubileyniy and Buor deposits took place in August 12-19, 2020.

project sites (open pit/mine, waste dumps, TSFs, auxiliary infrastructure sites, office and amenity buildings and other facilities) and usually exclude the study of seasonal variations (except for climate studies).

Studies for reconstruction of the Yubileyniy asset and studies for Perevalnoe mine were conducted by OJSC “DalTISIZ”. Laboratory tests were undertaken by the laboratory of FGU "Khabarovsky”.

The following works were competed for Perevalnoe:

- collection of 66 topsoil samples for chemical and radioactive contamination analysis;
- collection of five samples of surface water, groundwater and bottom sediments for chemical and microbiological contamination analysis;
- chemical laboratory studies of samples of soil, surface water and bottom sediments;
- radiation survey of the site, and measurement of the radon flux density;
- field measurements of physical factors (noise, electromagnetic fields) to assess the area well-being; and
- reconnaissance surveys[6] of open pit sites, industrial site and TSFs.

Based on the studies in streams around the deposit, elevated concentrations of the following elements were identified: phenols (up to 1-3 of MAC), iron (up to 2-4 of MAC), manganese (up to 1-5 of MAC), copper (up to 2-3 of MAC) and zinc (1-2 of MAC).

The following field works were carried out at Yubileyniy during the reconstruction stage:

- reconnaissance soil surveys and collection of three topsoil samples for chemical contamination analysis;
- collection of three topsoil samples (using the five-point envelope method) for bacteriological and microbiological analysis;
- collection of one surface water sample (Muktan river) and one groundwater sample for chemical contamination analysis;
- collection of one sample of bottom sediments (Muktan river) for contamination analysis;
- measurement of the radon flux density and gamma survey at the site.

In the surface water of the Muktan river, excess concentrations are observed for manganese (2.7 of MAC), copper (8 of MAC) and zinc (55 of MAC). In bottom sediments, there is a slight excess of arsenic (1.04 of APC). High concentrations are due to natural background and were also observed during the surveys conducted by of GOU DPO “Dalekocentre” in 2005 (prior to potential significant impact of the mine activities). High concentrations of phenols in groundwater are due to sediment infiltration.

SRK has no information as to whether any environmental and social impact assessments (required both by the OVOS legislation and by international ESIA) or socio-economic baseline studies have been conducted to date for any of the assets. The design documentation has

[6] Due short duration of field works during the autumn period, it was not possible to identify in detail the distribution of certain species of plants and animals, and therefore analogue method was used.

been approved by the State Expert Review Board without OVOS and is limited to a description of environmental protection measures.

9.3 Environmental and Social Conditions

The majority of deposits mined by AZ are located in Ayano-Maisky municipal district in the north of Khabarovsky Region. The company is registered in the district centre - Ayan village. Perevalnoe deposit is located in the south of Ayano-Maisky district, on the border with Tuguro-Chumikansky district and includes part of its territory.

Khabarovsky Region is located between Magadan Oblast in the north and Primorye in the south. Khabarovsk, the largest city and administrative centre of the Region hosts about 50% of its population. The Region consists of 17 municipal districts. This is the most developed Far East district with military-construction, timber harvesting, metallurgy and commercial fishing as the dominating industries. The region has gold, copper, tin and coal deposits. Natural vegetation is represented by taiga and tundra in the north, boggy forests in the central part and deciduous forests in the south. A vast mountainous area is located in the north, along the Okhotsk sea shoreline. The climate is extremely continental with sub-arctic features.

Ayano-Maisky district is a hardly accessible remote northern area without developed economy but with tremendous natural resource potential[7]. It has the largest territory within Khabarovsky Region and the lowest population: about 70% of its area is covered with forests. There is no permanent transport connection with the regional centre: all-season roads are absent; winter roads are operated in cold season. The basis of economy is formed by mining, agriculture (reindeer and fur farming), and commercial hunting. There are areas of traditional land use in the district.

The Ayano-Maisky district is predominantly mountainous, with severe non-uniform climate. Seismicity is up to 7 points by Richter scale. The district accommodates specially protected areas of federal significance - the state natural reserve Dzhugdzhursky (on the border with mothballed Tas-Yuryakh facilities) and the state nature reserve Badzhalsky. About 20% out of 1,580 plant species are rare and endangered.

Ayano-Maisky district is the territory of compact habitation of the Ayano-May Evenks. The territory of traditional land use (TTP) of the minor peoples of the north (Evenks) has a total area of 10,385 thou.ha. TTP is divided into two large areas - north-eastern (4,085 thou.ha) and south-western (6,300 thou.ha), where Yubileyniy asset is located. The north-eastern area accommodates Malyutka and Tas-Yuryakh assets. In 2019, three Evenk families (with a total of 12 family members) were leading the traditional way of life and owned about 300 reindeer.

No historic or cultural heritage landmarks were found within the deposit areas. SRK has no information on any archaeological surveys. territories of any deposits.

As of January 1, 2020, the population of Ayano-Maisky district was 1 873 people, including 808 residents of the district centre (Ayan village). The number of residents in Aim, Dzhigda and Nelkan villages was 150, 233 and 667, respectively. The population of Tuguro-Chumikansky district was 1,971 people, with most of them (1,053) residing in the district centre – Chumikan village.

[7] The larger part of precious metal reserves (gold, platinum) is concentrated in the district. Molybdenum and rare metal (palladium, iridium, zirconium) deposits have also been discovered. There are many deposits of building materials: granite, lime, basalts and their tuffs, marble, conglomerates, labradorite, gravel, sand, quarry rock, etc. The northern part of the district is promising for oil and gas resources; hard coal deposits have been found.

Amur Gold personnel is delivered to the company facilities by air (AN-24 aircraft) from Khabarovsk (1060 km) to Urgalan airport and then by helicopters or by motor vehicles to the sites. Urgalan airport is located next to Kondyor massif developed by Amur gold-mining cooperative which is also a member of Russian Platinum Group.

9.3.1 Natural and social conditions in the area of Yubileyniy asset

The study area is located within the Aldan highlands, in the spurs of Dan' mountain; it has alpine type terrain with flattened watersheds 800-900 m high. The rivers are shallow, with fast currents. The hydrographic network of the area belongs to Nicka river basin. Land plots are located within the floodplain-terrace complex of Muktana river[8] (right tributary of Nicka river) and a nameless stream (the left tributary) and are or low economic value due to years-long development of gold placers. Rivers are of no commercial fishery value but are a habitat of several valuable fish species including taimen[9] (*Hucho taimen*).

Figure 9-1: Overall view to Yubileyniy area

The district is located in a solid permafrost zone and is treated as a Far North area. There are no surface or ground waters within Krasivoe deposit area in the intervals intersected by boreholes and underground workings. Perched waters run off the top of permafrost rocks, which serve as a waterproof bed.

The climate is of moderately monsoon type with extreme continental features with annual fluctuations of monthly average temperatures from minus 35° to plus 25°C. Average annual air temperature is -7.5°C. In winter, the dominant weather is dry, slightly overcast, with predominately northern winds, in summer southern winds prevail. The annual atmospheric precipitation is 230-450 mm, mainly in the second half of the summer. Floods often follow one another, causing an extremely long period of high water.

The deposit is located in the taiga zone, with forest groups dominated by Daurian larch. The flora and fauna are typical of the mountain-taiga zone; representatives of the Arctic and Central Asian fauna are also present. According to archives, about 20 species of mammals

[8] Muktana river is 23 km long (upstream of confluence with Nicka river -> Bolshoi Aim river -> Aim river -> Maya river), and belongs to Lena basin territory, river sub-basin of Aldan, water usage section of Maya river.
[9] Belongs of vulnerable species (VU) according to international classification of MSOP.

and 50 species of birds, including 20-25 nesting ones, may be present near the facilities. There is some commercial hunting for fur animals in the area.

The open pit and waste rock dump areas are located at the highest elevations mainly represented by alpine tundra with moss-lichen cover and rare small shrubs, and practically absent soil layer. In the remaining areas, the soil-vegetation layer is 8-10 cm thick and is disturbed by the developments of previous years. No rare plant species have been found around the processing plant.

The nearest residential settlements are Aim (125 km), Dzhigda (115 km), Nelkan (130 km), and Ayan port (285 km). There is an airport capable of handling AN-24 type aircrafts in Nelkan settlement. Year-round connection between Nelkan, Aim and Dzhigda settlements and the administrative centre is unavailable[10]. In summer, Maya river is used for communication and freight delivery, and in winter, winter road is used. Ayan and Neklan settlements are connected by year-round unpaved road.

9.3.2 Natural and social conditions in the area of Perevalnoe asset

The asset is located on the right bank of Uchur river, in hardly accessible mountain-taiga area, at the eastern tip of Stanovoy Ridge (Gerana Ridge), and its continuation – Dzhugdzhur ridge. Absolute elevations are 1,195-1,240 m. Mountain slopes are covered with forests and dissected by valleys of Yelovy, Moitruk, Priyatny, and Chisty streams that have no fishery value. Major rivers are Uchur[11], Maymakan (basin of Lena river), and Dzhana (Uda river valley[12]).

Figure 9-2: General view to Perevalnoe area

The district is located in moderate climate zone with extreme continental features, with annual fluctuations of monthly average temperatures from minus 25° to plus 22°C. Annual average temperature is minus 5.7°C, and the permafrost depth is 200 m. NW winds dominate from the autumn through spring, shifting to SE and southern ones in summer. Wind velocities are moderate (annual average 1.8 m/s).

[10] There were plans to build a motor road between Ayan – Nelkan – Yugorenok (boundary of Sakha Republic) within the program of Far East and Trans-Baikal area development. The status of these projects is currently unknown.
[11] Various fish species have feeding and spawning sites in the river.
[12] Various fish species have feeding sites in the river, the Pacific salmon has spawning sites, and the fish from the above streams has wintering holes here.

Hydrogeological conditions within the mine area are characterized by the presence of supra-permafrost waters in the seasonal thawing layer. Ground waters are also charged by atmospheric precipitation. Water hosting pebbles and crushed rocks have good filtration properties.

This area is characterized by low precipitation amount (456-378 mm). Over 80% of precipitation occurs in summer (July-September); and its amount is lower here than in the neighbouring areas. January has the lowest precipitation of all months.

The main types of vegetation cover are larch taiga and bog forests. Taiga is thick in river floodplains and on dry terraces and consists of larch with addition of birch tree, aspen, fir trees, individual small grooves of poplar and willow trees. Shrubby undergrowth consists of cedar elfin trees and dwarf birch. At the elevations above 1500 m sub-alpine belt is replaced by rocky tundra with lichen. Alpine mountain tops have no vegetation, just large-boulder piles.

Animal world of the district is rather poor: predators include bear, wolf, wolverine, Siberian weasel, ermine, sable; the hooved species include moose and deer; rodents include squirrel, chipmunk, hare, mouse; birds include wood grouse, hazel grouse, partridge, and waterfowl - ducks, goose. The rivers are inhabited by grayling, lenok, taimen. The area is a habitat of the Red Book bird species - Siberian Grouse (*Falcipennis falcipennis*)[13].

The nearest residential settlements are Chumikan, Nelkan, Udskoe and Maymakan, within 100-120 km from the facility. There is no permanent transportation connection with the Region centre. People and freight are delivered by motor road from Khabarovsk to Briakan settlement, and then by helicopter to Perevalnoe. In winter, Perevalnoe is connected by a winter road with Avlayakan, Kiran and Chumikan settlements, and then by air transport to Khabarovsk.

9.4 Regulatory and Legislative Basis

Environmental legislation of the Russian Federation is primarily based on the Constitution and Federal Law No. 7 “On Environmental Protection”. The law requires to perform an environmental impact assessment for any project that may affect the environment directly or indirectly.

There are two levels of environmental impact assessment. At the basic level, a chapter is prepared as a part of design documentation МПООС/ООС. It should contain a list of major impacts and management activities and must be done for all projects for which design documentation is prepared. The second level involves “Environmental impact assessment” (OVOS) that is done for the projects subject to the State Ecological Expert Review (GEE).

OVOS must be done at any significant increase of capacity. Starting from June 1, 2020, industrial facilities of Category I must go through GEE process with submission of OVOS. State Ecological Expert Review (GEE) is a part of approval process of the best available technologies (BAT) and is related to obtaining environmental permissions.

9.4.1 Categories of industrial facilities and the Best Available Technologies (BAT)

According to Federal Law No. 7, the facilities that produce negative environmental impact (NEI) are subdivided into four categories: from category I (significant NEI) to category IV (minimal NEI). All ore deposits of Amur Gold are classified as Category I “mining and

[13] Belongs to populations with decreasing numbers (NT) according to MSOP classification.

processing… of precious metal ores (gold, silver, platinum)", while the placer deposits belong to category II – "mining and processing of ores and sands of precious metals… at placer deposits"[14].

Design documentation for Category I facilities is subject to the State Ecological Expert Review (GEE), except for facilities that have obtained construction permits before January 1, 2019.

Starting from January 2019, Category I facilities must demonstrate introduction of the best available technologies (BAT[15]) in order to get ecological permits. This requirement applies to engineering, construction and reconstruction of facilities of Category I. At operation stage, the state will support those enterprises that introduce BAT to mitigate the negative environmental impacts. Starting from January 2020, no ecological fees will be charged for emissions, discharges and waste disposal that are performed within the frame of special technological parameters.

9.4.2 Ecological permits, compensation and damages

The law requires that ecological permits are obtained and updated. During the period from January 1, 2019 to December 31, 2020 / January 1, 2025 the Category I enterprises will have to obtain Comprehensive Ecological Permit (CEP) for water use, atmospheric emissions, waste handling and disposal. Until CEP is obtained, old permits may be used. Absence of permits can cause penalties (50-100 Th. Rub., Article 8.47 of Administrative Violations Code). Along with the above, the following documentation shall be available:

- license for waste handling and/or contracts with organizations specialized in waste handling; absence of such license can cause penalties (40-50 Th. Rub., Article 14.1 of Administrative Violations Code); failure to comply with requirements to waste handling may cause penalties (100-250 Th. Rub.) or suspension of operations for up to 90 days (Article 8.2 of Administrative Violations Code);
- decision on establishment of sanitary protective zone (SPZ); and
- decision on making water body available for water use (for channel diversion and consumption/discharge into water bodies).

Federal Law No. 7 establishes the principle of payment for the use of natural resources and compensation for environmental damages, which is applied in case of water/air pollution and waste disposal (ecological payments). If the permissible norms and limits are exceeded, additional environmental charges and fines will be applied.

Alienation of land plots in the areas with traditional land use requires compensations for alienated property to the indigenous people (individuals and communities). Limitations may be imposed on such sites that guarantee that the traditional land use practice will not be interrupted.

Compliance of subsoil users with the environmental legislation requirements is mainly checked by the Federal Service for Supervision of Natural Resources Management (Rosprirodnadzor) and Federal Service for Supervision of Consumer Rights Protection and

[14] Decree of the Russian Federation Government dated 28.09.2015 N 1029 "On approval of criteria of classifying facilities imposing negative environmental impact as categories I, II, III and IV".
[15] Term Best Available Technologies (BAT) defines the methods of achieving the environmental protection goals, based on modern advances in science and technology, which should be implemented if technically feasible. The BAT principles are defined in corresponding information and technical reference books (ITS) of the national standardization system.

Human Welfare (Rospotrebnadzor). Individual audits related to the use of water bodies can be performed by fishery agencies with subsequent reporting to Rosprirodnadzor.

9.4.3 Mining waste storage

According to Russian legislation, the design of mining waste storage sites should be prepared as a separate volume/document. Such design document is subject to State Ecological Expert Review. Along with the state agency approval, the company must acquire the necessary land plots and make sure the land category corresponds to the purpose of waste storage.

After the works start, the corresponding external waste storage facility (external dump, sludge storage or settling pond) must be registered in the state register of waste disposal facilities. A special environmental monitoring program should be developed (for mining waste storage/dump sites). Monitoring should be performed on a regular basis. Appropriate activities can be determined based on environmental protection/OVOS results, engineering and environmental surveys and other studies. Depending on the baseline conditions and specifics of the project, the monitoring targets can include atmospheric air, ground and surface water, soils, flora and fauna (if necessary) and natural landscapes near the site.

According to Russian legislation, mining waste can be used for backfilling of open pits in the process of disturbed land restoration and usually it does not involve any payments.

9.4.4 Zones with special protection status

Certain land plots may have a special status of the areas with specific use conditions. In this case special rules are applied, and the companies are required to perform additional studies.

Sanitary-protective zones. According to the Federal Law No. 52 dated March 30, 1999 “On Sanitary-epidemiological wellbeing of the population”, a sanitary-protective zone (SPZ) is set up around each enterprise. SPZ defines the boundaries of the enterprise that may be impacted by the operations. Such zones are controlled by certain regulatory measures such as restrictions on the use of land plots allowing to mitigate public health risks. The law defines the following minimum size of SPZ: 1000 m for open pits and processing plants. At the same time, the company may petition for reduction of the zone size if the monitoring data confirm the absence of health risks. The establishment of SPZ is mandatory for enterprises of hazard class I - III (the most hazardous of five classes).

Recent changes in legislation oblige companies to get Rospotrebnadzor approval and register SPZ in the federal cadastral register of land plots. The process involves taking mandatory control readings at the border of the SPZ, submission of applications and obtaining decisions on the establishment of the SPZ. Many Russian enterprises have not registered SPZs yet and operate with an estimated (preliminary) SPZ that has not been established.

Water protection zones. According to the Water Code, water protection zones are territories along the shoreline (water body limits) of seas, rivers, streams, canals, lakes, reservoirs with a special regime for economic and other activities. The zones are set up to prevent pollution, contamination, silting of these water bodies and depletion of their waters, and to preserve the habitat of aquatic biological resources and other elements of the animal and plant world. The width of water protection zone depends on the length of the river and is 50 m for rivers less than 10 km, 100 m for rivers 10-50 km, and 200 m for rivers from 50 km to over 200 km long. It is prohibited within the water protection zones:

- to use waste waters to regulate soil fertility;

- to locate graveyards, cattle burial sites, production and consumption waste dumps, chemical, explosive, toxic, poisonous and noxious substances, and radioactive dumps;
- to perform activities aimed at pest control;
- to allow traffic and parking of vehicles;
- to build and reconstruct gas filling stations, fuel and lube warehouses;
- to locate specialized warehouses of pesticides and agricultural chemicals, to use pesticides and agricultural chemicals;
- to discharge waste waters, including drainage waters; and
- to explore and mine common minerals.

9.4.5 Requirements for stakeholder engagement

Engagement of citizens, public communities and non-commercial organization is required when making decisions on environmental issues (Article 3 of Federal Law No.7). The decision on the location of facilities with potential environmental impact is made with consideration of public opinion or based on the referendum (Article 13). If the rights and interests of indigenous people are affected by mining of mineral resources, their representatives should be involved in decision-making. Currently, the following mechanisms are used to learn the public opinion and take it into consideration:

- OVOS materials and protocols of meetings that reflect the public opinion (Article 19 of Federal Law No. 174), including polls, hearings, referendum, etc.;
- public ecological assessment (supplement to GEE, is recommended but is not mandatory);
- documents generated in the process of implementation of national standards of 14000 series 14000; and
- grievance procedures and other instruments, according to BAT.

Local communities and public organizations may participate in consultations and obtain information on the performance of enterprises and on their environmental and public health impact (“Provisions for OVOS”). Local self-administration bodies are authorized to organize the respective process.

9.4.6 Requirements to development of local communities

There are no specific laws on development of local communities, or specific documents defining initiatives or obligations for development of local communities to be presented at the project approval. However, Article 13.1 of Law No. 2359-1 "On Subsoil" states that one of the main criteria for awarding the right to use subsoil is a contribution to the social and economic development of the territory. After introduction of licensing system in 2015–2016, the company's obligation to participate in the social-economic development of the business location region was removed from license agreements.

9.4.7 Closure

Legal requirements to closure/mothballing[16] of mining operations and land rehabilitation are defined in Federal Laws, legislative acts and regulatory documents, such as state standards and methodological recommendations, particularly the following:

- Russian Federation Law on Subsurface No. 2395-1 of 21.02.1992 (updated 02.08.2019);
- Provision No. 800 of 10.07.2018 (updated 07.03.2019) by the Government of the Russian Federation "On land reclamation and preservation" (together with "Rules for land reclamation and preservation");
- State Standard No. 17.5.1.01-83: "Environment protection. Land rehabilitation. Terms and Definitions";
- STATE STANDARD NO. 17.5.3.04-83: "Environment protection. Lands. General requirements to rehabilitation";
- STATE STANDARD NO. 17.5.1.02-85: "Environment protection. Lands. Classification of disturbed lands for rehabilitation»; and
- STATE STANDARD NO. 17.5.1.03-86: "Environment protection. Lands. Classification of stripping and host rock material for biological land rehabilitation".

Closure and rehabilitation requirements are also defined in the licence agreement. However, there is no single document that regulates this aspect. The major requirement in Russian Federation is decommissioning of the deposit according to the plans approved by state authorities.

Once the mining license expires, the mining enterprise is subject to liquidation. It is required to liquidate the mining operations in accordance with approved plan and to restore the disturbed land to its designated land use. The design documentation must contain a section on the land reclamation. A detailed liquidation project must be developed and submitted for approval one year before the expiration of the mining license. Currently, there are no legal requirements to set up a liquidation fund or any other mechanisms to ensure sufficient funding for liquidation obligations at any stage of project development.

9.4.8 Subsoil use license condition

Typically, a subsoil use license stipulates certain environmental and social obligations. Usually they are in the form of general agreements on compliance with the legislative norms, but sometimes licensing agreements may contain specific requirements. The most common general requirements included in agreements are:

- meeting the requirements set up by the Russian legislation on subsoil and environmental protection; and
- development of technical project for site liquidation or mothballing a year before the planned closure date.

Additional conditions often specify (as is the case with Amur Gold), that when engaging contractors and sub-contractors for performing works or rendering services, and when

[16] In Russian practice, the terms “liquidation”, “reclamation”, “rehabilitation” are used in relation to closure.

selecting technologies, equipment, software, the subsoil user must give preference to Russian organizations and developments with account of their competitive values, other conditions being equal (quality, time period, guarantees, timely delivery, prices, qualifications and other parameters).

Since most subsoil use license agreements have been updated, they do not contain other requirements.

Performing production activities with gross violation of licensing conditions is punishable by fine in the amount of 100-200 Th. Rub. or suspension of operations for up to 90 days (Article 14.1 of Administrative Violations Code).

9.5 Environmental and Social Aspects and Impacts of the Project

This section describes the key aspects of the project that can potentially have environmental and social impacts. Since the ecologist did not visit the site, the information below has mostly been taken from the project data and available photographs. It was impossible to check whether certain decisions were implemented or not.

9.5.1 Yubileyniy asset

The end product of gold extraction processing plant (ZIOF) is Dore gold that is shipped to gold refinery. Ore forming elements are mainly represented by iron and sulphur. Iron accounts for about 3% (wt.) of the sample (48% of which is in sulphide form), Sulphur – for 1%. Practically all Sulphur is contained in sulphides.

Mining and processing complex was designed to include the following facilities:

- Main technological facilities:

  Open pit and dump site of Krasivoe deposit; underground mining site; temporary storages of raw and crushed ore; ZIOF including hydrometallurgy section; warehouses of chemical reagents for storage of cyanide, other reagents and hypochloride, and assay laboratory; tailings accumulation site.

- Auxiliary facilities:

  Diesel power plant with 2.24 mWt capacity; Boiler house; rotation crew camp site; Explosives and fuel storages; mechanical repairs and carpentry shops; garage with repairs mechanical shops.

Ore and rock lifted from the underground mining site are unloaded via a ramp. The rock unloaded from the rail cars into the rock dump is pushed by bulldozer down the slope.

The main stages of ore processing are crushing and grinding, gravity-flotation concentration, intensive cyanidation of the resulting concentrate, regrinding of tailings and joint sorption leaching of the reground product.

Production wastes are combined tailings, consisting of sorption cyanidation tailings and scavenger flotation tailings. The project stipulates dewatering of tailings with calcium hypochlorite.

Since the deposit is in the permafrost zone, no inflow is expected to the underground mine. During open pit mining, some flooding and minor water inflow is possible in the depressed bottom areas due to thawing of frozen rocks. SRK has no data on actual water inflow.

Figure 9-3: Cyanide storage (left picture) and calcium hypochlorite preparation unit

Cyanide storage is equipped with centralized supply and exhaust mechanical and emergency ventilation.

A site is currently being prepared for heap leaching.

Figure 9-4: Preparation of heap leaching site

According to design documentation, the cyanidation tailings will be chlorinated and then delivered for thickening together with the flotation tailings. The combined tailings will be dewatered in filter presses, the solid phase in the form of cake (moisture ~ 20%) will be delivered to the semi-dry storage site, and the liquid phase will be used as recycled water. Natural ground (IGE-4 pebble ground with sand aggregate) will be used as the base of the storage site and primary enclosing dams).

Ground water drawn from a well intake is used for domestic and drinking water supply[17]. Design documentation does not provide for discharge of production waste water into natural water streams. According to the design, production waste water will be diverted into sumps and chutes, and fed to the technological process by drainage pumps. According to the water supply flowchart, excess water will be formed in the amount of 25,850 m^3/year (81 m^3/day).

According to the design, precipitation run-off from the surface of tailings dump is stored in accumulation pond and then pumped by a submersible pump into recycled water system of

[17] According to the design, imported drinking water will be used.

processing plant by temporary water lines. SRK did not have the opportunity to inspect the tailings pond site and confirm the presence of a pond and submersible pump. Similarly, there is no information on diversion of rain and drainage runoff from the stripped rock dump and tailings storage site.

The project also indicates that some part of waste water (200 m^3 during the warm season) from the accumulation pond is filtered through an enclosing dam body, intercepted by the drainage ditch at the downstream slope and diverted to the drainage runoff control pond. Contamination of the nearest stream by dam and pond filtrates is assessed as zero, however, SRK has no data on actual runoff volume or its composition and amounts of harmful substances in filtrates (at the level of MAC for fisheries, as specified in the design documentation).

According to design documentation, domestic and utility wastewater is diverted by self-flow to onsite sewage system septic tank, and then are treated at the treatment facility before discharge[18]. According to the water supply system, septic tank receives 394 m^3/year (1.1 m^3/day) of wastewater. During the site visit, SRK did not see any septic tanks or treatment facilities.

SRK has no information on discharge of wastewater that had been purified at Buor deposit settling ponds.

The number of personnel as of January 1, 2020 was 192 people[19], the enterprise operated in two 12-hour shifts, on a rotation method, with ZIOF personnel residing and getting healthcare services at the rotation crew camp. The emergency healthcare office is located in Administrative and amenities building.

The number of employees at Buor placer deposit is 47 people.

9.5.2 Perevalnoe asset

Perevalnoe of Khabarovsky Region processes 160 Ktpa of gold-containing ore. The end product of processing plant is gravity and flotation concentrates that are transported to Yubileyniy ZIOF (by helicopter and other transport). Perevalnoe mine was designed to include the following facilities:

- Main technological facilities:
    - Pilot open pit; gold extracting plant; three dumps of stripped rock (total volume 7,075 thou.m^3); semi-dry tailings storage facility; reagents storage; ore storage (volume 630 thou.m^3).
- Auxiliary facilities:
    - Rotation crew camp; auxiliary buildings and structures; explosives magazine; helicopter pad; intake from an open water body; solid domestic waste dump site.

    Heap leaching site is currently at design stage.

[18] It is noted in engineering-ecological survey data that according to design documentation, domestic and utility wastewater, along with the runoff from the territories of fuel and lube warehouse, mechanical repairs shop, garage, ZIOF, and rotation crew camp will be discharged into Muktana river. However, the latest design solutions do not contain this information.

[19] SRK has no information on the local content of labour force.

SRK has no information on availability of this dump site, its registration as a solid domestic waste site, or permissive documentation.

Ore processing includes the following major stages: crushing and grinding, gravity processing, thickening, filtration and packaging of gravity concentrate, flotation processing with production of concentrate, thickening, filtration, drying and packaging of flotation concentrate.

Production waste consists of thickened and dewatered flotation tailings that are stored in dumps. The hazard degree was estimated as 5th class. According to environmental assessments, runoff from frozen tailings site is discharged into natural waterbodies after being settled.

Settling ponds are claimed to collect melt and rainwater from the production site, as well as domestic wastewater, but their availability has not been confirmed. Similarly, SRK did not see cesspools or treatment facilities during the site visit. Also, there is no information on the destination of diverted rain and drainage runoff from the stripped rock dumps. In accordance with the design, the dump filtrate must be purified from suspensions and oil products in a settling pond.

According to design documentation, water inflow to the open pits (12.8 m^3/hr, maximum 15.4 m^3/hr) will be mainly formed by precipitation, while the terrain allows to divert it by self-flow to Yelovy stream valley via built uphill drainage ditches. At the same time, the design indicates that water is pumped into open pit water settling pond and then used for processing plant needs. SRK has no data on actual volumes of dewatering and water treatment.

Personnel number as of January 1, 2020 was 198 people[20], the facility operated in two 12-hour shifts, by rotation crew method. 82 people worked at Kagkan-Chudnyy placer gold deposit.

SRK has no information on discharge of domestic and utility wastewater treated at settling ponds No.1 and No.2 of Kagkan deposit. According to the permit for water use, the discharge amount should not exceed 21,504 m^3/year (12.8 m^3/hr) and should be monitored for suspended substances and oil products.

9.6 Status of Ecological Permits, Payments and Penalties

The information provided in this section is valid as of 28 August 2020.

The following negative impact facilities have been registered since 28 May 2010:

- Yubileyniy GOK 08-0127-001163-П, Ist category of supervision, significant risk (3);
- Perevalnoe GOK 08-0127-001164-П, Ist category of supervision, significant risk (3);
- Ulakhan mining site 08-0127-000793-П, IInd category of supervision, moderate risk (4); and
- Buor mining site 08-0127-000792-П, IInd category of supervision, moderate risk (4).

According to information provided by the company, application is being prepared to register the Upper Kagkan mining site, where placer gold has been mined since 2020 (untimely registration can cause a penalty in the amount of 30-100 Th. Rub., Section 8.46 of

[20] SRK has no information on the percentage of local content in labour force.

Administrative Violation Code). When development of new placer areas starts in 2021, they will also be registered.

The main permits and supporting documentation are listed in the table below.

Table 9-1: List of the main required ecological permits and licenses

Permissive document type	Supporting documents	Permit and validation documents[21]
Ambient air	Draft rates for ultimate allowable emissions - 7.99.24.000.T.000545.07.15 dated 21.07.2015 Buor	Permits for atmospheric emissions of pollutants: - Permit No. 108/17 for emissions at Yubileyniy GOK, Krasivoe deposit, through 21.09.2024 - Permit No.18/18 for emissions at Perevalnoe deposit through 02.04.2020 - Permit No. 107/15 for emissions at Buor placer gold mining site through 24.08.2020
	Sanitary Protection Zone design	Resolution on establishing SPZ has not been obtained yet for any of the facilities[22]
Water supply	The design for use of ground waters or justification of the need for surface water intake	License for ground water extraction (in case of groundwater use) - License 00531 BP for geological studies and extraction of groundwater at Perevalnoe deposit active through 31.12.2028
Dewatering	Rates for ultimate allowable harmful impacts on a water body Draft ultimate allowable discharge rate	Resolution on the use of water body for wastewater discharge - Resolution No.27-18.03.06.003-P-РСБХ-С-2020-02419/00 for discharge at Kagkan site valid through 31.12.2022 A permit for discharge of contaminants into the water bodies - not provided
Waste generation	Draft rates for waste generation and limits for disposal	Document on approval of rates for waste generation and limits for disposal - Resolution No.34 for Yubileyniy GOK through 05.05.2022 - Resolution No. 3 for Perevalnoe deposit through 19.03.2025 - Resolution No.100-11/16 for Buor deposit through 18.09.2021 License for disposal of waste of hazard classes I – IV - Agreement No.57/18-4 with LLC “TzUTO” dated 13.09.2019 for providing services of gathering, transportation, disposal, disinfection and placement of waste of hazard classes I-IV

The Company does not have temporary permits for emissions from geological exploration sites[23]. Absence of permits can lead to penalties (50-100 thou.rub., Article 8.47 of Administrative Violations Code).

Before a permit can be obtained, certain studies must be conducted for its justification. OVOS and environmental protection reports are the basis for the preparation of applications for

[21] According to the Decree of Russian Federation No. 440 dated 03.04.2020 “On extension of permit validity and other specifics related to permissive activity in 2020”, the term of permits that expired during the period from March 15 through December 31, 2020, is extended for 12 months.
[22] According to provided data, it is planned to receive the resolutions in 2021.
[23] In particular, for exhausts of diesel power plants, drill holes and other sources, and for discharge of technical fluids.

permits and licenses. Typically, licenses and permits are issued for up to seven years and renewed as needed. Permits are used to estimate quarterly payments for the use of natural resources (emissions, discharges and waste disposal, use of air, water and land, respectively).

According to information provided by the company, the following documents should be obtained and/or approved in the nearest future:

- New draft ultimate allowable emissions for Perevalnoe GOK;
- Resolution for the use of water body at Buor placer deposit;
- Draft ultimate allowable emissions and rates for waste generation and limits for disposal at Kagkan, Chudnyy sites;
- Development and approval of construction project for water intake at Perevalnoe GOK.

The tailings accumulation site[24] of Yubileyniy GOK was included in the state registry of waste disposal sites on 2 October 2018 under the No. 27-00058-3-00398-021018. The tailings accumulation site[25] of Perevalnoe GOK was included in the state register of waste disposal sites on 17 December 2019 under the No. 27-00060-3-00818-091219. The waste disposal sites of Tas-Yuryakh asset (solid domestic waste site and tailings dump) were taken off the registry.

SRK found no information in the public domain on registration of the hard rock and stripped rock dumps in the state registry of waste disposal sites.

Figure 9-5: Stripped rock sites

SRK has no information on availability of licenses of designs for water intake operation.

The amounts of payments for negative impacts and the costs of various environmental protection activities (transfer of waste, monitoring, etc.) are provided in the table below.

Table 9-2: Cost of environmental protection activities and payments for negative environmental impacts (rub.) of Amur Gold LLC

Year	Payments for negative environmental impacts	Funding of environmental protection activities
2017	3,932,170	No data

[24] 2 22 411 02 20 5 wastes (tailings) of cyanidation of silver and gold containing ores, dewatered.
[25] 2 22 411 08 39 5 – wastes (tailings) of flotation of silver and gold containing ores.

2018	2,749,760	No data
2019	662,243	No data
2020	738,998 (plan)	9,650,000 (plan)

Declaration on negative impact of Amur Gold LLC; plan for the 2020 year.

The largest payments are for waste disposal.

According to the information provided by the company, the executive authorities have not inspected the facilities during the last 3 years for compliance with environmental legislation, so no violations of environmental legislation were found, and there were no fines. At earlier stages, the rates for discharge of suspended substances into water bodies used for gold placer mining were exceeded.

9.7 Status of Environmental and Social Studies

CJSC “Artel Starateley Amur” commenced regular prospecting, exploration and gold mining operations within the Dansky Ore Field in 1997.

Baseline studies (environmental engineering surveys) required by law were undertaken for the Perevalnoe (2013), Yubileyniy (2005 and 2015) and Malyutka assets. This type of surveys may not meet the good international practice standards, as they are conducted in limited amount and scope. In accordance with the Russian legislation (as opposed to the good international practices), all types of surveys are carried out only within the area of the main project sites (open pit/mine, waste dumps, TSFs, auxiliary infrastructure sites, office and amenity buildings and other facilities) and usually exclude the study of seasonal variations (except for climate studies).

Studies for reconstruction of the Yubileyniy asset and studies for Perevalnoe mine were conducted by OJSC “DalTISIZ”. Laboratory tests were undertaken by the laboratory of FGU "Khabarovsky”.

The following works were competed for Perevalnoe:

- collection of 66 topsoil samples for chemical and radioactive contamination analysis;
- collection of five samples of surface water, groundwater and bottom sediments for chemical and microbiological contamination analysis;
- chemical laboratory studies of samples of soil, surface water and bottom sediments;
- radiation survey of the site, and measurement of the radon flux density;
- field measurements of physical factors (noise, electromagnetic fields) to assess the area well-being; and
- reconnaissance surveys26 of open pit sites, industrial site and TSFs.

Based on the studies in streams around the deposit, elevated concentrations of the following elements were identified: phenols (up to 1-3 of MAC), iron (up to 2-4 of MAC), manganese (up to 1-5 of MAC), copper (up to 2-3 of MAC) and zinc (1-2 of MAC).

The following field works were carried out at Yubileyniy during the reconstruction stage:

[26] Due short duration of field works during the autumn period, it was not possible to identify in detail the distribution of certain species of plants and animals, and therefore analogue method was used.

- reconnaissance soil surveys and collection of three topsoil samples for chemical contamination analysis;
- collection of three topsoil samples (using the five-point envelope method) for bacteriological and microbiological analysis;
- collection of one surface water sample (Muktan river) and one groundwater sample for chemical contamination analysis; and
- collection of one sample of bottom sediments (Muktan river) for contamination analysis;
- measurement of the radon flux density and gamma survey at the site.

In the surface water of the Muktan river, excess concentrations are observed for manganese (2.7 of MAC), copper (8 of MAC) and zinc (55 of MAC). In bottom sediments, there is a slight excess of arsenic (1.04 of APC). High concentrations are due to natural background and were also observed during the surveys conducted by of GOU DPO “Dalekocenter” in 2005 (prior to potential significant impact of the mine activities). High concentrations of phenols in groundwater are due to sediment infiltration.

SRK has no information as to whether any environmental and social impact assessments (required both by the OVOS legislation and by international ESIA) or socio-economic baseline studies have been conducted to date for any of the assets. The design documentation has been approved by the State Expert Review Board without OVOS and is limited to a description of environmental protection measures.

9.7.1 Environmental monitoring

The mine commenced industrial environmental control and radioactive monitoring in 2019, in accordance with the approved program. The program was developed by LLC “EcoCentre” in 2019 and includes annual emission monitoring using a calculation method and an annual surface water analysis. In the course of monitoring, only excesses of suspended solids were detected in the water, and no excesses were detected for iron, copper and zinc (which showed high background values during environmental engineering surveys). Manganese is not included in the parameters controlled.

At the time of report writing, the following contracts have been signed for laboratory studies:

- No. 3916, with FGBU Centre of Agrochemical Service "Khabarovsky" dated 04/13/2017, for the analysis of drinking, natural (ground and surface) wastewater for compliance with the mandatory requirements of the current regulatory and technical documentation and sanitary norms;
- No. 697/20, with FBUZ "Centre for Hygiene and Epidemiology in the Khabarovsk Region" dated 02/17/2020, for the analysis of groundwater from water intake wells of the Perevalnoe GOK (before and after treatment) for sanitary and chemical parameters.

9.8 Environmental and Social Management

While several deposits are in operation, one environmental engineer (Head of the Environmental Department who is permanently based in Khabarovsk) is responsible for the

environmental activities of the mine. He reports directly to the Technical Director of Amur Zoloto LLC.

Currently, the Environmental Department is working in accordance with the Regulations on the Environmental Department (dated August 30, 2013) developed in compliance with the requirements of the environmental legislation of the Russian Federation. The requirements of good international practices are not applied.

The company has developed environmental, social, health and safety policies. SRK notes, however, that the personnel responsible for these aspects at the sites are not always informed of these policies, and they are not implemented in practice.

The company does not pursue stakeholder engagement on a regular basis, except for interaction with subcontractors and the regional and local employment centres. Other forms of ad hoc engagement include:

- financial and technical support to the administration of the Ayano-Maisky district by fulfilling requests under short-term agreements;
    - 410,000 rubles were paid in 2018;
    - 110,000 rubles were paid in 2019; and
    - 1.0 million rubles were paid over seven months of 2020.
- settlement of grievances from the indigenous population in 2017 due to pollution the Aim river with suspended matter.

Minutes of public hearings or other meetings with stakeholders were not provided to SRK.

9.9 Key Environmental and Social Issues

During 2019 Company prepared a series of the required documentation that were not available earlier and implemented water quality monitoring. Further stages should be implementation of the planned actions and regular control. Program of monitoring would cover both additional water samples and test targets to ensure assessment of the factual impacts on environment.

9.9.1 Waste disposal

Waste disposal system (including toxic waste) only involves basic elements (open storage facilities without ventilation and treatment equipment[27]), also not having clear procedures and instructions to comply with the best practices.

According the information from Company entire waste (including waste liquids) is temporally disposed at mining area for 11 months to be further transported to disposal/treatment locations. Since there is no year-round access and road conditions are poor, waste liquids and domestic waste storage may be unrealistic. SRK specialists did not observed any treatment facilities or runoff sumps. Company is assumed to have and manage treatment and storage facilities and hold a permission for water discharge.

SRK has no information whether disposal facilities exist or not, if these are formally registered with authorities and waste management license is made available. Acts confirming performance of contracts on mine waste disposal were not provided either. No information is

[27] Other observations are presented in CPR 2016, Section 10.5.

available on recording overburden and rock waste dumps. These facts may cause additional liabilities (charges for disposal outside the registered waste disposal facilities) to pay less excessive or critical excessive payments.

Though ore is reported to be sulphide ore, the acid drainage studies were not undertaken and no actions to minimize acid drainage are developed. In accordance with the report “Complex works to confirm the hazard class and determination of the type for the tailings of the processing plant at the Yubileiny GOK and the Perevalny GOK, Amur Zoloto LLC”, the tailings and overburden are classified as hazard class 5 waste with minimum impact.

9.9.2 Water management

At time of site visiting SRK was not able to assess the quality of water management system in some parts as follows:

- SRK consultants did not observe available treatment facilities or runoff sumps at Yubileyniy and Perevalnoe sites;
- At Yubileyniy mine it appeared to be not possible to visit tailings site and to see pound and down-pump are in place, to visit containment pound for drainage dischargers control; also there is no data of factual flow rate into containment pound and water quality data;
- No data is available of water discharge management after treatment at placer gold deposits.

In case a permission for water discharge has not been obtained, penalties in amount 180-250 RUB may be imposed or it may cause 90 days termination of operations (Item 8.14, 8.21, Administrative Code), and scale-up factor will be used to regular environment payments, that also may result to termination after three notices are not addressed.

9.9.3 Incomplete compliance with legal requirements

Incompliance facts are mentioned above. These include absence of dumps formal registration and sanitary protection zone documentation, not all regulatory permits are in place.

SRK does not consider that missing of some permits implies a critical risk, as the project documentation has been approved and no penalties were imposed over the recent three years. However, in case any changes in regulatory authorities’ approach or site check visits or another adverse circumstances, the above incompliances may rise unforeseeable financial consequences from negligible to the critical ones.

Gap in the data as for OVOC and current environment monitoring, which could provide clear and full picture of environment impact, may impede obtaining complex ecological permits, especially for Malyutka deposit considering the project scale.

9.9.4 The risk of dissatisfaction among the stakeholders and resulting reputational impact

At the moment SRK has not been provided with any information showing that Company has undertaken stakeholders (including indigenous communities) engagement process which could help understanding land use issues, stakeholders opinion, and considering potential expectations as for traditional land use areas and water bodies, and receiving prior consent for new sites development. There are no available Protocols for public hearings as required by national law.

According to best international practices, the engagement should be systematic (especially with indigenous communities). IFC Performance Standards also require companies to receive Free Prior and Informed Consent (FPIC)[28] of indigenous communities in the planning and implementation of the company plans. It is assumed that obtaining such consent aims to comply with traditional decision-making processes of the communities, with account of the internationally recognized human rights, and is based on negotiations held in good faith. It is also understood that in order to receive "social license" a company shall compile stakeholders database, develop mechanism of complaints and inquiries and also a single relationship strategy, prepare special plans for engagement and development of local communities, and undertakes systematic management of actions in accordance with such plans.

Because of the deposit remoteness the limited number of stakeholders are in access. Nevertheless, the existing experience of communication (in particular, with local communities and the Evenkies) suggests that the continuous and constructive dialogue is necessary to be established to avoid any material risks connected with the absence of stakeholders' engagement.

9.9.5 Closure

Many gold placers are worked out and currently facing different closure stages. Since SRK has not visited sites at closure it is not possible to confirm if the appropriate closure technologies were applied. According to local personal the contracts have been closed with no problems and rehabilitation processes performed due to project design. Company confirmed that sites have being in use been rehabilitated and relinquished to the state. Total area of disturbed land is reported to be of 738.24 ha as of 1 January 2020 based on public statement 2-TP (reclamation report):

- **Yubileyniy**: Project design documentation of Krasivoe UG mine and Yubileyniy Smelter includes general description of closure program with no cost estimation. There is no documentation for UG mine and gold placer mines.
- **Perevalnoe**: Project design documentation for 1 stage development of Perevalnoe open pit (Breccia zone) includes two different cost estimations of closure liabilities, which are 22M Rub and 46M Rub (Costs of 2015). Documentation is not available for placer mines, process plant and heap leach site.
- **Malyutka** project design document (TEO 2013) comprises general list of actions for key infrastructure facilities closure and closure cost estimation optional for different cut-off grades in range from 86M Rub -56M RUB. The similar data is available in TEO

[28] Free prior and informed consent.

2014 with the conceptual estimations ranging from 114M Rub to 62M Rub. The cost estimation needs to be updated to reflect the current parameters and project cost.

- **Tas-Yuryakh**: There is available Rehabilitation project design (2006) for Tukchi deposit with the total area proposed to be rehabilitated of 297.13 ha. The scope of work does not include other deposits of the mineralization (Vos'moye, Dar deposits). The stated closure cost is of 5.5M Rub in process of 2006. SRK considers that this cost estimation cannot be accepted as actual and need to be updated to the current liabilities.

SRK has not been provided with data of topsoil stockpiles availability and its storage capacity which would be used for rehabilitation. Apart of requirement to eliminate incompliances in terms of topsoil removing and stockpiling, improper rehabilitation works may result in penalties in extent of 400 000-700 000 Rub (item 8.7 Code of Accepted Practice) or 200 000-400 000 Rub (8.8 Administrative Code).

No one of assets does currently have complex and actual closure plan, and no closure costs are estimated either that would cover environment and social aspects considering. There is no project financing mechanism in place. Though there is a preliminary costing of some closure elements.

Based on the current ore reserves estimation and business-plans, the depletion of all deposits will likely happen during next 3-10 years period. IN accordance with Russian Law project design documentation shall include only preliminary closure plans, the detailed plans must be prepared on year prior to the actual closure. An exception is Tas-Yuryakh group of deposits which is in stand-by condition, and if there are no plans for further development, this project should be closed in nearest future in order to minimize total liabilities at times of remained assets closure.

The current national regulations require limited actions for closure and the costs would unlikely amount to higher than 2-3 MUSD per mine, however the cost of closure compliant with best international practice will be higher.

Therefore, SRK recommends that the approach to closure planning and costing to be revised and updated and the company financial models to include closure liabilities. This will also cover preparation of conceptual closure plans (for the existing operations) or relative project design sections and closure cost estimations updating.

10 VALUATION

10.1 Introduction

For the purposes of the economic evaluation presented in this section, SRK has reviewed the production plans, historical costs, investment program and the financial models prepared by AZ, as well as all the data related to the following assets:

- Perevalnoe;
- Yubileyniy;
- Malyutka; and
- Tas-Yuryakh and placer deposits:

- Lower Buor Creek
- Upper Kagkan and Chudnyy
- Hayunda and Chohcho creek

As part of this review, SRK has not generated its own financial model, but has reviewed and commented on AZ's models.

The main economic assumptions that were used in valuation are:

- the analysis presented here is in real pre-finance, post-tax USD ($) terms on a yearly basis;
- the operating cost estimates have a base date of January 2020; lease payments have been valued based on lease agreements of 2019 and 2020;
- the capital cost estimates have a base date of 2019 and 2020;
- the exchange rate has been provided by AZ at a fixed rate of RUB75:USD1 for the entire period of the financial model calculation;
- projected revenues and all operating costs have been derived in Russian Roubles (RUB);
- the assumed gold price was taken from consensus forecast until 2024 (2021-2022 - 1788$/oz, 2023 - 1721$/oz, 2024 - 1651$/oz) after which price used was long term real price of 1441$/oz;
- royalty has been calculated at the amount of 6% of revenue;
- the assumed discount rate is 10% (in real terms);
- income tax has been assumed to be 20%;
- working capital was sourced from AZ accounts and is in line with practice of other mining companies in Russia remote locations; and
- General and Administration (G&A) costs were derived from AZ historical expenditures and reviewed by SRK; it amounts to 7% of total operating costs.

10.2 Consolidated Valuation

10.2.1 Introduction

The following section presents a summary of the key assumptions supporting each of the Mineral Assets and a consolidated valuation for these.

10.2.2 Physicals and Gross Revenue

Table 10-1 presents a summary of the Life of Mine plan for the Mineral Assets as reviewed and adjusted by SRK where appropriate.

Figures 10-1 and 10-2 present the mined material and average gold grade on an annual basis for each Mineral Asset.

The material included in the mine plan includes Ore Reserves only.

Figure 10-3 presents the annualised forecast gross revenue from each asset, assuming a gold price from consensus forecast.

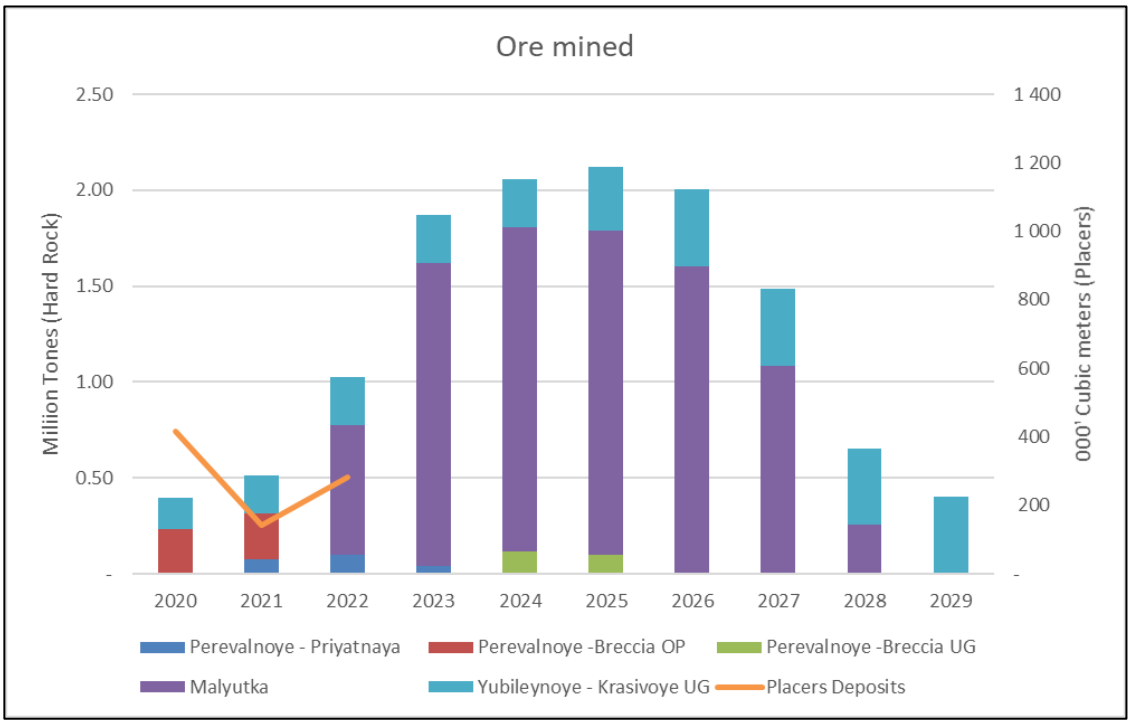


Figure 10-1: Life of Mine Ore

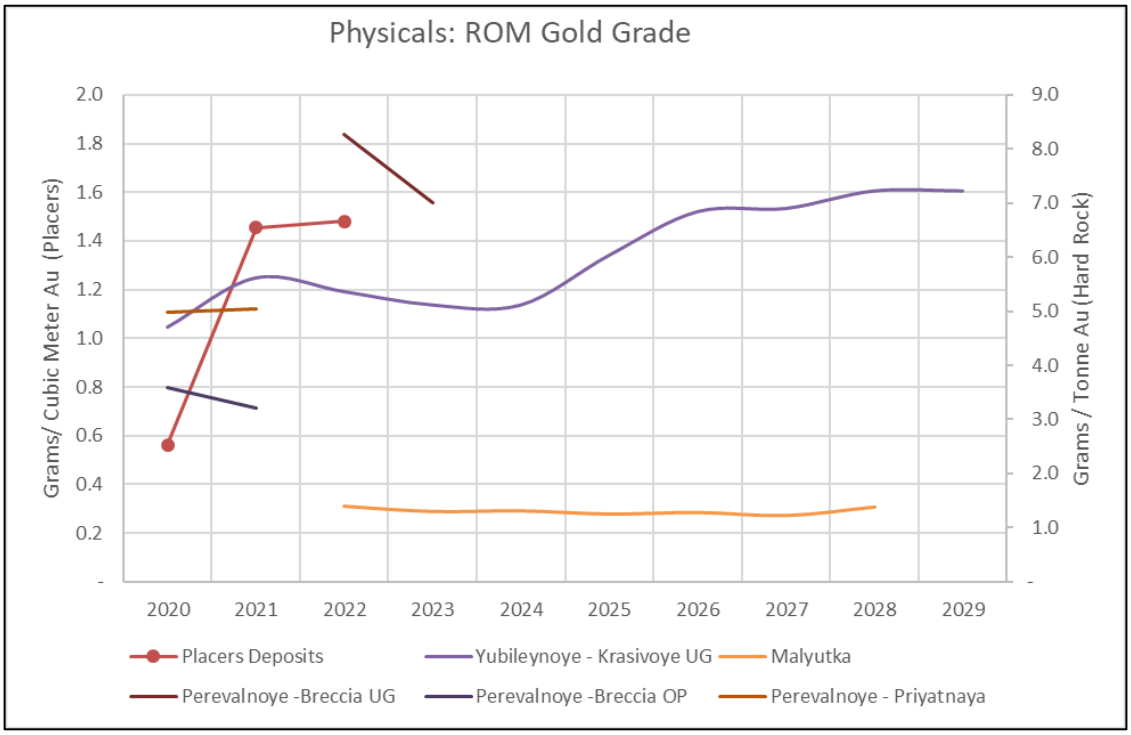


Figure 10-2: Life of Mine Gold Grade

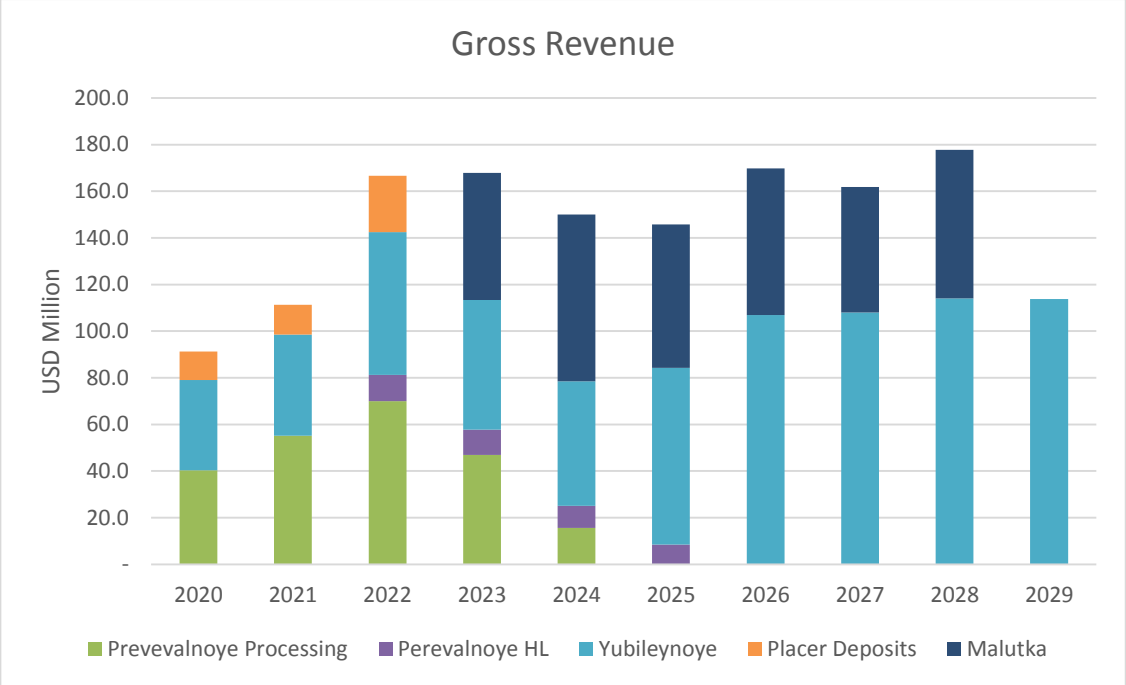


Figure 10-3: Annual Gross Revenue

Table 10-1: Annualised Life of Mine Plan by Asset

Description	Units	Forecast										Total from 2020-2029
		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
		Plan	Plan	Plan	Plan	Plan	Plan	Plan	Plan	Plan	Plan	
Perevalnoe hub												
Perevalnoe - Priyatnoe												
Ore	**kt**	0.10	0.04	-	-	-	-	-	-	-	-	**0.14**
Ore grade	**g/t**	5.0	5.0	-	-	-	-	-	-	-	-	**5.0**
Au	**t**	0.5	0.2	-	-	-	-	-	-	-	-	**0.7**
Perevalnoe - Breccia OP												
Ore	**kt**	0.23	0.27	-	-	-	-	-	-	-	-	**0.50**
Grade	**g/t**	3.6	3.1	-	-	-	-	-	-	-	-	**3.3**
Au	**t**	0.8	0.9	-	-	-	-	-	-	-	-	**1.7**
Perevalnoe - Breccia UG												
Ore	**kt**	-	0.01	0.12	0.10	-	-	-	-	-	-	**0.22**
Grade	**g/t**	-	8.0	8.3	7.0	-	-	-	-	-	-	**7.7**
Au	**t**	-	0.1	1.0	0.7	-	-	-	-	-	-	**1.7**
Malyutka hub												
Malyutka												
Ore	**kt**	-	-	0.67	1.58	1.69	1.69	1.60	1.08	0.25	-	**8.58**
Grade	**g/t**	-	-	1.4	1.3	1.3	1.2	1.3	1.2	1.4	-	**1.4**
Au	**t**	-	-	0.9	2.0	2.2	2.1	2.0	1.3	0.4	-	**11.0**
Yubileyniy hub												
Yubileyniy - Krasivoe UG												
Ore	**kt**	0.17	0.20	0.25	0.25	0.25	0.33	0.40	0.40	0.40	0.40	**3.05**
Grade	**g/t**	4.7	5.6	5.4	5.1	5.1	6.0	6.8	6.9	7.2	7.2	**6.3**
Au	**t**	0.8	1.1	1.3	1.3	1.3	2.0	2.7	2.8	2.9	2.9	**19.1**
Placer deposits hub												
Placers Deposits												
Gravels	**m^3**	415	143	284	-	-	-	-	-	-	-	**842**
Grade	**g/m^3**	0.6	1.5	1.5	-	-	-	-	-	-	-	**1.0**
Au	**t**	0.2	0.2	0.4	-	-	-	-	-	-	-	**0.9**

10.2.3 Operating Costs

Table 10-2 shows the annualised total operating costs for each Mineral Asset. Total operating costs and unit operating costs per tonne ROM and per ounce are graphically represented in Figure 10-4 and Figure 10-5.

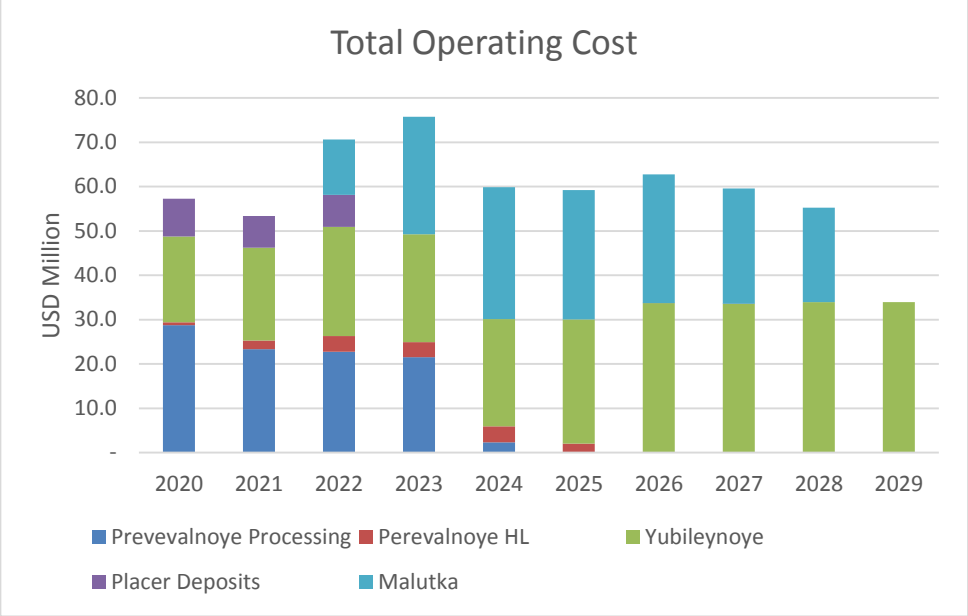


Figure 10-4: Total Operating Cost

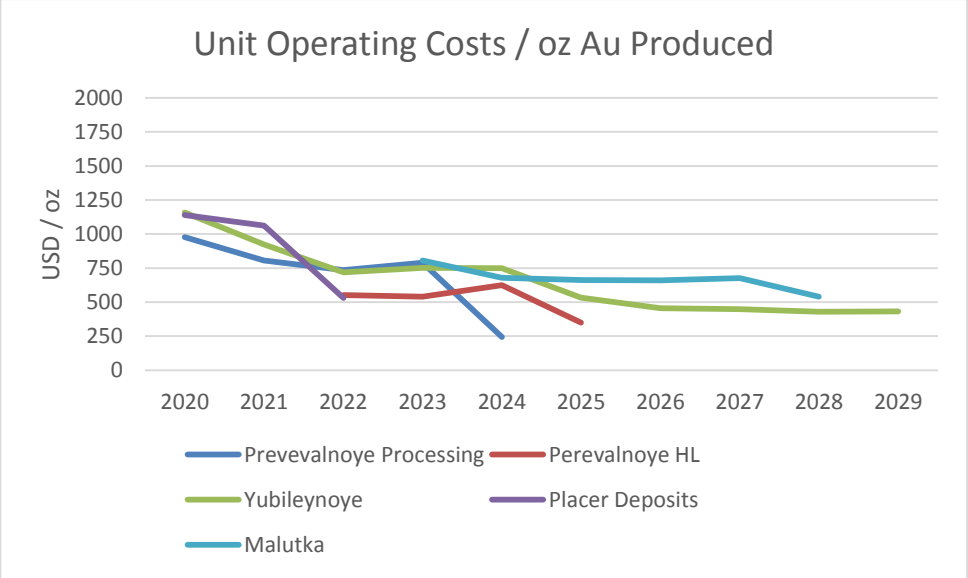


Figure 10-5: Unit Operating Cost ($/oz)[29]

[29] SRK included only operation related cost in their analysis and based analysis on company provided operational technical economic model

Table 10-2: Annualised Total Operating Cost by Asset[i]

Description	Units	Year										
		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2020-2029
		Plan	Plan	Plan	Plan	Plan	Plan	Plan	Plan	Plan	Plan	Total
Operating cost												
Perevalnoe Processing	$M	28.8	23.3	22.8	21.5	2.3	-	-	-	-	-	**98.7**
Perevalnoe HL	$M	0.6	1.9	3.5	3.4	3.6	2.0	-	-	-	-	**15.1**
Yubileyniy	$M	19.3	21.0	24.7	24.3	24.2	28.0	33.7	33.6	34.0	33.9	**276.7**
Placer Deposits	$M	8.6	7.1	7.2	-	-	-	0.0	0.0	-	-	**22.8**
Malyutka	$M	-	-	12.5	26.5	29.8	29.1	29.0	26.0	21.3	-	**174.2**
TOTAL	$M	**57.3**	**53.3**	**70.6**	**75.8**	**59.9**	**59.2**	**62.7**	**59.6**	**55.2**	**33.9**	**587.5**

[1] Operation cost is estimated including all costs required for operating asset and does not take into account extra financial cost that company can have not directly related to operation

10.2.4 Capital Costs

Table 10-3 and Figure 10-6 show the annualised forecast capital expenditure for the Mineral Assets.

Subsequent capital expenditure is mainly sustaining capital. SRK considers AZ's planned capital expenditures sufficient to support the planned production levels at the assets. Capital expenditures are split into individual hubs where it is possible and there are some line items which are estimates for the company overall.

Specific projects include:

- Yubileyniy – install second processing line;
- Perevalnoe – develop heap leach facilities;
- Perevalnoe - develop Brekchiyevaya underground mine; and
- Malyutka – develop mine and heap leach facilities.

Overall items are:

- Exploration – which includes exploration cost of deep levels of Krasivoe and ongoing Perevalnoe exploration to add reserves and it's only a historical number;
- Licenses – which is investment planned in to purchasing additional placer deposits to add reserves (on detailed information was presented for planed placer deposits, so they are not included in mine planes in the model or in ore reserves in this report); and
- Other cost - is a contingency of the capital expenditure for items which are not currently assigned or planed in detail.

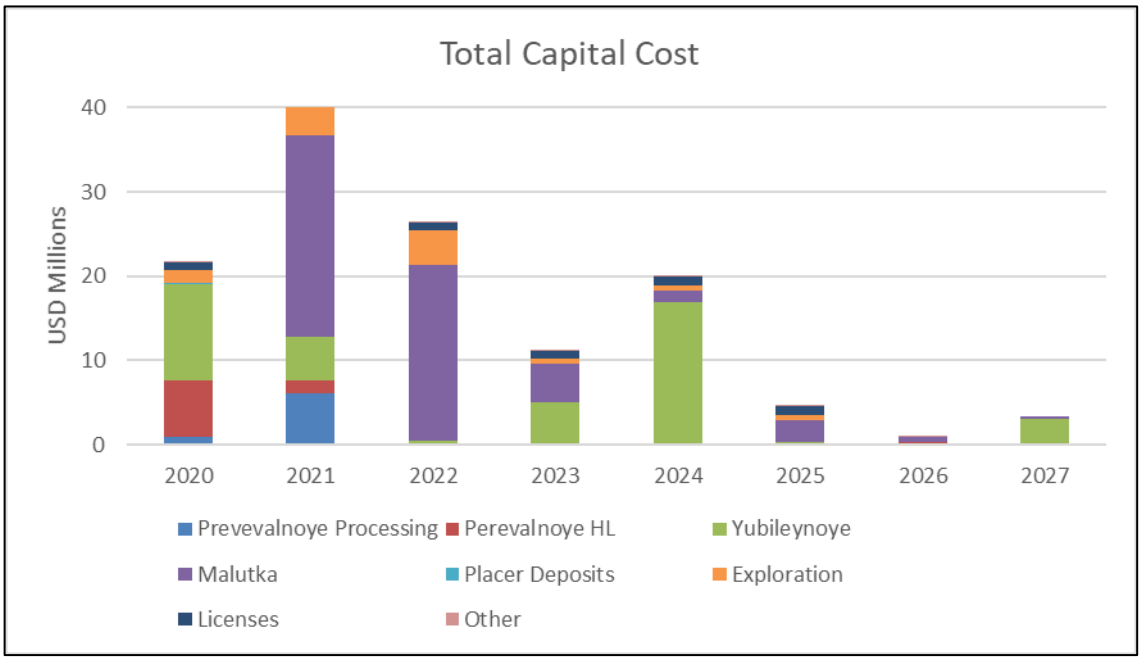


Figure 10-6: Forecast Capital Expenditure

Table 10-3: Annualised Capital Costs by Asset

Description	Units	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	2026 Plan	2027 Plan	2028 Plan	2029 Plan	Total from 2019-2027
Capital Expenditure												
Perevalnoe Processing	**mUSD**	1.0	6.1	-	-	-	-	-	-	-	-	7.0
Perevalnoe HL	**mUSD**	6.6	1.6	-	-	-	-	0.3	-	-	-	8.5
Yubileyniy	**mUSD**	11.4	5.2	0.4	5.0	16.9	0.3	-	3.0	-	-	42.2
Malyutka	**mUSD**	0.1	23.8	20.9	4.5	1.4	2.7	0.6	0.4	-	-	54.4
Placer Deposits	**mUSD**	0.1	0.1	-	-	-	-	-	-	-	-	0.2
Exploration	**mUSD**	1.5	7.0	4.1	0.6	0.6	0.6	-	-	-	-	14.4
Licenses	**mUSD**	0.9	0.9	1.0	1.0	1.0	1.0	-	-	-	-	5.9
Other	**mUSD**	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-	-	-	1.0
TOTAL	**mUSD**	**21.8**	**44.7**	**26.6**	**11.3**	**20.0**	**4.7**	**0.9**	**3.4**	**-**	**-**	133.5

10.2.5 Consolidated Valuation

Table 10-4 presents a consolidated valuation for the production of gold from the Mineral Assets through discounting cashflows and applying the assumptions discussed above. This valuation reflects SRK's views of the value of the Mineral Assets and not AZ as a company and operating entity.

The post-tax NPV of the mineral assets owned by AZ is estimated to be USD269 million, assuming a discount rate of 10%.The assumed gold price was taken from consensus forecast until 2024 (2021-2022 - 1788$/oz, 2023 - 1721$/oz, 2024 - 1651$/oz) after which price used was long term real price of 1441$/oz.

Table 10-4: Consolidated Valuation

Description	Units	Value
Project period		2020-2029
Total AU production	koz	918
Revenue	$M	1,456
OPEX	$M	619
Capex	$M	134
Unit cash cost	$/oz	675[30]
EBITDA	$M	780
% EBITDA	%	54%
NPV at 10%	$M	269

11 RISKS AND OPPORTUNITIES

11.1 Introduction

In undertaking the technical and economic appraisal of the assets, certain risks and opportunities have been identified, the most material of which are commented on below.

11.2 Risks

There are a number of risks inherent to the mining industry, including the stability of the markets, uncertainties related to Mineral Resource and Ore Reserve estimation, equipment and production performance. The specific risks SRK has identified relating to AZ's Mineral Assets are summarised below.

- Design. The designs for the Perevalnoe, Priyatnoe and Malyutka pits have some aggressive features when compared to the design criteria supplied by AZ. The risk can be mitigated by adopting more conservative design parameters. SRK considers there is a small risk of pit wall instability, with accompanying interruption to production and cashflow. AZ should consider design modifications to comply with the prescribed design parameters. SRK would expect a small negative impact on cashflow from the redesign.

- Project implementation risk. AZ has a number of significant projects that remain to be

[30] SRK included only operation related cost in their analysis and based analysis on company provided operational technical economic model

fully implemented. In particular, Malyutka contributes an increasing part of gold production, from commissioning in 2021 to more than 50% of total gold production in 2025. Similarly, the successful construction and commissioning of the second process line at Yubileyniy is important to the growth of gold production and revenue forecast from 2021. There remains a risk of potential construction delay should any problems arise due to the long logistics chains involved in these projects.

- The mining loss and dilution, and recovery parameters are estimates determined through Prefeasibility studies. Despite implementing good grade control and metallurgical operating practices, the actual Run-of-Mine tonnage and grade, and metal recovery, could differ from the estimates. Further metallurgical test-work, especially for Malyutka, is required to firm up the likely parameters.

- Exchange rate. The costs are based on an exchange rate of RUB75/USD1. It is unclear what the future exchange rate will be, given changes in oil price and inflation.

11.3 Opportunities

A number of opportunities have been identified and discussed at a high-level. SRK considers the most material of the opportunities to be:

- general exploration success, both near mine and greenfield, within existing licences and the opportunity to exploit any success within a relatively short time frame using existing AZ plant and infrastructure. AZ's current production plan shows all reserves exhausted by 2029;

- increasing the Ore Reserve at Krasivoe, where reserves are currently constrained to the Indicated Resources above the 750 m horizon;

- for open pit mines, considering smaller pit limits to improve robustness and efficiency of investment;

- at Malyutka, where the modelled metallurgical recovery is considered to be conservative; and

- in the placer fields, where opportunities for acquisition may remain.

12 CONCLUDING REMARKS

SRK's key conclusions regarding the Mineral Assets are as follows:

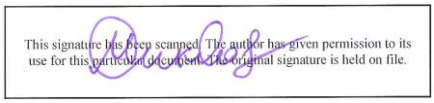
- The consolidated post-tax net present value of the Mineral Assets is $269 million, assuming a discount rate of 10%.
- The deposits are generally small but require little capital to develop.
- There is good upside potential from the optimisation of heap leach recoveries at Malyutka.
- AZ has good knowledge of finding deposits and operating in the Far East region, although historically it has tended to look for small, high grade deposits which required significant development effort. AZ now has a record of success in evaluating and establishing a development proposal for the large low grade Malyutka deposit. This experience will improve AZ's chances of identifying similar opportunities.
- As the projected production will rely heavily on new and expanded deposits, there is a project implementation risk of delays and worse performance than expected due to the early stage of the studies used to define the development plans. SRK, however, considers that this risk is likely to be low as the first line at Yubileyniy is operating, Perevalnoe is nearing capacity.
- The RUB exchange rate and inflation is uncertain. Should the RUB strengthen, and should inflation increase, then operating costs could rise.
- Due to poor infrastructure, the Far East region is relatively under-explored for medium to large sized gold deposits. SRK considers that there is reasonable potential to find and develop medium sized deposits if good target generation techniques are used in conjunction with AZ's knowledge of the regional geology.

Overall, SRK considers AZ has more opportunities to add to its value than risks of it being reduced.

The observations, comments and conclusions presented in this report represent SRK's opinion as of July 2020 and are based on a review of documentation provided by AZ, site visit the assets and discussions with AZ.

For and on behalf of SRK Consulting (Russia) Limited

Mikhail Sivkov,



Principal Economist
Director
Project Director