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Report

Karaberd Gold Deposit Competent Person's Report Update

Mineral Ventures Invest spol s.r.o

AMC Project 0223064_4
16 August 2023

Unearth a smarter way

Executive summary

Mineral Ventures Invest spol s.r.o. (MVI) commissioned AMC Consultants Pty Ltd (AMC) to prepare this independent Competent Person’s Report (CPR) on the Karaberd Gold Project (the Project or Karaberd). AMC understands from its communications with MVI that this CPR will be included in admission documents submitted to the UK Financial Conduct Authority seeking approval of a Reverse Take Over by MVI of the IMC Exploration Group plc which is listed on the London Stock Exchange (LSE).

The Project is located in the Lori province, northern Armenia.

Information provided by MVI to AMC for the purposes of preparing this CPR includes:

- The Project comprises a Mineral Allotment (366/2013), inclusive of a permitted exploitation area, which is valid until 2024.
- The Mineral Allotment, inclusive of an approved exploitation permit, are held by Assat LLC (Assat), a 100% owned subsidiary of MVI. The Project is considered an early-stage exploration project and has been periodically explored since the late 1960s, with the most substantive period of exploration occurring in the 2000s and 2010s.
- No significant environmental or legal impediments are known to exist to further development of the Project, although the seismically active nature of the region, along with the mapping of known landslides and mudflows peripheral to the deposit, indicate risk associated with seismicity that requires further quantification and will need to be considered in any future development of the Project.

The Karaberd deposit occurs within the Lesser Caucasian segment of the Tethyan orogenic belt which extends through 33 countries from Europe to eastern Asia and is a globally significant gold and base metals repository. The Lesser Caucasus was formed by the collision of Eurasia, several Gondwana-derived terranes and Arabia and it evolved from a Jurassic subduction-related magmatic arc to a post-collisional tectonic environment in the Neogene. The deposit lies immediately to the south of the Sevan-Akera suture zone which represents the late Cretaceous collision between Eurasia and the South Armenia crustal block. Common mineralization types in the Lesser Caucasus include porphyry, epithermal, volcanogenic massive sulfides and skarn deposits, and the deposit displays characteristic of low to intermediate sulfidation epithermal deposits. Mineralization is hosted in mid- to late-Eocene volcano-sedimentary rocks which have been intruded by numerous late-stage (late Eocene to mid Oligocene) intermediate to felsic intrusives.

Two main mineralized zones are present at the Project and account for majority of the gold in the Project’s Mineral Resource estimate (MRE). Gold mineralization occurs in quartz-carbonate (and subordinate malachite) veins, typically characterized by widths up to approximately 5 m. Alteration styles are consistent with the epithermal mineralization environment and the deposit is characterized by a silver to gold ratio of approximately 2:1 which is characteristic of the deposit style. The main mineralized zone (Zone 1) strikes northwest-southeast and dips toward the southwest at between 50° and 90°. It occurs in a 20–60 m wide zone fault zone characterized by hydrothermal alteration and the presence of fault gouge material. The zone is known to extend for approximately 700 m along strike and may be continuous at depth. The other significant zone (Zone 3) strikes north-south and intersects Zone 1 at a high angle.

Three major phases of exploration have been conducted on the Project. In the late 1960s to early 1970s, the Geological Survey of Armenia carried out surface trenching, limited drilling and developed a series of underground adits to access the mineralized zones. From 2003 to 2008, Vallex (a private company) and Assat (the current licence holder) carried out 1,210 m of diamond core drilling in 22 holes as well as a significant amount of trenching. From 2008 to 2012, a further 26 diamond drillholes were completed, for 2,895 m. Eight verification holes were drilled in 2020 and two infill holes in 2021 and four infill holes were drilled in the second half of 2021 with some test mining. The last exploration programme included 26 trenches for 169 m of trenching and 19 additional diamond holes completed between June and December of 2022 for the total of 2,400 m, which were used to update the MRE. A statement of the MRE, which has been classified and reported in accordance with the JORC Code[1], is presented in Table I in this CPR.

None of the drilling campaigns prior to 2020 have any routinely documented quality assurance/quality control (QAQC) procedures or results, nor is the core available. As a result, a verification exploration programme was undertaken in early 2020 under the supervision of an independent consultant and a further 10 trenches were excavated and a further eight diamond drillholes (for 661 m) were drilled. QAQC procedures and results from this verification programme are available and indicate that analytical performance was satisfactory. That verification exploration programme provide sufficient confidence in the results of the extensive historical work which was carried out under Russian standards to support the MRE stated in this CPR. In the 2022 exploration programme the QA/QC programme included blanks, Certified Reference Material (CRM), and duplicates. Results were obtained both for gold and silver. No issues were revealed with the laboratory results.

For the MRE stated in Table I, AMC reviewed the provided analytical data and produced updated MRE which was estimated with historical and recent data comprising the following:

- 48 diamond drillholes for 4,058 m of drilling and 241 sampled intervals.
- 159 trenches for 1,036 m of trenching and 464 trench samples.
- 133 underground channels for 1,212 m of channels and 735 samples.
- Eight verification holes for 641 m of drilling and 110 sampled intervals drilled in 2020.
- Two infill holes for 55 m of drilling and 45 sampled intervals drilled in the first half of 2021.
- Four infill holes for 365 m of drilling and 6 sampled intervals drilled in the second half of 2021.
- 19 diamond drillholes for 2,400 m of drilling and 166 sampled intervals drilled between June and December of 2022.
- 26 trenches for 169 m of trenching and 147 trench samples.

The MRE has been constrained and reported to a reasonable distance from data points. The MRE is classified as Inferred and Indicated according to JORC Code guidelines and reported with a cut-off grade of 0.8 g/t Au. At this cut-off grade, the MRE is deemed to have reasonable prospects for eventual economic extraction.

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[1] Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC). < http://www.jorc.org >

Table I Mineral Resource estimate for the Karaberd Gold Project as of 1 December 2022 at a 0.8 g/t Au cut-off grade

Oxidation	**Classification**	**Tonnes**	**Au**		**Ag**	
		kt	**g/t**	**koz**	**g/t**	**koz**
Oxidized	Indicated	452	4.2	61	9	131
	Inferred	192	4.0	24	10	65
	Total	**643**	**4.1**	**86**	**9**	**196**
Fresh	Indicated	565	5.1	92	11	200
	Inferred	436	4.9	69	12	174
	Total	**1,001**	**5.0**	**161**	**12**	**375**
Total	Indicated	1,016	4.7	153	10	331
	Inferred	628	4.6	93	12	239
	Total	**1,644**	**4.7**	**246**	**11**	**570**

Notes:

- The Mineral Resource estimate is classified according to JORC Code guidelines.
- The Mineral Resource estimate is reported at a 0.8 g/t Au cut-off grade as of 1 December 2022.
- Mineral Resources are not Ore Reserves and do not have demonstrated economic viability.
- A bulk density value of 2.50 t/m3 was used for the estimate of in situ tonnes for oxidized zone and 2.63 t/m3 for fresh zone.
- Discrepancies in calculations may be present due to rounding.
- kt refers to kilo-tonnes (i.e. one thousand tonnes).
- koz refers to kilo-ounces (i.e. one thousand troy ounces).

Limited and insufficiently documented metallurgical testwork has been carried out at the Project. An investigation into gravity recovery followed by flotation returned gold recoveries in the region of 80% and silver recoveries in the region of 50%; however, the head grade of the sample was approximately 3.5 times the gold and silver grade of the MRE. A cyanidation study, carried out in 2008 on more representative bulk samples with grades analogous to the MRE grades, returned gold recoveries exceeding 95%. Importantly, information on the proportion of gold that is recoverable by gravity techniques is not available.

MVI commenced trial mining at Karaberd in May 2021. The mineralized material was mined at the deposit and loaded to small trucks by excavator, then transported to Kirovakan where it was crushed and stockpiled. The mineralized material was then transported to the processing plant in Ararat (GeoPro Mining Gold LLC) by railway using 65-tonne wagons. The total reported results for seven months of trial mining included 33,324 tonnes of mineralized material with an average grade of 1.39 g/t Au. The total recovered metal between April and December 2021 was 46 kg of gold.

Further exploration is warranted on the Project and should include a combination of trenching and infill and extensional drilling. The deposit is considered by MVI and AMC to be open along strike (although limited by the current boundaries of the exploitation licence) and down dip. Infill drilling is considered critical to not only upgrade the classification of the MRE, but also to reduce the reliance on the only partly verified historical data. Implementation of industry standard operating protocols, as have been implemented in the 2020 verification exploration programme, will provide a more robust dataset to support advancing the Project. Geotechnical data needs to be collected from an oriented drilling campaign in order to inform potential pit or underground mine design parameters. In addition to further considered and well-documented metallurgical testwork being required, a trade-off study should be undertaken to determine at a high-level the optimal potential mining method for the deposit which will, in turn, optimize the exploration strategy. Acquiring of additional ground along strike of the deposit should be considered a priority to potentially increase the scale of the deposit.

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

Dmitry Pertel

16 August 2023
Date

Peer Reviewer

Lawrie Gillett

16 August 2023
Date

Author

Serik Urbisinov

16 August 2023
Date

Important information about this report

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This document and its contents are confidential and may not be disclosed, copied, quoted or published unless AMC Consultants Pty Ltd (AMC) has given its prior written consent.

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1 Introduction

1.1 Background, context, scope and terms of reference

Mineral Ventures Invest spol s.r.o. (MVI) commissioned AMC Consultants Pty Ltd (AMC) to prepare this independent Competent Person's Report (CPR) on the Karaberd Gold Project (the Project or Karaberd). AMC understands from its communications with MVI that this CPR will be included in admission documents submitted to the UK Financial Conduct Authority seeking approval of a Reverse Take Over by MVI of the IMC Exploration Group plc which is listed on the London Stock Exchange (LSE).

This report has been prepared in accordance with the requirements set out in the JORC Code[2].

The Project is located in the Lori Province, northern Armenia.

Information provided by MVI to AMC for the purposes of preparing this CPR includes:

- The Project comprises a Mineral Allotment (366/2013), inclusive of a permitted exploitation area, which is valid until 2024.
- The Mineral Allotment, inclusive of an approved exploitation permit, are held by Assat LLC (Assat), a 100% owned subsidiary of MVI. The Project is considered an early-stage exploration project and has been periodically explored since the late 1960s, with the most substantive period of exploration occurring in the 2000s and 2010s.
- No significant environmental or legal impediments are known to exist to further development of the Project, although the seismically active nature of the region, along with the mapping of known landslides and mudflows peripheral to the deposit, indicate risk associated with seismicity that requires further quantification and will need to be considered in any future development of the Project.

In the absence of a scoping study, the Project is considered by AMC to be at an early-stage exploration project but has been extensively explored periodically since the late 1960s, with the most substantive period of exploration occurring in the 2000s and 2010s.

This CPR does not include a valuation of any of MVI tenements or Projects.

AMC Principal Geologist, Mr Dmitry Pertel undertook site visit to the Project between 15 March and 20 March 2020 for a total of three days at the site. Mr Pertel visited the deposit site, inspected drill core, and inspected core logging and sampling facilities. No drilling activity was being undertaken at the time of the site visit.

This CPR is addressed to MVI.

AMC is responsible for this CPR and declares that it has taken all reasonable care to ensure that the information contained in this CPR is, to the best of its knowledge, in accordance with the facts and contains no omission likely to affect its import that would require any amendment to this CPR.

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[2] Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC). <http://www.jorc.org>

The mandate extended to AMC includes:

- Prepare the CPR in accordance with JORC Code using all relevant analytical information and data available as at 1 December 2022.
- The Mineral Resource estimate (MRE) for the Project presented herein has been signed off by AMC.
- Provide recommendations around development of the Project, including remedial actions where these are deemed necessary.

In preparing this CPR, AMC:

- Relied on the accuracy and completeness of the data provided to it by MVI, and MVI made AMC aware of all material information in relation to the Project. For the purposes of Prospectus Rule 5.5.3R(2)(f) from the Financial Conduct Authority, AMC accepts responsibility for the information contained in this CPR. AMC declares that to the best of its knowledge and belief, having taken all reasonable care to ensure that such is the case, the information contained herein is in accordance with the facts and does not omit anything likely to affect the import of such information.
- Relied on MVI's representation that it will hold adequate security of tenure for exploration and assessment of the Project to proceed; an Independent Solicitor's Report included elsewhere in the IMC Exploration Group's Prospectus Document provides a detailed discussion of MVI's tenements.

AMC consents to the inclusion of this CPR, and reference to any part of this CPR, in the IMC Exploration Group's Prospectus Document that is required to facilitate the planned reverse takeover of the IMC Exploration Group, which is a company listed on the main market of the LSE, by MVI. This CPR presents the following key technical information as at the effective date of this CPR which is 1 December 2022 (Effective Date):

- Statement of the MRE as of 1 December 2022 prepared by AMC.
- Comments on the reliability of data acquisition, geological interpretation, and Mineral Resource estimation.
- Comment on compliance with the JORC Code.
- Comment on exploration potential.
- A summary of the key technical risks and opportunities.

Certain units of measurements, abbreviations, and technical terms are defined in the glossary of this CPR. Unless otherwise explicitly stated, all quantitative data as reported in this CPR are reported on a 100% basis.

1.2 Adherence to the JORC Code guidelines

The report has been prepared in accordance with the JORC Code and the rules and guidelines issued by the LSE for the requirements of a CPR and takes cognisance of the European Securities and Markets Authority requirements for technical reports accompanying prospectuses.

1.3 Technical information and effective date

The effective date of this CPR is 1 December 2022 (Effective Date).

The MRE and the technical information presented in this CPR rely on information provided to AMC by MVI at the time of the site visit to Karaberd in March 2020 and submission of exploration data collected during the 2021-22 drilling campaigns.

All currency in this CPR is expressed on a cash basis in terms of United States dollars (US$).

1.4 Principal sources of information and reliance on other experts

AMC has based its review of the Project on information made available to the principal authors by MVI, along with technical reports prepared by consultants, government agencies and previous tenement holders, and other relevant published and unpublished data. AMC has also relied upon discussions with MVI's management and consultants for information contained within this assessment and a site visit to the Project in Armenia by one of the authors of the CPR who is a Competent Person for the style of mineralization and nature of activities being reported on here. This report has been based upon information available up to and including 1 December 2022, with an effective date of the MRE reported herein set at 1 December 2022.

AMC has endeavoured, by making all reasonable enquiries, to confirm the authenticity, accuracy and completeness of the technical data upon which this report is based. Unless otherwise stated, information and data contained in this technical report or used in its preparation has been provided by MVI in the form of documentation and electronic data.

MVI was provided a final draft of this report and requested to identify any factual errors or material omissions prior to its lodgement.

Descriptions of the mineral tenure; tenure agreements, encumbrances and environmental liabilities were provided to AMC by MVI or its technical consultants. MVI has warranted to AMC that the information provided for preparation of this report correctly represents all material information relevant to the Project. Full details on the tenements are provided in the Independent Solicitor's Report included elsewhere in the IMC Exploration Group's Prospectus Document.

1.5 Independence

Neither AMC, nor the authors of this CPR, has or has had previously, any interest in MVI or the mineral properties in which MVI has an interest. AMC's relationship with MVI is solely one of professional association between client and independent consultant.

AMC will receive a fee for the preparation of this CPR in accordance with normal professional consulting practices. This fee is not dependent on the findings of this CPR and AMC will receive no other benefit for the preparation of this CPR. AMC does not have any interests that could reasonably be regarded as capable of affecting its ability to provide an unbiased opinion in relation to MVI's projects and assumptions included in the various technical studies completed by MVI, opined upon by AMC and reported herein.

While some employees of AMC and its subconsultants may have small direct or beneficial shareholdings in MVI or associated companies, neither AMC nor the contributors to this CPR nor members of their immediate families have any interests in MVI that could be reasonably construed to affect their independence. AMC has no pecuniary interest, association, or employment relationship with Celsius.

Neither AMC nor the contributors to this CPR nor members of their immediate families have any interests in MVI that could be reasonably construed to affect their independence. AMC has no pecuniary interest, association, or employment relationship with MVI.

1.6 Consent

AMC will give its written consent to the inclusion of this CPR in admission documents to the UK Financial Conduct Authority seeking approval of a Reverse Take Over by MVI of the IMC Exploration Group, that is listed on the LSE and all of the information to be contained in that document which has been extracted directly from this CPR.

1.7 Qualifications of consultants and Competent Persons

AMC is a firm of independent geological, geotechnical, hydrogeological, mining engineering, metallurgical engineering, and business improvement consultants offering expertise and professional advice to exploration, mining, and mining finance industries from our offices in Australia, Canada, Singapore, and the United Kingdom.

AMC's experience-base covers all facets of mining from exploration and planning through to production and senior management roles. AMC has conducted a substantial number of evaluations of open-pit and underground mining projects and operations over a wide range of mineral commodities and is widely recognized as a technical leader in the global mining industry.

The independent Competent Person who conducted the site visit and prepared the MRE is Mr Dmitry Pertel, AMC Principal Resource Geologist. Dmitry Pertel has more than 34 years geological experience in mining, exploration and field work, office and operations establishment and management together with specific skills in mining and geological computer applications using Datamine, Micromine and other software. He has been involved in database management, resource modelling and evaluation, economic analysis, consulting, due diligence studies, audits, software promotion and sales. He has a strong working knowledge of exploration and mining projects around the world. Dmitry Pertel is a Member of the Australian Institute of Geoscientists.

This CPR has been peer reviewed in accordance with AMC's peer review policy. The peer reviewers was Mr Lawrie Gillett.

Lawrie Gillett, AMC Principal Mining Engineer and Practice Leader – Corporate, peer reviewed in accordance with AMC's peer review policies and procedures. Lawrie has more than 40 years of experience in the mining industry. His primary expertise is in technical audits, due diligence reviews, public reports, technical inputs to mineral asset valuations, and technical expert witness roles. His broad experience includes open pit design, scheduling and management, underground and open pit operations, and Reserve and mining costs estimation.

In preparing this CPR, AMC has relied on the accuracy and completeness of the data provided to it by MVI or its subsidiaries. MVI has undertaken that it has made AMC aware of all material information in relation to the projects. The CPR presents a review of the mineral asset of MVI but should not be considered an audit.

AMC has not conducted verification of the standing of the tenure for exploration at any of the projects and has relied on MVI that it will hold adequate security of tenure for exploration and assessment of the projects to proceed. Full details on the tenements are provided elsewhere in the IMC Exploration Group's Prospectus Document.

1.8 Declarations

1.8.1 Purpose of this document

This CPR has been prepared by AMC at the request of and for the benefit of MVI and potential investors. Its purpose is to provide an independent assessment of the Karaberd Project in Armenia.

The report is to be included in its entirety or in summary form within admission documents to the UK Financial Conduct Authority seeking approval of a Reverse Take Over by MVI of the IMC Exploration Group, that is listed on the LSE and in connection with the future commercial development of MVI. It is not intended to serve any purpose beyond that stated and should not be relied upon for any other purpose.

The statements and opinions contained in this report are given in good faith and in the belief that they are not false or misleading. The conclusions are based on the reference date of 1 December 2022 and could alter over time depending on exploration results, mineral prices, and other relevant market factors.

1.8.2 Competent Person's statements

The information in this report that relates to the Technical Assessment of Mineral Resources has been prepared by Mr Dmitry Pertel. Mr Pertel is a Member of the Australian Institute of Geoscientists. Mr Pertel has sufficient experience relevant to the style of mineralization and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Persons as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). Mr Pertel consents to the inclusion in this CPR of the matters based on his information in the form and context in which it appears.

To the best of our knowledge, the information in this report is in accordance with the facts and the report makes no omission likely to affect its import.

Mr Pertel is a full-time employee of AMC.

1.8.3 Site inspection

A site visit was conducted by the Competent Person (CP), Dmitry Pertel, who was a full-time employee of CSA Global Pty Ltd at the time of the visit, from 15 to 20 March 2020. The purpose of the site visit was to review the Karaberd deposit site and assess the geology and mineralization geometry, drill core and channel samples. Drilling at Karaberd was not ongoing during the site visit and there were no rigs at the site.

The local geological team were also involved in the visit, as the company has an office in Sevan. The local geologists were well able to explain the protocols and methods employed in the 2020 validation drilling programme, including quality assurance/quality control (QA/QC), which are considered appropriate and consistent with industry good practice.

Some drill collars and surface trenches were checked in the field (Figure 1.1), although most of the surface was under snow and it was difficult to review the deposit geology.

Figure 1.1 Marked drill collar on site (2020 drill programme)

The drill core and sample storage area for the 2020 exploration holes (2020 verification programme) were visited. The sample storage facility is considered secure. The drill core was examined and noted that it was well marked with tags and logged (Figure 1.2). Sampling was completed by splitting the core into two halves. It was noted by the CP that all mineralized intervals were oxidized.

Figure 1.2 Core with sampled intersections

The sample preparation and analytical laboratories were not visited. Sampling and sample preparation procedures implemented for the 2020 verification programme are considered by AMC to be industry standard. Data, drilling and geological records, including recovered historical reports and logs, were found by AMC to be well maintained in the storage at the office in Sevan.

1.9 About this report

This CPR describes the geology, exploration activities and Mineral Resources at Karaberd. The regional and local geology of the Project is reviewed in the context of the style of mineralization present at the Project, and the MRE is reported in accordance with the JORC Code.

No valuation has been requested from or determined by AMC for the Project.

1.9.1 Conventions used in this report

Unless otherwise indicated, the following conventions/units of measurement are used in this report:

- Coordinate system is Pulkovo 1942, Gauss Conform Zone 8:
  - Projection: Gauss Kruger.
  - False easting: 8500000.0.
  - False northing: 0.0.
  - Central meridian: 45.0.
  - Scale factor: 1.0.
  - Latitude of origin: 0.0.
  - Linear unit: Metre (1.0).
- Gold and silver assays are given in grams per tonne (g/t) and base metal assays in parts per million (ppm) or weight percent (%).
- North is to the top of the page on all maps.
- Financial information is reported in either US dollar (US$) or Armenian dram (֏).

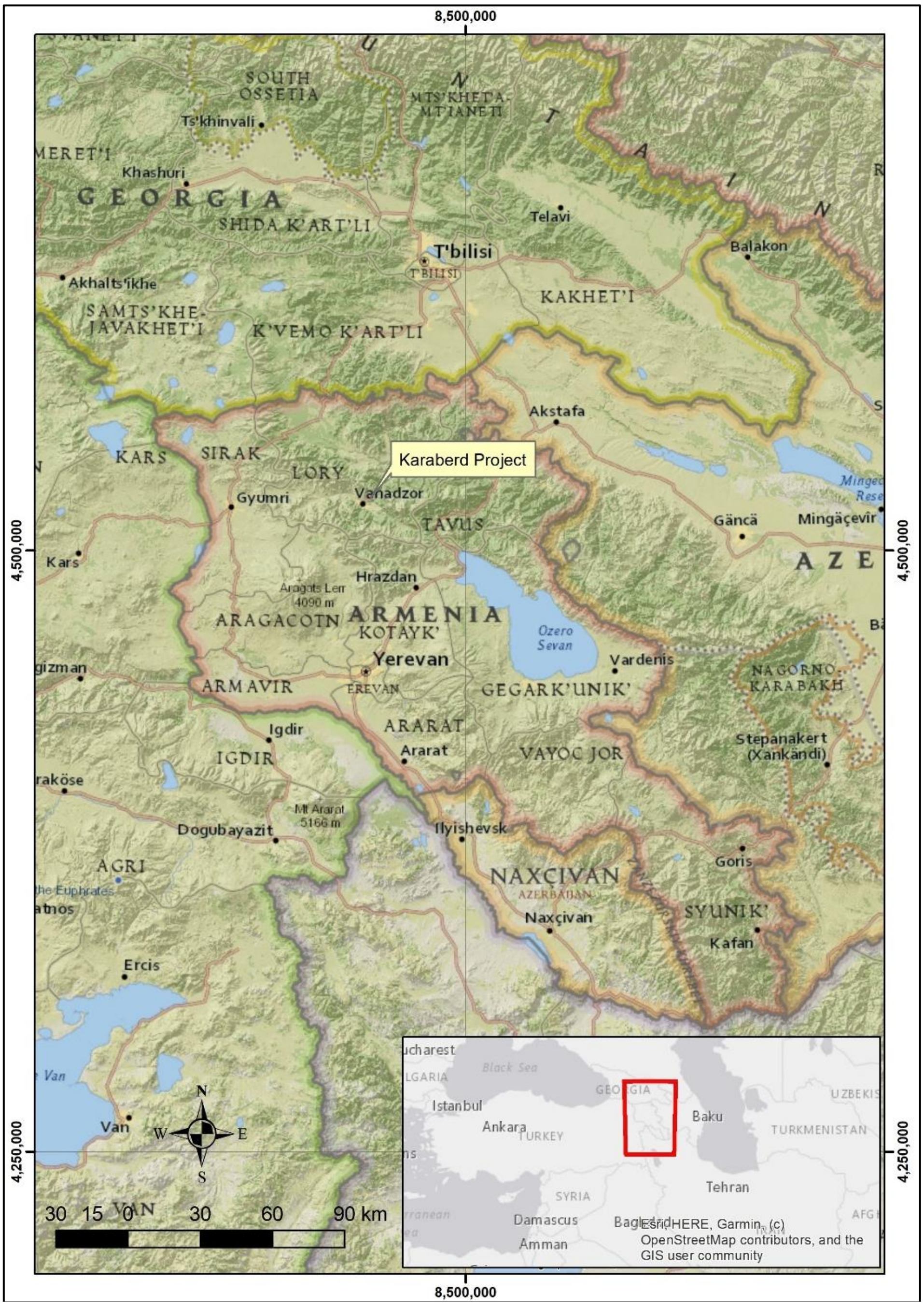
2 Karaberd Project overview

2.1 Location and access

The Karaberd deposit is located in the Lori province, northern Armenia, 70 km north of the capital, Yerevan, and about 5 km northeast of Vanadzor, the third-largest city in Armenia. The city has an estimated population (2016) of around 82,000. The international border with Georgia is approximately 40 km to the north.

Access to the Project site is via a 4.5 km road which connects with the M3 highway north of the Pambak River east of Vanadzor. The drive to Yerevan (about 115 km by road on the M3) takes around two hours. International airports in Armenia are located at Yerevan and Gyumri, which are approximately 70 km west of Vanadzor (Figure 2.1).

Figure 2.1 Location map



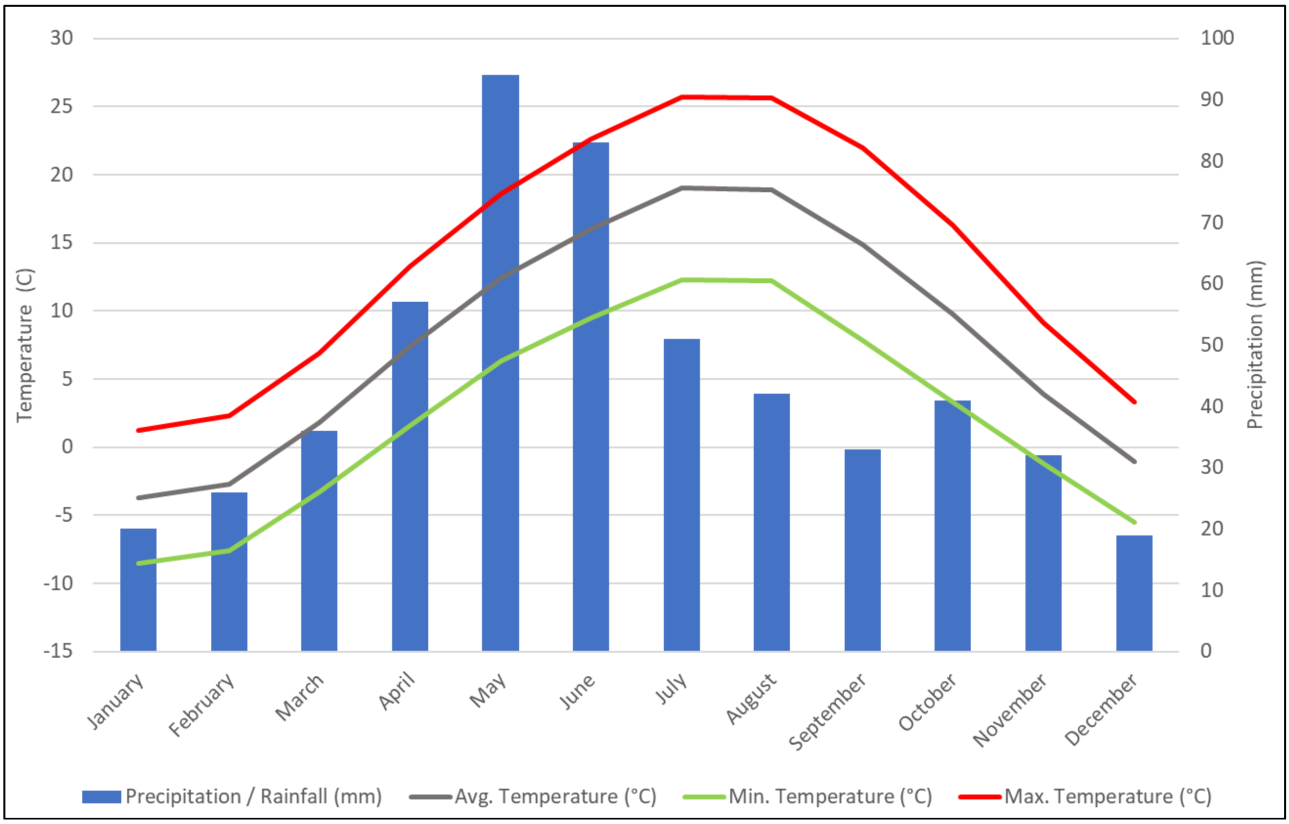
Source: MVI

2.2 Physiography and climate

The Project is located in the Pambak River basin at the south-eastern edge of the Bazum Mountains which extend from northwest to southeast in northern Armenia. Local topography at the Project area is undulating to steep, and elevations range from about 1,300 m in Vanadzor to over 1,800 m on the main ridge immediately east of the deposit. The topography is heavily dissected by streams flowing from the ridgelines.

The Pambak River is located 1.5 km south of the central project area and water levels rise sharply in spring (April). The climate is characterized as "humid-continental", corresponding to the Koppen Dfb class. Average temperatures range from -5°C in winter to 20°C in summer (Figure 2.2). Annual precipitation is around 600 mm per year, and snowfalls up to around 20 cm are regularly recorded during the winter months.

Figure 2.2 Climatic data for Vanadzor



Source: https://en.climate-data.org/asia/armenia/lori/vanadzor-2019/

The landscape around Vanadzor is classified as "low and middle mountain forest" and the area is characterized by open woodlands, meadows, and forests. In the immediate vicinity of the Project, subalpine grassland dominates and there are no timber resources that could be used for construction at the Project site.

2.3 Seismicity

Armenia is a seismically active country and the area around the Project site is characterized as moderate to high seismic risk. Several mudflows and landslides are reported in proximity to the Project.

2.4 Ownership and tenure

The Project falls under a Mine Allotment (N366 dated 6 June 2013) granted for a period of 11 years (valid until 6 June 2024) by the Ministry of Energy and Natural Resources (now the Ministry of Energy Infrastructures and Natural Resources) of the Republic of Armenia. The licence coordinates are provided below (Table 2.1) and the allotment comprises a total area of 20.3 hectares (ha).

Table 2.1 Mining Allotment N366 coordinates

Point	Northing	Easting
1	4522169	8459072
2	4522235	8459086
3	4522233	8459480
4	4521934	8459737
5	4521706	8459627
6	4521728	8459463

Figure 2.3 Location of Allotment N366 and the extraction permit, located northeast of Vanadzor

Source: MVI

Within the allotment, an area of 3.96 ha is currently licenced for Mineral Extraction (Figure 2.3 and Table 2.2). An application has been submitted for the expansion of this area to cover the entire 20.3 ha allotment. It is understood this process is straightforward.

Figure 2.4 Organization structure chart showing the entities comprising MVI

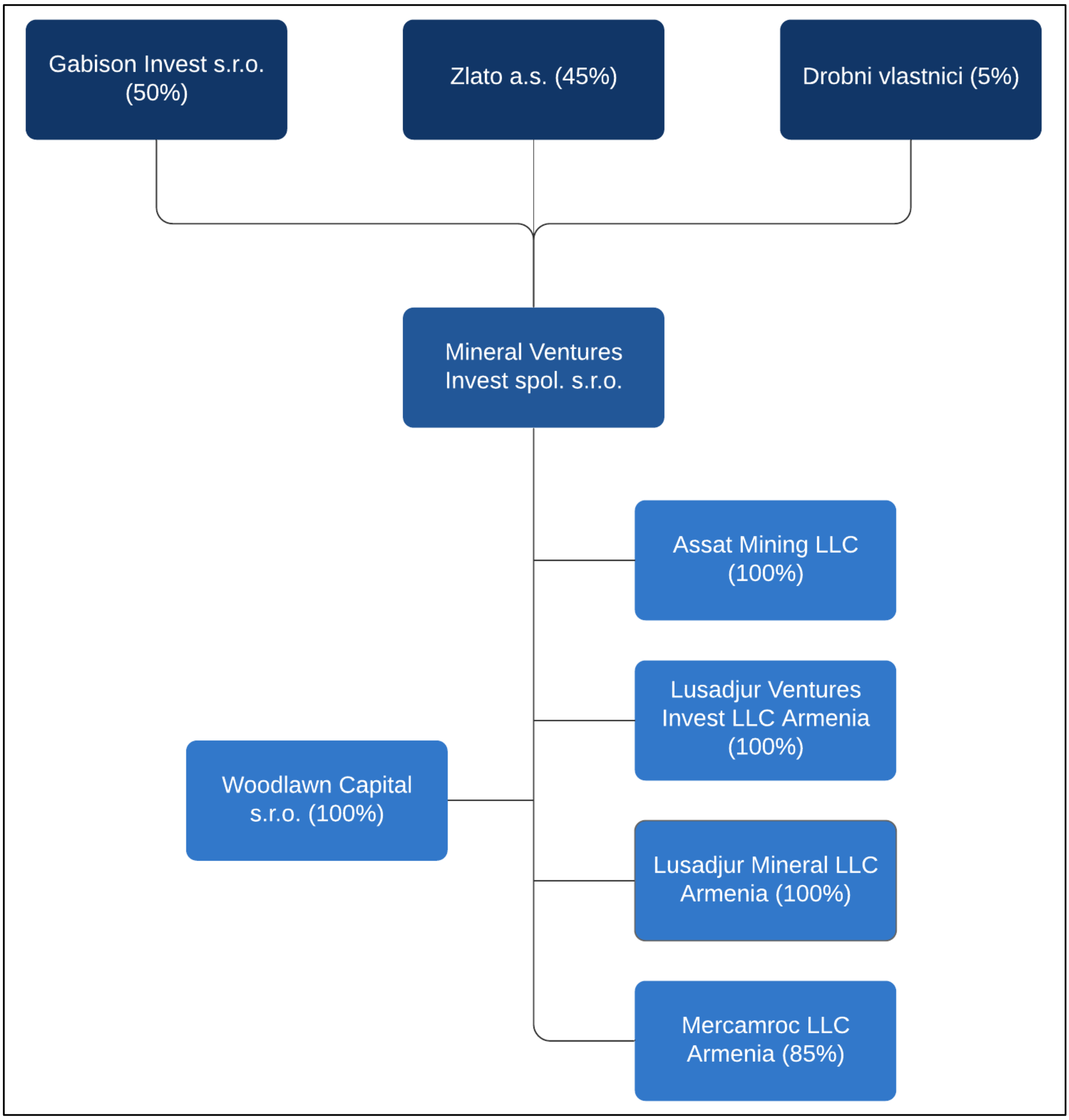


Table 2.2 Coordinates for the Extraction area within Allotment N366

Corner Point	Coordinates	
	North	East
1	4522176.0	8459129.9
2	4522186.6	8459229.1
3	4522015.7	8459472.5
4	4522082.0	8459476.8
5	4521965.6	8459522.1
6	4521908.8	8459625.7
7	4521875.4	8459646.3
8	4521947.4	8459499.1
9	4521850.9	8459502.8
10	4521775.0	8459481.7
11	4521828.0	8459465.4
12	4521982.8	8459462.1
13	4522044.5	8459346.8
14	4522153.2	8459233.1
15	4522176.0	8459129.9

The mining licence is owned by Assat LLC (Assat) which is wholly owned by MVI. The ownership structure of MVI is provided in Figure 2.4.

While AMC has had sight of the relevant licence documentation, it provides no warranty on the legality of Assat's tenure.

2.5 Legislative framework in Armenia and legal obligations

An annual subsoil use permit of ֏10,000,000 (around US$26,000, based on the exchange rate as of the report issue date) is payable annually. There is also a size-determined land use fee, which amounts to US$737 per annum for the Project.

An amount of US$3,576 has been set aside for remediation (as documented in the Project's Environmental Impact Assessment – EIA), although this is a preliminary amount and is subject to revision during the mine closure planning phase.

Relevant applicable mining and environmental legislation in Armenia is summarized below.

2.5.1 Legislative framework

The key piece of regulation of the Armenian mining industry is the Code on Subsoil of the Republic of Armenia ("the Mining Code") effective from 2012. The Mining Code replaced the Code on Subsoil, adopted 25 February 1992, and the Law of Concessions for Subsoil Assets for the Purposes of Exploration and Mining if Minerals, adopted 5 November 2002. Since 2012, a number of additional acts regulating mining operations have been adopted, sometimes inconsistent or conflicting with other regulations. The Mining Code is regulated by the Ministry of Energy Infrastructures and Natural Resources (who grant permissions and supervision of activity) and the Ministry of Nature Protection (for environmental issues and supervision of "re-cultivation works").

Various other laws also affect the mining industry:

- The Law on Payments for Nature Protection and Nature Usage.
- The Law on Wastes.
- The Law on Environmental Protection.
- The Land Code.
- The Water Code.
- The Forestry Code.
- The Tax Code.

Environmental and social regulation of the mineral sector is primarily based on the Law on Environmental Impact Assessment and Expert Examination, 2014 and the RA Mining Code, 2012 (World Bank, 2016).

The mineral (subsoil) rights reside with the state and surface rights with the relevant landowner, with provisions 10 and 33.2 of the Constitution of Armenia declaring that the State shall:

- Ensure the protection of the environment and its remediation.
- Allow reasonable use of natural resources while ensuring a person's right to live in a healthy and safe environment.

The 2012 Mining Code regulates the following:

- Standards and conditions for allowing exploitation on natural resources, as well as limitations to exploitation.
- Geological information and procedures in place in order to be granted permission to exploit these resources.
- The management of mining waste.
- The management of property rights/tenure issues.
- Pit closure and re-cultivation as well as management of social responsibility and accountability.
- The tariffs in place for exploitation on natural resource.
- Environmental protection and management measures.

- Ongoing supervision and monitoring of mining sites by the State.

2.5.2 Exploration (prospecting) rights in Armenia

Armenian law does not require any permits/rights for reconnaissance work, except permission from the landowners and the registration of minerals identified and nature of the work undertaken (Orbelyan and Badasyan, 2018).

In order to conduct systematic exploration, an application must be submitted to the Ministry of Energy Infrastructures and Natural Resources for no more than three years and may be extended pursuant the procedure specified in the Mining Code for three consecutive periods of two years (Sargsyan and Babalyan, 2020). Applications are granted on a first come, first serve basis and are open to both local and foreign investors (Sargsyan and Babalyan, 2020), with the State’s role being regulatory in nature. The application needs to be accompanied by a work plan, timelines, area to be explored and the financial and technical abilities of the applicant. Applications need to be accompanied by a project-specific EIA and final approval for the exploration right is provided by the Ministry of Environment on the strength of the EIA (Orbelyan and Karapetyan, 2019).

Prior to commencing exploration or mining, the rights holder must obtain permissions from the surface owner or make representation to the Ministry of Territorial Management and Infrastructures of a land usage agreement. The surface can be used under the land purchase, usage, lease or servitude agreement. At the same time, foreign entities can only use the land, but cannot have any ownership rights in relation to it (Orbelyan and Karapetyan, 2019).

For renewals, the rights holder needs to apply to the Ministry of Territorial Management and Infrastructures and include reasons for the extension, additional work required and the amended work plan. Relinquishments of exploration rights can be done, according to Article 45 of the Code for Subsoil, totally or partially with three months’ prior notice. The application must include the work completed and supporting documentation. In the case of a partial relinquishment, an updated exploration plan needs to be submitted.

Exploration (and mining) rights can be transferred from one entity to another with permission from the Ministry. Submission of the work already competed to be included with the application and the Ministry has 30 days within which to make a decision. There is no provision for the subdivision of rights (Orbelyan and Badasyan, 2018).

The annual State fee for exploration is ֏50,000 (around US$130, based on the exchange rate as of the report issue date) (Orbelyan and Karapetyan, 2019).

2.5.3 Mining rights in Armenia

Companies that have discovered deposits under an Exploration Right have priority when applying for exploitation/mining permits. Mining rights are granted for the full period of exploitation, but not longer than 50 years.

The rights give the holder the right to mine and explore within the licence boundaries. Where breaches in the regulations and mining laws are remedial, the licence holder has a 90-day period in which to remedy the breach before the State can revoke the mining right.

When applying for a mining right, the applicant must apply for a preliminary environmental assessment prior to submitting an application for the mining right. Following this, they must submit documentation covering how the project will operate, the minerals to be extracted, what must be exploited, closure programme and the financial and technical abilities of the applicant (Orbelyan and Badasyan, 2018).

The applicable fees for a mining right depend on the mineral being exploited and is payable within five days of notification that the right has been granted (Orbelyan and Karapetyan, 2019):

- Precious metal mines, the annual State fee is ֏10 million.
- Fossil fuel mines, the annual State fee is ֏50,000.
- Building material mines, the annual State fee is ֏500,000.
- Gemstone mines, the annual State fee is ֏10 million.
- Obsidian (Vanakat) mines, the annual State fee is ֏100,000.

2.5.4 Royalties and taxes

Rights holders are expected to pay general taxes which include, but are not limited to, profit (corporate) tax (20%), value-added tax (VAT) (20%), property tax (where applicable) and social payments for employees (2.5% of gross salary) (Sargsyan and Babayan, 2020).

Licence royalties are also payable and consist of two parts:

- 4% royalty based on the costs of metal extracted at the mine with a deduction allowed for smelting costs – effectively similar to a net smelter return (NSR).
- A second calculation that considers the profitability of the operation. This calculation is determined as follows:

$$Royalty = 4 * \left(\frac{P}{S * 8}\right) * 100$$

Where P is income in ֏ before taxation – i.e. income less deductibles allowable under law and S is the income from product sales, less VAT.

Additional fees payable include:

- Reclamation and closure fund contributions. This is an upfront payment (paid within one month of signing of the mining agreement) and then an ongoing yearly payment.
- Environmental (nature protection) tax for emissions and waste dumping. The rate is dependent on the level of emissions the mining activity is generating and higher if the prescribed limits are exceeded.
- Monitoring payments for monitoring by the state of factors adversely affecting the environment and health and safety of the affected communities.
- Nature utilization fees (for use of water, and bio-resources).

Although Armenian law does not distinguish between taxing of national and foreign investors, foreign investors can benefit from grandfather clauses in the Law on Foreign Investors which state that a foreign investor can rely on legislation in force for three years after the investment was made. Practical implementation of this clause, however, has never been tested. Armenian law may provide for different regimes of taxation as compared to residents and several Double Taxation Avoidance Treaties may apply for foreign entities with different results (Sargsyan and Babalyan, 2020).

2.5.5 Environmental liabilities

EIAs are required prior to conducting exploration and/or mining and need to be assessed on an ongoing basis. The Mining of Nature Protection is the regulatory body responsible and has final sign-off on issuing of any exploration and mining rights (Sargsyan and Babalyan, 2020).

2.5.6 Risks and legal deficiencies

Several risks and deficiencies have been identified:

- The Mining Code does not prescribe any localization shareholder criteria. However, since the granting of a mining right is a discretionary process, a shareholder structure perceived not to be in the nation’s interests/security may fail (Sargsyan and Babalyan, 2020).
- Changes in the tax regime and legislation poses a risk to investors/mining companies. However, this is mitigated by that fact that foreign entities are covered by the legislation

for three years after the investment was made by the grandfathering clause referred to above.

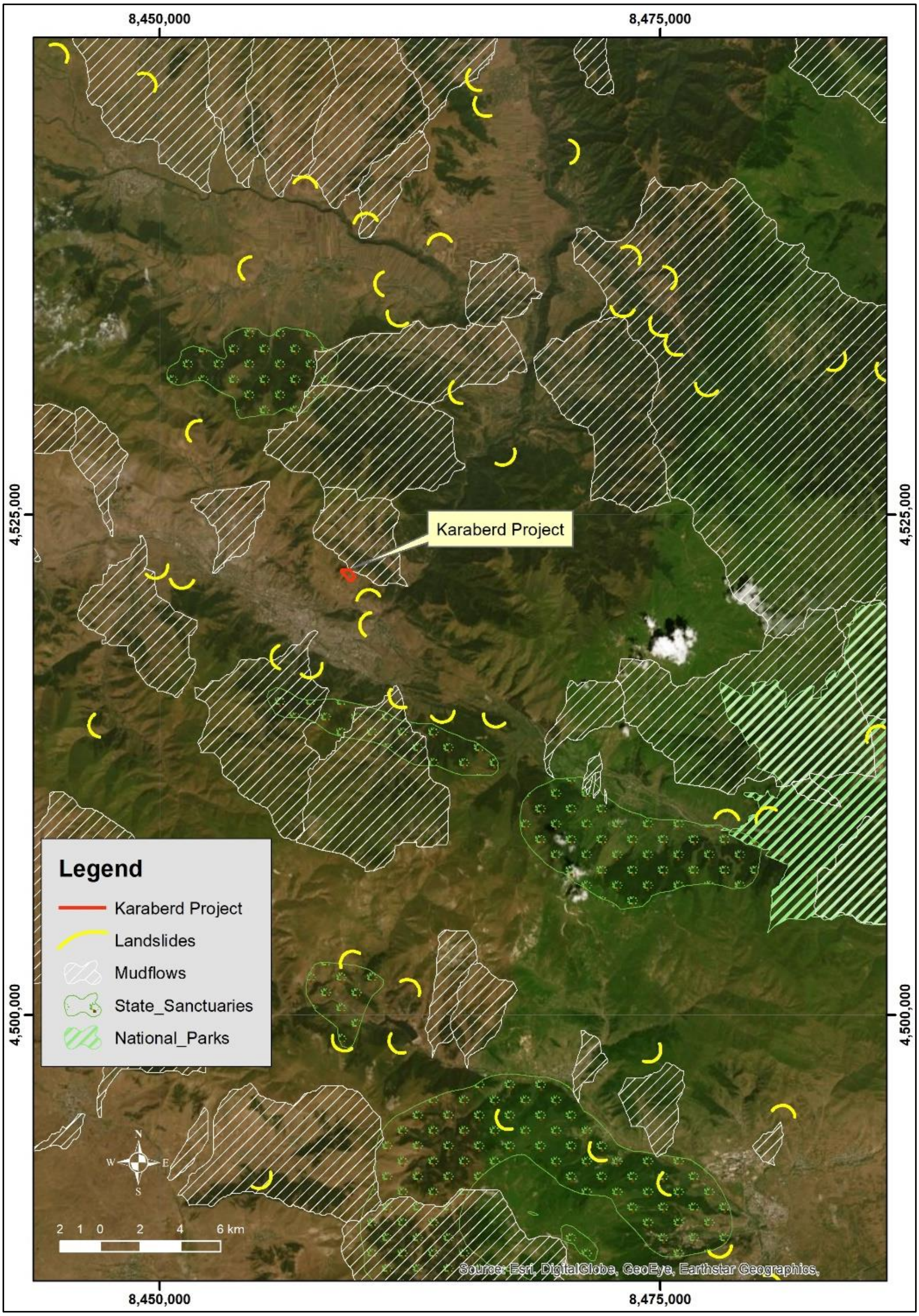
- There are gaps in the Mining Code around waste management as waste dumps become exclusive property of the State from the moment of their formation. However, such dumps can only receive legal status once they have undergone a statutory geological and economic appraisal, but there is no procedure set out in the Mining Code for doing this. Prior to this appraisal, the status of dumps is unclear. Toxic tailings can be classified as an industrial waste site, absolving the subsoil permit holder of any payment of ecological tariffs.
- Restrictions on extraction at sites of historical and cultural monuments, natural landmarks or areas characterized by endangered fauna and flora are set out in Article 26 of the Mining Code but tariffs designed to protect these elements are not presented in the Mining Code. Accordingly, many sites of significance are ignored on many projects.

2.6 Environmental considerations and other impediments to development

AMC is not aware of any material environmental, legal or physical impediments to the development of the Project. The Project site is not located on protected land (Figure 2.5). Seismic risk is a consideration in Armenia and may provide challenging operational conditions for an underground mine. Mudflows are widely mapped around the Project but the slope which underlies the Project site has not been affected by mudflows or landslides.

Based on information presented to AMC, the Project carries the required documentation for potential open pit and underground development and the construction of waste dumps and operational areas, although this has not been independently verified. MVI is considering the installation of a mobile crushing and gravity recovery gold processing system, with the non-gravity recovery gold reporting to tailings. They are currently investigating options for bioleaching of the fine gold from the tailings. Permits associated with the provision of power, water and the construction of tailings dams have not yet been applied for.

Figure 2.5 Map showing the distribution of protected areas and natural hazards in the vicinity of the Project



Source: www.ace.aua.am

2.7 Project history

The summary of the Project history presented here is largely drawn from reports by independent consultants prepared for MVI prior to preparation of this CPR. A summary is provided below.

The deposit was discovered by the Geological Survey of Armenia in 1969–1971 during regional prospecting. Prospect evaluation using trenches and adits was undertaken in 1972–1974 and resulted in the delineation and exposure of mineralized zones. Some limited exploration work was conducted between 1993 and 2002, by the State-owned Pambak Exploration Expedition.

From 2003 to 2005, a private company, Vallex, undertook further exploration and it is understood this work (although the data for this is not available) formed the basis for Assat's investment into the Project and ongoing exploration activities on the Project from 2007 to 2012. An internal initial MRE was carried out in 2009.

In 2013, the Exploration Licence was converted to a Mining Licence (Allotment N366), and it is understood pilot mining was undertaken by Assat in 2015. No data pertaining to the pilot mining has been made available.

In 2020, verification drilling was undertaken by MVI (executed by local subsidiary Lusadjur) to validate the drilling carried out by Assat. This data has been used purely in a validation capacity and has not been used in the previous MRE.

In 2021, two additional holes were drilled by MVI and 543 surface channel and grab samples were collected.

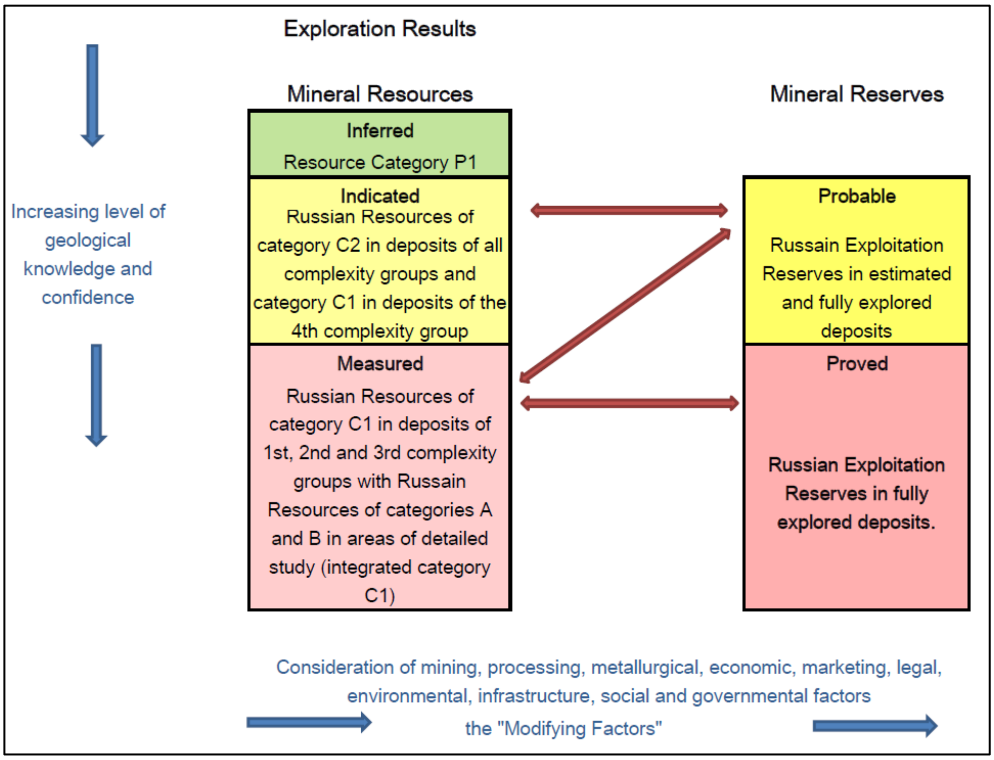
In 2022, 19 drillholes and 26 trenches were completed at the deposit. The current MRE update included all this data.

2.7.1 Previous Mineral Resource estimates

2.7.1.1 2009 GKZ estimate

Mineral Resources for the Karaberd Project were reported in 2009, in accordance with the Russian GKZ code (Russian State Commission for Reserves) which is the official reporting frameworks for the reporting of Resources and Reserves within Armenia. There is no direct correlation of the GKZ framework with CIM or JORC Code classification guidelines, but a broad correlation between the GKZ standard and "western" classification (i.e. JORC Code, CIM, SAMREC) is shown in Figure 2.6. Category C_2 is broadly comparable to Indicated and Inferred Mineral Resources and Category C_1 with Measured and Indicated Mineral Resources.

Figure 2.6 Correlation of GKZ classification with industry-standard Mineral Resource and Reserve classifications



Source: https://www.micon-international.com/mineral-resource-reporting-differences-between-cim-jorc-and-others/

It is understood that the 2009 estimate was calculated using a sectional approach in AutoCAD, and that no justification was provided for the selected cut-off grade. GKZ approved cut-off grades of 2.3 g/t for underground mining and 0.83 g/t for open pit mining were used. Data used to inform the estimate included sampling plans for underground adits, surface sampling, assays associated with these sampling layouts, geological cross-sections and long-sections. The methodology associated with the estimation is documented in Bagdasaryan et al. (2009). The resource estimate was approved by the Committee of the Ministry of Energy and Natural Resources in bulletin 32 (29 March 2012) and is presented in Table 2.3.

Table 2.3 Previous GKZ “resources” for the Karaberd Project

	Unit	C_1 Resources	C_2 Resources	C_1 + C_2
Tonnage	kt	186.9	116.2	303.2
Gold grade	g/t	5.11	5.82	-
Silver grade	g/t	9.28	10.23	-
Gold (contained)	kg	956	676	1,632
Gold (contained)	koz	30.7	21.7	52.5
Silver	t	1.73	1.19	2.92

The aforementioned estimate has not been validated by AMC, and no reliance is being placed on it by either AMC or MVI.

2.7.1.2 2020 estimate

The 2020 MRE was based on 48 drillholes, 321 trenches, and 133 channels. The effective date of the MRE was 1 May 2019 and estimation and classification was in accordance with the CIM Definition Standards for Mineral Resources and Mineral Reserves, and the guidelines set out by NI 43-101. The 2020 estimate preceded the completion of the verification drilling described in Section 4.8 but the outcomes of the verification programme were deemed sufficient for the consultant to formally report the 2019 MRE in its 2020 technical report. Only gold was stated, as it was deemed there was insufficient evidence to support the recovery of silver. A nominal cut-off grade of 0.5 g/t was used, and the Mineral Resource was constrained down dip to 35–40 m below the deepest data point, and 25–50 m along strike (half the data spacing). The Mineral Resource was classified as an Inferred Mineral Resource on the basis of geological knowledge, spatial continuity of mineralization, data density, source data quality and the assessment of its reliability and grade interpolation parameters and is shown in Table 2.4.

Table 2.4 Mineral Resources for the Karaberd Project (1 May 2019)

Classification	Tonnage (kt)	Au grade (g/t)	Au contained (kg)	Au contained (koz)
Inferred Mineral Resources	1,580	5.4	8,490	270

Notes:

- Mineral Resources classification is based on the definitions provided in the CIM Definition Standards for Mineral Resources and Mineral Reserves.
- The Mineral Resource is based on a cut-off grade of 0.5 g/t.
- A bulk density value of 2.50 t/m^3 was used for all the blocks in the model.
- Discrepancies in columns and rows may be due to rounding.

The 2019 MRE was reviewed and restated by a Perth based independent consulting company in June 2020, in accordance with the JORC Code. The review and restatement of the 2019 MRE is provided in Table 2.5.

Table 2.5 MRE for the Karaberd Gold Project as of 20 May 2020 at a 0.8 g/t cut-off grade

Mineral Resource Classification Category	Tonnes (kt)	Bulk Density (t/m^3)	Au grade (g/t)	Ag Grade (g/t)	Au Content (koz)	Ag Content (koz)
Inferred	1,271.3	2.5	5.4	10.6	221	434

Notes:

- The Mineral Resource is classified according to JORC Code guidelines.
- The Mineral Resource is reported at a 0.8 g/t Au cut-off grade as of 20 May 2020.
- Mineral Resources are not Ore Reserves and do not have demonstrated economic viability.
- A bulk density value of 2.5 t/m^3 was used for the estimate of in situ tonnes.
- Discrepancies in calculations may be present due to rounding.
- kt refers to kilo-tonnes (i.e. one thousand tonnes).
- koz refers to kilo-ounces (i.e. one thousand troy ounces).

Some parts of the mineralized bodies were reclassified, reduced the total tonnage of the Inferred material, and reported above 0.8 g/t Au cut-off grade.

2.7.1.3 2021 estimate

Following drilling of eight infill and two verification holes, and some initial results of trial mining that affected the topography surface, the 2020 MRE was updated by an independent consulting company on 1 July 2021, in accordance with the JORC Code. The updated estimate is provided in Table 2.6.

Table 2.6 MRE for the Karaberd Gold Project as of 1 July 2021 at a 0.8 g/t cut-off grade

Mineral Resource Classification Category	Tonnes (kt)	Bulk density (t/m^3)	Au grade (g/t)	Ag grade (g/t)	Au content (koz)	Ag content (koz)
Inferred	1,290	2.5	5.4	11	225	450

Notes:

- The Mineral Resource is classified according to JORC Code guidelines
- The Mineral Resource is reported at a 0.8 g/t Au cut-off grade as of 1 July 2020
- Mineral Resources are not Ore Reserves and do not have demonstrated economic viability
- A bulk density value of 2.5 t/m^3 was used for the estimate of in situ tonnes
- Discrepancies in calculations may be present due to rounding
- kt refers to kilo-tonnes (i.e. one thousand tonnes)
- koz refers to kilo-ounces (i.e. one thousand troy ounces).

2.7.1.4 2022 estimate

Following drilling of four infill holes for 365 m of drilling and six sampled intervals drilled in the second half of 2021, the 2021 MRE was updated by an independent consulting company on 1 June 2022, in accordance with the JORC Code. The updated estimate is provided in Table 2.6.

Table 2.7 MRE for the Karaberd Gold Project as of 1 June 2022 at a 0.8 g/t cut-off grade

Mineral Resource Classification Category	Tonnes (kt)	Bulk density (t/m^3)	Au grade (g/t)	Ag grade (g/t)	Au content (koz)	Ag content (koz)
Inferred	1,260	2.5	5.3	10	214	426

Notes:
- The Mineral Resource estimate is classified according to JORC Code guidelines.
- The Mineral Resource estimate is reported at a 0.8 g/t Au cut-off grade as of 1 June 2022.
- Mineral Resources are not Ore Reserves and do not have demonstrated economic viability.
- A bulk density value of 2.5 t/m^3 was used for the estimate of in situ tonnes.
- Discrepancies in calculations may be present due to rounding.
- kt refers to kilo-tonnes (i.e. one thousand tonnes).
- koz refers to kilo-ounces (i.e. one thousand troy ounces).

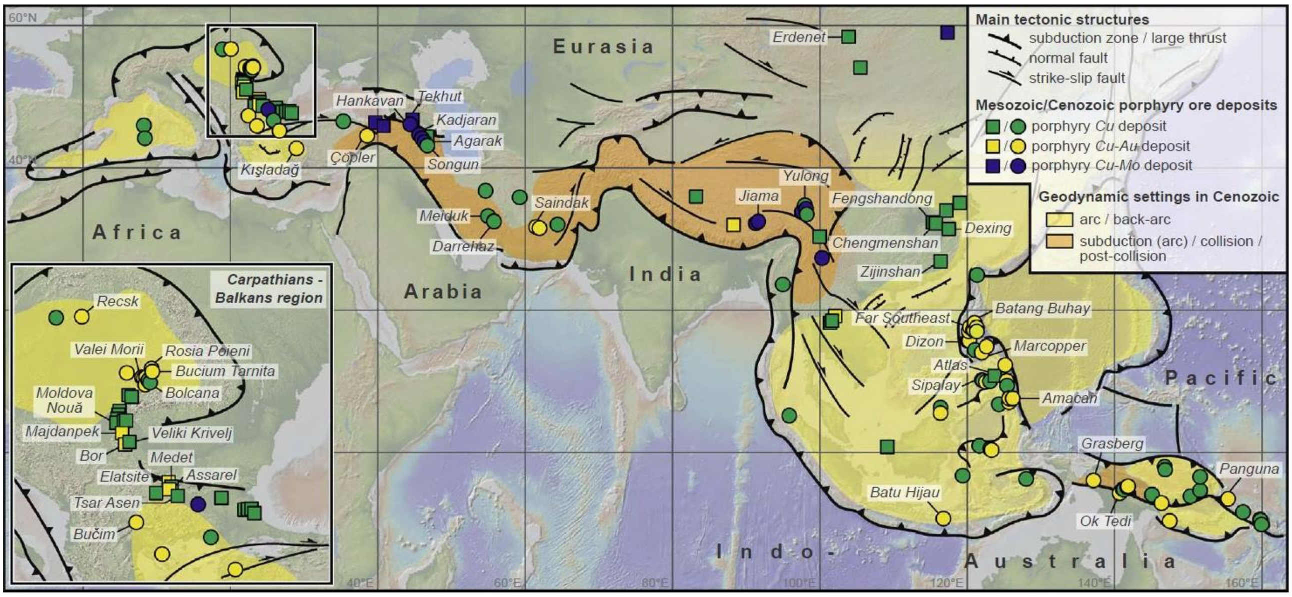
3 Geological setting and mineralization

3.1 Regional geology

The Karaberd deposit occurs within the Lesser Caucasian segment of the Tethyan orogenic belt which extends through 33 countries from Europe to eastern Asia and is a globally significant gold and base metals repository. Common mineralization types include porphyry, epithermal, volcanogenic massive sulfides (VMS) and skarn deposits (Minex, 2016).

The Tethyan belt stretches from the Alps in western Europe, through the Carpathians and Balkans, Taurides and Caucasus, Zagros, Makran and Himalayas and eastwards into "Indochina" and the southwest Pacific Ocean (Figure 3.1). It is considered to represent a complete Wilson Cycle, commencing with the opening and closure of the original Paleotethys Ocean (mid Palaeozoic to Late Triassic), opening of the Neotethys Ocean in the Permian-Early Triassic and its subsequent closure during the late Mesozoic and Cenozoic. All convergence styles are preserved in various parts of the belt, including active subduction, continental collision and syn- to post-collisional readjustment. The belt is globally unique in that it is the best preserved collisional orogen and provides, in some places, the opportunity to observe near real-time, or recent collisional events (Richards, 2015).

Figure 3.1 Simplified tectonic map of the Tethyan belt, showing tectonic setting and major porphyry deposits

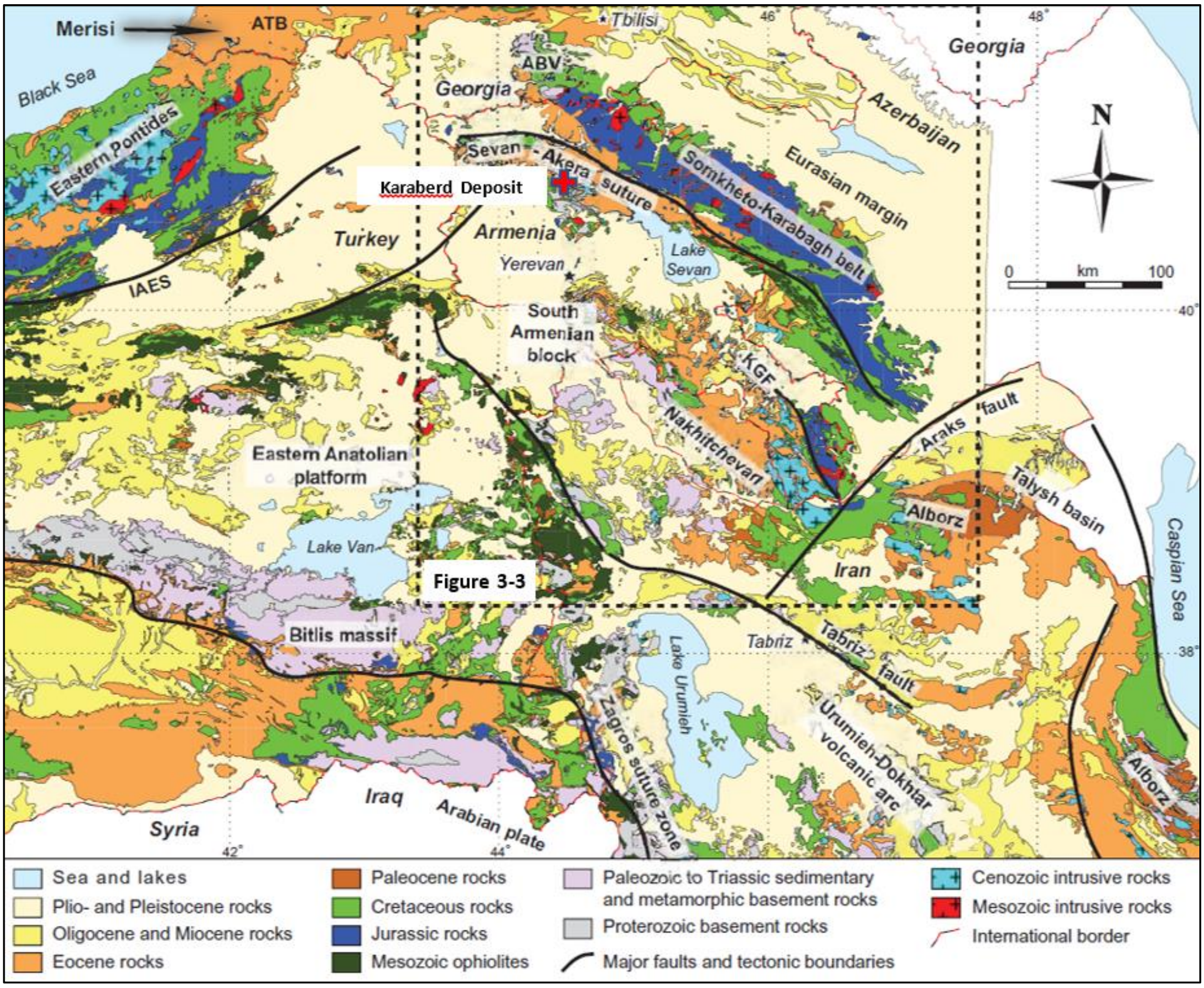


Source: MVI

The Lesser Caucasus region, in which the Karaberd deposit is located, stretches from the Black Sea to the Caspian Sea. The Lesser Caucasus was formed by the collision of Eurasia, several Gondwana-derived terranes and Arabia and it evolved from a Jurassic subduction-related magmatic arc to a post-collisional tectonic environment in the Neogene. This temporal geodynamic evolution resulted in episodic mineralization events associated with specific tectonic and magmatic events (Moritz et al., 2018), Figure 3.2.

The Karaberd deposit lies immediately to the south of the Sevan-Akera suture zone which represents the late Cretaceous collision between Eurasia and the South Armenia crustal block. The Karaberd region is located within the Sevano-Amasia fold zone in which Lower Cretaceous and Tertiary sediments are folded. This arcuate fold zone trends broadly east-west in the Project area, swinging to northwest-southeast further to the southeast, and is predominantly synformal in nature but is characterized by second order synclines and anticlines. Also preserved in this region, although partially obscured by younger cover sequences, are the Amasia ophiolites, which represent Jurassic-aged oceanic crust that was obducted over the South Armenian block during the collisional phase (Hassig et al., 2013). These rocks are all variably overlain by a sequence of Palaeocene to Oligocene sedimentary, volcanic and volcanoclastic rocks into which various intrusive rocks have been emplaced. These include porphyritic flows, tuffs and tuff breccias, tuffites, tuffaceous sandstones, limestones, andesites, rhyolites as well as by various intrusive rocks. The intrusive rocks comprise late Eocene gabbro and gabbroic-diorite, late Eocene to early Oligocene granodiorite and quartz diorite, late Eocene to early Oligocene granite and porphyritic granodiorite, and late Oligocene to early Miocene granite-syenite (Bagdasryan et al., 2009).

Figure 3.2 Regional geological map showing the configuration of the Tethyan belt between Turkey and the Caspian Sea



Source: MVI

The regional stratigraphy can be summarized as follows:

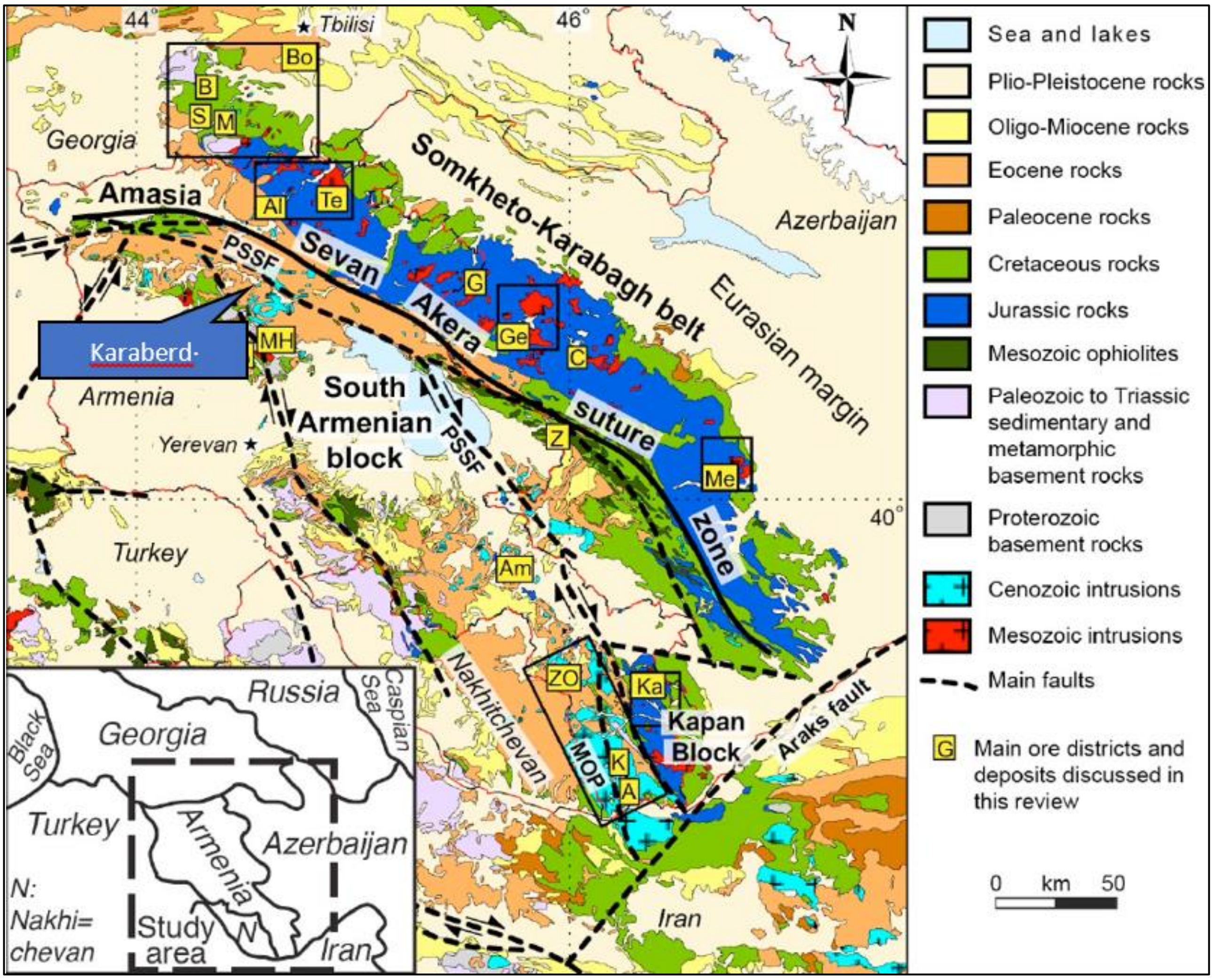
- Shirak Group (Middle Eocene) – Fine and medium-grained dark grey tuff sandstones, dark grey and greenish-grey tuffites, limestone, quartz porphyry and porphyrite, quartz tuff sandstone and felsite tuffs, individual sandstone layers. The Shirak Group locally includes nummulitic limestone of the Lower Eocene. It is overlain by the Bazum Group and it overlies Lower Eocene rocks and Upper Cretaceous carbonates, locally by transgressive onlap.
- Bazum Group (Middle Eocene) – Porphyritic flows, tuffaceous sandstones and breccias which conformably overlie the Shirak Group.
- Tsaghkounyats Group (Upper Miocene-Lower Pliocene) – Andesites, andesite-basalts, dacites, pumice-ash formations unconformably overlying the older lithologies.

A variety of intrusive rocks, ranging in age from late Eocene to early Oligocene, are present in the area. Compositionally these range from diorites to granites and syenogranites.

Recent alluvial-diluvial formations have a thickness of up to 5–10 m. The diluvium is composed of angular, poorly rounded, rubbly material with a sandy-clay cementing substance, and the alluvium is composed of pebbles and sandy-clay sediments of the Garpi and Pambak river valleys.

The Project is proximal to the regional scale, dextral Pambak-Sevan-Sunik Fault (PSSF) system (Figure 3.3), which generally parallels the Sevan-Akera suture. At over 400 km in length, the PSSF is Armenia’s longest active fault. The related Nakhitchevan fault is a dextral splay of the PSSF. The Karaberd deposit is located along a PSSF-related structure, the Maymet-Megrut fault, that strikes parallel to the PSSF and dips steeply northwards.

Figure 3.3 Regional geological map of Armenia and surrounds, showing major lithological units and regional structures



Source: MVI

Numerous mineral occurrences are associated with the multiple phases of tectonism and magmatism in the region. These include gold (Margaovit, Tandzut, Karaberd, Archut, Darpas, Zhdanov), copper (Vanadzor), base metals (Pambak, Vanadzor), manganese (Megrut), pyrite (Tandzut), and iron (Koshasar, Gedjalinsky, Margaovit).

Mineralization within the Lower Caucasus can generally be related to igneous intrusions, with porphyry, intrusion-related, epithermal, VMS and skarn-type mineralization styles common. Three main metallogenic "epochs" are noted within the Lesser Caucuses (Mederer et al., 2014):

- Middle Jurassic to Early Cretaceous: porphyry, skarn and epithermal deposits related to Late Jurassic to Early Cretaceous intrusive events
- Late Cretaceous VMS deposits which exhibit features transitional to epithermal deposits
- Cenozoic (Eocene to Miocene) world-class porphyry and epithermal deposits.

The Karaberd deposit falls into the last of these "epochs" (i.e. Eocene to Miocene epithermal deposits). Mineralization is associated with the abundant Eocene and post-Eocene magmatic rocks which were generated during the final subduction of the southern Neotethys ocean and the collision between Arabia and Eurasia (Moritz et al., 2017). The closest of the major deposit "ore-field" to the Karaberd Project is the Meghradzor-Hanqavan district, which occurs just south of the PSSF. The Meghradzor deposit lies about 25 km southeast of the Karaberd Project and is a low sulfidation epithermal deposit hosted by middle Eocene mafic to intermediate volcanics and volcanoclastics.

3.2 Local geology

The Karaberd deposit is located on the northwest-trending fold axis of the broad Bazum-Megrut-Lermonovskaya anticline. Regionally, the limbs dip to the northeast and southwest at 55–75° but majority of the Project area is characterized by southwest dips. The Project is underlain by Middle Eocene subvolcanic rhyolites, tuffites, tuffaceous sandstones, tuffaceous conglomerates, plagioclase porphyries and various hydrothermally altered rocks. The youngest unit exposed on the licence is the Bazum Group.

The central and north-eastern part of the fold structure is underlain by plagioclase porphyritic flows, tuffaceous sandstones and tuffaceous breccia. The porphyritic rocks have a grey, greenish-grey colour with clearly defined segregations of feldspar and dark-coloured minerals. The tuffites and tuffaceous sandstones are fine- and medium-grained grey and dark grey rocks. Tuffaceous sandstones and tuffaceous breccias are greenish-grey rocks with pebble-sized angular clasts of predominantly porphyritic origin. Middle Eocene andesitic formations constitute the southwestern part of the fold structure and dip at 55–80° to the southwest.

Hydrothermally altered rocks are widespread within the deposit area. Hydrothermal alteration is expressed by silicification, sericitisation and kaolinisation which is accompanied by strong shearing and crushing of rocks. Some areas demonstrate intense recrystallisation and associated silicification although locally the texture of the parent rock is preserved. These zones of silicification are resistant to weathering and form isolated ridges and pronounced country rock contacts.

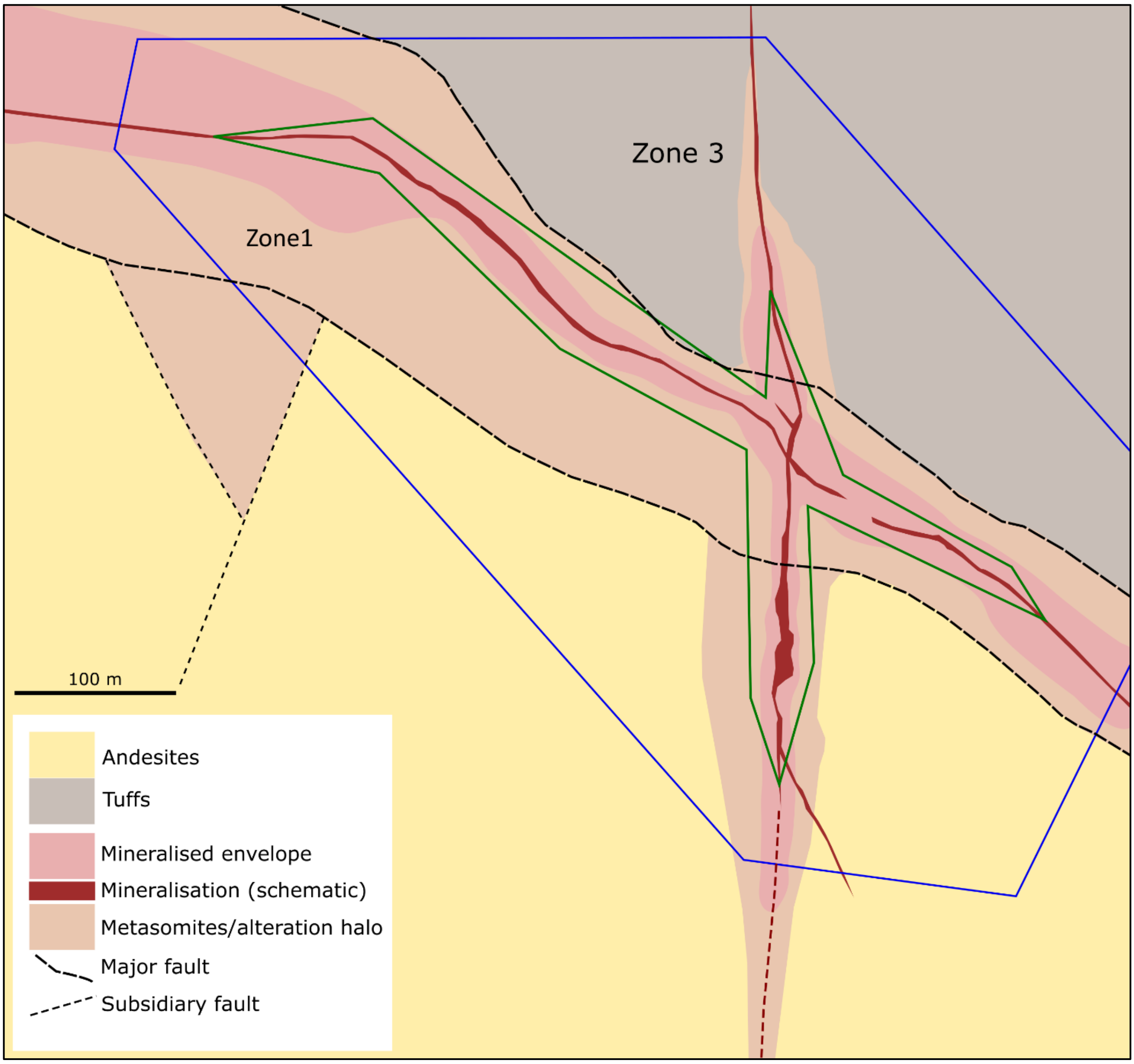
Locally, small-scale faulting (throws <100 m), associated with the dextral PSSF, is inferred from contact offsets and displays both extensional (normal) and compression (reverse) apparent geometries. These faults are considered to represent Riedel-style shears and associated flower structures that are secondary to the PSSF.

3.3 Mineralization styles

3.3.1 Mineralization at Karaberd

Two major mineralized structures, termed Zones 1 and 3, account for majority of the known gold mineralization at the Project. These structures intersect and may potentially be conjugate dilational structures (Figure 3.4).

Figure 3.4 Simplified geological map of the Karaberd deposit showing the main mineralized zones (north is to the top of the map)



Source: Modified after Assat mapping

Zone 1 strikes northwest-southeast and dips toward the southwest at 50–90°. The mineralization occurs in a 20–60 m wide fault zone comprising hydrothermally altered andesites, tuffs and porphyritic units and is associated with significant fault gouge development. Mineralization is hosted within quartz, quartz carbonate and quartz malachite veins and pods and gold and base metal oxide mineralization is non-uniformly distributed within this zone. Mineralized widths are typically in the range of 1–5 m. Zone 3 intersects Zone 1 and strikes north-south and is traceable on surface for approximately 650 m and ranges in width between 1 m and 10 m. Towards the south, the zone widens significantly and then appears to pinch out.

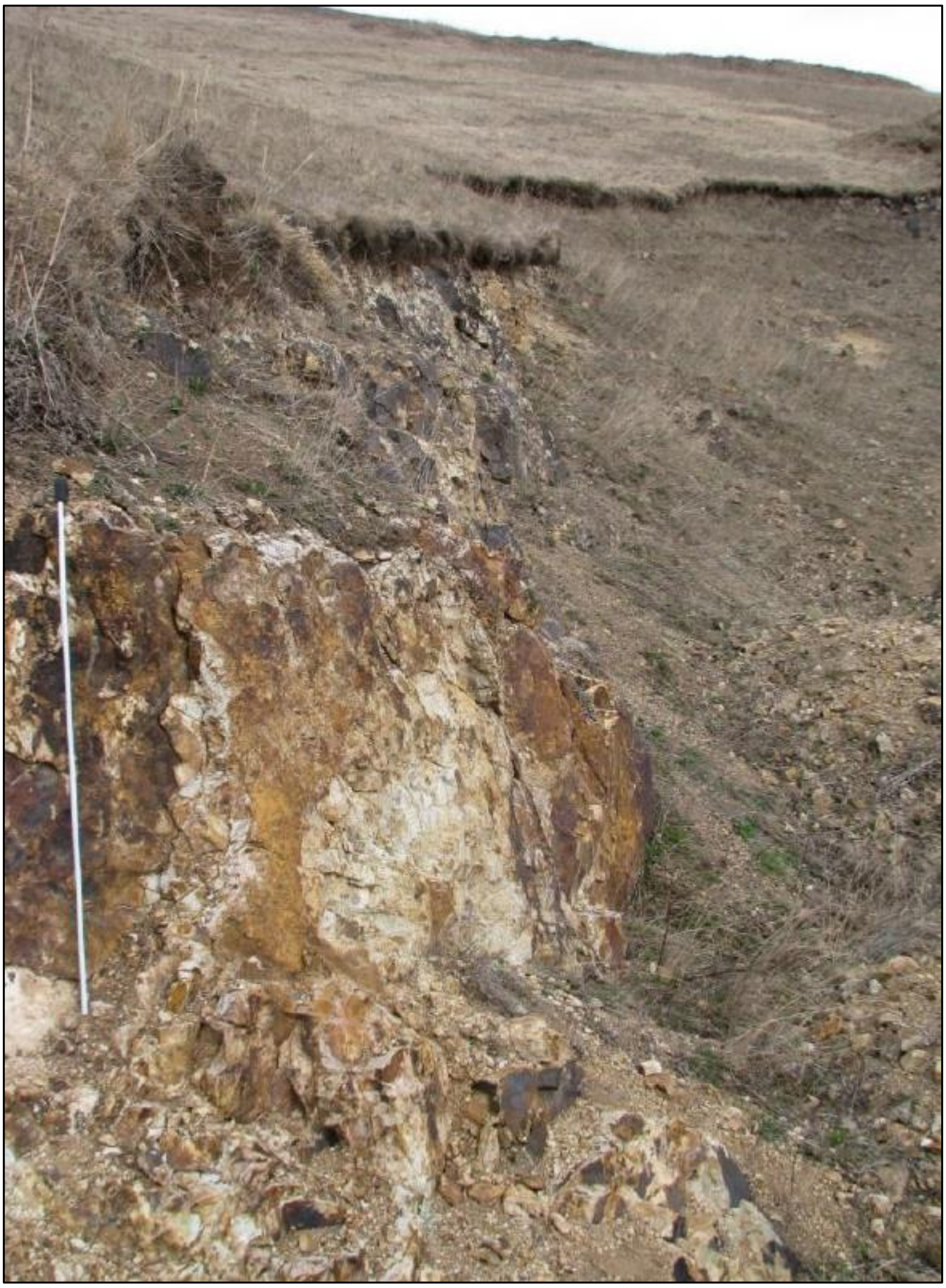
The predominant sulfide minerals include pyrite, chalcopyrite, galena, and sphalerite. Secondary copper minerals (malachite and azurite) are reported, as are sulfosalts and hessite (a silver telluride). Native gold is rare and has only been reported from mineralized intersections at depth. The sulfides are restricted to the carbonate-quartz gangue material in the mineralized zone. Oxidation is reported to extend to approximately 70 m and this was confirmed during the borehole inspection carried out by the Competent Person in March 2020.

Some photographic examples of typical mineralized zones at the Project are provided below (Figure 3.5 and Figure 3.6).

Figure 3.5 Zone 1 quartz-carbonate mineralized zone; 1 m tape for scale (centre)

Source: MVI

Figure 3.6 Zone 1 exposed in historical trench; 1 m tape for scale (left)

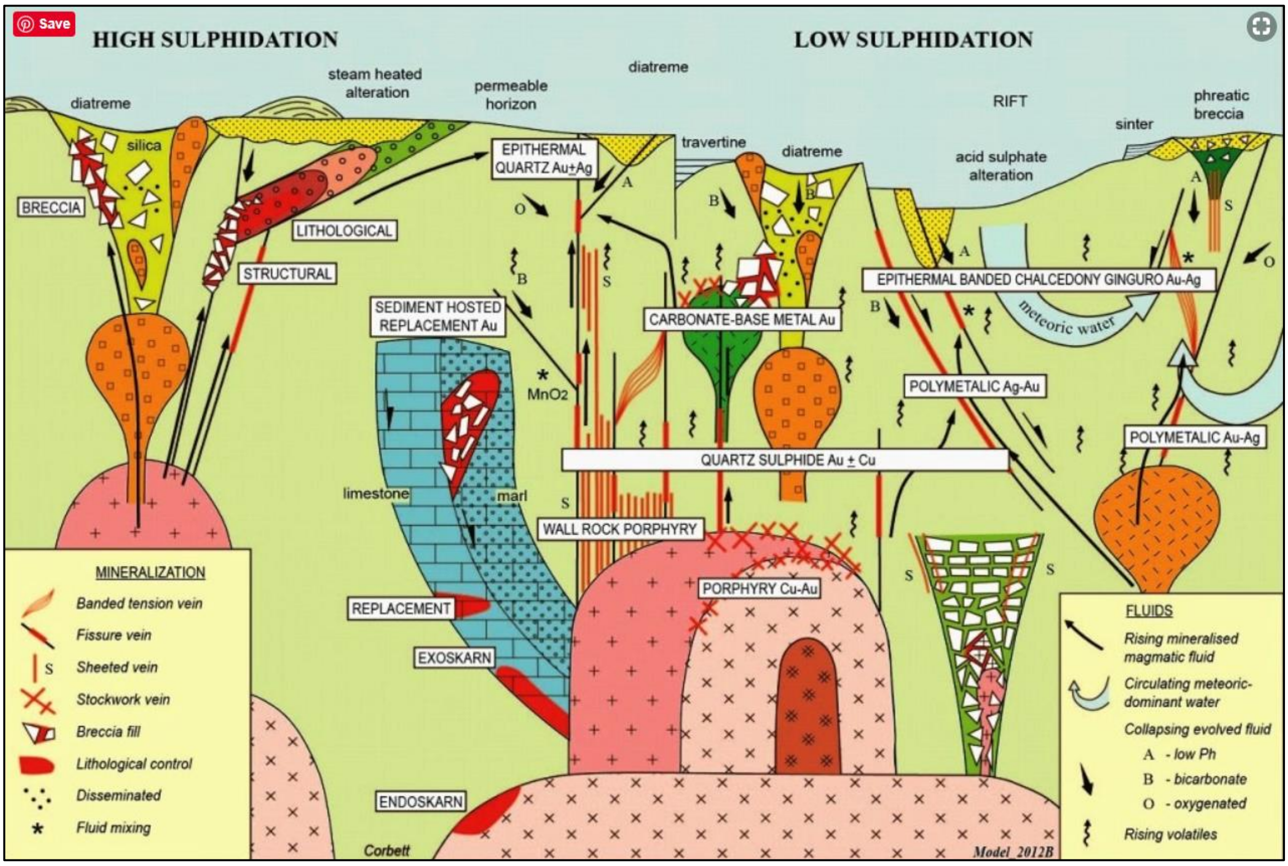


Source: MVI

3.3.2 Genetic model

AMC agrees with previous studies, that the deposit is an epithermal gold deposit characterized by intermediate sulfidation levels. Deposits of this type are now more commonly referred to as the carbonate base metal gold-silver subgroup of low sulfidation epithermal deposits and are characterized by gold and silver in association with pyrite, galena, sphalerite, chalcopyrite and occasionally tetrahedrite-tennantite. Mineralization usually occurs within a quartz-carbonate gangue and is associated with an extensional tectonic environment (late orogenic collapse) and felsic magmatic activity. Epithermal deposits form at shallower crustal levels than porphyry systems and are deposited as the result of the interaction of ore forming fluids with host rocks and groundwater. They are generally associated with underlying intrusive bodies. Carbonate base metal gold epithermal deposits are characterized by irregular gold grade, and structural control is implied, with extensional (dilational) structures allowing for vein extension and filling. Salient features are summarized in Figure 3.7.

Figure 3.7 Schematic overview of epithermal deposits



Source: MVI

The Karaberd deposit exhibits classic features aligned with the general epithermal deposit style, including:

- Intermediate to felsic intrusive rocks
- Mineralized zones comprising quartz, quartz-carbonate and quartz-malachite.
- Strong structural control on mineralization.
- Extensive alteration attesting to high fluid flows – manifest as silicification, sericitisation and kaolinisation of the rocks.
- The mineral paragenesis comprises pyrite, chalcopyrite, galena, sphalerite, sulfosalts, and native gold.

3.4 Prospectivity assessment by Competent Person

AMC considers the Karaberd prospect to be reasonably prospective for epithermal gold and silver mineralization. Base metal prospectivity is also considered high, although the limited size of the allotment and smaller size of the contained exploitation permit suggests there may be insufficient strike length for a base metals target of interest. A detailed structural study of the licence has not been undertaken, which may assist in further defining mineralization styles and potential high-grade trends.

4 Sampling techniques and data

This section addresses the requirements of JORC Code, Table 1, Section 1.

4.1 Data collection cut-off date

The Mineral Resource block model was prepared using the historical data, the 2020 verification exploration drilling, two infill holes drilled in the first half of 2021, four infill holes drilled in the second half of 2021, and 19 infill diamond holes drilled by the end of 2022. The data collection cut-off date is 1 December 2022.

4.2 Exploration

Exploration was carried out in four stages: prospecting and discovery, prospect evaluation, preliminary exploration, and detailed exploration. Exploration work was undertaken between 1969 and 2021. Any work carried out before 2003 is considered historical work.

4.2.1 Historical exploration

Between 1969 and 1971, the Geological Survey of Armenia undertook topographic and geological surveys at a 1:1,000 scale. This work included surface trenches and test pits across the mineralized body, spaced between 25 m and 70 m along strike. Two diamond drillholes were completed for a total depth of 515 m.

Prospect evaluation was undertaken between 1972 and 1974 by the Geological Survey of Armenia. Further surface excavations were completed and a total of 1,920 m of underground exploration workings were undertaken comprising four adits, drifts and crosscuts. Mine workings were across four levels: 1740 mRL, 1680–1700 mRL and 1610 mRL.

Preliminary exploration work was undertaken during 1993 and 2002 by Pambak Exploration. The data was poorly documented and has not been used to support the Mineral Resource.

4.2.2 Recent exploration

Between 2003 and 2008, Vallex Groups and Assat completed detailed exploration work over the area, including 22 diamond drillholes between 10 m and 68 m deep, further surface trenching, resampling of the underground workings and metallurgical testwork.

Further exploration was undertaken between 2008 and 2012 by Assat. A total of 26 holes were drilled and 17 trenches were excavated.

Verification drilling of eight holes in 2020 and drilling of two infill holes in the first half of 2021 and drilling of four infill holes in the second half of 2021 were completed by MVI. Surface channel and grab sampling in 2021 (543 assays) was not included into the model update due to the unknown nature of sampling techniques.

Additional exploration was completed by MVI is 2022, resulting in drilling of additional 19 diamond holes (172 assays for gold and silver) and development of 26 surface trenches with 147 channel samples analysed for gold and silver.

A summary of all exploration work is provided in Table 4.1.

Table 4.1 Summary of exploration work

Type of work	1972–1974	2003–2008	2008–2012	2020	2021 (Q1 & Q2)	2021 (Q3 & Q4)	2022
	Geological Survey of Armenia	**Vallex & Assat**	**Assat**	**MVI**	**MVI**	**MVI**	**MVI**
Mechanized trenching (m3)	4,904.40	2,150	–	–	–	–	–
Manual trenching (linear m)	2,924	1,020	–	–	–	–	–
Underground mine workings	595	–	–	–	–	–	–
Surface core drilling (holes/m)	4 holes for 1,203m	22 holes for 1,210m	26 holes for 2,985m	8 holes for 641m	2 holes for 55m	4 holes for 365m	19 holes for 2,402m
Channel sampling (channels)	1,500	995	51	–	–	543	147
Core sampling (samples)	63	145	116	110	45	6	166

4.3 Exploration techniques

The exploration techniques described below pertain to the pre-2020 exploration activities carried out by Vallex, and Vallex and Assat from 2003 to 2012. It is understood earlier exploration carried out by the Geological Survey of Armenia was carried out in a similar fashion although this has not been conclusively established.

4.3.1 Trenching and pitting

Surface trenching was undertaken by multiple operators, but very limited information regarding the trenching and sampling practices is available.

Trenches were 2 m deep and 0.8 m wide, test pits were up to 10 m deep with a cross section of 1.25 m.

In softer rocks, trenches and test pits were dug manually, in harder rocks they were excavated using small-scale drill and blast techniques.

4.3.2 Underground channels

Underground mine workings were driven towards the northwest to intersect mineralization. Levels were separated by 40 vertical metres in the southeast and 60 vertical metres in the northwest. Once mineralization was intersected, drifts and crosscuts were used to explore along the mineralized body.

Underground workings were manually excavated to an area of 5.1 m^2. Face advance along drifts was at between 8 m and 15 m along strike.

4.3.3 Diamond drilling

Information for drilling between 2007 and 2012 undertaken by Assat is provided below.

Surface drilling was performed using a SKB-4 drill rig. Core diameter ranged between 76 mm and 93 mm (assumed to be external diameter and to correlate with HQ and NQ core tubes). No drilling documentation was available for review.

4.4 Sampling techniques and recovery

4.4.1 Trenching

Samples were collected by chip sampling along the bottom surface of the trench. This was undertaken manually using chisels, wedges, and sledgehammers. Mineralized zones were sampled over their full width, along with unmineralized material at the margins.

4.4.2 Underground channel sampling

Underground channel sampling was performed on each face advance at a 1 m height from the floor. Channel sampling was undertaken manually using chisels, wedges, and sledgehammers. Mineralized zones were sampled over their full horizontal width, along with unmineralized material at the margins. The channel cross section was 0.1 m x 0.05 m, sample intervals were 1 m in length.

4.4.3 Diamond core (DD) drilling

Mineralized intervals were sampled as whole core. No information about how samples were collected or split at terminations were provided.

No information on recovery was provided, and due to whole-core sampling, recovery data cannot be collected retrospectively.

4.5 Logging

No information about the logging of surface trenches or underground channels was available. Geological logging of drillholes was undertaken and recorded on paper logs in Armenian. Systematic photography of the core before sampling was not undertaken, resulting in no visual record of the core or samples being available for review.

Some of the original hard copy logs are available; however, some have been lost.

4.6 Subsampling techniques and sample preparation

Subsampling and crushing of all samples were undertaken at a crushing and grinding facility onsite.

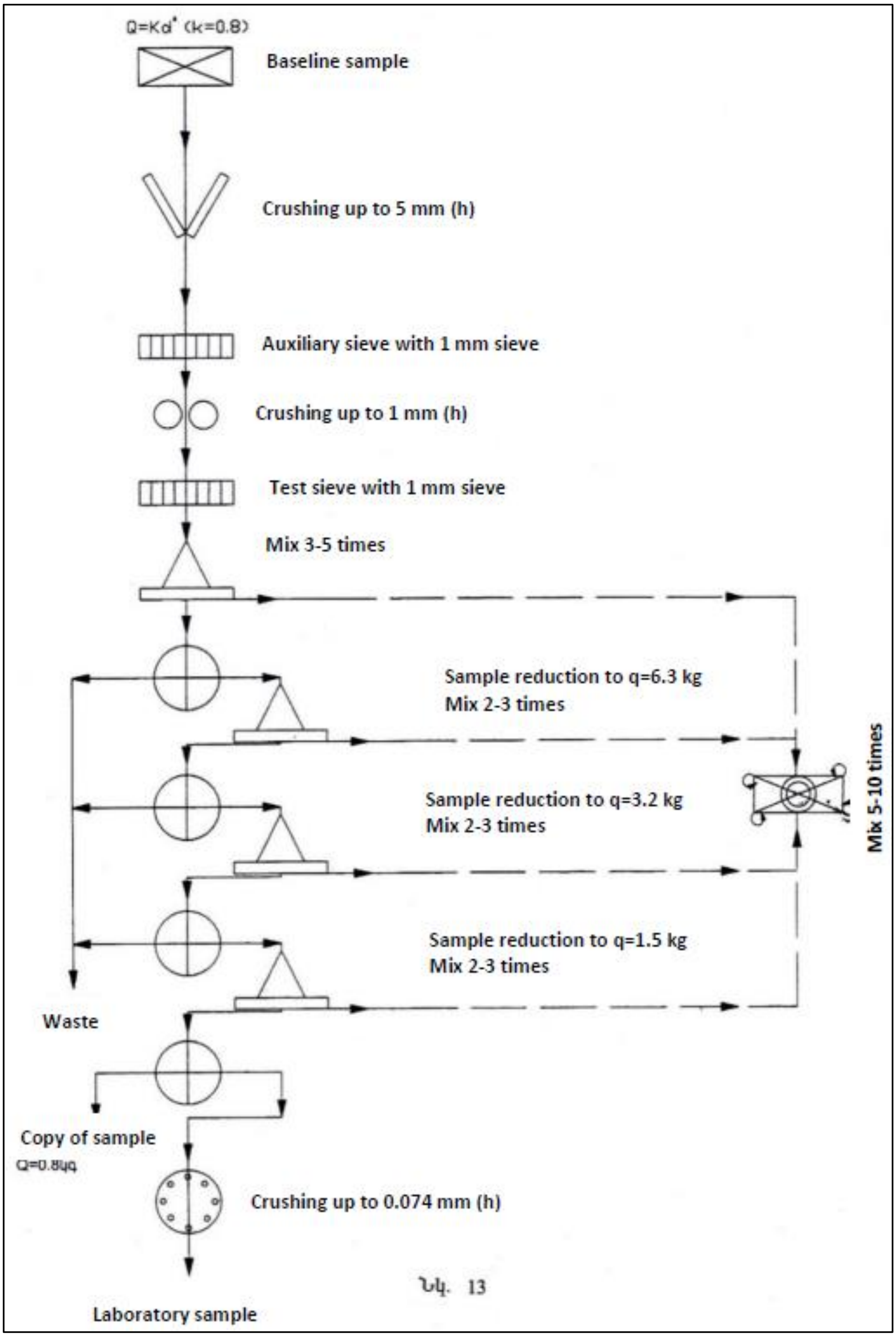
Samples were dried and weighed initially, with sample preparation being performed in a multistage cycle according to the Richards-Chechott formula, using a mineral irregularity coefficient of K=0.8. This resulted in a final particle size of 0.074 mm.

Sample preparation procedure is described below and in Figure 4.1:

- Crushed to 5 mm.
- Sieved to 1 mm.
- Crushed the +1 mm.
- Sieved again.
- Mixed 3–5 times.
- Sample reduction to 6.3 kg.
- Mixed 3–5 times.
- Sample reduced to 3.2 kg.
- Mixed 3–5 times.
- Reduced to 1.5 kg.
- Mixed 3–5 times, spilt into two samples (one retained as a duplicate).
- Crushed to pass 0.074 mm.
- Sent to the laboratory for assaying (750 g).

Samples were split at each sample reduction phase using a splitter; the make and model were not documented.

Figure 4.1 Sample preparation flowsheet



Source: Assat

4.7 Analytical methods

Analysis of samples collected during the preliminary state exploration campaign between 1993 and 2002 was by fire assay with atomic absorption (AA) finish at JSC Analytics. This data has not been used in the MRE.

Analysis of samples collected during detailed exploration by Assat between 2007 and 2022 were determined by 50 g fire assay with AA finish, performed by JSC Analytics and JSC Lernametallurgical Institute in Yerevan (Lernametallurgical Institute).

4.8 Verification sampling and assaying

Due to a lack of supporting information regarding the exploration undertaken onsite during 2007 and 2012, verification exploration work was carried out in 2020. Verification of trenches and drillholes was completed for the two larger mineralized bodies.

4.8.1 Twin trenching

Verification sampling in 10 trenches was completed in 2020. This was performed by excavating the previous trenches and determining the intersection of the mineralization.

Table 4.2 Coordinates of verification trenches (Pulkovo 1942 Coordinate system, Baltic elevation system)

Trench ID	X	Y	Z	Target zone*
Tr-1	8,459,225.42	4,522,159.36	1,755.42	3
Tr-2	8,459,240.14	4,522,175.19	1,758.34	3
Tr-3	8,459,266.28	4,522,143.49	1,735.68	3
Tr-4	8,459,305.36	4,522,114.17	1,725.80	3
Tr-5	8,459,334.55	4,522,082.68	1,722.65	3
Tr-6	8,459,370.08	4,522,050.18	1,722.10	3
Tr-8	8,459,481.46	4,522,056.38	1,738.85	4
Tr-10	8,459,493.47	4,522,016.71	1,732.80	4
Tr-9	8,459,495.20	4,521,855.35	1,749.75	4
Tr-7	8,459,392.18	4,522,043.27	1,720.30	3

Note: These zones refer to the nomenclature adopted by previous consultants for the resource estimation. Zone/Body 3 corresponds to geology Zone 1, Zone/Body 4 to geology Zone 3.

4.8.2 Twin drilling

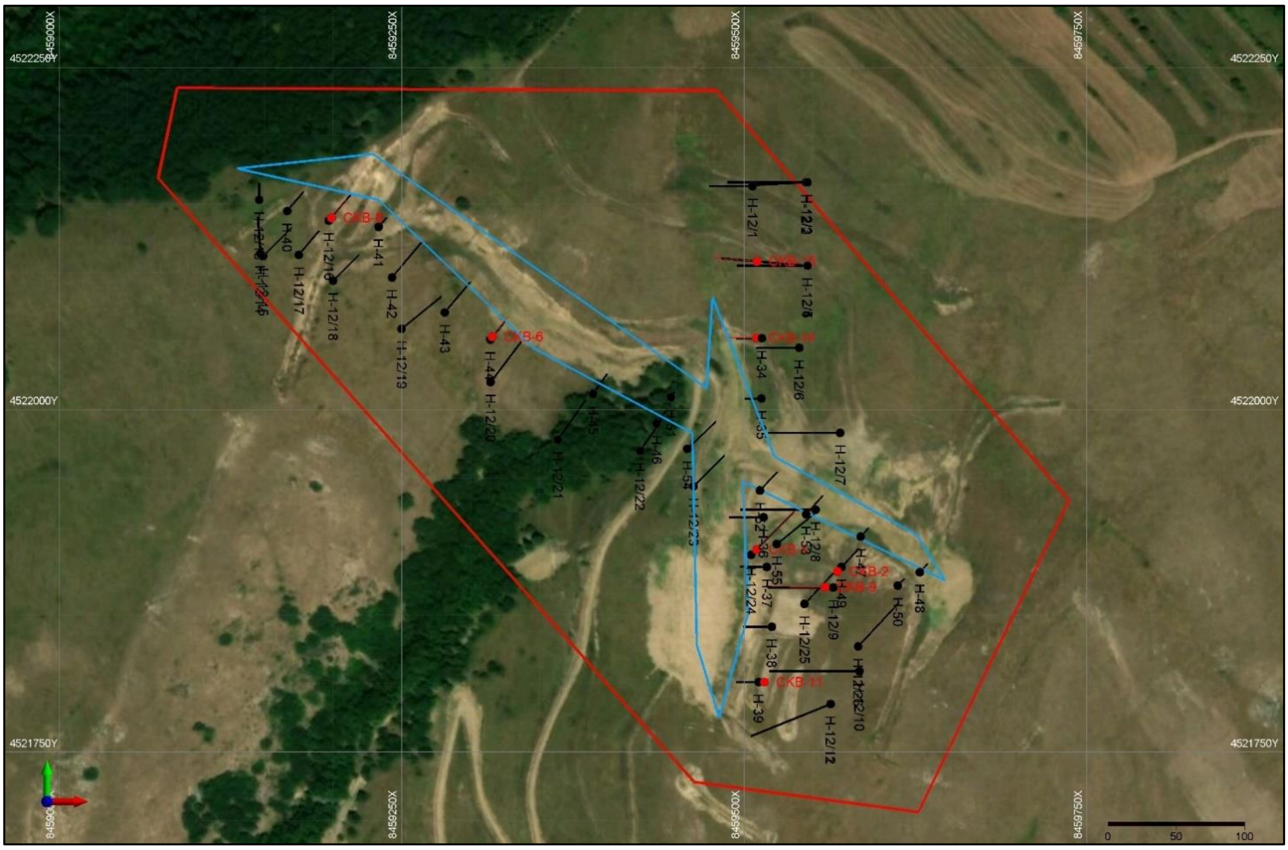
Eight verification drillholes were completed, located in close proximity to the existing mine workings and drillholes to verify the presence, thickness, grade and three-dimensional (3D) location of mineralized intervals (Figure 4.2).

Drillholes were oriented orthogonal to strike and drill depths were extended past the expected location of mineralization. Twin hole collars are provided in Table 4.3.

Table 4.3 Verification drilling (Pulkovo 1942 coordinate system, Baltic elevation system)

Hole ID	East	North	RL	Azimuth	Dip	Length
Hole_1	8,459,509	4,521,898	1,751	45	-70	128
Hole_2	8,459,568	4,521,882	1,764	43	-74	85
Hole_8	8,459,199	4,522,140	1,758	40	-73	57
Hole_6	8,459,316	4,522,053	1,714	39	-61	40
Hole_9	8,459,559	4,521,870	1,764	271	-69	141
Hole_11	8,459,515	4,521,801	1,754	270	-72	68
Hole_14	8,459,509	4,522,052	1,748	270	-70	59
Hole_15	8,459,509	4,522,108	1,765	275	-68	83

Figure 4.2 Plan view of original drilling and verification drilling



Note: Black traces represent original drilling and red traces the verification holes. The Exploitation Permit is shown by the blue polygon and the Allotment by the red polygon.

Drilling was performed by ATAD Drilling LLC using Atlas Copco CS-14 drill rigs, using HQ diameter core. Core orientation data was not collected. Drilling was supervised by a geologist, core was stored in clearly marked 40 cm x 60 cm core boxes, covered with lids.

Following drilling, the collars were cased and plugged. The collars were clearly marked and surveyed by a surveyor.

4.8.3 Sampling techniques and recovery

Drill core recovery was monitored by the supervising geologist and was determined using a continuous (linear) method for solid rock and gravimetric (weight) method for fractured rock.

Average continuous core recovery was 97%, ranging between 87% and 100% in the mineralized intervals. Drillers made use of drilling fluids and shortened drill runs to maximize core recovery in areas of broken ground.

4.8.4 Subsampling, sample preparation and analytical methods

Sampling was undertaken on mineralized rock, and the surrounding unmineralized host rock. Sample length was dictated by the thickness of the mineralized intersection, ranging between 0.3 m and 1.4 m, with an average of 1.0 m.

Core was cut along its axis using a diamond saw, following a cut line drawn by the geologist to ensure unbiased sampling. One half was sent for analysis, the other being stored as a duplicate at the core storage facility. Fines from the cutting process were divided, with half being used as the sample, the other half being retained with the core as a record.

The half core and fines selected for analysis were placed in a plastic sample bag and sent to the crushing facility.

All collected core was logged and photographed after sawing. The process included observations of:

- Rock type.
- Texture.
- Structural features.
- Hydrothermal and metasomatic alteration and its intensity.
- Vein disseminated mineralization.
- Number and composition of sulfides.
- Hypergene alteration.

Sample preparation was undertaken at the sample preparation facility at the Lernametallurgical Institute. The samples were split with one half undergoing assay, the other half being kept as a preparation duplicate. Samples were milled to 0.074 mm. Following the processing of each sample, the crushing and milling equipment was thoroughly cleaned by brush and pressurized air to minimize contamination between samples.

Analysis for gold and silver was undertaken by the Central Analytical and Assay Laboratory of the Lernametallurgical Institute. Analytical determinations were performed in compliance with GOST RF 32221-2013 copper concentrates. The method of analysis MKS 73.060.99. is effective as of 2015/01/01. The fire assay for gold and silver was performed in compliance with ISO 11426:2014 "determination of gold in jewellery alloys – Cupellation method (Fire Assay)". The laboratory procedures comply with international standard ISO/IEC 17025-2017 "general requirements for the competence of testing and calibration laboratories".

4.8.5 Quality Assurance and Quality Control

QA/QC activities included the following work:

- Measurement of core recovery during exploration.
- Internal lab analysis at the Central Analytical Laboratory of the Lernametallurgical Institute, with company inserted QA/QC samples, including:
  - Analytical duplicates.
  - Blanks.
  - Certified reference materials (CRMs).
- Secondary external laboratory analysis, at Alex Stewart international, Loughrea, County Galway, Ireland, with company inserted QA/QC samples, including:
  - Analytical duplicates.
  - Blanks.
  - CRMs.

Core recovery

Average core recovery for mineralized intervals was reportedly 97%, ranging between 87% and 100%. There was no direct relationship observed between core recovery and grade, gold is finely dispersed and associated with sulfides.

Quality control

The QA/QC is summarized here and discussed in more detail in Section 5.3.

- Laboratory sample preparation:
  - Sieve tests (crushing and pulverization)
  - Blanks (contamination).

- Internal samples – Client QC results:
  - Blanks (contamination)
  - Duplicates (precision)
  - CRM (accuracy).
- External samples – Client QC results:
  - Blanks (contamination)
  - Duplicates (precision)
  - CRM (accuracy).

4.8.6 Discussion of results of verification drilling and trenching work

4.8.6.1 Surface trenching

Of the ten trenches completed, results of six were supplied for AMC to review (Table 4.4).

Table 4.4 Verification trench results

Trench ID	Sample Number	Sample Length (m)	2008 Grade (Au g/t)	2008 Section Number	Interval Length (m)	2020 Grade (Au g/t)	Comparison of Length (%)	Comparison of Grade (%)
TR-3	T-3-19-1	1	0.74	1-4	2	3.2	0	-65
	T-3-19-2	1	0.79					
TR-4	T-4-19-1	2	1.85	1-9	2	4.1	0	122
TR-5	5-Jan	1.3	3.61	1-12	1.3	3.4	0	-6
TR-7	T-7-19-1	1.5	1.62	1-19	1.5	2.8	0	73
TR-8	8-Feb	1.2	6.68	3-1	1.2	6.7	0	0.3
TR-10	8-Jan	1.9	8.66	3-4	2	3.7	5	-57

The width of identified mineralization within the trenches in the original dataset and the 2020 verification dataset were similar with the exception of TR-10 where the 2020 verification trench identified mineralization that was 0.1 m wider than the original trench indicated.

The grades in the trenches were variable, with a general trend for the 2020 verification trench grades to be higher than those in the original trenches. Some variation in grade is to be expected when the style of mineralization and the nuggety nature of gold is considered.

4.8.6.2 Twin drilling

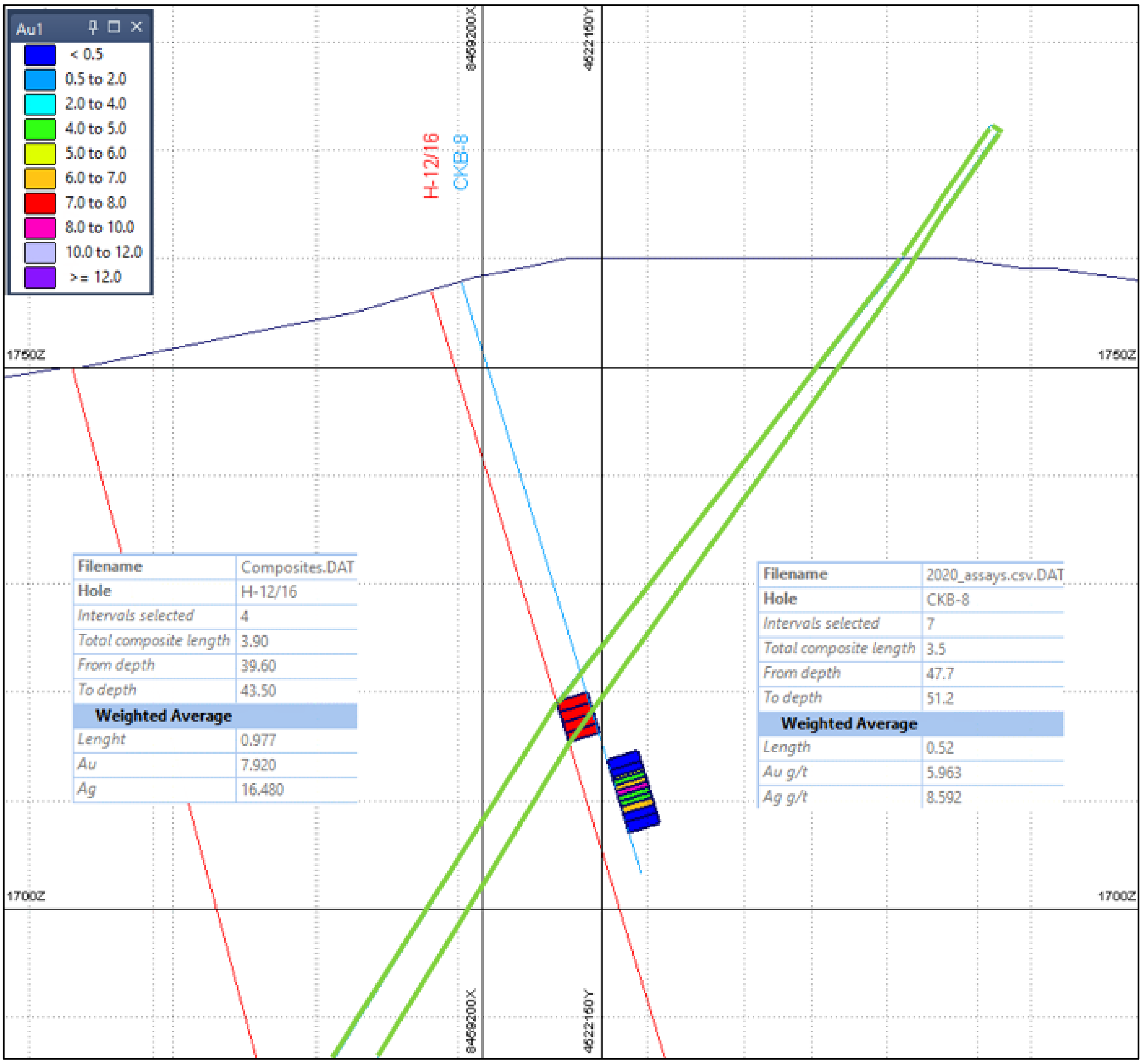
Results of the 2020 verification drilling and a comparison to the original drilling are presented in Table 4.5 with example cross sections, on which visual review has been based, provided in Figure 4.3 to Figure 4.6.

Table 4.5 Verification drilling results

2020 verification intersections				Historical drilling intersections				% Difference		
Drillhole	Length (m)	Au (g/t)	mg/t	Drillhole	Length (m)	Au (g/t)	mg/t	Length (m)	Au (g/t)	mg/t (%)
CKB-1	9.8	2.62	25.65	H-12/24	11	2.48	27.33	-11%	6%	-6
CKB-2	3.8	1.35	5.15	H-49	2.8	1.48	4.14	36%	-9%	24
CKB-6	1.5	2.24	3.36	H-44	1.4	1.3	1.82	7%	72%	85
CKB-8	3.5	5.96	20.87	H-12/16	3.9	7.92	30.89	-10%	-25%	-32
CKB-9	4	6.2	24.79	H-12/9	5.7	7.55	43.03	-30%	-18%	-42
CKB-11	4.8	6.63	31.83	H-39	4.4	6.95	30.58	9%	-5%	4
CKB-14	4.5	3.5	15.75	H-34	2.7	3.38	9.12	67%	4%	73
CKB-15	6	3.67	21.99	H-12/4	4.6	5.24	24.12	30%	-30%	-9
Average*	**4.7**	**3.58**	**18.67**	**Average***	**4.6**	**4.12**	**21.38**	**4%**	**-13%**	**-13**

*Average grade is length weighted

Figure 4.3 Cross-section comparison of H-12/16 and CKB-8 verification drillhole

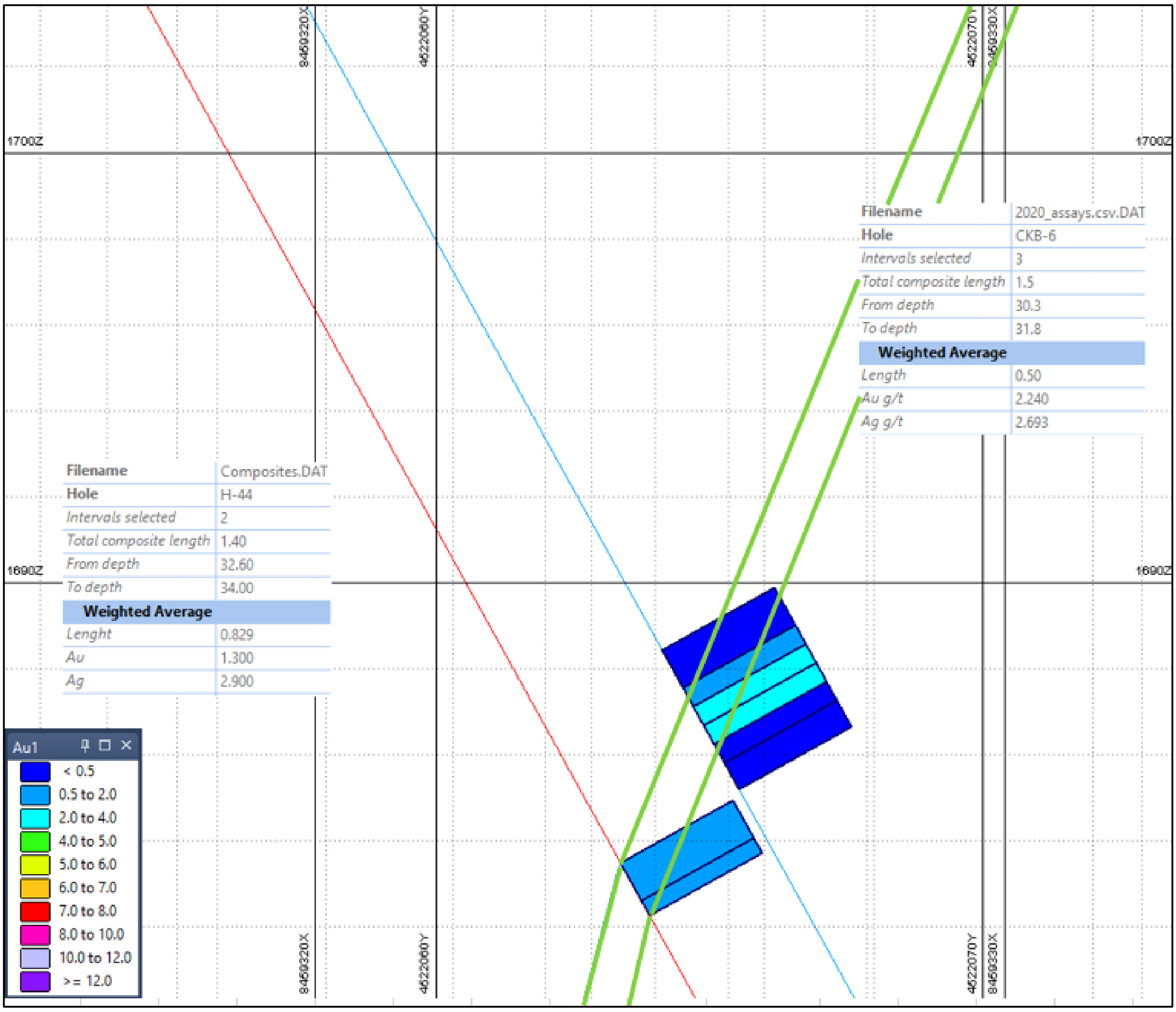


Filename	Composites.DAT
Hole	H-12/16
Intervals selected	4
Total composite length	3.90
From depth	39.60
To depth	43.50
Weighted Average	
Lenght	0.977
Au	7.920
Ag	16.480

Filename	2020_assays.csv.DAT
Hole	CKB-8
Intervals selected	7
Total composite length	3.5
From depth	47.7
To depth	51.2
Weighted Average	
Length	0.52
Au g/t	5.963
Ag g/t	8.592

Note: Drillholes coloured by Au g/t; green line indicates mineralized wireframe in 2D, Source: MVI

Figure 4.4 Cross-section comparison of H-44 (red trace) and CKB-6 verification drillhole (blue trace)

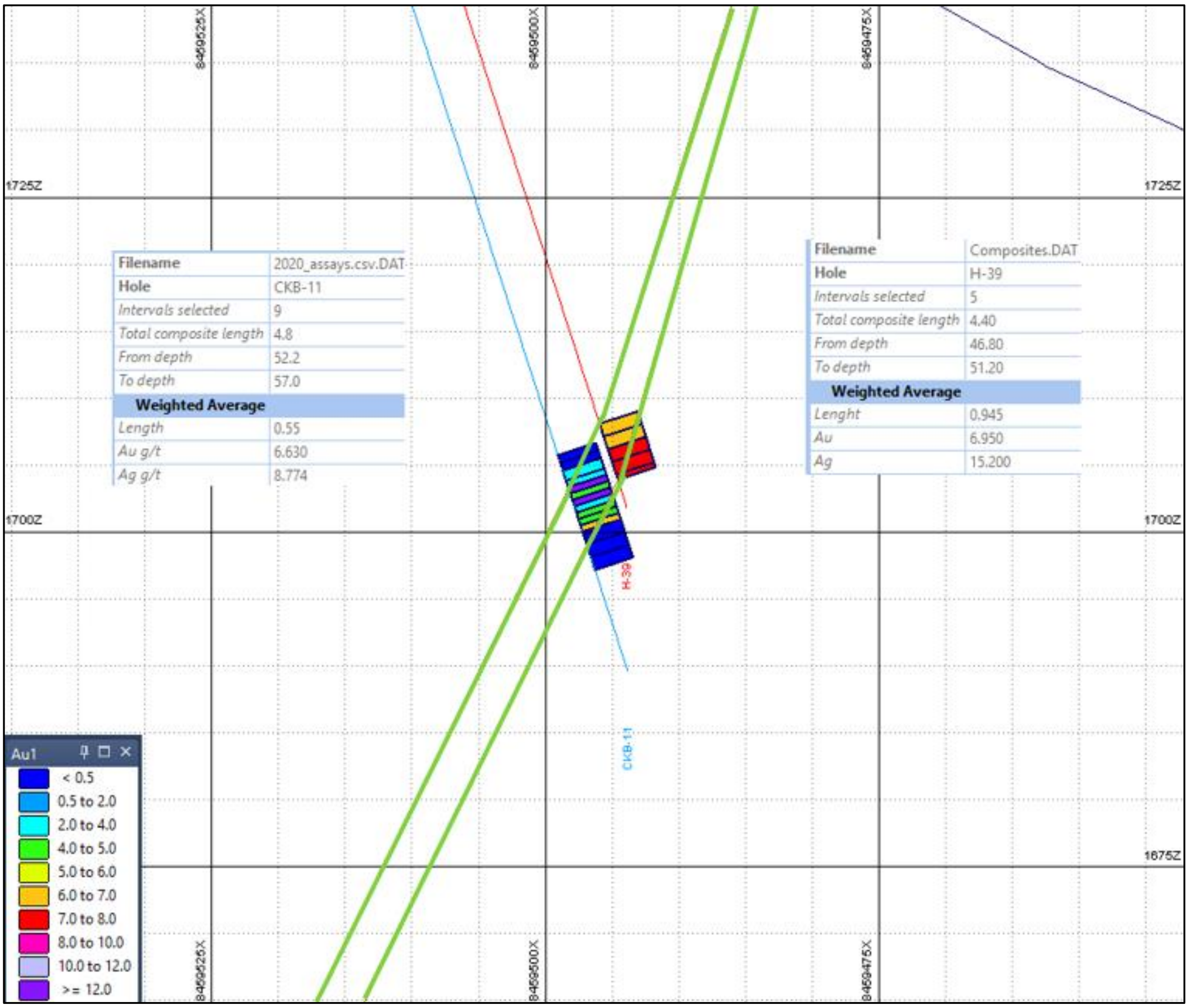


Filename	2020_assays.csv.DAT
Hole	CKB-6
Intervals selected	3
Total composite length	1.5
From depth	30.3
To depth	31.8
Weighted Average	
Length	0.50
Au g/t	2.240
Ag g/t	2.693

Filename	Composites.DAT
Hole	H-44
Intervals selected	2
Total composite length	1.40
From depth	32.60
To depth	34.00
Weighted Average	
Lenght	0.829
Au	1.300
Ag	2.900

Note: Drillholes coloured by Au g/t; green line indicates mineralized wireframe in 2D, Source: MVI

Figure 4.5 Cross-section comparison of H-39 and CKB-11 verification drillhole

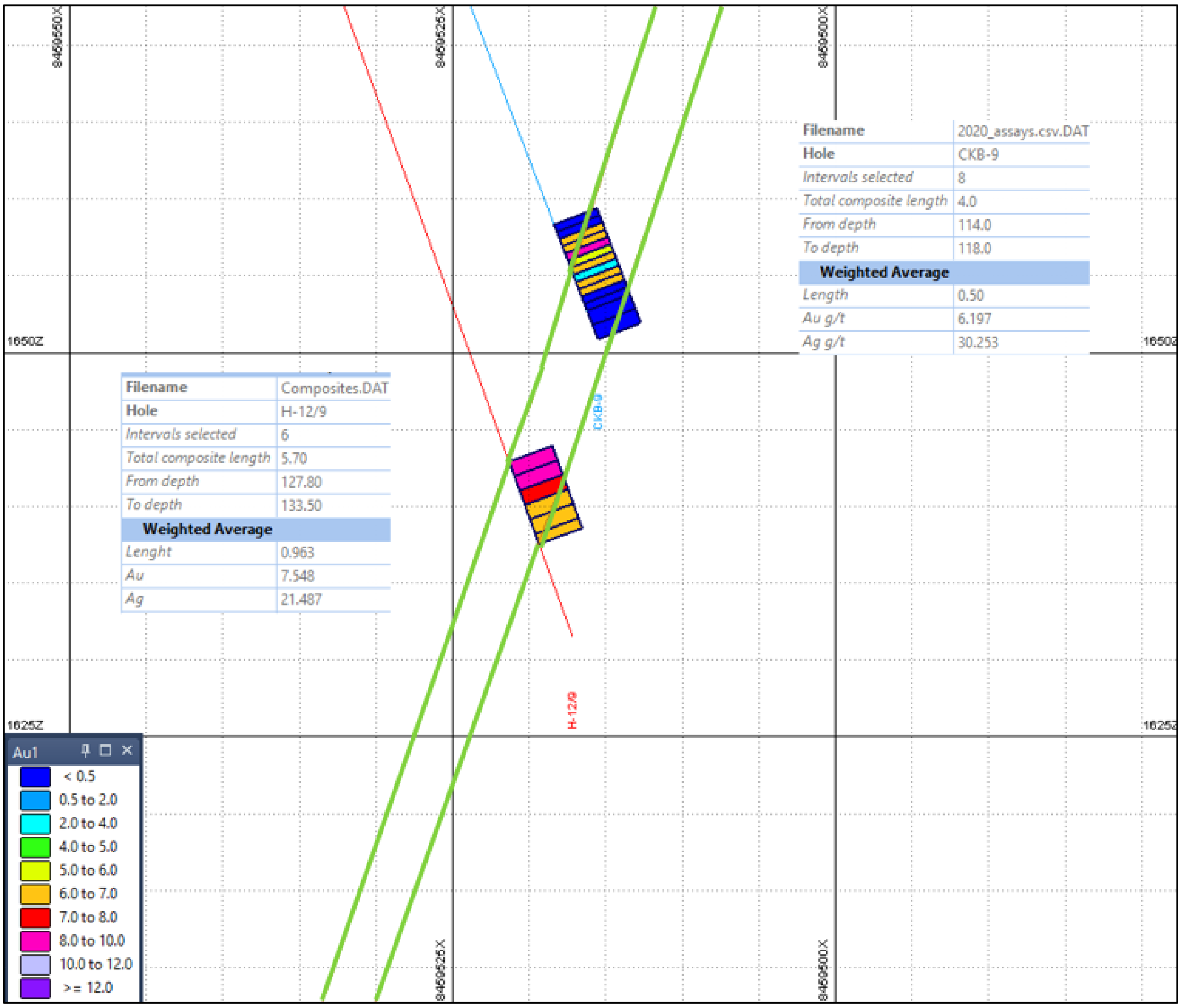


Filename	2020_assays.csv.DAT
Hole	CKB-11
Intervals selected	9
Total composite length	4.8
From depth	52.2
To depth	57.0
Weighted Average	
Length	0.55
Au g/t	6.630
Ag g/t	8.774

Filename	Composites.DAT
Hole	H-39
Intervals selected	5
Total composite length	4.40
From depth	46.80
To depth	51.20
Weighted Average	
Lenght	0.945
Au	6.950
Ag	15.200

Notes: Drillholes coloured by Au g/t; green line indicates mineralized wireframe in 2D, Source: MVI

Figure 4.6 Cross-section comparison of H-12/9 and CKB-9 verification drillhole



Filename	2020_assays.csv.DAT
Hole	CKB-9
Intervals selected	8
Total composite length	4.0
From depth	114.0
To depth	118.0
Weighted Average	
Length	0.50
Au g/t	6.197
Ag g/t	30.253

Filename	Composites.DAT
Hole	H-12/9
Intervals selected	6
Total composite length	5.70
From depth	127.80
To depth	133.50
Weighted Average	
Lenght	0.963
Au	7.548
Ag	21.487

Notes: Drillholes coloured by Au g/t; green line indicates mineralized wireframe in 2D, Source: MVI

The two-dimensional (2D) sectional review of intersections shows that all but one of the 2020 verification drill intersections are within 2 m of the original intersections. The 2020 verification drilling fits within the geological wireframes that support the MRE. Intersections in holes H-12/16 and CKB-8 identified mineralization 6.5 m away from each other; this may be due to a collar survey issue or due a lack of downhole survey information from the earlier drilling programmes.

Both grade and intersection length downhole varied between the original and 2020 verification data. Intersection length was generally higher in the 2020 verification drilling; this is in part caused by analysis being limited to mineralization in the original dataset, missing some lower grade mineralized selvages identified in the 2020 verification drilling. The 2020 verification drilling used smaller sample intervals, which gave better edge resolution of the mineralization.

Short-scale grade variability is expected in a gold deposit due to the relatively high nugget effect. The effects of different sample intervals, sample sizes and sample preparation procedures must also be considered. Overall, there is a decrease in grade observed in the 2020 verification results of approximately 16%. Whist a drop in grade is observed, it is considered within expected reporting tolerances for Inferred Mineral Resources.

The general grade tenor, interval length and 3D location of mineralization in the 2020 verification drilling supports the original drilling.

4.9 AMC opinion of the verification sampling

AMC’s summary opinion is:

- The verification work has been completed to industry standards, with appropriate survey control and documentation for both trenches and drillholes.
- Sample preparation appears to be streamlined. Sample preparation should be considered with reference to the mineralization style and gold particle size with pulverizing the entire sample to 75 micron.
- Analysis was undertaken at accredited national and international laboratories and supported by a suitable QA/QC programme.
- Validation trench results verified the original trench data. Trenches were well spaced along strike on the two main orebodies and indicated that mineralized widths and grades were reproducible, with some variation between grade expected when the style of mineralization is considered.
- Only results from six of the 10 verification trenches completed in 2020 were provided. AMC cannot comment on the results of the remaining four trenches or why they were omitted from the results.
- Verification drilling confirms the presence of mineralization and supports the mineralized downhole thicknesses and 3D location. A decrease in grade is observed in the 2020 verification drilling when compared to the original drilling. It is problematic to make a reasonable comparison of grade when sample intervals, sample sizes and the inherent short-scale grade variability of gold mineralization is considered.
- As exploration progresses, AMC recommends the verification drilling is used in preference to the original drilling, and that any future drilling is performed to industry standards and is well documented.
- The 2021 and 2022 holes intersected mineralized bodies, with average thickness and grades confirming historical results.

Whist these items should be considered and investigated in any future work; AMC does not consider it likely that these would have a material impact on the Inferred Mineral Resource. As such, AMC is of the opinion that the verification drilling provides a suitable level of confidence in the pre-2020 drilling and trenching data which has been used to support the estimate.

4.10 Location of data points

No information about the surveying of data points for topography, trench location, collar location or underground sample location was available. Downhole surveying of drillholes from the pre-2020 programmes, as well as for the recent holes drilled in 2021 was not undertaken.

Verification work, including trench start points and drillhole collars were surveyed by ATAD Drilling LLC using a Leica TPS 1200+ system and Leica TCR tacheometer.

It was reported by MVI, that directional downhole surveys were completed for all verification holes (the 2020, 2021, and 2022 programmes) using a MIR-36 survey tool at 10 m (holes 2, 6, 8, 14a and 15) or 20 m (hole 1 and 9) intervals. However, the provided database for all holes drilled before 2022 had only straight downhole traces without any measured deviations. All holes drilled in 2022 were supported by downhole measurements.

Control measurements amounted to 15%, with measurement error in azimuth not exceeding ±0.2°. The tool was calibrated and set at the Laboratory of the National Institute of Standards, Ministry of Economy of the Republic of Armenia in October 2019.

4.11 Data spacing and distribution

Holes are spaced at nominal 50 m spacings on sections, perpendicular to the strike of the mineralization.

Trench samples are spaced at regular 2.5 m intervals along the surface strike extent for the two main mineralized bodies, extending to 25 m and then 50 m spacing at the peripheries of the deposit.

4.12 Orientation in relation to geological structures

The Karaberd deposit was drilled in two main directions (044° and 270°) and at dips ranging from 51° to 84° to intersect the mineralized zones as close to perpendicular as possible.

4.13 Sample and data security

The core receiver consisted of two halves and the core was removed after the opening of the core receiver lock and then inserted into the core boxes. The length of the core receiver was 1.5 m. Core was stored in plastic trays with 4 m or 5 m of core in each tray. All trays with core were then transported to the core storage facility of the enterprise in Vanadzor, where core was logged and sampled by a leading geologist. After sampling, core boxes with remaining unsampled core or second halves of core were transported to the core shed and stored. All samples were transported to Yerevan for assaying.

4.14 Audits and reviews

The results of the previous work on Mineral resource estimation and technical reports prepared by others prior to AMC's preparation of this CPR were reviewed by AMC, and used as a basis for this report where it was possible.

4.15 Site and laboratory inspections

Details of the site visit undertaken by the Competent Person are presented in Section 1.8.3.

4.16 AMC's opinion on sampling techniques and data

AMC's summary opinion is:

- Insufficient documentation was provided regarding early exploration, although majority of these data were superseded by more recent exploration.
- The MRE is based upon diamond drillhole data only. All surface trench and underground channel data that were collected between 2003 and 2022 were excluded from the MRE and used only to assist with interpretation of mineralized bodies. That was decided due to substantial gaps in the supporting information regarding data quality collected for the channel samples and QA/QC data for channels. There is also a concern that channel sampling could be biased if samples are collected manually using hammer and chisel instead of a diamond saw. Most of the supporting information for channel sampling is anecdotal at best, some has been lost, and some was not available for review. As a result, the confidence in this data is low and makes it unsuitable to support a MRE without subsequent verification work being performed. Thus, AMC decided that all channel sampling results from all surface trenches and all underground workings from all exploration stages, including 2022, can be used for interpretation of mineralized bodies, but the analytical results are excluded from grade interpolation process due to the lack of QA/QC procedures and poorer confidence in the channel sampling methodology, that could potentially result in biased analytical results.
- Verification sampling in 2020 and infill drilling in 2021 were undertaken to industry standards and are well-documented, they verify the presence of mineralization, its 3D location, thickness, and grade tenor. This information was included in the current MRE update.
- Verification collars were compared to the topography supplied, to test its accuracy. Verification collars were within 0.4 m of the topographic surface, indicating a reasonable confidence in the topography provided.

- The most recent drilling programme, which was completed in 2022 in line with international standards, allows increase in MRE confidence with reclassifying of the central parts of the main mineralized bodies to Indicated Mineral Resource according to the JORC Code.

Whilst these items should be considered and investigated in any future work, AMC does not consider it likely that these would have a material impact on the Indicated and Inferred Mineral Resource.

5 Quality assurance and quality control

5.1 Summary of procedures

No QA/QC data or procedures were available to review. The previous technical reports were reviewed, but information was limited and therefore no conclusions regarding QA/QC results could be made.

5.2 Original drilling QA/QC

5.2.1 Quality control results

No quality control data were available, and the following was summarized from the previous technical reports and relates to QA/QC in the 2007–2008 exploration work:

- No information regarding blanks was included and therefore there was no control on cross contamination.
- No information regarding CRM was included and there is therefore no control on assay bias.
- No information regarding field, preparation or laboratory duplicates was included.
- Internal (n=134) and external (n=96) samples were analysed for gold and silver and results of the internal duplicate analysis appear to indicate acceptable precision (within GKZ limits) with a slight bias to the duplicate results. External duplicate results were not reported, and no CRM information was available for the internal or external samples.

The following relates to QA/QC in the 2012 exploration programme:

- The only quality control was external duplicate analysis (gold and silver) which appear to indicate acceptable precision. No information about CRM or blanks included with the external checks was provided.

5.3 Verification and infill drilling QA/QC

5.3.1 Introduction

Blanks, CRM and duplicates were included with both the internal and external laboratory samples and sieve tests were performed on the internal samples. Due to a lack of provided data, an independent analysis of results by AMC was not possible and the following is summarized from previous work by other independent consultants. Results were available for gold only for the programme before 2022 and for both gold and silver for the 2022 programme.

5.3.2 Internal samples – laboratory quality control results

Sieve Tests (Crushing and Pulverization)

Crushed and pulp samples were sieved with 95% used as a pass rate (i.e. 95% of the sample passing through the sieve). No failures were noted.

Blanks (Contamination)

Preparation blanks were included (5% of the sample population) and passed if assay results did not exceed the lower detection limit. No failures were noted.

5.3.3 Internal samples – client quality control results

Blanks (Contamination)

Preparation blanks were included (8% of the sample population for the 2020 and 2021 programmes) and passed if assay results did not exceed the lower detection limit. No failures were noted.

25 blank quartz sand samples were inserted as part of the field duplicate programme in 2022 (15% of the sample population).

One sample returned gold grade of 0.02 g/t Au, and all other samples were equal or less than the detection limit. Two samples returned silver grades of 0.2 g/t Au, and all the rest had values close to the detection limit.

The results indicated that there was no contamination in the sample preparation laboratory.

Duplicates (Precision)

Analytical duplicates (8% of the samples) were analysed, and precision determined. It is unclear as to what type of duplicates were analysed, but precision appears to be acceptable.

Certified Reference Material (Accuracy)

Analytical duplicates (8% of the samples) were analysed in 2020 and 2021, and precision determined. It is unclear as to what type of duplicates were analysed, but precision appears to be acceptable.

Sampling precision was checked by MVI in the 2022 exploration programme by submitting field duplicates from core samples to the main laboratory. The data provided to AMC for field duplicate assays included 14 repeat assays for gold and silver, which is 8.1% of the analytical database for the 2022 exploration programme (total of 172 core samples).

The scattergrams for core field duplicates for gold demonstrated that the repeatability of analyses was within 4.3% precision and a 0.99 coefficient of correlation with no outliers. Results of the field duplicates are shown in Figure 5.1. The average grade for the original core samples was 6.83 g/t Au, and for repeat samples it was 6.81 g/t Au, which is 0.3% lower on a relative basis.

Figure 5.1 Field duplicates for gold (2022)

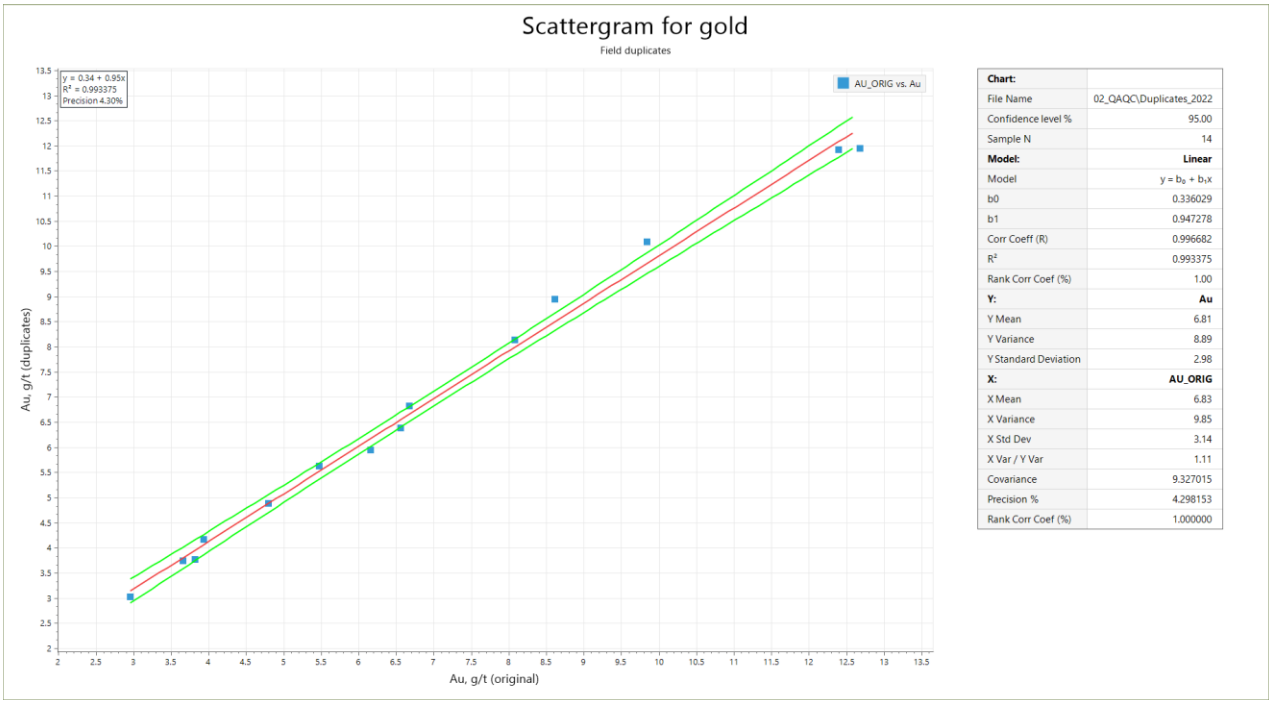


Chart:	
File Name	02_QAQC\Duplicates_2022
Confidence level %	95.00
Sample N	14
Model:	**Linear**
Model	$y = b_0 + b_1x$
b0	0.336029
b1	0.947278
Corr Coeff (R)	0.996682
R^2	0.993375
Rank Corr Coef (%)	1.00
Y:	**Au**
Y Mean	6.81
Y Variance	8.89
Y Standard Deviation	2.98
X:	**AU_ORIG**
X Mean	6.83
X Variance	9.85
X Std Dev	3.14
X Var / Y Var	1.11
Covariance	9.327015
Precision %	4.298153
Rank Corr Coef (%)	1.000000

The scattergrams for core field duplicates for silver demonstrated that the repeatability of analyses was within 17.7% precision and a 0.96 coefficient of correlation one outlier. Results of the field duplicates are shown in Figure 5.2. The average grade for the original core samples was 16.17 g/t Ag, and for repeat samples it was 16.45 g/t Ag, which is 1.7% higher on a relative basis.

Figure 5.2 Field duplicates for silver (2022)

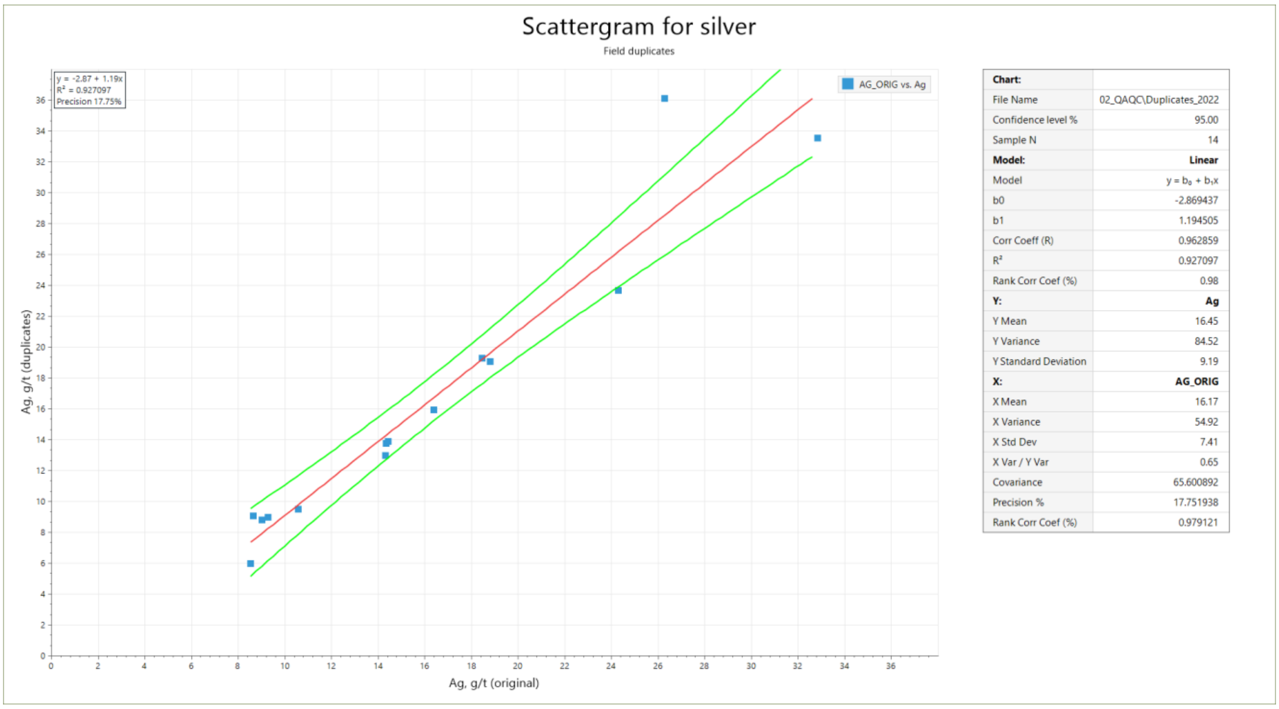


Chart:	
File Name	02_QAQC\Duplicates_2022
Confidence level %	95.00
Sample N	14
Model:	**Linear**
Model	$y = b_0 + b_1x$
b0	-2.869437
b1	1.194505
Corr Coeff (R)	0.962859
R^2	0.927097
Rank Corr Coef (%)	0.98
Y:	**Ag**
Y Mean	16.45
Y Variance	84.52
Y Standard Deviation	9.19
X:	**AG_ORIG**
X Mean	16.17
X Variance	54.92
X Std Dev	7.41
X Var / Y Var	0.65
Covariance	65.600892
Precision %	17.751938
Rank Corr Coef (%)	0.979121

AMC concludes that the control of the sample preparation laboratory using field duplicates returned acceptable results.

Certified reference material (accuracy)

Three types of reference material were obtained from Ore Research and Exploration in Australia and included with the primary samples (5% of samples). Bias was reported in 2020 and 2021 exploration programmes as low (< 0.5%) and therefore results should be accurate.

MVI inserted two commercial CRMs to the main laboratory sourced from Ore Research & Exploration Pty Ltd (OREAS) in 2022.

The analytical database supplied by MVI from the main laboratory contains 12 CRM results for gold and silver submitted to the main laboratory (7.0% of the analytical database collected in 2022). Table 5.1 summarizes all CRMs submitted and analysed at the main laboratory in 2022.

Table 5.1 List of standards used by MVI (2022)

CRM	Company	Au, g/t	Au SD	Ag, g/t	Ag SD
OREAS 602	Ore Research & Exploration P/L	1.95	0.066	115	5.0
OREAS 603	Ore Research & Exploration P/L	5.18	0.151	284	15.9

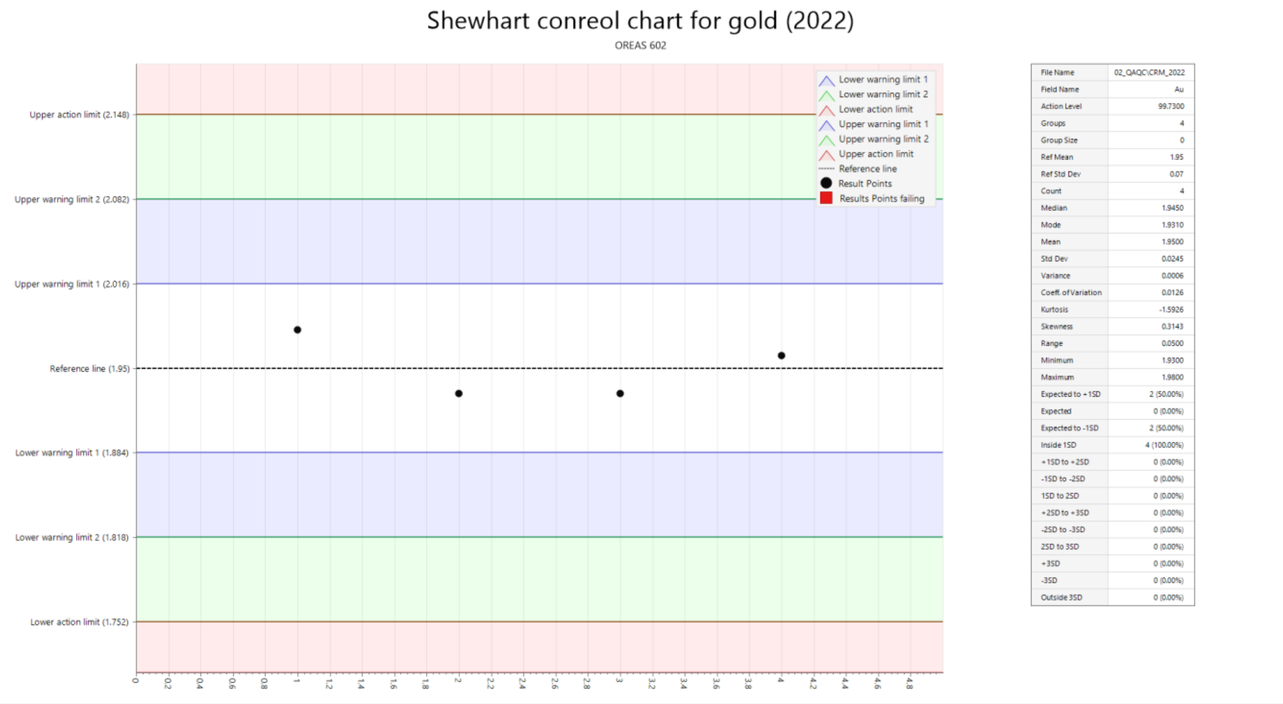
SD – Standard deviation

AMC analysed all results for each CRM separately. Results are summarized below:

- Standard OREAS 602 was submitted to the main laboratory four times. The average gold grade was 1.95 g/t Au which is the same as the expected CRM grade. The average silver grade was 119 g/t Ag, which is 3.3% higher (relative) than the expected CRM grade of 115 g/t Ag. There were no grades below or above the upper or lower action limits for this CRM.
- Standard OREAS 603 was submitted to the main laboratory eight times. The average gold grade was 5.10 g/t Au, which is 1.6% lower (relative) than the expected CRM grade of 5.18 g/t Au. The average silver grade was 299 g/t Ag, which is 5.5% higher (relative) than

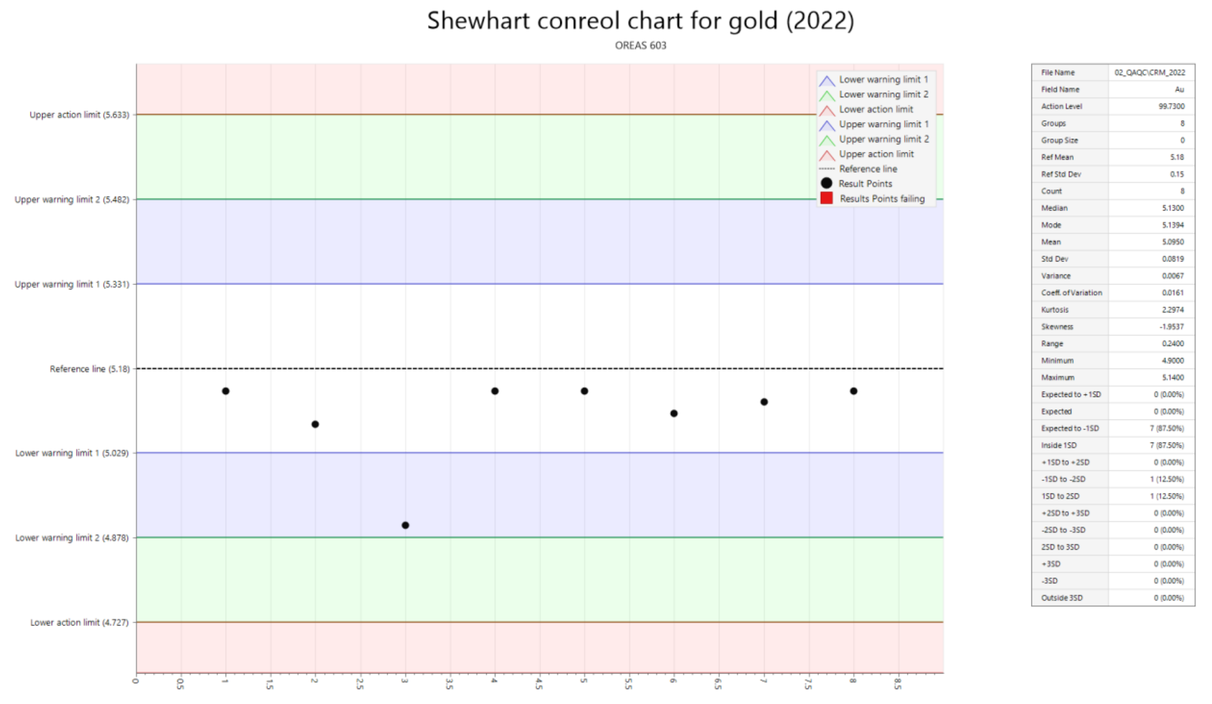
the expected CRM grade of 284 g/t Ag. There were no Au or Ag grades below or above the upper or lower action limits for this CRM.

Figure 5.3 Shewhart control chart, gold, OREAS 602



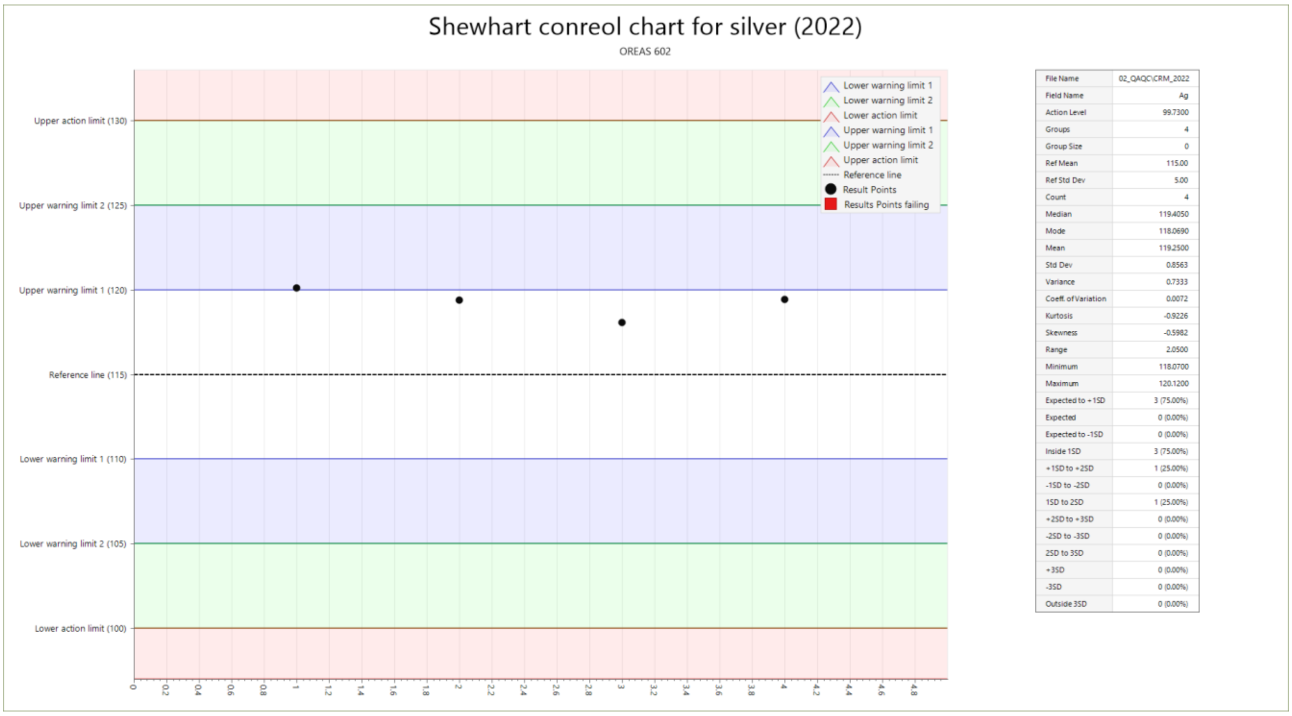
File Name	02_QAQC\CRM_2022
Field Name	Au
Action Level	99.7300
Groups	4
Group Size	0
Ref Mean	1.95
Ref Std Dev	0.07
Count	4
Median	1.9450
Mode	1.9310
Mean	1.9500
Std Dev	0.0245
Variance	0.0006
Coeff. of Variation	0.0126
Kurtosis	-1.5926
Skewness	0.3143
Range	0.0500
Minimum	1.9300
Maximum	1.9800
Expected to +1SD	2 (50.00%)
Expected	0 (0.00%)
Expected to -1SD	2 (50.00%)
Inside 1SD	4 (100.00%)
+1SD to +2SD	0 (0.00%)
-1SD to -2SD	0 (0.00%)
1SD to 2SD	0 (0.00%)
+2SD to +3SD	0 (0.00%)
-2SD to -3SD	0 (0.00%)
2SD to 3SD	0 (0.00%)
+3SD	0 (0.00%)
-3SD	0 (0.00%)
Outside 3SD	0 (0.00%)

Figure 5.4 Shewhart control chart, gold, OREAS 603



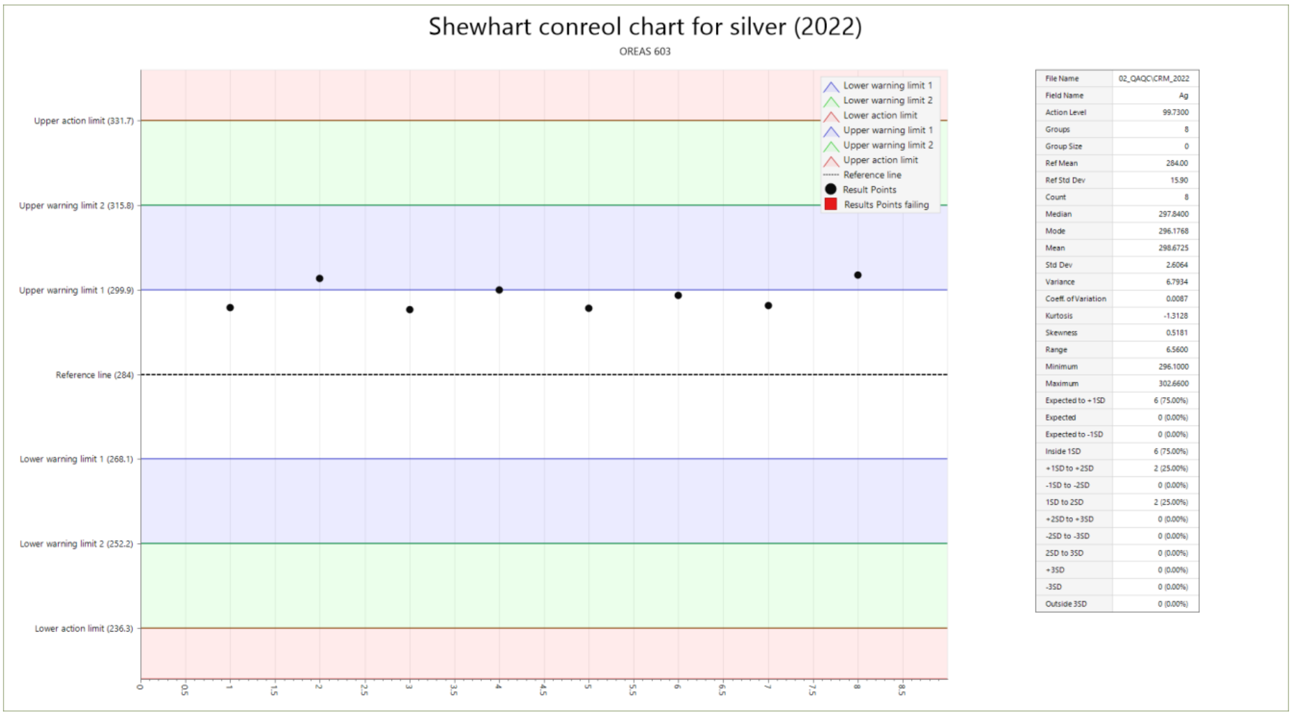
File Name	02_QAQC\CRM_2022
Field Name	Au
Action Level	99.7300
Groups	8
Group Size	0
Ref Mean	5.18
Ref Std Dev	0.15
Count	8
Median	5.1300
Mode	5.1394
Mean	5.0950
Std Dev	0.0819
Variance	0.0067
Coeff. of Variation	0.0161
Kurtosis	2.2974
Skewness	-1.9537
Range	0.2400
Minimum	4.9000
Maximum	5.1400
Expected to +1SD	0 (0.00%)
Expected	0 (0.00%)
Expected to -1SD	7 (87.50%)
Inside 1SD	7 (87.50%)
+1SD to +2SD	0 (0.00%)
-1SD to -2SD	1 (12.50%)
1SD to 2SD	1 (12.50%)
+2SD to +3SD	0 (0.00%)
-2SD to -3SD	0 (0.00%)
2SD to 3SD	0 (0.00%)
+3SD	0 (0.00%)
-3SD	0 (0.00%)
Outside 3SD	0 (0.00%)

Figure 5.5 Shewhart control chart, silver, OREAS 602



File Name	02_QAQC\CRM_2022
Field Name	Ag
Action Level	99.7300
Groups	4
Group Size	0
Ref Mean	115.00
Ref Std Dev	5.00
Count	4
Median	119.4050
Mode	118.0690
Mean	119.2500
Std Dev	0.8563
Variance	0.7333
Coeff. of Variation	0.0072
Kurtosis	-0.9226
Skewness	-0.5982
Range	2.0500
Minimum	118.0700
Maximum	120.1200
Expected to +1SD	3 (75.00%)
Expected	0 (0.00%)
Expected to -1SD	0 (0.00%)
Inside 1SD	3 (75.00%)
+1SD to +2SD	1 (25.00%)
-1SD to -2SD	0 (0.00%)
1SD to 2SD	1 (25.00%)
+2SD to +3SD	0 (0.00%)
-2SD to -3SD	0 (0.00%)
2SD to 3SD	0 (0.00%)
+3SD	0 (0.00%)
-3SD	0 (0.00%)
Outside 3SD	0 (0.00%)

Figure 5.6 Shewhart control chart, silver, OREAS 603



File Name	02_QAQC\CRM_2022
Field Name	Ag
Action Level	99.7300
Groups	8
Group Size	0
Ref Mean	284.00
Ref Std Dev	15.90
Count	8
Median	297.8400
Mode	296.1768
Mean	298.6725
Std Dev	2.6064
Variance	6.7934
Coeff. of Variation	0.0087
Kurtosis	-1.3128
Skewness	0.5181
Range	6.5600
Minimum	296.1000
Maximum	302.6600
Expected to +1SD	6 (75.00%)
Expected	0 (0.00%)
Expected to -1SD	0 (0.00%)
Inside 1SD	6 (75.00%)
+1SD to +2SD	2 (25.00%)
-1SD to -2SD	0 (0.00%)
1SD to 2SD	2 (25.00%)
+2SD to +3SD	0 (0.00%)
-2SD to -3SD	0 (0.00%)
2SD to 3SD	0 (0.00%)
+3SD	0 (0.00%)
-3SD	0 (0.00%)
Outside 3SD	0 (0.00%)

The review of CRM results for gold and silver indicates generally acceptable results. Results were, on average, either similar or slightly lower for gold (1.6% relative), and 3% to 5% higher for silver on a relative basis than the grades of the CRMs. This means that the main laboratory was likely to slightly underestimate gold grades and overestimate silver grades. However, the overall difference between the certified and estimated grades was insignificant and within the acceptable limits.

Analysis of the CRMs demonstrated that there were no samples outside of the upper or lower warning limits; and the analysis did not reveal any significant bias that could be introduced by the main laboratory for the 2022 exploration programme.

5.3.4 External samples – client quality control results

Blanks (Contamination)

No blank failures were noted.

Duplicates (Precision)

Analytical duplicates (8% of the samples) were analysed, and precision determined. It is unclear as to what type of duplicates were analysed, but precision appears to be acceptable.

Certified Reference Material (Accuracy)

Two CRMs were included with the external check samples and a negative bias of two to three percent was noted (i.e. assay results under reported by 2% to 3%).

5.4 Data assessment by AMC

The primary Mineral Resource estimation samples do not have any controls on cross contamination or assay accuracy and therefore the reliability of these data is uncertain. Verification drilling included quality control samples and their results indicated that these assay data should be reliable. Verification drilling assay results were significantly lower (average grade -16% lower) than the original assay results, which could indicate that there were contamination or accuracy issues with the primary assay results.

6 Geological modelling

AMC's preparation of the MRE is summarized in the following sections.

6.1 Software

Geological modelling was undertaken by AMC using Micromine 2023 (23.0.300.1) Software.

All interpreted strings were "snapped" to drillholes based on chemical assays. The strings were then triangulated to construct 3D wireframes.

6.2 Data import and validation

The drillhole, surface trenches and underground channel sampling databases were supplied by MVI in Excel and Micromine formats and contained:

- A collar coordinate file with local grids for historical drilling programmes.
- A collar coordinate file with local grids for 2020 drilling programme.
- A collar coordinate file with local grids for 2021 drilling programme.
- A collar coordinate file with local grids for 2022 Q1 and Q2 drilling programme.
- A collar coordinate file with local grids for 2022 Q2 and Q3 drilling programme.
- An assay data file with analytical results for Au, Ag and Cu variables (historical programme).
- An assay data file with analytical results for Au and Ag grades (2020 programme).
- An assay data file with analytical results for Au and Ag grades (2021 programme).
- An assay data file with analytical results for Au and Ag grades (2022 Q1 and Q2 programme).
- Files with downhole surveys for the 2021 and 2022 drilling programmes.
- An assay data file with analytical results for Au and Ag grades (2022 Q3 and Q3 programme).
- File with trench traces for historical exploration programmes.
- An assay data file with analytical results for Au and Ag assays (historical trenching).
- File with underground channels for historical exploration programmes.
- An assay data file with analytical results for Au and Ag assays (historical underground channels).
- File with trench traces for 2022 exploration programmes.
- An assay data file with analytical results for Au and Ag assays (2022 trenching).

Validation of the data was then completed, which included checks for:

- Duplicate drillhole or trench names.
- One or more drillhole collar coordinates missing in the collar file.
- FROM or TO missing or absent in the assay file.
- FROM > TO in the assay file.
- Sample intervals not contiguous in the assay file (gaps exist between the assays).
- Sample intervals overlap in the assay files.
- First sample is not equal to 0 m in the assay file.
- First depth is not equal to 0 m in the survey file.
- Total depth of holes less than the depth of the last sample.

No critical errors were identified. All grade values equal to zero or with negative grade values were replaced with 0.005 g/t Auvalues. AMC did not introduce any other corrections during the validation process.

In addition to the analytical database, MVI provided the following data files:

- Digital terrain model (DTM) for the deposit area as of 1 December 2022.
- Results of the QA/QC sample analyses (CRMs, blanks and field duplicates for 2022 programme).
- Results of bulk density measurements for both oxide and fresh zones.
- Data points with logged state of oxidation.

The topographic DTM surface was validated to make sure that it covered the area of the modelled deposit. Most of drillhole collars were found to match the topography surface, with some discrepancies for several holes (these were considered to be within the acceptable limits). Some surface trenches were found to be 30 m to 40 m above the current topographic surface, but they were excluded from the MRE.

The supplied databases compiled by MVI are summarized in Table 6.1.

Table 6.1 Summary of supplied data

Category	Historical data			2020 DD	2021 DD	2022 Q1&2 DD	2022 Q2&3 data		Total
	DD	TR	UG channels				DD	TR	
Drill holes/trenches	48	159	133	8	2	4	19	26	399
Metres drilled/channelled	4,058	1,036	1,212	641	55	365	2,402	169	9,938
Downhole/channel surveys	0	321	294	0	4	8	153	52	832
Assay intervals	310	498	1,904	110	60	6	166	147	3,201
Including:									
Au assays	241	464	735	110	45	6	166	147	1,914
Ag assays	241	465	735	110	45	6	166	147	1,915

DD – diamond drillholes
TR – surface trenches

AMC decided that all samples from surface trenches and underground working could be used for interpretation of mineralized bodies but excluded from the grade interpolation process due to uncertainties related to the location of some trenches and lack of documented QA/QC procedures and data. The analytical data that was used for the grade interpolation process are summarized in Table 6.2.

Table 6.2 Summary of data used for MRE

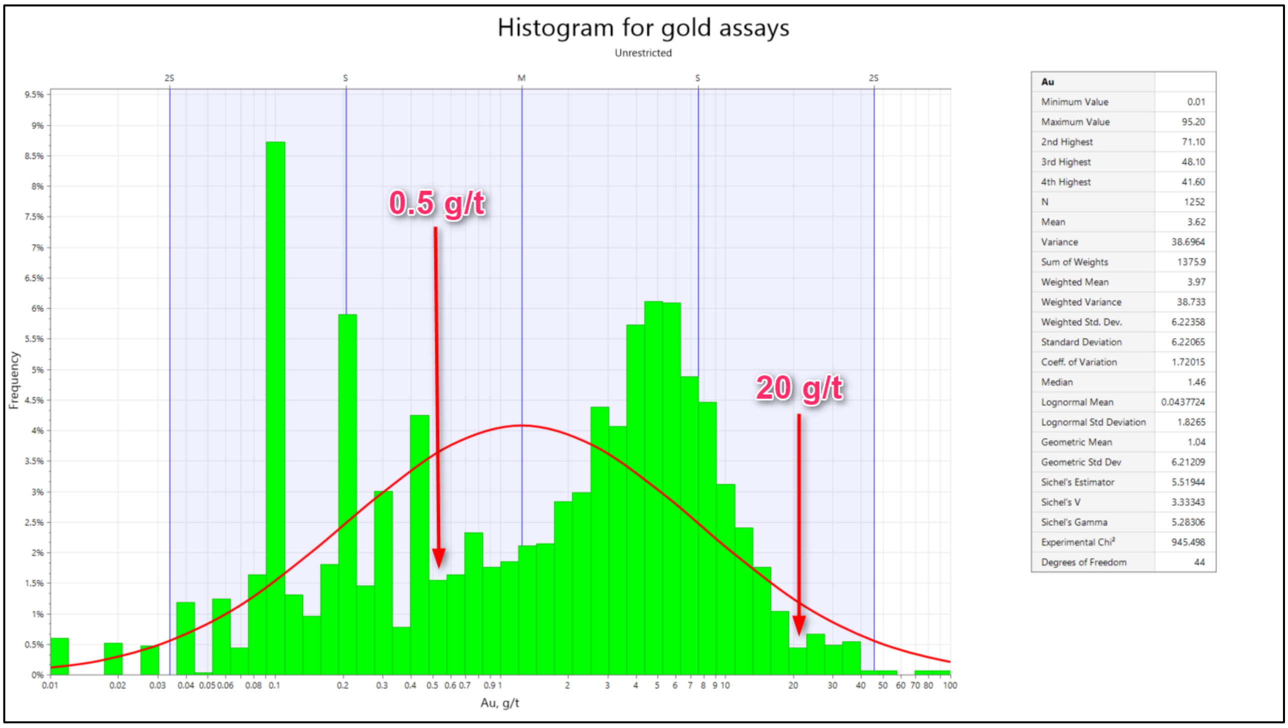
Category	Historical Drillholes	2020 Drillholes	2021 Drillholes	2022 Q1&2 Drillholes	2022 Q2&3 Drillholes	Total
Drill holes	48	8	2	4	19	81
Metres drilled	4,058	641	55	365	2,402	7,521
Downhole surveys	0	0	4	8	153	165
Assay intervals	310	110	60	6	166	652
Including:						
Au assays	241	110	45	6	166	568
Ag assays	241	110	45	6	166	568

The Competent Person determined that the available analytical drillhole databases were suitable for the MRE update and comply with the required standards.

6.3 Preliminary statistical assessment

Histograms and cumulative probability plots were generated for unrestricted gold grades and reviewed for a natural mineralization threshold between mineralization and surrounding material (Figure 6.1).

Figure 6.1 Histogram of gold values



Au	
Minimum Value	0.01
Maximum Value	95.20
2nd Highest	71.10
3rd Highest	48.10
4th Highest	41.60
N	1252
Mean	3.62
Variance	38.6964
Sum of Weights	1375.9
Weighted Mean	3.97
Weighted Variance	38.733
Weighted Std. Dev.	6.22358
Standard Deviation	6.22065
Coeff. of Variation	1.72015
Median	1.46
Lognormal Mean	0.0437724
Lognormal Std Deviation	1.8265
Geometric Mean	1.04
Geometric Std Dev	6.21209
Sichel's Estimator	5.51944
Sichel's V	3.33343
Sichel's Gamma	5.28306
Experimental Chi²	945.498
Degrees of Freedom	44

The following observations were made:

- The gold grade data has a logarithmic distribution.
- Multiple populations, probably due to multiple mineralized bodies being present, were observed. Threshold values between populations were observed at 0.5 g/t Au and possibly 20 g/t Au.
- Only low and background gold values were observed below 0.5 g/t Au.

Visual review of the assay data in 3D showed a clear boundary at 0.5 g/t Au, with a sharp transition between background values and values >0.5 g/t Au.

6.4 Lithology, structure and alteration

Lithological and structural features were defined from logging and used to generate 2D cross sections. No interpreted strings or 3D wireframes of geology, structure or alteration were created.

6.5 Mineralization

Cross sections spaced along drill traces were displayed in Micromine software with drillhole, trench, and channel traces colour coded by gold values. Separate strings were interpreted for each mineralized zone (i.e. Body1 to Body17 and two apophyses – branching structures). Body3 and Body4 (Zones 1 and 3 shown in the geological map, respectively) and one branching body were the only mineralized bodies interpreted from drillhole data; the remaining 16 mineralized bodies were supported by channel or trench data only.

A total of 31 differently oriented vertical cross-sections were used during interpretation. Horizontal sections along surface trenches and underground channels were also interpreted.

Grade composites were used to define mineralized intersections (these composites were not used for grade estimation). Samples were composited using the following rules:

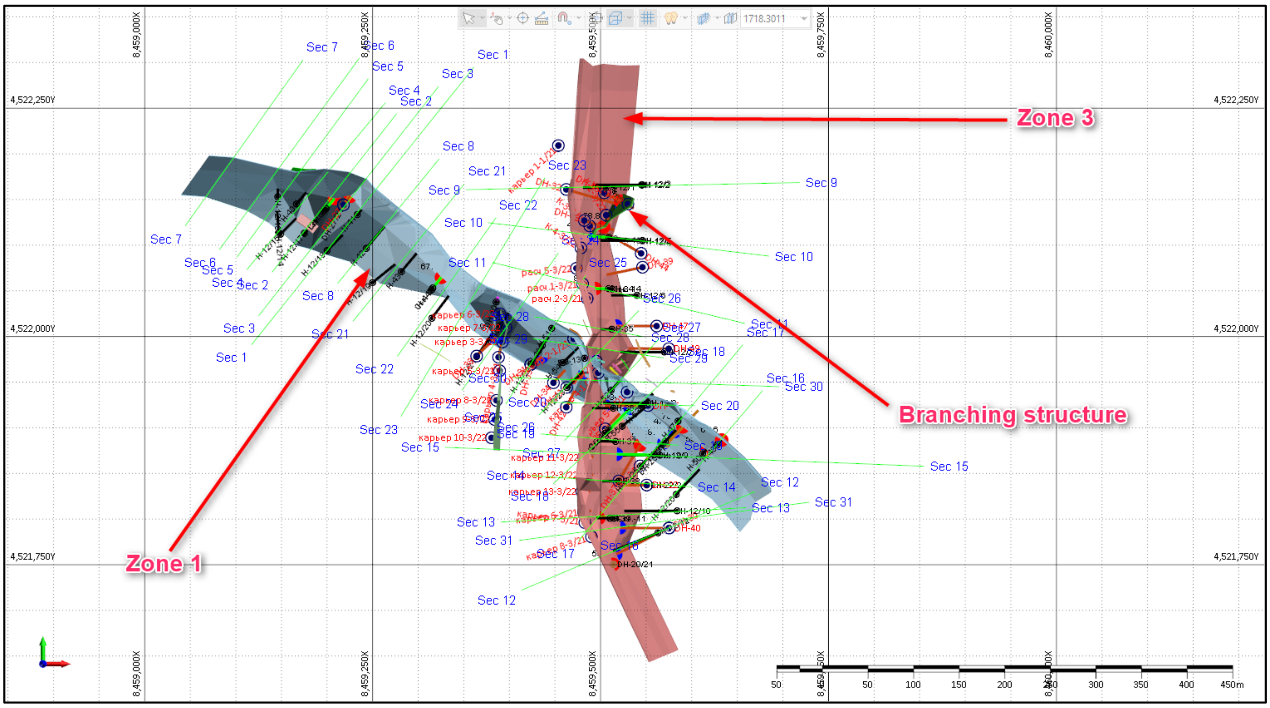
- Lower gold threshold = 0.5 g/t Au.
- Minimum composite grade to be considered as mineralization = 0.5 g/t Au.
- Maximum internal waste (including unassayed material) = 2 m.
- Minimum thickness = 1 m.
- 0.5 g/t Au x thickness (m * g/t Au).

The following procedures were used to interpret the mineralization:

- Each cross section was displayed on screen with a clipping window equal to half the distance from the adjacent section.
- Interpretation was also performed on two levels of underground workings and surface trenches. Horizontal and vertical interpretations were connected to each other, snapping to common points.
- All interpreted strings were snapped to drillhole, channel or trench intervals, using grade composites as a guide.
- Internal waste within the mineralized envelopes was not interpreted and modelled, some amount of internal waste was included in the compositing process.
- Where the mineralized body did not extend to the adjacent drillhole section, it was projected halfway to the next section and terminated with a flat end. The general thickness, direction and dip of the body was maintained.
- Where mineralized bodies terminate down dip, the wireframe was terminated halfway between the barren and mineralized intersections with no reduction in thickness.
- Extrapolations down dip and along strike at the deposit extremities were made over distances of 20 m to 50 m for the main bodies (Body3 and Body4) to maintain the lateral and vertical extents. An extrapolation distance of 20 m was used for smaller secondary bodies (Body1, Body2 and Body5–17).
- If the mineralized body was interpreted to extend to surface, the wireframe was extended above the topography at the same width as the last mineralized intersection. Extending the wireframe above the topography was to ensure there would be no gap between the mineralized body and the topography when the block model was built.
- Wireframing was undertaken in 3D to ensure that interpretation of the mineralized bodies between the sections and plans was accurate. Figure 6.2 shows a plan view of all wireframes and their construction strings. Figure 6.3 shows a typical cross section.

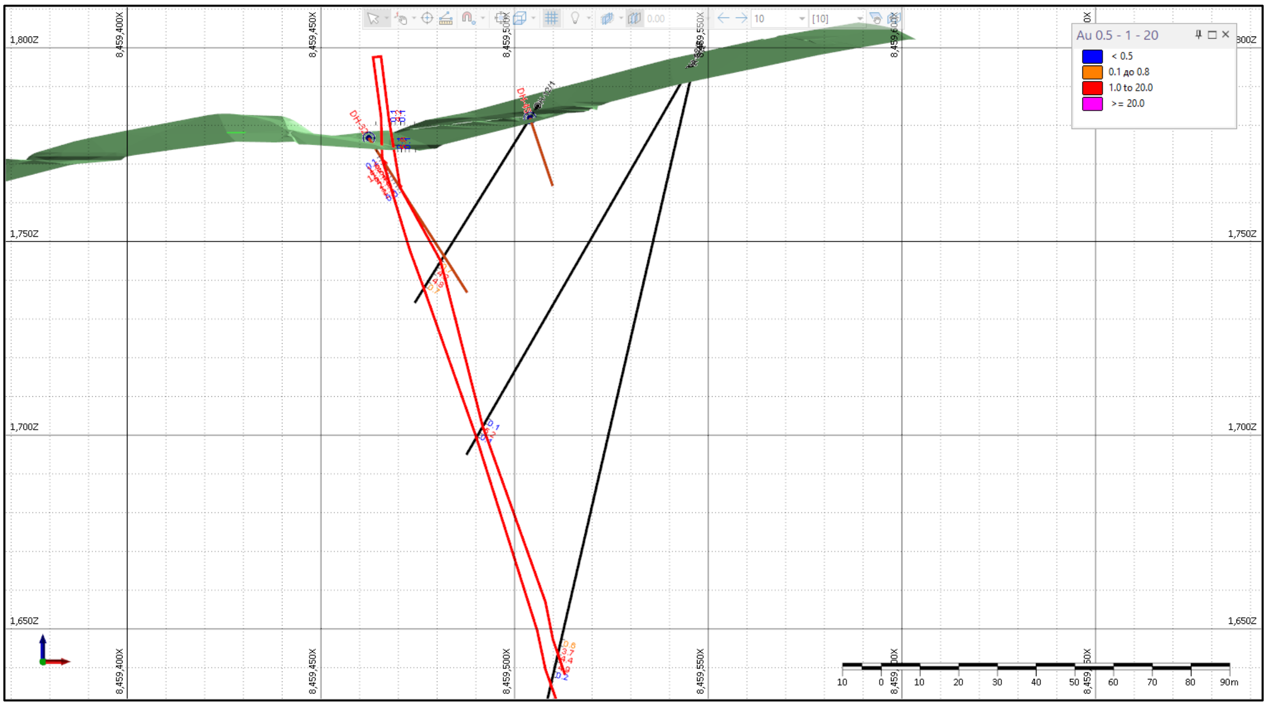
Mineralization wireframes were constructed for 19 mineralized bodies and saved as Body1 to Body17 and branching Body_AP and AP2.

Figure 6.2 Plan view of wireframe interpretation



Note: "Zone 1" corresponds to wireframe "Body3", "Zone 3" corresponds to wireframe "Body4".

Figure 6.3 Typical cross section



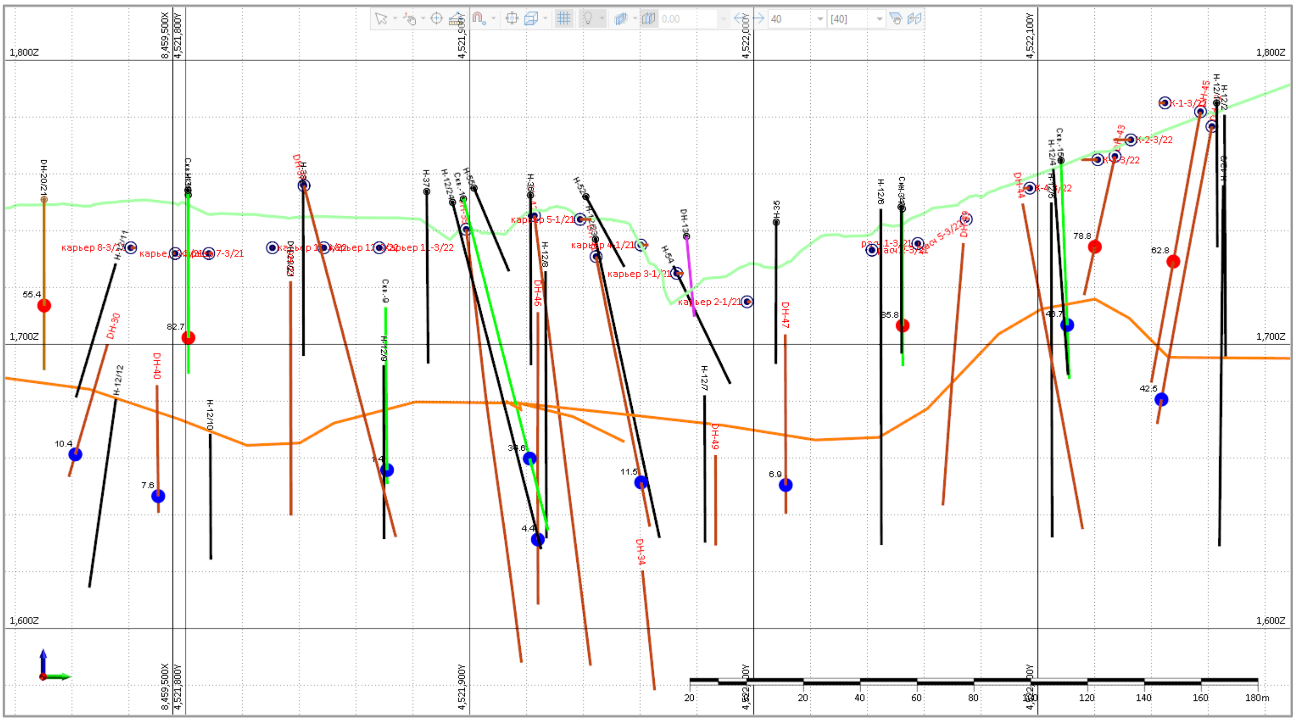
6.6 Topography

A topographic of the original surface as well as the surface after the trial mining in 2022 were supplied by MVI. The 2022 topography surface was used to deplete the block model. MVI reported that the topography contours were generated using Leica instrument with automatic data acquisition using special software. The provided topographic contours were used by AMC to generate the topography DTM.

6.7 Weathering

MVI supplied AMC with data for 28 logged points of observation for the state of oxidation. AMC calculated coordinates for those points and displayed it in 3D. All points were colour coded using 50% oxidation level. Strings for the base of the oxidation zone were then digitised on the long sections for the main mineralized bodies and then wireframed. The resultant surface was used to code the block model for the oxidized and fresh zones. Example of interpreted base of oxidation zone is shown on Figure 6.4, where red points have oxidation >50%, and blue points <50%.

Figure 6.4 Interpreted base of oxidation zone



6.8 AMC opinion on geological modelling

In AMC's opinion, the following items should be addressed or investigated in any future scopes of work:

- Logging information for lithology, structure and alteration were not available with the drilling database. The original geological logs were however provided in PDF format in Armenian and Russian. AMC recommends that the data is translated into English and added to the drilling database. It was reported that no alteration or structural logging was undertaken. AMC recommends that alteration and geological logging is collected on all available core, and all future core collected at the Project. Any planned drilling should be oriented to better understand the structural controls on mineralization.
- The smaller secondary bodies were modelled and wireframed, but they were subsequently left unclassified and excluded from the MRE. It is recommended that recently identified branching structures are drilled and explored as that should result in an increase of the resource base.
- AMC recommends that an updated topographic survey is regularly carried out to reflect the ongoing test production at the deposit. Whilst the current topographic surface is adequate for the level of Mineral Resource reported (Indicated and Inferred), it is of poor resolution and should be improved using modern techniques (e.g. drone survey). The current surface in not of a suitable resolution for mine planning or design work.
- The base of oxidation zone should be logged for all holes, as the resolution and quality of the current surface of oxidation is of poor quality and based on just 28 points of observation.

Whilst these items should be considered and investigated in any future scopes of work, AMC does not consider these to have any material impact on the MRE which is classified as Indicated and Inferred Mineral Resource.

7 Mineral Resource

7.1 Data analysis

Prior to undertaking the MRE, statistical assessment of the data was completed to understand how the estimate should be carried out. Exploration sample data were statistically reviewed, and variograms were calculated to determine spatial continuity for gold and silver.

Statistical analysis was performed by AMC in Micromine 2023 software.

7.1.1 Data coding

Drillhole coding is a standard procedure which ensures the correct samples are used in classical statistics, geostatistical analyses, and grade estimation. For this purpose, solid wireframes for each mineralized body were used to select drillhole, trench and channel samples. Samples were then coded according to the mineralized body in which they were located. Samples were assigned a code in the field “WF1”. A summary of the WF1 codes used to distinguish the data during geostatistical analysis and estimation is shown in Table 7.1.

Table 7.1 Domain field codes and description

Wireframe name	WF1 code	Description
Body 1	Body1	Secondary body
Body 2	Body2	Secondary body
Body 3	Body3	Primary body
Body 4	Body4	Primary body
Body 5	Body5	Secondary body
Body 6	Body6	Secondary body
Body 7	Body7	Secondary body
Body 8	Body8	Secondary body
Body 9	Body9	Secondary body
Body 10	Body10	Secondary body
Body 11	Body11	Secondary body
Body 12	Body12	Secondary body
Body 13	Body13	Secondary body
Body 14	Body14	Secondary body
Body 15	Body15	Secondary body
Body 16	Body16	Secondary body
Body 17	Body17	Secondary body
Body_AP	Body_AP	Branching structure
Body_AP2	Body_AP2	Branching structure

7.1.2 Treatment of outliers

A review of grade outliers was undertaken to ensure that extreme grades were treated appropriately during grade estimation. Although extreme grade outliers within the grade populations are real, they are potentially not representative of the volume they inform during estimation. If these values were not cut, they have the potential to result in significant grade over-estimation on a local basis.

After coding the samples and after length compositing, the global grade data was reviewed for outliers (Table 7.2).

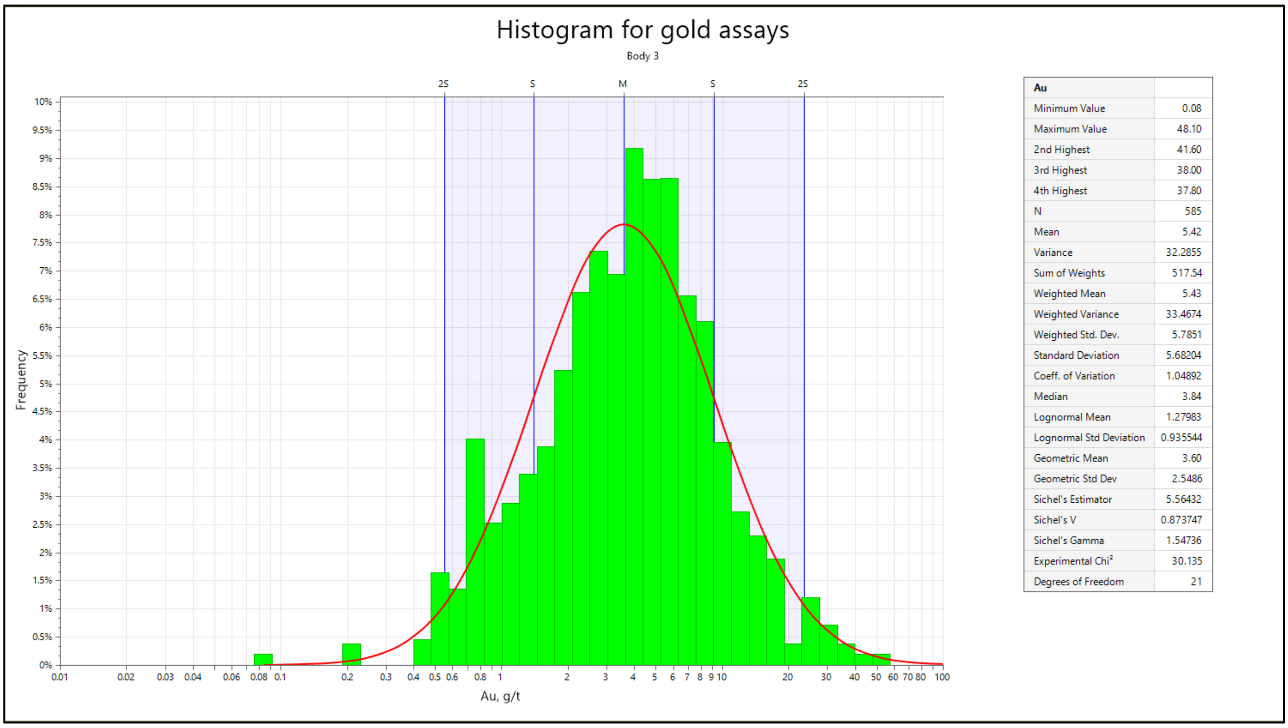
Table 7.2 Gold and silver grade statistical comparison (weighted by sample length)

Element	Minimum (g/t)	Maximum (g/t)	Number of Samples	Mean (g/t)	Variance	Standard Deviation	Coefficient of Variation	Median (g/t)
All Samples								
Au	0.005	48.1	1,773	2.56	23	4.8	2.08	0.14
Ag	0.02	43,498	1,774	29.13	993,390	996.7	34.13	2.60
Samples within Mineralized Envelopes								
Au	0.005	16.63	216	4.50	9	2.9	0.73	3.57
Ag	0.1	44.87	216	9.41	42	6.5	0.79	7.18

The grade data by mineralized body was also reviewed for top cutting. It was decided that a top-cut of 50 g/t Au be applied to the sample composites for the Body4 (COV = 1.2), and no top-cuts were required for the Body3 (COV = 1.0) and the branching structure (COV = 0.2).

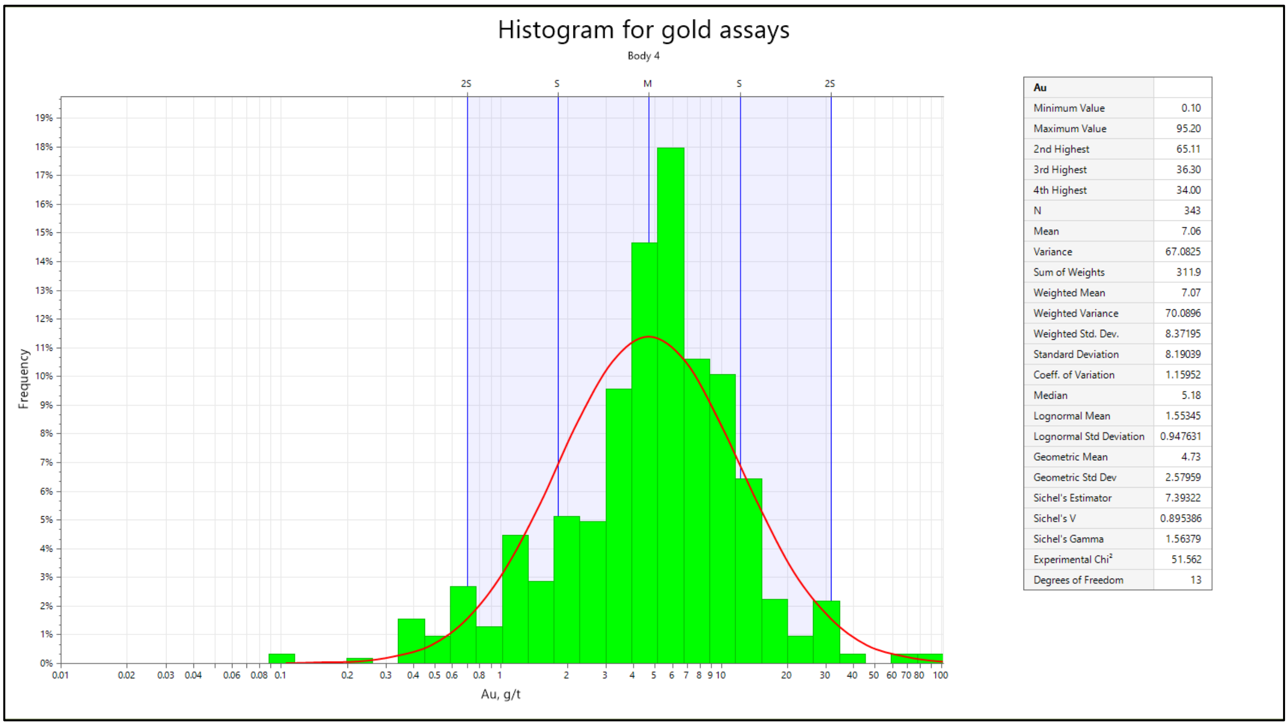
Top-cuts were not required for estimation as the coefficients of variation for the samples within the mineralized envelopes Body3 and BodyAP was low, indicating a lack of significant outliers within the dataset. Histograms for the modelled and reported Body3, Body4 and one branching structure are displayed in Figure 7.1 to Figure 7.3.

Figure 7.1 Body3 Au g/t histogram



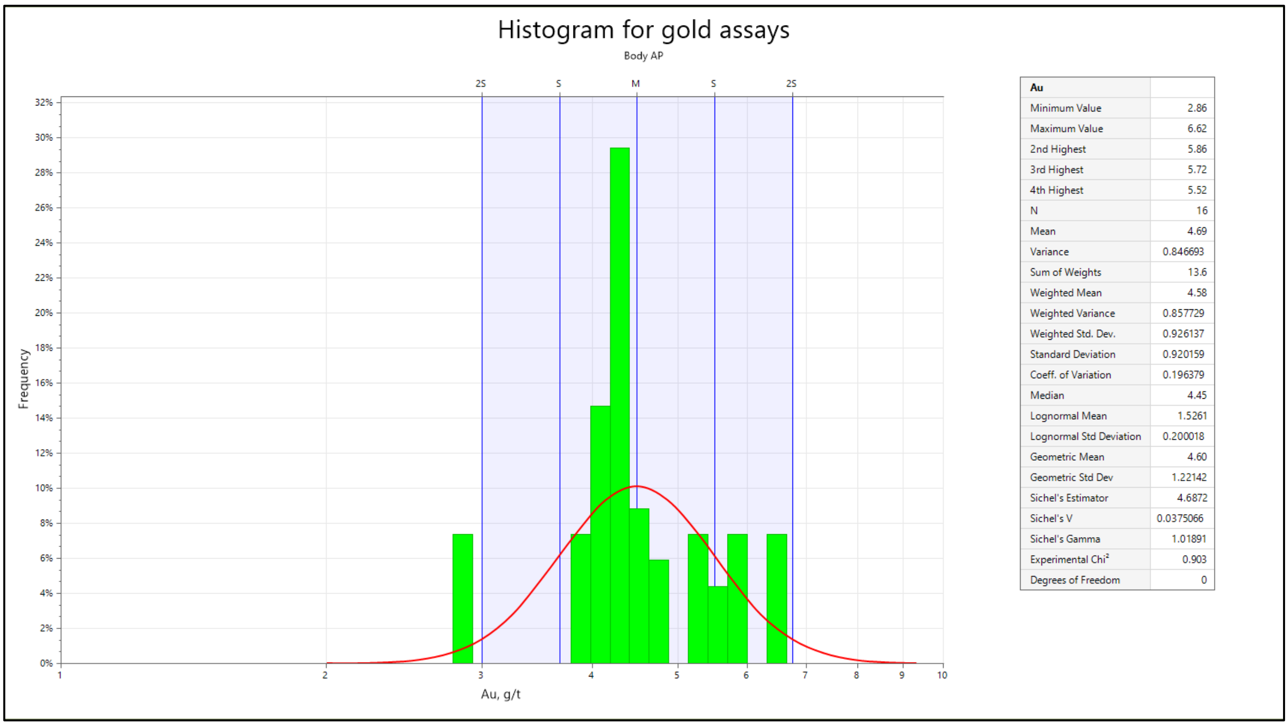
Au	
Minimum Value	0.08
Maximum Value	48.10
2nd Highest	41.60
3rd Highest	38.00
4th Highest	37.80
N	585
Mean	5.42
Variance	32.2855
Sum of Weights	517.54
Weighted Mean	5.43
Weighted Variance	33.4674
Weighted Std. Dev.	5.7851
Standard Deviation	5.68204
Coeff. of Variation	1.04892
Median	3.84
Lognormal Mean	1.27983
Lognormal Std Deviation	0.935544
Geometric Mean	3.60
Geometric Std Dev	2.5486
Sichel's Estimator	5.56432
Sichel's V	0.873747
Sichel's Gamma	1.54736
Experimental Chi²	30.135
Degrees of Freedom	21

Figure 7.2 Body4 Au g/t histogram



Au	
Minimum Value	0.10
Maximum Value	95.20
2nd Highest	65.11
3rd Highest	36.30
4th Highest	34.00
N	343
Mean	7.06
Variance	67.0825
Sum of Weights	311.9
Weighted Mean	7.07
Weighted Variance	70.0896
Weighted Std. Dev.	8.37195
Standard Deviation	8.19039
Coeff. of Variation	1.15952
Median	5.18
Lognormal Mean	1.55345
Lognormal Std Deviation	0.947631
Geometric Mean	4.73
Geometric Std Dev	2.57959
Sichel's Estimator	7.39322
Sichel's V	0.895386
Sichel's Gamma	1.56379
Experimental Chi²	51.562
Degrees of Freedom	13

Figure 7.3 BodyAP Au g/t histogram

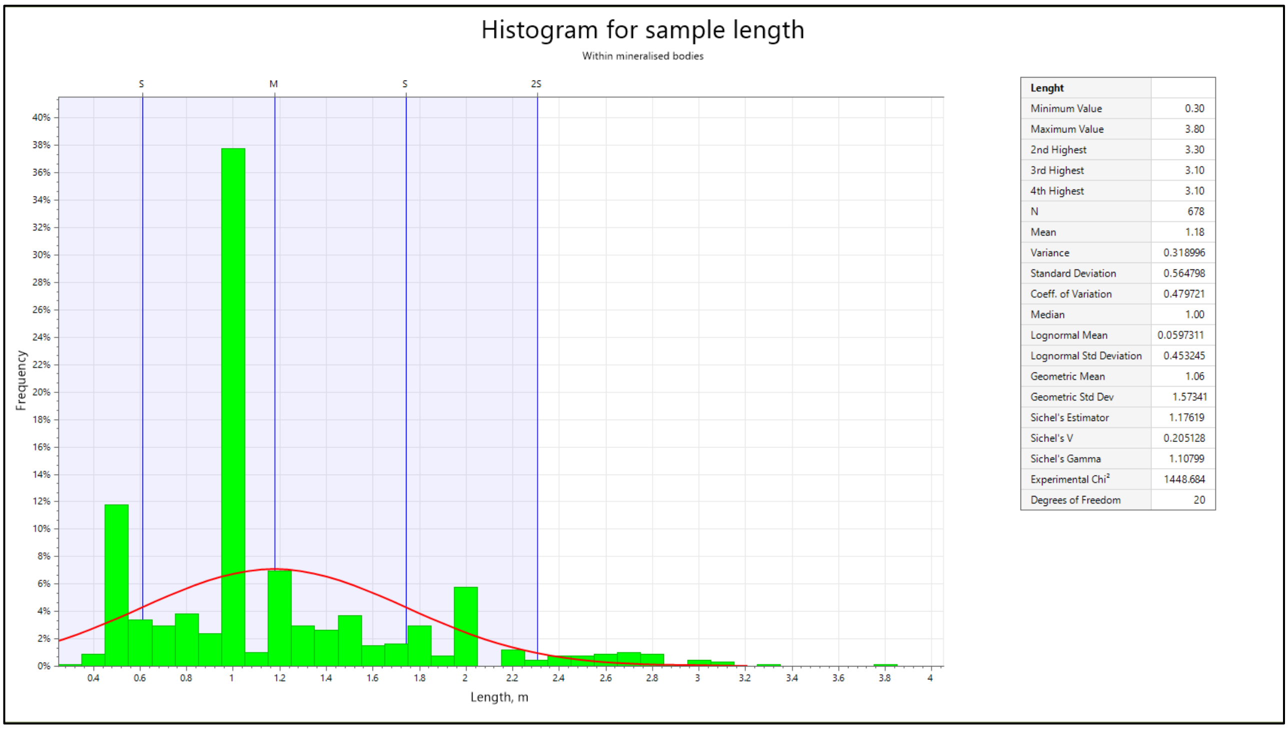


Au	
Minimum Value	2.86
Maximum Value	6.62
2nd Highest	5.86
3rd Highest	5.72
4th Highest	5.52
N	16
Mean	4.69
Variance	0.846693
Sum of Weights	13.6
Weighted Mean	4.58
Weighted Variance	0.857729
Weighted Std. Dev.	0.926137
Standard Deviation	0.920159
Coeff. of Variation	0.196379
Median	4.45
Lognormal Mean	1.5261
Lognormal Std Deviation	0.200018
Geometric Mean	4.60
Geometric Std Dev	1.22142
Sichel's Estimator	4.6872
Sichel's V	0.0375066
Sichel's Gamma	1.01891
Experimental Chi²	0.903
Degrees of Freedom	0

7.1.3 Composite length selection

Samples within the mineralized wireframes were used to conduct a sample length analysis. Most of the sample intervals are 1 m in length, as shown in Figure 7.4.

Figure 7.4 Histogram of sample lengths



Lenght	
Minimum Value	0.30
Maximum Value	3.80
2nd Highest	3.30
3rd Highest	3.10
4th Highest	3.10
N	678
Mean	1.18
Variance	0.318996
Standard Deviation	0.564798
Coeff. of Variation	0.479721
Median	1.00
Lognormal Mean	0.0597311
Lognormal Std Deviation	0.453245
Geometric Mean	1.06
Geometric Std Dev	1.57341
Sichel's Estimator	1.17619
Sichel's V	0.205128
Sichel's Gamma	1.10799
Experimental Chi^2	1448.684
Degrees of Freedom	20

Based on this review, a 1 m composite length was selected. AMC observed that a number of sample lengths >1 m are also present in the data, and some even >2 m in length. The selected 1 m composite length would therefore in some cases result in repeated grades in adjacent composites. This will have minor implications in the spatial analyses of grade data.

Table 7.3 Sample versus composite data

Element	Minimum (g/t)	Maximum (g/t)	Number of Samples	Mean (g/t)	Variance	Standard Deviation	Coefficient of Variation	Median (g/t)
Samples within Mineralized Envelopes								
Au	0.005	16.63	216	4.50	9	2.9	0.73	3.57
Ag	0.1	44.87	216	9.41	42	6.5	0.79	7.18
Composites within Mineralized Envelopes								
Au	0.005	14.84	414	4.96	8	2.9	0.59	4.66
Ag	0.1	37.83	414	10.91	52	7.2	0.66	8.63

7.1.4 Geostatistical analysis

Variography (spatial analysis) is carried out to understand how sample values relate to each other in space, and thus reflects the average spatial continuity for a variable. The variogram is used to determine the weight to apply to each sample during kriging (estimation) and takes into consideration the average spatial characteristics of the underlying grade distribution. It can help to infer possible similarities between known samples and points that have not been sampled.

Variograms for the Karaberd deposit were modelled using 1 m composited data. Variography was undertaken on Body3 and Body4 only, as the data populations for the other secondary and branching bodies were too small to support meaningful variography.

Nugget effects were obtained from the downhole variograms, where the lag distance was set at the composite length of 1 m. Variography was undertaken on data without any transformation required.

After determining the main directions, semi-variogram models were calculated and modelled in Micromine 2023 software for two main mineralized bodies, gold and silver were modelled separately. Two spherical structures for gold and silver were modelled (Table 7.4).

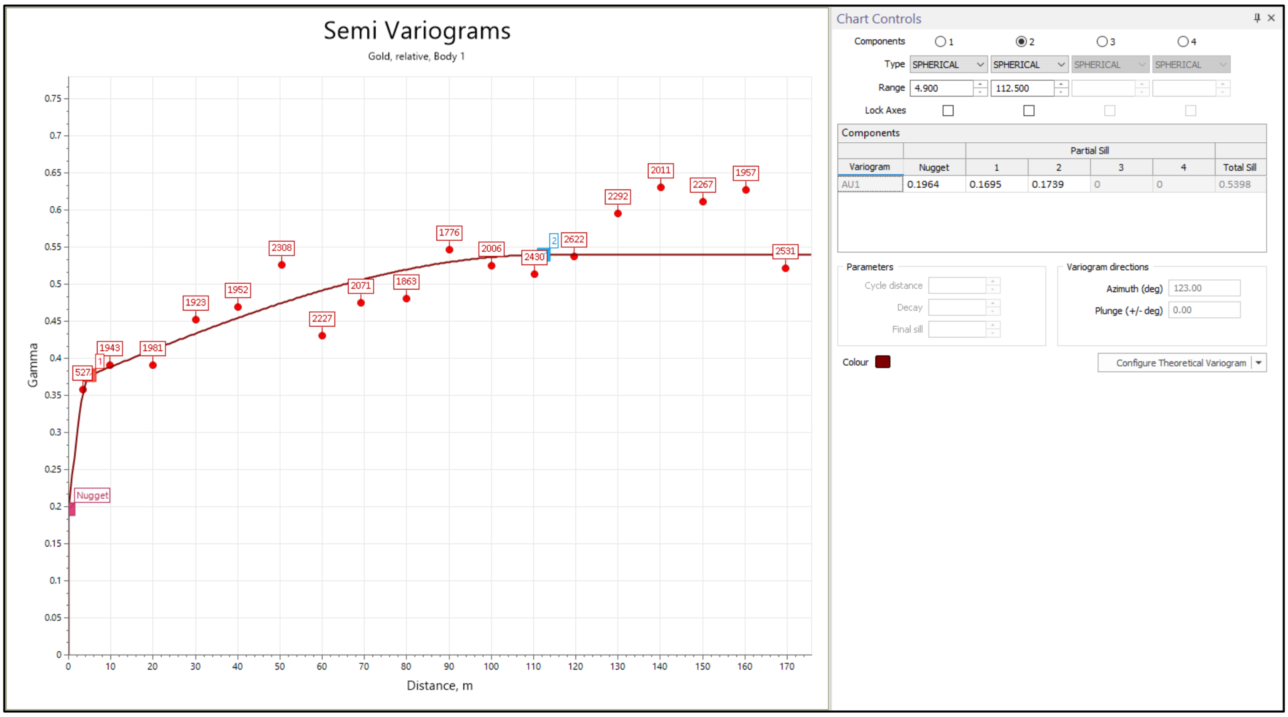
Table 7.4 Variography parameters

Element	Type	Axis	Azimuth	Dip	Nugget (%)	Partial Sill 1 (%)	Partial Sill 2 (%)	Range1 (m)	Range2 (m)
Au, Body 3	Relative spherical	Main	123	0	36.4	31.4	32.2	5	118
		Second	213	71				63	101
		Third	33	19				0	1
Ag, Body 3	Relative spherical	Main	123	0	10.1	33.7	56.2	4	140
		Second	213	71				81	144
		Third	33	19				1	6
Au, Body 4	Relative spherical	Main	176	0	17.4	50.2	32.4	37	79
		Second	266	-75				100	111
		Third	266	15				1	3
Ag, Body 4	Relative spherical	Main	176	0	32.2	16.5	51.3	32	136
		Second	266	-75				32	120
		Third	266	15				1	3

The semi-variogram modelled for Body1 was used during estimation for the branching body with the orientation adjusted to best suit the orientation of the mineralized body in question (Figure 7.5, Figure 7.6).

Variogram ellipses were visually checked against the wireframe during modelling.

Figure 7.5 Main direction variograms for Body1, Au



Components ○ 1 ● 2 ○ 3 ○ 4

	1	2	3	4
Type	SPHERICAL	SPHERICAL	SPHERICAL	SPHERICAL
Range	4.900	112.500		
Lock Axes	☐	☐	☐	☐

Components

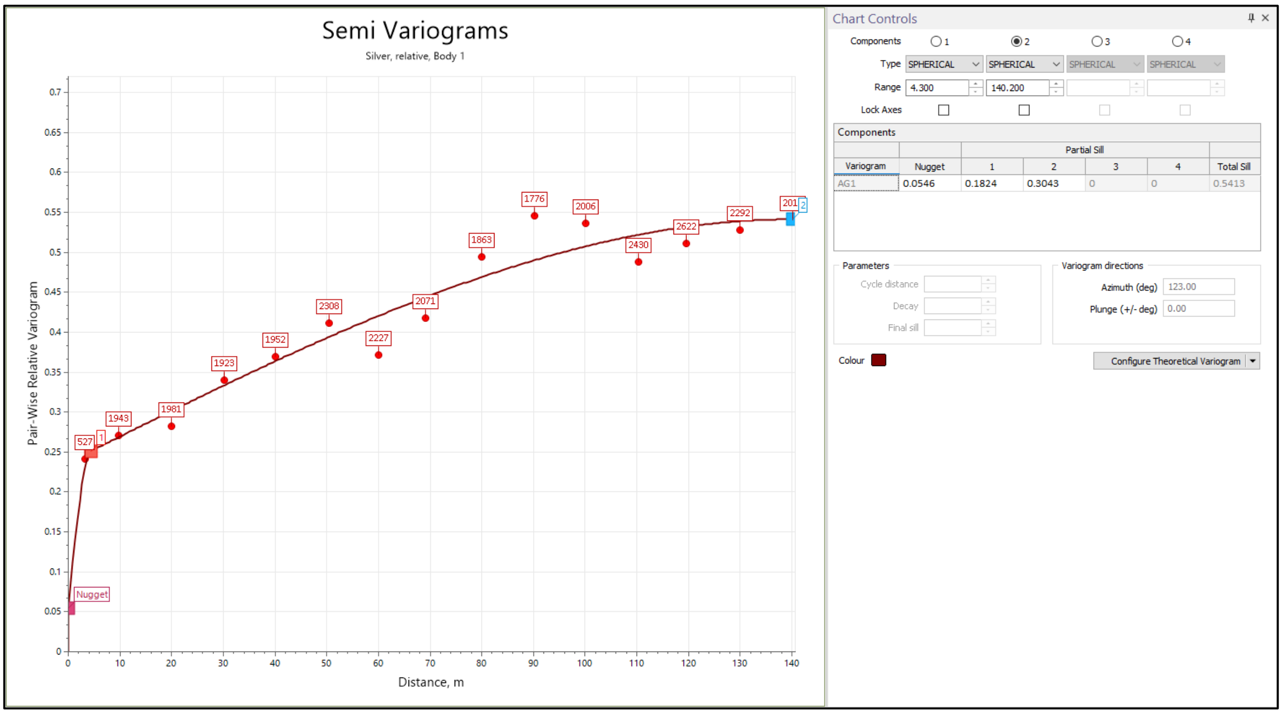
		Partial Sill				
Variogram	Nugget	1	2	3	4	Total Sill
AU1	0.1964	0.1695	0.1739	0	0	0.5398

Parameters
Cycle distance
Decay
Final sill

Variogram directions
Azimuth (deg) 123.00
Plunge (+/- deg) 0.00

Colour 🟥

Figure 7.6 Main direction variograms for Body1, Ag



Components ○ 1 ● 2 ○ 3 ○ 4

Type SPHERICAL SPHERICAL SPHERICAL SPHERICAL

Range 4.300 140.200

Lock Axes ☐ ☐ ☐ ☐

Components

		Partial Sill				
Variogram	Nugget	1	2	3	4	Total Sill
AG1	0.0546	0.1824	0.3043	0	0	0.5413

Parameters

Cycle distance

Decay

Final sill

Variogram directions

Azimuth (deg) 123.00

Plunge (+/- deg) 0.00

Colour 🟥

7.1.5 AMC opinion on data analysis

Consideration of the data types, the understanding of how the samples were collected, and any limitations of the data should be considered as part of any future work. AMC recommends that any further surface sampling and trenching should be documented and logged so that the analytical results could be verified and included in any subsequent updates of the MRE. The 2021 and 2022 surface sampling were excluded from the MRE update due to the lack of provided documentation to support the quality of work.

A global comparison of mean gold and silver grade was made between raw and composited data. Whilst any compositing strategy will be limited by the constraints of the data, and the effects of long sample intervals, a review of different compositing strategies and a discussion about the effects of compositing should be made. Any future work should include twin drilling of holes with mineralized intervals longer than 2 m, with sampling and assaying undertaken on 1 m intervals, guided by the mineralization or geology of the deposit. Longer sample intervals can then be discarded from the dataset.

Whilst these items should be considered and investigated in any future work, AMC does not consider that they would have a material impact on the Mineral Resource.

7.2 Bulk density

7.2.1 Methodology

AMC used data from two phases of test work to assign density to the Karaberd block model.

Bulk density data was collected during the exploration work completed by Lusadjur. In addition to the data collected during exploration, further density test work was undertaken on underground pillars collected in 2008 for metallurgical sampling.

The bulk density of the mineralized material in 2021 was determined in the field from bulk samples from the surface, by sawing the material from the outcrops or trenches using a diamond saw, after which the volume of the resulting "void" was measured, and then the mineralized material was weighed on electronic scales with an accuracy of 0.01 kg. After weighing, the collected material was dried on a gas stove until completely dried and re-weighed with an accuracy of 0.01 kg. Moisture was calculated as the difference between the two weights.

In 2022, the volume mass and moisture were determined in the laboratory at CJSC "Analytic" (earlier Central Laboratory of Geology Management), according to a commonly used Archimedes methodology.

7.2.2 Quality assurance

No quality assurance data was provided for the density determination work undertaken.

7.2.3 Analysis and results

The data for the determination of average bulk density values are tabulated below (Table 7.5 to Table 7.8).

Table 7.5 Bulk density determinations in the field

Exploration Working	**Sample Interval**		**Parameters**		**Depth**	**Volume**	**Weight**	**Bulk density**
	From (m)	**To (m)**	**Length (m)**	**Width (m)**	**(m)**	**(m^3)**	**(kg)**	**(t/m^3)**
chram-3	14.0	17.0	3.0	0.3	0.2	0.19	455.4	2.53
chram-3a	6.0	8.0	2.0	0.4	0.3	0.24	604.8	2.52
chram-4	4.0	5.5	1.5	0.3	0.3	0.14	333.4	2.47
chram-1	5.0	7.0	2.0	0.4	0.2	0.16	403.2	2.52
chram-2	8.0	10.5	2.5	0.3	0.2	0.15	382.5	2.55
chram-5	4.0	5.5	1.5	0.4	0.2	0.12	304.8	2.54
chram-6	11.0	13.0	2.0	0.4	0.3	0.24	602.4	2.51
trench-2	2.0	3.0	1.0	0.2	0.1	0.03	63.2	2.43
trench-7	2.5	4.0	1.5	0.2	0.1	0.04	90.3	2.51
trench-8	3.0	4.3	1.3	0.3	0.2	0.07	159.2	2.45

Table 7.6 Bulk density determinations in the laboratory

Sample	Mine Working	Volume (m^3)	Sample weight (kg)		Moisture (%)	Bulk density (t/m^3)	
			Natural Sample	Dry Sample		Natural Sample	Dry Sample
om-1	hole-34	0.1353	0.344	0.341	0.87	2.52	2.52
om-2	hole-25	0.1342	0.343	0.341	0.58	2.56	2.54
om-3	hole-36	0.1226	0.316	0.314	0.63	2.58	2.56
om-4	hole-37	0.1412	0.366	0.363	0.82	2.59	2.57
om-5	hole-38	0.1586	0.397	0.395	0.50	2.50	2.49
om-6	hole-39	0.1688	0.429	0.427	0.47	2.54	2.53
om-7	hole-40	0.1661	0.420	0.417	0.71	2.53	2.51
om-8	hole-41	0.1432	0.370	0.368	0.54	2.58	2.57
om-9	hole-42	0.1289	0.323	0.321	0.62	2.51	2.49
om-10	hole-43	0.1166	0.299	0.295	1.34	2.56	2.53
om-11	hole-44	0.1700	0.431	0.425	1.39	2.53	2.50
om-12	hole-45	0.1746	0.428	0.426	0.47	2.45	2.44
om-13	hole-46	0.1558	0.403	0.402	0.25	2.59	2.58
om-14	hole-47	0.1429	0.367	0.363	1.09	2.57	2.54
om-15	hole-48	0.1704	0.423	0.421	0.47	2.48	2.47
om-16	hole-49	0.1447	0.356	0.353	0.84	2.46	2.44
om-17	hole-50	0.1809	0.456	0.454	0.44	2.52	2.50
om-18	hole-51	0.1921	0.467	0.465	0.43	2.43	2.42
om-19	trench-6	0.1868	0.472	0.469	0.63	2.53	2.51
om-20	trench-5	0.1741	0.441	0.437	0.91	2.53	2.51
om-21	trench-4	0.1577	0.391	0.388	0.77	2.48	2.46
om-22	trench-78	0.1514	0.850	0.383	0.52	2.54	2.53
om-23	trench-32	0.1427	0.356	0.354	0.01	2.49	2.48
om-24	trench-78	0.1767	0.422	0.440	0.56	2.50	2.49
om-25	trench-8	0.1873	0.475	0.472	0.45	2.54	2.52

Table 7.7 Bulk density determinations for mineralized underground pillars

Sample	Volume (m^3)	Sample weight (kg)		Moisture (%)	Bulk density (t/m^3)	
		Natural Sample	Dry Sample		Natural Sample	Dry Sample
chram-3/1	0.27	0.683	0.678	0.73	2.53	2.51
chram-3a/1	0.34	0.857	0.853	0.47	2.52	2.51
chram-4/1	0.90	0.716	0.710	0.84	2.47	2.46
chram-1/1	0.32	0.794	0.788	0.76	2.52	2.50
chram-2/1	0.40	1.020	1.012	0.78	2.55	2.53
chram-5/1	0.42	1.067	1.058	0.84	2.54	2.52
chram-6/1	0.38	0.954	0.946	0.83	2.51	2.49
trench-2/1	0.30	0.729	0.723	0.82	2.43	2.42
trench-7/1	0.39	0.979	0.971	0.82	2.51	2.49
trench-8/1	0.26	0.637	0.632	0.78	2.45	2.43

Table 7.8 Bulk density determinations for primary mineralization

Drillhole	Volume	Sample Weight (kg)		Moisture	Bulk Density (t/m³)	
	(dm³)	Natural Sample	Dry Sample	(%)	Natural Sample	Dry Sample
DH-35	0.2463	0.719	0.71	1.28	2.68	2.65
DH-39	0.1944	0.525	0.518	1.42	2.7	2.66
DH-36	0.1836	0.5	0.492	1.64	2.72	2.68
DH-37	0.2455	0.673	0.662	1.73	2.74	2.7
DH-38	0.1973	0.529	0.521	1.52	2.68	2.64
DH-40	0.2684	0.719	0.711	1.08	2.68	2.65
DH-41	0.2835	0.773	0.758	1.96	2.71	2.67
DH-42	0.2607	0.691	0.685	0.94	2.65	2.63
DH-44	0.2602	0.692	0.682	1.43	2.66	2.62
DH-49	0.2315	0.597	0.588	1.58	2.58	2.54
DH-47	0.201	0.521	0.514	1.33	2.59	2.56
DH-46	0.2135	0.572	0.564	1.55	2.68	2.64
Total	**-**	**-**	**-**	**17.46**	**32.07**	**31.64**
Average	**-**	**-**	**-**	**1.455**	**2.67**	**2.636**

7.2.4 AMC opinion on bulk density

In AMC’s opinion, the bulk density data is of sufficient quantity to estimate the average values for block modelling. However, little is understood about the size, location and nature of the physical samples, therefore assumptions about their representativity are problematic.

The data has a narrow and consistent range of values, indicating that in situ bulk density is consistent for the deposit.

AMC recommends that as part of any further exploration, well-spaced representative density samples are collected for all material types (geological units, weathering, oxidation, alteration, and mineralization) and that they are analysed using a suitable method.

Whist these items should be considered and investigated in any future work; AMC does not consider it likely that these would have a material impact on the MRE.

After all the available data were analysed, it was decided that bulk density values of 2.50 t/m^3 and 2.63 t/m^3 be applied to the model cells for the oxide and fresh zones respectively.

7.3 Block Modelling

7.3.1 Software

Block modelling was undertaken in Micromine 2023 software.

7.3.2 Block model construction

A block model (Model_Krig_Dec_2022.dat) was constructed to include the full extent of the Karaberd deposit. Block model parameters are shown in Table 7.9 and block model attributes in Table 7.10.

The block model used a parent cell size of 10 m(E) by 10 m(N) by 10 m(RL) with sub-celling to 1 m in all directions to account for the resolution of the mineralized bodies. The size of the parent blocks was chosen based on the exploration grid density, the morphology of mineralized bodies, and the overall size of the model. Following sub-celling, the model was optimized, a process whereby sub-cells are combined into larger blocks within the parent cells, where possible. The model was coded below the topographic surface, with all blocks above the surface removed, and then by the modelled surface for the base of oxidation. Only mineralized blocks, within the mineralized body wireframes, were present in the block model, a waste model was not generated.

Table 7.9 Block model parameters

Axis	Extent		Block size (m)	Sub-cell size (m)	Number of parent blocks
	Minimum	Maximum			
Easting	8,458,795	8,460,005	10	1	121
Northing	4,521,395	4,522,605	10	1	121
RL	1,495	1,855	10	1	36

Table 7.10 Block model attributes

Field	Type	Description
X	Numeric	Block centroid X coordinates.
Y	Numeric	Block centroid Y coordinates.
Z	Numeric	Block centroid Z coordinates.
_X	Numeric	X Block size increment.
_Y	Numeric	Y Block size increment.
_Z	Numeric	Z Block size increment.
DENSITY	Numeric	Bulk density – 2.50 t/m3 assigned to all blocks in the oxide zone and 2.63 t/m3 for the fresh zone.
CLASS	Numeric	Resource classification. 1 = Measured, 2 = Indicated, 3 = Inferred, 9 = Unclassified.
WF1	Alphanumeric	Mineralized body name. Estimation domain code.
AU1	Numeric	Estimated Au grade.
AG1	Numeric	Estimated Ag grade.

7.3.3 Grade estimation

Gold and silver grades were estimated into each parent cell using ordinary kriging (OK) algorithm. Grades were estimated into all blocks within the mineralized wireframes. The estimation was completed using Micromine 2023 software. Hard boundaries were applied between the mineralized bodies during estimation. The WF1 field was used define the estimation domains. Variography modelled for domains Body3 and Body4 were used to estimate both main domains and one branching domain, although the orientations of search ellipse and variography were edited manually to best fit the orientation of the mineralized body being estimated (Table 7.11).

Table 7.11 Orientation parameters for estimation domains

Body	Wireframe*	Axis	Azimuth	Plunge
1	Body3	axis 1	123	0
		axis 2	213	71
		axis 3	33	0
3	Body4	axis 1	176	0
		axis 2	266	-75
		axis 3	266	15
Branching	Body_AP	axis 1	211	0
		axis 2	301	85
		axis 3	121	5

Note: The wireframing naming convention "Bodyxx" was inherited from the previous technical reports – these should be termed "zones" or a similar term which does not imply they constitute Mineral Resource.

Estimation was undertaken in successive search passes, for each pass the search ranges were multiplied by a factor and the sample selection parameters became less stringent (Table 7.12). This method ensures that blocks that are not estimated in the first search pass are estimated in subsequent search passes. The search ellipse axes were informed by the ranges from variography, with the along-strike value being 118 m, the down-dip value being 118 m and a the across-dip value being 3.2 m.

Table 7.12 Grade estimation parameters

Parameter	**Search Pass 1**	**Search Pass 2**	**Search Pass 3**	**Search Pass 4**
Search radii	78 x 78 x 2 m	118 x 188 x 3 m	236 x 236 x 6 m	472 x 472 x 13 m
Minimum number of composites	3	3	1	1
Maximum number of composites	12	12	12	12
Minimum number of holes	2	2	1	1

To manage data clustering, the search ellipse was divided into four sectors for grade estimation. A maximum of three composites per sector was allowed. No limit to the number of composites per hole was used, therefore three samples from a single hole could be used to inform the grade of a block.

A block discretisation of 5 x 5 x 5 points was used for estimation.

Grade estimation was also undertaken using the same search strategy, but for inverse distance weighting estimation to the power of 2 (IDW^2) and 3 (IDW^3) for comparison and validation against the OK estimate.

7.3.4 Block model validation

Validation of the grade estimate was accomplished by:

- Visual checks in cross section and plan view to ensure that the block model grades honour the local composite grades.
- Statistical comparison of composite and block grades.
- Generation of swath plots to compare input and output grades in a semi-local sense, by easting, northing and elevation.
- Comparison of wireframe volume against block model volume.
- Comparison between the IDW^2, IDW^3 and OK estimates.

7.3.4.1 Visual validation

The visual validation, undertaken by comparing the grades in the block model to the grades in the composites showed a satisfactory correlation (Figure 7.7 and Figure 7.8).

Figure 7.7 Long section of Body3 looking north (blocks and composites coloured by Au grade)

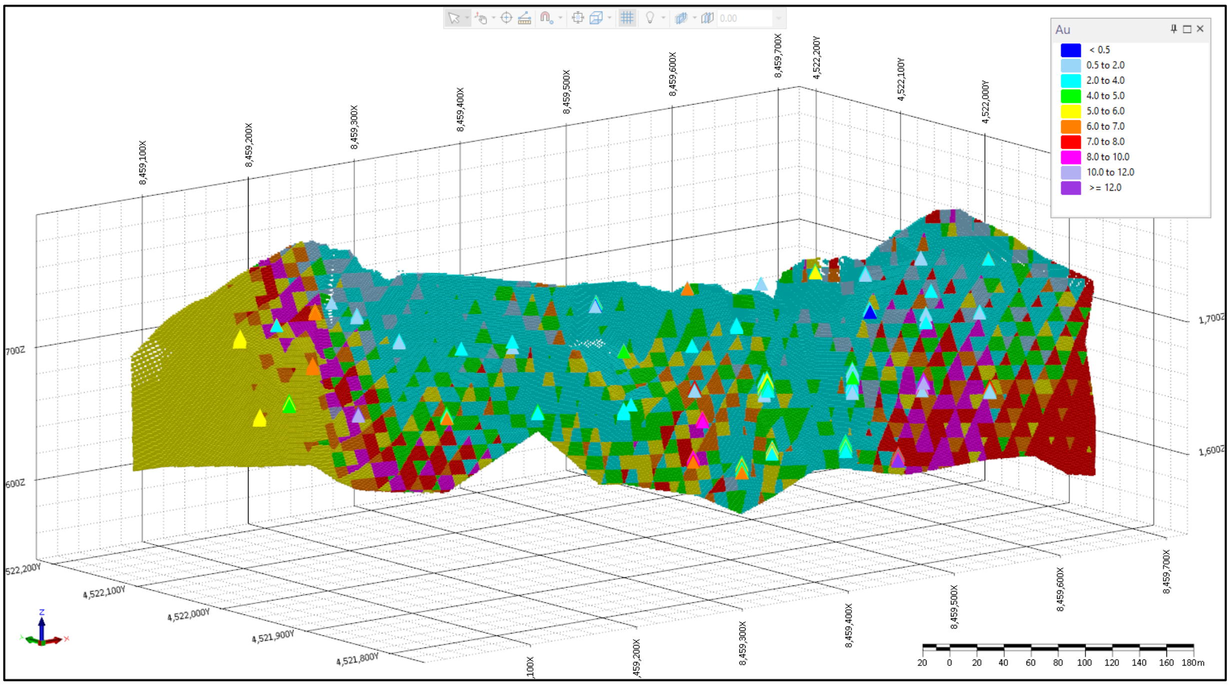
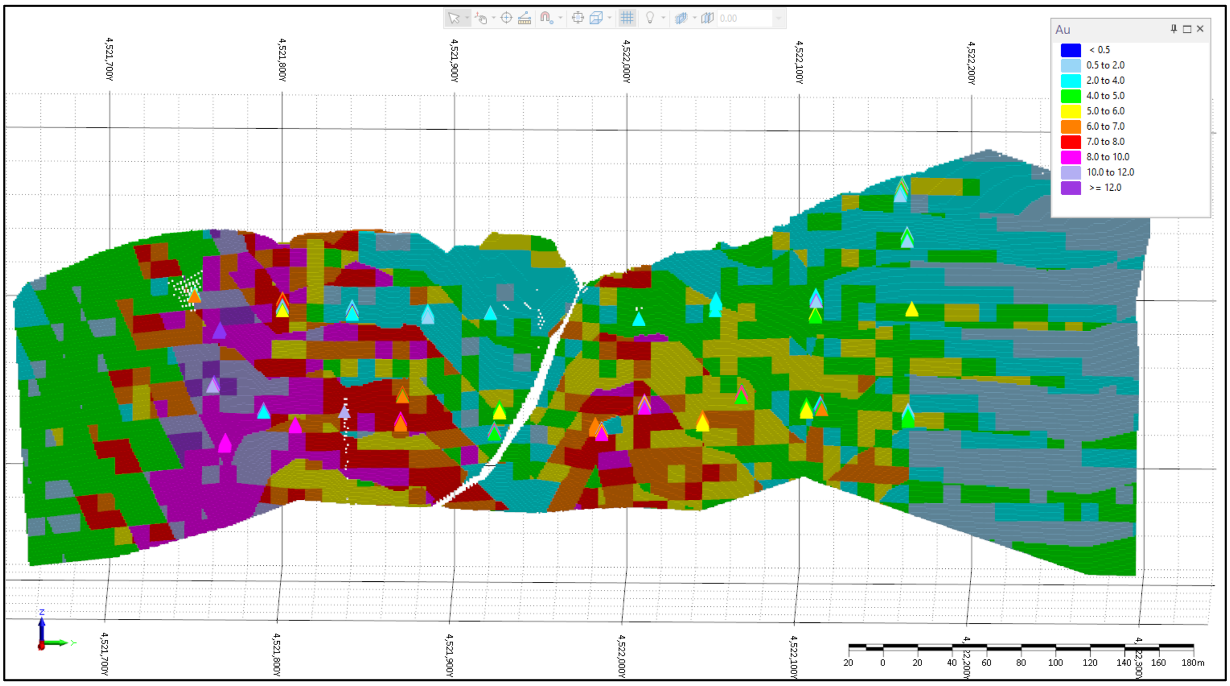


Figure 7.8 Long section of Body4 looking west (blocks and composites coloured by Au grade)



7.3.5 Statistical validation

Global statistical validation revealed a slight reduction in average gold grade in the model when compared to the composites (Table 7.13).

Table 7.13 Global mean grade comparison

Global Mean Grade	Input Composites (g/t)	Output Blocks (g/t)	Relative Difference (%)
Mean Au grade	4.96	4.65	-6.12%
Mean Ag grade	10.91	10.77	-1.32%

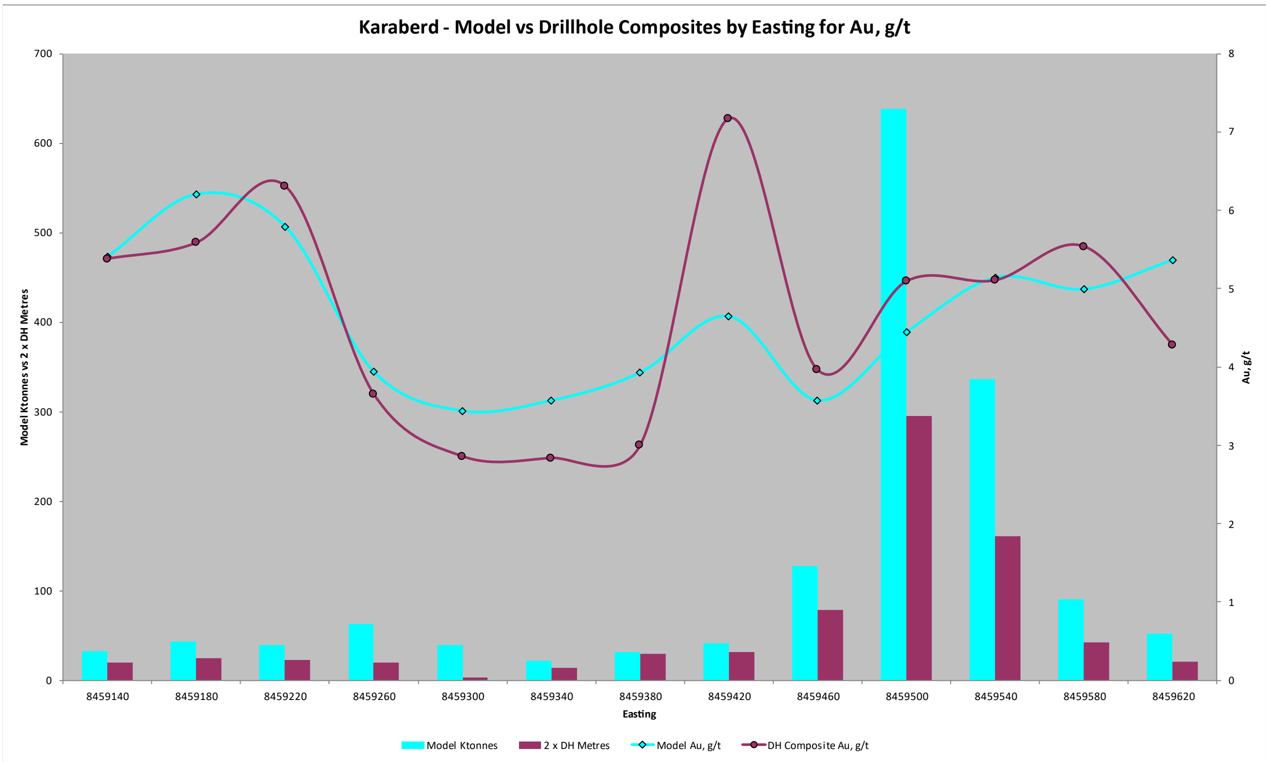
These differences are to be expected, as the mean grade of the composite data is affected by data clustering in places.

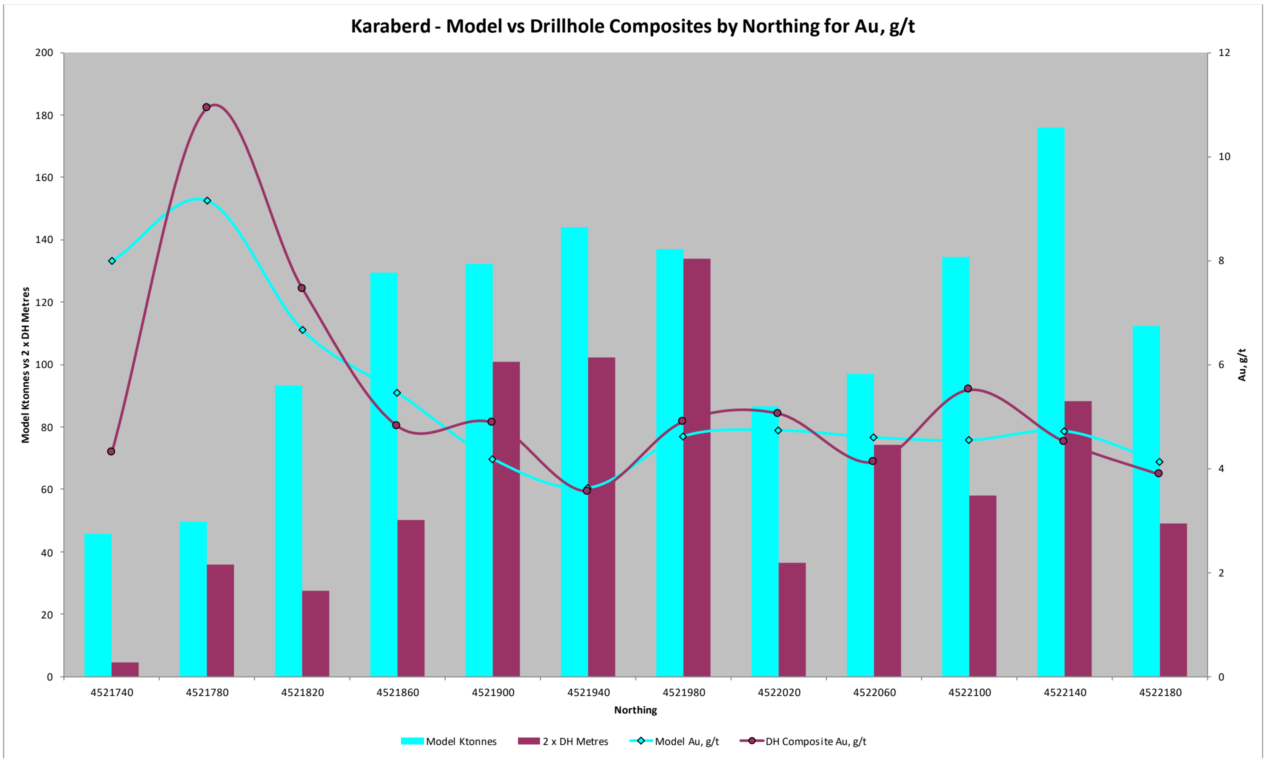
7.3.6 Swath plots

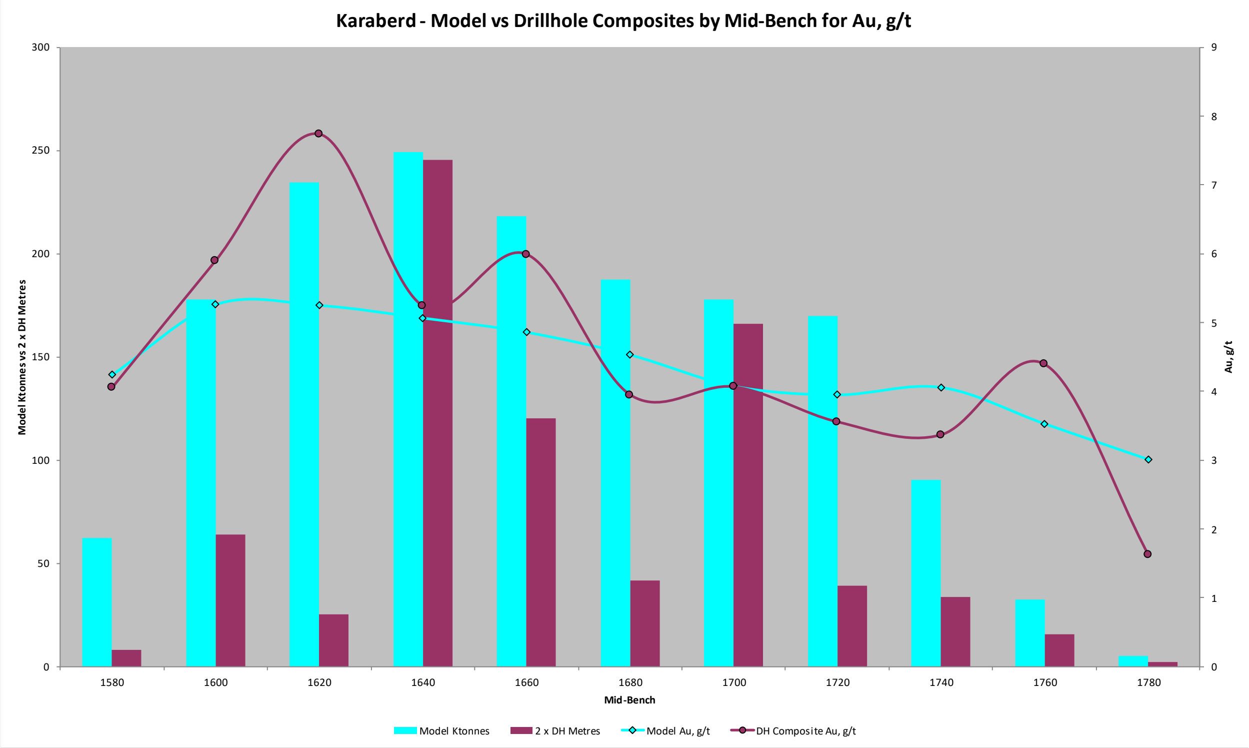
Swath plots were constructed as part of the validation process, by comparing the estimated parent block grades against the input composites, in spatial increments. These plots display northing, easting, and elevation slices at 50 m, 50 m and 20 m increments respectively, throughout the deposit (Figure 7.9).

The plots show that the spatial distribution of block grades honour the spatial distribution of input composite grades. There is a minor degree of smoothing evident, which is expected from the estimation method used, with block grades showing lower overall variance. The general trend of the composite grades is represented by the block model.

Figure 7.9 Global swath plots




Karaberd - Model vs Drillhole Composites by Northing for Au, g/t
Model Ktonnes vs 2 x DH Metres
Au, g/t
Northing
4521740
4521780
4521820
4521860
4521900
4521940
4521980
4522020
4522060
4522100
4522140
4522180
Model Ktonnes
2 x DH Metres
Model Au, g/t
DH Composite Au, g/t


Karaberd - Model vs Drillhole Composites by Mid-Bench for Au, g/t
Model Ktonnes vs 2 x DH Metres
Au, g/t
Mid-Bench
1580
1600
1620
1640
1660
1680
1700
1720
1740
1760
1780
Model Ktonnes
2 x DH Metres
Model Au, g/t
DH Composite Au, g/t

7.3.7 Model volume comparison

The total volume of the mineralized wireframes was compared to the total volume of mineralized blocks (Table 7.14). A difference of 10% was identified, which results from the wireframes protruding through the topographic surface and surface of excavation and is therefore acceptable.

Table 7.14 Volume comparison

Wireframe Volume (m^3)	**Block Model Volume (m^3)**	**Difference (%)**
717,372	646,409	-9.9

7.3.8 Comparison with check estimates

Gold and silver grades were estimated using two alternative methods, IDW^2 and IDW^3. The grades from these estimates were used as a check against the OK estimate. The analysis showed that the OK estimate produced very similar results as the IDW methods. Both IDW methods had average gold and silver grades not exceeding 1% relative difference below 2.5 g/t Au cut-off grade than the OK method. A comparison of estimates at differing cut-off grades is provided in (Table 7.15).

Table 7.15 OK versus IDW estimates

Cut-off	**OK**		**IDW^3**		**IDW^2**		**OK versus IDW^3**		**OK versus IDW^2**	
Au (g/t)	**Au (g/t)**	**Au (koz)**	**Au (g/t)**	**Au (koz)**	**Au (g/t)**	**Au (koz)**	**Grade (%)**	**Metal (%)**	**Grade (%)**	**Metal (%)**
0.5	4.66	242	4.65	242	4.66	242	0.3	0.3	0.2	0.2
1	4.69	242	4.67	241	4.68	242	0.3	0.3	0.2	0.2
1.5	4.74	241	4.72	241	4.72	241	0.4	0.2	0.3	0.1
2	4.99	233	5.05	232	5.03	232	-1.1	0.6	-0.7	0.3
2.5	5.19	226	5.27	224	5.25	225	-1.6	0.9	-1.2	0.6
3	5.44	215	5.51	214	5.48	215	-1.4	0.5	-0.8	0.1
3.5	5.68	202	5.76	202	5.75	201	-1.4	0.1	-1.1	0.2
4	5.94	186	6.00	188	5.97	188	-1.0	-0.7	-0.6	-0.8
4.5	6.44	155	6.36	164	6.33	165	1.3	-6.2	1.8	-6.5
5	6.83	134	6.94	132	6.91	132	-1.7	0.9	-1.2	1.4

7.4 Mineral Resource classification

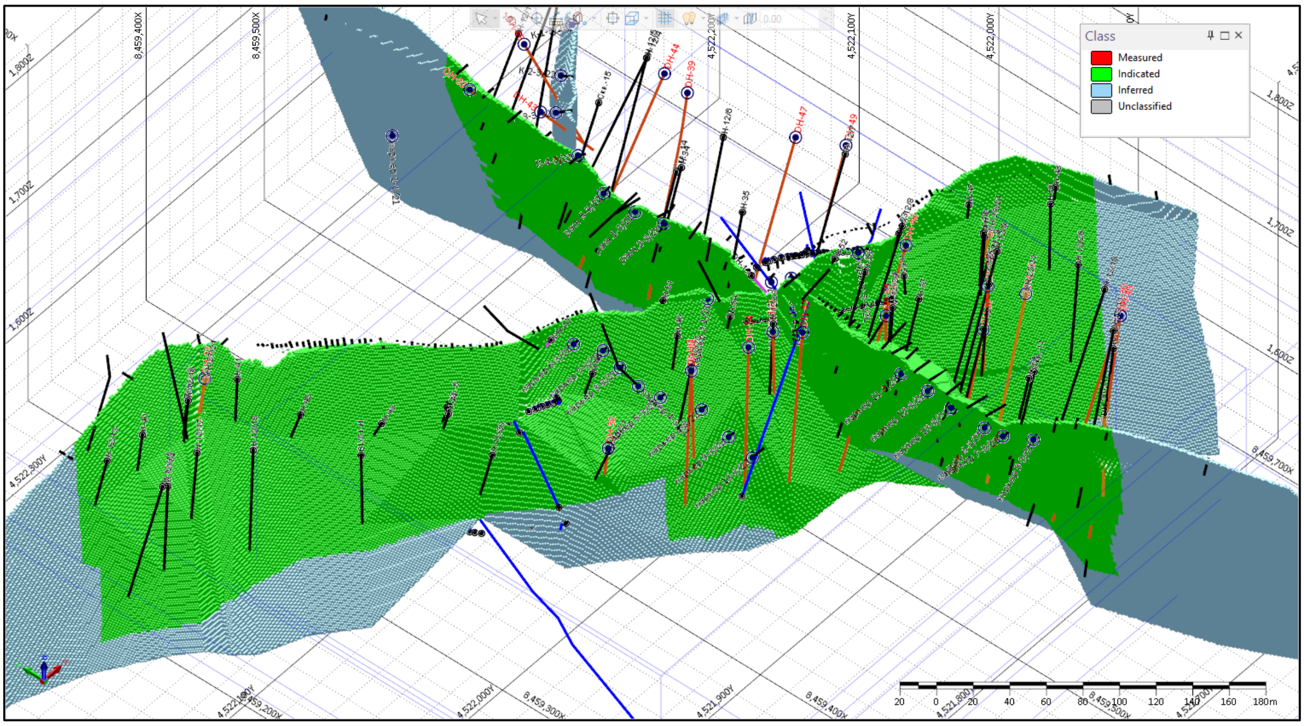
The MRE is classified according to JORC Code. The classification is based on an assessment of the geological understanding of the deposit, geological and grade continuity, drillhole spacing, QA/QC data and results, search and interpolation parameters, and an analysis of available bulk density information.

Based on the observed geological and grade continuity, it was decided to classify deposit areas with exploration grid density not exceeding 50 m by 50 m as Indicated Mineral Resource, and all other deposit areas as Inferred Mineral Resource. Geological evidence is sufficient to imply and also to verify geological and grade continuity for the areas classified as Indicated Mineral Resource, which were also supported by channel sampling and trial mining results. Geological evidence is sufficient to imply but not verify geological and grade continuity for the areas classified as Inferred Mineral Resource. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings, and drillholes (Figure 7.10).

An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to an Ore Reserve. It is reasonably expected majority of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

The classification process involved manual interpretation of the deposit areas and coding the block model.

Figure 7.10 3D view showing the extent of the Indicated and Inferred Mineral Resource



Body3, Body4 and one branching structure are the only mineralized bodies considered for Mineral Resource classification. Other smaller bodies are supported by a maximum of two data points and are not supported by higher confidence drillhole data, hence their exclusion.

7.5 Mineral Resource statement

The Mineral Resource is reported in accordance with JORC Code. The Mineral Resource discussed herein may be affected by subsequent assessments of mining, environmental, processing, infrastructure, permitting, taxation, socio-economic, political and other factors. AMC deems the gold mineralization interpreted from exploration trenching, channel sampling and drilling to be potentially amenable to open pit and underground extraction.

The Mineral Resource has been classified in accordance with JORC Code, by the Competent Person, Mr Dmitry Pertel. Mr Pertel is an independent consultant and full-time employee of AMC and is wholly independent of MVI.

The Mineral Resource was estimated by generally accepted industry practices. Mineral Resources are not Ore Reserves and therefore do not have demonstrated economic viability.

The Mineral Resource is reported as of 1 December 2022 at a 0.8 g/t Au cut-off grade (Table 7.16). At a 0.8 g/t Au cut-off, the Mineral Resource is deemed to have reasonable prospects for eventual economic extraction as it is within the range of currently reported deposits of a similar nature.

Table 7.16 Mineral Resource for the Karaberd Gold Project as of 1 December 2022 at a 0.8 g/t Au cut-off grade

Oxidation	Classification	Tonnes	Au		Ag	
		kt	**g/t**	**koz**	**g/t**	**koz**
Oxidized	Indicated	452	4.2	61	9	131
	Inferred	192	4.0	24	10	65
	Total	**643**	**4.1**	**86**	**9**	**196**
Fresh	Indicated	565	5.1	92	11	200
	Inferred	436	4.9	69	12	174
	Total	**1,001**	**5.0**	**161**	**12**	**375**
Total	Indicated	1,016	4.7	153	10	331
	Inferred	628	4.6	93	12	239
	Total	**1,644**	**4.7**	**246**	**11**	**570**

Notes:
- The Mineral Resource estimate is classified according to JORC Code.
- The Mineral Resource estimate is reported at a 0.8 g/t Au cut-off grade as of 1 December 2022.
- Mineral Resources are not Ore Reserves and do not have demonstrated economic viability.
- A bulk density value of 2.50 t/m^3 was used for the estimate of in situ tonnes for oxidized zone and 2.63 t/m^3 for fresh zone.
- Discrepancies in calculations may be present due to rounding.
- kt refers to kilo-tonnes (i.e. one thousand tonnes).
- koz refers to kilo-ounces (i.e. one thousand troy ounces).

The estimate was calculated at a range of cut-off grades separately for the oxide and primary zones and is represented in the grade-tonnage graphs (Figure 7.11 and Figure 7.12). The Mineral Resource classification is applied for the 0.8 g/t cut-off grade and may not apply to the higher cut-offs shown in the graphs as the geological and grade continuity may be poorer at the higher cut-off grades.

Figure 7.11 Grade-tonnage curve showing gold grades for Karaberd Gold Project

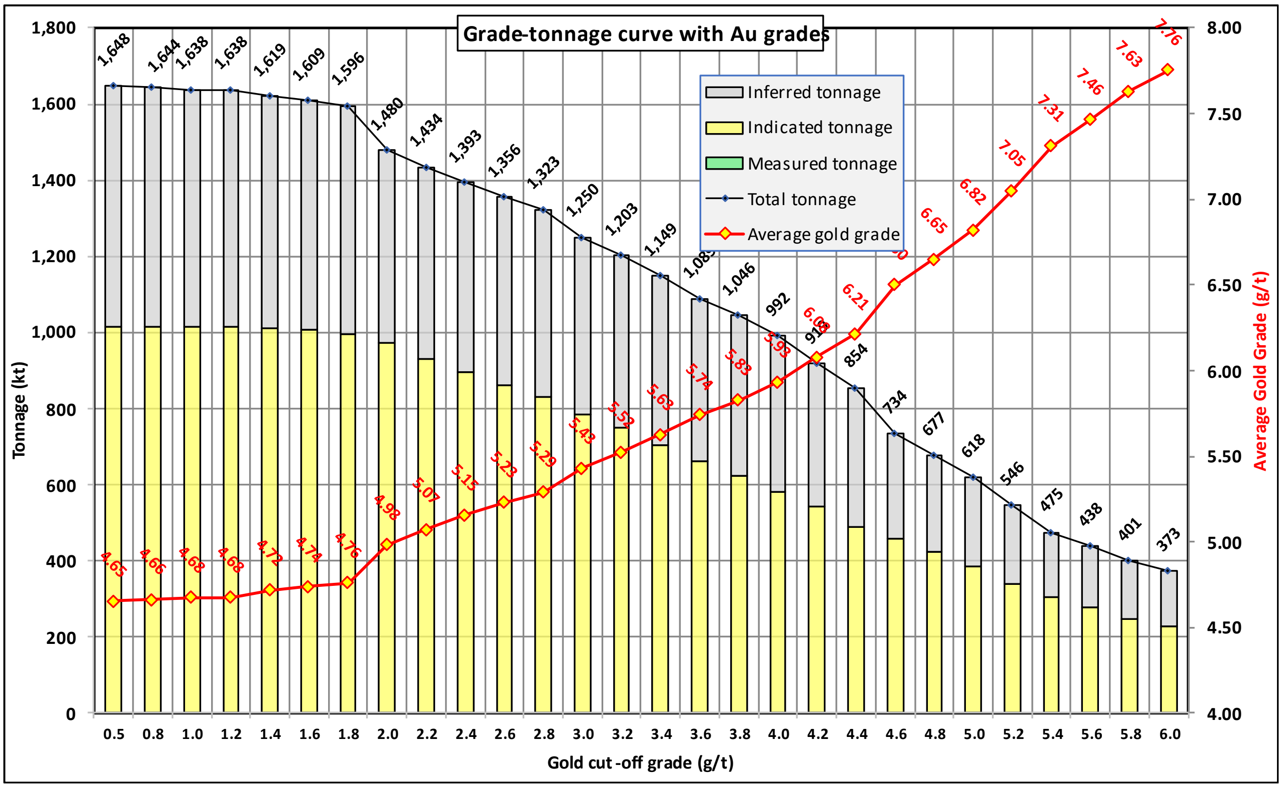
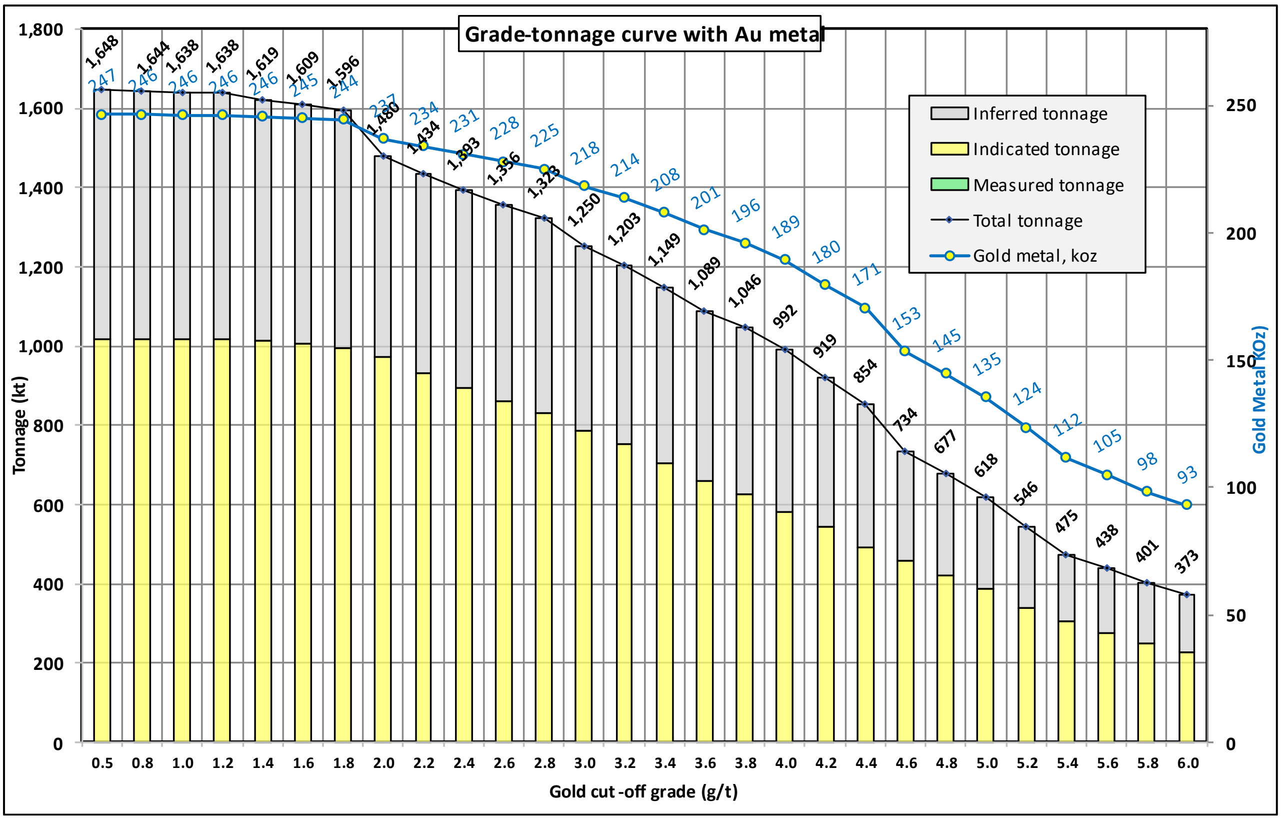


Figure 7.12 Grade-tonnage curve showing gold metal for Karaberd Gold Project



8 Metallurgy

8.1 Summary of testwork

Metallurgical studies were completed at the Project in 2005 and 2008 by Assat, summarized by AMC as follows.

8.1.1 2005 metallurgical study

The 2005 study was performed at the Lernametallurgical Institute. Testwork was carried out on an above average grade sample; gold 17.57 g/t and silver 35.53 g/t. Details regarding the nature of the sample, its collection methodology and original location are not known. Flotation testwork carried out indicated average gold recoveries in the region of 80%, silver recoveries of 45% and copper recoveries of around 40%. Conceptual flowsheets were constructed on the basis of initial gravity recovery followed by flotation although the proportion of gravity recoverable gold is not known.

It was considered likely that the Project would be developed in two stages:

- Stage 1 focusing on gold recovery by intensive gravity concentration, recovering free gold.
- Stage 2 focusing on gold recovery using gravity extraction of associated gold into bulk gold containing gravity concentrates, which could be sold as concentrates or further refined into gold.

8.1.2 2008 metallurgical study

Testwork in 2008 focused on two bulk oxide samples of material from the central zone at Karaberd, undertaken by Masis Plant of Assat.

The samples were blended to ensure average gold grades. The first sample from Body3 was 45 tonnes with an average gold grade of 4.1 g/t, the second sample from Body4 was 113 tonnes with an average gold grade of 5.2 g/t. These grades are considered representative of the mineralization.

The combined samples were ground to 0.77 mm, subjected to cyanidation with the ratio of solid mass and liquid assumed to be 1:1. The sodium chloride (NaCl) concentration was between 0.04% and 0.06%. Reportedly, gold recovery was 96.5% and the gold grade in tailings was 0.27 g/t.

8.2 AMC’s Opinion on metallurgical testwork

In AMC’s opinion, the metallurgical testwork completed is limited and poorly documented.

The 2005 testwork is questionable, as they have based the work on a sample that is anomalously high grade, and the extent of gravity recoverable gold is not known.

The 2008 testwork lacks substantive supporting data and returns significant higher gold recoveries.

These tests indicated that gold and silver can be extracted from the mineralization, although only gold recoveries were reported in the 2008 study. Silver recoveries reported from the 2005 study are low and further study work is required to understand the recovery characteristics.

There is a significant disparity between gold recoveries reported from the 2005 study and the 2008 study (flotation versus cyanidation, respectively), highlighting the need for further controlled metallurgical testwork and the quantification of the proportion of gravity recoverable gold is critical as this represents the lower hurdle in terms of capital expenditure for the development of processing options on site.

9 Trial mining

MVI commenced trial mining at Karaberd in May 2021 (Figure 9.1). The mineralized material was loaded to small trucks by excavator (Figure 9.2), then transported to Kirovakan (Figure 9.3) where it was crushed (Figure 9.4) and stockpiled (Figure 9.5). The mineralized material was then transported to the processing plant in Ararat (GeoPro Mining Gold LLC) by railway using 65-tonne wagons.

Figure 9.1 Test mining operation at Karaberd

Figure 9.2 Ore loading at Karaberd

Figure 9.3 Trucks used to transport ore from Karaberd site to Kirovakan

Figure 9.4 Crusher at Kirovakan

Figure 9.5 Stockpile at Kirovakan

The processing plant reported that it processed 4,350 t of mineralized material in two shifts on 22 April 2021 (2,490 t at the first shift with an average gold grade of 2.73 g/t and 1,860 t of ore at the second shift with an average gold grade of 2.41 g/t). Thus, the average gold grade was 2.59 g/t and the recovered metal was 11,279 g Au.

The second batch was delivered in May 2021. The processing plant reported that it processed 4,908 t of mineralized material in three shifts on 26 and 27 May 2021 (2,623 t at the first shift with an average gold grade of 1.71 g/t, 1,128 kt of ore at the second shift with an average gold grade of 1.64 g/t, and 11,157 t of ore during the third shift with an average gold grade of 1.49 g/t). Thus, the average gold grade was 1.64 g/t and the recovered metal was 8,059 g Au.

The third batch was delivered to the processing plant in June 2021. The processing plant reported that it processed 4,996 t of mineralized material in two shifts on 22 and 25 June 2021 (2,452 t at the first shift with an average gold grade of 1.60 g/t, and 2,247 t of ore at the second shift with an average gold grade of 1.20 g/t). Thus, the average gold grade was 1.41 g/t and the recovered metal was 6,620 g Au.

With regards to the batch delivered to the processing plant in July, the processing plant reported that it processed 4,585 t of mineralized material in two shifts on 15 and 22 July 2021 (2,488 t at the first shift with an average gold grade of 1.27 g/t, and 2,423 t of ore at the second shift with an average gold grade of 0.80 g/t). Thus, the average gold grade was 1.04 g/t and the recovered metal was 4,750 g Au.

With regards to the batch delivered to the processing plant in August, the processing plant reported that it processed 5,058 t of mineralized material in two shifts on 19 and 26 August 2021 (2,843 t at the first shift with an average gold grade of 1.01 g/t, and 2,216 t of ore at the second shift with an average gold grade of 1.00 g/t). Thus, the average gold grade was 1.01 g/t and the recovered metal was 5,086 g Au.

With regards to the batch delivered to the processing plant in September, the processing plant reported that it processed 5,200 t of mineralized material in two shifts on 16 and 24 September 2021 (2,678 t at the first shift with an average gold grade of 0.80 g/t, and 2,523 t of ore at the second shift with an average gold grade of 0.89 g/t). Thus, the average gold grade was 0.84 g/t and the recovered metal was 4,387 g Au.

With regards to the batch delivered to the processing plant in December, the processing plant reported that it processed 4,524 t of mineralized material in two shifts on 10 and 14 December 2021 (2,253 t at the first shift with an average gold grade of 1.08 g/t, and 2,271 t of ore at the second shift with an average gold grade of 1.58 g/t). Thus, the average gold grade was 1.33 g/t and the recovered metal was 6,017 g Au.

The processing plant provided summaries period between April and December 2021 (Table 9.1 to Table 9.7).

Table 9.1 Summary of processed ore, April 2021

Date	Rail wagons	Tonnage wet (t)	Moisture (%)	Tonnage dry (t)
9-Apr-21	20	845.8	6.4	791.6
13-Apr-21	20	1,265.2	7.3	1,172.8
20-Apr-21	20	1,382.5	6.8	1,288.5
22-Apr-21	20	1,197.1	8.4	1,096.6
Total	**80**	**4,690.6**	**7.27**	**4,349.5**

Table 9.2 Summary of processed ore, May 2021

Date	Rail wagons	Tonnage wet (t)	Moisture (%)	Tonnage dry (t)
18-May-21	40	2,790.7	4.6	2,662.4
26-May-21	20	1,242.6	7	1,155.6
27-May-21	20	1,178.6	7.5	1,090.2
Total	**80**	**5,211.9**	**5.83**	**4,908.2**

Table 9.3 Summary of processed ore, June 2021

Date	Rail wagons	Tonnage wet (t)	Moisture (%)	Tonnage dry (t)
22-Jun-21	40	2,613.1	6.16	2,452.1
25-Jun-21	40	2,383.1	5.7	2,247.3
Total	**80**	**4,996.2**	**5.94**	**4,699.4**

Table 9.4 Summary of processed ore, July 2021

Date	Rail Wagons	Tonnage wet (t)	Moisture (%)	Tonnage dry (t)
15-Jul-21	40	2,488.4	7.40	2,304.2
22-Jul-21	40	2,423.2	5.90	2,260.2
Total	**80**	**4,911.7**	**6.66**	**4,584.6**

Table 9.5 Summary of processed ore, August 2021

Date	Rail Wagons	Tonnage wet (t)	Moisture (%)	Tonnage dry (t)
19-Aug-21	40	2,979.9	4.60	2,842.8
26-Aug-21	40	2,376.5	6.77	2,215.6
Total	**80**	**5,356.3**	**5.56**	**5,058.4**

Table 9.6 Summary of processed ore, September 2021

Date	Rail Wagons	Tonnage wet (t)	Moisture (%)	Tonnage dry (t)
16-Sep-21	40	2,857.7	6.30	2,677.7
24-Sep-21	40	2,724.2	7.40	2,522.6
Total	**80**	**5,581.9**	**6.84**	**5,200.3**

Table 9.7 Summary of processed ore, December 2021

Date	Rail Wagons	Tonnage wet (t)	Moisture, %	Tonnage dry (t)
10-Dec-21	40	2,470.6	8.80	2,253.2
14-Dec-21	40	2,457.4	7.60	2,270.7
Total	**80**	**4,928.0**	**8.20**	**4,523.9**

The total trial production resulted in recovery of 46.2 kg of gold metal. No other information was made available with regards to the test mining operation at the deposit.

The test mining confirmed the presence of mineralization, though the reported average grades were lower than those estimated in the model. That should be investigated, as the average grades could be significantly diluted during mining operation. It is not known how the mining operation was planned and whether any grade control procedures were in place.

10 Conclusions and recommendations

10.1 Conclusions and technical risks

Sampling techniques and data:

- There are substantial gaps in the supporting information regarding geological logging, poorly documented oxidation state of material, survey control for surface trenches and underground workings. Most of the supporting information for channel sampling is not sufficient, some has been lost, some was not made available for review. As a result, the confidence in the data with regards to both surface and underground channel sampling is low and makes it unsuitable to support the grade estimation for MRE.
- The historical drilling is also poorly documented. This is however mitigated by the 2020 verification programme and 2021 and 2022 infill and twin drilling.
- Verification sampling in 2020 was undertaken to industry standards and is well documented, it verifies the presence of mineralization, its 3D location, thickness, and grade. This information is fundamental to the formal reporting of the MRE.
- Whilst the MRE is mostly based upon data collected between 2003 and 2012, the 2020 verification drilling and 2021-2022 infill drilling was included into the MRE update, and it is possible to report Indicated and Inferred Mineral Resources according to JORC Code.
- All of the 2021 and 2022 surface grab and channel samples were excluded from the MRE due to the unknown procedures of how they were collected.

QA/QC:

- The primary samples do not have any controls on cross contamination or assay accuracy and therefore the reliability of these data is uncertain. Verification drilling included quality control samples and the results indicated that these assay data should be reliable. Verification drilling assay results were relatively lower (average grade -16% lower) than the original assay results which could indicate that there were contamination or accuracy issues with the primary assay results.

Geological model:

- The geological model was constructed based on grade alone. It is well constructed and honours the trends seen in the data and the interpreted cross-sections provided. No models for geology or alteration were constructed, though weathering surface was generated using limited data available. Only two of the 17 mineralized bodies and one of two branching structures were supported by drilling, the remaining bodies were constructed using trench or channel data, often from a single intersection. AMC considered these smaller bodies to be of lower confidence than the two main and one branching bodies and were not considered to be part of the reported Mineral Resource.

Data analysis:

- Data analysis was undertaken with consideration of the three exploration methods (drillhole, surface trench and underground channel) and data for both surface and underground channel sampling were not analysed nor included into the grade estimation. However, channel sampling was used to support geological interpretation of mineralized bodies.

Density:

- In AMC's opinion, the bulk density data is of reasonable quality and supports data for both oxide and primary zones of the deposit. However, little is understood about the size, location and nature of the physical samples, therefore assumptions about their representativity are problematic.

- The 2005 test work is questionable, as the work was based on a sample that is anomalously high grade. Processing by gravity concentration may only be beneficial for small parts of the mined material where free gold is present. With the current lack of logging data, it is unclear what proportion of the deposit is included in this category.

- The 2008 test work is also questionable due to paucity of substantiating data and returned very high gold recoveries.
- These tests indicated that gold and silver can be extracted from the mineralization, although the range of recovery between the different methods is substantial and further test work is required.

Metallurgy:

- In AMC's opinion, the metallurgical testwork completed is limited and poorly documented.
- The 2005 testwork is questionable, as the work was based on a sample that is anomalously high grade. Processing by gravity concentration may only be beneficial for small parts of the mined material where free gold is present. With the current lack of logging data, it is unclear what proportion of the deposit is included in this category.
- The 2008 testwork is also questionable due to paucity of substantiating data and returned very high gold recoveries.
- These tests indicated that gold and silver can be extracted from the mineralization, although the range of recovery between the different methods is substantial and further testwork is required.

Grade estimation:

- The grade estimation strategy employed was robust and the resultant block model validates well against the input composite data.

Test mining:

- The test mining which was commenced in May 2021 and finished in December 2021. It confirmed the presence of mineralization, though the reported average grades were lower than the ones estimated in the model. That should be investigated, as the average grades could be significantly diluted during mining operation. It is not known how the mining operation was planned and whether any grade control procedures were in place.

10.2 Recommendations

AMC recommends the following work be undertaken:

- Regular topographic survey, with focus on ongoing surface excavations. This could potentially be carried out as a drone survey to reduce costs.
- A depletion volume model should be created to define the underground workings, to allow for detailed depletion of any future MRE, and to allow for proper consideration of potential voids during mine planning and production.
- All exploration work should be carried out to industry standards with all documentation captured digitally and stored securely.
- Standard operating procedures should be generated for any future work, to ensure that all processes are well documented and can be audited by external consultants. Including but not limited to exploration activities (planning and executing drillholes, trenches and channel samples), geological logging of excavations and drillholes, sampling of drillholes and trenches, sample preparation, analysis and QA/QC.
- Geological logging should include as a minimum, lithology, alteration, weathering, structure, texture and mineralization information. All core should be logged and photographed wet and dry before sampling is undertaken. Oriented core should be considered to better define the orientation of mineralized structures.
- Geotechnical data should be routinely collected during the logging to begin to inform potential pit or underground mining designs.

- A relational database should be created to store all available data. Templates for standardized data capture should be generated and followed for all future work that is carried out on site.
- Reliance on the pre-2020 exploration data should be phased out as soon as new drilling and surface trenching is complete. AMC recommends the drill pattern be infilled to a regular spaced 25 m grid of drillholes with supplementary surface trenching at 25 m spacing along strike. Strike extensions should also be drill tested as both major zones (1 and 3) are open along strike. Mapping of the surface expression of mineralization should be undertaken and could be used to interpret the mineralization between trenches. Further testing of downdip extensions of mineralization should be undertaken should the trade-off study referred to below indicate the potential for underground mining. Additional drilling will also allow for the numerous wireframes to be assessed in terms of improved data density and potential inclusion as Mineral Resources.
- Multi-element geochemical assay data should be collected routinely, to inform not only grades of the precious and base metals but also to identify potential contaminant risks (i.e. arsenic, uranium, heavy metals, and acid mine drainage). The collection of multi-element assay data would allow for the estimation of not only gold (and silver, subject to additional metallurgical test work) but also copper, zinc and lead as there are indications of base metal mineralization at the Project.
- It would be prudent to start considering whether a geometallurgical model would be of benefit, and if so, analysis of a subset of the drillhole data by four-acid ICP-MS and collection of handheld infrared spectral data should be incorporated into future exploration programmes.
- Density test work of a representative amount of waste and mineralized intervals should be collected throughout future exploration. Where these samples relate to specific intervals downhole or sample trenches on surface, this should be recorded so the density data can be reviewed in 3D. Density test work should be of a method that appropriately honours the textural, pore space and void space in the natural rock mass.
- Once new exploration data is available, the 3D model and resource estimation should be updated to reflect this new data.
- A structural geological assessment should be undertaken to further ascertain the structural controls on mineralization and to assess any high-grade trends.
- A trade-off concept or scoping study should be undertaken to determine the optimum mining method/s. Currently there is insufficient data to ascertain whether the deposit could be mined via open pit, underground or potentially even both methods. This study will also aid in guiding exploration drilling depths (i.e. whether drilling deep holes is justified). A key component of this study will be a detailed seismic risk assessment as this may also have a bearing on the likely mining method.
- The deposit is open along strike and down dip; however, additional exploration along strike may be hindered by the small size of both the allotment and the contained exploitation permit. Consideration should be given to the acquisition of geologically similar ground along strike from the deposit to potentially increase the size of the deposit.
- Recently identified branching structures have potential for further exploration and an increase in MRE.
- The current tenements possibly are not large enough to accommodate the mine infrastructure including waste dumps etc.
- Establishment of the mine geology system should be considered well in advance of mining. Systems to ensure development of the geological model, high-quality sampling, rapid capture and storage of data, quality control assessment, robust ore block interpretation, minimization of ore loss and dilution, production tracking and reporting, and reconciliation should be established. That should help to optimized average mined grade.

10.2.1 Use of funds

MVI advised AMC that the budget shown in Table 10.1 for the continued development of the Project over the next 12 to 18 months. AMC has reviewed the proposed work programme and budget and believes it to be an appropriate deployment of funding with the aim of advancing the Project in a risk-mitigative manner.

Table 10.1 Proposed work programmes

Item	Description/Rationale	Approximate Cost (US$)
Infill drilling	Upgrade classification of Mineral Resources, obtain geotechnical information, obtain multi-element assay data, generate samples for detailed metallurgical testwork. Topographical survey.	1,200,000
Updated MRE	Based on infill programme. Attempt to improve classification of Mineral Resources to allow potential conversion to Ore Reserves. Assess upside potential of other metals.	40,000
Metallurgical testwork	Undertake liberation testwork on samples generated during infill programme.	100,000
Trade-off study	Utilize updated MRE, geotechnical data and metallurgical testwork to support a trade-off or Scoping-level assessment to investigate potential mining method and commence more detailed planning.	200,000
Total		**1,540,000**

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12 Consent forms

Competent Person’s Consent Form

Pursuant to the requirements of Australian Securities Exchange (ASX) Listing Rules 5.6, 5.22, and 5.24 and Clause 9 of the JORC Code (Written Consent Statement)

Report name:

AMC023064 Competent Person’s Report - Karaberd (“Report”), prepared for:

Mineral Ventures Invest spol s.r.o. (“MVI”) covering:

Mining allotment N366 (2013), dated **1 December 2022** with an effective date of **1 December 2022**.

12.1 Statement – Dmitry Pertel

I, **Dmitry Pertel**, confirm that I am the Competent Person for the Mineral Resource estimate in the Report and:

I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).

I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralization and type of deposit described in the Report, and to the activity for which I am accepting responsibility.

I am a Member of the Australian Institute of Geoscientists.

I have reviewed the Report to which this Consent Statement applies subject to the review of MVI's listing documents.

I am a full-time employee of **AMC Consultants Pty Ltd** and have been engaged by **Mineral Ventures Invest spol s.r.o**. to prepare the documentation for **Allotment N366** on which the Report is based, for the period ended **1 December 2022**.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Exploration Targets and Mineral Resources.

12.2 Consent – Dmitry Pertel

I consent to the release of the Report and this Consent Statement by the directors of **Mineral Ventures Invest spol s.r.o**.

SIGNATURE OF COMPETENT PERSON:	DATE: 27 June 2023
PROFESSIONAL MEMBERSHIP: MAIG (AUSTRALIA)	MEMBERSHIP NUMBER: 2248
SIGNATURE OF WITNESS:	PRINT WITNESS NAME AND RESIDENCE: Serik Urbisinov Western Australia

13 Abbreviations and units of measurements

֏	Armenian dram
°	degrees
°C	degrees Celsius
2D	two-dimensional
3D	three-dimensional
AAS	atomic absorption spectroscopy
Ag	silver
AMC	AMC Consultants Pty Ltd
Assat	Assat LLC
Au	gold
cm	centimetres
CPR	Competent Person’s Report
CRM	certified reference material
EIA	environmental impact assessment
ERM	Environmental Resources Management
g	grams
g/t	grams per tonne
ha	hectare(s)
ICP-MS	inductively coupled plasma mass spectrometry
IDW2	inverse distance weighting to the power of two
IDW3	inverse distance weighting to the power of three
kg	kilograms
km	kilometres
koz	kilo-ounces (thousand ounces)
kt	kilo-tonnes (thousand tonnes)
LSE	London Stock Exchange
m, m^2, m^3 metre(s)	square metre(s), cubic metre(s)
mg/t	milligrams per tonne
mm	millimetres
MRE	Mineral Resource estimate
MVI	Mineral Ventures Invest spol s.r.o.
NaCl	sodium chloride
NSR	net smelter return
OK	ordinary kriging
ppm	parts per million
PSSF	Pambak-Sevan-Sunik Fault
QA/QC	quality assurance/quality control
t	tonne(s)
t/m^3	tonnes per cubic metre
UK	United Kingdom
US$	United States dollar
VAT	value-added tax
VMS	volcanogenic massive sulfides

14 Glossary

Term	Explanation
adits	An adit (from Latin aditus, entrance) is an entrance to an underground mine which is horizontal or nearly horizontal, by which the mine can be entered, drained of water, ventilated, and minerals extracted at the lowest convenient level. Adits are also used to explore for mineral veins.
Ag	Chemical symbol for silver.
alluvial	Alluvium is loose, unconsolidated (not cemented together into a solid rock) soil or sediment that has been eroded, reshaped by water in some form, and redeposited in a non-marine setting. Alluvium is typically made up of a variety of materials, including fine particles of silt and clay and larger particles of sand and gravel.
analytical duplicates	Analytical duplicates are subsamples that are analyzed to compare results against the original analysis. If significant differences are noted, it may indicate sample mix ups, analytical procedural issues or calibration issues. Precious metal duplicates may differ due to the nugget effect.
andesite	Andesite is an extrusive igneous volcanic rock of intermediate composition, with aphanitic to porphyritic texture. In a general sense, it is the intermediate type between basalt and rhyolite.
anticline	The inverse of a syncline.
Au	Chemical symbol for gold.
basalt	Basalt is a mafic extrusive igneous rock formed from the rapid cooling of magnesium-rich and iron-rich lava.
base metals	A base metal is a common and inexpensive metal, as opposed to a precious metal such as gold or silver. In geological terms, typically refers to copper, lead, zinc, and nickel.
bioleaching	The process of extracting metals from ores or waste by using microorganisms to oxidize the metals, producing soluble compounds.
blanks	Blanks are material which is guaranteed not to contain any of the mineral being assayed for. This will determine if potential contamination at the lab setting is taking place. If a known non-mineralized sample shows a positive result to a mineral – a red flag is raised.
block model	A set of specifically sized, regular blocks in the shape of the mineralization. Each block will have an assigned density, grade, Mineral Resource classification and potentially a variety of other factors and interrogation of the block model is used to determine the MRE.
breccias	Breccia is a rock composed of broken fragments of minerals or rock cemented together by a fine-grained matrix that can be similar to or different from the composition of the fragments.
carbonates	rocks comprising mainly carbonate minerals i.e. calcite, dolomite and aragonite.
Cenozoic	The Cenozoic Era meaning “new life” is the current and most recent of the three geological eras of the Phanerozoic Eon. It follows the Mesozoic Era and extends from 66 million years ago to the present day.
certified reference materials	Certified reference materials (or standards) are prepared samples which have a known grade of mineral to be tested for. They can be high, low or even median grade standards. The purpose of the standards is to test for calibration errors at the lab level. Proper procedure is to have standards of varying grades to best represent close to expected grades in the samples being tested. A standard which is returned with a value outside the accepted range (given by standard source lab) could indicate poor mixing of the sample, or a calibration error of the equipment/personnel handling the samples
chalcopyrite	Chalcopyrite is a copper iron sulfide mineral that crystallizes in the tetragonal system. It has the chemical formula CuFeS2.
conformable	Aa contact between two rock units in which there was no time gap between their deposition – i.e. the deposition of the younger unit occurred immediately after the deposition of the older unit, with no hiatus.
conglomerate	Conglomerate is a coarse-grained clastic sedimentary rock that is composed of a substantial fraction of rounded to subangular gravel-size clasts, e.g. granules, pebbles, cobbles and boulders, larger than 2 mm (0.079 inches) in diameter. Conglomerates form by the consolidation and lithification of gravel.
conjugate	Paired structures with identical movement senses that form in relation to a faulting event. Typically, these intersect each other at angles of between 60° and 120°.
core recovery	The amount of borehole core recovered from a drilling run. For example, if the total length of core recovered during a 3 m drilling run is 2.8 m, the core recovery is 93%.

Term	Explanation
Cretaceous	The Cretaceous is a geological period that lasted from about 145–66 million years ago. It is the third and final period of the Mesozoic Era, as well as the longest.
cyanidation	A process whereby gold is extracting from ore by converting the gold to a water-soluble complex. The gold in solution is removed through precipitation.
dacite	Dacite is an igneous, volcanic rock. It has an aphanitic to porphyritic texture and is intermediate in composition between andesite and rhyolite.
dextral fault	Right-lateral motion on a fault plane, i.e. the top fault block (in plan view) has moved to the right relative to the bottom block.
diamond drillhole	Diamond drilling uses a hollow bit to extract a solid rock core from depth. The hollow bit is impregnated with industrial diamonds to allows for the cutting of hard rock formations.
dilational	With reference to mineralizing systems, dilational refers to the creation of space through an extensional event that allows structures to be invaded by mineralizing fluids.
diluvial	Deposits created as a result of catastrophic outbursts of Pleistocene giant glacier-dammed lakes in intermontane basins, and more generally refers to surficial deposits associated with flooding events.
Eocene	The Eocene Epoch is a geological epoch that lasted from about 56–33.9 million years ago. It is the second epoch of the Paleogene Period in the modern Cenozoic Era.
epithermal	Epithermal deposits are gold and base metal deposits in which metals were deposited from fluids and shallow to intermediate crustal levels, at temperatures between 50°C and 300°C.
fault gouge	Fault gouge is a tectonite (a rock formed by tectonic forces/brittle deformation) with a very small grain size. Fault gouge has no cohesion, and it is normally an unconsolidated rock type, unless cementation took place at a later stage. A fault gouge forms in the same way as fault breccia, the latter also having larger clasts.
fire assay	The industry standard assay technique for gold, whereby a sample is fused under high temperature in reducing conditions to form a metal bead which is weighed to determine gold content. Also used for other precious metals.
flotation	A chemical process whereby sulfide-hosted mineraliation is frothed and collected for extraction, in comparison to the waste material that remains in solution or sinks.
flower structure	In areas where strike-slip faults occur in converging crust, or transpression, rocks are faulted upward in a positive flower structure. In areas of strike-slip faulting in diverging crust, or transtension, rocks drop down to form a negative flower structure. The term "flower structure" reflects the resemblance of the structure to the petals of a flower in cross section.
gabbro	Gabbro is a phaneritic (coarse-grained), mafic intrusive igneous rock formed from the slow cooling of magnesium-rich and iron-rich magma into a holocrystalline mass deep beneath the Earth's surface. Slow-cooling, coarse-grained gabbro is chemically equivalent to rapid-cooling, fine-grained basalt.
gabbro-diorite	A plutonic igneous rock of mafic to intermediate composition. Compositionally it is between a gabbro and a diorite, which is the intrusive equivalent of andesite.
galena	Galena, also called lead glance, is the natural mineral form of lead (II) sulfide (PbS).
gangue	In mining, gangue is the commercially worthless material that surrounds, or is closely mixed with, a wanted mineral in an ore deposit.
Gondwana	Gondwana or Gondwanaland was a supercontinent that existed from the Neoproterozoic (about 550 million years ago) until the Jurassic (about 180 million years ago).
granite	Granite is a common type of felsic intrusive igneous rock that is granular and phaneritic in texture. Granites can be predominantly white, pink, or grey in colour, depending on their mineralogy
granodiorite	Granodiorite is a phaneritic-textured intrusive igneous rock similar to granite but containing more plagioclase feldspar than orthoclase feldspar.
gravity recovery	The exploitation of gold's very high density in order to separate it from less dense minerals/particles with no economic interest. Typically, water is the media of choice, but air/wind spirals and dense media can also be used to preferentially concentrate gold.
hydrothermal alteration	Alteration of the original mineral assemblage of a rock due to the introduction of heated, aqueous fluids.
intrusive	Intrusive rock is formed when magma penetrates existing rock, crystallises, and solidifies underground to form intrusions (e.g. plutons, batholiths, dykes, sills, laccoliths, and volcanic necks).

Term	Explanation
Jurassic	The Jurassic (from the Jura Mountains) is a geologic period and system that spanned 56 million years from the end of the Triassic Period 201.3 million years ago to the beginning of the Cretaceous Period 145 million years ago. The Jurassic constitutes the middle period of the Mesozoic Era.
kaolinization	As for sericitization, but where the predominant alteration product is kaolin, a white clay mineral.
landslides	The term landslide or less frequently, landslip, refers to several forms of mass wasting that include a wide range of ground movements, such as rockfalls, deep-seated slope failures, mudflows, and debris flows.
limestone	Limestone is a carbonate sedimentary rock that is often composed of the skeletal fragments of marine organisms such as coral, foraminifera, and molluscs. Its major materials are the minerals calcite and aragonite, which are different crystal forms of calcium carbonate (CaCO3).
magmatic	Refers to rocks that have crystallized from magma (molten rock) – volcanic and intrusive/plutonic rocks.
malachite	Malachite is a copper carbonate hydroxide mineral, with the formula Cu2CO3 (OH)2.
Mesozoic	The Mesozoic Era is an interval of geological time from about 252–66 million years ago. The Mesozoic (“middle life”) is one of three geologic eras of the Phanerozoic Eon, preceded by the Paleozoic (“ancient life”) and succeeded by the Cenozoic (“new life”). The era is subdivided into three major periods: the Triassic, Jurassic, and Cretaceous, which are further subdivided into a number of epochs and stages.
metallogenic	Metallogeny is the study of the genesis and regional-to-global distribution of mineral deposits, with emphasis on their relationship in space and time to regional petrologic and tectonic features of the Earth’s crust.
metasomatic	Metasomatism is the chemical alteration of a rock by hydrothermal and other fluids. It is the replacement of one rock by another of different mineralogical and chemical composition. The minerals which compose the rocks are dissolved and new mineral formations are deposited in their place. Dissolution and deposition occur simultaneously and the rock remains solid.
Miocene	The Miocene is the first geological epoch of the Neogene Period and extends from about 23.03 million years ago to 5.333 million years ago.
mudflows	A mudflow or mud flow is a form of mass wasting involving “very rapid to extremely rapid surging flow” of debris that has become partially or fully liquified by the addition of significant amounts of water to the source material.
Neogene	The Neogene (informally Upper Tertiary or Late Tertiary) is a geologic period and system that spans 20.45 million years from the end of the Paleogene Period 23.03 million years ago to the beginning of the present Quaternary Period 2.58 million years ago. The Neogene is subdivided into two epochs, the earlier Miocene and the later Pliocene.
Neotethys Ocean	The Tethys Ocean, also called the Tethys Sea or the Neotethys, was an ocean during much of the Mesozoic Era located between the ancient continents of Gondwana and Laurasia, before the opening of the Indian and Atlantic oceans during the Cretaceous Period.
normal fault	In a normal fault, the hangingwall moves downward, relative to the footwall.
nummulitic	Limestones comprising nummulite fossils, which are large, lenticular fossils characterized by numerous coils.
obduction	Obduction is the over-thrusting of continental crust by oceanic crust or mantle rocks at a convergent plate boundary, such as closing of an ocean or a mountain building episode. This process is uncommon because the denser oceanic lithosphere usually subducts underneath the less dense continental plate.
Oligocene	The Oligocene is a geologic epoch of the Paleogene Period and extends from about 33.9 million to 23 million years before the present (33.9±0.1 to 23.03±0.05 Ma).
open pit	Open-pit, open-cast or open-cut mining is a surface mining technique of extracting rock or minerals from the earth by their removal from an open pit.
ophiolites	An ophiolite is a section of the Earth’s oceanic crust and the underlying upper mantle that has been uplifted and exposed above sea level and often emplaced onto continental crustal rocks.

Term	Explanation
orogenic/orogeny	An orogeny is an event that leads to both structural deformation and compositional differentiation of the Earth's lithosphere (crust and uppermost mantle) at convergent plate margins. An orogen or orogenic belt develops when a continental plate crumples and is pushed upwards to form one or more mountain ranges; this involves a series of geological processes collectively called orogenesis. It is the primary mechanism for the development of mountain belts.
oxidized	The process whereby original minerals in a rock are converted to oxide minerals through the addition of oxygen. In the current context, this refers to rocks that have been altered from their original state due to their proximity to surface and their interaction with the atmosphere and surface waters.
Palaeocene	The Paleocene or Palaeocene is a geological epoch that lasted from about 66–56 million years ago. It is the first epoch of the Paleogene Period in the modern Cenozoic Era.
Paleotethys Ocean	The Paleo-Tethys or Palaeo-Tethys Ocean was an ocean located along the northern margin of the paleocontinent Gondwana that started to open during the Middle Cambrian, grew throughout the Paleozoic, and finally closed during the Late Triassic; existing for about 400 million years.
Paleozoic	The Paleozoic (or Palaeozoic) Era, meaning "ancient life", is the earliest of three geologic eras of the Phanerozoic Eon. It is the longest of the Phanerozoic eras, lasting from 541 to 251.902 million years ago, and is subdivided into six geologic periods (from oldest to youngest): the Cambrian, Ordovician, Silurian, Devonian, Carboniferous, and Permian. The Paleozoic comes after the Neoproterozoic Era of the Proterozoic Eon and is followed by the Mesozoic Era.
Permian	The Permian is a geologic period and system which spans 47 million years from the end of the Carboniferous Period 298.9 million years ago to the beginning of the Triassic Period 251.902 million years ago.
pilot mining	Early stage and small-scale mining that is carried out prior to the complete development of a mining project, usually to assist in assessing the economic viability of a mining project.
plagioclase	Plagioclase refers to the sodium and/or calcium-rich series of silicate minerals known as feldspars.
porphyritic	Porphyritic is an adjective used in geology, specifically for igneous rocks, for a rock that has a distinct difference in the size of the crystals, with at least one group of crystals obviously larger than another group.
porphyry	Porphyry deposits are copper and gold dominated mineral deposits in which mineralization is associated with porphyritic igneous rocks.
pumice	Pumice, called pumicite in its powdered or dust form, is a volcanic rock that consists of highly vesicular rough textured volcanic glass, which may or may not contain crystals.
pyrite	The mineral pyrite or iron pyrite, also known as fool's gold, is an iron sulfide with the chemical formula FeS2 (iron (II) disulfide). Pyrite is considered the most common form of sulfide minerals.
quality assurance/quality control (QA/QC)	QA/QC is the combination of quality assurance and quality control, which collectively are a set of measures put in place to ensure the quality of assay results.
recrystallization	A metamorphic process in which atoms of a mineral are reorganized. Mineral compositions generally remain unchanged but the texture of the rock changes.
reverse fault	In a reverse fault, the hangingwall moved upward, relative the footwall.
rhyolite	Rhyolite is an igneous, volcanic rock, of felsic (silica-rich) composition.
Richards-Chechautte formula	A formula for the determination of the representative mass of a sample to be analyzed.
riedel shear	Riedel shears are pairs of strike slip faults that form at acute angles to strike slip faults.
sandstone	Sandstone is a clastic sedimentary rock composed mainly of sand-sized (0.0625 to 2 mm) mineral particles or rock fragments (clasts) or organic material.
sedimentary	Sedimentary rocks are types of rock that are formed by the accumulation or deposition of small particles and subsequent cementation of mineral or organic particles on the floor of oceans or other bodies of water at the Earth's surface. Less commonly, sediments may be deposited in glacial environments or by wind.

Term	Explanation
seismic	A crustal event related to an earthquake.
sericitization	An alteration process in which certain minerals, predominantly feldspars, are altered to fine-grained sericite mica.
shearing	The response of a rock to (usually) compressive deformation in the brittle and ductile states, resulting in shear zones indicative of rock masses being moved relative to each other.
silicification	A hydrothermal alteration process in which the host rocks and constituent minerals are replaced, or partially replaced, by silica (i.e. quartz).
skarn	Skarns are coarse-grained metamorphic rocks formed, in the most part, of calc-silicate minerals during the interaction of hydrothermal, intrusion-related fluids with the country rock. Skarn deposits, rich in copper, gold, molybdenum and tungsten, are commonly formed when igneous intrusions are emplaced into carbonate layers and are associated with collisional tectonics.
sphalerite	Sphalerite ((Zn, Fe)S) is a mineral that is the chief ore of zinc.
stratigraphy	The stacking of sedimentary and layered volcanic rocks. In undeformed stratigraphic sequences, the oldest rocks are found at the bottom of the sequence.
strike	The strike line of a bed, fault, or other planar feature, is a line representing the intersection of that feature with a horizontal plane.
subduction	Subduction is a geological process that takes place at convergent boundaries of tectonic plates where one plate moves under another and is forced to sink due to high gravitational potential energy into the mantle. Regions where this process occurs are known as subduction zones.
sulfosalts	Sulfosalt minerals are those complex sulfide minerals with the general formula: AmBnSp; where A represents a metal such as copper, lead, silver, iron, and rarely mercury, zinc, vanadium; B usually represents semi-metal such as arsenic, antimony, bismuth, and rarely germanium, or metals like tin and rarely vanadium; and S is sulphur or rarely selenium and/or tellurium.
suture zone	A suture is a joining together along a major fault zone, of separate terranes, tectonic units that have different plate tectonic, metamorphic and paleogeographic histories. The suture is often represented on the surface by an orogen or mountain range.
swath plot	The swath plot is a one-dimensional graph in a specific direction of interest. A swath is a sectional slice through the block model with a specified thickness. The swath plot shows the average grade for the blocks in the swath, along with the averaged sample values in the swath and is used to assess the quality of the estimate.
syenite	Syenite is a coarse-grained intrusive igneous rock with a general composition similar to that of granite, but deficient in quartz, which, if present at all, occurs in relatively small concentrations (<5%).
syncline	A trough-shaped fold in which the youngest rocks are on top of the folded sequence i.e. towards the centre of the fold structure.
synform/al	A downward (U or V-shaped) fold, i.e. a trough, in which the younging direction of the folded rocks is not known.
tailings	Tailings are the materials left over after the process of separating the valuable fraction from the uneconomic fraction (gangue) of an ore.
telluride	A telluride mineral is a mineral that has the telluride anion as a main component.
terrane	A terrane in geology, in full a tectonostratigraphic terrane, is a fragment of crustal material formed on, or broken off from, one tectonic plate and accreted or "sutured" to crust lying on another plate. The crustal block or fragment preserves its own distinctive geologic history, which is different from that of the surrounding areas—hence the term "exotic" terrane. The suture zone between a terrane and the crust it attaches to is usually identifiable as a fault.
Tertiary	Tertiary is a widely used, but obsolete term for the geologic period from 66 million to 2.6 million years ago. The period began with the demise of the non-avian dinosaurs in the Cretaceous–Paleogene extinction event, at the start of the Cenozoic Era, and extended to the beginning of the Quaternary glaciation at the end of the Pliocene Epoch. The time span covered by the Tertiary has no exact equivalent in the current geologic time system, but it is essentially the merged Paleogene and Neogene periods, which are informally called the Lower Tertiary and the Upper Tertiary, respectively.
tetrahedrite-tennantite	Tetrahedrite is a copper antimony sulfosalt mineral with formula: (Cu,Fe)12Sb4S13. It is the antimony endmember of the continuous solid solution series with arsenic-bearing tennantite.

Term	Explanation
top cut	The capping or cutting of high assay results so as to reduce the potentially disproportionate influence isolated high-grade samples may have on a grade estimate.
transgressive onlap	where younger rocks extend progressively further across an erosional surface cut into older underlying rocks, formed during a marine transgression (rise in sea levels).
Triassic	The Triassic is a geologic period and system which spans 50.6 million years from the end of the Permian Period 251.9 million years ago, to the beginning of the Jurassic Period 201.3 million years ago. The Triassic is the first and shortest period of the Mesozoic Era.
tuffite	Tuffite is a tuff containing both pyroclastic (volcanic) and detrital materials, but predominantly pyroclasts.
tuffs	Tuff (from the Italian tufo), also known as volcanic tuff, is a type of rock made of volcanic ash ejected from a vent during a volcanic eruption. Following ejection and deposition, the ash is compacted into a solid rock in a process called consolidation.
variography	A method of describing the spatial correlation of assay grades.
volcanic	Formed by a volcanic eruption.
volcanoclastic	Volcanoclastic rocks are sedimentary rocks formed from the reworking and redeposition of clastic material derived from volcanic rocks.
volcanogenic massive sulfides (VMS)	Also known as VMS ore deposits, are a type of metal sulfide ore deposit, mainly copper-zinc which are associated with and created by volcanic-associated hydrothermal events in submarine environments.
Wilson Cycle	The Wilson Cycle is a model where a continental rift breaks up a continent, leading to the formation of an ocean basin between two lithospheric plates. The separation of the two plates is followed later by convergence that leads to the closure of the ocean basin, and eventually to the collision of the two continental blocks.
wireframe	A 3D volume that is used to general a geological or mineralization model.

Appendix A
JORC Table 1

Section 1: Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialized industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralization that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverized to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralization types (e.g. submarine nodules) may warrant disclosure of detailed information.	DD – Diamond drillholes. Samples are of varied length. Core diameter was 76–93 mm diameter (i.e. NQ or HQ core). Core was available only for the 2020 verification drilling and 2021 and 2022 infill drilling programmes. TR – Trenches dug by hand or excavated using blasting techniques. Trenches are 2 m deep and 0.8 m wide. Where possible, the trenches were dug by hand, but in areas of harder rock they were excavated by drilling and blasting. Chip sampling was performed manually under direct supervision of a geologist on the bottom surface of the mainline trenches. Chisels, wedges, sledgehammers, and a hammer were used as sampling tools. CH – Channel samples were taken from underground faces. A 10 cm wide x 5 cm deep channel was excavated and sampled the mineralization across its full thickness. Chisels, wedges, sledgehammers and a hammer were used as sampling tools.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	Diamond core drilling only. Core diameter was 76–93 mm diameter (NQ or HQ). Holes were drilled using a SKB-4 drill rig before 2021 and using Atlas Copco CS-14 rig starting from 2021. Core was not oriented. No information was available regarding a standard tube or triple tube set up before 2021. Triple tube was used from 2021.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	DD recovery was not recoded for the historical drilling, and core is not available to measure recovery. DD recovery was recorded for the verification drilling and reported 97% recovery for mineralized intersections.
	Measures taken to maximize sample recovery and ensure representative nature of the samples.	No information is available regarding how recovery was maximized for the historical drilling. For the verification drilling drillers made use of drilling fluids and shortened drill runs to maximize core recovery in areas of broken ground.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Any relationship between grade and recovery cannot be investigated for the historical data.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged.	Core was geologically logged, but logging is only partially preserved and is in Armenian and in Russian. Geotechnical logging was not undertaken. It is not possible to define the nature of logging as qualitative or quantitative, nor is it possible to define the total length logged, as useful logging data was unavailable for historical drilling while some had been lost. All recent verification and infill drilling was reasonably logged.

Criteria	JORC Code explanation	Commentary
Subsampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all subsampling stages to maximize representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled.	Whole core was sampled for the programmes before 2020 and half the core was sampled from 2020. No information was available regarding how the sample intervals were separated (e.g. cut or broken). All sampled material from site underwent the same sample preparation procedures onsite: Crush to 5 mm, sieved 1 mm, crushed the +1 mm, sieved again, mixed 3–5 times, sample reduction to 6.3 kg, mixed 3–5 times, sample reduced to 3.2 kg, mixed 3–5 times, reduced to 1.5 kg, mixed 3–5 times, spilt into two samples (one retained as a duplicate), crushed to pass 0.074 mm, sent to the laboratory for analysis (750 g). Samples were split at the sample reduction phase using a splitter, although the make and model were not recorded. This process is suitable for the sample types, ideally sample splitting at the reduction stages would be undertaken with a riffle splitter. Similar processes, with fewer sample reduction steps are undertaken at internationally accredited labs currently. No information about the sample representativity was provided. Sample sizes were appropriate to the grain size of the material being sampled.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Analysis for gold and silver were performed by 50 g fire assay at JSC Analytics and Lernametallurgical Institute.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Gold and silver analysis undertaken according to ISO 11426:2014 “Determination of gold in gold jewelry alloys - Cupellation method (fire assay with atomic absorption finish)”. The laboratory procedures comply with International Standard ISO/IEC 17025-2017 “General requirements for the competence of testing and calibration laboratories”.

Criteria	JORC Code explanation	Commentary
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	No QA/QC samples were provided as part of the historical dataset. Reportedly the following QA/QC data were reviewed for the 2007 and 2008 drilling: Blanks – no blank samples were inserted to check on sample contamination during sample preparation. Certified reference material (CRM) – no CRM samples; therefore, no control on assay accuracy. Analytical duplicates – no information or data available. Internal and external duplicates – these were analysed and showed acceptable precision. 2012 drilling. Internal and external duplicates only, but these indicated acceptable precision. No other quality control samples. 2020 verification drilling and 2021-2022 infill drilling. Quality control samples were included with the primary and external samples: Sieve tests (crush and pulverization) – Samples were sieved, and no failures were noted (95% passing sieve). Blanks – Preparation blanks passed if assay results did not exceed the lower detection limit. No failures noted. Duplicates (Precision) – Analytical duplicates (unknown type) were analysed, and precision determined. Precision was acceptable. CRM (Accuracy) – Three types of reference material were obtained from Ore Research and Exploration in Australia and included with the samples (0.78, 1.90 and 5.18 g/t Au). Results were acceptable.

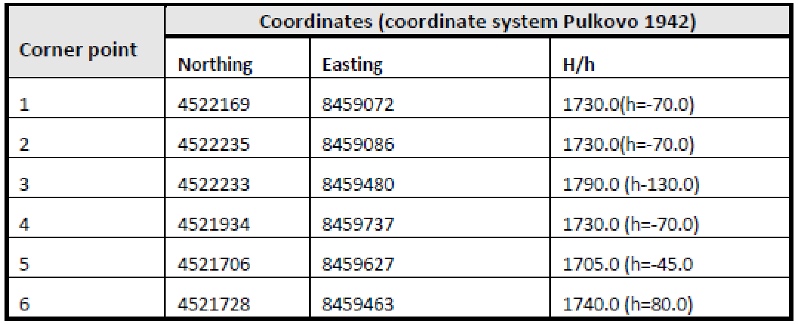
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	Verification exploration was undertaken by Assat LLC (Assat) in 2019 and 2020, and two infill holes in 2021. This included sampling historical mine workings and twin drilling. Ten verification trenches were excavated. Eight verification and two infill diamond holes were drilled. Drilling was performed using an Atlas Copco CS-14 drill rig. Drill diameter was HQ, core was not oriented. In addition, 19 infill holes were drilled in the second half of 2022. Core recovery was reportedly 97%. Drill collars were surveyed using Leica TPS 1200+Systems and Leica TCR tacheometer. Downhole surveys using a MIR-36 survey tool with a survey interval of 10 m downhole. Core was sampled at 1 m intervals or shorter depending on geological contacts, with half core being sent for sample processing. Sample preparation was performed in the sample preparation facility of Lernametallurgical Institute. Samples were milled to 0.074 mm; one half of the sample was sent for assay and the other half was kept as a duplicate. After processing each sample, the crushing and milling equipment was thoroughly cleaned by mechanical (brush) method and air blasting (with compressed air). All core was logged and included a description of the type of rock, textural and structural features, hydrothermal and metasomatic alteration and its intensity, vein-disseminated mineralization, number and composition of sulfides, hypergenic alteration and fissure tectonics. Gold and silver fire assays were conducted at the Central Analytical and Assay Laboratory of Lernametallurgical Institute. Fire assay for gold and silver was performed according to ISO 11426:2014 Determination of gold in gold jewelry alloys – Cupellation method (fire assay). The laboratory procedures comply with International Standard ISO/IEC 17025-2017 General requirements for the competence of testing and calibration laboratories. QA/QC for these samples included: Sample size fraction check. Blanks samples during sample preparation. Analytical duplicates (8%). CRM (5%); three CRMs were used. External laboratory check sampling at Alex Stewart International, Ireland.

Criteria	JORC Code explanation	Commentary
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Verification work, including trench start points and drillhole collars were surveyed by ATAD Drilling LLC using a Leica TPS 1200+ system and Leica TCR tacheometer.
	Specification of the grid system used.	Coordinate system was Pulkovo 1942, Gauss Conform Zone 8. Gauss Kruger projection.
	Quality and adequacy of topographic control.	Topographic surveying was done using Leica TCR tacheometer.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drillhole intersections are spaced at 40 m x 50 m along strike and down dip. Trench samples are spaced at 3 m intervals on strike, with this spacing increasing to 30 m at the margins of mineralization.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	Channel sampling is spaced at 3 m intervals along strike. Channels were collected on four levels underground, the majority were collected at 1700 mRL and 1740 mRL, with limited sampling at 1684 mRL and 1614 mRL. Sample spacing is acceptable to establish reasonable grade continuity. No geological information was available therefore AMC could not comment on the geological continuity.
	Whether sample compositing has been applied.	Compositing of samples was not undertaken in the field.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The Karaberd deposit has two main mineralized bodies, Body3 and Body4, and one branching structure. Drilling was planned perpendicular to the dip and strike of the mineralized bodies. Drillholes ware angled with the purpose of intersecting the steeply dipping veins at as close to a 90° angle as possible, within the practical constraints of the drill method.
	If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Channel samples were taken across strike of the mineralization. Trench samples were taken across strike of the mineralization. No material sampling bias has been identified due to sample orientation.
Sample security	The measures taken to ensure sample security.	The core receiver consisted of two halves and the core was removed after the opening of the core receiver lock and then inserted into the core boxes. The length of the core receiver was 1.5 m. Core was stored in plastic trays

Criteria	JORC Code explanation	Commentary
		with 4 or 5 m of core in each tray. All trays with core were then transported to the core storage facility of the enterprise in Vanadzor, where core was logged and sampled by a leading geologist. After sampling, core boxes with remaining unsampled core or second halves of core were transported to the core shed and stored. All samples were transported to Yerevan for assaying.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Verification exploration was undertaken by Assat in 2019 and 2020. This included sampling historical mine workings and twin drilling. The verification exploration generally supported the historical data for use in Mineral Resource estimation and reporting.

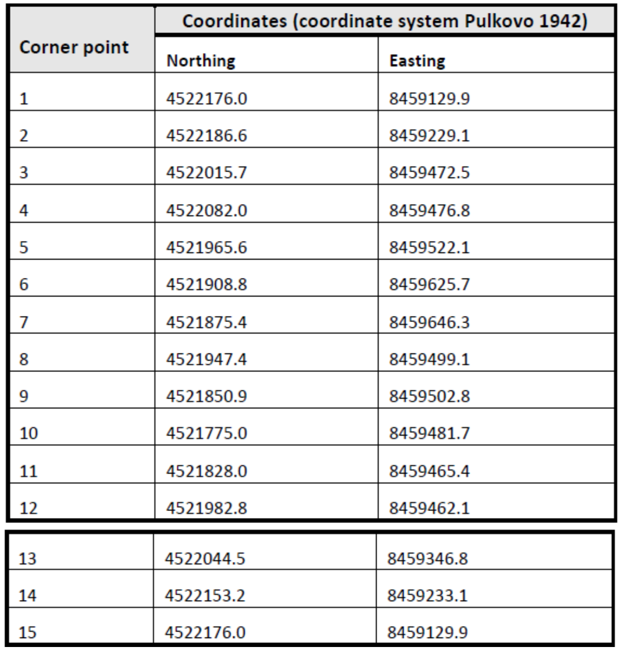
Section 2: Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section)

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr>
<td>Mineral tenement and land tenure status</td>
<td>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.
The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</td>
<td>The Karaberd property has a current mining licence according to the Mine Allotment Act No. L-366 dated 6 June 2013, granted for a period of 11 years (valid until 6 June 2024) by the Ministry of Energy and Natural Resources (now the Ministry of Energy Infrastructures and Natural Resources) of the Republic of Armenia.
The Karaberd Mine Allotment has an area of 20.3 hectares (ha). The Armenian Mine Allotment Act confirms that open and underground method exploitation of the central plot of Karaberd Gold Mine is given to Assat.
<i>Table 3: Mine Allotment corner point coordinates, Source: ASSAT LLC.</i>

<table>
<tr><th rowspan="2">Corner point</th><th colspan="3">Coordinates (coordinate system Pulkovo 1942)</th></tr>
<tr><th>Northing</th><th>Easting</th><th>H/h</th></tr>
<tr><td>1</td><td>4522169</td><td>8459072</td><td>1730.0(h=-70.0)</td></tr>
<tr><td>2</td><td>4522235</td><td>8459086</td><td>1730.0(h=-70.0)</td></tr>
<tr><td>3</td><td>4522233</td><td>8459480</td><td>1790.0 (h-130.0)</td></tr>
<tr><td>4</td><td>4521934</td><td>8459737</td><td>1730.0 (h=-70.0)</td></tr>
<tr><td>5</td><td>4521706</td><td>8459627</td><td>1705.0 (h=-45.0</td></tr>
<tr><td>6</td><td>4521728</td><td>8459463</td><td>1740.0 (h=80.0)</td></tr>
</table>
Permission of the Mineral Extraction N SHAT-29/366.
The current area under Permission of the Mineral Extraction is 3.96 ha. However, Assat has already applied (on behalf of Lusadjur) for expansion from prospecting to Mining Licence, this process to obtain the mining right is reportedly a straightforward process in Armenia.</td>
</tr>
</table>

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>

Permission of the Mineral Extraction corner points coordinates, Source: ASSAT LLC.



<table>
<tr><th rowspan="2">Corner point</th><th colspan="2">Coordinates (coordinate system Pulkovo 1942)</th></tr>
<tr><th>Northing</th><th>Easting</th></tr>
<tr><td>1</td><td>4522176.0</td><td>8459129.9</td></tr>
<tr><td>2</td><td>4522186.6</td><td>8459229.1</td></tr>
<tr><td>3</td><td>4522015.7</td><td>8459472.5</td></tr>
<tr><td>4</td><td>4522082.0</td><td>8459476.8</td></tr>
<tr><td>5</td><td>4521965.6</td><td>8459522.1</td></tr>
<tr><td>6</td><td>4521908.8</td><td>8459625.7</td></tr>
<tr><td>7</td><td>4521875.4</td><td>8459646.3</td></tr>
<tr><td>8</td><td>4521947.4</td><td>8459499.1</td></tr>
<tr><td>9</td><td>4521850.9</td><td>8459502.8</td></tr>
<tr><td>10</td><td>4521775.0</td><td>8459481.7</td></tr>
<tr><td>11</td><td>4521828.0</td><td>8459465.4</td></tr>
<tr><td>12</td><td>4521982.8</td><td>8459462.1</td></tr>
<tr><td>13</td><td>4522044.5</td><td>8459346.8</td></tr>
<tr><td>14</td><td>4522153.2</td><td>8459233.1</td></tr>
<tr><td>15</td><td>4522176.0</td><td>8459129.9</td></tr>
</table>

Royalties
4% royalty based on the cost of metal extracted at the mine with a net deduction allowed for smelting costs of expenses. Royalty is paid to the State.
A royalty based upon operational profitability. Royalty amount is calculated by multiplying gross income (with the deduction of processing expenses) at a computed interest rate of the second royalty. Royalty interest rate is calculated in the following way:
$R = 4*(P/(S*8))*100$
Where:
R is royalty rate in percent.
P is income (in drams) before taxation, i.e. income minus deductibles allowed by the Armenian law "On Business Profits Taxation" (with the exception of financial expenses and tax losses for previous years).
S is the income from products sales minus value-added tax (VAT).
Royalty = R x gross income.
The following procedures and approvals, all of which are required for mining in Armenia, have also been received as noted below:
</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
		Expert commission's positive conclusion on the environmental impact No. 64 dated 26 July 2012. The resolution of the territorial authorities on re-zoning of the land from agricultural to intended subsoil use No. P-366 dated 6 July 2013. The contract for the lease of the mining agreement dated 18 November 2014. No information on joint ventures, partnerships, native title interests, historical sites and wilderness or national park settings were provided.

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Companies and related work completed by years. Discovery and initial exploration by the Geological Survey of Armenia, 1969 to 1974. Including topographic and geological surveys at 1:1000 scale. Mineralized areas were studied by a series of trenches and test pits spaced at 25–70 m along strike. Two diamond drillholes were completed, with a total depth of 515 m. Four underground adits were excavated with drifts and crosscuts at levels 1740 mRL, 1680–1700 mRL and 1610 mRL with a total length of 1,920 m. Exploration by the Pambak Exploration Expedition (state-owned), 1993 to 2002; no data available for review. Additional exploration by the private Vallex Group CJSC, 2003 to 2005; no data available for review. Geological exploration by Assat, 2007 to 2012. Surface trenches, 22 drillholes and resampling of underground workings were undertaken. MRE according to Russian reporting standard was produced at this time, reporting C1 resources. Exploration Licence converted to Mining Licence in 2013. Pilot mining by Assat, 2015; no data available for review. No other exploration work has been identified.

Criteria	JORC Code explanation	Commentary
Geology	Deposit type, geological setting and style of mineralization.	Karaberd is interpreted to be an intermediate sulfidation epithermal type deposit (also known as carbonate base-metal epithermal), probably related to a deeper porphyry system. The deposit is located within the Lesser Caucasian segment of the Tethyan orogenic belt. Situated adjacent to the major regional dextral, north-west trending Pambak-Sevansunik fault system and immediately south of the Akera Suture sone, which marks the boundary and late cretaceous collision between the Eurasian and south Armenian blocks. Country rocks comprise middle Eocene subvolcanic rocks and plagioclase porphyries. Hydrothermal alteration is pervasive, reportedly reaching 60–70 m depth, expressed as silicification, sericitization and kaolinization accompanied by string sharing and crushing of rocks. Mineralization is hosted within two conjugate structures. The first trending north-west to south-east, dipping steeply (60–89°) towards the south-west with a mean thickness between 1 m and 4.5 m. The second structure trends north-south, steeply dipping (60–89°) to the east with a mean thickness of 1–10.4 m. Mineralization is hosted within a crushed zone dominated by clay gouge and slicken-sided fault contacts. Mineralization is composed of quartz, quartz-carbonate and quartz-malachite streaks and pickets with gold and copper oxides. Sulfide mineralization is composed of pyrite, chalcopyrite, galena, sphalerite, sulfosalts, secondary copper minerals (malachite and less frequently azurite), and hessite. Sulfide content is as follows: 70–80% sphalerite, 7–8% chalcopyrite, 7–8% sulfosalts, 5–7% pyrite, 0.5% galena, native gold – rare particles. The silver:gold ratio is very close to 2:1 and is typical of carbonate-base metal gold epithermal deposits. The oxidized zone (to approximately 60–70 m depth) contains minerals of iron, copper and manganese, limonite, psilomelane, goethite, hydrogoethite, lepidocrocite, malachite, tenorite, covelline, bornite, azurite. Secondary minerals of iron are common and form earthy aggregations and fill the voids in the quartz-carbonate mass of the mineralized zones. Native gold has not been visually observed.

Drillhole information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: • Easting and northing of the drillhole collar • Elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar • Dip and azimuth of the hole • Downhole length and interception depth • Hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	Included in the report Tables 3, 4 and 5. Section 4.2.2.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	Exploration Results are not being reported as part of this work.
Data aggregation methods **Relationship between mineralization widths and intercept lengths**	Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	No data aggregation has been used.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents have been applied.
	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralization with respect to the drillhole angle is known, its nature should be reported. If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').	Trenches and channel samples represent the horizontal width of mineralization, which due to the steep dip is close to the true dip. Drillholes have been oriented and drilled to maximize the drill intersection within the practical constraints of drilling.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.	Relevant figures are provided in this report.

Criteria	JORC Code explanation	Commentary
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	No reporting of Exploration Results.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	No other exploration data to report.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	No further work is planned at the time of writing this report.

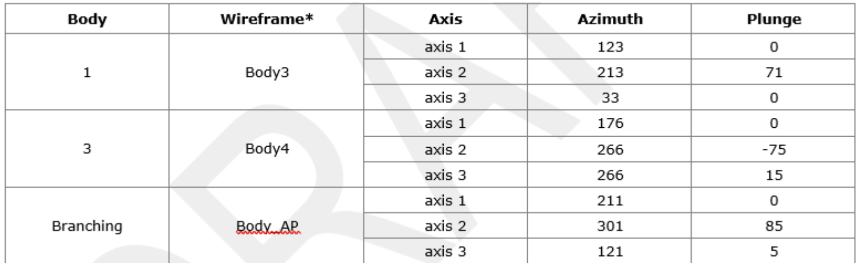
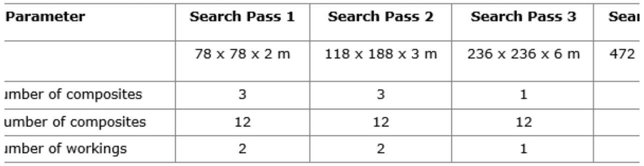
Section 3: Estimation and Reporting of Mineral Resources

(Criteria listed in Section 1, and where relevant in Section 2, also apply to this section)

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	The integrity of the database was tested by means of importing the data into Micromine software. No overlaps were noted and since only assay data was considered, no logging errors were identified.

Criteria	JORC Code explanation	Commentary
	Data validation procedures used.	The assay data was verified by means of an exploration programmes in 2020, 2021 and 2022 which included trench check samples, infilled and twinned drillholes. • The following error checks were carried out during final database creation: – Missing collar coordinates. – Missing values in fields FROM and TO. – Cases when FROM values equal or exceed TO ones (FROM≥TO). – Data availability. The data availability was checked for each drillhole in the tables: – Collar coordinates – Sampling data – Duplicate drillhole numbers in the table of the drillhole collar coordinates. – Duplicate sampling intervals. – Sample “overlapping” (when the sample TO value exceeds FROM value of the next sample). – Negative-grade samples. All identified errors were not critical and were corrected by AMC. The databases are believed to be industry standard and applicable for the MRE.
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 was undertaken by Dmitry Pertel (Competent Person) from 15 to 20 March 2020. The work undertaken on the site visit included the verification of a selection of drill collars in the field, inspection of drill core from the 2020 drilling campaign, and inspection of mineralized outcrops in the field.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	Geological logging was not available as digital data files and was therefore not considered in the Mineral Resource.
	Nature of the data used and of any assumptions made.	During the site visit, Dmitry Pertel reviewed the eight validation holes on site and confirmed the geology and mineralization style described in the available report. Collars were validated, insofar as possible, given the snow cover at the time. A reasonable amount of confidence can be placed in the geological interpretation. All drillholes contain mineralized grades with majority of surface trenches and underground channel samples intersecting mineralized material.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	AMC is not aware of any alternative interpretations.

Criteria	JORC Code explanation	Commentary
	The use of geology in guiding and controlling Mineral Resource estimation.	Geology and structural interpretations from cross sections were used along with grade, to construct the mineralized model.
	The factors affecting continuity both of grade and geology.	Drilling data is broadly spaced; however, surface trench sampling shows reasonable grade continuity along strike.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	Body3 – 710 m along strike, 190 m down dip from surface, 1–4.5 m horizontal width. Body4 – 665 m along strike, 220 m down dip from surface, 1–10.4 m horizontal width. Branching structure – branching from Body4, 55 m along strike, 150 m down dip, 2-3 m horizontal width.
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	Gold and silver grades were estimated using ordinary kriging (OK) into parent cells. Variograms were calculated and modelled as an input to the OK process. OK is appropriate for estimation of this style of mineralization and available data. Data was not top cut as the variability of the dataset was low, indicating the effect of high-grade outliers was minimal.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	Seventeen domains were created; domains Body3, Body4 and one branching body were the only three supported by adequate drill data.
	The assumptions made regarding recovery of by-products.	
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterization).	Data was composited to 1 m intervals, which was the dominant interval length for the drilling database.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	Domains were estimated with hard boundaries.
	Any assumptions behind modelling of selective mining units.	Micromine 2023 software was used to estimate the resource.

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td rowspan="6"></td><td>Any assumptions about correlation between variables.</td><td>Interpolation was undertaken with multiple passes; each successive pass had a larger search ellipse with decreased sample selection requirements.</td></tr>
<tr><td>Description of how the geological interpretation was used to control the resource estimates.</td><td>Search ellipse ranges – 78 m x 78 m x 2 m for major, semi-major and minor axes, respectively.</td></tr>
<tr><td>Discussion of basis for using or not using grade cutting or capping.</td><td>Search ellipse orientations are listed below:
<table>
<tr><th>Body</th><th>Wireframe*</th><th>Axis</th><th>Azimuth</th><th>Plunge</th></tr>
<tr><td>1</td><td>Body3</td><td>axis 1</td><td>123</td><td>0</td></tr>
<tr><td></td><td></td><td>axis 2</td><td>213</td><td>71</td></tr>
<tr><td></td><td></td><td>axis 3</td><td>33</td><td>0</td></tr>
<tr><td>3</td><td>Body4</td><td>axis 1</td><td>176</td><td>0</td></tr>
<tr><td></td><td></td><td>axis 2</td><td>266</td><td>-75</td></tr>
<tr><td></td><td></td><td>axis 3</td><td>266</td><td>15</td></tr>
<tr><td>Branching</td><td>Body_AP</td><td>axis 1</td><td>211</td><td>0</td></tr>
<tr><td></td><td></td><td>axis 2</td><td>301</td><td>85</td></tr>
<tr><td></td><td></td><td>axis 3</td><td>121</td><td>5</td></tr>
</table></td></tr>
<tr><td rowspan="3">The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.</td><td>Sample selection criteria and search pass multiplication factors are tabulated below.
<table>
<tr><th>Parameter</th><th>Search Pass 1</th><th>Search Pass 2</th><th>Search Pass 3</th><th>Sea</th></tr>
<tr><td></td><td>78 x 78 x 2 m</td><td>118 x 188 x 3 m</td><td>236 x 236 x 6 m</td><td>472</td></tr>
<tr><td>umber of composites</td><td>3</td><td>3</td><td>1</td><td></td></tr>
<tr><td>umber of composites</td><td>12</td><td>12</td><td>12</td><td></td></tr>
<tr><td>umber of workings</td><td>2</td><td>2</td><td>1</td><td></td></tr>
</table></td></tr>
<tr><td>Four sectors were used in the search ellipse to manage data clustering.</td></tr>
<tr><td>Discretisation was used during estimation: 5 by 5 by 5 points (X by Y by Z).</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
		Inverse distance weighting to the power of two (IDW^2) and inverse distance weighting to the power of three (IDW^3) estimates were undertaken with the same search parameters as a check on the OK estimate.
		It was not possible to generate underground depletion solids as no information was available regarding the size of workings. As a result, the model has not been depleted for underground mining. Underground mining was a small volume, being used for exploration purposes where no stoping or bulk mining was undertaken.
		During the site visit Dmitry Pertel observed surface workings to an approximate depth of 5 m. To reflect this surface mining, CAMC depleted the top 5 m of the block model. A current topography surface with existing excavations was supplied and used to deplete the model.
		It has been assumed that silver can also be recovered during the metallurgical processes, which is reasonable and commonly undertaken.
		No assaying of deleterious elements was done; therefore, it is not possible to estimate these. Some amount of sulfide should be expected, and acid mine drainage studies should be undertaken as part of future work.
		Parent block size was 10 m by 10 m by 10 m (X by Y by Z) sub-celled to 1 m by 1 m by 1 m. When the different orientations of the orebodies are considered, one oriented north-south, the others oriented east-west, a regular block size is reasonable. Surface data is spaced 4 m apart, drill data is spaced approximately 40 m apart.
		Domain wireframes were created with a minimum mining width of 3 horizontal metres. This width honours the minimum thickness of the mineralization.
		Selective mining units were not modelled.
		The domain wireframes were used to code the assay data, with only assay data from a specific domain being available during estimation of that domain.

Criteria	JORC Code explanation	Commentary
		Grade capping of 50 g/t was used for the Body4. The data was reviewed it had a low CV for all modelled bodies.
		The estimate was validated in several ways: • Visual checks in cross section and plan view to ensure that the block model grades honour the local composite grades. • Statistical comparison of composite and block grades. • Generation of swath plots to compare input and output grades in a semi-local sense, by easting, northing and elevation. • Comparison of wireframe volume against block model volume. • Comparison between the IDW2, IDW3 and OK estimates. All validation methods returned acceptable results.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnages are estimated dry and dry bulk density was used for the estimation of tonnages. Moisture content was determined during laboratory testing and concentrate processing. Moisture content ranged 0.67-0.77% with an average of 0.72%. The bulk density and moisture were determined in the laboratory at CJSC "Analytic" (earlier Central Laboratory of Geology Management), according to a commonly used Archimedes methodology.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	A 0.8 g/t Au cut-off was applied for the reporting of Mineral Resources. The cut-off is in line with other similar, shallow gold deposits.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	Assumed open pit extraction would be optimal. However small-scale underground mining by long-hole open stoping or cut could be considered. The Mineral Resource model will require consideration of dilution and ore loss parameters in accordance with any proposed grade control and mining scenarios as part of any mining studies. The model has been constructed with a 1 m minimum thickness. No mining dilution has been added for Mineral Resource estimation and reporting.

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	Two metallurgical campaigns have been carried in (in 2005 and 2008, respectively). The 2005 campaign investigated the recoveries associated with a conventional flotation flowsheet and returned gold recoveries in the region of 80% and silver recoveries in the region of 45%. This work was however undertaken on a sample with a head grade in excess of 15 g/t Au (i.e. not representative of the grade of the deposit). The 2008 work used representative bulk samples to determine gold recovery by cyanidation. Very good recoveries, in excess of 95%, are reported but the work is poorly documented and is consequently viewed as unreliable. No quantification of gold recovery by gravity methods has been seen by the authors.
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	It is understood that Assat may be considering having run-of-mine material treated at a nearby processing facility, on a toll treatment basis which would obviate the requirement for on-site processing facilities. No consideration has yet been given to the location or construction of waste rock dumps. For the purposes of reasonable prospects of eventual economic extraction, it has been assumed that no environmental impediments exist to the development of the project although this has not been independently assessed as part of this study and requires significantly more work.

Criteria	JORC Code explanation	Commentary
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	Bulk density has been determined by laboratory testwork and concentrate processing. Industry standard Archimedes method was used. Bulk density was determined dry, moisture content was recorded as part to the dataset. The density values for both oxide and primary zones are deemed reasonable for the type of material under consideration. No information about sample size was available, therefore commentary on the frequency of measurements, their nature, size, representativeness and void spaces was not possible. A single bulk density value of 2.5 t/m^3 was used to estimate in situ tonnages for the oxide zone and 2.63 t/m^3 for the primary zone and are considered reasonable for the style of mineralization, host lithology and weathering present.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit.	The Mineral Resource is classified as Indicated and Inferred due to it being largely supported by historical data. Indicated category was used for the areas supported by at least 50 by 50 m exploration grid density. A comparison between historical drillholes and 2020 verification drilling shows a 14% decrease in grade. This may indicate that historical assay methods were inadequate or not precise and accurate. The lack of QA/QC data for the historical data means its accuracy and precision cannot be checked. The data shows reasonable mineralization and grade continuity along strike and down dip.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	The Mineral Resource block model was peer reviewed internally in accordance with AMC procedures. No audit or review has been completed by another group independent of both AMC and MVI.

Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource 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 resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that 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. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	The Mineral Resource is classified as Indicated and Inferred based on the use and spacing of historical data. Geological evidence is sufficient to imply and also to verify geological and grade continuity for the areas classified as Indicated, which were also supported by channel sampling and trial mining results. Geological evidence is sufficient to imply but not verify geological and grade continuity for the areas classified as Inferred. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings, and drillholes Inferred Mineral Resources are the lowest confidence Mineral Resource, and therefore have relatively low accuracy when local estimates are considered. Inferred Resources can however be considered as fairly accurate global estimates of a deposit, which is true for the Karaberd Gold Project.

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