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Report

Kapan Reserves Review 2022
Chaarat Kapan CJSC

AMC Project 422027_04
26 April 2023

Executive summary

AMC Consultants (UK) Limited (AMC) was engaged by Chaarat Kapan CJSC (Chaarat) to undertake a review of the Kapan Mine (Kapan) Ore Reserves and to act as the Competent Person (CP) as defined in the JORC Code (2012)[1] reporting code. The objective of the project was to review the life-of-mine plan (LOMP), including the Ore Reserves inputs, mine design, scheduling and costs, to produce a JORC Code (2012) compliant Ore Reserves Statement and to complete JORC Section 4 of "Table 1 Checklist of Assessment and reporting Criteria".

This report details the information provided and steps undertaken by AMC during the review process. The completed JORC Table 1, Section 4, can be found in Appendix A.

The key observations and conclusions made by AMC are as follows.

The Mineral Resource estimate (MRE) was produced by Chaarat under the supervision of the Competent Person (CP) for the Mineral Resource, Mr Dimitar Dimitrov, Senior VP Exploration of Chaarat, with an effective date of 1 September 2022 (Table 2.1). The MRE has been constrained by Mineable Shape Optimizer™ (MSO™) at cut-off grade of 2.1 g/t AuEq and minimum mining widths of 1.2 m to 2.2 m dependant on orebody dip. The Mineral Resources are reported inclusive of the Ore Reserves and consist of:

- 2.60 Mt of Measured and Indicated Resources at a grade of 4.4 g/t Au, 82.6 g/t Ag, 0.9% Cu, and 3.6% Zn.
- 1.87 Mt of Inferred Resources at a grade of 3.2 g/t Au 72.7 g/t Ag, 0.7% Cu, and 2.6% Zn.

Chaarat has completed JORC Table 1 Sections 1 to 3 and a report detailing the estimation works. Following feedback from AMC, Chaarat is in the process of adding additional information to further align the documentation with the JORC Code (2012) guidelines. AMC has reviewed the Mineral Resource block model and considers it a reasonable representation of the sample data upon which it is based.

The Ore Reserves have been estimated in accordance with the JORC Code (2012) and total 3.14 Mt at a at grade of 1.65 g/t Au, 32.47 g/t Ag, 0.36% Cu, and 1.33% Zn (Table 1.1).

The Ore Reserves include 1.25 Mt of undiluted ore, 1.97 Mt of dilution, and 0.08 Mt of mining losses (Table 7.2).

Potential remains for mine life beyond the five years in the LOMP through upgrade and conversion of Mineral Resources to Ore Reserves. Historically, Kapan reserve depletion has been replenished through ongoing exploration and development and it is reasonable to expect this to continue.

AMC conducted a high-level "best practices" review which can be found in Table 17.1. In summary, it is AMC's opinion that mine planning practices are generally good, with some improvement required in cut-off grade philosophy and long-term mine planning. The procedure and approaches adopted at the mine are good practice in relation to the orebody and on the path towards industry best-practice. AMC notes technical staff shortages which have occurred recently at Kapan and affected the timeliness of this year's Reserve preparation. Kapan is addressing these vacancies to ensure ongoing necessary mining planning tasks and to ensure next year's reserve is developed in a timelier manner.

[1] Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, The JORC Code 2012 Edition. Effective 20 December 2012 and mandatory from 1 December 2013. Prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australasian Institute of Geoscientists and Minerals Council of Australia (JORC).

The mining method currently in use at Kapan is well suited to the layout and geometry of the orebody and might be improved through investigation of bottom-up mining, backfill, and additional ground support.

The mine design and scheduling parameters are a good fit to the orebody. Dilution and mining productivities are within the range expected for underground operations of this scale based on AMC's experience.

Grade-control procedures fit well with the orebody and, if followed, give the level of data definition required to convert Mineral Resources into Ore Reserves.

Mine equipment at the mine is of the correct size and quantity for the scale of operations.

The Kapan process plant produces a gold and a zinc concentrate using conventional crushing, grinding, flotation, thickening, and filtration. The process is well-tested and has been in operation on ore feed from Kapan mine for more than 15 years.

Chaarat possesses the required permits and planning permissions to effectively operate the Kapan mine in accordance with Armenian environmental regulations.

The costs used to inform the Ore Reserves are based on actual historic and current operating costs.

The on-site operating costs are within the range expected for a mine of this scale and method, based on AMC's experience with similar projects.

The off-site charges are in-line with industry standards and AMC's experience with similar commodities.

The sustaining capital projections are within the range expected given AMC's experience.

Revenue has been based on metal prices of USD1,750/oz Au, USD21.80/oz Ag, USD8,300/t Cu, and USD2,950/t Zn applied to the concentrate sales terms. These figures are representative of economic forecasts for the period.

The gold and zinc concentrate markets are global markets and the concentrates produced at Kapan are within internationally recognized specifications. Each year, negotiations are held with numerous international trading and smelting companies to secure the best terms for these concentrates. Industrial Minerals SA (IM) and Trafigura PTE Ltd (Trafigura) have their own in-house smelting facilities and Kapan concentrates are beneficial to their current blending requirements.

In the event that the existing buyers decide to stop purchasing Kapan concentrates, there are many other international trading and smelting companies that would be interested in purchasing them.

Indicative economic assessment shows that the LOMP yields a net positive financial outcome. The outcomes of the economic assessment is a total undiscounted cashflow of USD68 million and an net present value (NPV) at an 8% discount rate of USD59 million. The economic assessment provided in this report is for the purposes of declaring Ore Reserves based on the data reviewed and might differ from those used by Chaarat in corporate financial evaluations or projections.

It has been reported to AMC that all agreements with the local authorities are in place and are current with all key stakeholders. To the best of AMC's knowledge, Chaarat is currently compliant with all legal and regulatory requirements and there is no reason to assume any further government or local council permits, licences, or statutory approvals will not be granted, if required.

Quality control

The signing of this statement confirms this report has been prepared and checked in accordance with the AMC Peer Review Process.

Project Manager	 Alan Turner	26 April 2023 Date
Peer Reviewer	 David Lee	26 April 2023 Date
Author	 James Town	26 April 2023 Date

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1 Introduction

AMC Consultants (UK) Limited (AMC) has reviewed the life-of-mine plan (LOMP) and Ore Reserves generated by Chaarat Kapan CJSC (Chaarat). AMC is of the opinion that the grades and tonnages provided in Table 1.1 are a reasonable representation of the Ore Reserves for Kapan Mine.

The Ore Reserves have been estimated in accordance with the JORC Code (2012) and total 3.14 Mt at a at grade of 1.65 g/t Au, 32.47 g/t Ag, 0.36% Cu, and 1.33% Zn, with an effective date of 31 December 2022. A summary of the Ore Reserves by category is shown in Table 1.1.

Table 1.1 Year-end 2022 – Ore Reserves

		Grade					Metal				
Classification	**Tonnes (Mt)**	**Au (g/t)**	**Ag (g/t)**	**Cu (%)**	**Zn (%)**	**AuEq (g/t)**	**Au (Koz)**	**Ag (Koz)**	**Cu (Kt)**	**Zn (Kt)**	**AuEq (Koz)**
Proven	0.21	2.40	42.07	0.51	1.85	4.64	16.2	284.5	1.1	3.9	31.4
Probable	2.93	1.59	31.78	0.35	1.29	3.18	150.0	2,991.1	10.1	37.8	299.0
Total Proven and Probable	**3.14**	**1.65**	**32.47**	**0.36**	**1.33**	**3.28**	**166.3**	**3,275.6**	**11.2**	**41.7**	**330.4**

1. Ore Reserves are reported in accordance with the JORC Code (2012).
2. Ore Reserves are based on consensus metal prices, for the period of the reserves, of USD1,750/oz Au, USD21.8/oz Ag, USD8,300/t Cu, and USD2,950 Zn.
3. Ore Reserves are based on a gold equivalent cut-off of 2.3g/t Au.
4. Mineral Resources which are not Ore Reserves do not have demonstrated economic viability.
5. Table is subject to rounding errors.
6. The average density of Measured and Indicated Resources is 2.67 t/m^3. A density of 2.64 t/m^3 was used for unmodelled diluting waste material.
7. Tonnes reported are in situ, dry tonnes.

The Ore Reserves are part of the 2022 Mineral Resources being declared by Chaarat. The Ore Reserves have been determined from the December 2022 LOMP produced by Chaarat personnel. The cut-off gold equivalent (AuEq) value used was 2.3 g/t AuEq. The cut-off AuEq was calculated using a USD1,750/oz gold price, USD21.8/oz silver price, USD8,300/t copper price, USD2,950/t zinc price.

The details of the Ore Reserves Competent Person's review are described in the following sections of this report. A copy of the JORC Table 1 Section 4, completed by the Competent Person (CP) can be found in Appendix A.

2 Mineral Resource estimate for conversion to Ore Reserves

The Mineral Resource estimate (MRE) was produced by Mr Dimitar Dimitrov, Senior VP Exploration of Chaarat, with an effective date of 1 September 2022. The Mineral Resources are reported inclusive of the Ore Reserves and are shown in Table 2.1.

Table 2.1 Mineral Resource Statement

			Metal							
Classification	**Tonnes (mt)**	**Density**	**Au (g/t)**	**Ag (g/t)**	**Cu (%)**	**Zn (%)**	**Au (koz)**	**Ag (koz)**	**Cu (t)**	**Zn (t)**
Measured	0.341	2.76	6.4	106.5	1.2	4.8	70	1,167	4,160	16,436
Indicated	2.261	2.77	4.1	79.0	0.9	3.4	295	5,745	19,445	77,778
M & I	**2.602**	**2.77**	**4.4**	**82.6**	**0.9**	**3.6**	**365**	**6,912**	**23,605**	**94,215**
Inferred	1.864	2.77	3.2	72.7	0.7	2.6	192	4,356	12,489	49,023

Source: Chaarat, 2022.

Potential remains for mine life beyond the five years in the LOMP through upgrade and conversion of resources to reserves. Historically, Kapan reserve depletion has been replenished through ongoing exploration and development and it is reasonable to expect this to continue.

AMC did not undertake the Mineral Resource estimation; however, did review the Mineral Resource block model provided by Chaarat and noted the following key observations:

- Chaarat has completed JORC Table 1 Sections 1 to 3 and a report detailing the estimation work undertaken.
- AMC has reviewed the Mineral Resource block model and considers it a reasonable representation of the sample data upon which it is based.

3 Competent Persons and site visits

The Competent Person (CP) for the Ore Reserves declared under the JORC Code (2012) in this report is:

- James Town, Chartered Engineer (CEng), Member of the Institute of Materials, Minerals & Mining (MIMMM). IOM3 membership number: 0478326.

Site visits were not conducted during the 2022 Mineral Resource and Ore Reserve process due to security-related travel restrictions. However, members of the AMC review team have visited Kapan in the recent past. The details of the previous site visits are as follows:

- James Town (CP): July 2019, three-day visit.
- Alan Turner: June 2019, three-day visit.

4 Study status

Kapan mine has been actively producing since 1994 and at full production for more than 15 years. The mine underwent transition from Soviet State ownership to private ownership in 2004 and the ownership history of the mine is listed below:

- Soviet state-owned (1923–1950s).
- Russian Federal Government State Commission (up to 1990).
- Kapan Ore Mining and Processing Enterprise (1995–2004).
- Deno Gold Mining Company CJSC (2004–2006).
- Dundee Precious Metals Inc. (2006–2016).
- Polymetal International PLC (2016–2019).

Chaarat acquired the mine in January 2019 and the Ore Reserves detailed in this report are based on the LOM design, schedule, and cost model generated by the Mine Technical Services Department in December 2022.

Information and experience gathered during mine operations has been used to update and inform the current Ore Reserve. Production records, sales invoices, and other data from the recent operations at Kapan Mine were used as a basis for assessing the inputs to the Ore Reserve calculation.

5 Cut-off grade parameters

AMC reviewed the spreadsheets used to calculate cut-off grade in terms of a gold equivalent grade (AuEq). Inputs were cross-referenced with the mine budget, historical process performance data, and historical cost and sales data to confirm validity.

A cut-off grade of 2.3 g/t AuEq was used by Chaarat as the basis for design and generation of stope shapes using Mineable Shape Optimizer™ (MSO™) software.

Within the Ore Reserves, stopes were assessed by Chaarat on incremental value and practical mining basis, resulting in stopes with an average grade of <2.3 g/t AuEq being included in the mine plan and Ore Reserves. For example, if a stope drive passes through a stoping block to access a higher grade stope then the lower grade stope can also be mined as the development costs have already been sunk. This material, which totals approximately 297 kt, accounts for 12% of the stope tonnage. Whilst these stopes are below a break-even cut-off, they have demonstrable economic benefit given the positive economic assessment of the Ore Reserves.

A marginal cut-off grade of 1.0 g/t AuEq was used for ore drive development headings, excluding mining costs from the cut-off grade calculation as the development is necessary to access the stoping areas.

AMC notes that only the gold recovery is utilized in this calculation, AMC recommends that the recovery factors be used, per element, in the in situ-grade calculation, instead of the cut-off grade calculation.

The inputs and factors used to determine the AuEq grade are shown in Table 5.1.

Table 5.1 Cut-off grade inputs and factors

Parameter	Units	Ore Reserves Assumptions
Metal Prices		
Gold price	USD/oz Au	1750.00
Silver price	USD/oz Ag	21.80
Copper price	USD/t Cu	8300.00
Zinc price	USD/t Zn	2950.00
Gold Recoveries and Refining Costs		
Gold recovery	%	77.5
Gold offsite charges	USD/g Au	9.76
Gold royalties	% of NSR	4.0
Operating costs		
Mine	USD/t ore	58.1
Mill	USD/t ore	14.4
G&A	USD/t ore	4.8
Total Cost	USD/t ore	77.3
Break-even AuEq cut-off grade	g/t AuEq	2.3

6 In situ gold equivalent calculation

AMC reviewed the spreadsheets used to calculate gold equivalent (AuEq). Inputs were cross-referenced with the mine budget, historical process performance data, and historical cost and sales data to confirm validity.

The AuEq is calculated using the formula:

Au + (Ag grade / Silver Factor) + (Cu grade / Copper Factor) + (Zn grade / Zinc Factor)

The AuEq formula is used to populate the AuEq field in the block model. AMC notes that this formula is just a straight relationship on price and differences in recovery and other off-site charges are not considered.

The inputs and factors used to determine the AuEq grade are shown in Table 6.1.

Table 6.1 Gold equivalent inputs and factors

Parameter	Units	Ore Reserves Assumptions
Metal Prices		
Gold price	USD/oz Au	1750.00
Silver price	USD/oz Ag	21.80
Copper price	USD/t Cu	8300.00
Zinc price	USD/t Zn	2950.00
Results		
AuEq factor silver	#	80
AuEq factor copper	#	0.6779
AuEq factor zinc	#	1.9072

The distribution of stope tonnages within AuEq grade bins are shown in Figure 6.1 and cumulatively in Figure 6.2.

Figure 6.1 Stope tonnages by AuEq grades

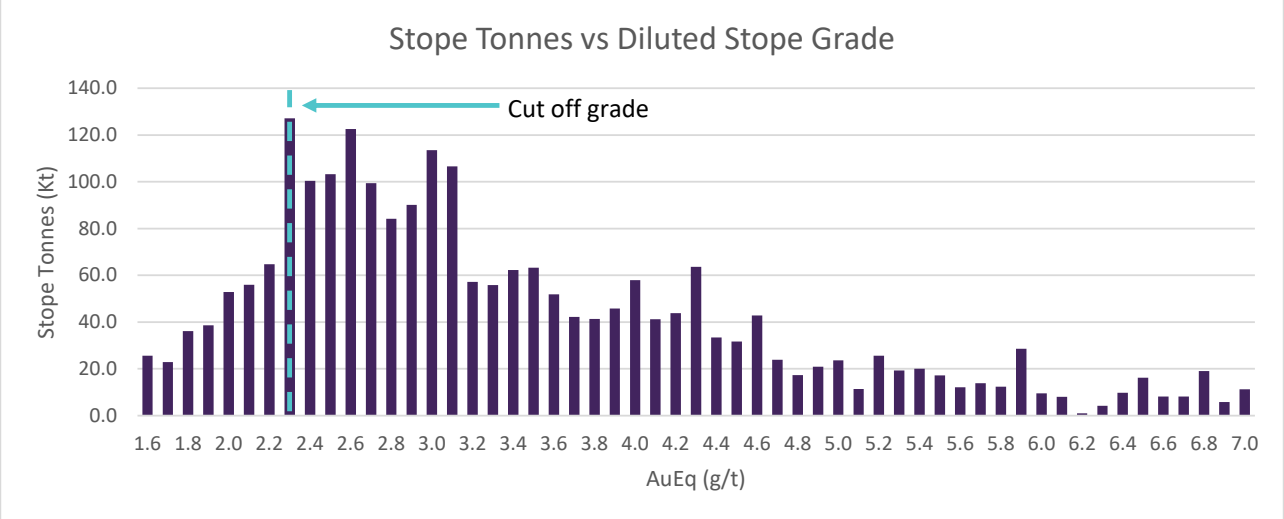
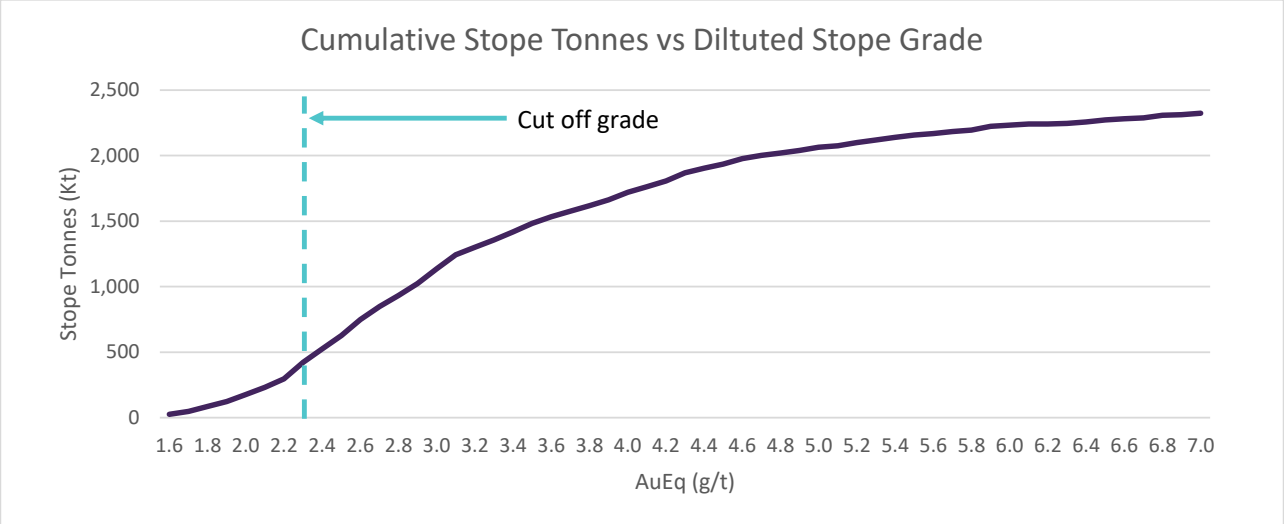


Figure 6.2 Cumulative stope tonnages by AuEq grades



The AuEq cut-off grade philosophy used by Chaarat has yielded a demonstrated positive financial outcome and hence satisfies the JORC Code (2012) requirements for declaring Ore Reserves. However, AMC does not consider the metal equivalent method an industry best-practice for reporting Mineral Resources or Ore Reserves and recommends adapting a net smelter return (NSR) value-based model moving forward. The advantages of moving to an NSR model are:

- Better accounting for all metals and associated factors in value determination.
- More flexibility to evaluate individual mining areas and assess incremental cut-offs rather than looking at the mine as a whole.
- Eliminating sub-economic isolated mining areas and identify additional marginal mineralization that might become viable, given access.

7 Life-of-mine plan

The resource model used for the Ore Reserve calculation was developed by Mr Dimitar Dimitrov of Chaarat, with an effective date of 1 September 2022. This model is current (as of reporting date) and forms the basis of the 2022 Mineral Resource Statement Update issued by Chaarat. Ore Reserves are based on an operating mine design and schedule developed by the Chaarat Mine Technical Services Department at Kapan. The design and schedule have been reviewed by AMC. Inferred Mineral Resources were treated as waste and are not included in the Ore Reserves.

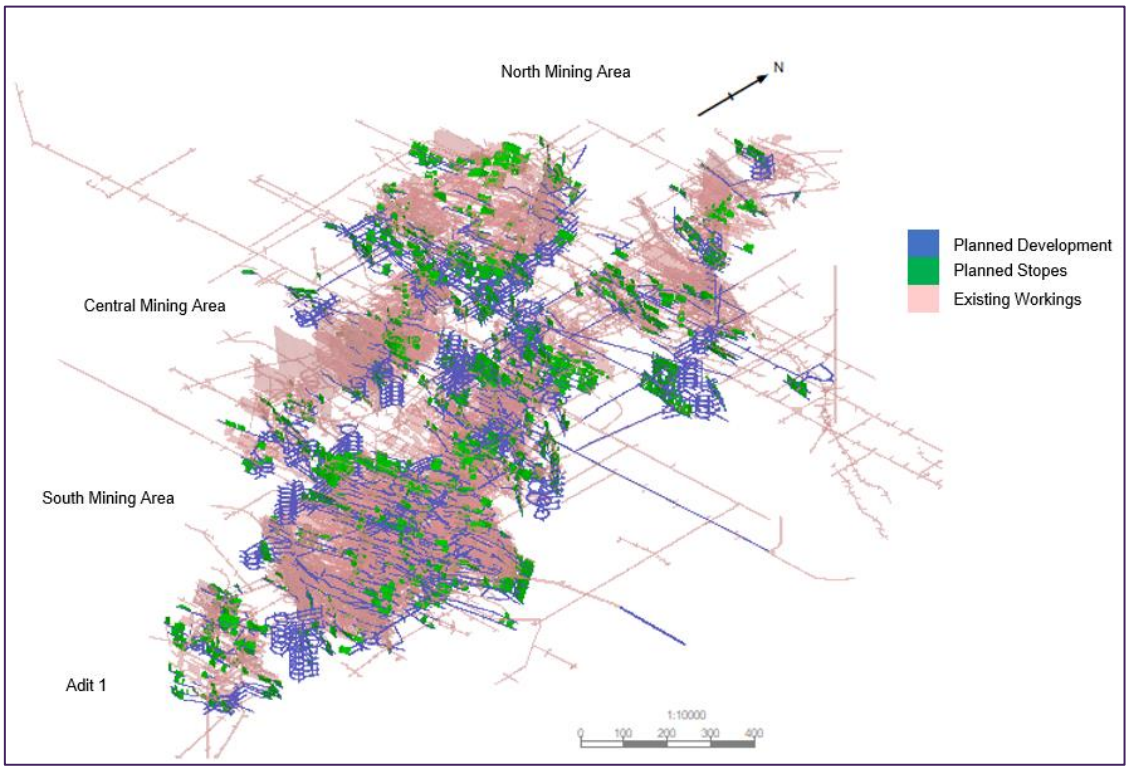
Kapan mine has been in production since 1994 and currently uses the long-hole open-stoping (LHOS) mining method with remote-loading and rib pillars. Access to mining areas is top-down via spiral declines from which access drives are developed at 15 m vertical intervals. At vein intersections, ore drives are developed along the entire strike of a vein. Long-hole drilling techniques are used to drill up holes between levels and stopes are mucked remotely and loaded into trucks for haulage to surface. The mine is fully mechanized, and access is predominantly through a portal at the South of the deposit from which multiple declines in the North, Central, and South mining areas give access to mining fronts.

The method used by Chaarat to generate the Kapan Ore Reserves was to:

- Run MSO™ on the Measured and Indicated Resources portion of the Mineral Resource block model to prepare stope shapes based on the cut-off grade and physical design parameters such as minimum mining width.
- Manually adjust MSO™ shapes to create practical stope designs.
- Create designs of the required ore development drives, declines, and horizontal access.
- Link and schedule the development and stope designs in Datamine Studio UG™ and EPS Scheduler™.

The layout of the mine, including the planned stopes and development is shown in Figure 7.1.

Figure 7.1 Mine layout and design



The LOMP and its key inputs and results are described in the following sections.

7.1 Stope design

MSO™ was run on the Measured and Indicated Resources portion of the Mineral Resource block model on more than 100 veins, which all have individual and variable dips, strikes, and widths. The key inputs used in MSO™ were:

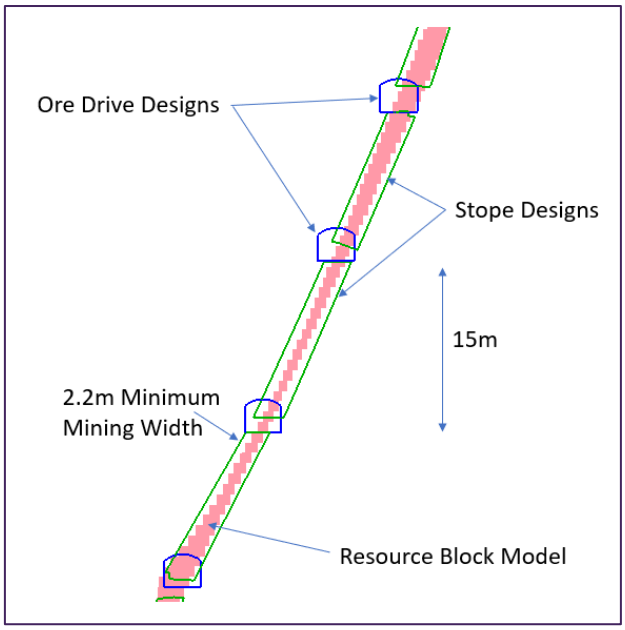
- AuEq cut-off grade of 2.3 g/t AuEq.
- Minimum stope width of 2.2 m for veins dipping <70°, 1.8 m for veins dipping 70° to 80° and 1.2 m for veins dipping 80° to 90°.
- Minimum waste pillar width of 4 m.
- Stope dip varied by vein.

Following the MSO™ process, the Mine Technical Services Department sections each MSO™ shape at 5 m intervals along-strike and generates a set of adjusted shapes to better-fit the existing and designed workings and to assess practicality of stope block length and pillar design. Due to the number of veins and complexity of the deposit, the stope design process has generated approximately 1,600 individual stope designs. The manual processes involved in developing the revised mining shapes is time and personnel resource-consuming.

Individual stopes have a maximum length of 30 m and maximum height of 12 m, with a maximum of three stopes forming a panel between a crown pillar with surface and sill pillars between levels.

AMC was provided with the MSO™ input parameters for all veins and the resulting output stope shapes. A representative number of stope shapes were visually inspected and matched against their inputs to confirm their validity. A typical cross-section of a stope design is shown in Figure 7.2.

Figure 7.2 Typical cross-section of a stope design



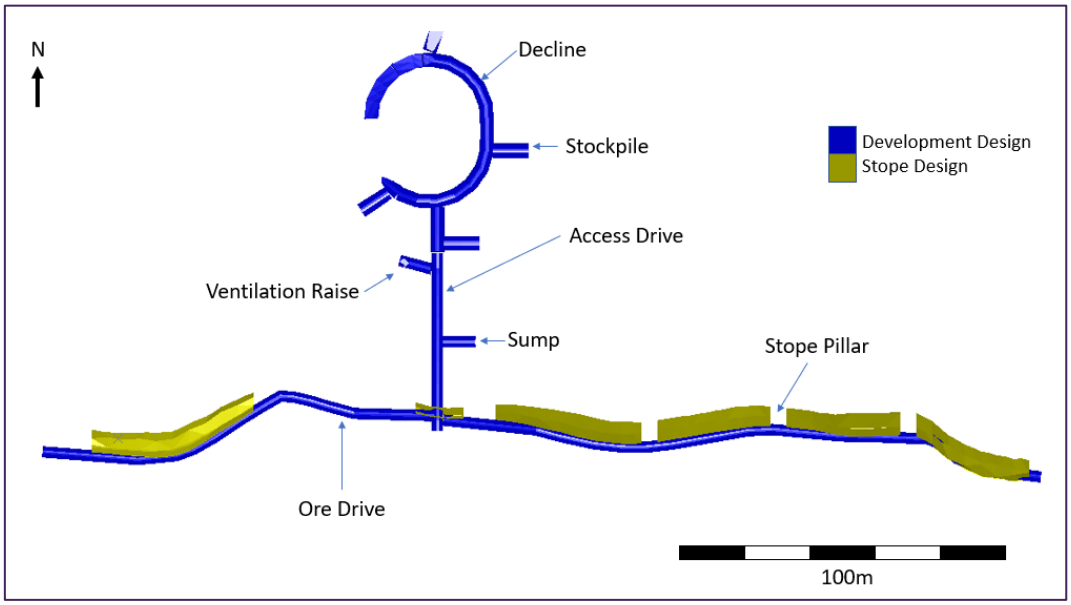
Due to the operating history of Kapan Mine, many of the mining areas are adjacent to, or above/below, pre-existing open stopes. AMC was provided with a current survey of all mine workings, which was used to visually check up-to-date depletion of the Ore Reserves. The survey data, in combination with site visits to the underground workings, also confirmed the appropriateness of the minimum mining widths used in MSO™.

7.2 Development design

Development at Kapan Mine is achieved through conventional mechanized drill-and-blast, load-and-haul.

The development design is based on developing declines from which cross-cutting access drives are developed at 15 m vertical intervals to intersect the veins. Ore drives are then developed along the strike of the veins to form upper and lower sublevels for the stope designs. A typical level layout is shown in Figure 7.3.

Figure 7.3 Typical level layout



The drive profiles of the key development components are:

- Declines: 4.5 m wide by 4.5 m high.
- Access drives: 4.3 m wide by 4.3 m high.
- Ore drives: 3.5 m wide by 3.2 m high.

Declines are designed at a maximum gradient of 1:7 with a minimum radius of 17 m, which is appropriate to the mining fleet. Declines and cross-cuts are designed to allow sufficient height and width for loading of haul trucks at stockpile intersections.

Vertical development, including ventilation raises and ore passes are designed at 2 m by 5 m and are developed through both longhole raising and manual methods.

7.3 Geotechnical

The Mine Technical Services Department includes geotechnical personnel who assess all development headings, intersections, and stoping areas for geotechnical requirements. Geotechnical passports are developed for all working areas with all access and cross-cuts supported with split sets and mesh as a minimum, and pattern bolting at intersections. Cablebolting is used in ore drives to maintain the hangingwall of stopes post-extraction.

The geotechnical practices at site have been built up following a geotechnical assessment conducted by SRK Consultants (SRK) in 2015. The work conducted by SRK was developed into a ground control management plan which still forms the basis of geotechnical design at this time.

7.4 Dilution and recovery

The external dilution and recovery factors applied by Chaarat to the stoping is summarized in Table 7.1.

Table 7.1 Dilution and recovery factors

Parameter	Units	Value
Stoping		
External unplanned dilution	% of mined mass	Variable, average (11.8)
Recovery loss	% of diluted stope mass	3.0

Table 7.2 shows the percentage breakdown of each type of material included in the Ore Reserves estimate (including stoping and development).

Table 7.2 Ore Reserve estimate material breakdown

Item	Source	Tonnes (Mt)	% Of Total Mass
Total Mass	Schedule output	3.14	100%
Undiluted Ore	Evaluated block model	1.25	40%
Mining Dilution	Mined volume external to model	1.70	54%
Unplanned Dilution	External dilution applied as factor	0.27	9%
Recovery Losses	Recovery losses applied as a factor	-0.08	-2%

The largest component of mine dilution comes from the application of the minimum mining width to the modelled veins. This accounts for 54% of the stope tonnages and is due to a significant proportion of the veins being less than the minimum mining width of 2.2 m.

Secondary dilution is mainly due to overbreak within stopes around existing sublevels and is applied as a variable factor based on geometry and historic extraction. The Mine Technical Services Department is currently investigating methods for reducing the overbreak through additional ground support, testing of cemented backfill, and where possible, mining bottom-up rather than top-down.

Mining losses are estimated to be 2% of the Ore Reserve. Losses occur mainly as a result of material left in the floor and corners of stopes.

7.5 Task rates

Scheduling was completed by AMC using Datamine Studio UG™ and EPS scheduler™. The development design and stope designs, provided by Chaarat, were linked in the software and mining rates applied to sequence and schedule the development and production. The key rates applied to individual development headings and stopes are shown in Table 7.3.

Table 7.3 Key scheduling rates

Parameter	Units	Value
Development		
Decline	m/month	60
Horizontal development	m/month	60
Vertical development	m/month	60
Stoping		
Stope productivity	t/month	3,000

The productivities and development rates applied by Chaarat are in-line with similar projects undertaken by AMC and are appropriate for the Kapan mining fleet.

7.6 Grade control

Grade control is critical to the operations at Kapan due to the complex nature of the veins. The Mine Technical Services Department includes Surveyors, Geologists, and Mining Engineers, who maintain the underground grade-control processes. Grade control currently consists of:

- Pre-development diamond drilling at 20 m spacing which is logged, photographed, and sampled.
- Face-mapping and back-mapping along with painted geological contacts.
- Face-channel sampling at a minimum of every 4 m along ore drives.
- Drive and stope survey pick-ups using total stations and laser cavity monitoring scanners.

Grade-control samples are processed in the on-site laboratory which is located in a relatively new facility close to the mine offices and Adit 1 as described above.

The Mine Technical Services Department reconciles mine production data against process-plant production data on a monthly and quarterly basis.

Individual stope reconciliation exercises have been conducted by the Mine Technical Services Department. However, given the number of active mining areas and process targets, segregating individual stopes for batch processing can be practically difficult.

7.7 Schedule

Chaarat provided the mine design in Datamine Studio UG™ and AMC prepared a LOMP in EPS Scheduler™ based on this design.

The results of the LOMP are summarized in Table 7.4.

Table 7.4 Summary of key physicals in LOMP

Item	Units	2023	2024	2025	2026	2027	Total
Total Material	T	1,258,704	998,748	917,936	941,043	935,266	5,051,698
	m^3	-	-	-	-	-	-
Development	m	26,380	20,546	20,467	20,337	20,396	108,125
	m^3	283,836	185,957	155,921	164,601	162,466	952,781
Decline	m	8,451	1,782	90	293	263	10,880
Lateral	m	13,965	14,853	16,337	16,133	16,015	77,303
Vertical	m	3,975	3,910	4,040	3,911	4,118	19,954
Capital and Preparational development	m	3,829	809	21	251	214	5,123
Total Ore	T	591,141	613,201	647,497	647,497	640,888	3,140,225
Au	g/t	1.79	1.75	1.60	1.54	1.59	1.65
Ag	g/t	33.22	33.23	31.67	32.44	32.35	32.56
Cu	%	0.37	0.33	0.34	0.36	0.39	0.36
Zn	%	1.51	1.29	1.24	1.31	1.31	1.33
Pb	%	0.06	0.05	0.04	0.05	0.05	0.05
AuEq	g/t	3.54	3.33	3.14	3.17	3.26	3.28
Development Ore	T	83,935	108,212	143,888	143,888	137,279	617,202
Au	g/t	1.31	1.18	1.13	1.20	1.21	1.20
Ag	g/t	24.03	24.07	24.00	24.99	24.52	24.36
Cu	%	0.25	0.24	0.25	0.32	0.36	0.29
Zn	%	1.01	0.82	1.05	1.04	1.09	1.01

Item	Units	2023	2024	2025	2026	2027	Total
Pb	%	0.03	0.02	0.04	0.03	0.04	0.03
AuEq	g/t	2.51	2.26	2.35	2.52	2.62	2.46
Stope Ore	т	507,206	504,989	503,609	503,609	503,609	2,523,022
Au	g/t	1.88	1.88	1.73	1.64	1.69	1.76
Ag	g/t	34.74	35.19	33.86	34.57	34.49	34.57
Cu	%	0.38	0.35	0.36	0.38	0.40	0.38
Zn	%	1.59	1.39	1.30	1.39	1.37	1.41
Pb	%	0.06	0.05	0.04	0.05	0.06	0.05
AuEq	g/t	3.71	3.56	3.37	3.35	3.43	3.48
Longhole Production drilling	m	183,881	180,872	186,873	180,905	190,476	923,006

As can be seen in Table 7.4, mining is scheduled at a rate of approximately 590 kt to 640 kt per annum ore. The LOM development and ore production profile is shown in Figure 7.4.

Figure 7.4 Development and production profile

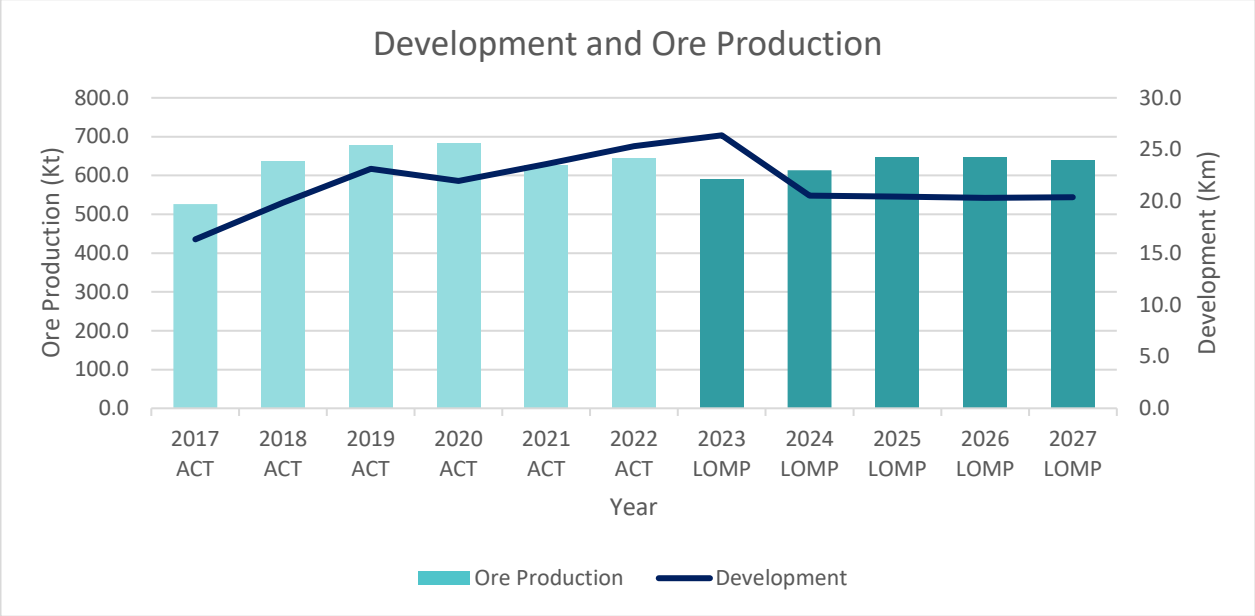
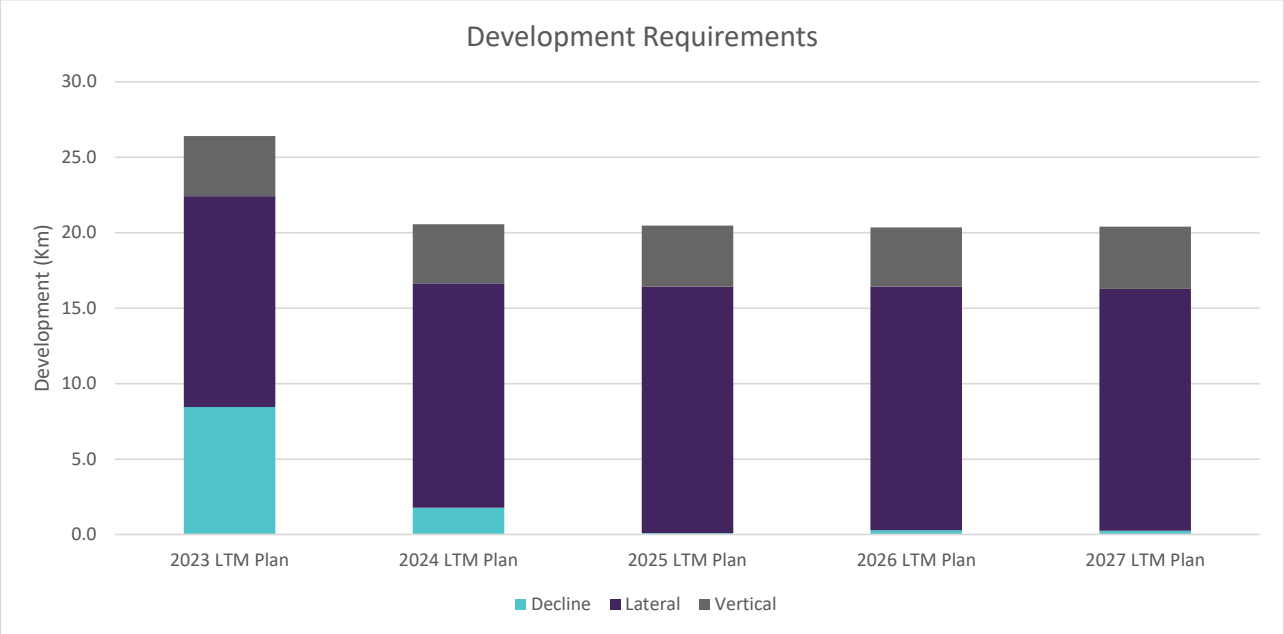


Figure 7.4 shows historical total production and development figures against the proposed LOMP which is from 2023 to 2027. There has been a progressive ramp-up in annual development metres and ore tonnage produced between 2017 and 2019 due primarily to capital investment in mining equipment, infrastructure, and the process plant during this period. The proposed maximum mining rate of 650 ktpa is lower than peak production of 680 ktpa in 2019 and 2020. Even though the production rate is forecast to decrease the development required is forecast to increase to approximately 20 kmpa. Provided operating standards are maintained at the mine, the production and development rates should be achievable.

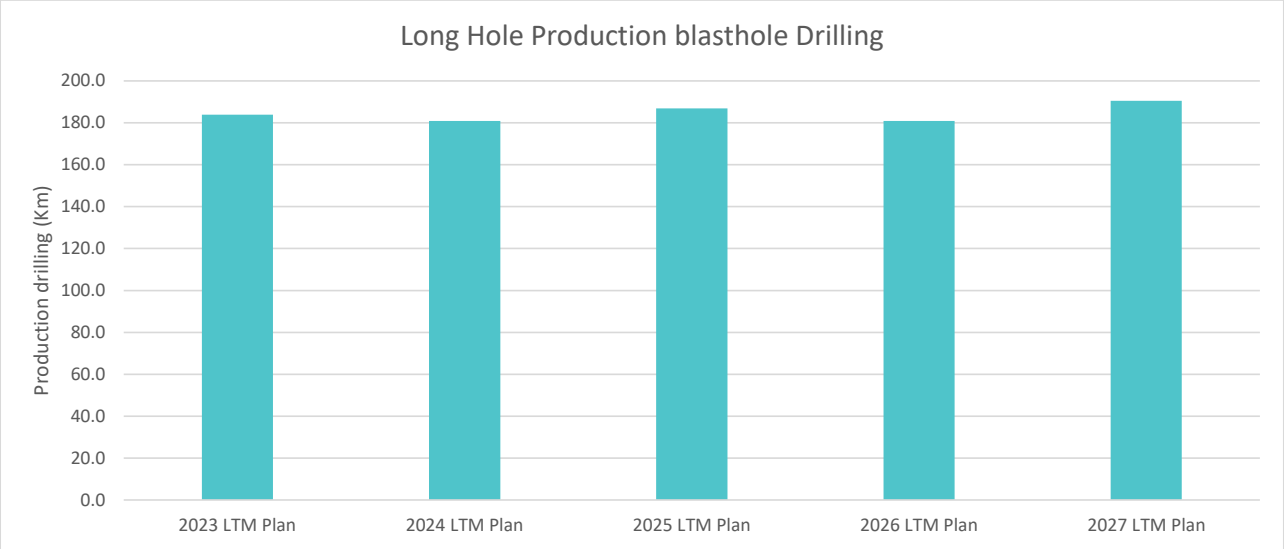
Graphs showing the other key results of the mine plan are shown in Figure 7.5, Figure 7.6, and Figure 7.7.

Figure 7.5 Development requirements



As can be seen in Figure 7.5, planned development peaks at 25 km in 2023 due to completing required decline access. Development then stabilizes at approximately 20 km of development per annum, including declines, horizontal development, and vertical development is planned to achieve the LOMP production profile.

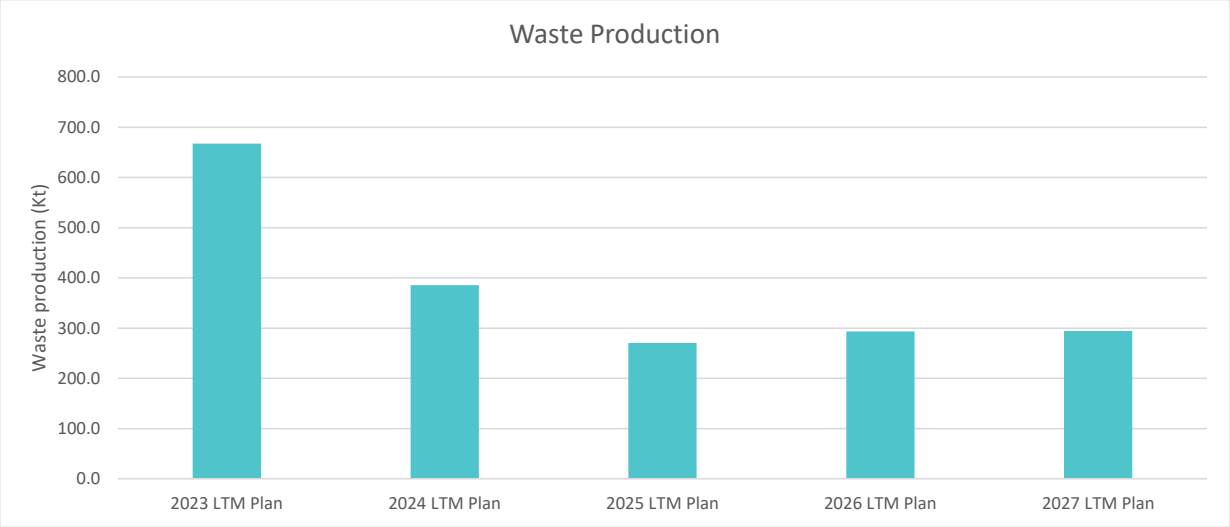
Figure 7.6 Production longhole drilling per period



As shown in Figure 7.6, approximately 180 km of long-hole drilling per annum is required to mine the designed stopes.

Waste generated during mining is used to backfill nearby exhausted open stopes and is used to provide construction material for lifts on the tailings storage facility (TSF) when required and buttressing material for the TSF Stability Project. The waste tonnes generated by period are shown Figure 7.7.

Figure 7.7 Waste production



As can be seen in Figure 7.7, waste production peaks at approximately 650 kt in 2023, reflecting the development schedule.

7.8 Mine equipment

The mine mobile fleet consists of predominantly Sandvik development and production drills and Epiroc 7 m^3 loaders and 20 t-30 t trucks. The individual items of mining equipment are of various ages and are listed in Table 7.5.

Table 7.5 Mine equipment list

Type	Manufacturer	Equipment Model	Fleet ID	Equipment Purchase Date	Engine Hrs 01/01/23
Development drill rig	Epiroc	BOOMER282	UD618	14/04/2017	8,495
Development drill rig	Sandvik	DD210	UD610	31/05/2017	3,450
Development drill rig	Sandvik	DD210	UD611	31/05/2017	1,921
Development drill rig	Sandvik	DD210	UD612	31/05/2017	3,210
Development drill rig	Sandvik	DD210	UD614	29/05/2017	3,697
Development drill rig	Sandvik	DD210	UD615	28/06/2017	4,695
Development drill rig	Sandvik	DD210	UD616	14/07/2017	3,888
Development drill rig	Sandvik	DD210	UD621	22/10/2018	4,853
Long-hole drill rig	Epiroc	SIMBA1254	UD603	12/11/2013	–
Long-hole drill rig	Sandvik	DL210	UD608	14/04/2017	3,520
Long-hole drill rig	Sandvik	DL210	UD609	31/08/2017	3,917
Long-hole drill rig	Sandvik	DL210	UD617	31/01/2018	3,782
Long-hole drill rig	Sandvik	DL210	UD619	11/04/2018	3,314
Long-hole drill rig	Epiroc	UMD-150	UD622	31/05/2021	18
Loader	Sandvik	LH307	UL346	01/11/17	21,723
Loader	Epiroc	ST2G	UL347	06/02/17	17,135
Loader	Epiroc	ST7	UL348	28/04/17	21,241
Loader	Epiroc	ST7	UL349	28/04/17	18,545
Loader	Epiroc	ST7	UL350	29/05/17	26,124
Loader	Epiroc	ST7	UL351	29/05/17	24,034

Type	Manufacturer	Equipment Model	Fleet ID	Equipment Purchase Date	Engine Hrs 01/01/23
Loader	Epiroc	ST7	UL352	02/11/17	22,243
Loader	Epiroc	ST7	UL353	17/11/17	25,767
Loader	Fambition	FL07	UL354	18/08/20	7,887
Loader	Fambition	FL07	UL355	18/08/20	7,399
Loader	Fambition	FL07	UL356	01/07/2022	3,154
Truck	Epiroc	MT436B	UT517	20/07/2015	17,343
Truck	Epiroc	MT2010	UT518	23/02/2017	20,485
Truck	Epiroc	MT2010	UT519	30/03/2017	20,692
Truck	Epiroc	MT436B	UT520	30/03/2017	16,678
Truck	Epiroc	MT436B	UT521	28/06/2017	20,208
Truck	Epiroc	MT436B	UT522	30/11/2017	19,443
Truck	Epiroc	MT436B	UT523	30/11/2017	17,538
Truck	Fambition	FT20	UT524	21/08/2020	7,865
Truck	Fambition	FT30	UT525	24/10/2020	1,923
Truck	Fambition	FT20	UT526	31/03/2022	4,206
Ground support rig	Epiroc	BOLTEC	UD620	07/12/2018	1,305
Ground support rig	Sandvik	DS311	UD613	28/06/2017	10,592
Auxiliary	Epiroc	ST7	UL340	07/03/2014	31,986
Auxiliary	Sandvik	LH203	UL342	31/05/2017	9,876
Auxiliary	Sandvik	LH203	UL343	31/05/2017	12,845
Auxiliary	Sandvik	LH203	UL344	31/05/2017	9,633
Auxiliary	Sandvik	LH203	UL345	31/05/2017	10,264
Auxiliary	Normet	Utimec MF 164 PER	UV803	24/02/2017	21,465
Auxiliary	Normet	Utimec MF 164 PER	UV809	21/03/2017	19,622
Auxiliary	Normet	Multimec 6600 c	UV808	28/04/2017	15,590
Auxiliary	Normet	Charmec MF605	UV810	21/03/2017	12,320
Auxiliary	Normet	Charmec 6305X	UV811	18/05/2017	12,183
Auxiliary	Getman	Getman	UV813	25/04/2019	7,866
Auxiliary	Normet	Utilif MF540	UGSL003	24/03/2017	13,623
Auxiliary	Normet	Utilift 6330X	UGSL004	16/05/2017	19,448
Auxiliary	Komatsu	DZ409	DZ409	21/11/2016	9,607
Auxiliary	Komatsu	DZ410	DZ410	31/07/2020	2,610
Auxiliary	JC928	JC928	UV814	30/04/2022	1,524
Auxiliary	JC928	JC928	UV815	30/04/2022	1,404

Ore is transported from the mine to surface using the fleet of haul trucks detailed above. Ore is either direct tipped into the primary crusher bins or stockpiled on pads adjacent to the mine exits for later blending and processing. Ore is conveyed to the crushing circuit, and from there into the process plant.

As can be seen in Table 7.5, a significant proportion of the mobile fleet was purchased in 2017, during the last major capital investment at the mine.

Mobile equipment is maintained through maintenance contracts with Sandvik and Epiroc utilizing purpose-built workshop facilities adjacent to Adit 1.

7.9 Observations

The key observations made by AMC in the review of the mining assumptions are as follows:

- The mining method currently in use at Kapan is appropriate to the orebody and might be improved through investigation of bottom-up mining, backfill, and additional ground support.
- The mine design and scheduling parameters are appropriate to the orebody. Dilution and mining productivities are within the range expected for underground operations of this scale, based on AMC's experience.
- AMC notes technical staff shortages which have occurred recently at Kapan and affected the timeliness of this year's Reserve preparation. Kapan is addressing these vacancies to ensure ongoing necessary mining planning tasks and to ensure next year's reserve is developed in a timelier manner.
- Mine planning practices at Kapan mean that the Ore Reserves are being generated independently of the mine long-term plan. This means that the planning process is time- and resource-consuming. AMC recommends the development of a complete LOMP for internal purposes, including potential Inferred Resources mining areas. The advantages of such a long-term plan are as follows:
  - Update of Ore Reserves as a functional drop-out of the long-term plan, which will be less time-consuming.
  - Identification of areas for category conversion diamond drilling in-line with the progressing mine plan.
  - Better sequencing and planning, particularly with respect to pillars which are currently left as a result of classification rather than the realistic continuation of a long-term mine plan.
- Grade-control procedures fit well with the orebody and, if followed, give the level of data definition required to upgrade Mineral Resources into Ore Reserves.
- Mine equipment is the correct size and quantity for the scale of operations.
- AMC makes these observations on the audited design:
  - No derived activities were created.
  - Stope development and access drives are not linked by dependencies.
  - There are no inter stope links.
  - Stopes are scheduled with fixed dates which makes the schedule inflexible.

8 Metallurgical factors or assumptions

The Kapan process plant produces a gold and a zinc concentrate using conventional crushing, grinding, flotation, thickening, and filtration. The process is well-tested and has been in operation on ore feed from Kapan Mine for more than 15 years.

The Kapan ore is comprised of sulphide minerals. The metals Au, Ag, Cu, and Zn have been modelled in the MRE prepared by Chaarat. The head grade of these elements are the key drivers for measuring process-plant performance and are used to determine plant calibration and recoveries. The plant maintains a programme of continuous metallurgical testwork at an on-site metallurgical laboratory.

Lead (Pb), which in high enough concentrations can cause a reduction in Au and Ag recoveries, has also been modelled in the MRE; however, the expected head grades for the duration of the LOMP are considered to be at levels that will not cause any detrimental effects.

The primary crushers consist of two jaw crushers which have a total capacity of 2 Mtpa which is well in-excess of the planned mine production. This excess capacity is due to the crushers having been designed in Soviet times for both the Centralni Copper mine (which is no longer operating) and Kapan Mine. The process-plant grinding and flotation circuits currently have a maximum capacity of approximately 900 ktpa.

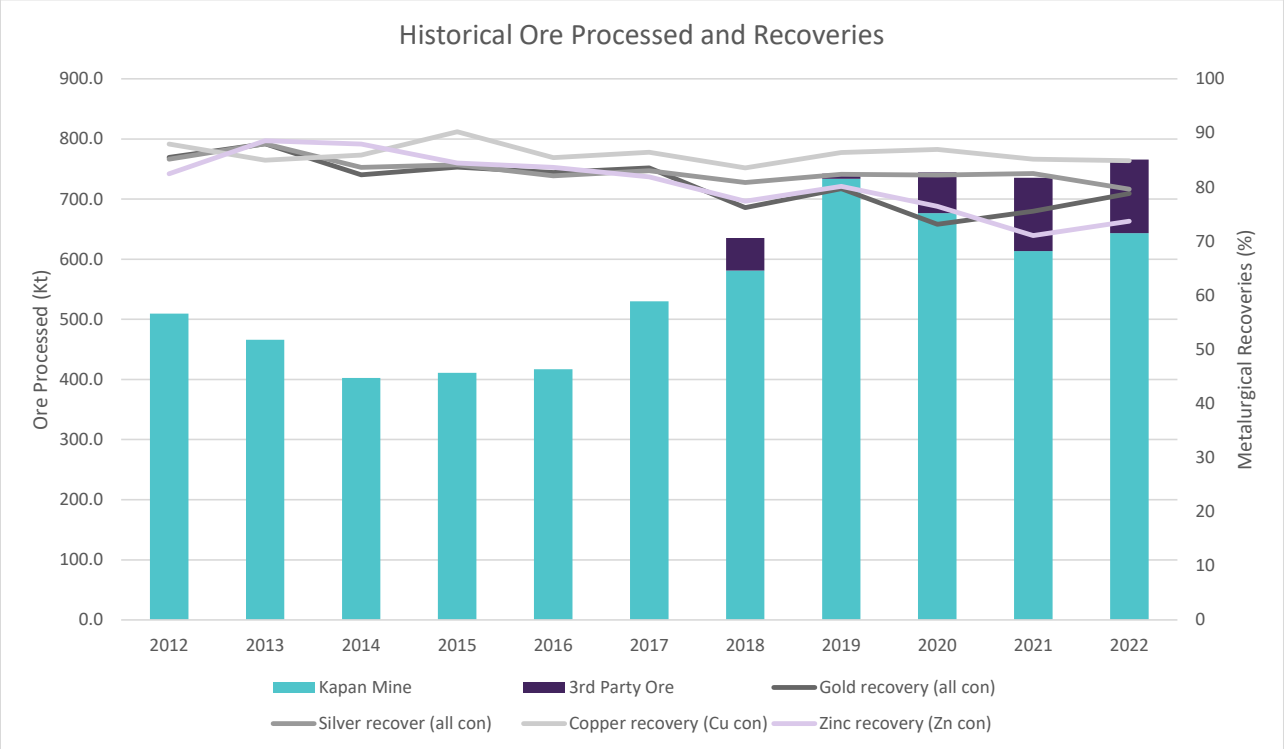
The historic annual process-plant production data from 2012 to 2022 is shown in Table 8.1 and presented graphically in Figure 8.1.

Table 8.1 Historical process plant throughput and recoveries

Parameter	**Units**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Tonnes processed	kt	509.42	465.89	402.60	411.12	417.03	529.92	635.50	742.40	744.70	735.75	765.66
Kapan Mine	kt	509.42	465.89	402.60	411.12	417.03	529.92	581.17	733.86	676.87	613.67	643.26
3rd Party Ore	kt	0.00	0.00	0.00	0.00	0.00	0.00	54.33	8.54	67.84	122.07	122.41
Au	g/t Au	1.56	1.85	1.97	2.25	1.95	2.23	1.94	1.72	1.76	1.89	1.88
Ag	g/t Ag	32.20	34.35	39.47	41.49	37.76	38.55	29.82	28.34	29.85	31.46	29.75
Cu	% Cu	0.25	0.27	0.28	0.32	0.27	0.30	0.30	0.27	0.33	0.33	0.31
Zn	%Zn	1.67	1.68	1.54	1.55	1.34	1.30	1.29	1.09	1.30	1.27	1.08
Process recoveries												
Gold recovery	%	85.5	88.0	82.3	83.7	82.7	83.6	76.2	79.7	73.1	75.5	78.8
Silver recover	%	85.1	88.0	83.7	84.1	82.1	83.0	80.9	82.4	82.2	82.5	79.6
Copper recovery	%	87.9	85.0	85.9	90.3	85.4	86.4	83.6	86.4	87.0	85.2	84.9
Zinc recovery	%	82.5	88.6	87.9	84.4	83.7	81.9	77.4	80.2	76.4	71.1	73.7

The process plant accepts additional ore feed from a third-party operation utilizing excess capacity. The third-party ore is not included in the Ore Reserves. Table 8.1 and Figure 8.1 shows the proportion of third-party ore milled at the operation.

Figure 8.1 Historical process-plant throughput and recoveries

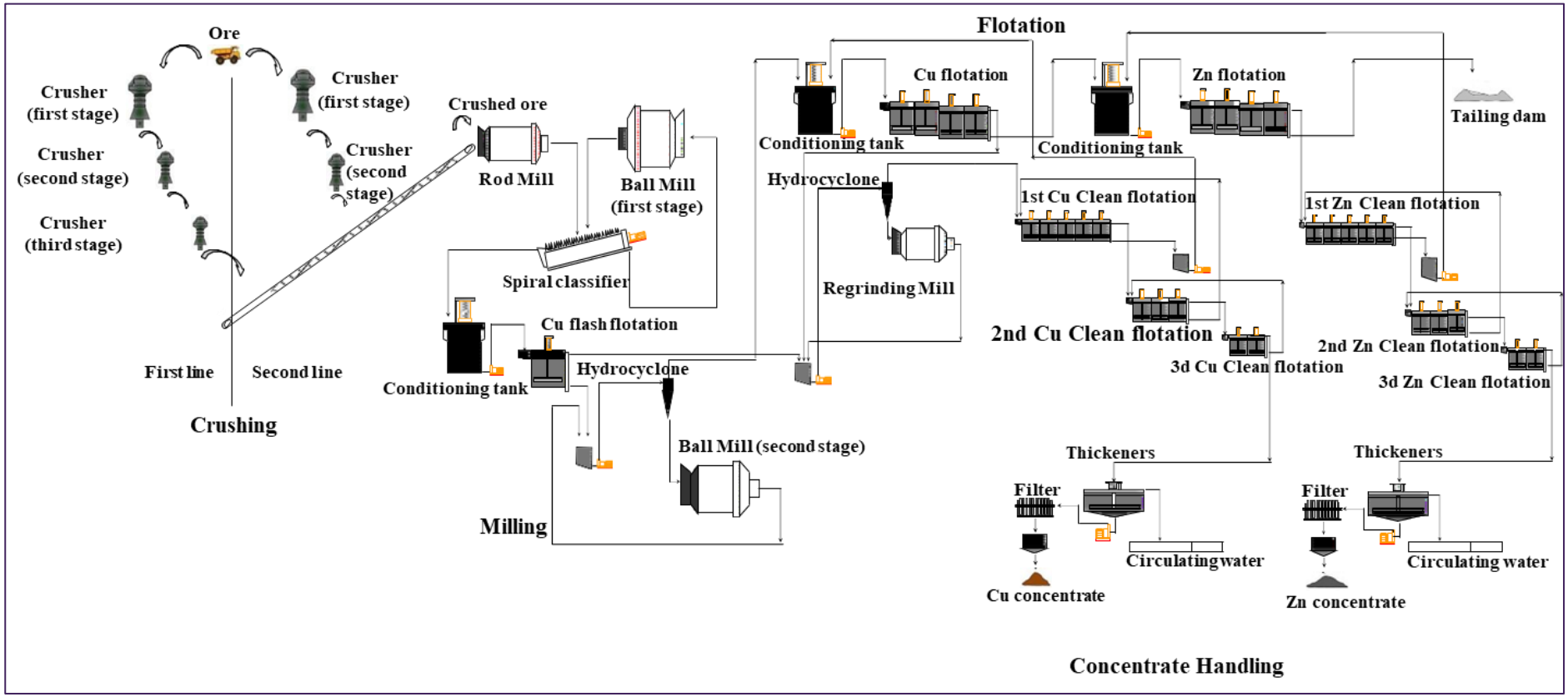


As can be seen in Figure 8.1, between 2016 and 2019, the production ramp-up achieved by the mining operations was able to be handled by the process plant. Process recoveries have been relatively consistent historically; however, they have dropped in recent years as head grades have decreased. This historical data has been used to inform the recoveries in the Ore Reserves through a formula based on this data.

The process plant is a conventional multi-stage sulphide base-metal milling and flotation plant. In the first stage, the ore is milled in a rod mill, with undersize material going for further grinding in a ball mill. Oversize material is fed back to the rod mill for further grinding. Copper concentrate is floated first and then the remaining material goes to the zinc flotation section. The remaining material (tailings) is pumped to the TSF.

The Kapan process flowsheet is shown in Figure 8.2.

Figure 8.2 Kapan process flowsheet



9 Environmental

It has been reported to AMC that Chaarat possesses the required permits and planning permissions to effectively operate the Kapan Mine in accordance with Armenian environmental regulations.

To the best of AMC's knowledge, all sites for waste rock and process tailings and their design and construction have complied with all environmental regulations, permits, and recommendations.

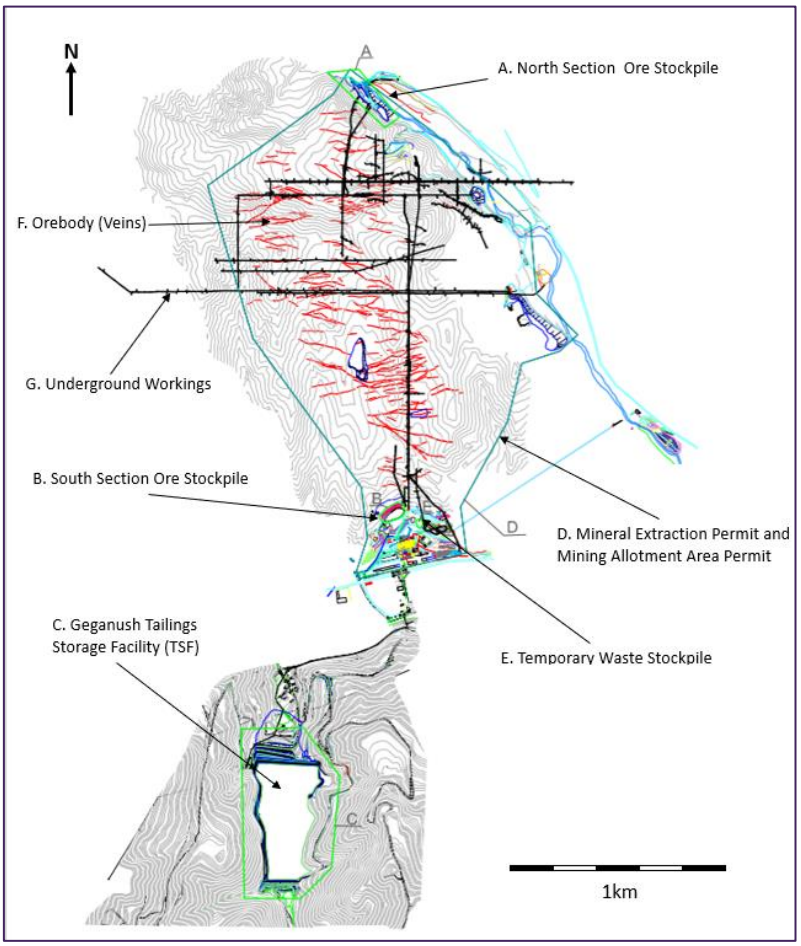
The permits provided by Chaarat to AMC are listed in Table 9.1.

Table 9.1 Kapan mine—permits provided for review

Document	Permit Description	Application Date	Expiry Date
emission permit_2017.pdf	Emissions permit.	26/06/2017	No Expiry
Letter N 344- waste limit project approvment.pdf	Waste management permit.	27/05/2021	Under annual renewal
water permit_N000117 от 04.10.2022г..pdf	Water permit.	04/10/2019	Under annual renewal
Mineral Extraction permit ՇԱԹՎ-29 183.pdf	Mineral extraction permit.	27/11/2012	01/04/2050
Mining allotment act N ԼՎ-183.pdf	Mine allocation area permit.	27/11/2012	01/04/2050
Mining permit contract ՊՎ-183.pdf	Mining permit.	27/11/2012	01/04/2050

The mineral extraction permit and mine allocation area permit are shown in plan view in Figure 9.1.

Figure 9.1 Plan view showing Kapan mining permit boundary



10 Infrastructure

The Kapan mining district is located in south-eastern Armenia, approximately 320 km by road from the capital city, Yerevan. The Kapan Mine is located on the outskirts of the town of Kapan.

All infrastructure required for the mining and processing of ore is in place, and includes:

- Location adjacent to the main asphalt north–south road through Armenia, connecting the mine North to Yerevan and Georgia, and South to Iran.
- Electricity supplied through the Armenian national grid stepping down from 35 kV to 10 kV, 6 kV, and 0.4 kV. Current electrical consumption is approximately 60 million kWhr per annum.
- Potable and industrial water supplied through piped infrastructure with current consumption totalling approximately 2 Mm^3 of industrial water and 0.2 Mm^3 potable water.
- Availability of skilled labour in the adjacent town of Kapan.

The main north-south road from the Georgian border to Artashat, just outside Yerevan has been recently upgraded to a concrete motorway and works have been ongoing through to replace large sections of asphalt between Yerevan and Kapan. The road remains open throughout the year with minor periodic closures during snowfall in the winter months over mountain passes.

With the mining history of Armenia, major equipment suppliers have established logistical procedures and/or facilities in-country. As an example, Epiroc has an established regional office and parts warehouses which supply other mines, diamond drilling contractors, and the local construction industry.

11 Costs

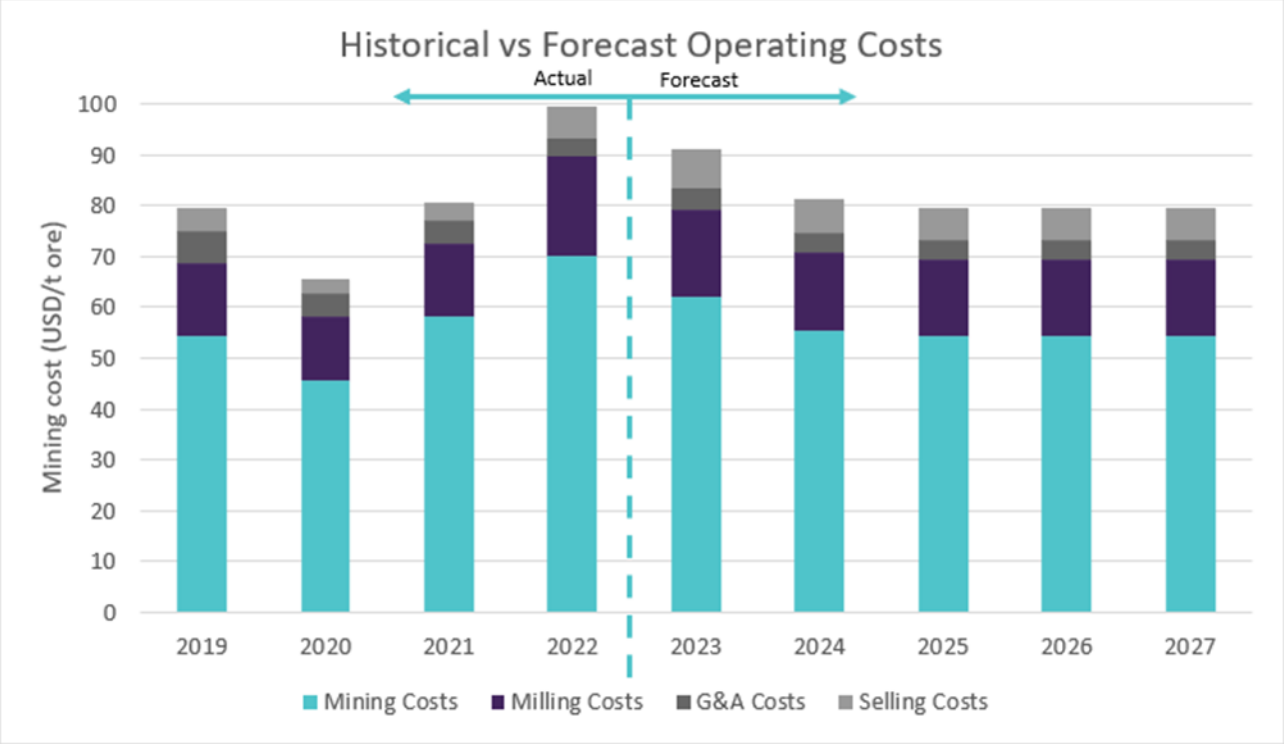
The costs used to inform the Ore Reserves are based on actual historic and current operating costs. AMC reviewed the data and documentation pertaining to on-site operating costs, off-site concentrate transport, treatment charges and refining charges, and government royalties. AMC was also provided with a projection of sustaining capital requirements during the period of the proposed LOMP for review.

The full list of data sources provided for the review is shown in Section 19.

Operating costs

Operating costs that have been used to inform the Ore Reserves are based on actual current on-site operating costs provided by the Kapan Mine Financial Department. The historical operating costs for 2019 to 2022 are shown alongside the forecast operating costs in Figure 11.1.

Figure 11.1 Forecast site operating costs



As can be seen in Figure 11.1, in the past three years, site operating costs have varied between USD65.49/t ore and USD99.34/t ore. 2021 and 2022 saw significant price increases due to global inflation, especially related to commodities such as oil, steel, and natural gas. In addition, the second half of 2022 saw a significant change in the Armenian dram to USD exchange rate.

Inflationary pressures have started to lessen in 2023, and the FX impact has lessened as new imports are passing through to the business at lower prices. Chaarat has also made changes to its procurement policies to reduce prices further during the period of adverse exchange rate. These changes are why Chaarat is estimating lower OpEx costs in 2023 with further improvements in subsequent years as FX rates normalize

Off-site charges

Gold and zinc concentrates are sold to Industrial Minerals and Trafigura respectively (Section 13). The key charges and penalties which inform the Ore Reserves are summarized in Table 11.1.

Table 11.1 Concentrate charges and penalties

Parameter	Units	Value
Gold Concentrate		
Payable gold	%	94.0
Payable silver	%	90.0
Payable copper	%	97.0
Treatment charges	USD/t concentrate	266.20
Refining charge gold	USD/ oz Au	5.00
Refining charge silver	USD/oz Ag	0.30
Refining charge copper	USD/lb Cu	0.088
Penalty zinc and lead	USD/ 1% ZN & Pb over 6%	1.50
Zinc concentrate		
Payable gold	%	70.0
Payable silver	%	70.0
Payable zinc	%	85.0
Treatment charges	USD/t concentrate	242.60
Penalty arsenic <=0.5%	USD/0.1% As over 0.3%	1.50
Penalty arsenic >0.5%	USD/0.1% As over 05%	5.00
Penalty cadmium	USD/0.1% over 0.3%	1.50

Lead is modelled in the MRE developed by Chaarat and has been added to the zinc grade in the economic analysis to account for Pb penalties.

Arsenic (As) has not been modelled in the MRE and AMC has assumed an arsenic grade of 0.47% As per tonne copper concentrate, based on historic concentrate specifications.

Cadmium (Cd) has not been modelled in the MRE and AMC has assumed a Cd grade of 0.47% Cd per tonne copper concentrate, based on historic concentrate specifications.

Concentrate transportation costs are included in the selling costs in the Chaarat economic analysis.

Royalties

Royalties are included in the economic assessment at 6% of NSR. Since 2012 in Armenia, royalties have moved from the GKZ-based metal accounting system to a percentage of product NSR, which is more in-line with international practice.

Sustaining capital cost

Chaarat has included USD5-7 million per annum to allow for site sustaining capital costs, which AMC considers adequate to support the LOMP. From the point of view of Ore Reserves, the economic assessment generated to support the positive financial outcome (Section 14) is least sensitive to the sustaining capital expenditure (CapEx).

Observations

The key observations made by AMC on the costs are:

- The on-site operating costs are within the range expected for a mine of this scale and method based on AMC's experience with similar projects.
- The off-site charges are in-line with industry standards and AMC's experience with similar commodities.
- The sustaining capital projections are within the range expected given AMC's experience.

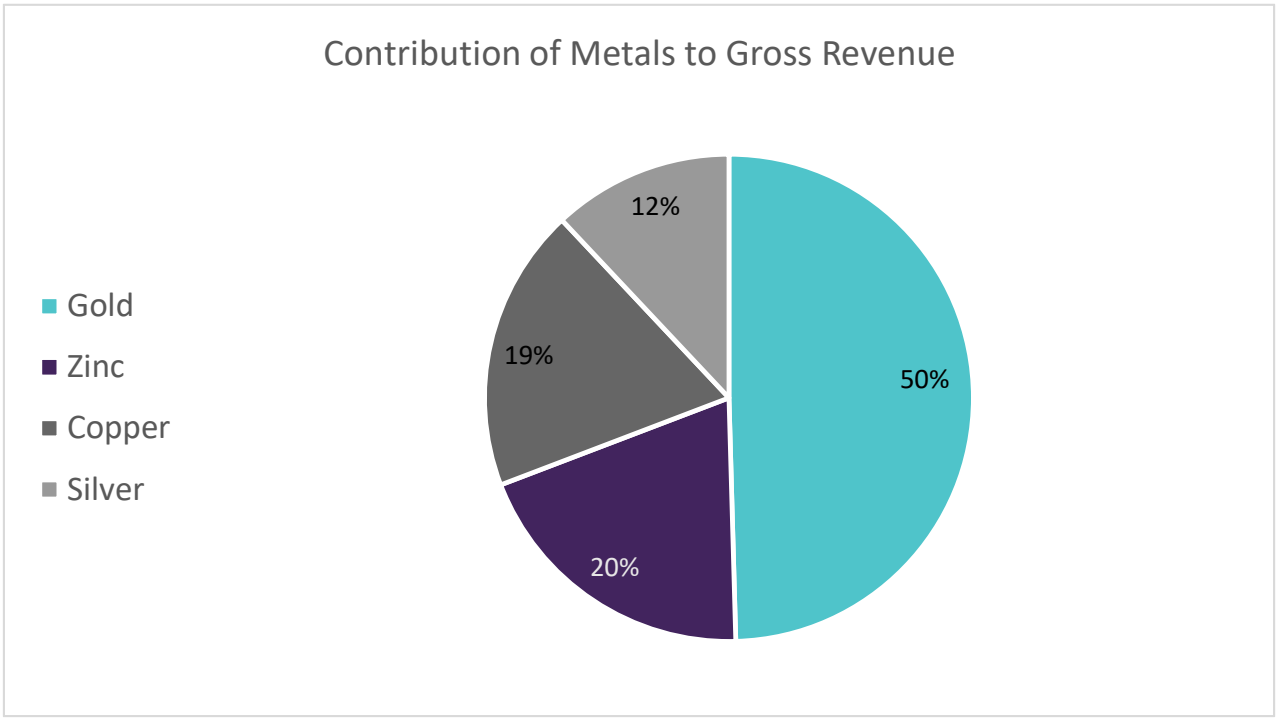
12 Revenue factors

Head grades are based on the resource block model generated by Chaarat with effective date of 1 September 2022 which has been diluted with stope and development designs. The metals influencing revenue are Au, Ag, Cu, and Zn.

For indicative economic assessment, metal prices of USD1,750/oz Au, USD21.80/oz Ag, USD8,300/t Cu, and USD2,950/t Zn were provided by Chaarat. These prices were applied to the concentrate sales terms. These figures are representative of economic forecasts for the period.

Based on the indicative economic assessment (Section 14), the contribution of each metal to the gross revenue is shown in Figure 12.1.

Figure 12.1 Contribution of metals to gross revenue



As shown in Figure 12.1, gold is the key contributor to the gross revenue at 50%, followed by zinc at 20%, copper at 19%, and silver at 12%. Please note that these figures have been rounded and as such might not equal 100%.

13 Market assessment

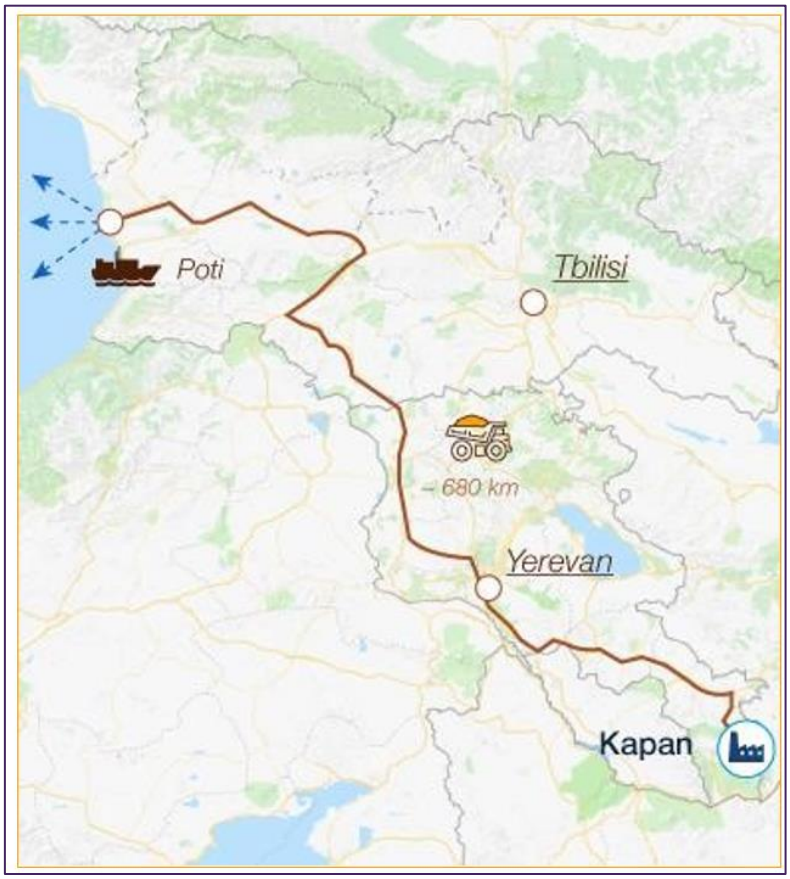
Kapan Mine has long-term established concentrate sales agreements with Industrial Minerals for gold concentrate and Trafigura for zinc concentrate.

Gold concentrate is sold to Industrial Minerals in Montreal, Canada. Gold concentrate is bagged on-site, loaded into containers, and transported by road to Poti, Georgia. From Poti, the containers are sea-freighted to Montreal, Canada.

Zinc concentrate is sold to Trafigura in Antwerp, Belgium. Zinc concentrate is bagged on-site, loaded into containers, and transported by road to Poti, Georgia. From Poti, the containers are sea-freighted to Antwerp.

A map showing the concentrate logistics route from mine to Poti Port is shown in Figure 13.1.

Figure 13.1 Map showing concentrate logistics route



AMC was provided with concentrate sales records from Industrial Minerals and Trafigura for concentrate shipments in 2022 which were used to confirm the inputs of the Ore Reserve indicative economic assessment (Section 14).

The gold and zinc concentrate markets are global markets and the concentrates produced at Kapan are within internationally recognized specifications. Each year, negotiations are held with numerous international trading and smelting companies to secure the best terms for these concentrates. Industrial Minerals and Trafigura have their own in-house smelting facilities and Kapan concentrates are beneficial to their current blending requirements.

In the event that the existing buyers decide to stop purchasing Kapan concentrates, there are many other international trading and smelting companies that would be interested in purchasing them.

14 Economic

AMC calculated an indicative cashflow for the purposes of demonstrating the economic viability of the mine for the purposes of declaring Ore Reserves which is shown in Table 14.1. Market terms are based on the historical data reviewed and may differ from those used by Chaarat in corporate financial evaluations or projections.

Table 14.1 Kapan LOMP cashflow model

Parameter	Units	2023	2024	2025	2026	2027	Total
Metal Prices							
Gold Price	USD/oz Au	1,750	1,750	1,750	1,750	1,750	1,750
Silver Price	USD/oz Ag	21.8	21.8	21.8	21.8	21.8	21.8
Cu Price	USD/t Cu	8,300	8,300	8,300	8,300	8,300	8,300
Zn Price	USD/t Zn	2,950	2,950	2,950	2,950	2,950	2,950
Mine Plan							
Ore Tonnes (Development and Production)	t	591,141	613,201	647,497	647,497	640,888	3,140,225
Gold Head Grade	g/t Au	1.79	1.75	1.60	1.54	1.59	1.65
Silver Head Grade	g/t Ag	33.22	33.23	31.67	32.44	32.35	32.56
Copper Head Grade	% Cu	0.37	0.33	0.34	0.36	0.39	0.36
Zinc Head Grade	% Zn	1.51	1.29	1.24	1.31	1.31	1.33
Lead Head Grade	% Pb	0.06	0.05	0.04	0.05	0.05	0.05
In situ Metal							
Gold	kg Au	1,061	1,075	1,034	996	1,017	5,184
Silver	kg Ag	19,638	20,376	20,507	21,003	20,734	102,258
Copper	t Cu	2,164	2,035	2,183	2,353	2,520	11,255
Zinc	t Zn	8,930	7,923	8,050	8,495	8,396	41,795
Lead Head Grade	t Pb	349	289	254	299	348	1,540
Gold Concentrate Production							
Tonnes Gold Concentrate	t Au Concentrate	9,807	9,224	9,896	10,666	11,421	51,013
Process Recovery Gold	%	68.41	68.41	68.41	68.41	68.41	68.41
Process Recovery Silver	%	70.34	70.34	70.34	70.34	70.34	70.34
Process Recovery Copper	%	86.12	86.12	86.12	86.12	86.12	86.12
Process Recovery Zinc	%	12.35	12.35	12.35	12.35	12.35	12.35
Process Recovery Lead	%	79.00	79.00	79.00	79.00	79.00	79.00
Gold Concentrate Grades							
Gold Grade	g/t Au	74.01	79.74	71.49	63.90	60.92	69.51
Silver Grade	g/t Ag	1,408.56	1,553.81	1,457.70	1,385.16	1,276.92	1,409.99
Copper Grade	% Cu	19.00	19.00	19.00	19.00	19.00	19.00
Zinc Grade	% Zn	11.25	10.61	10.05	9.84	9.08	10.12
Lead Grade	% Pb	2.82	2.48	2.03	2.22	2.41	2.39
Metal in Gold Concentrate							
Gold	kg Au	726	736	707	682	696	3,546
Silver	kg Ag	13,813	14,333	14,425	14,774	14,584	71,929
Copper	t Cu	1,863	1,753	1,880	2,026	2,170	9,693
Zinc	t Zn	1,103	978	994	1,049	1,037	5,162
Lead	t Pb	276	229	201	236	275	1,217
Zinc Concentrate Production							
Tonnes Zinc Concentrate	t Zn Concentrate	12,158	10,786	10,959	11,565	11,431	56,900
Process Recovery Gold	%	8.70	8.70	8.70	8.70	8.70	8.70
Process Recovery Silver	%	8.50	8.50	8.50	8.50	8.50	8.50
Process Recovery Copper	%	5.40	5.40	5.40	5.40	5.40	5.40
Process Recovery Zinc	%	77.60	77.60	77.60	77.60	77.60	77.60
Process Recovery Lead	%	6.00	6.00	6.00	6.00	6.00	6.00

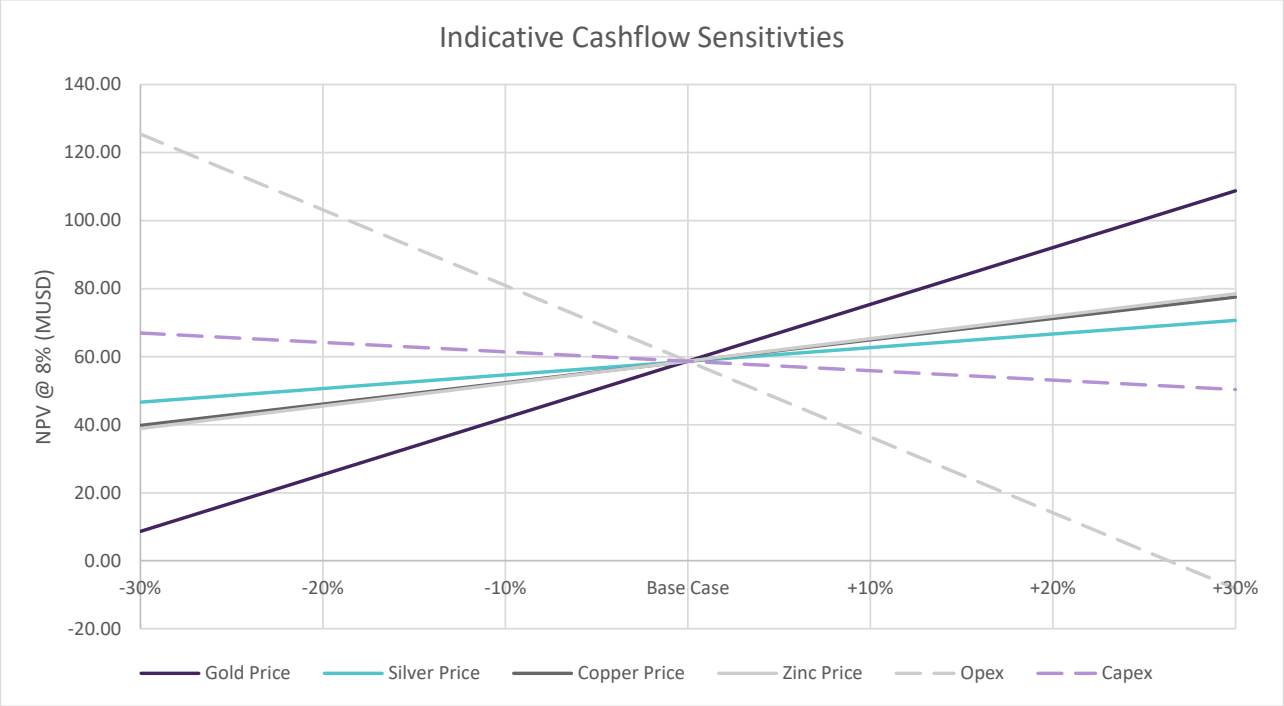
Parameter	Units	2023	2024	2025	2026	2027	Total
Zinc Concentrate Grades							
Gold Grade	g/t Au	7.59	8.67	8.21	7.49	7.74	7.93
Silver Grade	g/t Ag	137.29	160.57	159.05	154.36	154.18	152.76
Copper Grade	% Cu	0.96	1.02	1.08	1.10	1.19	1.07
Zinc Grade	% Zn	57.00	57.00	57.00	57.00	57.00	57.00
Lead Grade	% Pb	0.17	0.16	0.14	0.16	0.18	0.16
Metal in Zinc Concentrate							
Gold	kg Au	92	94	90	87	88	451
Silver	kg Ag	1,669	1,732	1,743	1,785	1,762	8,692
Copper	t Cu	117	110	118	127	136	608
Zinc	t Zn	6,930	6,148	6,247	6,592	6,516	32,433
Lead	t Pb	21	17	15	18	21	92
Payable Metals							
Gold Concentrate							
Gold	%	94.00	94.00	94.00	94.00	94.00	94.00
Silver	%	90.00	90.00	90.00	90.00	90.00	90.00
Copper	%	97.00	97.00	97.00	97.00	97.00	97.00
Zinc	%	0.00	0.00	0.00	0.00	0.00	0.00
Payable Metal in Gold Concentrate							
Gold	kg Au	682	691	665	641	654	3,333
Silver	kg Ag	12,432	12,899	12,982	13,296	13,126	64,736
Copper	t Cu	1,807	1,700	1,824	1,966	2,105	9,402
Zinc	t Zn	0	0	0	0	0	0
Zinc Concentrate							
Gold	%	70.00	70.00	70.00	70.00	70.00	70.00
Silver	%	70.00	70.00	70.00	70.00	70.00	70.00
Copper	%	0.00	0.00	0.00	0.00	0.00	0.00
Zinc	%	85.00	85.00	85.00	85.00	85.00	85.00
Payable Metal in Zinc Concentrate							
Gold	kg Au	65	65	63	61	62	316
Silver	kg Ag	1,168	1,212	1,220	1,250	1,234	6,084
Copper	t Cu	0	0	0	0	0	0
Zinc	t Zn	5,890	5,226	5,310	5,603	5,538	27,568
Gross Revenue							
Gold Concentrate							
Gold	USDm	38.38	38.90	37.41	36.05	36.80	187.54
Silver	USDm	8.71	9.04	9.10	9.32	9.20	45.37
Copper	USDm	15.00	14.11	15.14	16.32	17.47	78.03
Zinc	USDm	0.00	0.00	0.00	0.00	0.00	0.00
Zinc Concentrate							
Gold	USDm	3.64	3.68	3.54	3.41	3.48	17.76
Silver	USDm	0.82	0.85	0.86	0.88	0.86	4.26
Copper	USDm	0.00	0.00	0.00	0.00	0.00	0.00
Zinc	USDm	17.38	15.42	15.66	16.53	16.34	81.33
Gross Revenue	**USDm**	**83.93**	**82.00**	**81.71**	**82.50**	**84.16**	**414.30**
Offsite Charges and Royalties							
Gold Concentrate Charges							
Treatment Charge	USD/t Concentrate	266.22	266.22	266.22	266.22	266.22	266.22
Gold Refining Charge	USD/oz Au	5.00	5.00	5.00	5.00	5.00	5.00
Silver Refining Charge	USD/oz Ag	0.30	0.30	0.30	0.30	0.30	0.30
Copper Refining Charge	USD/lb Cu	0.088	0.088	0.088	0.088	0.088	0.088

Parameter	Units	2023	2024	2025	2026	2027	Total
Penalty Zn+Pb	USD/1% Zn+Pb over 6%	1.50	1.50	1.50	1.50	1.50	1.500
Assumed As Grade	% As	0.47	0.47	0.47	0.47	0.47	0.47
Penalty As	USD/0.1% over 0.3%	1.50	1.50	1.50	1.50	1.50	1.50
Gold Concentrate Charges							
Treatment Charge	USDm	2.61	2.46	2.63	2.84	3.04	13.58
Gold Refining Charge	USDm	0.12	0.12	0.11	0.11	0.11	0.57
Silver Refining Charge	USDm	0.13	0.14	0.14	0.14	0.14	0.69
Copper Refining Charge	USDm	0.36	0.34	0.36	0.39	0.42	1.88
Penalty Zn	USDm	0.12	0.10	0.09	0.10	0.09	0.50
Penalty As	USDm	0.03	0.02	0.03	0.03	0.03	0.13
Zinc Concentrate Charges							
Zinc Treatment Charge	USD/t Concentrate	242.6	242.6	242.6	242.6	242.6	243
Assumed Cd Grade	% Cd	0.47	0.47	0.47	0.47	0.47	0.47
Penalty Cd	USD/0.1% over 0.3%	1.5	1.5	1.5	1.5	1.5	1.50
Zinc Concentrate Charges							
Zinc Treatment Charge	USDm	2.95	2.62	2.66	2.81	2.77	13.80
Penalty Cd	USDm	0.03	0.03	0.03	0.03	0.03	0.15
Total Offsite Charges	**USDm**	**6.32**	**5.79**	**6.03**	**6.41**	**6.61**	**31.16**
Royalties	% Gross Revenue	6.0	6.0	6.0	6.0	6.0	6
Total Royalties	**USDm**	**5.04**	**4.92**	**4.90**	**4.95**	**5.05**	**24.86**
Total Offsite Charges and Royalties	**USDm**	**11.35**	**10.71**	**10.93**	**11.36**	**11.66**	**56.01**
Operating Costs							
Mining	USD/t Ore	62.14	55.54	54.40	54.40	54.40	56.08
Mining	USDm	36.73	34.06	35.22	35.22	34.86	176.10
Milling	USD/t Ore	17.05	15.24	14.93	14.93	14.93	15.39
Milling	USDm	10.08	9.35	9.67	9.67	9.57	48.33
Sales Expense	USD/t Ore	4.35	3.89	3.81	3.81	3.81	3.93
Sales Expense	USDm	2.57	2.39	2.47	2.47	2.44	12.33
G&A	USD/t Ore	7.43	6.64	6.51	6.51	6.51	6.71
G&A	USDm	4.39	4.07	4.22	4.22	4.17	21.07
Total Operating Cost	**USD/t Ore**	**90.97**	**81.31**	**79.65**	**79.65**	**79.65**	**82.11**
Total Operating Cost	**USDm**	**53.78**	**49.86**	**51.57**	**51.57**	**51.05**	**257.83**
Operating Cashflow							
Operating Cashflow	**USDm**	**18.80**	**21.43**	**19.21**	**19.56**	**21.45**	**100.46**
Capital Cost							
CapEx	**USDm**	**5.50**	**6.00**	**7.00**	**7.00**	**7.00**	**32.50**
Cashflow							
Undiscounted Cashflow	**USDm**	**13.30**	**15.43**	**12.21**	**12.56**	**14.45**	**67.96**
Cumulative Undiscounted Cashflow	USDm	13.30	28.74	40.95	53.51	67.96	67.96
Discount Period	#	0	1	2	3	4	
Discounted Cashflow (at 8%)	**USDm**	**13.30**	**14.29**	**10.47**	**9.97**	**10.62**	**58.65**
NPV @ 8%	USDm	**58.65**					

As shown in Table 14.1, the LOMP yields a total undiscounted cashflow of USD68 million and an NPV at an 8% discount rate of USD59 million. The analysis is based upon information available to AMC at the time of the evaluation. Future changes to pricing, selling costs, or other inputs might change the results of a similar analysis.

The relative sensitivities (±30%) to the key inputs in the indicative cashflow are shown in Figure 14.1.

Figure 14.1 Indicative cashflow sensitivities



As can be seen in Figure 14.1, the cashflow is most sensitive to site operating costs followed closely by the gold price.

15 Social and other

To the best of the CP's knowledge, all agreements with the local authorities are in place and are current with all key stakeholders.

To the best of the CP's knowledge, Chaarat is currently compliant with all legal and regulatory requirements and there is no reason to assume any further government or local council permits, licences, or statutory approvals will not be granted, if required.

16 Classification

The Ore Reserves have been broken down into Proved and Probable categories as per JORC Code (2012) guidelines.

It is the CP's opinion that the Ore Reserves reflect the deposit accurately given the current level of geological and geotechnical knowledge.

No Probable Ore Reserves have been derived from Measured Mineral Resources, and no Inferred Mineral Resources have been included in the Ore Reserve.

17 Audits or reviews

The CP completed a high-level "best practices" review of the mine planning process as part of the Ore Reserves based on previous site visits in 2019 and review of current data. The results of the review are shown in Table 17.1.

Table 17.1 High level "best practices" review

Description	Comments	Rating
Design standards	Designs and associated working documents used at the mine are of a consistent and high standard, including all required information in a clear format.	4
Planning procedures	Short-term, medium-term and long-term plans are developed by the Mine Technical Services Department and follow a set of good standards. Loss of planning staff in 2022 needs to be addressed before 2023 Ore Reserves. Mine planning procedures including site procedures and corporate review procedures require review.	3
Cut-off grade calculation	The AuEq cut-off grade, although generating a positive outcome in planning, should be reviewed and alternative systems such as NSR investigated.	3
Data collection and reporting	Data collection at the mine is good and all the required data for weekly, monthly and annual reports is collated. Reporting systems are the result of an amalgamation of metrics from multiple previous mine owners and would benefit from development of a new, clean template, moving forward.	4
Reconciliation	Reconciliation exercises are carried out regularly with the Mine Technical Services Department monitoring on a weekly basis and then more formal reporting on a monthly basis. Batch processing exercises have been conducted and should continue, and the data from these exercises fed back to inform the resource model. AMC has not seen evidence of recent reconciliation exercises and staffing issues need to be addressed in 2023 to recommence the previous level of diligence.	3
Consistency of plan with operations	Detailed underground survey shows a good correlation between planned and actual mining. Narrow stopes around the minimum mining width are achieved. However, there are some issues with overbreak around pre-existing sub-levels when mining below an open stope. Mitigation measures, including cemented backfill and bottom-up mining direction are currently under investigation.	4
Grade-control practices	Grade-control practices are good and consistent. However, it must be noted that given the number of ore development headings in progress at any given time, this must always be managed to a very high standard.	4
Geotechnical practices	Based on the ground-control management procedure developed by SRK in 2015, a high-standard of geotechnical practices has been implemented and should be maintained. AMC did not visit site in 2022 and is unable to confirm whether all standards continue to be applied.	4

Table legend:

Industry best practice	5
Good practice	4
Average practice	3
Poor practice	2
Immediate action required	1

The Ore Reserves have been subject to internal review by Chaarat.

The Ore Reserves have been Peer Reviewed internally within AMC and are in-line with current industry standards.

18 Discussion of relative accuracy/confidence

The CP noted the following items relating to the accuracy and confidence of the Ore Reserves and modifying factors applied:

- Kapan Mine is in production and has more than 15 years of historic mining and process-plant production data and costs.
- The mineralization is well understood by the on-site technical team, which consists of local-skilled professionals with long-term experience of the deposit.
- Owner and contractor costs are based on current actual costs.
- All modifying factors have been applied to the Ore Reserves, with updated dilution parameters for each individual vein based on widths and geotechnical assessments.
- Work is ongoing by-site to reconcile and improve estimating and accounting for unplanned mining dilution.
- Geological mapping and survey of vein drives is supporting the validity of the resource model to a level of confidence consistent with Ore Reserve reporting.
- Historical mine-to-mill reconciliation on an annual basis supports the validity of the resource model to a level of confidence consistent with Ore Reserve reporting.
- Current AuEq cut-off grade practice at the mine might have an impact on mining areas where grade variations in different metals are encountered. AMC recommends development of an NSR-based valuation and cut-off grade calculation for use in future Ore Reserves. AMC notes that work on an NSR-based cut-off has been started and should be implemented for the next reserve cycle.

19 Conclusions and recommendations

AMC has reviewed the LOMP and Ore Reserves generated by Chaarat. The CP is of the opinion that the grades and tonnages provided in Table 1.1 are a reasonable representation of the Ore Reserves for Kapan Mine.

The AuEq cut-off grade philosophy used by Chaarat has yielded a demonstrated positive financial outcome and hence satisfies the JORC Code (2012) requirements for declaring Ore Reserves. However, AMC does not consider this method industry best-practice for a polymetallic mine and recommends changing to an NSR value-based model moving forward. The advantages of moving to an NSR model would be:

- Better accountability for all metals in value determination.
- More flexibility to evaluate individual mining areas and assess incremental cut-offs rather than looking at the mine as a whole.
- Eliminate sub-economic isolated mining areas and identify additional marginal mineralization that might become viable, given access.

AMC is aware that a number of key technical staff have resigned from their positions during 2022 meaning that further development of the 2022 mine design and schedule by Chaarat is not currently possible. AMC recommends that Chaarat increases planning capabilities at Kapan Mine to allow the in-house continuation of the Ore Reserves process in 2023.

Mine planning practices at Kapan Mine means that the Ore Reserves are being generated independently of the mine long-term plan, making the process time and Technical Services Department resource-consuming. AMC recommends the development of a complete LOMP for internal purposes, including potential Inferred mining areas. The advantages of such a long-term plan are:

- Update of Ore Reserves as a functional drop-out of the long-term plan, which will be less time-consuming.
- Identification of areas for category conversion diamond drilling in-line with the progressing mine plan.
- Better sequencing and planning, particularly with respect to pillars which are currently left as a result of classification rather than the realistic continuation of a long-term mine plan.

Due to the complexity of the veins and number of working areas, strict geological, geotechnical, and survey control are essential to achieving the proposed mine plan.

AMC recommends the continuation of reconciliation exercises when possible. When process windows and mining schedule align, valuable data can be gained through segregated processing of mining blocks, and this data used to inform Mineral Resources and Ore Reserves.

20 Data sources

A list of the data provided for AMC's review is shown in Table 20.1.

Table 20.1 Data sources

File	Description	Source
bm_2022new_dep_.dm	Resource model	Chaarat
All_trans_202210.dm	Asbulits	Chaarat
fo_010922.dm	Asbulits	Chaarat
All_*_202211.dm	Asbulits	Chaarat
cs_dir.dm	Stope design strings	Chaarat
Fcs.dm	Development design strings	Chaarat
CAM*.dm	Stope design solids	Chaarat
DEV*.dm	Development design solids	Chaarat
MSO_*.dm	MSO solids	Chaarat
MSO_*_GeneratedXML*.xml	MSO settings	Chaarat
Budget_2023.ugproj	Datamine StudioUG™ project	Chaarat
Budget_2023.ews	EPS scheduler file	Chaarat
2023 COG calculation for LTM plan	Cut-off grade calculation	Chaarat
Production Historcial Data.xlsx	Historical production data	Chaarat
Technological tails 2020-2021 .xlsb	Supporting documentation for tailings capacity for life of mine.	Chaarat
Diagram of filing in TMF.jpg	Supporting documentation for tailings capacity for life-of-mine.	Chaarat
IMG 2022-04 final invoice.pdf to IMG 2022-11 Final invoice.pdf	Gold concentrate invoices for 2022.	Chaarat
ZTG 2022-03 Final Invoice.pdf to ZTG 2022-08 Final Invoice.pdf	Zinc concentrate invoices for 2022.	Chaarat
COG calculation for LTM plan and 2022 budget plan based on budget 2022 v2 prod 14.02 (1).xlsx	Financial model and 2022 budget.	Chaarat
Copy of metal prices and costs_at_edit_090323	2022 actual operating costs	Chaarat
EBITDA 2018-2021.xlsx	Historical site operating costs for 2018-2021.	Chaarat
MRE _Signed_19012023	2022 Resource report	Chaarat

Appendix A
JORC Table 1 Section 4

JORC Code, 2012 Edition – Table 1

Section 4 Estimation and Reporting of Ore Reserves

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	• The Mineral Resource Estimate was produced by Mr Dimitar Dimitrov, Senior VP Exploration of Chaarat, with an effective date of 1 September 2022 as described in Section 3. • The Mineral Resources are reported inclusive of the Ore Reserves.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• A site visit, of four days, was undertaken by the Ore Reserves Competent Person (CP), Mr James Town of AMC Consultants (UK) Limited, in July 2019. • No recent site visits have been undertaken due to security-related travel restrictions.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	• Kapan Mine has been operating since 1994 and at full production for more than 15 years. Information gathered during the production period has been used to update and inform the current Ore Reserve. Production, sales, and other data from the previous five years were used as a basis for assessing the ore reserve calculation. • The Ore Reserve is based on the life-of-mine design generated by the Mine Technical Services Department (effective date of 31 December 2022), which has been reviewed by AMC. • AMC produced a schedule and cost model based on the data provided by Chaarat.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• Cut-off grades are calculated using a gold equivalent (AuEq) calculation using the revenue contributions of the four payable metals Au, Ag, Cu, and Zn. • The AuEq calculation includes all site operating costs associated with the mine, process plant, and G&A along with royalties, transport and concentrate treatment, and refining charges and penalties. • Mining areas are considered for inclusion in the Ore Reserve if the diluted AuEq is greater than, or equal to, 2.3 g/t AuEq.
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* • *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	• Ore Reserves are based on an operating mine design generated by the on-site technical staff, which has been reviewed by AMC. • The mining method used is long-hole open-stoping, which is an appropriate method for the narrow-vein deposit. The mining method has been refined with operational experience. • Grade control consists of pre-development diamond drilling at approximately 20 m spacing followed by mapping and face channel sampling at approximately 4 m spacing during vein drive development. All samples are processed at the on-site laboratory with 5% control samples sent to external international laboratories. • SRK completed a geotechnical study in 2013, from which site geotechnical personnel have developed procedures with operational experience. All development headings and stopes are assessed before and during development by the Geotechnical Engineer and have geotechnical specifications detailing support requirements. • Individual stopes have a maximum length of 80 m and maximum height of 18 m, with a maximum of three stopes forming a panel between a crown pillar, with surface and sill pillars between levels. • A minimum mining width of 2.2 m has been applied to the Ore Reserve using Mineable Shape Optimizer™ (MSO). • Current mining areas are accessed via portals located at the south of the deposit and multiple declines located across the deposit. • Dilution is accounted for in the Ore Reserve on a vein-by-vein basis, based on geometry and historic production statistics. The average dilution factors in the Ore Reserve are: — Primary mining dilution (minimum mining width): 54%. — Secondary mining dilution (unplanned in stope): 9%. • Mining losses are estimated to be 2% of the Ore Reserve. • Inferred and Unclassified Mineral Resources were treated as waste dilution.
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	• Gold and zinc concentrates are produced through conventional crushing, grinding, flotation, thickening, and filtration. • The process is well-tested and has been in operation at Kapan for more than 15 years. • The process plant has two primary jaw crushers capable of crushing 2 Mtpa. The grinding and flotation circuits have a maximum capacity of approximately 900 ktpa. • Metallurgical recoveries are based on historical plant performance data. • The Ore Reserve is based on the Mineral Resource Estimate which includes individual estimation parameters for the payable metals Au, Ag, Cu, and Zn; and as such, is appropriate to the mineralogy being processed. • Operational metallurgical testwork is carried out daily at the plant metallurgical test laboratory. • Deleterious elements Pb and S are also modelled in the Mineral resource model; however, with the current mining locations and for the remainder of the mine plan, the grades are not high enough to warrant corrective measures in the process plant.
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	• Chaarat possesses the required permits and planning permissions to effectively operate the Kapan Mine, in accordance with Armenian environmental regulations. • To the best of the CP's knowledge, all sites for waste rock and process tailings and their design and construction have complied with all environmental regulations, permits, and recommendations.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	• All infrastructure required for the processing and mining of ore is in place and has been in place since exploration of the deposit in Soviet times (1980s). The mine is located adjacent to the town of Kapan on the main trunk-road connecting southern Armenia to the capital city, Yerevan.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* • *The allowances made for royalties payable, both Government and private.*	• Operating costs are based on site operating costs. AMC has reviewed historical cost reports including copies of major contractor invoices. • Treatment and refining costs are based on current concentrate sales terms. AMC has reviewed historical gold and zinc concentrate sales invoices to confirm the inputs used in the calculations. • Penalty elements are accounted for in the concentrate treatment charges. • Government royalties are included at 6% of NSR.

Criteria	JORC Code explanation	Commentary
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	• Head grades are based on the block model generated by Chaarat in September 2022. • Revenue has been based on metal prices of USD1,750/oz Au, USD21.8/oz Ag, USD8,300/t Cu and USD2,950/t Zn applied to the concentrate sales terms. These figures are representative of consensus economic forecasts for the reserve period. • Transportation, treatment charges and penalties for both gold and zinc concentrates are accounted for in the AuEq cut-off grade calculation.
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	• Chaarat has agreements with long-term established customers for concentrate sales. • Gold concentrate is sold to Industrial Minerals in Montreal, Canada. Gold concentrate is bagged on-site, loaded into containers and transported by road to Poti, Georgia. From Poti, the containers are sea-freighted to Montreal, Canada. • Zinc concentrate is sold to Trafigura in Antwerp, Belgium. Zinc concentrate is bagged on-site, loaded into containers and transported by road to Poti, Georgia. From Poti, the containers are sea-freighted to Antwerp.
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.* • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	• No separate NPVs have been generated as part of the Ore Reserves determination; however, all material contained within the reserve is deemed to generate positive cashflow based on the economic input parameters. • A life of mine plan (LOMP) has been generated from the December 2021 mine design. Analysis of the LOMP physicals within the current Chaarat financial model has been shown to yield a net positive cashflow and NPV.
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• To the best of the CP's knowledge, all agreements with the local authorities are in place and are current with all key stakeholders.
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	• To the best of the CP's knowledge, Chaarat is currently compliant with all legal and regulatory requirements and there is no reason to assume any further government or local council permits, licences, or statutory approvals will not be granted, if required.
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	• The Ore Reserves have been broken down into Proved and Probable categories as per JORC Code (2012) guidelines. • It is the CP's opinion that the Ore Reserves reflect the deposit accurately given the current level of geological and geotechnical knowledge. • No Probable Ore Reserves have been derived from Measured Mineral Resources. • Inferred resources have not been included in the Ore Reserve.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• The Competent Person completed a "best practices" review of the mine planning as part of the Ore Reserves. • The Ore Reserve has been peer-reviewed internally and is in line with current industry standards.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* • *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• Kapan Mine is in production and has more than 15 years of historic process production data and costs. • The deposit is well-understood by the on-site technical team which consists of locals with long-term experience of the deposit. • Owner and contractor costs are based on current actual costs. • All modifying factors have been applied to the Ore Reserves with updated dilution parameters for each individual vein based on widths and geotechnical assessments. • Work is ongoing on-site to reconcile and better-account for unplanned mining dilution. • Geological mapping and survey of vein drives is supporting the validity of the resource model to a level of confidence consistent with Ore Reserve reporting. • Historical mine-to-mill reconciliation on an annual and quarterly basis supports the validity of the resource model to a level of confidence consistent with Ore Reserve reporting. • Current AuEq cut-off grade practice at the mine might have an impact on mining areas where grade variations in different metals are encountered. AMC recommends development of a net smelter return (NSR) based valuation and cut-off grade calculation for use in future Ore Reserves.

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