NI 43-101 Technical Report
Sunshine Mine, Idaho

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Report Prepared for

Silver Opportunity Partners, LLC

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Report Prepared by

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1 Summary

This report was prepared as a Canadian National Instrument 43-101 (NI 43-101) Technical Report (Technical Report) on mineral resources for Silver Opportunity Partners, LLC (SOP) by SRK Consulting (U.S.), Inc. (SRK) on the Sunshine Mine Project (Sunshine or the Project).

Sunshine Silver Mining & Refining Corporation (SSMRC) controls SOP. Previously, a 2012 mineral resource estimate (MRE) for the Project was updated in 2014 and then used as the basis for a preliminary economic assessment (PEA) by TetraTech (2020 TetraTech PEA) with an effective date of January 17, 2020. Since 2020, SOP has conducted in-house detailed checking of historical underground channel sample and drilling data and continued to refine vein models. Additionally, SOP has been conducting infill and exploration drilling at the Sunshine Mine. The current MRE discussed in this report incorporates the updated geological modeling work and additional drilling data.

1.1 Property Description and Ownership

The Sunshine Mine is located in northern Idaho, approximately 37 miles east of Coeur d'Alene. The property is in Shoshone County about 5.5 miles driving distance from the town of Kellogg, Idaho, with close access to I-90.

The Project is 100 percent (%) controlled by SOP and is comprised of patented and unpatented mining claims, which are both owned and leased from third parties, for a total project area of 10,357 hectares (ha). Recent independent reviews of claim status have discovered no issues with ownership. Many parts of the Sunshine Mine property are subject to royalties payable to parties from whom mineral rights were acquired or to others who have a right to royalties on certain areas of the property, as detailed in Section 4.

There are no environmental issues that are anticipated to materially impact the ability to reopen the Sunshine Mine. No other significant factors or risks are known that affect access, title, right, or ability to perform work on the property.

1.2 Geology and Mineralization

The Coeur d'Alene Mining District, including Sunshine, hosts silver (Ag)-lead (Pb)-zinc (Zn) mesothermal vein deposits that are contained in Precambrian (approximately 1.45 billion years old) metasedimentary rocks of the Belt Supergroup. The Sunshine Mine is predominantly hosted in the St. Regis Formation, which is over 600 feet (ft) thick, and upper strata of the underlying Revett Formation. Rock types in the St. Regis Formation are mainly argillite and siltite, which grade to siltite and quartzite in the Revett Formation. Both host units are intensely folded and faulted and metamorphosed to low-grade, greenschist facies.

Dominant veins in the mine strike generally east-to-west between the faults and dip steeply (greater than (>) 60 degrees (°)) to the south. Over 35 veins have been named and mined at the Sunshine Mine. Historically, mined grades are exceptionally high in some areas with averages over 100 troy ounces per short ton (opt) Ag. Mineralization is comprised of tetrahedrite, galena, and sphalerite, with typical gangue minerals of siderite, quartz, pyrite, and magnetite.

1.3 Status of Exploration, Development, and Operations

The Sunshine Mine has been operated for over 100 years by various companies. From historical records beginning in 1904, the Sunshine Mine produced 364,893,421 ounces (oz) of silver from 12,953,045 short tons of ore through 2001, when the mine was closed. In addition to silver, the mine produced copper (Cu), lead, zinc, and antimony (Sb) throughout much of the long mining history. In May 2010, SOP acquired most of the operating facilities and equipment at the Sunshine Mine from Sterling via its bankruptcy proceedings.

From August 2022 until October of 2023, SOP completed a drilling campaign that totaled 54,369 ft of core in 38 drillholes. Each of the completed drillholes was successful in intersecting planned targets or providing new knowledge in previously unknown areas. From 2010 to 2013, SOP drilled approximately 60,000 ft in 84 drillholes. Overall, the current drillhole database contains 3,618 underground drillholes that total 1,114,823.5 ft. All of these diamond-core holes were drilled with substantially similar equipment and using equivalent procedures to the recent campaign.

In addition to drilling data, historical channel samples obtained during previous mining form the majority of data available for the current resource estimation. Assays from face samples collected during development and production have been the main data utilized for previous resource estimates and reserve calculations throughout the long history of the Sunshine Mine.

During mining, chip samples from drift and stope faces and backs and sides of drifts and raises were obtained daily for grade control and resource estimation. Hand-drawn maps and cross-sections recorded much of the historical Sunshine data, with accurate and detailed records of channel sampling. Since 2022, SOP worked to geo-reference the majority of available maps in three dimensions (3D) and commenced an exhaustive validation of the many historical channel data for accuracy in grade, thickness, and location.

All of the new and historical sampling data helped inform the first 3D geology model in the long history of the Sunshine Mine. Future drilling programs plan to continue adding intercepts on all Sunshine veins to better define the deposit and assist with mine planning. Resource conversion of Inferred mineralization to higher classification categories will continue as SOP works toward the resumption of production.

1.4 Mineral Processing and Metallurgical Testing

Various flotation tests and results exist in Sunshine files; these were not included in the current recovery analysis. These tests were simply run to derive the parameters that were used to change the mill as feed changed. The performance of the mill after the changes was the important factor used in this analysis. One more-recent test in 2013 by G&T Metallurgy (G&T) was not used in the recovery estimate because the feed material does not adequately represent the orebody and, as such, the historical actual mill recovery from 1950 to 2008 better reflects the expected recovery for the Sunshine orebody. The mill recovery estimate for a future well designed and operated mill is projected to be 97.23% Ag, with a standard deviation of 0.88%.

For the demonstration of potential for eventual economic extraction, overall silver recovery (after milling, antimony removal, and refining) is estimated at 93% (based on historical metallurgical test work and concentrate production and refining), followed by a silver payability of 95%.

1.5 Mineral Resources

The mineral resource presented herein represents an evaluation of 36 veins at the Sunshine Mine. The resource estimation is supported by logging, drilling, and sampling current to the November 28, 2023, data cut-off date. SRK undertook the technical work on the geological model and grade estimates in December 2023, with the final assessment for reasonable prospects for eventual economic extraction (RPEEE) completed on December 21, 2023, which is the effective date of the resource statement. The resource estimation methodology involved the following procedures:

- Database and geological model review
- Data conditioning for statistical analysis (i.e., capping review and compositing)
- Block modeling and grade interpolation
- Resource classification and validation
- Assessment of RPEEE
- Application of reporting cut-off grade (CoG) for conceptual underground mining scenario
- Preparation of the mineral resource statement

SRK defined the mineral resource (Table 1.1) based on a CoG derived from assumed economics for underground mining. The estimation is constrained within mineable stope optimization (MSO) volumes and discrete vein wireframes interpreted by SOP based on geological logging, assay grades, and historical mining maps, sections, and other records. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resources will be converted into mineral reserves in the future. The estimate of mineral resources may be materially affected by environmental permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

Table 1.1: Sunshine Underground MRE at an 8.8-opt Ag CoG, as of December 21, 2023, SRK Consulting (U.S.), Inc.

Classification	Tonnage (thousand short tons)	Ag Grade (opt)	Contained Ag Metal (thousand ounces (koz))
Measured	--	--	--
Indicated	3,613	31.1	112,427
Measured and Indicated (M&I)	**3,613**	**31.1**	**112,427**
Inferred	7,079	23.2	164,570

Source: SRK, 2024
Notes:
- The mineral resources in this estimate were prepared in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves, Definitions and Guidelines (CIM, 2014) prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council.
- All dollar amounts are present in U.S. dollars, and all measurements are imperial units.
- MSO volume constrained resources with RPEEE are stated as contained within vein estimation domains defined by an 8.8-opt Ag CoG. The CoG and MSO are based on an assumed silver price of US$23.50 and operating cost assumptions, as follows: mining cost of US$110.00 per short ton, processing cost of US$20.85 per short ton, general and administrative (G&A) cost of US$7.93 per short ton, antimony plant for silver concentrate cost of US$14.55 per short ton, refining for silver concentrate cost of US$16.13 per short ton, and tailings storage cost of US$4.27 per short ton.
- Average bulk density was assigned as 3.0 grams per cubic centimeter (g/cm^3) for veins and 2.8 g/cm^3 for waste.
- Metallurgical recovery was assigned at 93% from metallurgical test work and history of mining production.
- Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resources will be converted into mineral reserves in the future. The estimate of mineral resources may be materially affected by environmental permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
- All quantities are rounded to the appropriate number of significant figures; consequently, sums may not add up due to rounding.

1.6 Conclusions and Recommendations

Despite a long and productive mining history, the existing Sunshine Mine represents a brownfield underground project with high potential for expansion and definition of the mesothermal silver vein systems through continued exploration. The upper levels of the mine have had limited drilling and development due to the historical exploration methodology available during the early part of the over-100-year mining history. Additionally, the current economic outlook for silver and base minerals has changed drastically, and updated CoGs are more permissive than witnessed by past operators. SOP conducted recent infill and exploration drilling that expanded mineral resources. During future exploration and development phases, additional drilling has the potential to grow the known resource and potentially discover additional previously unidentified veins.

In the Qualified Person's (QP) opinion for mineral resources, the results of the exploration work completed to date and extensive historical sampling are of substantial technical merit to recommend additional exploration expenditures. The next exploration campaign should include a combination of targets, including infill drilling to improve confidence of areas categorized as Inferred mineral resources and step-out drilling to identify potential new veins. The updated Leapfrog geological model and recent drilling have improved known mineralization continuity, improved geological understanding of the deposit, and consolidated structural data, which will be helpful for future exploration targeting. An updated MRE has been reported using the newly developed 3D geological model with appropriate estimation methodology and classification of resources to industry standards.

SRK recommends continued advancement of the Project toward delivery of an updated PEA based on the current MRE. In advance of the next phase of resource and exploration drilling, as well as the start of underground development, SRK recommends that care and maintenance of existing infrastructure be continued to support future work phases at Sunshine.

2 Introduction

2.1 Terms of Reference and Purpose of the Report

This report was prepared as an NI 43-101 Technical Report on mineral resources by SRK for SOP on the Project. The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in SRK's services, based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. SOP is a private company and is not subject to securities legislation in a particular jurisdiction requiring disclosure responsibility. This report is intended for use by SOP subject to the terms and conditions of its contract with SRK. If future circumstances warrant, the contract permits SOP to file this report as a Technical Report with Canadian securities regulatory authorities pursuant to NI 43-101, Standards of Disclosure for Mineral Projects, after appropriate SRK review. Except for the purposes legislated under provincial securities law, any other uses of this report by any third party are at that party's sole risk. The responsibility for this disclosure remains with SOP. The user of this document should ensure that this is the most-recent Technical Report for the property, as it is not valid if a new Technical Report has been issued.

This report provides mineral resource and mineral reserve estimates and a classification of resources and reserves prepared in accordance with the CIM Standards on Mineral Resources and Reserves: Definitions and Guidelines, May 10, 2014 (CIM, 2014).

2.2 Qualifications of Consultants (SRK)

The consultants preparing this technical report are specialists in the fields of geology, exploration, and mineral resource estimation and classification. None of the consultants or any associates employed in the preparation of this report have any beneficial interest in SOP. The consultants are not insiders, associates, or affiliates of SOP. The results of this Technical Report are not dependent upon any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings between SOP and the consultants. The consultants are being paid a fee for their work in accordance with normal professional consulting practice.

The following individuals, by virtue of their education, experience, and professional association, are considered QPs as defined in the NI 43-101 standard for this report and are members in good standing of appropriate professional institutions. Appendix A provides the authors' QP certificates. The QPs are responsible for specific sections as follows:

- Berkley Tracy, PG, CPG, PGeo, SRK Principal Consultant, is the QP responsible for Geology and Mineral Resources, Sections 2 through 12, 14 through 24, and portions of Sections 1, 25, 26, and 27 summarized therefrom, of this Technical Report.
- Mike Irish of Irish Metals is the QP responsible for Metallurgy, Section 13, and portions of Sections 1, 25, and 26 summarized therefrom, of this Technical Report.
- Due to the current project stage, Sections 15 through 22 have not been completed and are not required for this report.

2.3 Details of Inspection

SRK visited the Project site on two occasions for 3.5 days each time, as summarized in Table 2.1. These field visits allowed independent observation of the property, geology, sampling procedures, underground workings, exploration drilling, and external laboratory. Additionally, the QP site visit fulfilled NI 43-101 requirements for disclosure and the required level of validation outlined by CIM guidelines. Mike Irish, the metallurgy QP, has also visited the Sunshine property.

Table 2.1: Site Visit Participants

Personnel	Company	Expertise	Date(s) of Visit	Details of Inspection
Berkley Tracy	SRK	Geology	February 28 to March 3, 2022, and May 29 to June 1, 2023	Overview audits
Mike Irish	Irish Metals	Metallurgy	May 30, 2023	Metallurgical review

Source: SRK, 2024

2.4 Sources of Information

This report is based in part on internal company technical reports, previous studies, maps, published government reports, internal letters and memoranda, and public information. The sources of information include historical data and reports compiled by previous consultants and researchers of the Project and supplied by SOP, as cited throughout this report and listed in the References section (Section 27).

The consultant's opinion contained herein is based on information provided to the consultants by SOP or their designees throughout the course of the investigations. SRK relied upon the work of other consultants for metallurgy project areas in support of this Technical Report, as noted in Section 2.2. SRK relied on SOP's internal experts for details on regional geology and geological interpretations and information related to environmental permitting status.

SRK has not performed an independent verification of land title and tenure information, as summarized in Section 4 of this report, which was verified separately by SOP's legal counsel. Additionally, SOP contracted Burgex Mining Consultants (Burgex) of Sandy, Utah, to perform a step-by-step due diligence check for all of SOP's owned, leased, patented, and unpatented claims. The Burgex report was delivered on October 24, 2023, with no issues found related to Sunshine Mine claims. SRK did not verify the legality of any underlying agreement(s) that may exist concerning the permits or other agreement(s) between SOP and third parties. As such, SRK expresses no opinion as to the ownership status of the Project. SRK has not independently reviewed these items and did not seek an independent legal opinion of these items.

This Technical Report has been prepared using the documents noted in the References section (Section 27). The consultants used their experience to determine if the information from previous reports was suitable for inclusion in this Technical Report and adjusted information that required amending. This Technical Report includes technical information that required subsequent calculations to derive subtotals, totals, and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error; where these occur, the consultants do not consider them to be material.

2.5 Effective Date

The effective date of this report is December 21, 2023.

2.6 Units of Measure

The U.S. System for weights and units has been used throughout this report for resource reporting. Tons are reported in short tons of 2,000 pounds (lb). All currency is in U.S. dollars (US$) unless otherwise stated.

3 Reliance on Other Experts

SRK relied on SOP, their legal counsel, and consultants for ownership information in Section 4. SOP retained the legal firm Dorsey & Whitney LLP of Salt Lake City, Utah, to perform a due diligence check of a small number of Sunshine Mine patented and unpatented claims in 2023, and findings were issued on June 19, 2023.

4 Property Description and Location

4.1 Property Location

The Sunshine Mine is located in northern Idaho, approximately 37 miles east of Coeur d'Alene, along I-90. From I-90, the property is accessed at the Big Creek exit by heading south approximately 2.5 miles via a paved county road, which parallels Big Creek. The property is located in Shoshone County about 5.5 miles driving distance from the town of Kellogg, Idaho, which hosts a full complement of services. The closest major airport and metropolitan center are located in Spokane, Washington, approximately 68 miles west of Kellogg. The geographic coordinates of the Sunshine Mine are latitude 47°30'6" North and longitude 116°4'10" West. Figure 4.1 shows the location of Sunshine Mine.

Source: Google, 2023, modified by SRK

Figure 4.1: Location Map

4.2 Property Ownership

SOP conducted an extensive review and re-staking of Bureau of Land Management (BLM) unpatented claims in late 2018. Significant historical claim fractions, duplications, and overlaps were identified and re-staked to generate a clean land position and reduce total claim requirements. The work afforded an opportunity to update claim monument locations and related claim corners, as required per Idaho law.

SOP retained the legal firm Dorsey & Whitney LLP of Salt Lake City, Utah, to perform a due diligence check of a small number of Sunshine Mine patented and unpatented claims in 2023, and findings were issued on June 19, 2023. Additionally, SOP contracted Burgex of Sandy, Utah, to perform a full review for all of SOP's owned, leased, patented, and unpatented claims. The Burgex report was delivered on October 24, 2023, and found no issues, fractions, duplications, or overlaps.

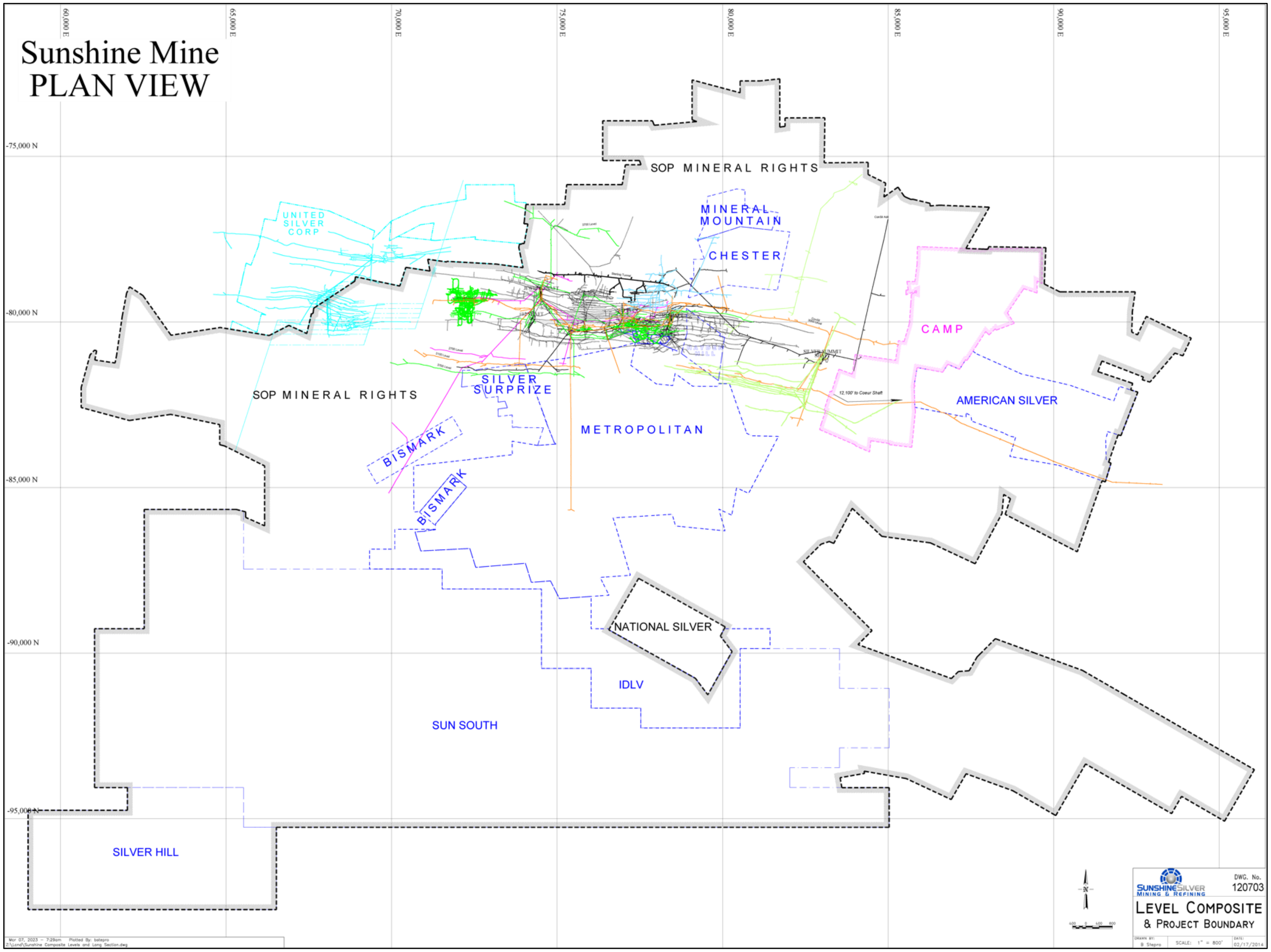
4.3 Mineral Titles

The Project is 100% controlled by SOP and is comprised of patented and unpatented mining claims, which are both owned and leased from third parties, for a total project area of 10,357 ha. Table 4.1 lists the property mineral rights and claims, which are also depicted on Figure 4.2.

Table 4.1: Property Mineral Rights and Claims

Status	Claims	
	Patented	Unpatented
Owned	235	877
Leased	16	189
Total	251	1,066
Total claims		1,317
Total surface (Ha)		9,377
Total claim (Ha)		10,357*

Source: SOP, 2024
Note: The total claim hectares include the overlap of Sunshine Mining Company (SSMC)



Source: SOP, 2024

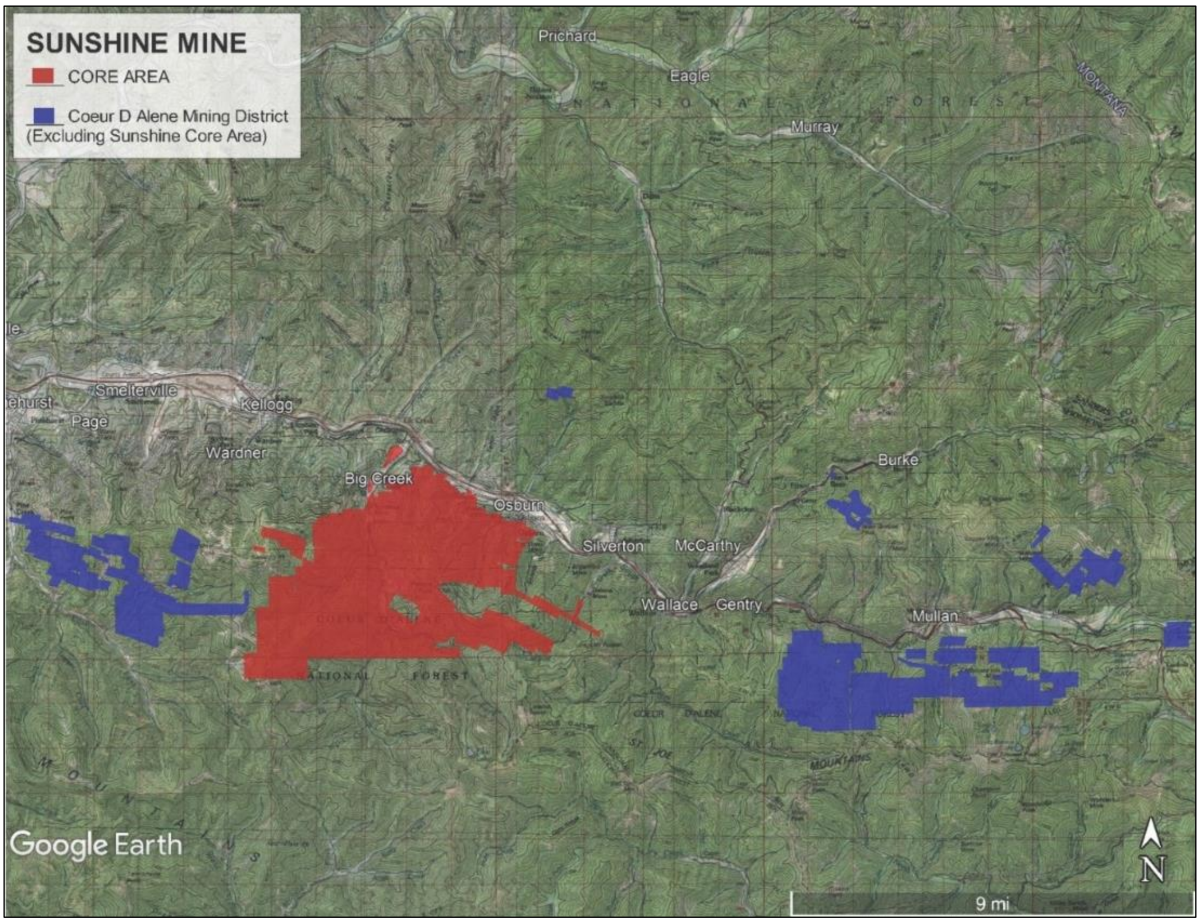
Figure 4.2: Sunshine Mine Property Mineral Rights and Claim Map

4.3.1 Nature and Extent of Issuer's Interest

The Sunshine claims are organized by geographic area and/or district. The main areas are summarized as follows:

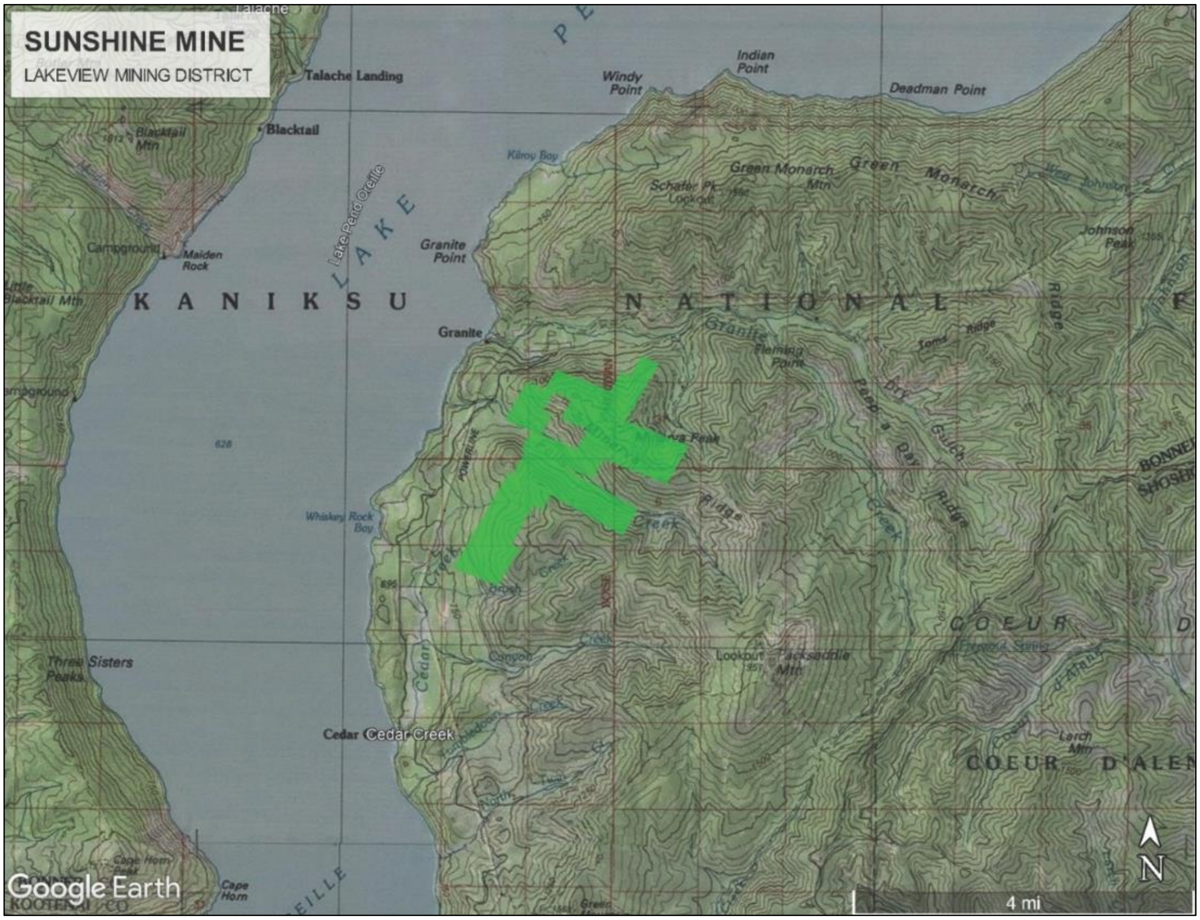
- Sunshine Mine Core Area: includes claims owned and leased by SOP
- Coeur d'Alene Mining District: includes claims owned or leased by SOP outside of the Sunshine Mine Core Area
- Lakeview Mining District: includes claims owned by SOP outside of Shoshone County

Figure 4.3 and Figure 4.4 shows the Sunshine claim areas, which are detailed in Table 4.2.



Source: SOP, 2024
Note: The red Sunshine Mine Core area is equivalent to the claim map on Figure 4.2.

Figure 4.3: Sunshine Mine Core Area and Coeur d'Alene Mining District Map



Source: SOP, 2024
Note: The Lakeview Mining District is about 40 miles northwest of the Sunshine Mine.

Figure 4.4: Lakeview Mining District Map

Table 4.2: Summary of SOP Claims and Leases by Area

Property	Owner	Status	Claims	
			Patented	Unpatented
Sunshine Mine and Core Area				
Sunshine Core Area	Silver Opportunity Partners, LLC	Owned	165	456
Metropolitan	Metropolitan Mines Corporation, Ltd. (Metropolitan)	Leased	2	50
Chester, Bismark, Mineral Mountain	Chester Mining Company (Chester)	Leased	13	0
ALSM	American Silver Mining Company	Leased	0	21
		Total	180	527
Coeur d'Alene Mining District				
CDA Properties	Silver Opportunity Partners, LLC	Owned	70	331
Rock Creek	Rock Creek Mining Company	Leased	1	118
		Total	71	449
Lakeview Mining District (Bonner County, Idaho)				
Falls Creek	Silver Opportunity Partners, LLC	Owned	0	90
		Leased	0	0
		Total	0	90

Source: SOP, 2024

4.4 Royalties, Agreements, and Encumbrances

The majority of the Sunshine Mine property is subject to a net smelter return (NSR) royalty formed under a 2001 settlement between the prior mine operator, the U.S. government, and the Coeur d'Alene Indian Tribe. The agreement settled environmental claims seeking reimbursement for remediation, restoration, and other actions to address environmental damages to the Coeur d'Alene River and other natural resources in the Idaho Silver Valley. A portion of the other leases and owned properties are subject to other royalties with the royalty terms varying for each property.

Many parts of the Sunshine Mine property are subject to royalties payable to parties from whom mineral rights were acquired or to others who have a right to royalties on certain areas of the property. Several of these agreements have royalty payments, detailed below, that are triggered when SOP begins producing and selling metal-bearing concentrate. These royalties are based upon proceeds paid by smelters less certain costs, including costs incurred to transport the concentrates to the smelters, or NSR, for mineralized material produced in the property area subject to the royalties.

The royalties calculated are the aggregate of all potential royalties to all third parties and represent a conservatively high estimate of the actual royalties that may be paid from production. A proportionate share of yearly production was assumed in calculating royalties on an annual basis.

4.4.1 Sunshine Mine

SOP is required to pay between a 0% (at a silver price below US$6.00/oz) and 7% (at a silver price of US$10.00/oz or higher) NSR royalty under a consent decree entered by Sunshine Precious Metals, Inc. (SPMI) with the U.S. government and the Coeur d'Alene Indian Tribe in 2001. All funds from the royalty must be used to pay for the remediation, restoration, and other actions to address certain environmental damage to the Coeur d'Alene River and other natural resources located in the Silver Valley of Idaho. The area subject to the royalty covers all the Sunshine Mine property, owned or leased by SOP, and purports to extend outward within a 1.61-kilometer (km) boundary of the property as set forth in the 2001 settlement agreement.

4.4.2 Metropolitan Mining Claims

SOP's lease with Metropolitan requires the company to pay advanced royalties of US$12,000 annually until such time as mineralized material is produced from the Metropolitan property. Upon production, Metropolitan is to be paid either 16% or 50% of the net proceeds from the sale of materials produced from the mineralized material processed from these claims, depending upon the location of production.

4.4.3 Chester Group and Mineral Mountain Mining Claims

Effective February 3, 2021, SOP entered into an Amended and Restated Mineral Lease and Agreement ("Chester Lease"), through which the Company leases 13 patented mining claims. The 10-year lease ends in 2031 and is renewable for five additional ten-year terms. The lease is subject to monthly advance royalty payments until such time as a royalty of 3.25% on NSR is payable. The Chester Lease also required a one-time payment due nine months from the effective date of the lease. The payment was to be made in SSMRC common stock, if an equity financing and share issuance occurred within nine months of the effective date of the Chester Lease. No equity financing occurred within nine months of the effective date and the payment of $50,000 was made in cash. The Company made $42,000 in lease payments during 2022.

4.4.4 Silver Summit/ConSil Mine

SOP is required to pay between a 2% (at a silver price below US$5.00/oz) and 4% (at a silver price of US$7.00/oz or higher) NSR royalty to Hecla Mining Company. The area subject to royalties surrounds the Silver Summit/ConSil Mine.

4.4.5 American Silver Mining Company Claims

SOP is required to pay a 2% NSR royalty to American Silver Mining Company on all leased minerals mined, removed, and sold by SOP during the 10-year lease term. The area subject to the royalty is east of the CAMP claim block on the eastern boundary of the Sunshine Core Area.

4.5 Environmental Liabilities and Permitting

4.5.1 Environmental Liabilities

There are no environmental issues that are anticipated to materially impact the ability to reopen the Sunshine Mine. This conclusion is based on an SOP review of the studies completed to date and planned for the immediate future and a review of the permits and approvals needed for the Project and associated regulatory requirements. No current environmental liabilities are known to exist for the Project.

4.5.2 Required Permits and Status

Various federal and state permits, plans, and approvals will be required for this Project. The permits are described in the Permit Handbook for the Sunshine Mine, produced previously by TetraTech and summarized in Table 4.3.

Table 4.3: Potential Sunshine Mine Activities and Permits

Activity	Permit, Approval, and Certification Requirement	Responsible Agency
Building demolition	Asbestos removal permit (not yet issued)	United States Environmental Protection Agency (USEPA) National Emission Standards for Hazardous Air Pollutants (NESHAP)
	Institutional controls permit (not yet issued)	Panhandle Health District
	Site disturbance permit (not yet issued)	Shoshone County Planning and Zoning
	Contaminated soil investigations and cleanup permit (not yet issued)	Idaho Department of Environmental Quality (IDEQ)
Storm water runoff that discharges to waters of the U.S. during construction and operations	Multi-sector general permit (MSGP) (2008) and stormwater pollution prevention plan (SWPPP) (expires March 2026)	IDEQ
Point source discharges of wastewater to waters of the U.S.	Idaho Pollutant Discharge Elimination System (IPDES) (indefinite permit extension)	IDEQ
	State Clean Water Act (CWA) 401 certification (indefinite permit extension)	IDEQ
Building construction	Building and site disturbance permit (not yet issued)	Shoshone County Planning and Zoning Department
Tailings impoundment modifications if beyond current design capacity	Form 1721 permit (not yet issued)	Idaho Department of Water Resources (IDWR)
Tailings dam modifications if beyond current design capacity	Form 1710 permit (not yet issued)	IDWR
	CWA 404 permit for dredge and fill if in waters of the U.S (not yet issued)	United States Army Corps of Engineers (USACE)
	401 certification of the 404 permit, if necessary (not yet issued)	IDEQ
Tailings dam operation	Idaho dam emergency action plan (no expiration, annual review in good standing)	IDWR
Petroleum storage	Spill prevention, control, and countermeasure (SPCC) (no expiration, annual review)	USEPA Region 10
Facility construction and operation	Air quality permit (not yet issued)	IDEQ
Groundwater protection	Point of compliance permit (not yet issued)	IDEQ
Stream channel alterations associated with construction activities	Joint stream channel alteration permit (not yet issued)	IDWR
	CWA 404 permit (not yet issued)	USACE
	401 certification of 404 permit (not yet issued)	IDEQ
Metal contaminated soils removal	ICP permit (not yet issued)	Panhandle Health District
Waste rock facility expansion if in waters of the U.S.	CWA 404 permit (not yet issued)	USACE
	401 certification of the 404 permit (not yet issued)	IDEQ
Repair or maintenance of outfalls if in waters of the U.S.	CWA 404 permit (not yet issued)	USACE
	401 certification (not yet issued)	IDEQ
Refinery	No exposure certification for storm water under MSGP/SWPPP (expires December 2025)	USEPA Region 10
	Air quality permit (not yet issued)	IDEQ

Source: TetraTech, 2020

In certain situations, issuance of a federal permit requires compliance with the National Environmental Policy Act (NEPA) and development of an Environmental Impact Statement (EIS) or Environmental Assessment (EA). Based on the current proposed operating plan, reopening of the Sunshine Mine will not require development of an EIS. The IPDES permit will be a reissuance of an existing permit with IDEQ. CWA 404 actions, if any, would be authorized under a nationwide permit with USACE. Neither of these federal actions will require development of an EIS or EA.

4.6 Other Significant Factors and Risks

No other significant factors or risks are known that affect access, title, right, or ability to perform work on the property.

5 Accessibility, Climate, Local Resources, Infrastructure, and Physiography

5.1 Topography, Elevation, and Vegetation

The Sunshine Mine is in the Big Creek Valley at an approximate elevation of 2,800 ft above mean sea level (amsl). The topography is typical of northern Idaho with hilly to mountainous terrain. Sunshine's main production shaft, the Jewell Shaft, and the mill are located above the base of a steep mountain, while the hoist room and other infrastructure facilities are located on a relatively flat portion of property at the base of the mountain. The majority of the areas surrounding the mine are forested. Figure 5.1 portrays these general land features.

Source: SRK, 2022

Figure 5.1: Sunshine Mine Surface Facilities

5.2 Accessibility and Transportation to the Property

The Sunshine Mine is easily accessible from I-90. Kellogg, Idaho, with a population of approximately 2,374 (in 2021), and Wallace, Idaho, with a population of approximately 808 (in 2021), are the two nearest towns to the mine and are home to many of the mine staff. Minimal residential housing neighbors the mine to the north. The mining history of the Idaho Silver Belt ensures a ready source of skilled and unskilled labor. Efforts are made to stimulate the local economies as much as possible, with the local area having numerous vendors that supply services to the mining industry (such as welding, steel supply, transportation, and project consumables). Spokane, Washington, is the largest city in the area, which has an international airport and many mining industry supplies and services.

5.3 Climate and Length of Operating Season

The climate of the Project area is typical of the northwestern U.S. with frequent rain and winter snow. Winter weather can restrict access to some surface facilities at higher elevations. However, the mine is capable of operating year-round with no seasonal limitation on mining or underground exploration. Average rainfall in the area is approximately 34 inches annually.

5.4 Sufficiency of Surface Rights

As discussed in Section 4, the SOP surface rights cover a total project area of 10,357 ha. The claims are considered sufficient for continued exploration and for future envisioned underground mining activities.

5.5 Infrastructure Availability and Sources

Electrical power is supplied by Avista, a large northwest U.S. power supplier with long historical ties to the mining industry in the Coeur d'Alene district. The district is tied to the main northwest power grid, and outages are rare. Power supply is ample for the life of the Sunshine Mine, with a potential local substation (and possibly transmission line upgrades) currently being evaluated by Avista. The main power source for the mine is a power line that parallels Big Creek Road and terminates at the Avista substation on the Sunshine Mine property. From the substation, power is distributed to numerous smaller substations throughout the property.

Sunshine Mine has water rights to Big Creek, which flows between the mine office and the other mining facilities at surface. Big Creek is the main fresh water source for the mine and mill. Potable water is supplied to the mine by the Central Shoshone Water District.

6 History

6.1 Prior Ownership and Ownership Changes

In May 2010, SOP acquired most of the operating facilities and equipment at the Sunshine Mine from Sterling via its bankruptcy proceedings. Also included in this purchase was Sterling's lease from SPMI on the mine and a purchase option in the lease for title to the Sunshine Mine, which had been exercised by Sterling prior to the sale to SOP. SOP closed on the exercise of the purchase option of the lease from SPMI in July 2010 to obtain title to the mine and the facilities. SOP is wholly owned by SSMRC.

In October 2013, SOP acquired the old Sunshine Mining Company Silver and Copper Refinery from Formation Metals, U.S.; this is a fully permitted refinery located 1 mile north of the Sunshine Mine. The refinery was not included in the acquisition from Sterling and was purchased by Formation Holdings US, Inc.

On October 30, 2020, as part of a corporate reorganization, SOP was spun out to the newly created SOP Corp. Prior to October 30, 2020, SOP was owned by an entity now called Gatos Silver, Inc. (Gatos). Prior to the reorganization, Gatos was named Sunshine Silver Mining & Refining Corporation (SSMRC). The SSMRC entity was transferred by Gatos to SOP Corp.

6.2 Exploration and Development Results of Previous Owners

Beginning in August 2003, Sterling undertook a surface exploration program that was followed by a three-hole drilling program totaling 2,473 ft. Multiple veins were intersected between Sunshine and Yankee Girl structures in the third drillhole. Based on this new data, underground contract drilling began in the Sterling Tunnel in late 2006, targeting the area to the north. A total of 46,570 ft of exploration drilling was completed from 2004 to 2008.

6.3 Historical Mineral Resource and Reserve Estimates

A historical 2020 resource estimate for Sunshine is provided, using the original terminology and format of the previous technical report disclosure. The current QP and SOP are not treating the historical estimate as current mineral resources. A QP has not performed sufficient work to classify the historical estimate as current mineral resource or mineral reserves. The historical estimate is summarized herein (see Table 6.1) to provide a relative comparison to the current MRE discussed in this Technical Report.

Table 6.1: TetraTech MRE, Sunshine Silver Mine, Reported at 343 grams per tonne Ag CoG, Effective January 17, 2020

Resource Classification	Ag CoG (Diluted) (g/t)	Tonnage (Diluted) (tonne)	Ag Grade (Diluted) (g/t)	Contained Ag (troy ounce)	Cu (%)	Pb (%)	Zn (%)
Measured	343	1,129,000	843	30,750,000	0.13	0.41	0.02
Indicated	343	1,890,000	742	45,557,000	0.10	0.37	0.02
M&I	343	3,019,000	780	76,307,000	0.11	0.39	0.02
Inferred	343	8,221,000	835	222,618,000	0.22	0.36	0.02

Source: TetraTech, 2020
g/t: Grams per tonne
Notes:
1. 343-g/t Ag CoG has been estimated for the Project using a silver price of US$20.16/troy ounce and an average metallurgical recovery of 97%.
2. Cut-off includes an operating cost of US$214.58/tonne of processed mineralized material.
3. Columns may not total due to rounding.
4. Mineral resources are stated as diluted.
5. One troy ounce is equal to 31.1034768 grams (g), and one tonne is equal to 2,204.62 lb.

6. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

6.4 Historical Production

From historical records beginning in 1904, the Sunshine Mine produced 364,893,421 oz of silver from 12,953,045 short tons of ore through 2001, when the mine was closed. In addition to silver, the mine produced copper, lead, zinc, and antimony throughout much of the long mining history. However, limited laboratory assay data are available for the accessory metals, such that only estimation of a silver mineral resource is possible with the current information.

7 Geological Setting and Mineralization

7.1 Regional Geology

The Coeur d'Alene Mining District is hosted in Precambrian (approximately 1.45 billion years old) metasedimentary rocks of the Belt Supergroup. For silver mineralization targeting, rocks of the Burke, Revett, and St. Regis Formations are prospective and belong to the Ravalli Group within the Belt Supergroup. These Middle Proterozoic rocks cover a large area of northern Idaho and western Montana with up to a 12.5-mile (20-km) thick layer of fine-grained siliciclastic strata. The Sunshine Mine and other Silver Valley deposits occur between the Osburn and Placer Creek faults that are significant regional-scale, east-to-west structures, as seen on Figure 7.1. The regional continuity of the Idaho Silver Belt mineralized system occurs along a strike length of over 20 miles.

7.2 Local and Property Geology

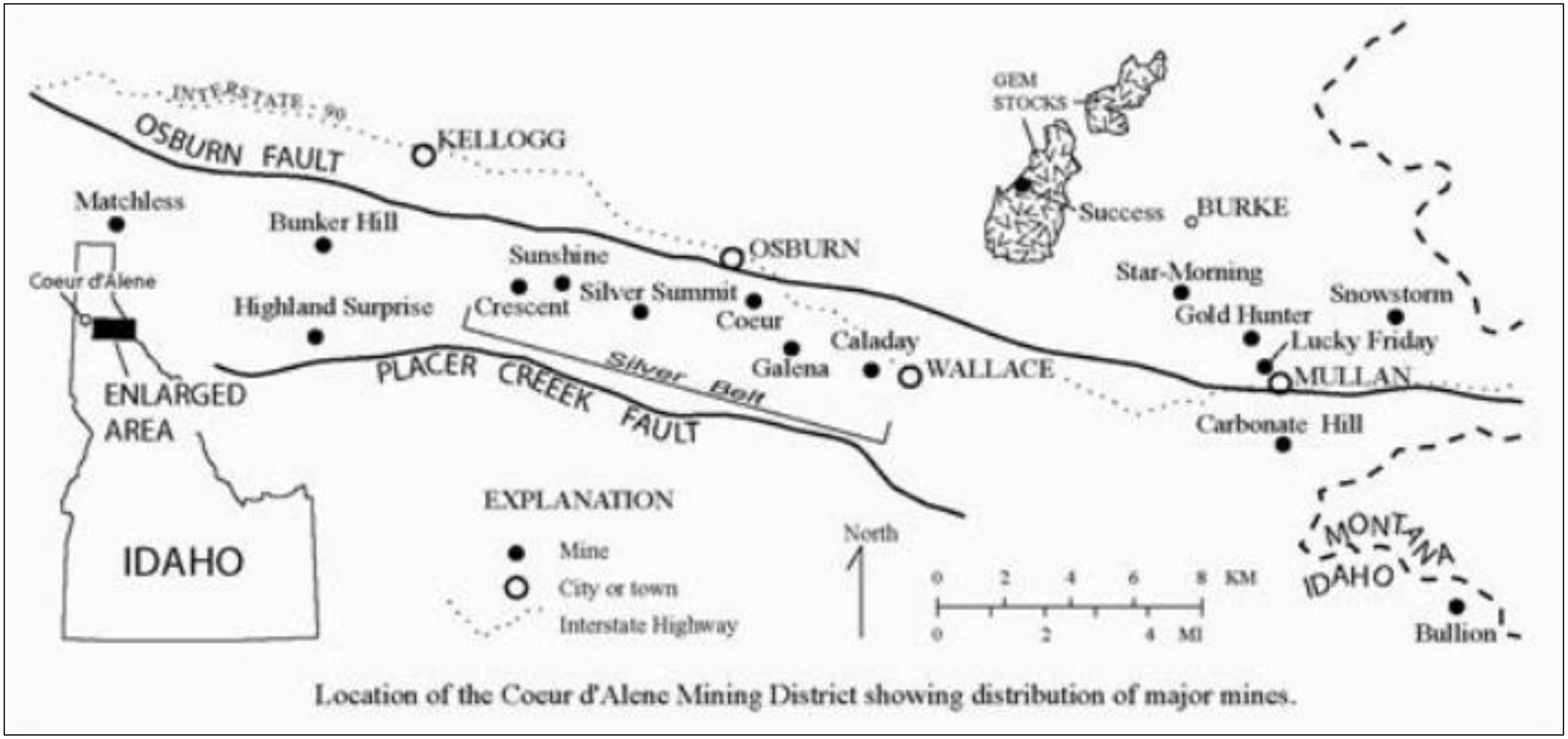
The Sunshine Mine is predominantly hosted in the St. Regis Formation, which is over 600 ft thick, and upper strata of the underlying Revett Formation. The lithostratigraphic boundary between these units is unclear. Rock types in the St. Regis are mainly argillite and siltite, which grade to siltite and quartzite in the Revett Formation. Both host units are intensely folded and faulted and metamorphosed to low-grade, greenschist facies.

The Project area is bisected by several east-to-west faults, namely Polaris, Syndicate, C Fault, and, further south, the Alhambra Fault. Figure 7.2 shows the general structural setting. Kinematics and rock fabric in the mine are reported to show dip-slip movement on the faults, even though the regional structural setting suggests that movement was strike-slip. Polaris is a normal fault, while the remainder have reverse displacement. The faults at Sunshine are variably mineralized. The C Fault is an example of a well-mineralized structure.

Dominant veins in the mine strike generally east-to-west between the faults and dip steeply (>60°) to the south. Subordinate veins are interpreted to crosscut between the major veins. The larger vein structures are quite extensive and can be traced over long strike distances and depths. Generally, mineralized veins vary between 1 to 5 ft thick with thicknesses pinching and swelling along strike. The strike length of individual veins has been tested up to 2.5 miles in length. Veins at Sunshine can continue from surface to over a mile deep.

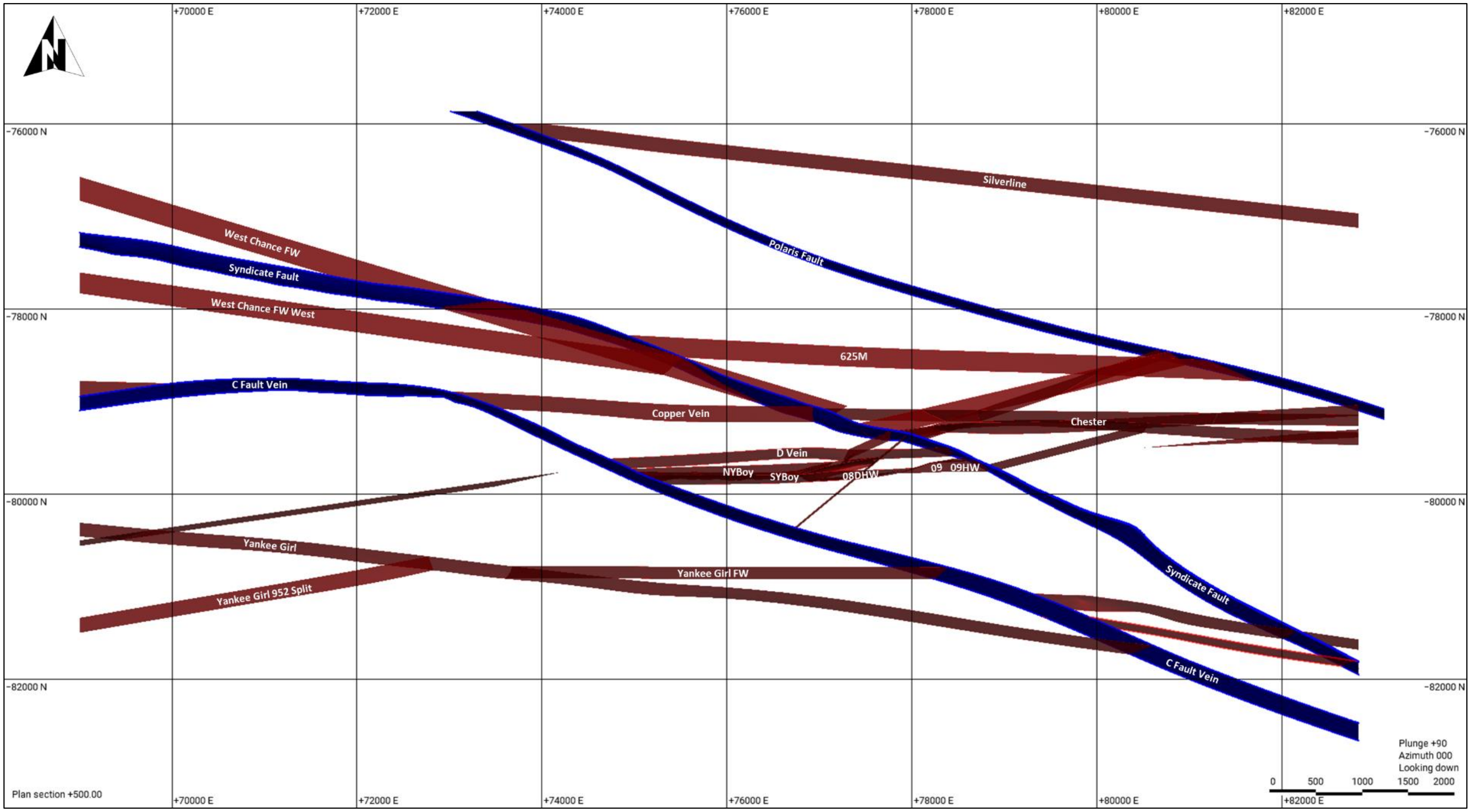
7.3 Significant Mineralized Zones

Over 35 veins have been named and mined at the Sunshine Mine. Historically, mined grades are exceptionally high in some areas, with averages over 100 opt Ag. The Sunshine and Chester Veins are particularly well endowed, with each reported to have produced over 90 million (M) oz of silver to date. Mineralization is comprised of tetrahedrite, galena, and sphalerite, with typical gangue minerals of siderite, quartz, pyrite, and magnetite. Similar to other deposits in the Idaho Silver Valley, two main vein assemblages are distinguished, which tend to dominate certain areas of the mine: silver-copper veins and lead-zinc veins.



Source: SOP, 2024

Figure 7.1: Mineralized Belts of the Coeur d'Alene Mining District, Idaho



Source: SRK, 2024
Note: Plan section of vein model at 500-ft-amsl elevation with ±150-ft projection. Faults are blue, and veins are red.

Figure 7.2: Local Geology-Level Map

8 Deposit Type

8.1 Mineral Deposit

The deposits of the Coeur d'Alene District, including Sunshine, are classified as clastic metasediment-hosted, silver-lead-zinc mesothermal vein deposits. In addition to Coeur d'Alene, a world-class silver district, this deposit type includes several historical mining localities globally, including the Harz Mountains and Freiberg in Germany, Keno Hill and Kokanee Range in Canada, and Příbram in the Czech Republic. These deposits are typified by the following general characteristics:

- Deposits are hosted in thick sequences of fine- to medium-grained clastic sedimentary rocks transected by deep-seated regional-scale faulting.
- Sedimentary basins occur in a wide range of tectonic environments, but all have been subject to deformation, intrusion, and regional metamorphism, typically greenschist facies.
- Economic minerals are predominantly galena and sphalerite with minor accessory pyrite and a wide range of sulphosalt minerals, including tetrahedrite, pyrargyrite, stephanite, bournonite, acanthite, and native silver.
- Gangue minerals are comprised of siderite and quartz, with lesser amounts of dolomite or calcite.
- Temperature of sulfide mineral deposition is in the range of 250 degrees Celsius (°C) to 300°C.

It is generally accepted that the veins of the Coeur d'Alene District were formed during the Cretaceous to early Tertiary. Genesis of the orebodies may have been a result of regional-scale metamorphism and the development of hydrothermal systems associated with the emplacement of the Idaho Batholith pluton and concurrent deformation. Metamorphic hydrothermal fluids most likely scavenged syngenetic metals (silver, lead, zinc, and copper) from Proterozoic Belt Supergroup strata and emplaced these metals within pre-existing or concurrent structural features.

8.2 Geological Model

The signature for all economic deposits discovered within the Coeur d'Alene District is vein-like morphology hosted within the metasediments of the Belt Super Group. Within the Sunshine Mine, as well as other sub-districts in the Coeur d'Alene District, veins occur as branching fissures that crosscut the sedimentary host rocks. Previous studies have indicated the veins are of mesothermal origin.

The vein structures are known to branch or split, forming duplexing, and have anastomosing geometries. The majority of veins strike west, are steeply dipping, elongated down-dip, and can have strike lengths over 4,000 ft and dip lengths over 8,000 ft.

SRK incorporated Sunshine-provided geologic interpretations from the company's internal experts, regarding the trends of vein domains and mineralization continuity. The QP for mineral resources considers the current geological model to be sufficient for conceptual exploration targeting, geological modeling, and resource estimation of the Sunshine deposit.

9 Exploration

9.1 Relevant Exploration Work

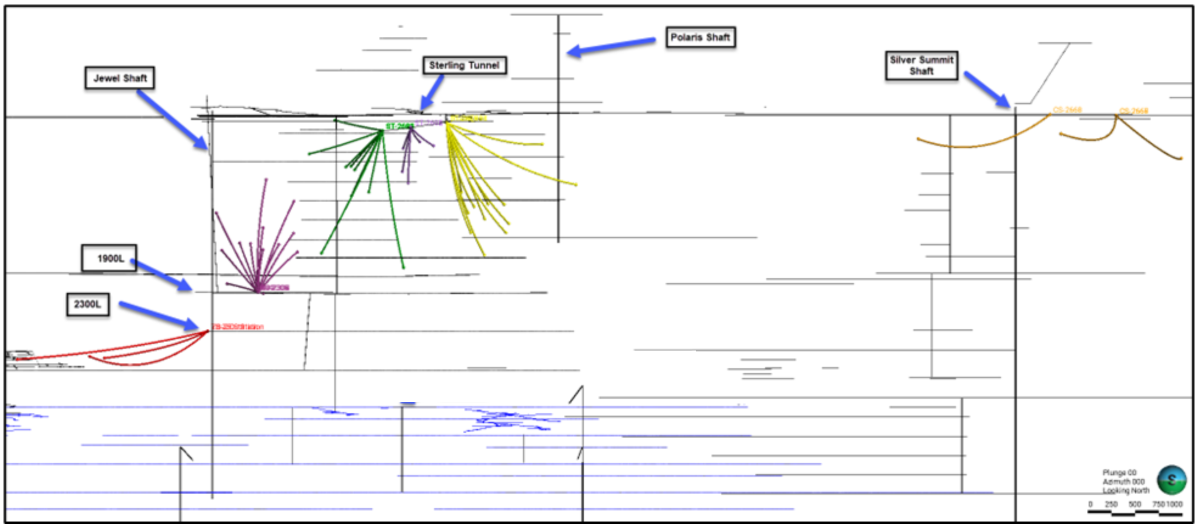
The primary method of modern and historical exploration at Sunshine is underground drilling, mapping, and channel sampling, as discussed in Section 10. Historically, exploration underground was conducted by drifting on the veins, prior to the use of drilling rigs. In addition to drilling data, historical channel sample assays obtained during previous mining form the majority of data available for the current resource estimation.

In August 2003, it was reported that the previous operator conducted a surface exploration program. Sterling performed induced polarization (IP), resistivity, and chargeability geophysical surveys. Additionally, geochemical sampling was conducted at surface that yielded areas of exploration interest. However, the surface expression of the Sunshine Vein system is generally weak with limited outcrops. Historical surface exploration results were not reviewed by the QP for mineral resources.

10 Drilling

10.1 Type and Extent

From August 2022 until October of 2023, SOP completed a drilling campaign that totaled 54,369 ft of core in 38 drillholes. The recent SOP drilling for exploration, delineation, and development conducted at the Sunshine Mine has been performed from surface and underground with diamond-core drills. Diameters ranged from BQ-sized core (1.42 inches or 3.64 centimeters (cm)), HQ-sized core (2.5 inches or 6.35 cm), with less than (<) 5% of core completed at the smaller BQ-diameter. Work was completed by a national contract core drilling company (Boart Longyear from Salt Lake City, Utah); they operated two diamond drills (a smaller LM90 and a larger LM110). Figure 10.1 provides a long-section of the recent drilling locations.



Source: SOP, 2024

Figure 10.1: Long-Section of Recent SOP Drillhole Locations

From 2010 to 2013, SOP drilled approximately 60,000 ft in 84 drillholes. Overall, the current drillhole database contains 3,618 underground drillholes that total 1,114,823.5 ft. All of these diamond-core holes were drilled with substantially similar equipment and using equivalent procedures to the recent campaign. The longest underground drillhole is 3,130 ft (954 meters (m)). It is not uncommon for drillholes to be completed to lengths of approximately 1,500 to 2,000 ft (457 to 610 m). Following completion, all drillholes are cemented for their entire length.

10.2 Procedures

10.2.1 Deviation Surveys

Since 2010, drillhole locations and orientations are marked for the drillers by the supervising geologist and surveyed before and after drilling. After the initial setup on the drillhole, a Northrop Grumman LiPAD-100 Gyrocompass azimuth aligner was utilized in the recent SOP campaigns to double check the drill rig collar setup before commencing drilling. An initial 50-ft (15-m) check survey is completed to ensure downhole direction after coring was commenced. Then, regular downhole surveys were completed every 200 ft (60 m) on all diamond drillholes as the drillholes advanced. The primary survey tool was a Boart Longyear TruShot downhole survey tool. An Inertial Sensing Gyro survey tool was also used to double-check surveys in more magnetically problematic areas around known workings. Upon reaching the target depth, the drillers stop the hole and survey the bottom of the hole before cementing.

The Boart Longyear TruShot instrument also records the magnetic field strength, which is used to derive an average field strength for help in assessing individual orientation readings. If an obviously anomalous measurement is recorded, it is double-checked with the Inertial Sensing Gyro (as the gyro is a non-magnetic survey tool) and replaced after being checked against an average of adjacent readings. The survey data is recorded on paper and digitally forwarded to the supervising geologist for capture using the Microsoft Access digital core logging database. The surveyed drillholes are checked visually in 3D to confirm that they were oriented as planned and continuing in the correct location(s).

10.2.2 Drilling and Logging Procedures

After each shift, the drillers place the core in waxed cardboard boxes labeled with the drillhole and footage, which are then enclosed and taped shut prior to transport to the shaft station on the respective drilling levels. Core boxes are then placed in the shaft to be collected by mine staff and transported to the logging facility, which is located near the mine offices. The core logging facility has recently been completely remodeled and configured for ergonomic core logging. Traditional benches have been replaced with a series of roller-equipped racks with end stops. The core boxes are easily pushed (with no lifting) from station to station during the logging and sampling process, thus reducing the risk of dropping boxes. New lighting has been installed along with an overhead water supply system with spray hoses, as well as anti-fatigue matting. Upon receipt of the core at the logging facility, the core boxes are laid out in order on the roller tables.

Next, the geologists examine the drillholes to ensure correct run block footage and core orientation. Zones of core loss are noted, and geotechnical logging is conducted; this includes measurement of recovery and rock quality designation (RQD). Recovery was measured during drilling and checked during geological logging. Core recovery was generally very good (exceeding 90%). Core recovery can be difficult in certain faulted or sheared areas. The diamond drillers changed from wireline tools to conventional tools before encountering proven areas of loss, which significantly improved recovery. Recovery issues did not materially impact the reliability of the results.

The core is then logged for lithology and mineralogy, as well as sedimentary structures, veins, faults, and other structural features. Following this, a third logging pass is made noting type, style, and intensity of alteration. During the logging process, all the aforementioned geologic features are marked with China marker grease pencils to be visible in the core photographs. The core is then wetted and photographed using a purpose-built camera, lighting enclosure, scale, and color correction cards, which provide uniform digital images. In addition to the notations on the core for geological information, the sample boundaries and numbers are also marked to allow for easier validation of the assay results using the imagery.

During the recent SOP campaign, logging was conducted by contract geologists supplied by Tamarack Geological Services of Osburn, Idaho. The contract geologists were supervised by on-site SOP personnel. All data are digitally captured on notebook computers using a propriety Microsoft Access digital core logging database. The digital database is backed up weekly to a secure server.

10.2.3 Drillhole Sampling

Upon completion of drillhole logging, the geologist mark the core for sampling. Specimens from each sample are measured for specific gravity (SG) using a water immersion method on unsealed core. Samples taken for assay range in length from a minimum of about 6 inches to a maximum of 4 ft (0.15 to 1.21 m) with breaks made based on lithological contacts, changes in estimated grade, or variation in mineralization style. Tags are placed in the boxes for each sample. Any visible sulfide or gangue mineralization is sampled. All samples are bracketed with a minimum of 2 ft (0.6 m) of apparently barren or uneconomic material.

For the recent drilling program, all core samples are sawn with a Corewise Pty Ltd. automatic saw, and half core samples are sent to the laboratory. The remaining half of all sampled intervals are retained in a sperate storage facility on-site at the Sunshine Mine. The core photographs are also of such high quality that it is possible to check the core in detail after it has been discarded, if necessary. Sample tag books are filled out with drillhole identification number (ID), location, and from and to information, and a tag is placed in the sample bag. The sampled intervals are captured in the digital core logging database and then checked using a validation routine to confirm that there are no overlaps or accidental gaps.

Assay quality assurance/quality control (QA/QC) samples consist of blanks, certified reference standards, coarse duplicates, and pulp duplicate. The control samples are entered into the sample stream at a rate of one in 20 samples. All samples are recorded in the database, placed in cloth-polyethylene bags, and collected into reusable plastic shipping boxes (tote). As sufficient samples are gathered, the totes are delivered by the contract geologists to the American Analytical Services (AAS) laboratory in Osburn, Idaho.

10.3 Channel Sampling

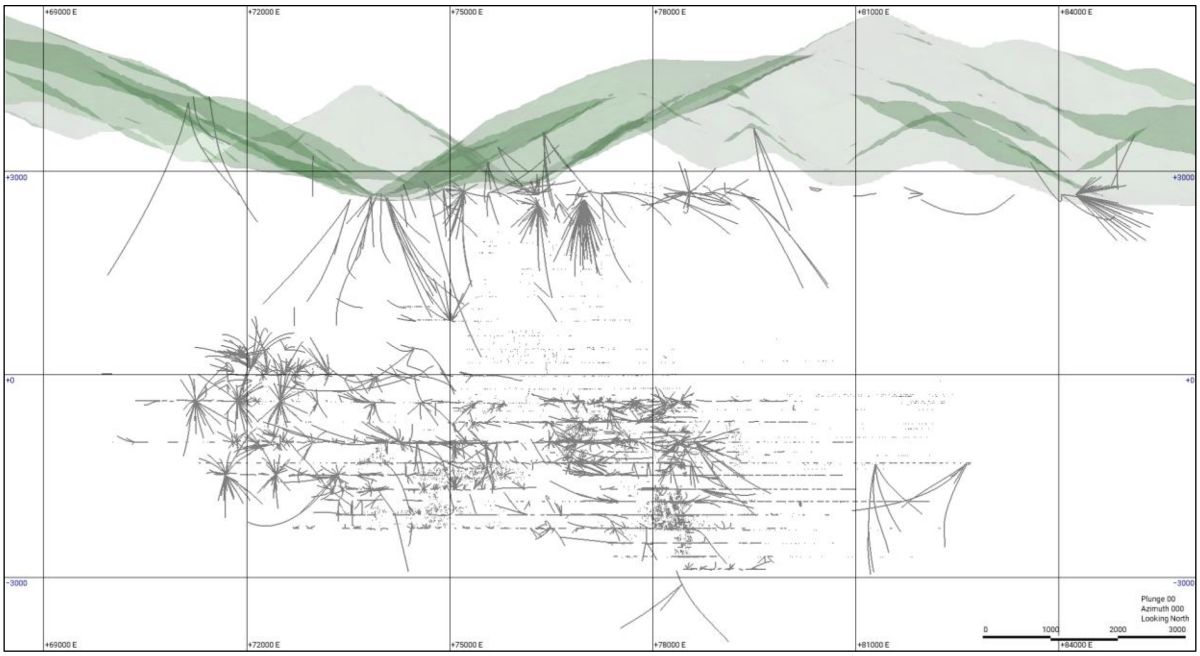
In addition to drilling data, historical channel samples obtained during previous mining form the majority of data available for the current resource estimation. Assays from face samples collected during development and production have been the main data utilized for previous resource estimates and reserve calculations throughout the long history of the Sunshine Mine.

During mining, chip samples from drift and stope faces and backs and sides of drifts and raises were obtained daily for grade control and resource estimation. Geologists collected samples in a horizontal channel, from left to right, across the mining face following a standardized procedure to sample a representative portion of the mineralized structure. Each of the sample points was referenced to an underground survey control point.

After sample collection, the geologists loaded the channel samples to the surface, where they were organized for transport to the assay laboratory. Sample tickets recorded the sample number, location, description, and sketch of the mining face where the sample was obtained. The sample booklets contained a detachable tag with duplicate sample numbers that was placed in each sample bag.

Veins were typically sampled at 4- to 6-ft intervals along drifts. Raises and stopes were sampled regularly, with sample intervals varying based on advance cycles. Linen and paper maps and cross-sections recorded the historical Sunshine data with accurate records of channel sampling. From 1995 onward, underground channel sample data were maintained in an electronic database. Previous data were digitized directly from the historical maps. Since 2022, SOP worked to geo-reference the majority of available historical plan, level, and stope maps with handwritten sampling information into 3D and validated all of the many historical channel data for accuracy in grade, thickness, and location.

Figure 10.2 provides a long-section of drillhole and channel sample locations at Sunshine.



Source: SRK, 2024

Figure 10.2: Long-Section of Drillhole and Channel Sample Locations

10.4 Interpretation and Relevant Results

SOP considered the recent drilling (occurring from August 2022 until October of 2023) to have been a successful program. A total of 38 drillholes containing 54,369 ft of large-diameter (NQ/HQ) core drilling were completed. Each of the completed drillholes was successful in intersecting planned targets or providing new knowledge in previously unknown areas. To date, one new vein structure was defined with drilling from the 2300-Level elevation. This silver-copper vein has been defined about 50 ft (15 m) south of the historic Yankee Girl Vein and is currently named the South Yankee Girl (SYG) Vein. SOP completed two drillholes targeting the SYG Vein, and both encountered silver mineralization. Drilling will continue to define the vertical and lateral limits of this new vein structure.

All of the new and historical drilling data helped inform the first 3D geology model in Sunshine Mine's 139-year history. Continued work will be done to better define the Yankee Boy/Sunshine Vein extensions to the east and west, the C-Fault Vein down dip and to the west, and the 10-Vein down dip, as well as to the east. Adding intercepts on all Sunshine Veins with future drilling programs will better define the deposit and assist with mine planning. Resource conversion of Inferred mineralization to higher classification categories will continue as SOP works toward the resumption of production.

Table 10.1 summarizes detailed drill intercepts completed by SOP in 2022 and 2023 that are included in this MRE. The exact relationship between the sample length and the true thickness of the mineralization is not known. In general, the length of the sample intersections (apparent width) is greater than the true thickness measured perpendicular to the modeled vein wireframes. The measured vein angles with respect to the core axis are provided in the summary table. All summary intervals are reported proportionally to the length of the individual samples, and allowance for lower grade dilution zones are included, if encountered. No drilling, sampling, or recovery factors are known that could materially impact the accuracy and reliability of the results. The QP for mineral resources considers the drilling and sampling process at Sunshine to meet generally accepted industry standards and to be sufficient for the current level of study.

Table 10.1: Summary of Recent SOP Drillhole Results

Drillhole ID	Azimuth (°)	Dip (°)	From (ft)	To (ft)	Sample Interval (ft)	Angle TCA (°)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Vein
ST-2670	8	-39	713.2	714.4	1.2	70	3,104.66	0.976	2.976	3.976	SYB Vein
ST-2670	8	-39	724	725.6	1.6	40	920.107	1.1	4.99	0.083	NYB Vein
ST-2670	8	-36	933.8	935	1.2	35	1.41121	0.051	3.01	0.005	10 Vein
ST-2671	9.37	-48.8	858.3	860.6	2.3	60	281.959	0.119	0.05	0.014	SYB Vein
ST-2671	9.37	-48.8	863.8	864.6	0.8	60	2,088.59	1.42	0.05	0.113	NYB Vein
ST-2671	8.07	-44.7	1,092.5	1,093	0.5	70	304.821	0.005	21.1	0.05	10 Vein
ST-2671	8.07	-44.7	1093	1,094.5	1.5	70	39.2316	0.005	2.53	0.05	10 Vein
ST-2671	8.07	-44.7	1,094.5	1,096	1.5	70	451.586	0.052	23.7	0.05	10 Vein
ST-2671	8.07	-44.7	1096	1,096.5	0.5	70	564.483	0.042	31.4	0.05	10 Vein
ST-2674	10.07	-51.1	827	827.9	0.9	60	2,822.41	1.25	0.05	0.094	SYB Vein
ST-2674	10.07	-51.1	834.4	834.9	0.5	45	7,902.76	5.85	0.663	4.24	NYB Vein
ST-2674	9.07	-47.2	1,057.7	1,059.7	2.0	60	733.828	0.005	47	0.005	10 Vein
ST-2674	9.07	-47.2	1,059.7	1,061.2	1.5	35	395.138	0.005	36.3	0.005	10 Vein
ST-2675	6.27	-58.9	798.6	799.1	0.5	45	790.276	0.911	0.05	0.017	Veinlet
ST-2676	15	-38	733	737	4.0	50	161.442	0.069	0.05	0.005	SYB
ST-2676	15	-34	951.2	953.2	2.0	50	131.242	0.005	9.01	0.005	10vn
ST-2676	15	-34	953.2	954	0.8	50	733.828	0.012	48.5	0.005	10vn
ST-2676	15	-34	954	954.8	0.8	50	171.885	0.005	13.4	0.005	10vn
ST-2676	15	-34	958.8	962.4	3.6	65	215.915	0.06	7.18	0.005	10vn splay
ST-2677	9.97	-41.7	981.8	983	1.2	70	620.931	0.101	30.5	0.012	10 Vein
ST-2677	9.97	-41.7	983	985.3	2.3	70	259.662	0.16	2.98	0.023	10 Vein
ST-2677	10.77	-44	761.5	763.5	2.0	65	113.461	0.043	0.005	0.005	SYB Vein
ST-2678	15.5	-41	1,050	1,050.5	0.5	80	123.904	0.19	0.05	0.005	10 Vein
ST-2678	15.5	-41	1,050.5	1,050.9	0.4	65	677.379	1.42	0.207	0.056	10 Vein
ST-2678	15.5	-41	1,050.9	1,051.4	0.5	65	74.794	0.016	2.16	0.005	10 Vein
ST-2678	15.07	-47.3	818.7	819.3	0.6	70	1,862.79	0.744	0.05	0.065	SYB Vein
ST-2678	15.07	-47.3	824	824.5	0.5	60	440.297	0.267	0.05	0.027	SYB Vein
ST-2679	17.27	-57.9	781	783	2.0	50	21.3374	0.0225	0.005	0.00282	C-Fault Vein
ST-2679	17.27	-57.9	783	783.2	0.2	50	11,027.2	12	0.00414	0.56	C-Fault Vein
ST-2679	17.27	-57.9	783.2	785.2	2.0	50	57.295	0.0419	0.005	0.00514	C-Fault Vein
ST-2679	15.5	-52	917.5	918.5	1.0	55	1,851.5	0.777	0.0717	0.0772	SYB Vein
ST-2680	7.6	-20.5	873.5	875.2	1.7	50	1,665.22	0.795	18.2	0.083	10 Vein
ST-2681A	26	-59	787.5	789.8	2.3	45	170.474	0.896	0.05	0.05	C-Fault Vein
23-2301a	12	-10	2,741.2	2,741.7	0.5	60	120.235	0.51	0.186	0.022	Silverline
ST-2682	16	-18	673.9	674	0.1	70	1,004.78	0.86	17	0.06	SYB Vein
ST-2682	15	-19	915	916.6	1.6	65	257.404	0.117	5.88	0.013	10 Vein
ST-2683	20	-36	702	704	2.0	70	826.967	0.265	0.05	0.025	SYB Vein
ST-2683	19	-34	953.3	954.5	1.2	65	163.982	0.005	9.96	0.005	10 Vein
ST-2683	19	-34	956.5	959	2.5	65	1,320.89	0.908	12.6	0.065	10 Vein
ST-2684	355.57	-54	244.9	246	1.1	50	948.331	1.27	0.116	0.089	C-Fault Vein
ST-2684	355.57	-54	255	256.5	1.5	55	1,185.41	2.12	0.464	0.072	C-Fault Vein
ST-2684	0.47	-50.5	578.2	578.8	0.6	65	1,072.52	0.408	0.217	0.04	SYB Vein
ST-2685	330	-44.5	313.7	315.8	2.1	40	248.937	0.696	0.05	0.016	C-Fault Vein
ST-2685	330	-44.5	315.8	318.2	2.4	40	4,939.22	5.68	0.776	0.42	C-Fault Vein
ST-2685	330	-44.5	318.2	320.8	2.6	40	1,030.18	2.32	0.05	0.067	C-Fault Vein
ST-2685	330	-44.5	320.8	323	2.2	40	154.386	0.76	0.05	0.005	C-Fault Vein
ST-2685	333.77	-42	616.2	616.8	0.6	55	57.8595	0.033	0.05	0.005	SYB
ST-2685	333.77	-42	619.8	621.9	2.1	45	193.053	0.099	0.05	0.012	NYB
ST-2686	332	-34	309.9	310.9	1.0	60	1,450.72	1.83	0.05	0.076	C-Fault Vein
ST-2686	335.97	-30	583.9	586	2.1	50	1,467.66	0.512	0.245	0.047	SYB
23-2302	198.87	15.4	1,840.7	1,843.6	2.9	75	1.41121	0.029	0.05	0.005	YG
23-2302	198.87	15.4	1,843.6	1,844.5	0.9	75	1.41121	0.018	0.05	0.005	YG
23-2302	198.87	15.4	1,844.5	1,846.3	1.8	75	1.41121	0.077	0.05	0.005	YG
23-2303	206.97	3.4	2,496.2	2,497.7	1.5	60	1,885.37	1.78	0.05	0.0699	YG
23-2303	206.97	3.4	2,504	2,505.2	1.2	60	1,727.32	1.22	0.05	0.0538	YG
23-2303	206.97	6	2,561.1	2,561.8	0.7	60	10.7252	0.45	0.05	0.006	YG South
ST-2687	322	-32	407.4	409.4	2.0	45	341.512	0.277	0.348	0.016	C-Fault Vein
ST-2687	324	-27	654.5	656.4	1.9	60	210.834	0.07	0.2	0.005	SYB
ST-2689	34	-23	320.3	321.3	1.0	40	2,675.65	2.33	3.97	0.176	C-Fault Vein
ST-2690	20.47	-69.3	801.5	802.4	0.9	30	3,443.34	1.05	0.05	0.116	SYB
ST-2690	20.47	-69.3	802.4	803.6	1.2	40	2,709.52	0.9	0.173	0.096	SYB
23-2304	208.87	19.2	2,359.7	2,360.2	0.5	65	89.7528	0.082	0.05	0.005	YG
23-2304	208.87	19.2	2,360.2	2,362.2	2.0	65	86.9303	0.047	0.05	0.005	YG
23-2304	208.87	19.2	2,371.6	2,372.1	0.5	30	163.982	0.323	0.101	0.017	YG
19-2301	11	-2.2	273.7	275.2	1.5	60	137.169	0.075	0.05	0.005	10 Vein
19-2301	11	-2.2	275.2	275.8	0.6	75	6,435.1	1.95	0.119	0.154	10 Vein
19-2302	29.47	23.3	428.3	430.3	2.0	60	8.94705	0.005	0.05	0.005	C-Fault Vein
19-2302	29.47	23.3	430.3	431.7	1.4	80	167.651	0.103	0.255	0.005	NYB
19-2304	1	36	512.2	513	0.8	60	375.381	0.164	0.05	0.005	10VN
19-2304	1	36	520.4	521	0.6	60	65.7622	0.016	0.896	0.005	10VN
19-2306	336.4	27.2	662	663.9	1.9	30	372.559	0.125	13.8	0.018	C-Fault Vein
19-2306	336.4	27.2	663.9	665	1.1	30	178.377	0.037	4.31	0.005	C-Fault Vein
19-2306	336.4	27.2	665	668	3.0	30	138.863	0.044	6.54	0.005	C-Fault Vein
19-2306	336.4	27.2	668	669.7	1.7	30	95.3976	0.085	3.11	0.005	C-Fault Vein
19-2307	25.67	40.6	593.4	594.6	1.2	30	2,257.93	0.836	20.2	0.096	NYB
19-2309	343.77	38	867	868.5	1.5	45	564.483	0.156	20	0.016	C-Fault Vein
19-2309	343.77	38	868.5	871.5	3.0	45	287.886	0.037	6.88	0.005	C-Fault Vein
19-2309	343.77	38	871.5	873.4	1.9	45	1,117.68	0.48	29.1	0.083	C-Fault Vein
19-2309	343.77	38	873.4	875.3	1.9	45	2,709.52	1.58	35.3	0.343	C-Fault Vein
19-2309	343.77	38	875.3	880	4.7	45	301.998	0.103	4.68	0.025	C-Fault Vein
19-2309	343.77	38	885	890	5.0	55	1,882.55	1.27	38.8	0.17	C-Fault Vein
19-2310	333	17	472	477	5.0	N/A	94.5509	0.025	4.52	0.005	C-Fault Vein
19-2311	19-87	38.7	456	459	3.0	N/A	400.783	0.18	0.212	0.024	C-Fault Vein

Source: SOP, 2024
TCA: To core axis; Angle TCA is degrees parallel to core axis.

11 Sample Preparation, Analysis, and Security

11.1 Overview

All Sunshine Mine drillhole samples since SOP ownership (2010 to present) have been analyzed at the AAS laboratory in nearby Osburn, Idaho. AAS is a third-party, commercial geochemical laboratory that operates independent of Sunshine. The AAS analytical facilities are International Organization for Standardization (ISO) 170525:2005 certified.

SRK visited the AAS laboratory on June 1, 2023. Portions of the laboratory were undergoing renovations, but the facility appeared generally adequate for the testing conducted.

Additional umpire assays were obtained from the third-party SVL Analytical, Inc. (SVL) laboratory located in Kellogg, Idaho. SVL is accredited through The NELAC Institute (TNI) (Utah Certification #ID000192020-8) for environmental laboratories.

Specific records are limited for sample preparation and analytical procedures used by historical Sunshine operators prior to SOP. During production, assays were completed at the in-house, non-commercial mine laboratory. The on-site laboratory facility has been dismantled and is no longer active.

11.2 Security Measures

11.2.1 Historical Sampling

Previous operators handled sample preparation and analysis of channel, rock chip, and drill core samples internally. Paper sample tag booklets are available on-site that document locations, lengths, and grades of various historical samples. Skeletonized drill core and coarse rejects are stored in a large core shed at the Sunshine Mine. Retention of sampling records and sample rejects is a positive indication of the diligence of the historical operators in maintaining adequate security measures.

11.2.2 Modern Sampling

For all recent drilling (2010 to present), core was delivered regularly from underground drill stations to the surface logging areas. The exploration office and logging facility are monitored and have an overnight security guard posted to maintain area protection. Only authorized personnel have access to the Sunshine drill core samples.

11.3 Sample Preparation for Analysis

11.3.1 Historical Sampling

Prior to SOP (pre-2010), detailed sample preparation methods were sparsely documented. Underground channel samples and drill core were delivered to an on-site preparation facility and crushed prior to laboratory analysis. Review of the available historical paper geologic logs, sampling booklets, and assay certificates indicates that a standard of care was exercised during sampling that was considered appropriate at the time.

11.3.2 Modern Sampling

SOP follows written procedures for sampling. After logging and photographing, the drill core is cut with a diamond saw. Half of the core sample is placed in a new cotton-polyethylene bag with a unique sample tag and large sample numbers written in indelible marker. Sample numbers and footage are stored electronically and uploaded to a secure Microsoft Access database. After splitting, the samples are delivered to the AAS laboratory routinely with a dispatch sheet for required analytical work that maintains appropriate chain of custody.

AAS organizes and dry the samples. Then, the samples are crushed to 95% passing 2-millimeter (mm) mesh, and a 250-g sub-sample is divided with a riffle splitter. The sample is pulverized to 90% passing 75 microns (µm), and the pulverizer is cleaned with sand between samples.

11.4 Sample Analysis

Historical assaying occurred at the Sunshine Mine laboratory, and exact procedures are unknown. No known bias exists in the earlier sample grades versus later analyses that would indicate the historical laboratories were not following established preparation and analytical protocols.

Currently, all modern samples are processed with a four-acid digestion and assayed first by atomic absorption (AA) spectrometry at the AAS laboratory. The lower laboratory detection limit (LLDL) for silver is 0.05 opt Ag. Silver values exceeding 25 opt Ag on the AA are subsequently fire assayed for silver. The resulting fire assays are used with priority over earlier AA results. Also, lead results above 30% Pb trigger a secondary volumetric titration analysis that is more accurate for higher concentrations.

11.5 QA/QC Procedures

No QA/QC results are documented for the historical assays to verify the accuracy and precisions of the analytical procedures.

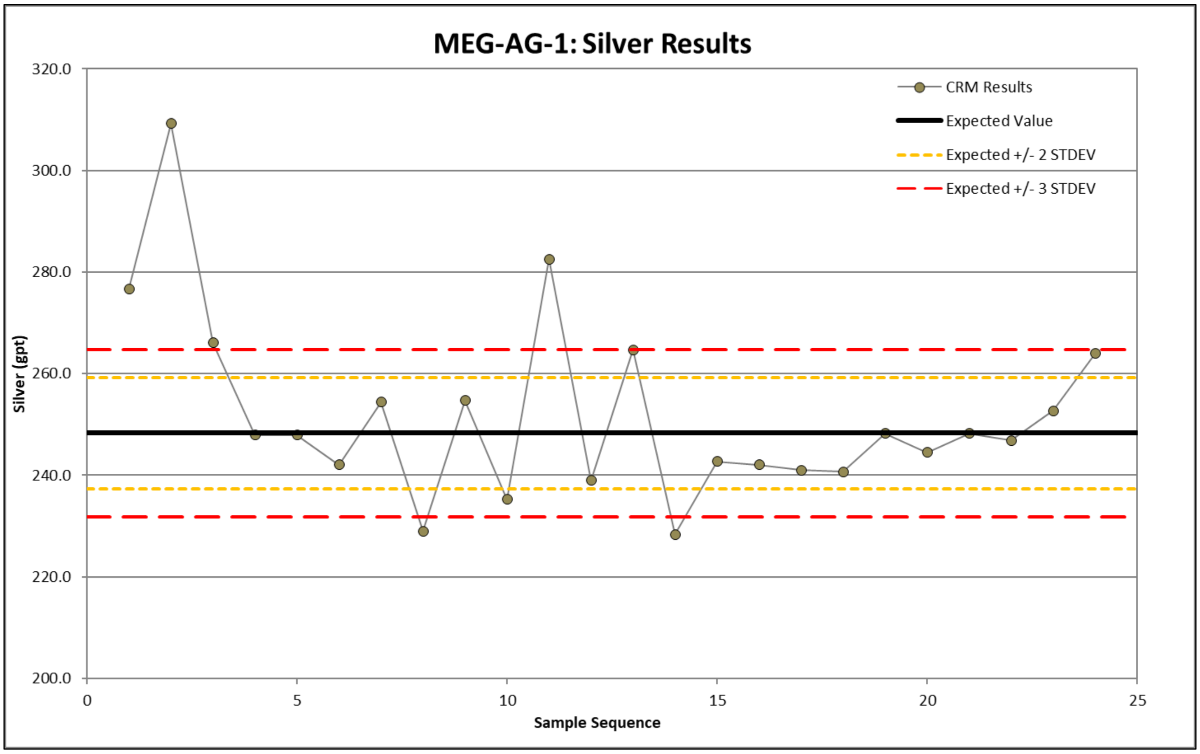
11.5.1 Modern Standards

As silver is the only economic variable with sufficient assay coverage, the QA/QC data reviews below are only concerned with silver results. Sunshine also collects data related to copper, lead, zinc, and antimony that are available for future study. Commercial reference material (CRM) standards from Minerals Exploration and Environmental Geochemistry (MEG) are purchased from Shea Clark Smith in Nevada. Table 11.1 lists the standards and results from the recent 2023 SOP campaign, Figure 11.1 to Figure 11.3 show the standards and results.

Table 11.1: Summary of CRM Standards

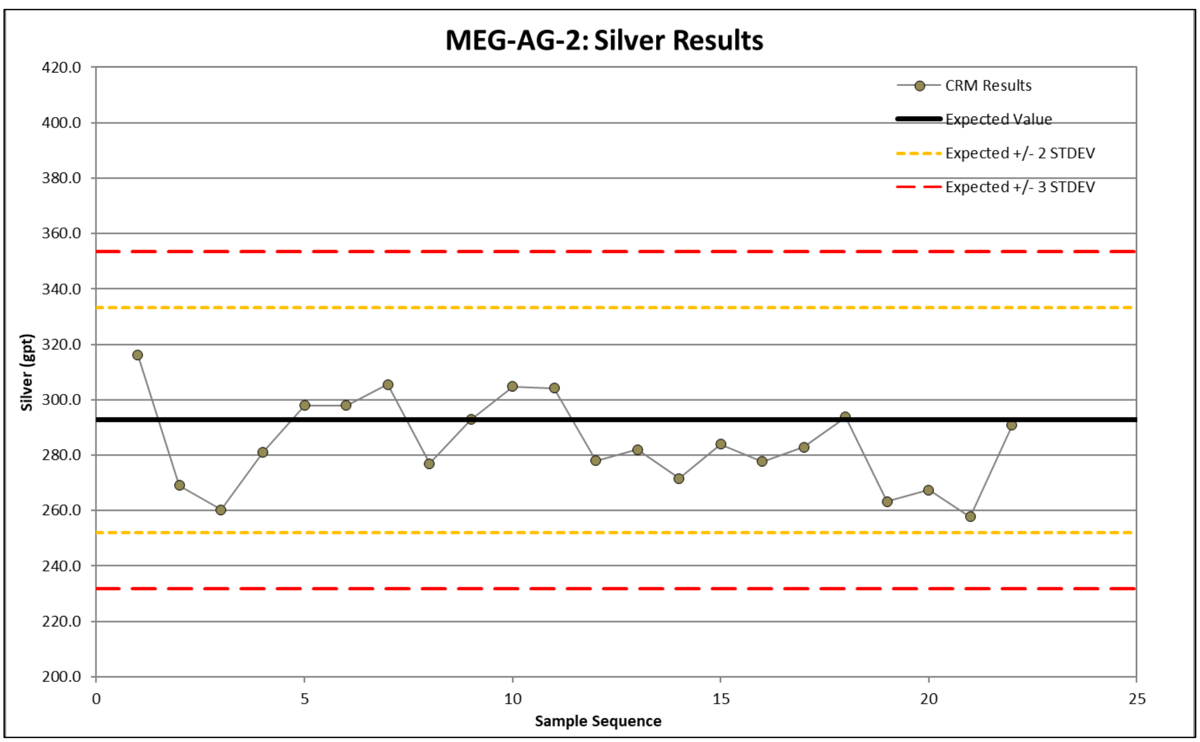
CRM Name	Number of Samples	Expected Ag (g/t)	Number of Failures	Failure Rate (%)
MEG-AG-1	24	248.3	6	25.0
MEG-AG-2	22	298.8	0	0.0
MEG-AG-3	11	2,653	0	0.0

Source: SRK, 2024
Note: CRM results are reported in grams per tonne to match the CRM expected values.



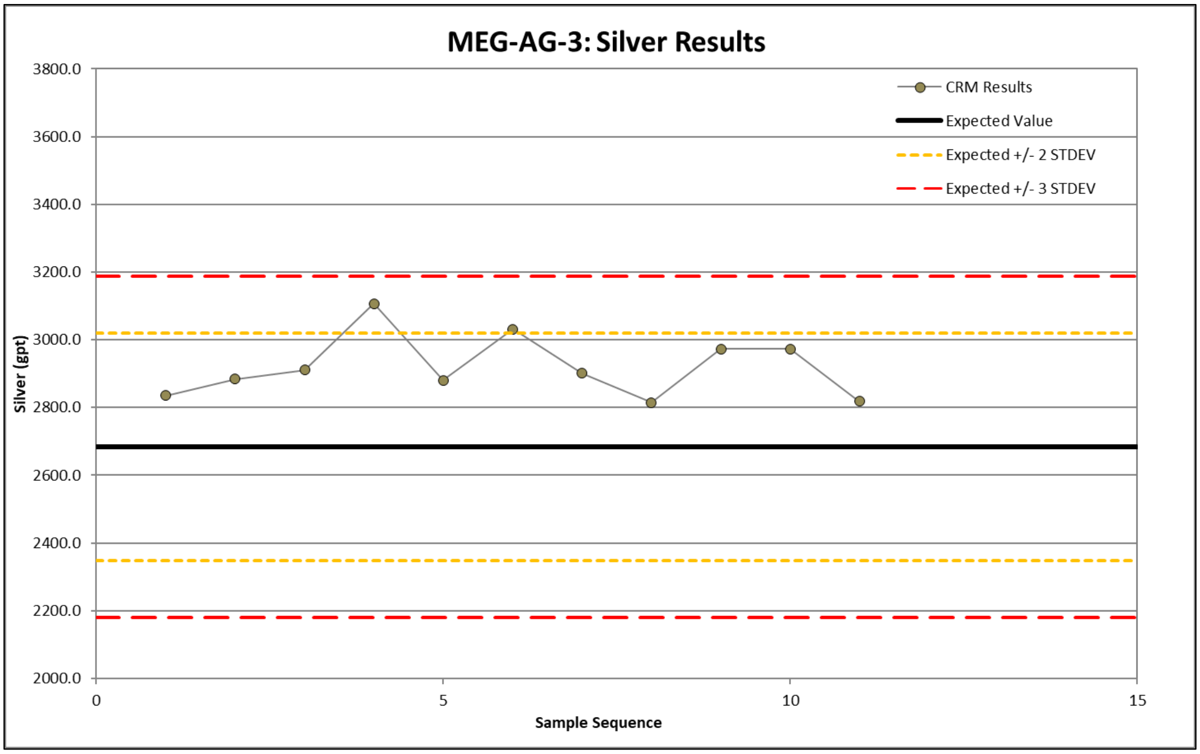
Source: SRK, 2024

Figure 11.1: Summary of MEG-AG-1 Standard for Ag (g/t)



Source: SRK, 2024

Figure 11.2: Summary of MEG-AG-2 Standard for Ag (g/t)



Source: SRK, 2024

Figure 11.3: Summary of MEG-AG-3 Standard for Ag (g/t)

Sunshine targets standard insertion after every 30 samples, which is a typical protocol. For the 2023 drilling, a total of 57 CRMs were provided and represent an insertion rate of 6.5% for all samples (n = 876), which exceeds the industry standard threshold of 5%. The current campaign has utilized a relatively limited number of samples (i.e., fewer than 30 control analyses) for each CRM, such that the statistical significance of the results is questionable at this point. The MEG-AG-1 results are more sporadic than the other two CRMs, partly stemming from a lower standard deviation for this standard. If these standards are old, it is recommended that the additional blending be considered prior to laboratory submission. Metal may have settled differentially in the matrix and could be the reason for more-haphazard standard behavior. The MEG-AG-2 and MEG-AG-3 results show minor low and high bias, respectively, relative to the expected CRM value. Overall, the number of failures beyond the three-sigma standard deviation are minimal.

In the 2020 PEA, TetraTech provided data from the 2010 to 2013 time period. The same MEG standards were used at limited levels with fewer than 10 results for comparison of each individual CRM. The digital compilation of this data was not located by Sunshine. SRK was not able to review the raw QA/QC data, but the QP for mineral resources considered a review of the previous summary charts to be adequate. Overall, the silver results were acceptable with minimal failures.

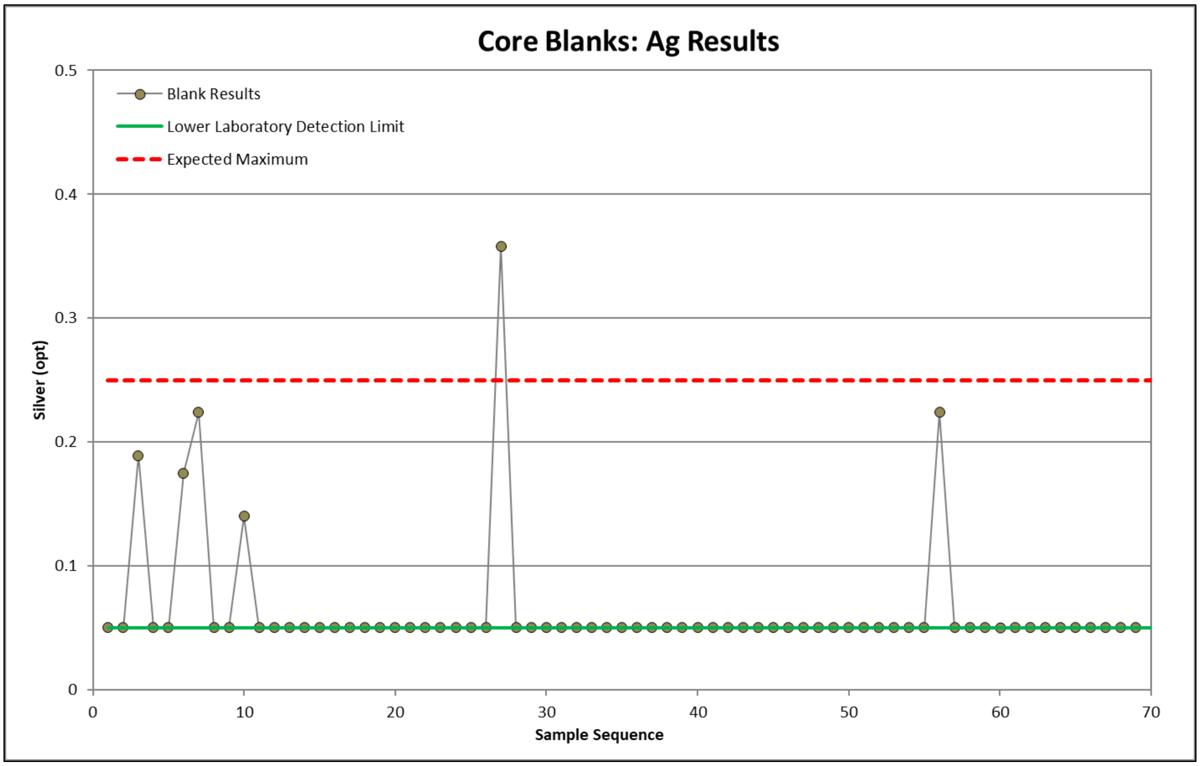
11.5.2 Modern Blanks

Sunshine provided data for 69 blank samples, as summarized in Table 11.2. The overall blank insertion frequency was 7.9%, which is above the typical target rate. SOP utilizes drill core from country rock surrounding veins as the blank material. It is possible that some of this material could be considered dirty blanks, where low-level metal content could be tested. Figure 11.4 shows the results, which demonstrate no material sample contamination compared to five times the LLDL.

Table 11.2: Summary of Core Blanks

Blank Type	Number of Samples	Expected Ag (opt)	Number of Failures	Failure Rate (%)
Core blanks	69	0.25	1	1.4

Source: SRK, 2024



Source: SRK, 2024

Figure 11.4: Summary of Core Blank Results for Ag

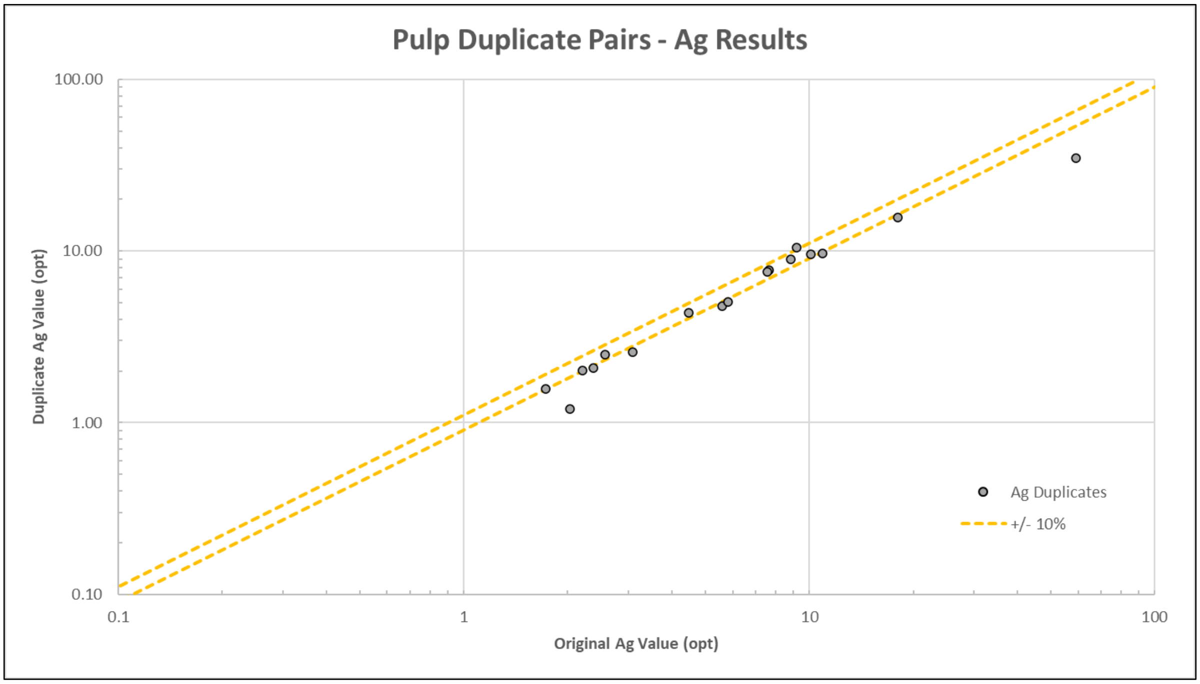
11.5.3 Modern Duplicates

Sunshine provided data for 28 duplicate samples, as summarized in Table 11.3, Figure 11.5, and Figure 11.6. The Sunshine procedure is to periodically renumber and reanalyze fine pulp duplicates and coarse reject material as blind submissions to the AAS laboratory. The overall duplicate insertion rate is 3.2%, which is low compared to the industry target of 5% of samples. SRK recommends increasing the duplicate insertion frequency in future drilling campaigns. Fine duplicates are compared at 10% tolerance, and coarse duplicates are compared at 30% tolerance. Generally, a few outliers suggest that the original test result was biased high in some cases.

Table 11.3: Summary of Duplicates

Duplicate Type	Number of Samples	Number of Outliers	Outlier Rate (%)
Pulp	11	2	18.2
Coarse rejects	17	3	17.6

Source: SRK, 2024



Source: SRK, 2024

Figure 11.5: Summary of Pulp Duplicate Results for Ag

Source: SRK, 2024

Figure 11.6: Summary of Coarse Reject Results for Ag

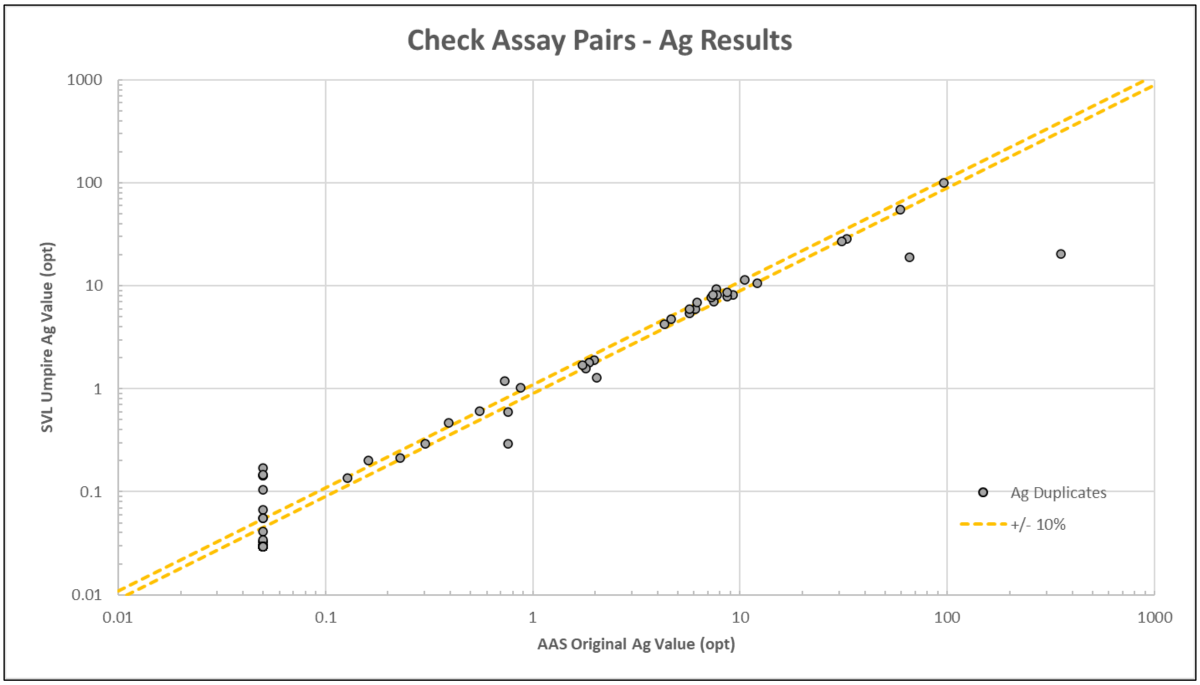
11.5.4 Modern Check Assays

Sunshine provided 128 check assay data pairs that were analyzed initially at AAS laboratory, as summarized in Table 11.4. The external umpire laboratory SVL in Kellogg was used to check the original AAS sample pulps. The insertion rates equate to 14.6% of the 876 total samples in 2023. SRK noted that AAS results are reported by AA, while SVL reports inductively coupled plasma (ICP) results that have different lower detection limits; this caused some spread in the data near the respective method detection limits. Overall, the check assay results adequately demonstrate the repeatability of analytical results between the two laboratories with minimal outliers, as shown in Figure 11.7. SRK recommends that SOP investigate the few outlier pairs to determine if sample swaps occurred between laboratories prior to testing.

Table 11.4: Summary of Check Assays

Check Assays	Number of Samples	Number of Outliers	Outlier Rate (%)
AAS to SVL	128	3	2.3

Source: SRK, 2024



Source: SRK, 2024

Figure 11.7: Summary of Check Assay Pairs for Ag

11.5.5 Results

Review of the historical and modern QA/QC plots indicated there are a limited number of standards that failed against typical control limits of three-sigma standard deviation from the expected values. The maximum percentage of failures was for MEG-AG-1, which saw both high and low sporadic failures. It is the QP's opinion that the QA/QC data show no significant repeated bias and do not indicate any systematic errors affecting the Sunshine drilling results.

The majority of coarse reject duplicate pairs are within ±30% of one another. Although fewer data exist, pulp duplicate results show good precision at <10% variance between pairs. The comparison of the AAS primary laboratory to the SVL umpire laboratory showed minimal outliers between sample pair results. The duplicate and check assay results indicate acceptable preparation precision and repeatability of assays between laboratories.

Additional pulp and coarse duplicates should be analyzed to arrive at a statistically significant number of sample pairs for comparison. As exploration continues, additional CRM results will assist in monitoring the laboratory and can be evaluated for using the mean of Sunshine results versus the expected value on the standard certificate.

SRK reviewed limited historical QA/QC results provided in the 2020 TetraTech PEA for the 2010 to 2013 drilling campaigns. The results were similar to the recent campaign, with few overall results and indications of minor high and low bias for certain CRMs. In general, the results of the blank and duplicates were acceptable. No check assays were provided for the earlier SOP drilling.

11.6 Opinion on Adequacy

Specific records are limited for sampling procedures of the historical drilling programs; however, no known bias exists in the earlier sample grades compared to recent assay results. The QP for mineral resources has reviewed the available QA/QC results documented by previous technical reports and in the recent drilling campaign. SOP has followed industry-accepted methods for QA/QC, including the use of standards, blanks, and duplicate samples in the 2023 drilling program. The SRK review indicated reliability of silver results based on CRM standards, blanks, pulp duplicates, coarse duplicates, and check assays. SRK recommends a higher insertion frequency for fine and coarse duplicates in future drilling projects.

The QP for mineral resources has audited the security, sample preparation, and analytical procedures, which are consistent with generally accepted industry standards. In the QP's opinion, the Sunshine Mine analytical data are acceptable for use in estimation and reporting of mineral resources, as per CIM (2014).

12 Data Verification

Data verification has been an integral part of SOP's work on the Sunshine Mine. The long-lived mine has an impressive collection of archived historical paper data in the on-site vault. SOP continues to organize and verify the substantial quantity of available historical data.

12.1 Site Visit

In accordance with NI 43-101 guidelines, Berkley Tracy, PG, CPG, PGeo, Principal Consultant at SRK, visited the Project site. He made two field visits for 3.5-days each: February 28 to March 3, 2022, and May 29 to June 1, 2023. During the site visits, SRK toured the property with Nick Furlin, Sunshine's Technical Services Manager, and Tom Henderson, General Manager of Sunshine Mine. Mr. Tracy reviewed general operations, drilling procedures, and sampling practices, examined available drill core, visited the external analytical laboratory, and conducted detailed data validation with available historical paper records. During the site visit, relevant information was collected for the preparation of this Technical Report and for review of exploration potential for planning future work programs. SRK was given full access to relevant data. Interviews were conducted with site personnel to understand the procedures used to collect, record, store, and analyze the exploration data.

12.1.1 Discussions on Geological Attributes

During the site visit, SRK reviewed the geology and the general geological understanding of the Sunshine deposit with the mine team. The discussions between the Sunshine geology team and SRK focused on understanding geological data for use in modeling assistance, which included the genesis of the deposit, the main trends of mineralization, and the role played by the lithology and structural setting. SRK assisted Sunshine with developing a protocol for verifying historical channel data back to level and stope map source documentation, in preparation for modeling the vein system in 3D. SRK considers the current Sunshine geological interpretations of mineralization continuity and controls to be suitable.

12.1.2 Examination of Drillholes

SRK examined available drill core intervals that were characteristic of mineralization styles for the deposit. The presence of silver and lead mineralization was confirmed in historical and recent drill core. SRK visited multiple active drilling stations and transected a good portion of the open underground workings. The locations of some historical drillholes were observed underground, and an overview of the claim/property boundaries was given. Drillholes are logged for lithology, structure, alteration, mineralization, and geotechnical information. Current digital logging procedures were observed by SRK during the site visit and are considered adequate.

12.1.3 Sampling Techniques and Data Collection

SRK observed the process of cutting and sampling drillholes from start to finish during the 2023 site visit. Sunshine follows acceptable internal written procedures for assay sampling and data collection. Based on geological criteria, sample intervals are marked with metal tags inside each core box, which include the sample interval. Core sample lengths target 6.5 ft (2.0 m) or less. The sample intervals are measured to tenths of a foot and chosen by the geologists based on lithological and mineralization breaks observed during logging.

SRK did not observe drillhole cutting and sampling while on-site. Core sampling equipment was observed, including a diamond blade wet saw and a pneumatic core splitter. At the time of the site visit, a Corewise Pty Ltd. automated diamond core saw was being installed. With this saw, samples are placed in a plastic cartridge and oriented along the cutline drawn by the geologists. The cotton-polyethylene sample bags contain an integrated duplicate sample tag and large sample numbers written in permanent marker. All sample bags are sealed with internal drawstrings. Multiple bags are collected onto a pallet for delivery to AAS laboratory in Osburn. A sample dispatch sheet accompanies each sample delivery and outlines the desired analytical procedures.

The QP for mineral resources considers the sampling protocols observed during the site visit to meet generally accepted industry practice.

12.2 QA/QC Analysis

Drillhole sampling conducted by Sunshine followed industry-accepted methods for QA/QC, including the use of standards, blanks, and duplicate samples. For every 30 samples, one standard, one pulp duplicate, and one blank are inserted into the sample stream, and expected values are blind to the laboratory. An appropriate mix of matrix-matched CRM standards were selected for the recent drilling program. SRK notes that two of the CRMs (MEG-AG-1 and MEG-AG-2) have similar expected silver grades, and another standard may provide a better spread in values. Also, SRK recommends introducing more fine and coarse duplicates into the sample stream for future drilling projects.

The QP for mineral resources summarized and reviewed QA/QC data and results from the recent drilling program and also reviewed historical QA/QC results in previous technical reports. Section 11 discusses historical and modern QA/QC programs. The QP for mineral resources reviewed the results, which are considered acceptable for use in the MRE.

12.3 Database Verification

During the May 2023 site visit, SRK gathered and scanned a portion of original laboratory data certificates, geological logs, stope maps, assay booklets, and other paper historical data for comparison to entries in the current database. In the Sunshine Mine office, SRK was able to source original sample tags and laboratory records from the 1950s and beyond that matched hand-drawn paper drill logs and stope sections with channel sampling results. The comparisons are not perfect, as not all data existed for each chosen drillhole, and some source information was secondary. For example, decades-old, original handwritten data on a drilling log was considered to be accurate if no other source file could be located in the archive.

The verification data subset was chosen randomly to be representative of the entire database, spatially and through time. SRK audited the following 22 drillholes: 19-131, 23-2268, 27-462, 27-1335, 27-2007, 27-2008, 27-2025, 31-214, 31-717, 31-977, 31-1757, 31-1760, 31-2047, 34-545, 34-429, 355-367, 37-388, 37-1403, 37-1406, 37-2221, ST-2629, and ST-2649. These drillholes represented 16 unique veins, and timing ranged from 1953 to 2013. The detailed drillhole data verification included 10,913 ft of drilling, which represents approximately 1% of total drilling footage.

The Sunshine database was compared line-by-line to the available fundamental drilling data, and only a few minor inconsistencies were discovered. For example, one collar survey elevation was written on a log as -412.59 and rounded in the database to -413 with slightly less precision. One copper assay was listed on the assay certificate as 0.031% Cu, but the database has -99 null value. In all instances, the observed minor inconsistencies are not considered material and have negligible impact on the suitability of the database for resource estimation.

Paper lithology logs exist with detailed descriptions. However, the database for lithology is sparse, as vein modeling is mainly driven by assays. Also, the review of drill logs revealed a material amount of potentially ore-grade assays that are not in the database. If carefully audited and captured into the database, these two aspects are noted as an opportunity for future vein models to incorporate additional historical data.

Furthermore, SRK checked three hand-drawn level maps to original sample number booklets for grade and thickness. The audited levels were 3400-05 from 1957, 4600-15 from 1974, and 3700 ER1-H from 1999. No errors were found in the individual 69 data points between the paper records and the electronic database.

Throughout the vein modeling process, SRK provided peer review to the capture of thousands of historical channel data points. The Sunshine team geo-referenced historical plan, level, and stope maps with handwritten sampling information into 3D to validate all of the many historical channel data for accuracy in grade, thickness, and location; this was a sizable undertaking that was a detailed and critical process to gaining additional comfort with the historical data that makes up an outsized portion of the total geological database at Sunshine. SRK provided a final audit on vein data and checked the Sunshine database (essentially sample-by-sample) back to the historical maps and cross-sections. Considerable effort was taken to clean the database of duplicate information. Double samples occurred somewhat frequently due to past digitization from adjacent stope maps with identical data in slightly different spatial locations. Additionally, grades and thicknesses were edited to match the source maps and many historical typographical errors were corrected during the verification process. This work culminated in the most representative database of historical and modern geological information to have been available in over 100 years of production history at the Sunshine Mine.

The QP for mineral resources did not observe any material errors or major discrepancies during review of the existing final database provided by Sunshine. The lack of any significant errors being uncovered during data verification is relatively rare and provides evidence that the Sunshine database is maintained adequately, has been carefully vetted, and accurately represents the original collected sample data.

Additionally, SRK validated the final drilling database using Leapfrog Geo™ software for all required data elements, including verification that:

- Collar locations match topographic elevation and are in the correct location.
- Collar locations are unique for all drillholes.
- Downhole surveys are oriented to project below ground surface.
- Drilling data have consistent total depth (i.e., same ending depth in survey, collar, and assay files, as appropriate).
- No overlapping and missing sample intervals exist (i.e., from-to depths are correct in assay and geology data).
- Geologic unit names are unique and applied the same for identical lithologies.

12.4 Limitations

No material errors were observed during SRK's review of the database provided by Sunshine. Inconsistencies were noted during previous database checking and detailed auditing exercises. These instances were corrected and do not represent material errors. Portions of the channel sample assays from face samples collected during historical development and production are lacking verification support due to age. In QP for mineral resources' opinion, the validation work completed to date indicates that any remaining errors are not deemed to be material to the overall database.

12.5 Opinion on Data Adequacy

SRK independently reviewed the current core sampling, cutting, logging, sample preparation, security, and laboratory analytical procedures followed at Sunshine during multiple site visits. The exploration and sampling protocols practiced at Sunshine are consistent with or exceed generally accepted industry guidance and are deemed adequate for the project stage. In addition to modern drilling data, the current resource estimation relies heavily on historical channel samples obtained during previous mining. In the QP's opinion, data verification checks performed internally by Sunshine staff, in combination independent checks and detailed audits by the QP, have resulted in sufficient validation of the fundamental drilling database at Sunshine. The data is acceptable and adequately reliable for use in geological modeling and calculation of mineral resources.

13 Mineral Processing and Metallurgical Testing

13.1 Summary of Silver Recovery Estimate and Basis

There are copious historical files and reports available since the Sunshine Mine operated for over 100 years, and the files were well maintained. For this Technical Report, the annual production reports from 1950 to 2008 (modern mill period) were used as a basis for the estimate of the mill recovery. For the actual production, each shipped lot was validated and verified through a settlement process. The settled values were combined to generate the production number. These data provide a definitive silver production number that was used to calculate the mill recoveries. The averages of the actual mill recovery from 1950 to 2008 production data were used to calculate a recovery estimate. The overall silver recovery estimate for a future well designed and operated mill is projected to be 97.23% with a standard deviation of 0.88%.

Overall silver recovery (after milling, antimony removal, and refining) is estimated at 93% (based on historical metallurgical test work, actual concentrate production, and refining)

There is minimal information in these reports on assay procedures, so there is no detail regarding QA/QC or other related practices. This information was not gathered and reported at the time of the historical reports but would be required to be included in any future testing and reports.

13.2 Historical Basis for Recovery Estimate

The Sunshine Mine and mill have over 100 years of mineralogical process and recovery data, as detailed in Table 13.1 and Table 13.2. This metallurgical evaluation utilizes the production data and also relies heavily on a 1997 report compiled by John Allen, Sunshine Manager of Metallurgy (Allen, 1997). The 1950 to 2008 data demonstrate a very robust performance for the mill. There were only 2 years that had <96% mill recovery (1978 at 93.59% and 2008 at 95.25%). Table 13.3 shows that the average mill recovery from 1884 to 2008 was 96.94%, while the average recovery from 1950 to 2008 was 97.23% Ag. The mill was not sensitive to large or low tonnage rates since years that had >200,000 short tons per year (tpy) had a 97.21% Ag recovery, and years <200,000 tpy had 97.26% recovery. Based on the 1950 to 2008 production period, a 97.23% Ag recovery is a reasonable projection for a well operated and designed mill for the Sunshine Mine.

Table 13.1: Sunshine Production History 1950 to 2008

Year	Tonnage (tons)	Contained Ag (oz)	Recovered Ag (oz)	Calculated Recovery (%)	Ag Recovery (%)	Primary Vein	Notes/Milestones
2008	34,465	453,248	431,719	95.25	95.25	West Chance	
2001[1]	20,722	539,125	519,177	96.30	96.30	West Chance	Sunshine ceased production 1Q21
2000[1]	169,036	4,179,561	4,024,917	96.30	96.30	West Chance	Sunshine filed bankruptcy in late 2000 due to low silver price and ASARCO east Helena smelter closure
1999[1]	217,601	5,592,354	5,385,437	96.30	96.30	West Chance	
1998[2]	247,866	6,189,679	5,991,609	96.80	96.80	West Chance	
1997[2]	183,404	4,393,920	4,253,315	96.80	96.80	West Chance	West chance high-graded small high-grade chutes on 4200L, 4400L, and 4600L. Remaining areas shutdown, mine flooded to 4000L
1996[2]	120,909	2,663,115	2,577,895	96.80	96.80	West Chance	West Chance ramp systems developed
1995[2]	101,240	1,788,473	1,731,242	96.80	96.80	West Chance	Acquired ConSil, refinery shut down, West Chance updip exploration access 3100L (94 ft), 3700, 2700 (95 ft)
1994[2]	107,056	2,157,507	2,088,467	96.80	96.80	Chester	
1993[2]	100,441	2,374,127	2,298,155	96.80	96.80	Chester	
1992[2]	104,602	2,624,342	2,540,363	96.80	96.80	Chester	Sunshine discovered the West Chance vein on 4200L exploration drift to the west
1991[2]	157,323	3,580,301	3,465,731	96.80	96.80	Copper	Small mine plan implemented, high-grading, labor reduction of 65%, production cut by 50%, mine flooded to 5000L
1990[2]	235,072	5,561,986	5,384,002	96.80	96.80	Copper	Most production from copper vein, production from 10 shaft stopes falling off
1989[2]	230,837	4,996,239	4,836,359	96.80	96.80	Chester	
1988[2]	146,659	2,366,993	2,291,249	96.80	96.80	Chester	Labor strike
1987	0			96.80	96.80	Chester	Labor strike
1986[2]	59,604	1,192,545	1,154,384	96.80	96.80	Chester	Mine shut down on commodity price and labor negotiations/concessions
1985[2]	218,509	4,870,251	4,714,403	96.80	96.80	Chester	
1984[2]	248,568	4,967,017	4,808,072	96.80	96.80	Chester	Refinery silver first poured
1983[2]	212,064	4,629,581	4,481,434	96.80	96.80	Chester	Silver Summit #4 intercepted on 5400L
1982[2]	104,824	2,430,357	2,352,586	96.80	96.80	Chester	Pyrite con no longer accepted by ASARCO due to arsenic
1981	197,154	4,184,532	4,050,627	96.80	96.80	Chester	
1980	50,961	807,732	767,939	95.07	95.07	Chester	Sunshine Mine Labor Strike, Silver Summit Shaft sunk to 5400L (completed 1983)
1979	172,228	3,637,455	3,511,715	96.54	96.54	Chester	Refinery started construction
1978	208,850	5,285,994	4,947,409	93.59	93.59	Chester	
1977	155,116	3,848,428	3,745,496	97.33	97.33	Chester	
1976	45,869	1,127,849	1,091,758	96.80	96.80	Chester	Labor strike impacted production
1975	225,897	5,245,328	5,082,471	96.90	96.90	Chester	
1974	162,046	4,020,361	3,951,966	98.30	98.30	Chester	
1973	123,539	3,153,951	3,063,526	97.13	97.13	Chester	
1972	103,206	2,861,902	2,781,783	97.20	97.20	Chester	No. 12 shaft started. Access to syndicate and copper veins to 5000L
1971	258,858	7,204,018	7,030,098	97.59	97.59	Chester	
1970	252,879	8,658,275	8,381,210	96.80	96.80	Chester	
1969	271,515	8,601,595	8,390,787	97.55	97.55	Chester	
1968	252,090	8,071,922	7,870,837	97.51	97.51	Chester	
1967	239,915	7,912,397	7,711,343	97.46	97.46	Chester	ConSil created via consolidation of numerous property owners (Hecla, Coeur, Sunshine, Silver Dollar Mining Co.)
1966	190,782	7,484,378	7,309,448	97.66	97.66	Chester	
1965	169,805	6,571,454	6,433,223	97.90	97.90	Chester	
1964	131,799	4,726,312	4,632,348	98.01	98.01	Chester	
1963	132,637	5,073,365	4,963,491	97.83	97.83	Chester	
1962	135,786	4,762,015	4,655,278	97.76	97.76	Chester	4200L developed off 10 Shaft (1960s nearly all production from Chester below 3700L)
1961	188,923	6,126,773	6,001,790	97.96	97.25	Chester	
1960	232,342	6,305,762	6,141,789	97.40	97.12	Chester	Sand filling operations commenced
1959	234,548	6,541,544	6,367,520	97.34	97.36	Chester	No. 10 shaft sunk from 3700L up to 3100L and down to 6000L
1958	231,964	6,288,544	6,128,915	97.46	97.20	Chester	Polaris Mining Company merged into Hecla Mining Co.
1957	206,385	5,440,309	5,206,268	95.70	97.10	Chester	
1956	200,028	5,260,736	5,153,134	97.95	97.40	Chester	
1955	225,883	6,363,124	6,178,749	97.10	97.10	Chester	Jewell shaft sunk to 4000L to develop west syndicate orebody
1954	260,698	8,853,304	8,623,377	97.40	97.40	Chester	
1953	249,686	7,670,354	7,505,277	97.85	97.90	Chester	
1952	222,577	8,337,734	8,194,536	98.28	98.28	Chester	Chester - Syndicate vein new high-grade vein. Silver Summit Mining merged into Polaris Mining Co.
1951	220,265	8,127,779	7,992,707	98.34	98.34	Yankee Girl	
1950	251,877	8,437,880	8,291,948	98.27	98.27	Yankee Girl	

Source: SOP, 2024
[1]Ag recovery is estimated at 96.3%.
[2]Ag recovery is estimated at 96.8%.

Table 13.2: Sunshine Production History 1884 to 1949

Year	Tonnage (tons)	Contained Ag (oz)	Recovered Ag (oz)	Calculated Recovery (%)	Ag Recovery (%)	Primary Vein	Notes/Milestones
1949	156,027	4,819,674	4,739,523	98.34	98.34	Yankee Girl	
1948	148,338	5,804,466	5,725,545	98.64	98.64	Yankee Boy	Ore produced from S. Summit #3 vein on 3000L and shipped up Silver Summit Shaft
1947	114,878	5,123,559	5,034,160	98.26	98.26	Yankee Boy	
1946	51,044	2,506,260	2,469,252	98.52	98.52	Yankee Boy	Mining hampered by flooding the mine to 2700L to put out the fire started in 1945
1945	75,179	3,563,485	3,514,178	98.62	98.62	Yankee Boy	No. 5 shaft between 3100L and 4000L for Sunshine vein, Yankee Girl discovered. Large fire late December. Polaris & S.Summit sink to 3000L
1944	95,254	4,248,328	4,137,163	97.38	97.38	Yankee Boy	
1943	163,360	3,838,960	3,123,370	81.36	96.80	Yankee Boy	Chester - Syndicate vein high grade vein first encountered
1942	262,028	5,141,377	4,976,853	96.80	96.80	Yankee Boy	Sunshine & Polaris drifted into the Chester vein on 2700L (continued past property boundary), antimony plant constructed
1941	309,700	7,463,770	7,150,055	95.80	97.20	Yankee Boy	Antimony plant built to deal with high smelter charges for this impurity
1940	281,921	8,471,726	8,157,392	96.29	97.60	Yankee Boy	Jewell reaches 3700, No. 4 shaft developed between 3100-3700L for mining sunshine vein
1939	324,030	9,720,900	9,493,516	97.66	97.80	Yankee Boy	Jewell reaches 3100
1938	321,605	11,642,101	11,352,986	97.52	97.50	Yankee Boy	Jewell reaches 2700, Shaft #3 reaches 3100L, new mill & concentrator went online
1937	255,800	12,146,853	12,150,000	10.003	98.30	Yankee Boy	Jewell reaches 2500
1936	215,949	9,307,402	9,103,113	97.81	97.90	Yankee Boy	Jewell shaft reaches 2300 - first hoisting level to surface
1935	160,448	6,048,890	5,878,135	97.18	97.40	Yankee Boy	Mill capacity design to 907 tpd, recoveries at 98%, Jewell shaft sinking started
1934	108,605	3,697,916	3,456,736	93.48	93.48	Yankee Boy	Incline Shaft reaches 1900L, #3 Shaft started
1933	109,010	3,303,003	3,127,783	94.70	94.70	Yankee Boy	
1932	151,883	3,192,581	3,015,538	94.45	94.45	Yankee Boy	Silver Summit reached 1500' with no economic mineralization
1931	183,441	2,634,213	2,409,123	91.46	91.46	Yankee Boy	1700L reached high grade ore and tons, skipped 1500L due to low silver price. Silver Summit drift and shaft sinking commenced
1930	147,948	2,404,155	2,278,112	94.76	94.76	Yankee Boy	
1929	62,392	1,731,378	1,669,553	96.43	96.43	Yankee Boy	Mill expansion to 454 tons per day
1928(1)	49,206	1,226,234	1,152,660	94.00	94.00	Yankee Boy	Sunshine Tunnel started, Incline Shaft reached 1100 & 1300L, recovery of 80%
1927	40,000	1,100,000	1,050,507	95.50	95.50	Yankee Boy	Silver Summit Mining Company formed
1926(1)	21,435	454,004	426,764	94.00	94.00	Yankee Boy	Incline shaft started from the 500L and reached 700L, 900L
1925(1)	26,086	309,787	291,200	94.00	94.00	Yankee Boy	
1924(1)	14,000	198,012	186,131	94.00	94.00	Yankee Boy	
1923							Shaft sunk 500 ft down from Sunshine tunnel to 200, 400, and 500 levels
1922							No production data recorded between 1920 and 1923
1921							Small 25-tpd concentrator built
1920							
1904-1919(2)	24,000	666,667	600,000	90.00	90.00		Price Tunnel started, leasing, Yankee Load patented, Sunshine Mining Company incorporated in 1919
1884-1901(2)	170,000	4,722,222	4,250,000	90.00	90.00		Yankee Load Tunnels 1-3 developed, Yankee Load registered

Source: SOP, 2024
(1)Ag recovery is estimated at 94%.
(2)Ag recovery is estimated at 90%.

Table 13.3: Aggregate Recovery Data

Year	Tonnage (tons)	Ag (opt)	Contained Ag (oz)	Recovered Ag (oz)	Ag Recovery (%)
1884 to 2008	13,236,012	28.71	380,031,747	368,408,627	96.94
1950 to 2008	9,226,910	27.59	254,543,825	247,489,279	97.23
Rate (tpy)	**Total Tonnage (tons)**	**Ag (opt)**	**Contained Ag (oz)**	**Recovered Ag (oz)**	**Ag Recovery (%)**
>200,000	5,856,774	28.24	165,413,703	160,799,691	97.21
<200,000	3,370,136	26.45	89,130,122	86,689,588	97.26

Source: SOP, 2024

John Allen supported the 97% recovery as typical. He provided a critical explanation regarding the transition from established ore reserves to new discoveries with different mineralogical properties (Allen, 1997): "*Historic milling at Sunshine was sufficient to challenge one from an operational standpoint. Recoveries of **97% for silver** and copper into a single high-grade (1025 ounce per ton), silver concentrate is typical. As established ore reserves were depleted, new discoveries with different mineralogy replaced them. From a mineral consisting primarily of tetrahedrite, the ore has change to one containing tetrahedrite with varying levels of pyrite, galena, and bournonite. Modifying the flotation process while incorporating flexibility to deal with this variability was accomplished without loss of production. With timely analysis of circuit performance being key to acceptable operation, an X-ray fluorescence analyzer was provided to assist operators in their control. Rejection of pyrite, recovery of a separate lead concentrate and continued acceptable silver recoveries where the challenges. The approached to modifying the flotation circuits and their flow is the topic of this presentation.*"

Currently, it is important to connect the "responding to mineral changes in ore feed to the Sunshine Mill" to the historical production because it demonstrates the robustness of the historical mill as the mine minerology changed. The mill feed changed over the years, which requires changes in equipment in processes. Through the changes, the mill maintained 97% recovery; this is important as future plans are considered. The feed has not been defined, and it will likely be variable. If the future mill can be designed and operated similarly to the previous mill, then the same robust performance can be expected. The use of x-ray fluorescence (XRF) and other analyzers will also need to be incorporated in the design to optimize silver recovery as feeds change.

John Allen's paper details the changes in the mill over the years. The 1935 mill produced a high-grade silver concentrate, a lead concentrate, and a pyrite concentrate. The feed from 1935 to 1948 was Yankee Boy, then transitioned to Yankee Girl from 1949 to 1959, and transitioned to Chester from 1952 to 1994. The mill remained essentially unchanged from 1935 to 1953.

The mill underwent a major modification in 1953. John Allen described this vein transition and mill upgrade: "*The Sunshine mill saw its last major modification in the mid 1950's with added floor space and the incorporation of 30 new Fagergren 56 cells and 12 Galigher Agitair 36 cells which replaced old Denver cells. Additionally, a 4'x 5' Denver regrind mill was installed. The purpose of these changes was to enhance production, whereby two concentrates would be produced from the Chester vein material. From the mid 1950's the Sunshine mill produced these two concentrates from the flotation process. The high-grade, 1200- opt silver concentrate and a low- grade pyrite concentrate with 65-ounceper-ton silver. Distribution of the recovered silver was 92% to silver concentrates and 8% to pyrite concentrates.*"

This information supports the 97.22% mill recovery projection. Additionally, it indicates that recoveries could be in the 98.5% range if a vein like Yankee Boy was mined. The John Allen report explains why the mill was upgraded:

- The mine had changed to the Chester Vein.
- To enhance production
- To drop the lead concentrate and produce only two concentrates (1,200-opt Ag-Cu/Ag and 65-opt Ag pyrite)

According to John Allen, the next transition period was 1989 to 1993. In 1989, the mill was modified once again to produce a single concentrate. The pyrite concentrate was rejected by the smelter, as the arsenic content was too high (in the 2.5% to 4.5% range). The recoveries varied little in this timeframe at about 96.8%. Future testing and mill design will need to reevaluate whether the cost of recovering the pyrite is worth a possible lower silver recovery. The mill achieved 98% silver recovery in other years versus 96.8% recovery for this period when pyrite was depressed.

Allen writes: "*During March of 1989, a ninety-day notice of cancellation of our smelter contract for processing Sunshine's Pyrite concentrate was received. The reason given for the cancellation was the high level of arsenic (2.5-4.5%) that this product contained. With the low economic value of this product, there were few alternatives but to attempt to produce a single silver concentrate and try to maintain an acceptable silver recovery while rejecting the pyrite. Other mills in the area had been producing a single concentrate from similar feed stocks but at considerably lower silver grades than enjoyed at Sunshine. We had 90 days to find and incorporate the needed modification*."

The 1993 upgrades are likely the most instructive. In 1993, the mill was overrun with pyrite, which required modifications in order to reject more pyrite. In 1995, there were times when the lead content became high enough that the mill produced a separate lead concentrate. When lead was low, the mill reverted to a single concentrate. Addressing the variability in pyrite and lead content will be an important factor in mill design. Final recoveries are affected by the percentage of pyrite and lead rejected. Based on the historical record, the silver recoveries could drop from 98% to the 96% range; the 1993 to 2001 data demonstrate this. The <96% recovery in 2008 is likely due to the Sterling startup, new management, and excessive rejection of pyrite and lead.

John Allen's paper describes this time period: "*Operations of the mill remained virtually unchanged until about mid-1993, when the mine began depleting the clean tetrahydrite vein deposits. Development of a new ore supply located in a different section of the mine brought about another change in the minerals being delivered to the mill for processing. As several high pyrite ore zones were brought into production rejection of this additional pyrite became difficult. The silver grade of the single concentrate began to see dilution with pyrite.*

Pyrite rejection at lower levels was routine. In spite of changes in depressant usage, higher levels of pyrite overwhelmed the plant with a heavy recirculating load from the second circuit scavengers, such that on rare instances, the mill was shut down and the barren pyrite was manually dumped from second circuit rougher and scavenger concentrate launders directly to tails. The needs of the operation were to direct this barren pyrite toward the tail end of the plant and limit its recirculation.

During early 1995, notice was given that future mine development would include veins with substantial quantities of lead. Additionally, the new development was located closer to the main access shaft. This had the effects of reducing both in-transit ore inventories and ore blending benefits previously provided *through multiple ore handling activities. Without this blending ore feed would be quite variable. Because the mineral change came about gradually, opportunities to test concepts on a plant scale were available."*

Based on the historical data, mill design for optimum recovery should be based on the types of feed to be processed, type of products, and size of each section. The Yankee Girl-type feed would have 98% range recovery with the production of three concentrates. Chester-type feed would have a 97% range recovery with the production of two concentrates. West Chance-type feed with pyrite rejection would be in the 96% recovery range, with the production of one concentrate and periodically two concentrates. For optimum recovery, the mill should produce three concentrates (pyrite, lead, and Cu/Ag), and each section should be sized so that the mill would not be overrun by pyrite or lead.

Another design should also be considered where one bulk concentrate to recover every sulfide mineral without the rejection of any recoverable minerals to maximize silver recovery; this would also simplify the design and operation of the mill and would achieve lower operating costs.

13.2.1 2013 Bulk Test and Other Test Data

In 2013, G&T was commissioned by Samuel Engineering to perform metallurgical flowsheet testing on Sunshine Mine samples. The G&T test results were not included in this current recovery analysis, as it is unclear what percentage of the future mine plan was represented by the two samples tested. There is a high probability that when the mine plan is completed there will be a different flowsheet for the mill design to accommodate the various feeds. The G&T testing did show that the mill may need to have sections started and stopped as ore characteristics change.

This testing was described in the 2013 NI 43-101 report: *"This metallurgical test program was conducted as part of the current project to re-commission the Sunshine Mine and rebuild the concentrator and the silver refinery. This test program included bench scale open circuit flotation testing, bench scale locked-cycle flotation testing, and pilot plant flotation testing. The test program was conducted on samples from two locations, the East Stope and West Stope, in the Upper Country area of the Sunshine Mine. Historical records indicate that this area has had minimal exploitation. As a result, it is expected to be the easiest mineralized material to access when restarting operations. The test program was intended to test the possibility of improving performance using newer reagents and flotation cell designs. However, overall recoveries of silver and copper in the metallurgical testing did not reach the same levels as reported in historical documents. The test program did demonstrate that the revised process can separate the silver-rich freibergite mineral from the lower silver grade galena/argentite mineral assemblage. Figure 13-2 presents the generalized conceptual flowsheet developed from the pilot plant operations, during the recent metallurgical studies, which was employed for new flotation plant design and equipment selection. It is expected that with improvements in the new flotation plant operations, and through the use of on-line X-ray analyzers, the grades of the concentrates could be improved, and the overall silver recovery would increase.*

The pilot plant studies were conducted on the two bulk samples provided and included the recycle of final flotation tailings water in the pilot plant. G&T conducted the 10 day-only runs in the pilot plant sized for a feed rate of approximately 159 kg/hr. There were three days of operation on the East Stope sample and seven days of operation on the larger West Stope sample. The East Stope pilot plant operations did not include the lead mineral (galena) portion of the flowsheet due to the low amount of lead in the feed material. Each of the pilot plant runs was conducted on day shift only and not around *the clock. The water collected during the dewatering of the final rougher flotation tailing was recycled to the operations. Figure 13-2 represents the flowsheet of the process employed on the West Stope material. The East Stope material flowsheet was the same with the exception that there were no lead rougher or cleaner operations."* Table 13.4 summarizes the average results of the pilot plant operations (Sloan and Shouldice, 2013).

Table 13.4: Pilot Plant Results

Pilot Plant Results	Average Days	Sample Sets	Concentrate	Weight (%)	Analysis			Distribution		
					Cu (%)	Pb (%)	Ag (g/t)	Cu (%)	Pb (%)	Ag (g/t)
East Slope	3	8	Ag/Cu	0.8	16.40	.56	42,238	90	20	91
West Slope	7	15	Ag/Cu	0.8	22.30	5.9	55,300	82	10	80
			Pb	0.8	4.69	49.00	13,900	11	51	12

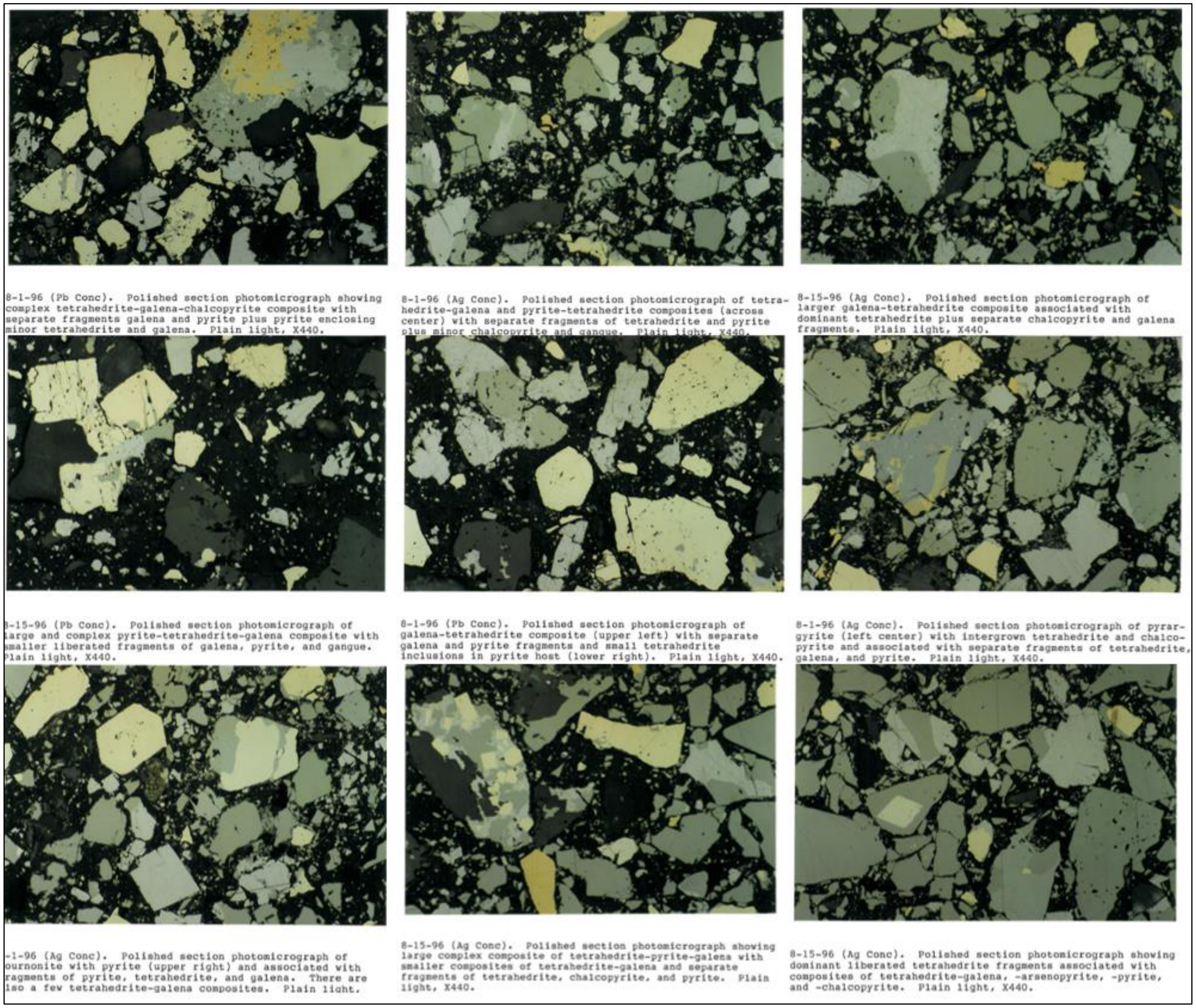
Source: Sloan and Shouldice, 2013 (G&T report)

"The primary purpose of the pilot plant operation was to produce products for vendor testing, not to achieve optimum recovery. The overall recovery of silver from both the East Stope and the West Stope Upper Country samples was ±92%. It is reasonable to assume that, based on over 100 years of production history, there are no known factors, which should have a negative economic effect on recoveries when treating historically similar materials. As the feed to the plant varies, primarily in terms of silver grades and copper and lead mineralogy, the overall expected recoveries will vary, but it is reasonable to expect similar overall recoveries."

Various other flotation tests and results exist in Sunshine files; these were not included in the current recovery analysis. These tests were simply run to derive the parameters that were used to change the mill as feed changed. The performance of the mill after the changes is the important factor.

13.3 Mineralogy

Figure 13.1 shows photomicrographs that were part of an evaluation to determine the reason for lead content variability in the silver concentrate (Allen, 1996). While not conclusive, it was found that the mill at larger tonnage rate or lead content did not sufficiently regrind the particles, which allowed more composite galena/tetrahedrite to float with the silver (tetrahedrite) concentrate. These 1996 observations point to grind as an important and variable requirement depending on feed type. These slides show that for a majority of the time, the pyrite, galena, and tetrahedrite are easily liberated from one another; however, they continue to report to the wrong concentrate. The silver concentrate contains liberated particles of galena and pyrite. The lead concentrate contains liberated particles of tetrahedrite and pyrite. Future flotation studies need to include an evaluation of separation efficiency. No slides exist to document the rejected pyrite in the tails. The pyrite itself does not carry a great amount of silver. The minor silver losses from the rejected pyrite are likely from entrained tetrahedrite in pyrite. There is a high probability that the pyrite with exposed tetrahedrite will float with the tetrahedrite, but the pyrite with small inclusions of tetrahedrite will report to the reject tails; this would explain the 98% range in silver recovery when pyrite was recovered as compared to the 96% range when pyrite was mostly rejected.



Source: Allen, 1996

Figure 13.1: Photomicrographs Investigating Lead Content Variability

13.4 Silver Recovery Estimate Assumptions

- Historical production recovery is a good indicator of future recovery in a well-designed and operated mill.
- The 1997 paper written by John Allen was an accurate measure of mill design changes and overall performance.
- To achieve the 97% range in mill recoveries, a mill that is as adaptable and flexible as the original mill will be required. An understanding of the historical progression of the mill and the specific minerology will be important in the design of the new mill.
- New mine areas need to be defined early and metallurgy needs to be understood so that the mill can be adapted to the change in feed. The high lead from West Chance is an example of a zone that should be well understood so that the mill can maintain superior performance.
- Altering configuration as feeds change based on XRF and continuous monitoring of the feed and products could help the mill catch the changing feed and may help minimize the loss in recovery as mill adjusts to new feed. These changes should be implemented with careful consideration, as recoveries could be compromised during transitions.
- Blending for consistent feed or block sending feeds for periods of time should be an important consideration in mine and mill planning. It may be necessary to transition from one feed type to another type the next day. Stockpiles of different types may be needed in front of the mill. Mine planning will be a more-important consideration to improve the probability of superior mill recoveries than changing configurations based on XRF data.

13.5 Significant Factors

Whether pyrite is recovered or rejected is a significant design factor. The historical mill production record demonstrates that with pyrite recovery, the silver recovery was in the 98% range, while rejecting the pyrite put the silver recovery in the 96% range.

If pyrite is recovered, then the concentrates will have a lower silver grade than the more-recent concentrates that rejected the pyrite. The economics need to be evaluated to determine whether or not the pyrite should be recovered. It may be possible and even desirable for the mill to be designed with a single bulk concentrate flowsheet as it was in 1989.

Impurities are an important factor in the sale of concentrates. Arsenic, antimony, and mercury have measurable quantities in all concentrates. These impurities can render a concentrate unmarketable or cause high treatment charges.

If a smelter rejects the concentrate or is too expensive, a secondary process may be required to produce the metals and a purified concentrate; this was historically achieved by the Sunshine antimony plant and silver refinery. The secondary recovery processes could be updated. There may be a way to reduce cost, produce higher-quality products, and produce additional products (such as lead, zinc, cobalt, and possibly rare earth elements). New processes would also be updated to reduce the environmental impact; this could greatly improve the Project’s economics.

14 Mineral Resource Estimate

14.1 Introduction

This section describes the mineral resource estimation methodology and summaries the key assumptions adopted by SRK. In the QP's opinion, the MRE reported herein is a reasonable representation of the mineral resources found at the Project with the current level of sampling, data quality, and understanding.

The mineral resources and a classification of resources were prepared in accordance with the CIM Standards on Mineral Resources and Reserves: Definitions and Guidelines (CIM, 2014) and CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (CIM, 2019). Mineral resources are reported in accordance with NI 43-101. Mineral resources that are not mineral reserves do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resources will be converted into mineral reserves.

The MRE was completed by Mr. Berkley Tracy, an independent QP, as this term is defined pursuant to NI 43-101, for mineral resources. The resource estimation is based on the current drillhole database and updated vein models provided by Sunshine. The resource estimation is supported by logging, drilling, and sampling current to a November 28, 2023, data cut-off date. SRK undertook the technical work on the geological model and grade estimates in December 2023, with the final assessment for RPEEE completed on December 21, 2023, which is the effective date of the resource statement.

The estimation of mineral resources was completed utilizing a geological domain model and resource block model constructed in Leapfrog Geo™ and Leapfrog Edge™ software (Version 2023.2.0). The resource estimation methodology involved the following procedures:

- Database and geological model review
- Data conditioning for statistical analysis (i.e., capping review and compositing)
- Block modeling and grade interpolation
- Resource classification and validation
- Assessment of RPEEE
- Application of reporting CoG for conceptual underground mining scenario
- Preparation of the mineral resource statement

14.2 Geological Database

The Sunshine geological database is maintained in a Microsoft Access database. SRK was provided three CSV exports: collar, assay, and survey. The Sunshine-provided collar database consisted of 1,446,453 ft of intervals from drilling and channel sampling. Of these sample intervals, the assay database contained 336,360 ft of assay intervals within the Project area. Only a portion of the assayed samples are coded and modeled as mineralized veins. The updated vein model has 36 unique vein codes that were modeled with a total of 102,194 sample intervals that total 293,490 ft in length, as summarized in Table 14.1. There are a handful of other minor veins with coded names that are not currently modeled.

Table 14.1: Sunshine Modeled Vein Bounds

Count	Vein Name	Number of Samples
1	08DHW	4,598
2	08BVein	642
3	09HW	2,230
4	09Vein	2,881
5	10Vein	51
6	101Vein	33
7	625M	5,314
8	BVein	291
9	CFault Vein	11,344
10	Chester	26,110
11	ChesterHang	4,126
12	CopperVein	10,323
13	DVein	3,428
14	FVein	1,116
15	GVein	7
16	HFWVein	26
17	HVein	2,019
18	KFWVein	159
19	KVein	1,519
20	NYBoy	8,966
21	S78	2,430
22	Silver Summit No4	771
23	Silverline	379
24	SilverSummitNo3	319
25	SilverSyndicateLink	649
26	Sunshine2	2,072
27	SunshineFW	1,255
28	SYBoy	2,441
29	Syndicate Fault	2,889
30	Vein06	673
31	W16Vein	213
32	WestChanceFW	262
33	WestChanceFWWest	18
34	YankeeGirl	2,467
35	YankeeGirl952Split	92
36	YankeeGirlFW	81
Total		**102,194**

Source: SRK, 2024

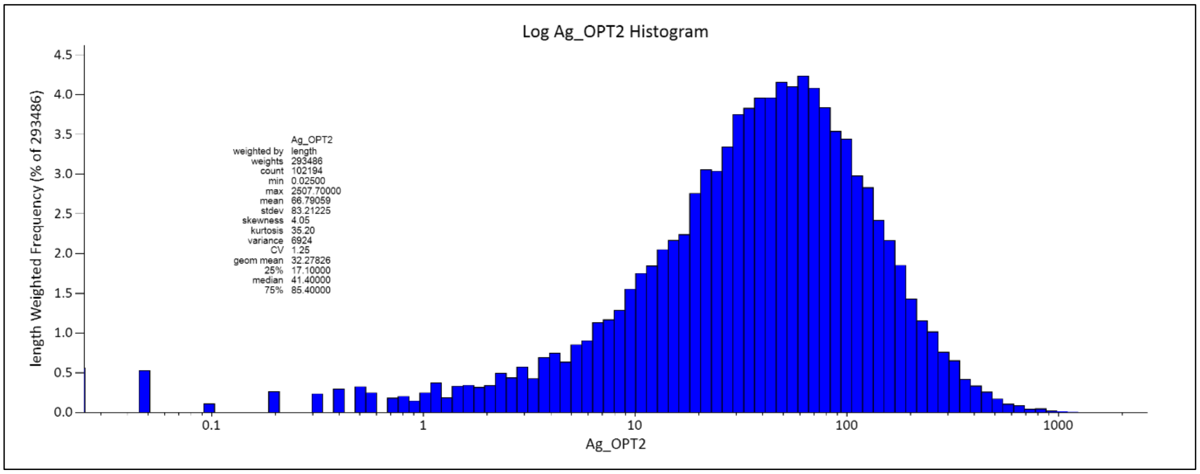
Minor modifications to the estimation drillhole database were required prior to compositing and exploratory data analysis (EDA). SRK performed the following procedures to the Sunshine database:

- SRK combined the vein codes for ChesterHang with the vein coded previously as ChesterHWSplit, as these were interpreted to be a single vein.
- SRK assigned a marginal bottom cut to the data based on one-half of the lower laboratory detection limit. Certain null variables were coded as -99, 0, and 0.0099 from a mixture of historical data treatment. A total of 726 null samples were assigned the following values: 0.025 opt Ag, 0.005% Cu, 0.05% Pb, and 0.05% Zn.

The key economic variable is silver, which is the only metal reported in the Sunshine mineral resource. Significantly more non-null silver assay values (n = 101,443) exist compared to the base metals due to selective historical sampling practices. Within the modeled vein domains, non-null copper assays (n = 35,412) are 34.9% of silver samples, and non-null lead assays (n = 31,604) are 31.2% of silver samples. There are only 111 total zinc assays in the modeled veins.

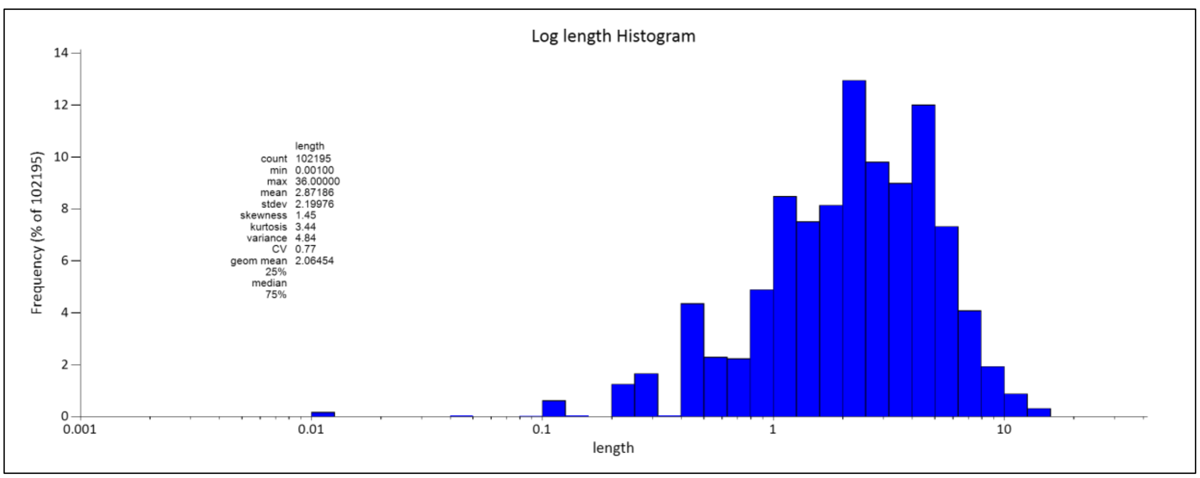
Consequently, based on the available data, the following discussions and summary documentation are focused only on silver mineralization, grade, and continuity. Based on reviews of the database and QA/QC provided, as discussed in previous sections, the QP for mineral resources is of the opinion that the silver assay data is adequately reliable to support mineral resource estimation.

Figure 14.1 and Figure 14.2 provide histograms of silver data and sample length within all modeled veins. Figure 14.3 shows a sectional view of all of the silver data.



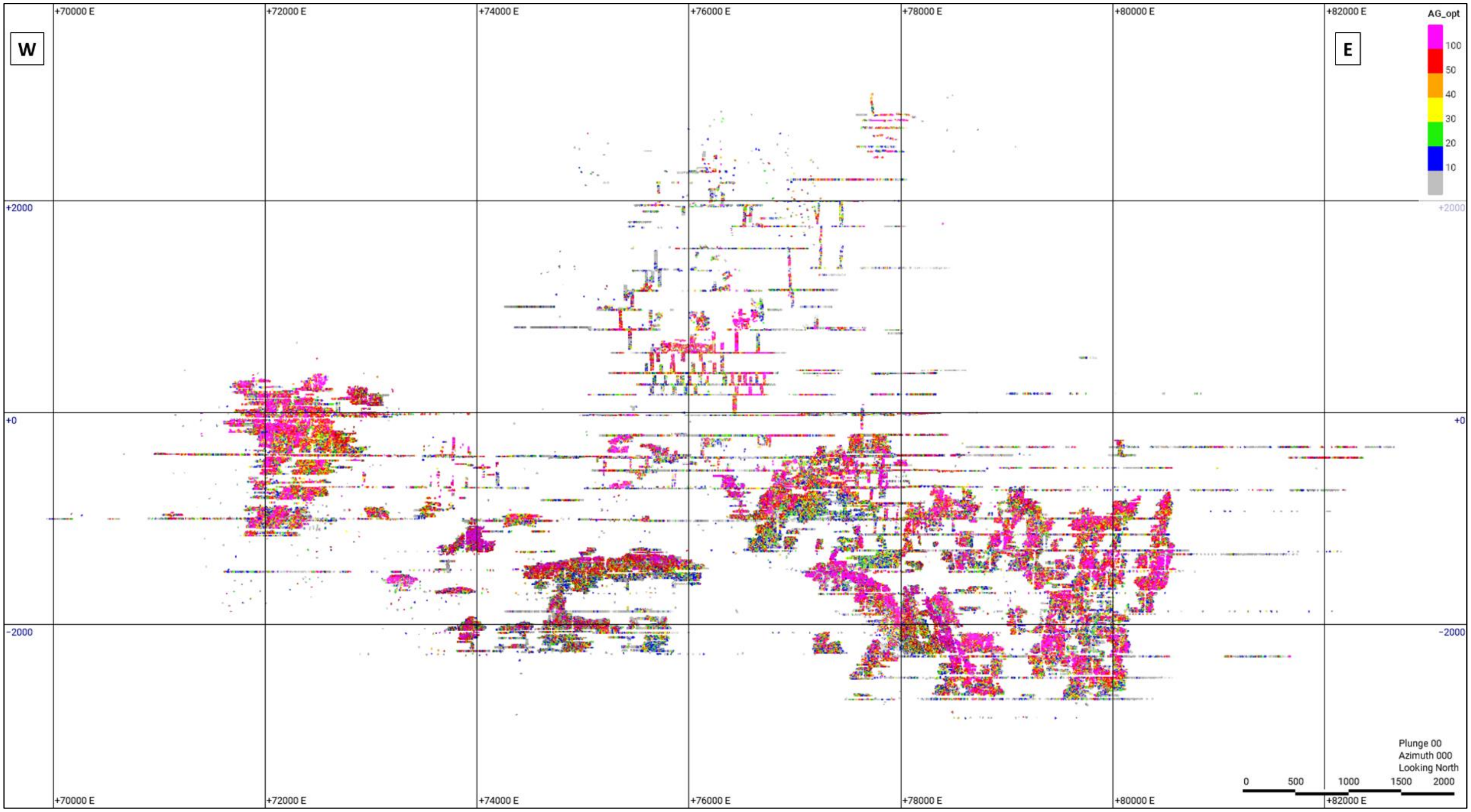
Source: SRK, 2024

Figure 14.1: Histogram of Silver Data in All Vein Bounds



Source: SRK, 2024

Figure 14.2: Histogram of Silver Data in All Vein Bounds

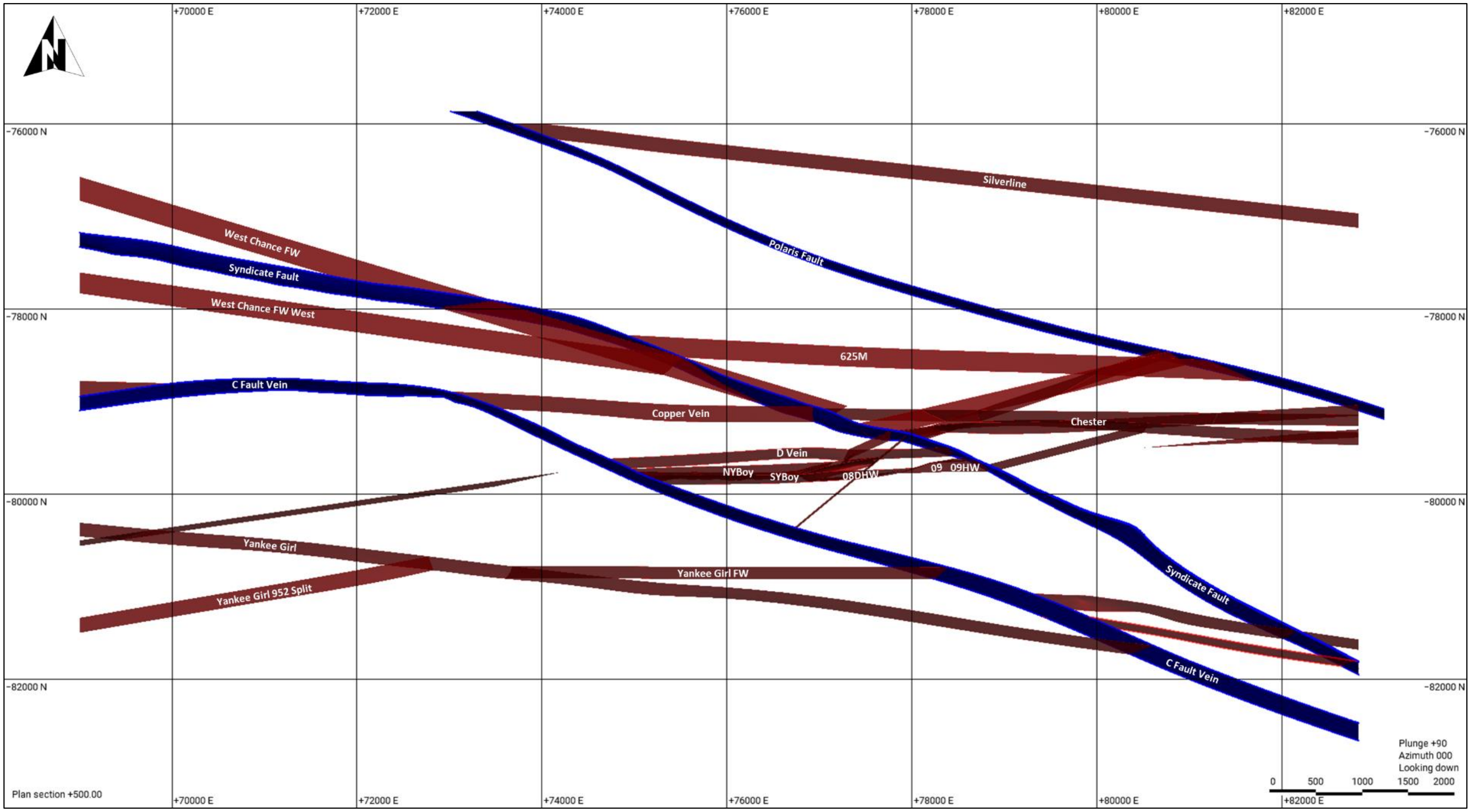


Source: SRK, 2024

Figure 14.3: Long-Section of Silver Data in All Vein Bounds, Looking North

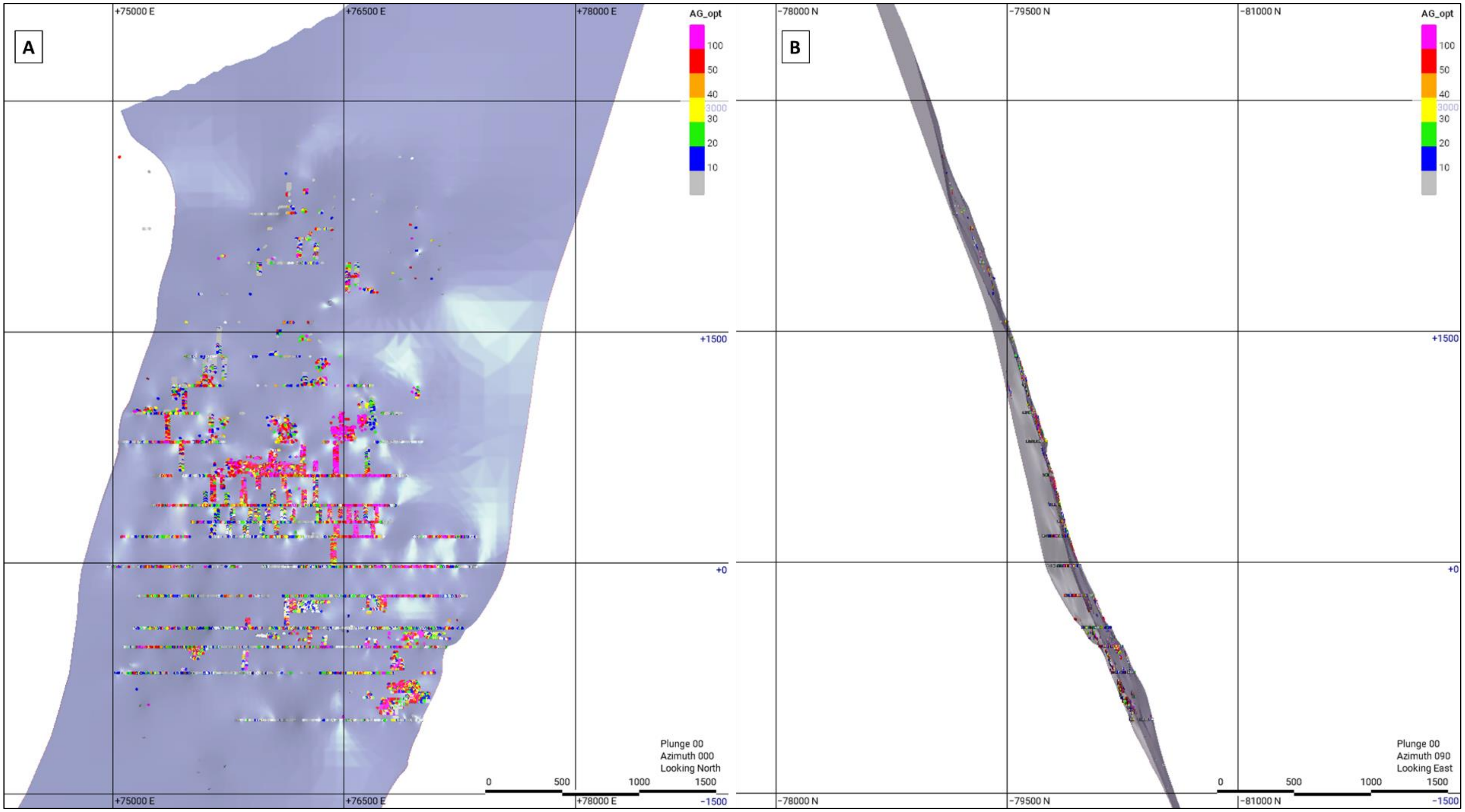
14.3 Geological Model

The Sunshine mineralization is interpreted to be hosted with structurally controlled, steeply dipping mesothermal vein systems cutting metasedimentary rocks. SOP and SRK worked together to define vein bounds and construct implicit 3D wireframes to capture the Sunshine geological interpretation of multiple sheeted vein systems with appropriate cross-cutting relationships. Veins were implicitly modeled using Leapfrog™ software. In total, 36 individual wireframes were constructed for the estimation, as shown on Figure 14.4. Figure 14.5 provides example cross-sections of the North Yankee Boy Vein.



Source: SRK, 2024
Note: Plan section of vein model at 500-ft-amsl elevation with ±150-ft projection; faults are blue, and veins are red

Figure 14.4: Plan Section of Sunshine Vein Wireframes



Source: SRK, 2024
Note: Cross-section A is looking north, and cross-section B is looking east.

Figure 14.5: Cross-Section of North Yankee Boy Vein

The wireframes were constructed using Leapfrog's interval selection tool in 3D. This tool identifies each intersection and defines hangingwall and footwall contacts, which are used to generate vein solids. The vein wireframes were extended to surface, along strike and at depth for exploration purposes. Following the defined cross-cutting interactions, the final veins were truncated at contacts with other veins, as appropriate. In cases where the interpretation allowed two veins to cross, a primary vein was chosen such that no volume duplication occurred at the intersection. Once the veins were defined, SOP completed a review to define the structural framework and truncated veins appropriately.

At the current level of study, separate 3D lithological domains for the host metasedimentary strata have not been created, due to vein location, orientation, and thickness being the dominant control on the resource area mineralization. SOP reports negligible variation of grade between the Revett and St. Regis Formations at Sunshine, which indicates that lithology is not a material control on mineralization. Away from significant sample support, the vein widths are assumed to be consistent with widths of sample-defined areas. Potential uncertainty in actual vein widths versus the interpreted and modeled domains in sparsely sampled areas were considered during mineral resource classification.

The final geological model was provided to SRK by SOP and verified by the QP for mineral resources. After discussion with SOP, SRK combined the ChesterHang and ChesterHWSplit Veins, as the data was interpreted to belong to a single vein. Wireframes from the dynamic geological model were exported and used to create a static estimation domain (EstDom) model. The Sunshine resource estimate utilized the modeled geologic controls to constrain mineralization limits within the EstDom model, where veins are treated with hard boundary conditions.

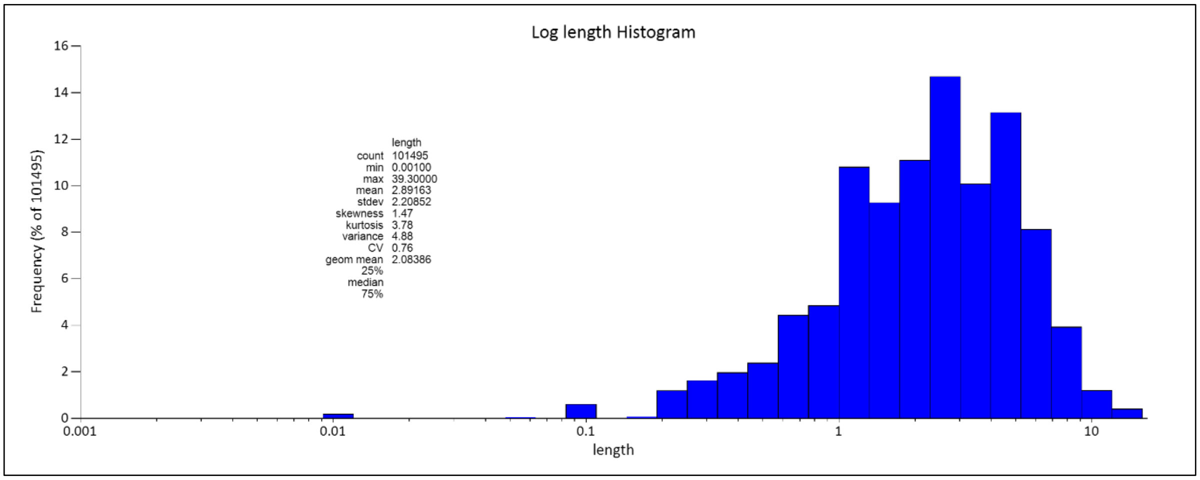
14.4 Assay Capping and Compositing

The raw assay sample data were plotted on histogram and cumulative distribution graphs to review the population statistical distribution. As seen previously in Figure 14.1, the overall data for all modeled veins is skewed slightly to lower grades for silver and present a relatively normal distribution.

14.4.1 Compositing

SRK analyzed the mean length of the core drilling samples in order to determine appropriate composite lengths. During historical sampling, the assay sample lengths were chosen selectively to represent vein mineralization and were often a single combined sample across the entire vein width in underground channel samples. For estimation purposes, all samples were composited into vein width composites that average all samples into a single composited value crossing the estimation domain boundaries (vein width). This compositing method was chosen to provide consistent support with respect to a realistic mining scale and to support data smoothing across the variable width domains.

The mean composited interval length is 2.89 ft across all modeled veins, as seen on Figure 14.6. SRK also evaluated composite lengths for all 36 individual veins. Table 14.2 provides the composited lengths by vein. The composited lengths used in the vein modeling and estimation accurately reflect the character of the undulating vein systems at Sunshine.



Source: SRK, 2024

Figure 14.6: Histogram of Composite Lengths in All Vein Bounds

Table 14.2: Summary of Composite Lengths for Individual Veins

Vein Name	Number of Samples	Composite Length (ft)			Coefficient of Variation (CV)
		Mean	Minimum	Maximum	
08DHW	4,584	2.81	0.050	10.5	0.57
08BVein	642	1.62	0.200	12.6	0.86
09HW	2,188	1.43	0.100	8.3	0.74
09Vein	2,879	1.25	0.050	7.5	0.55
10Vein	25	1.52	0.300	5.2	0.65
101Vein	22	1.89	0.100	7.0	0.88
625M	5,302	1.72	0.010	12.7	0.77
BVein	291	5.04	0.170	8.0	0.29
CFault Vein	11,094	1.96	0.010	23.0	0.84
Chester	26,074	3.55	0.001	39.3	0.72
ChesterHang	4,101	3.60	0.009	21.0	0.72
CopperVein	10,225	3.68	0.010	19.2	0.63
DVein	3,416	3.32	0.040	12.2	0.57
FVein	1,109	1.74	0.030	6.3	0.53
GVein	7	2.24	0.100	9.8	1.53
HFWVein	19	2.90	0.600	11.5	0.90
HVein	2,019	3.46	0.200	11.0	0.49
KFWVein	159	1.54	0.010	4.5	0.64
KVein	1,519	1.67	0.010	7.3	0.60
NYBoy	8,944	3.70	0.009	13.0	0.57
S78	2,429	2.19	0.050	8.2	0.56
Silver Summit No4	771	4.36	0.010	19.0	0.63
Silverline	370	1.53	0.050	9.0	0.70
SilverSummitNo3	319	2.91	0.100	10.6	0.74
SilverSyndicateLink	649	3.86	0.100	10.0	0.72
Sunshine2	2,072	1.92	0.100	5.4	0.44
SunshineFW	1,246	1.62	0.050	7.5	1.14
SYBoy	2,414	2.85	0.080	8.5	0.72
Syndicate Fault	2,821	2.32	0.050	16.4	0.86
Vein06	671	1.28	0.050	9.3	1.21
W16Vein	209	0.81	0.010	7.5	0.92
WestChanceFW	253	2.34	0.010	9.0	0.83
WestChanceFWWest	14	0.90	0.200	1.8	0.60
YankeeGirl	2,467	1.31	0.001	10.0	0.98
YankeeGirl952Split	92	0.74	0.100	2.0	0.50
YankeeGirlFW	79	0.70	0.100	2.1	0.64

Source: SRK, 2024

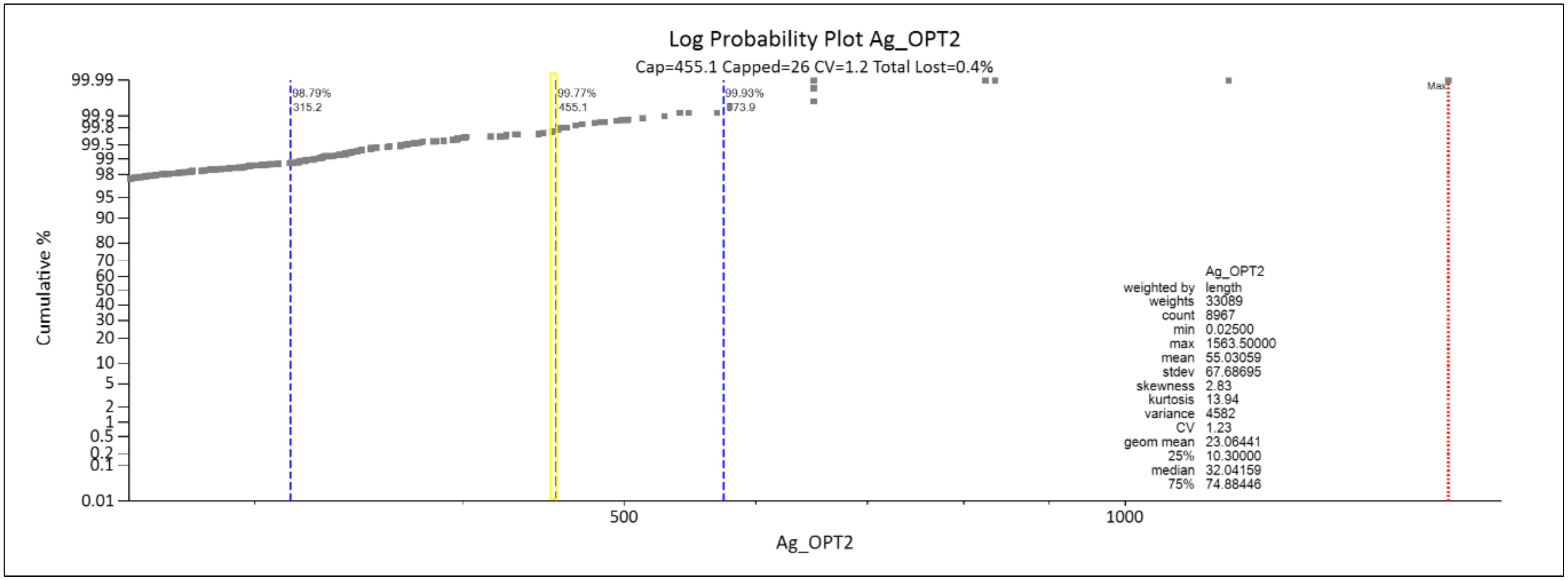
14.4.2 Outlier Capping

SRK used Phinar's X10-Geo (X10) software to complete a detailed capping analysis for silver values on individual wireframe domains. To assess capping levels, the X10 software enables multiple levels of capping to be evaluated both visually and statistically. This capping was supported by review of log histograms and log-probability plots, based on breaks in slope or composite distribution. SRK analyzed the percentage of composites capped, total metal reduction, impact on the mean grades, and reduction in the CV to arrive at final capping levels. Additionally, SRK reviewed the high-grade outlier composite intervals in 3D to determine if groupings of samples may record actual locally consistent, high-grade mineralization in veins that may not need to be capped. In certain cases, the outlier grades are relatively clustered but were considered to be extreme representations of the overall grade population that required top cutting. Table 14.3 and Figure 14.7 show examples of the statistical capping analysis for the North Yankee Boy Vein.

Table 14.3: Example of Statistical Capping Analysis for North Yankee Boy Silver Grade

Variable	Cap	Number of Capped Samples	Percentile (%)	Percent of Capped (%)	Contained Metal Reduction (%)	Reduction in CV (%)	Count of Samples	Minimum Ag Grade (opt)	Maximum Ag Grade (opt)	Mean Ag Grade (opt)	CV after Capping
Ag_OPT2							8,967	0.025	1563.5	55.0	1.23
Ag_OPT2	573.9	8	99.93	0.1	0.1	0.9	8,967	0.025	573.9	55.0	1.22
Ag_OPT2	455.1	26	99.77	0.3	0.4	2.1	8,967	0.025	455.1	54.8	1.2
Ag_OPT2	315.2	106	97	1.2	1.7	6.0	8,967	0.025	315.2	54.1	1.16
Ag_OPT2 > 455.1							26	456.6	1,563.5	546.4	0.21
Ag_OPT2 less than or equal to (≤) 455.1							8,941	0.025	452.8	53.8	1.17

Source: SRK, 2024
Note: Capping level was selected at 455.1 opt Ag.



Source: SRK, 2024

Figure 14.7: Log Probability Plot Capping Analysis for North Yankee Boy Silver Grade

For the Project, SRK applied capping at the raw sample level prior to vein compositing on an individual vein domain basis. Table 14.4 shows a summary of the final capping levels.

Table 14.4: Applied Sample Capping Levels for Silver

Vein	Ag Cap (opt)
08DHW	510.3
08BVein	414.4
09HW	370.3
09Vein	490.9
10Vein	74.6
101Vein	147.9
625M	1,239.9
BVein	176.0
CFault Vein	857.3
Chester	780.8
ChesterHang	518.0
CopperVein	387.5
DVein	409.0
FVein	341.9
GVein	47.9
HFWVein	60.9
HVein	374.9
KFWVein	249.3
KVein	438.8
NYBoy	455.1
S78	282.1
Silver Summit No4	193.7
Silverline	153.3
SilverSummitNo3	128.8
SilverSyndicateLink	312.6
Sunshine2	216.1
SunshineFW	677.3
SYBoy	364.9
Syndicate Fault	618.1
Vein06	639.9
W16Vein	1,050.5
WestChanceFW	254.7
WestChanceFWWest	238.3
YankeeGirl	449.1
YankeeGirl952Split	156.8
YankeeGirlFW	58.3

Source: SRK, 2024

14.5 Bulk Density

SG test work has been completed by McClelland Laboratories, Inc. out of Sparks, Nevada, and by the Sunshine site personnel during the recent drilling campaign. A total of 80 samples were sent to the off-site laboratory for paraffin-wax-coated SG measurements. The results of these tests validated the on-site measurements, as corrected SG from the laboratory was similar with a mean of 2.87.

The Sunshine SG data were collected by Archimedes measurement on 309 individual samples. These samples were from the recent SOP drilling campaign. While clustered, the recent on-site SG measurements are considered to be representative of mineralization styles across the deposit.

The on-site SG data were evaluated statistically to determine if groupings could be split out based on mineralization. In the Idaho Silver Valley, it is common to discriminate lead-rich veins as having a higher bulk density. Due to the current limited dataset, SRK determined that an SG difference by vein type could not be established and that only a split by vein and non-mineralized rock was prudent, as summarized in Table 14.5.

Table 14.5: Specific Graphic Statistics

Domain	Count	Minimum SG	Maximum SG	Mean SG
All	309	2.53	3.98	2.82
Waste	248	2.53	3.71	2.82
Vein	56	2.61	3.98	3.02

Source: SRK, 2024

A bulk density of 2.8 g/cm^3 was assigned to waste, and a bulk density of 3.0 g/cm^3 was assigned to all veins. SOP will continue to collect additional SG data in future campaigns and continue to grow the database of results for bulk density determination. Based on review of the available data and supporting analysis, SRK considers the assigned bulk density data reasonable and consistent with the general host lithologies reported. The QP for mineral resources considers the bulk density values suitable for use in resource tabulation.

14.6 Variogram Analysis

Spatial continuity through variography analysis by vein domain was attempted. Due to inconsistent drillhole spacing, extremely clustered data, and relatively limited data for certain domains, the resulting spatial models are poorly formed. Initially, rough variograms were used as a guide to general continuity and to inform anisotropy and distances of the estimation search neighborhood. SRK has also based assumptions on continuity at certain distances from data on experience with similar vein deposits.

14.7 Block Model

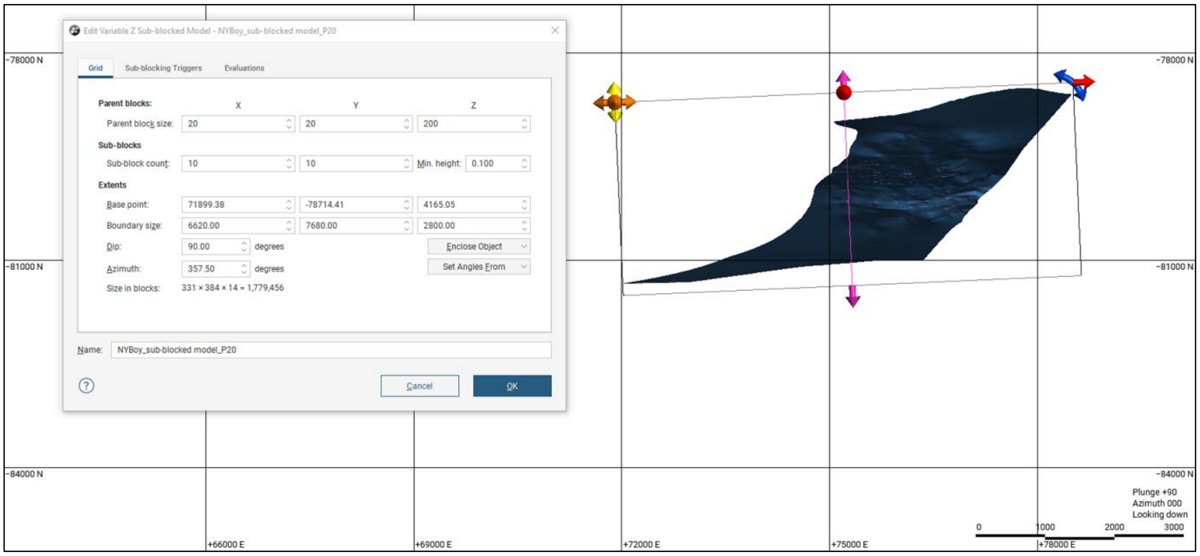
The estimation was constrained within the discrete vein domains with hard boundary conditions. The vein wireframes were interpreted by Sunshine based on historical level mapping and assay grades. Grade estimation was based on parent block dimensions of 20 ft in X-to-Y and 200 ft in Z. The Z-direction was rotated 90° in dip so that this axis stretches across the vein width. Each vein was estimated into separate block models. Each individual block model was rotated to a specific azimuth direction so that the blocks lined up with the average strike of the veins. The models were sub-blocked along the domain boundaries to 2 ft in X-to-Y and variable Z down to 0.1 ft.

The parent block dimensions are based on roughly one-third of the general drilling grid spacing, although the historical channel sampling is much more closely spaced. The sub-block size was selected to best represent and improve the accuracy between estimation domain wireframes. This schema of Z-rotation and variable sub-blocks provides the best representation of the wireframe volume but is a tradeoff in model file size. The sub-blocked resource models and block grade estimates were created using Leapfrog Edge software (Version 2023.2.0). Table 14.6 summarizes the unique block extents of each vein. Figure 14.8 shows an example from North Yankee Boy Vein. Visual comparison between the geological model (wireframes) and the block model demonstrates an acceptable fit for the equivalent domains with <1.0% difference. It is the QP's opinion that the block model volumes are a satisfactory representation of the original wireframe volumes.

Table 14.6: Block Model Extents Summary

Domain	Origin (ft)			Offset (ft)			Number of Blocks			Rotation (°)	
	X	Y	Z	X	Y	Z	X	Y	Z	Dip	Azimuth
08DHW	76,686.653	-79,177.874	4,178.880	3,300	5,840	1,400	165	292	7	90	352.50
08BVein	76,104.719	-78,859.605	4,125.239	2,560	7,640	2,400	128	382	12	90	336.00
09HW	75,916.624	-79,452.519	781.887	3,000	4,300	2,000	150	215	10	90	2.50
09Vein	76,357.252	-79,675.975	445.035	2,280	2,880	1,200	114	144	6	90	357.50
10Vein	68,788.230	-79,623.940	5,000.000	10,580	6,740	1,600	529	337	8	90	352.00
101Vein	76,614.520	-77,226.530	3,885.780	5,400	7,440	5,000	270	372	25	90	346.50
625M	74,170.030	-76,196.410	3,305.490	8,920	6,820	5,000	446	341	25	90	3.00
BVein	76,548.790	-78,726.236	4,154.300	1,520	4,840	1,600	76	242	8	90	348.00
CFault Vein	69,072.220	-77,088.160	4,517.030	14,700	8,060	4,200	735	403	21	90	12.00
Chester	77,753.500	-77,918.100	3,850.570	5,100	7,380	3,600	255	369	18	90	0.00
ChesterHang	78,322.796	-79,311.256	-238.620	2,260	2,820	1,800	113	141	9	90	4.00
CopperVein	69,001.920	-76,550.170	4,160.890	8,840	7,700	5,000	442	385	25	90	3.00
DVein	70,878.950	-78,431.920	4,135.950	8,220	7,640	3,000	411	382	15	90	358.00
FVein	77,255.740	-79,400.220	538.845	5,580	4,060	2,200	279	203	11	90	357.75
GVein	77,486.350	-79,088.860	3,837.680	4,520	6,480	2,000	226	324	10	90	345.00
HFWVein	76,783.330	-78,374.490	3,904.790	3,940	7,420	3,000	197	371	15	90	341.08
HVein	77,495.490	-79,988.150	-869.241	2,280	2,000	1,000	114	100	5	90	0.00
KFWVein	78,283.010	-79,967.715	-1,105.580	2,020	1,300	600	101	65	3	90	356.00
KVein	78,161.477	-79,371.141	-154.161	1,920	2,840	1,600	96	142	8	90	359.00
NYBoy	71,899.380	-78,714.410	4,165.050	6,620	7,680	2,800	331	384	14	90	357.50
S78	74,589.990	-81,749.510	4,171.180	5,560	7,680	800	278	384	4	90	320.00
SilverSummitNo4	69,160.710	-78,826.890	2,667.320	14,180	6,200	1,800	709	310	9	90	10.00
Silverline	73,705.230	-75,021.070	2,549.900	9,540	6,060	3,200	477	303	16	90	6.00
SilverSummitNo3	77,954.252	-79,568.059	3,954.480	5,320	6,240	2,400	266	312	12	90	9.00
SilverSyndicate Link	76,861.400	-78,091.200	3,832.350	5,980	7,340	3,000	299	367	15	90	357.00
Sunshine2	75,595.171	-80,257.479	4,089.466	3,400	6,820	1,000	170	341	5	90	324.00
SunshineFW	74,616.205	-78,281.658	4,129.745	3,760	5,980	2,600	188	299	13	90	358.50
SYBoy	74,637.401	-78,569.202	4,165.400	5,080	5,160	1,800	254	258	9	90	0.00
Syndicate Fault	69,421.300	-74,620.760	4,084.120	15,400	7,580	4,200	770	379	21	90	18.50
Vein06	73,686.118	-80,026.884	730.871	2,480	4,240	2,000	124	212	10	90	346.00
W16Vein	76,880.210	-77,737.520	3,912.300	6,000	5,640	2,400	300	282	12	90	0.50
WestChanceFW	69,545.470	-74,052.250	3,813.540	11,000	7,320	6,000	550	366	30	90	16.50
WestChanceFW West	69,103.360	-75,116.770	3,378.190	8,400	6,900	6,000	420	345	30	90	8.25
YankeeGirl	68,932.650	-78,288.650	4,942.490	13,580	8,440	4,000	679	422	20	90	6.50
YankeeGirl952Split	68,288.920	-78,817.490	4,998.330	4,840	8,500	5,000	242	425	25	90	350.50
YankeeGirlFW	71,789.700	-79,192.400	4,226.780	7,240	7,740	4,000	362	387	20	90	0.00

Source: SRK, 2024



Source: SRK, 2024

Figure 14.8: Plan Showing Block Model Extents Example, North Yankee Boy Vein

Table 14.7 shows the volumetric comparison between the wireframes and blocks with the Project.

Table 14.7: Volume Comparison Between Wireframes and Block Models

Domain	Wireframe Volume (cubic feet (ft^3))	Block Volume (ft^3)	Difference (%)
08DHW	18,515,000	18,544,513	0.16
08BVein	3,430,600	3,431,198	0.02
09HW	20,934,000	20,972,629	0.18
09Vein	6,746,700	6,752,672	0.09
10Vein	46,431,000	46,518,147	0.19
101Vein	83,760,000	83,899,443	0.17
625M	56,498,000	56,497,004	0.00
BVein	9,202,400	9,214,571	0.13
CFault Vein	123,420,000	123,428,062	0.01
Chester	77,063,000	77,055,431	-0.01
ChesterHang	10,476,000	10,475,661	0.00
CopperVein	91,515,000	91,502,865	-0.01
DVein	75,712,000	75,722,593	0.01
FVein	27,847,000	27,887,845	0.15
GVein	3,686,500	3,703,825	0.47
HFWVein	31,262,000	31,342,056	0.26
HVein	7,127,400	7,133,388	0.08
KFWVein	980,920	981,319	0.04
KVein	3,828,200	3,829,636	0.04
NYBoy	54,022,000	54,022,928	0.00
S78	19,393,000	19,395,653	0.01
Silver Summit No4	197,900,000	198,471,847	0.29
Silverline	117,150,000	117,148,501	0.00
SilverSummitNo3	28,300,000	28,560,725	0.91
SilverSyndicateLink	64,143,000	64,258,173	0.18
Sunshine2	3,831,500	3,831,378	0.00
SunshineFW	22,260,000	22,309,875	0.22
SYBoy	28,858,000	28,862,135	0.01
Syndicate Fault	509,760,000	509,457,847	-0.06
Vein06	2,449,000	2,455,393	0.26
W16Vein	26,342,000	26,396,710	0.21
WestChanceFW	55,141,000	55,173,974	0.06
WestChanceFWWest	24,930,000	24,933,725	0.01
YankeeGirl	128,340,000	128,278,758	-0.05
YankeeGirl952Split	17,039,000	17,037,972	-0.01
YankeeGirlFW	21,079,000	21,075,573	-0.02
All Veins	2,019,373,220	2,020,564,023	0.06

Source: SRK, 2024

14.8 Grade Estimation Methodology

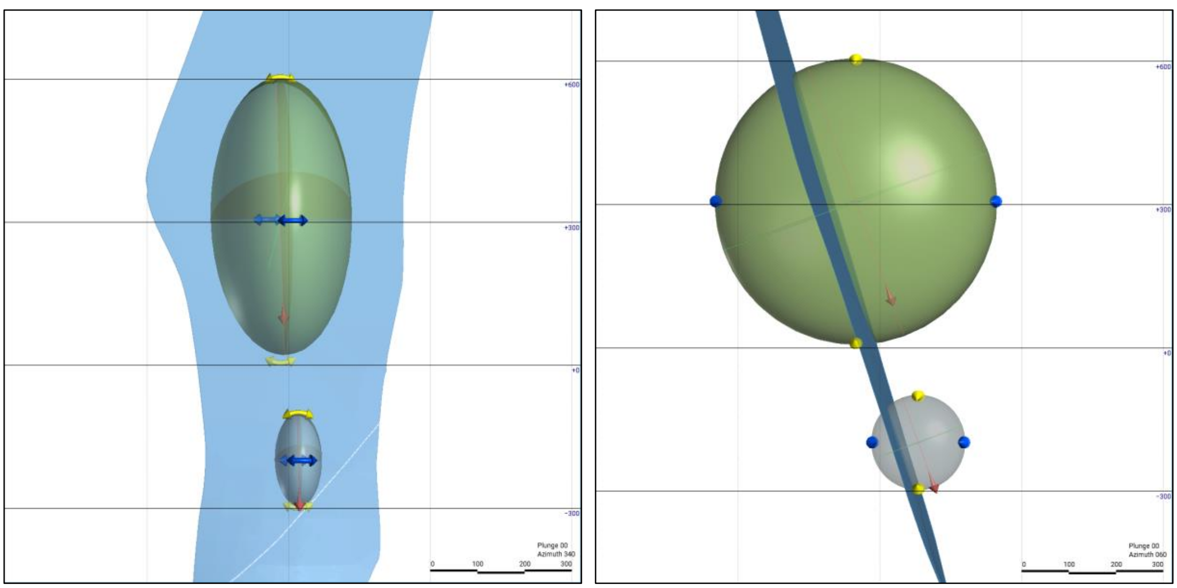
The 36 modeled vein domains were estimated for silver using an inverse distance weighting squared (IDW2) estimation methodology with bulk density scripted for vein and waste material. Due to inconsistency in the variography, kriging was not deemed appropriate at this stage. Copper, lead, and zinc were included in the estimation scheme for exploration guidance, using the same setup as silver, but they were not reported in the mineral resource due to the material lack of assay data. All block grade estimates were made in Leapfrog Edge™ software using vein-width composites.

14.8.1 Estimation Parameters

The grade estimation was performed using an IDW2 estimation methodology. A nearest neighbor (NN) estimation was also performed for validation purposes. The grade estimation evaluated all parent blocks with centroids within the estimation domains, and sub-blocks are coded based on the parent block centroid. Estimation within the veins considered only the composites and blocks within each unique domain and assumed hard boundary conditions with the host country rock. Bulk density was scripted by general domain based on analysis of SG measurements collected by SOP.

A two-pass search was used to optimize block estimation so that well-informed blocks are interpolated using a tighter search ellipse. The estimation search neighborhood was defined for individual veins. The selection criteria used for search ellipsoid size, number of samples, and other conditions are derived based on data spacing to ensure appropriate interpolation, as well as visual and statistical evaluation, during iterative trial estimation runs.

Pass 1 search distance was 100 ft in X-to-Y and 50 ft in Z (which in effect is limited by the composite lengths and hard boundaries used). Pass 2 search distance was 300 ft in X-to-Y and 150 ft in Z. The first and second pass search ellipses are oriented where the X-to-Y axes are perpendicular to the vein width and Z parallels strike. In this case, the shorter Z-dimension references the direction along the vein (strike) surface. Each search ellipse is oriented to dip straight down (90°) then rotated to parallel the general vein dip. Figure 14.9 provides a visual example of the search orientations.



Source: SRK, 2024

Figure 14.9: Example of Estimation Search Orientation for 08B Vein

Due to many closely spaced channel samples in most veins, declustering weights were determined for each vein and applied during the inverse distance estimation. A declustering ellipse is applied that adds weighting based on sample proximity to limit the impact of clustered samples on the mean assays values of each vein. Additionally, in Pass 2, an outlier restriction was utilized to limit the extrapolation of high grades at the edge of data support. Grades were clamped to the mean of the individual vein domains for distances beyond one-half of the Pass 2 search distance. In summary, the second pass was allowed to use the full grade values for 150 ft in X-to-Y and 75 ft in Z and afterwards regressed to the mean. Table 14.8 summarizes the search pass parameters. Table 14.9 lists the estimation parameters unique to each vein.

Table 14.8: Search Pass Parameters for Sunshine Mineral Resources

Pass	X (ft)	Y (ft)	Z (ft)	Minimum Composites	Maximum Composites
1	100	100	50	3	8
2	300	300	150	2	20

Source: SRK, 2024

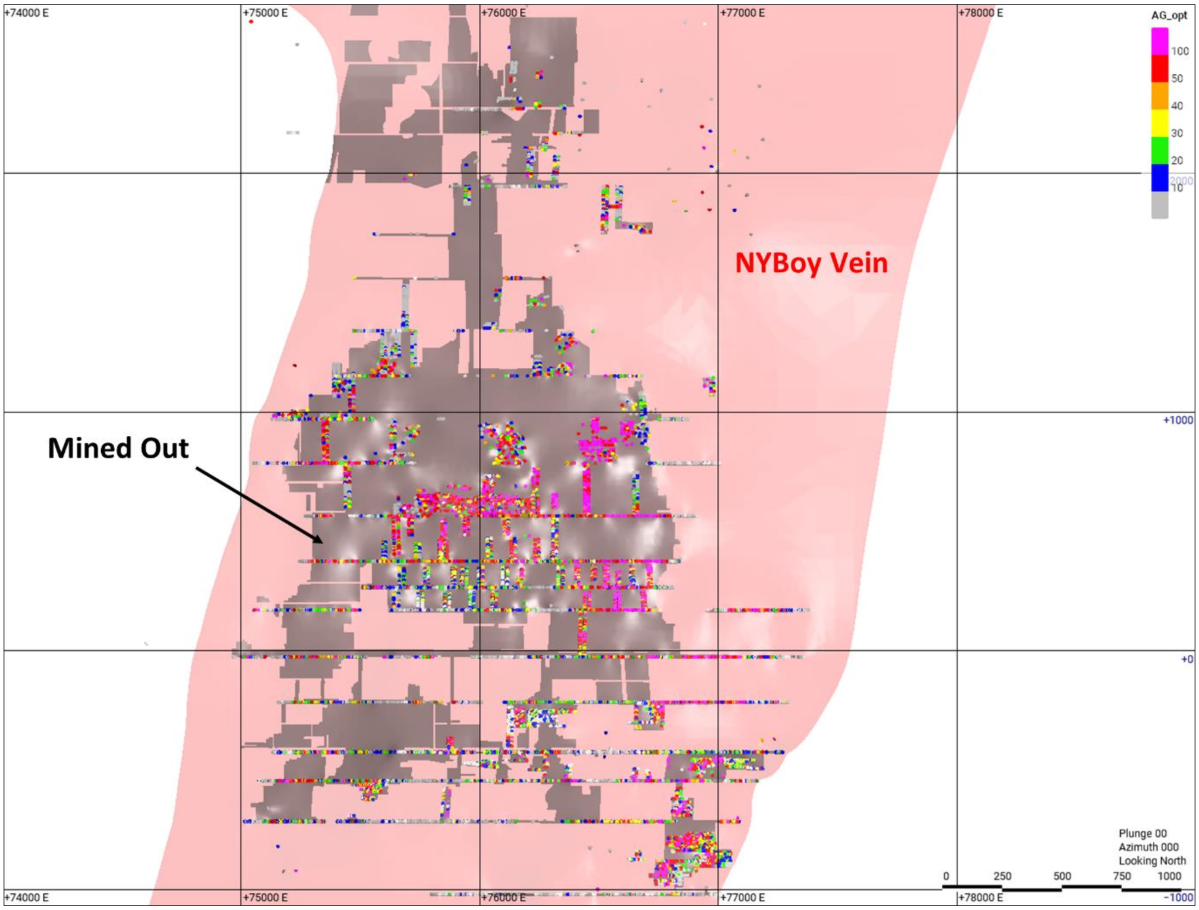
Table 14.9: Unique Estimation Parameters for Sunshine Mineral Resources

Domain	Dip (°)	Dip Azimuth (°)	Pitch (°)	Declustering Ellipse (ft)
08DHW	90	90	110	200 x 200 x 100
08BVein	90	65	110	50 x 50 x 25
09HW	90	96	114	80 x 80 x 40
09Vein	90	94	114	100 x 100 x 50
10Vein	90	85	110	80 x 80 x 40
101Vein	90	75	120	200 x 200 x 100
625M	90	90	124	80 x 80 x 40
BVein	90	80	105	100 x 100 x 50
CFault Vein	90	90	114	200 x 200 x 100
Chester	90	90	116	120 x 120 x 60
ChesterHang	90	90	118	120 x 120 x 60
CopperVein	90	95	124	80 x 80 x 40
DVein	90	90	110	200 x 200 x 100
FVein	90	80	120	100 x 100 x 50
GVein	90	75	108	150 x 150 x 75
HFWVein	90	75	110	20 x 20 x 10
HVein	90	85	114	120 x 120 x 60
KFWVein	90	95	118	30 x 30 x 15
KVein	90	85	118	120 x 120 x 60
NYBoy	90	85	110	180 x 180 x 90
S78	90	50	95	50 x 50 x 25
Silver Summit No4	90	100	105	40 x 40 x 20
Silverline	90	95	120	180 x 180 x 90
SilverSummitNo3	90	100	110	40 x 40 x 20
SilverSyndicateLink	90	85	112	110 x 110 x 55
Sunshine2	90	50	100	60 x 60 x 30
SunshineFW	90	85	115	130 x 130 x 65
SYBoy	90	85	107	300 x 300 x 150
Syndicate Fault	90	105	110	150 x 150 x 75
Vein06	90	80	115	80 x 80 x 40
W16Vein	90	90	112	60 x 60 x 30
WestChanceFW	90	105	130	50 x 50 x 25
WestChanceFWWest	90	95	125	70 x 70 x 35
YankeeGirl	90	90	115	180 x 180 x 90
YankeeGirl952Split	90	80	112	30 x 30 x 15
YankeeGirlFW	90	90	114	66 x 66 x 33

Source: SRK, 2024

14.8.2 Depletion

Significant historical mining has occurred at Sunshine on the majority of the modeled veins. SOP constructed mined-out wireframes from available historical records that were digitized from geo-referenced long-sections. The historical mining areas were coded as mined in the veins to deplete the resource models. Figure 14.10 portrays an example of the historical workings that were removed from the North Yankee Boy Vein.



Source: SRK, 2024

Figure 14.10: Longitudinal-Section of Mined-Out Areas at North Yankee Boy Vein

14.8.3 Post-Estimation Scripting

Post-estimation scripts were run on the model using Leapfrog Edge™ software to assign additional variables, as follows:

- Density values were assigned as 3.0 g/cm^3 for vein and 2.8 g/cm^3 for waste.
- Historical mining was coded at mined or available.
- Classification was assigned based on separate classification models (see Section 14.10).

14.8.4 Estimation Summary

It is the QP for mineral resources' opinion that the methodology and search neighborhood used to estimate the Sunshine resource model are consistent with industry standards, acceptable for the level of sample data, and produce quality estimation results in well-informed areas. Some portions of the deposit are considered poorly informed in terms of drilling and certainty of geological interpretation and should be targeted for future drilling to improve confidence in both geological continuity and grade estimation. The relative confidence in grade estimations based on estimation quality are considered in resource classification, as discussed in Section 14.10.

14.9 Model Validation

Multiple techniques were implemented to evaluate the validity of the resource block model, including the following:

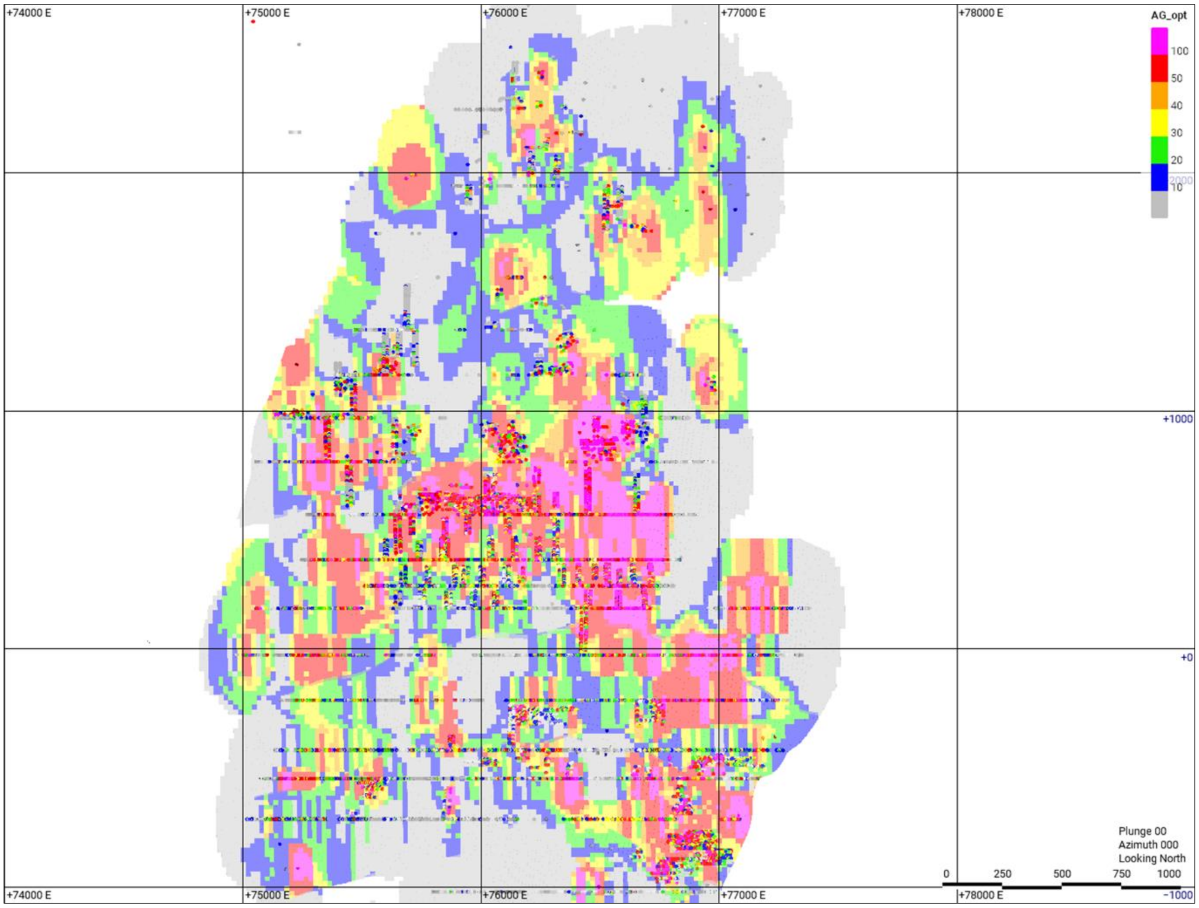
- Interpolated block grades were visually checked by domain for comparison to capped composite assay grades.
- Estimation parameter results were reviewed to evaluate the overall performance of the grade estimation methodology by estimation pass and by block, including average number of composites, average number of drillholes, and average distance to samples.
- Statistical and graphical comparisons between resource block grades estimated by IDW2 were compared by domain to composite assay grades and to NN estimates.

14.9.1 Visual Comparison

Visual validation provides a comparison of the interpolated block model on a local scale. A thorough inspection was undertaken in 3D, comparing the sample grades in all veins with the block grades. The resulting block estimates demonstrate general conformity between local block estimates and nearby composites with an appropriate degree of smoothing in the block model.

The estimation methodology applied to all veins was generally based on the best-sampled structures, such as the North Yankee Boy Vein, which contains about 10% of the entire Sunshine resource. These structures generally show the most continuity up and down dip. The veins with significant sampling exhibit high variability in grades and vein thickness due to inherent local variability of mineralization over relatively short distances along strike. SRK considered grade continuity as a factor during the classification process.

Figure 14.11 provides a longitudinal-section of the estimated block grades for silver at North Yankee Boy Vein.



Source: SRK, 2024

Figure 14.11: Longitudinal-Section of Estimated Block Grades of Ag at North Yankee Boy Vein

14.9.2 Comparative Statistics

SRK reviewed statistics of mean grades of composited assay data and estimated silver block grades. Due to data clustering and the often-irregular sample grid, mean composite grades appear to be significantly higher than estimated mean block grades. However, mean grades between the NN estimate and IDW2 block grades are similar and within an acceptable range globally for the estimation to be considered appropriate. In general, bias observed for estimated blocks versus composites is caused by clustering effects from non-standardized sample spacing relative to the wireframe generation, which locally results in larger volumes of blocks being informed by relatively smaller population of samples. Table 14.10 provides a summary of the model validation by statistical analysis.

Table 14.10: Model Validation by Statistical Analysis

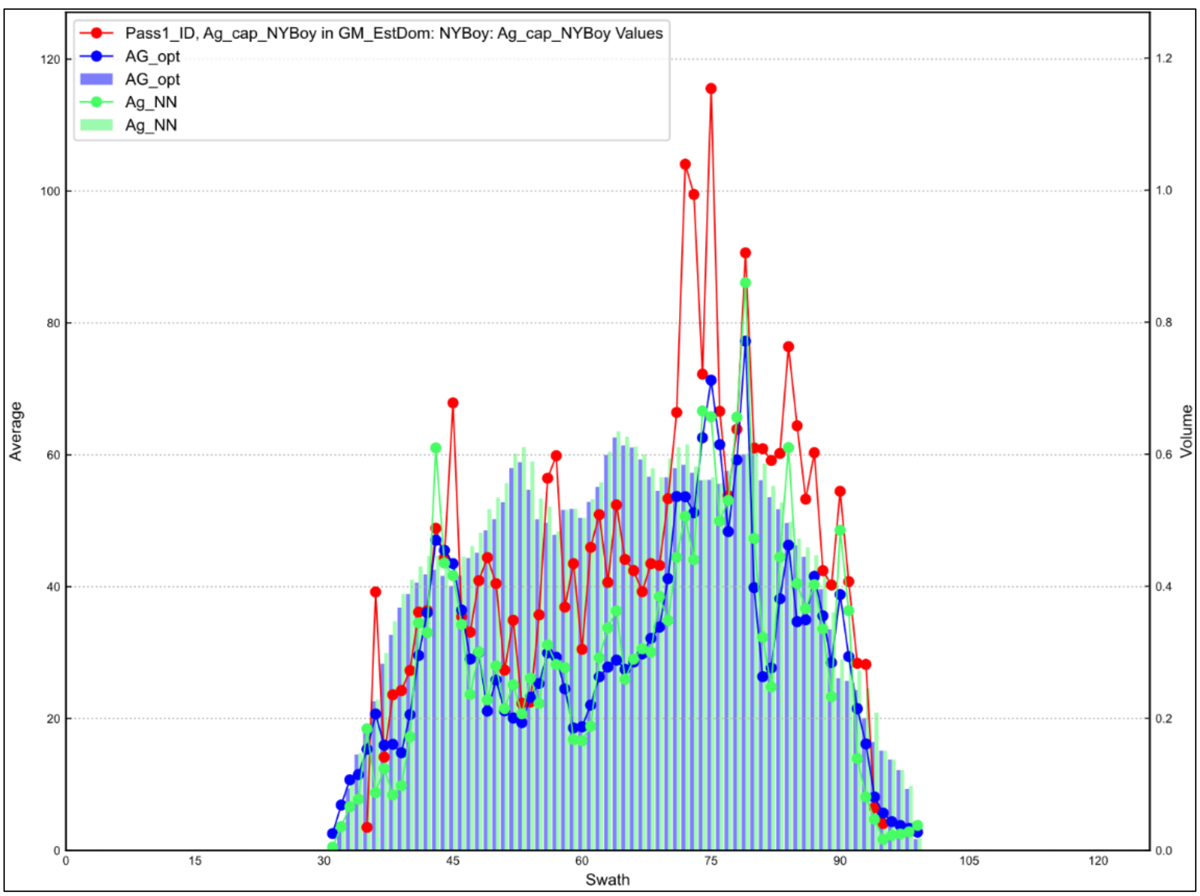
Domain	Number of Composites	Mean Ag Grade (opt)					Difference IDW2 to Declustered (%)	Difference IDW2 to NN Estimate (%)
		Composites (Length Weighted)	Naïve Mean	Declustered	NN Estimate	IDW2 Estimate		
08DHW	4,584	43.1	47.1	47.9	42.0	36.0	-33	-17
08BVein	642	85.4	90.4	69.1	74.2	62.6	-10	-18
09HW	2,188	60.2	57.9	45.8	27.5	24.9	-84	-11
09Vein	2,879	53.2	62.5	57.3	40.3	40.7	-41	1
10Vein	25	18.1	19.0	19.1	22.0	16.1	-19	-36
101Vein	22	37.2	48.7	38.4	40.7	28.1	-37	-45
625M	5,302	99.7	114.4	82.7	51.4	50.2	-65	-2
BVein	291	28.6	27.9	25.1	25.7	20.2	-24	-28
CFault Vein	11,094	81.9	88.4	44.8	28.5	29.4	-52	3
Chester	26,074	78.9	80.1	59.8	52.0	49.9	-20	-4
ChesterHang	4,101	67.5	66.6	42.9	33.1	34.1	-26	3
CopperVein	10,225	49.6	48.3	36.2	27.3	27.5	-32	1
DVein	3,416	65.8	61.9	42.6	34.5	32.2	-32	-7
FVein	1,109	81.1	77.6	46.1	37.7	36.0	-28	-5
GVein	7	6.8	16.7	15.1	9.2	4.6	-229	-100
HFWVein	19	17.0	20.3	19.9	16.4	14.0	-43	-18
HVein	2,019	58.1	62.4	29.4	24.0	24.0	-23	0
KFWVein	159	115.1	115.0	109.1	79.9	79.7	-37	0
KVein	1,519	112.5	118.3	91.3	62.2	68.0	-34	9
NYBoy	8,944	54.8	51.4	37.9	35.1	33.9	-12	-4
S78	2,429	44.8	48.1	43.6	40.4	30.7	-42	-31
Silver Summit No4	771	32.2	35.0	30.8	24.1	19.0	-62	-27
Silverline	370	60.2	58.8	23.5	23.5	17.4	-35	-35
SilverSummitNo3	319	25.6	29.7	28.0	19.7	16.5	-70	-20
SilverSyndicateLink	649	63.4	55.0	53.4	58.2	51.4	-4	-13
Sunshine2	2,072	48.8	50.3	45.9	32.6	35.8	-28	9
SunshineFW	1,246	64.4	116.9	62.9	25.4	23.9	-164	-6
SYBoy	2,414	34.6	42.5	30.5	31.6	26.2	-16	-21
Syndicate Fault	2,821	82.1	93.3	36.2	29.7	29.4	-23	-1
Vein06	671	111.2	150.3	103.7	82.3	72.9	-42	-13
W16Vein	209	364.3	275.3	161.3	181.5	131.0	-23	-39
WestChanceFW	253	64.8	79.3	64.1	47.5	46.9	-37	-1
WestChanceFWWest	14	27.7	48.3	48.9	48.7	24.2	-102	-101
YankeeGirl	2,467	47.4	57.1	47.1	39.7	32.8	-43	-21
YankeeGirl952Split	92	49.5	49.9	46.5	33.8	30.0	-55	-13
YankeeGirlFW	79	17.7	18.8	18.8	17.6	15.4	-22	-14

Source: SRK, 2024

Globally across all vein domains, the results indicate that the SRK estimates report a weighted average of -4.8% of the NN grade estimate, with individual domain estimates reporting above or below the input composite means; it is the QP's opinion that this in an indication of an acceptable estimate with an appropriate amount of grade smoothing. Individual domain differences between the NN estimate and blocks are related to clustering of higher or lower grades on an individual vein basis. The highest variance domains are typically associated within small volume veins with the least amount of samples. SRK reviewed areas of the block model with discrepancies and, through visual validation, considers the estimation fit-for-purpose and appropriate at the stated resource classification.

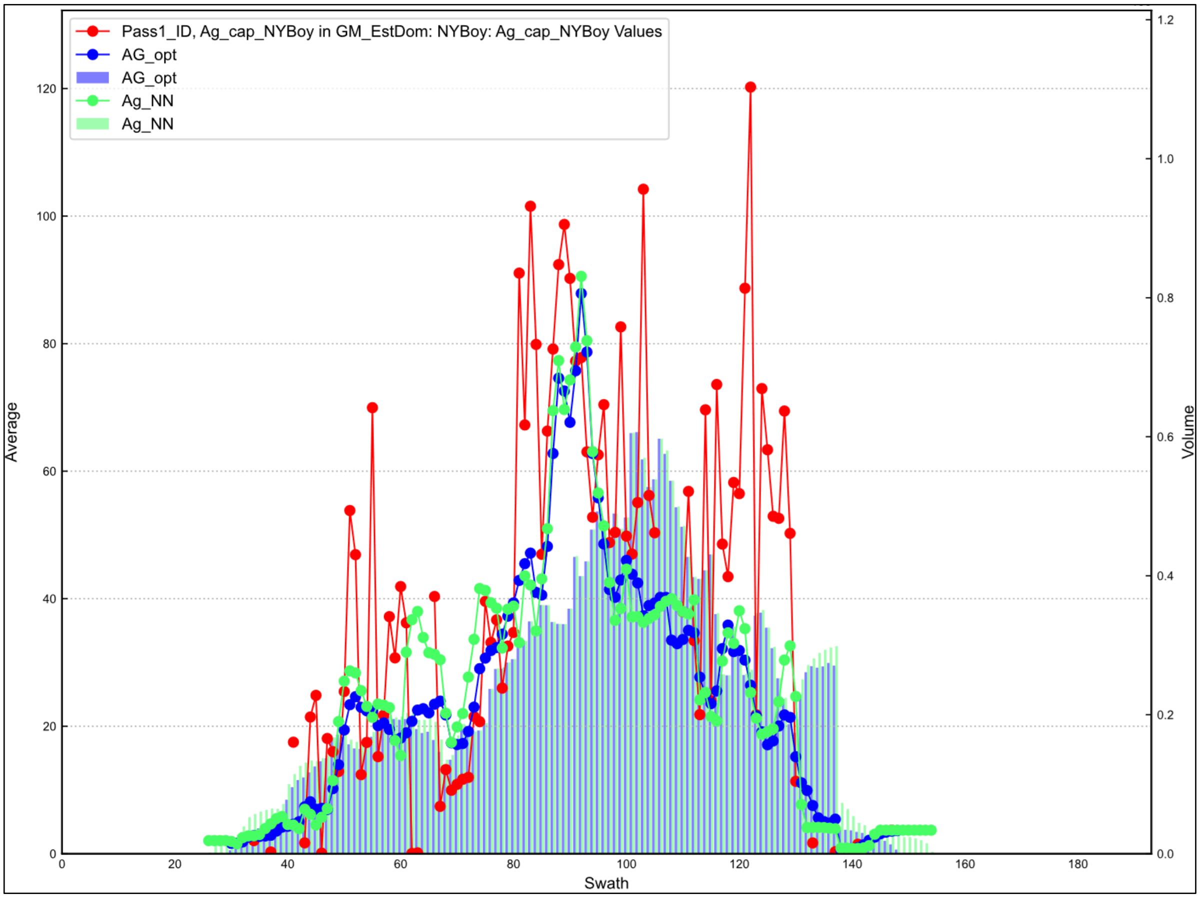
14.9.3 Swath Plots

Silver swath plots were generated for each vein to validate the model globally by comparison to NN estimates. The sectional profiles compare mean block grades and NN values in X (strike) and Y (dip) directions (Figure 14.12 and Figure 14.13). Swath plots in the Z direction are not considered, as these are parallel to the vein width due to model rotation. The swath plots illustrate an acceptable correlation between block grades (blue line) and the unbiased NN estimator (green line); composites are shown in red.



Source: SRK, 2024

Figure 14.12: Swath Plot in X (Strike) Direction for North Yankee Boy Vein



Source: SRK, 2024

Figure 14.13: Swath Plot in Y (Dip) Direction for North Yankee Boy Vein

14.10 Resource Classification

The mineral resources are classified under categories referenced in the CIM Definition Standards (CIM, 2014) and reflect the relative confidence of the grade estimates and the continuity of the mineralization. This classification is based on several factors, including geological understanding and uncertainty, confidence in the geological continuity of the mineralized structures, the quality and quantity of fundamental exploration data supporting the estimates, geostatistical confidence in the tonnage and grade estimates, data QA/QC and verification to original sources, bulk density determinations, accuracy of drill collar locations, accuracy of topographic surface, quality of the assay data, and many other factors that influence the confidence of the resource estimation. No single factor controls the resource classification; rather, each factor influences the result.

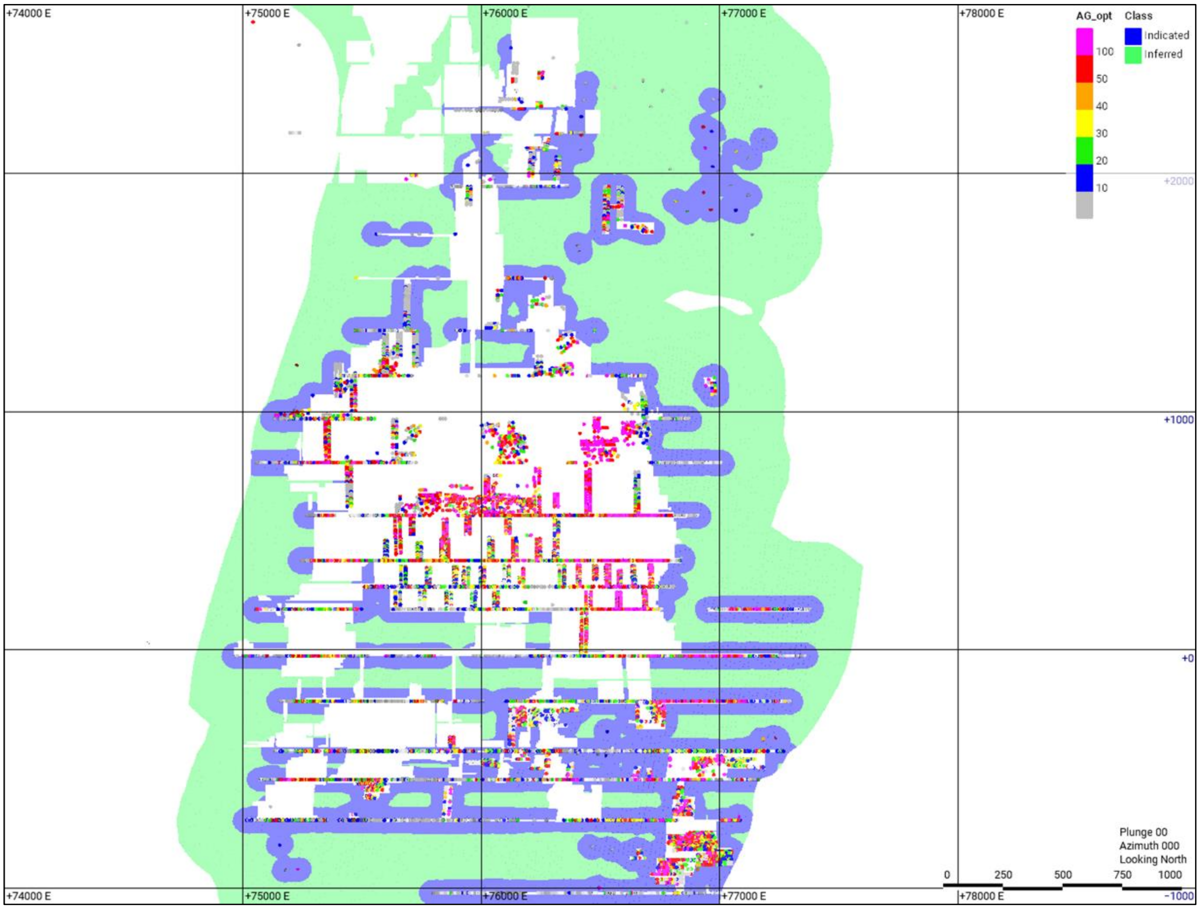
Portions of blocks within the estimation domains have been categorized as Indicated and Inferred resources consistent with NI 43-101 and the CIM definitions and guidelines (CIM, 2014). Additional mineralized material in the estimation domains was not deemed acceptable for classification at this time and is considered unclassified material with exploration potential. Separate classification models derived from distance buffer volumes were used to apply the appropriate block classification to the mineral resources. The following criteria have been used to create the models:

- No Measured mineral resources are reported for the Project.
- Indicated mineral resource classification is assigned to blocks that have drill spacing <60 ft.
- Inferred mineral resource classification is assigned to blocks based on moderate confidence in geology and grade continuity with drill spacing <300 ft.

These distances were selected based on the experience of Sunshine geologists in reference to continuity, as well as SRK's experience with maximum grade continuity in similar vein deposits. The classified blocks represent mineralized material constrained within a modeled wireframe volume.

Numerical modeling was selected over manual digitization of continuity to provide a more-uniform application of classification to the large number of discrete vein domains. SRK generated 60- and 300-ft distance buffers to vein composites for each individual veins. The contiguous portions of these distance buffers were evaluated to determine locations where vein intercepts seemed correlated within the structure as the individual spacings. Manual smoothing of the results focused on significant overlapping of distance buffers, but in certain scenarios the distance between classified samples can be greater than the assigned minimum drill spacing. The preliminary numerical distance buffers were clipped against the vein wireframes to code the classification by the sub-block centroids within the wireframe. Additionally, resulting unusual remnants distal to the primary contiguous distance buffers were removed, as geological and grade continuity in these areas was less certain. Note that depending on sample geometry, the actual average distance between composites in the estimates may be slightly larger than the correlated distance buffers. In the QP for mineral resources' opinion, the classification for Sunshine is reasonable for the type of mineralization, deposit morphology, and current level of sample data.

Figure 14.14 shows the classification applied to the North Yankee Boy Vein. This longitudinal-section can be directly compared to previous sections that show mined-out areas and grade distribution relative to drilling.



Source: SRK, 2024
Note: The white areas surrounding stope samples are mined out and are depleted from the stated resource.

Figure 14.14: Longitudinal-Section of Classification at North Yankee Boy Vein

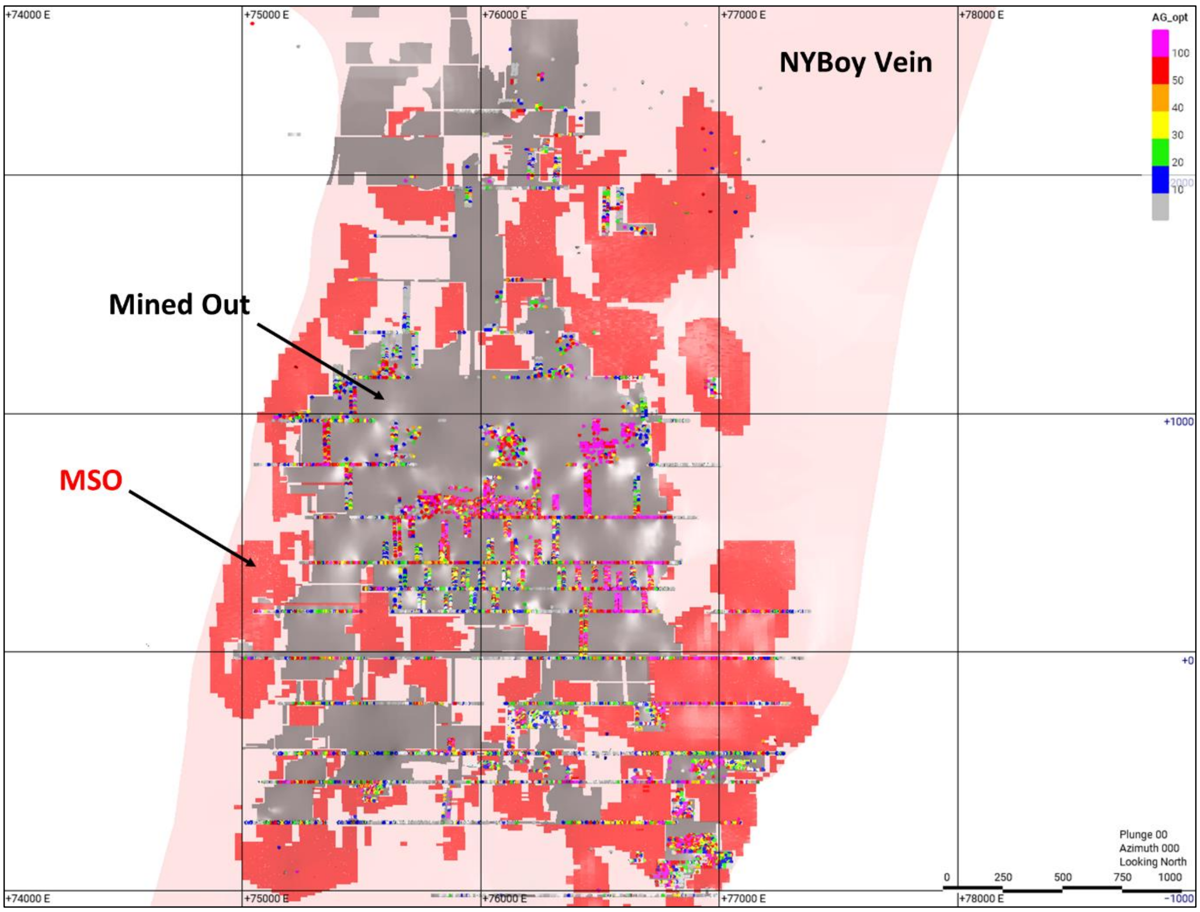
14.11 Demonstration of Potential for Eventual Economic Extraction

As per CIM (2014), mineral resources must demonstrate RPEEE. To satisfy this implication, SRK applied a CoG that accounts for operation costs based on the proposed underground mining method, assumed processing costs, assumed G&A costs, metallurgical recovery, and market-driven metal pricing. Sunshine provided the cost inputs based on an internal 2023 scoping study for the Project. The following technical and economic parameters are assumed and accounted for in the determination of CoG:

- Mining cost: US$110.00 per short ton
- Processing cost: US$20.85 per short ton
- G&A cost: US$7.93 per short ton
- Antimony plant cost for silver concentrate: US$14.55 per short ton
- Refining cost for silver concentrate: US$16.13 per short ton
- Tailings storage cost: US$4.27 per short ton
- Silver price: US$23.50 per troy ounce

- Silver recovery: mill (97%) times hydrometallurgical estimate (96%) yields and overall 93% (from metallurgical test work and history of actual production)
- Silver payability: 95%
- Mining dilution: 5%

Using these metrics, an underground CoG of 8.8 opt Ag was used for reporting mineral resources at Sunshine. Additionally, the underground resources were constrained within MSO wireframes derived from the economic parameters stated above. No mine planning or scheduling is considered in the MSO, as all block volumes above the diluted CoG are considered to meet RPEEE at this project stage. Figure 14.15 provides a longitudinal-section of North Yankee Boy Vein showing MSO volumes.



Source: SRK, 2024

Figure 14.15: Longitudinal-Section of North Yankee Boy Vein showing MSO Volumes (Red)

14.12 Mineral Resource Statement

CIM Definition Standards for Mineral Resources and Mineral Reserves (CIM, 2014) defines a mineral resource as follows: "*A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction (RPEEE). The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.*"

Material of economic interest refers to diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals. The RPEEE requirements generally imply that the quantity and grade estimate meet certain economic thresholds and that the mineral resources are reported at an appropriate CoG, considering extraction scenarios and processing recoveries.

SRK defined the mineral resource based on CoG derived from assumed economics for underground mining potential on blocks constrained within MSO volumes. SRK applied a CoG that accounts for benchmarked operational costs based on the assumed mining method proposed, assumed processing costs, assumed G&A costs, metallurgical recovery, and market-driven metal pricing, as discussed in Section 14.11.

Table 14.11 presents the Project mineral resource statement. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resources will be converted into mineral reserves in the future. The estimate of mineral resources may be materially affected by environmental permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. Table 14.12 shows the estimated Indicated resources by vein, and Table 14.13 shows the estimated Inferred resources by vein.

Table 14.11: Sunshine Underground MRE at 8.8 opt Ag CoG, as of December 21, 2023, SRK Consulting (U.S.), Inc.

Classification	Tonnage (thousand short tons)	Ag Grade (opt)	Contained Metal Ag (koz)
Measured	--	--	--
Indicated	3,613	31.1	112,427
M&I	**3,613**	**31.1**	**112,427**
Inferred	7,079	23.2	164,570

Source: SRK, 2024
Notes:

- The mineral resources in this estimate were prepared in accordance with the CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines (CIM, 2014) prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council.
- All dollar amounts are present in U.S. dollars, and all measurements are imperial units.
- MSO volume constrained resources with RPEEE are stated as contained within vein estimation domains defined by an 8.8-opt Ag CoG. The CoG and MSO are based on an assumed silver price of US$23.50 and operating cost assumptions as follows: mining cost of US$110.00 per short ton, processing cost of US$20.85 per short ton, G&A cost of US$7.93 per short ton, antimony plant for silver concentrate cost of US$14.55 per short ton, refining for silver concentrate cost of US$16.13 per short ton, and tailings storage cost of US$4.27 per short ton.
- Average bulk density was assigned as 3.0 g/cm^3 for veins and 2.8 g/cm^3 for waste.
- Metallurgical recovery was assigned at 93% from metallurgical test work and history of mining production.
- Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resources will be converted into mineral reserves in the future. The estimate of mineral resources may be materially affected by environmental permitting, legal, title, taxation, socio-political, marketing, or other relevant issues
- All quantities are rounded to the appropriate number of significant figures; consequently, sums may not add up due to rounding.

Table 14.12: Estimated Indicated Resources by Vein

Vein	Tonnage (thousand short tons)	Ag Grade (opt)	Contained Metal Ag (koz)
08BVein	19.4	34.0	659
08DHW	122.8	24.8	3,043
09HW	70.0	22.8	1,596
09Vein	241.3	36.0	8,694
101Vein	23.0	33.1	761
10Vein	24.4	16.2	395
625M	84.8	32.4	2,748
BVein	55.8	34.0	1,895
CFault Vein	310.2	29.8	9,232
Chester	436.4	31.4	13,705
ChesterHang	213.8	32.9	7,044
CopperVein	137.0	24.2	3,313
DVein	98.7	28.3	2,794
FVein	34.3	24.6	844
GVein	--	--	--
HFWVein	21.0	16.2	340
HVein	27.7	27.8	771
KFWVein	8.3	47.4	391
KVein	32.6	29.0	945
NYBoy	387.6	33.9	13,124
S78	55.4	24.1	1,338
Silver Summit No4	157.7	32.5	5,128
Silverline	15.4	24.4	375
SilverSummitNo3	95.4	24.3	2,317
SilverSyndicateLink	210.2	50.8	10,686
Sunshine2	21.2	22.6	480
SunshineFW	39.9	25.2	1,006
SYBoy	209.1	27.0	5,637
Syndicate Fault	182.0	30.9	5,618
Vein06	36.8	39.3	1,448
W16Vein	14.0	68.9	963
WestChanceFW	18.5	30.1	556
WestChanceFWWest	4.9	18.1	89
YankeeGirl	186.1	22.6	4,213
YankeeGirl952Split	14.7	16.5	242
YankeeGirlFW	3.1	11.6	36

Source: SRK, 2024
Note: Refer to the notes following Table 14.11. Totals of individual veins may not sum to reported resource due to rounding.

Table 14.13: Estimated Inferred Resources by Vein

Vein	Tonnage (thousand short tons)	Ag Grade (opt)	Contained Metal Ag (koz)
08BVein	42.1	24.4	1,025
08DHW	146.8	19.3	2,826
09HW	84.5	15.0	1,266
09Vein	152.0	23.0	3,501
101Vein	85.3	27.0	2,300
10Vein	25.0	15.2	379
625M	183.1	28.9	5,297
BVein	181.2	23.9	4,335
CFault Vein	518.3	24.2	12,519
Chester	561.7	26.7	14,982
ChesterHang	344.0	25.1	8,641
CopperVein	259.2	17.7	4,585
DVein	396.8	20.9	8,293
FVein	68.7	18.9	1,300
GVein	5.9	12.8	76
HFWVein	43.6	13.2	574
HVein	33.4	18.4	614
KFWVein	43.3	36.8	1,595
KVein	78.5	22.3	1,748
NYBoy	514.1	26.2	13,475
S78	129.6	17.7	2,296
Silver Summit No4	680.3	20.4	13,883
Silverline	48.8	16.8	820
SilverSummitNo3	321.9	16.4	5,268
SilverSyndicateLink	265.6	34.3	9,103
Sunshine2	36.4	17.5	637
SunshineFW	75.2	27.0	2,027
SYBoy	428.6	21.4	9,166
Syndicate Fault	553.1	25.4	14,064
Vein06	41.8	25.6	1,072
W16Vein	56.0	91.3	5,119
WestChanceFW	48.0	20.3	972
WestChanceFWWest	4.6	20.9	95
YankeeGirl	580.0	17.6	10,196
YankeeGirl952Split	35.9	12.7	457
YankeeGirlFW	6.3	10.4	65

Source: SRK, 2024
Note: Refer to the notes following Table 14.11. Totals of individual veins may not sum to reported resource due to rounding.

14.13 Mineral Resource Sensitivity

To demonstrate sensitivity to the determined CoG, the mineralized domains were analyzed at various grades above the current economic CoG. Stope panels above CoG are included within the MSO runs at 8.8 opt Ag for all veins. Note that this methodology may generate slightly different volumes than optimizing new MSO runs at different grades, which would require more time and study. This analysis is presented to illustrate the continuity of the grade estimates at various cut-off increments and the sensitivity of the mineral resource to changes in CoG assumptions.

The reader is cautioned that Table 14.14 and Table 14.15 should not be misconstrued with the mineral resource statement provided earlier. These tables are only presented to show the sensitivity of the block model estimated grades and tonnages to the selection of CoG. All figures are rounded to reflect the relative accuracy of the estimates. To assess the sensitivity of the resource to silver CoG, SRK summarized tonnage, grade, and contained metal above a series of increasing grades by classification category. The sensitivity results for Indicated and Inferred blocks have been separated for reporting; no Measured resources were determined. The assumed underground silver CoG used in this report (8.8 opt Ag) is highlighted in yellow in Table 14.14 and Table 14.15. Note that 10 opt Ag is approximately equivalent to the 343 g/t Ag CoG used in the last historical resource estimate (Table 6.1).

Table 14.14: Grade Tonnage Table of Sunshine Indicated Resources

Indicated Resource, Underground			
Ag Cut-Off (opt)	**Tonnage (thousand short tons)**	**Ag Grade (opt)**	**Contained Ag Metal (koz)**
8.8	3,613	31.1	112,427
9.5	3,517	31.7	111,569
10.0	3,465	32.1	111,066
10.5	3,404	32.4	110,434
11.0	3,345	32.8	109,803
11.5	3,277	33.3	109,039

Source: SRK, 2024

Table 14.15: Grade Tonnage Table of Sunshine Inferred Resources

Inferred Resource,- Underground			
Ag Cut-Off (opt)	**Tonnage (thousand short tons)**	**Ag Grade (opt)**	**Contained Ag Metal (koz)**
8.8	7,079	23.2	164,570
9.5	6,721	24.0	161,405
10.0	6,529	24.4	159,548
10.5	6,317	24.9	157,394
11.0	6,091	25.4	154,984
11.5	5,869	26.0	152,497

Source: SRK, 2024

14.14 Relevant Factors

SRK notes that future economic assessment could result in a change in the CoG, which would result in a change in the tonnage of available minable material. Mineralization represented by the resource block model was evaluated for RPEEE for underground mining methods. SRK did not independently audit recovery, processing costs, or other assumptions for deriving CoG but does consider the inputs to be reasonable.

Portions of the deposit remain sparsely drilled, including some high-grade zones that should be investigated through more-closely spaced sample intervals (including twin or wedged drillholes), which would improve understanding of the grade distribution and continuity.

The current Sunshine vein interpretations locally, in some areas, make assumptions on continuity that are subject to potentially significant volumetric changes, especially in zones of limited sample support. SRK relied upon the SOP geological interpretation to construct wireframes for estimation purposes and had validated the geological model. Potential inaccuracies in consistent determination of actual vein widths, orientations, unknown structural offsets, or changes in continuity within the interpreted domains were reflected in the classification of mineral resources, predominantly in the lack of any Measured material. SRK recommends additional drilling and sampling as the Project progresses to determine grade variability and vein domain interpretations with higher confidence.

Development of RPEEE relies on the historical documentation of mined-out areas, which is believed to be reasonably accurate. In some areas, additional mining may have occurred that is undocumented and would affect mineable vein volumes. Additionally, some stopes from the MSO runs may be deemed higher risk in future mine planning.

The property is subject to NSR royalty agreements, as discussed in Section 4. At present, only silver is available in the database for resource estimation. The ability to calculate accurate NSR values and potential royalties may require estimation of additional metal variables, depending on the specifics of the current agreements. Therefore, the limited base metal assays in the current geological database may pose a risk to future NSR calculation.

With the exception of these potential risks to mineral resources, SRK is not aware of any other factors to which the mineral resource estimates could be materially affected, such as environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors.

15 Mineral Reserve Estimate

A prefeasibility study (PFS) is required to demonstrate the economic merit of mineral resources for any conversion to mineral reserves. At this time, no such PFS has been completed; therefore, the Project currently has no defined mineral reserves according to CIM definitions and guidelines (CIM, 2014).

16 Mining Methods

Detailed work has not been conducted due to the current project stage and is not required for this Technical Report. However, for conceptual purposes and to estimate an approximated CoG, mining is assumed to be a mechanized, selective, underground method producing approximately 950 short tons per day of ore.

17 Recovery Methods

Preliminary metallurgical test work indicates that the most effective method to recover the silver content is through froth flotation. For conceptual purposes, and to estimate an approximate processing cost for CoG purposes (cut-off calculation discussed in Section 14.11), processing is assumed to be accomplished by a 950-short-ton-per-day flotation plant producing a bulk sulfide concentrate containing significant concentrations of silver. As described in Section 13, the mill would have 97% recovery, and the antimony plant and silver Refinery has an estimated 95% recovery. Therefore, the overall silver recovery is estimated at approximately 93% for purposes of CoG calculation used in this Technical Report.

Further work has not been conducted due to the current project stage and is not required for this Technical Report.

18 Project Infrastructure

This work has not been conducted due to the current project stage and is not required for this Technical Report.

19 Market Studies and Contracts

This work has not been conducted due to the current project stage and is not required for this Technical Report.

20 Environmental Studies, Permitting, and Social or Community Impact

This work has not been conducted due to the current project stage and is not required for this Technical Report.

21 Capital and Operating Costs

This work has not been conducted due to the current project stage and is not required for this Technical Report.

22 Economic Analysis

This work has not been conducted due to the current project stage and is not required for this Technical Report.

23 Adjacent Properties

Information on adjacent properties is not material to this Technical Report; however, data from adjacent properties is readily available in the public space. The QP for mineral resources has not verified information outside the Project area. The reported adjacent property data is not necessarily indicative of the mineralization or future potential mineral resources at Sunshine.

The Coeur d' Alene Mining District of Shoshone County in northern Idaho has produced more silver than any other mining district in the United States and is historically one of the top three silver districts in the world in total silver produced. Through 2006, the Coeur d' Alene Mining district has produced more than 1.2 billion ounces of silver. There are two adjacent properties to the Sunshine Mine complex. One property is currently in commercial operation, and the other is a historical past-producing mine that is working toward resuming production.

The first property adjacent to Sunshine is the Galena Mine, which is owned and commercially operated by Americas Gold and Silver (AGS). The Galena property lies 8 km to the east but is immediately adjacent to Sunshine mineral rights. Historically, the Galena Mine produced over 250 million ounces of silver in its 50 years of operating history. A full CIM-compliant NI 43-101 Technical Report on the Galena complex can be found on AGS's website (https://americas-gold.com/), as well as on the System for Electronic Document Analysis and Retrieval (SEDAR). Figure 23.1 and Figure 23.2 provide tables of mineral resources and mineral reserves for the Galena Complex, respectively. The QP for mineral resources has not verified information outside the Project area. The reported adjacent property data are not necessarily indicative of the mineralization or future potential mineral resources at Sunshine.

Americas SILVER CORPORATION

Americas Silver Corporation – Galena Complex
Technical Report NI 43-101 – December 23, 2016

TABLE 1-1 SUMMARY OF MINERAL RESOURCE EXCLUSIVE OF MINERAL RESERVES – DECEMBER 31, 2015
Americas Silver Corporation – Galena Complex

Measured

Zone	Tonnage (000 tons)	Grade (opt Ag)	Grade (% Cu)	Grade (% Pb)	Contained Metal (000 oz Ag)	Contained Metal (Mlbs Cu)	Contained Metal (Mlbs Pb)
Silver-Copper	352	12.1	0.65	-	4,250	4.6	-
Silver-Lead	79	9.4	-	8.70	744	-	13.8
Total	**431**	**11.6**	**0.53**	**1.60**	**4,994**	**4.6**	**13.8**

Indicated

Zone	Tonnage (000 tons)	Grade (opt Ag)	Grade (% Cu)	Grade (% Pb)	Contained Metal (000 oz Ag)	Contained Metal (Mlbs Cu)	Contained Metal (Mlbs Pb)
Silver-Copper	863	13.3	0.57	-	11,456	9.8	-
Silver-Lead	1,604	5.1	-	5.44	8,219	-	174.5
Total	**2,467**	**8.0**	**0.20**	**3.54**	**19,676**	**9.8**	**174.5**

Measured + Indicated

Zone	Tonnage (000 tons)	Grade (opt Ag)	Grade (% Cu)	Grade (% Pb)	Contained Metal (000 oz Ag)	Contained Metal (Mlbs Cu)	Contained Metal (Mlbs Pb)
Silver-Copper	1,214	12.9	0.59	-	15,706	14.4	-
Silver-Lead	1,684	5.3	-	5.59	8,964	-	188.3
Total	**2,898**	**8.5**	**0.25**	**3.25**	**24,670**	**14.4**	**188.3**

Inferred

Zone	Tonnage (000 tons)	Grade (opt Ag)	Grade (% Cu)	Grade (% Pb)	Contained Metal (000 oz Ag)	Contained Metal (Mlbs Cu)	Contained Metal (Mlbs Pb)
Silver-Copper	507	13.4	0.83	-	6,783	8.4	-
Silver-Lead	1,786	5.4	-	5.82	9,685	-	207.8
Total	**2,293**	**7.2**	**0.18**	**4.53**	**16,468**	**8.4**	**207.8**

Notes:
1. CIM Definition Standards were followed for Mineral Resources.
2. Mineral Resources are estimated at a Ag equivalent cut-off grade of 9 opt for vein-style mineralization and 3 opt for disseminated mineralization at Galena.
3. Mineral Resources are estimated using a long-term silver price of US$16.00 per ounce, copper price of US$2.40 per pound and a lead price of US$0.85 per pound.
4. Mineral Resources are exclusive of Mineral Reserves.
5. Unrecoverable and sterilized material in exploited mining areas has been excluded from the Mineral Resource.
6. Numbers may not add due to rounding.

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Source: AGS, 2016

Figure 23.1: AGS, Galena Complex, 2016 MRE

1.2.8 Mineral Reserves

Mineral Reserves were estimated by Americas Silver personnel, based on mine designs applied to Measured and Indicated Resources, with dilution and extraction factors applied. Mineral Reserves are summarized in Table 1-2. The effective date is December 31, 2015.

TABLE 1-2 SUMMARY OF MINERAL RESERVES – DECEMBER 31, 2015
Americas Silver Corporation – Galena Complex

Proven

Zone	Tonnage (000 tons)	Grade (opt Ag)	Grade (% Cu)	Grade (% Pb)	Contained Metal (000 oz Ag)	Contained Metal (Mlbs Cu)	Contained Metal (Mlbs Pb)
Silver-Copper	254	14.4	0.43	-	3,660	2.2	-
Silver-Lead	269	8.4	-	9.82	2,254	-	52.7
Total	**523**	**11.3**	**0.21**	**5.04**	**5,914**	**2.2**	**52.7**

Probable

Zone	Tonnage (000 tons)	Grade (opt Ag)	Grade (% Cu)	Grade (% Pb)	Contained Metal (000 oz Ag)	Contained Metal (Mlbs Cu)	Contained Metal (Mlbs Pb)
Silver-Copper	448	15.9	0.48	-	7,127	4.3	-
Silver-Lead	575	8.3	-	9.21	4,765	-	105.9
Total	**1,024**	**11.6**	**0.21**	**5.17**	**11,892**	**4.3**	**105.9**

Proven and Probable

Category	Tonnage (000 tons)	Grade (opt Ag)	Grade (% Cu)	Grade (% Pb)	Contained Metal (000 oz Ag)	Contained Metal (Mlbs Cu)	Contained Metal (Mlbs Pb)
Proven	523	11.3	0.21	5.04	5,914	2.2	52.7
Probable	1,024	11.6	0.21	5.17	11,892	4.3	105.9
Proven and Probable	**1,546**	**11.5**	**0.21**	**5.13**	**17,806**	**6.4**	**158.6**

Notes:

1. CIM Definition Standards were followed for Mineral Reserves.
2. Mineral Reserves are estimated at a Ag equivalent cut-off grade of 9 opt for vein-style mineralization and 3 opt for disseminated mineralization at Galena. Silver equivalent cut-offs were calculated using recent operating results for recoveries, off-site concentrate costs and on-site operating costs.
3. Mineral Reserves are estimated using a long-term silver price of US$16.00 per ounce, copper price of US$2.40 per pound and a lead price of US$0.85 per pound.
4. A minimum mining width of 4 to 6 feet was used for conventional stopes depending on ground conditions and a minimum width of 6 to 8 feet was used for mechanized stopes depending on the ground conditions and equipment size.
5. Numbers may not add due to rounding.

Source: AGS, 2016

Figure 23.2: AGE, Galena Complex, 2016 Mineral Reserve Estimate

The second property adjacent to Sunshine is the Bunker Hill Mine owned by Bunker Hill Mining Corporation (BHMC). The Bunker Hill property lies 5.5 km to the west but is immediately adjacent to some Sunshine mineral rights. Historically, the Bunker Hill Mine produced over 165 million ounces of silver in its 106 years of operating history. The mine has been closed since 1991 and is in the process of reopening. A full CIM-compliant NI 43-101 Technical Report on the Bunker Hill Mine can be found on BHMC's website (https://www.bunkerhillmining.com/), as well as on SEDAR. Table 23.1 provides a table of mineral resources for the Bunker Hill Mine. The QP for mineral resources has not verified information outside the Project area. The reported adjacent property data are not necessarily indicative of the mineralization or future potential mineral resources at Sunshine.

Table 23.1: BHMC, Bunker Hill Mine, 2020 MRE

Inferred Mineral Resources	Tonnage (thousand tonnes)	Pb (%)	Pb (thousand pounds (klb))	Ag (oz/ton)	Ag (koz)	Zn (%)	Zn (klb)
PbAg	1,050	7.56	158,815	4.28	4,497	1.50	31,419
ZnAg	7,801	1.61	250,740	0.86	6,743	5.44	848,259
Total	**8,851**	**2.31**	**409,555**	**1.27**	**11,240**	**4.97**	**879,678**

Source: BHMC, 2020
Note: Bunker Hill MRE, mineralization underground accessible, economic at metal selling prices of US$23/oz Ag, US$1.00/lb Zn, and US$0.80/lb lead. Resources estimated at 3.30% Zn CoG (Qualified Person: RDA, Scott Wilson CPG; effective September 29, 2020)

24 Other Relevant Data and Information

There are no other known relevant data or information other than that presented in this Technical Report.

25 Interpretation and Conclusions

Despite a long and productive mining history, the existing Sunshine Mine represents a brownfield underground project with high potential for expansion and definition of the mesothermal silver vein systems through continued exploration. The upper levels of the mine have had limited drilling and development due to the historical exploration methodology available during the early part of the over-100-year mining history. Additionally, the current economic outlook for silver and base minerals has changed drastically, and updated CoGs are more permissive than witnessed by past operators. SOP conducted recent infill and exploration drilling that expanded mineral resources. During future exploration and development phases, additional drilling has the potential to grow the known resource and potentially discover additional previously unidentified veins.

Portions of the deposit remain sparsely drilled by modern methods, and continued drilling would improve understanding of the grade distribution and mineralization continuity. Future exploration programs should include a combination of infill drilling to improve geological understanding and mineral resource confidence coupled with wider-spaced, step-out drilling to test prospective areas for new veins.

To the extent known, there are no significant risks or uncertainties that could be expected reasonably to affect the reliability or confidence in the Sunshine drilling and sampling information provided by SOP. The historical and recent exploration programs appear to have been carried out in a prudent and careful manner.

From August 2022 until October of 2023, SOP completed a drilling campaign that totaled 54,369 ft of core in 38 drillholes. Each of the completed drillholes was successful in intersecting planned targets or providing new knowledge in previously unknown areas. All of the new and historical drilling data helped inform the first 3D geology model in the Sunshine Mine’s 139-year history, which will be helpful for ongoing exploration targeting. Resource conversion of Inferred mineralization to higher classification categories will continue as SOP works toward the resumption of production.

The QP for mineral resources has audited the security, sample preparation, and analytical procedures, and they are consistent with generally accepted industry standards. Specific records are limited for sampling procedures of the historical drilling programs; however, no known bias exists in the earlier sample grades compared to recent assay results. SOP has followed industry-accepted methods for QA/QC, including the use of standards, blanks, and duplicate samples in the 2023 drilling program. The QP for mineral resources has reviewed all available QA/QC results, and they are considered adequate for an acceptable level of confidence in analytical data for the reporting of mineral resources, as per CIM Definition Standards (CIM, 2014).

SRK independently reviewed the core sampling, cutting, logging, sample preparation, security, and laboratory analytical procedures followed at Sunshine during multiple site visits. The exploration and sampling protocols practiced at Sunshine are consistent with or exceed generally accepted industry guidance and are deemed adequate for the project stage. In the QP’s opinion, data verification checks performed internally by Sunshine staff, in combination with independent checks and detailed audits by the QP, have resulted in sufficient validation of the fundamental drilling database at Sunshine. The data is acceptable and adequately reliable for use in geological modeling and calculation of mineral resources.

Mineral resources have been stated in this Technical Report for the Project and have been classified in accordance with NI 43-101 Companion Policy 43-101CP, the CIM Definition Standards on Mineral Resources and Mineral Reserves (CIM, 2014), and the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (CIM, 2019), based on sampling density and confidence in the geological model and estimation. In QP for mineral resources' opinion, the results of the exploration work completed on the Project to date are of substantial technical merit to recommend additional exploration expenditures, as outlined in Section 26.

Mike Irish of Irish Metals, LLC reviewed results from historical metallurgical plant operations and test work. This review included the mill, antimony plant, and silver refinery. The QP for metallurgy is of the opinion that sufficient metallurgical and process information exists to support a future PEA for the Project at a typical ±50% level of accuracy.

26 Recommendations

26.1 Recommended Work Programs and Costs

As an initial work phase, it is recommended that SOP prepare a PEA to advance the Project. The technical report should include summaries of existing information and recommendations for future work programs across a multi-disciplinary scope, including hydrology, geotechnical, mining, ventilation, metallurgy, tailings, infrastructure, environmental permitting, and economic evaluation.

In the QP for mineral resources' opinion, the results of the exploration work completed to date and extensive historical sampling are of substantial technical merit to recommend additional exploration expenditures as a secondary work phase. The next exploration campaign should include a combination of targets, including infill drilling to improve confidence of areas categorized as Inferred mineral resources and step-out drilling to identify potential new veins. The updated Leapfrog geological model and recent drilling have improved known mineralization continuity, improved geological understanding of the deposit, and consolidated structural data, which will be helpful for future exploration targeting. An updated MRE has been reported using the refined 3D geological model with appropriate estimation methodology and classification of resources to industry standards.

In addition, it is recommended that care and maintenance of existing infrastructure be continued to support future work phases at Sunshine prior to subsequent drilling campaigns and in preparation to restart underground development. The total costs for the recommended technical work program are estimated at US$3.8 million (M), as summarized in Table 26.1.

Table 26.1: Summary of Costs for Recommended Work

Discipline	Program Description	Cost (US$M)	No Further Work is Recommended Reason
Property Description and Ownership	-	-	Acceptable understanding
Geology and Mineralization	-	-	Acceptable understanding
Exploration, Development and Operations	Drilling/sampling	3.0	Infill and step-out drilling
Mineral Processing and Metallurgical Testing	-	-	Acceptable understanding
Mineral Resource Estimate	-	-	Currently updated
Preliminary Economic Assessment	Technical reporting	0.3	Incorporate updated MRE
Mineral Reserve Estimate	-	-	Beyond current project stage
Mining Methods	-	-	Beyond current project stage
Recovery Methods	-	-	Beyond current project stage
Project Infrastructure	-	-	Beyond current project stage
Environmental Studies and Permitting	New tailings storage facility monitoring wells	0.5	Infrastructure update
Capital and Operating Costs	-	-	Beyond current project stage
Economic Analysis	-	-	Beyond current project stage
Total		**~3.8**	

27 References

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28 Glossary

The mineral resources and mineral reserves have been classified according to CIM (CIM, 2014). Accordingly, the resources have been classified as Measured, Indicated, or Inferred, and the reserves have been classified as proven and probable based on the Measured and Indicated resources, as defined below.

28.1 Mineral Resources

A **mineral resource** is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade, or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity, and other geological characteristics of a mineral resource are known, estimated, or interpreted from specific geological evidence and knowledge, including sampling.

An **Inferred mineral resource** is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An Inferred mineral resource has a lower level of confidence than that applying to an Indicated mineral resource and must not be converted to a mineral reserve. It is reasonably expected that the majority of Inferred mineral resources could be upgraded to Indicated mineral resources with continued exploration.

An **Indicated mineral resource** is that part of a mineral resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with sufficient confidence to allow the application of modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling, and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated mineral resource has a lower level of confidence than that applying to a Measured mineral resource and may only be converted to a Probable mineral reserve.

A **Measured mineral resource** is that part of a mineral resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of modifying factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling, and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured mineral resource has a higher level of confidence than that applying to either an Indicated mineral resource or an Inferred mineral resource; it may be converted to a Proven mineral reserve or to a Probable mineral reserve.

28.2 Mineral Reserves

A **mineral reserve** is the economically mineable part of a Measured and/or Indicated mineral resource; it includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at prefeasibility or feasibility level as appropriate that include application of modifying factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified.

The reference point at which mineral reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different (such as for a saleable product), a clarifying statement is included to ensure that the reader is fully informed as to what is being reported. The public disclosure of a mineral reserve must be demonstrated by a PFS or feasibility study.

A **Probable mineral reserve** is the economically mineable part of an Indicated and, in some circumstances, a Measured mineral resource. The confidence in the modifying factors applying to a Probable mineral reserve is lower than that applying to a Proven mineral reserve.

A **Proven mineral reserve** is the economically mineable part of a Measured mineral resource. A Proven mineral reserve implies a high degree of confidence in the modifying factors.

28.3 Definition of Terms

Table 28.1 lists general mining terms that may be used in this report.

Table 28.1: Definition of Terms

Term	Definition
Assay	The chemical analysis of mineral samples to determine the metal content.
Capital Expenditure	All other expenditures not classified as operating costs.
Composite	Combining more than one sample result to give an average result over a larger distance.
Concentrate	A metal-rich product resulting from a mineral enrichment process such as gravity concentration or flotation, in which most of the desired mineral has been separated from the waste material in the ore.
Crushing	Initial process of reducing ore particle size to render it more amenable for further processing.
Cut-off Grade (CoG)	The grade of mineralized rock, which determines as to whether or not it is economic to recover its gold content by further concentration.
Dilution	Waste, which is unavoidably mined with ore.
Dip	Angle of inclination of a geological feature/rock from the horizontal.
Fault	The surface of a fracture along which movement has occurred.
Footwall	The underlying side of an orebody or stope.
Gangue	Non-valuable components of the ore.
Grade	The measure of concentration of gold within mineralized rock.
Hangingwall	The overlying side of an orebody or slope.
Haulage	A horizontal underground excavation which is used to transport mined ore.
Hydrocyclone	A process whereby material is graded according to size by exploiting centrifugal forces of particulate materials.
Igneous	Primary crystalline rock formed by the solidification of magma.
Kriging	An interpolation method of assigning values from samples to blocks that minimizes the estimation error.
Level	Horizontal tunnel the primary purpose is the transportation of personnel and materials.
Lithological	Geological description pertaining to different rock types.
LoM Plans	Life-of-Mine plans.
LRP	Long Range Plan.
Material Properties	Mine properties.
Milling	A general term used to describe the process in which the ore is crushed and ground and subjected to physical or chemical treatment to extract the valuable metals to a concentrate or finished product.
Mineral/Mining Lease	A lease area for which mineral rights are held.
Mining Assets	The Material Properties and Significant Exploration Properties.
Ongoing Capital	Capital estimates of a routine nature, which is necessary for sustaining operations.
Ore Reserve	See Mineral Reserve.
Pillar	Rock left behind to help support the excavations in an underground mine.
RoM	Run-of-Mine.

Term	Definition
Sedimentary	Pertaining to rocks formed by the accumulation of sediments, formed by the erosion of other rocks.
Shaft	An opening cut downwards from the surface for transporting personnel, equipment, supplies, ore and waste.
Sill	A thin, tabular, horizontal to sub-horizontal body of igneous rock formed by the injection of magma into planar zones of weakness.
Smelting	A high temperature pyrometallurgical operation conducted in a furnace, in which the valuable metal is collected to a molten matte or doré phase and separated from the gangue components that accumulate in a less dense molten slag phase.
Stope	Underground void created by mining.
Stratigraphy	The study of stratified rocks in terms of time and space.
Strike	Direction of line formed by the intersection of strata surfaces with the horizontal plane, always perpendicular to the dip direction.
Sulfide	A sulfur bearing mineral.
Tailings	Finely ground waste rock from which valuable minerals or metals have been extracted.
Thickening	The process of concentrating solid particles in suspension.
Total Expenditure	All expenditures including those of an operating and capital nature.
Variogram	A statistical representation of the characteristics (usually grade).

28.4 Abbreviations

Table 28.2 lists abbreviations that may be used in this report.

Table 28.2: Abbreviations

Abbreviation	Unit or Term
%	percent
<	less than
>	greater than
≤	less than or equal to
°	degree
°C	degrees Celsius
µm	micron
2020 TetraTech PEA	TetraTech's preliminary economic assessment based on the 2014 updated mineral resource estimate
3D	three-dimensional
AA	atomic absorption
AAS	American Analytical Services
Ag	silver
AGS	American Gold and Silver
amsl	above mean sea level
BHMC	Bunker Hill Mining Corporation
BLM	Bureau of Land Management
Burgex	Burgex Mining Consultants
Chester	Chester Mining Company
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
cm	centimeter
CoG	cut-off grade
CRM	commercial reference material
Cu	copper
CV	coefficient of variation
CWA	Clean Water Act
EA	environmental assessment
EDA	exploratory data analysis
EIS	environmental impact statement
EstDom	estimation domain
ft	foot

Abbreviation	Unit or Term
g	gram
G&A	general and administrative
G&T	G&T Metallurgy
g/cm3	grams per cubic centimeter
g/t	grams per tonne
ha	hectare
ICP	inductively coupled plasma
ID	identification number
IDEQ	Idaho Department of Environmental Quality
IDW2	inverse distance weighting squared
IDWR	Idaho Department of Water Resources
IP	induced polarization
IPDES	Idaho Pollutant Discharge Elimination System
ISO	International Organization for Standardization
klb	thousand pounds
km	kilometer
koz	thousand ounces
lb	pound
LLDL	lower laboratory detection limit
m	meter
M	million
M&I	Measured and Indicated
MEG	Minerals Exploration and Environmental Geochemistry
Metropolitan	Metropolitan Mines Corporation, Ltd.
Mineral Mountain	Mineral Mountain Mining and Milling Company
mm	millimeter
MRE	mineral resource estimate
MSGP	Multi-sector general permit
MSO	minable stope optimization
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NI 43-101	Canadian National Instrument NI 43-101
NN	nearest neighbor
NSR	net smelter return
opt	troy ounces per short ton
oz	ounce
Pb	lead
PEA	preliminary economic assessment
PFS	prefeasibility study
Project	Sunshine Mine Project
QA/QC	quality assurance/quality control
QP	Qualified Person
RPEEE	reasonable prospects for eventual economic extraction
RQD	rock quality designation
Sb	antimony
SEDAR	System for Electronic Document Analysis and Retrieval
SG	specific gravity
SOP	Sunshine Opportunity Partners
SPCC	Spill prevention, control, and countermeasure
SPMI	Sunshine Precious Metals, Inc.
SRK	SRK Consulting (U.S.), Inc.
SSMC	Sunshine Mining Company
SSMRC	Sunshine Silver Mining & Refining Corporation
Sunshine	Sunshine Mine Project
SVL	SVL Analytical, Inc.
SWPPP	stormwater pollution prevention plan
SYG	South Yankee Girl
TCA	To core axis
Technical Report	Canadian National Instrument NI 43-101 Technical Report

Abbreviation	Unit or Term
TNI	The NELAC Institute
tote	plastic shipping box
tpy	short tons per year
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
X10	Phinar's X10-Geo
XRF	x-ray fluorescence
Zn	zinc

Appendices

Appendix A: Certificates of Qualified Persons

SRK Consulting (U.S.), Inc.
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F: 303.985.9947

denver@srk.com
www.srk.com

CERTIFICATE OF QUALIFIED PERSON

I, Berkley J. Tracy, MSc Geology, PG, CPG, PGeo, do hereby certify that:

1. I am employed as a Principal Consultant (Resource Geologist) with SRK Consulting (U.S.), Inc., 999 Seventeenth Street, Suite 400, Denver, CO, USA, 80202.
2. This certificate applies to the technical report titled "NI 43-101 Technical Report, Sunshine, Idaho" with an Effective Date of December 21, 2023 (the "Technical Report").
3. I graduated from The University of Georgia (UGA), Athens, Georgia in 1998 with a Bachelor of Science in Geology. In addition, I graduated from UGA in 2001, with a Master of Science degree in Geology.
4. I am a Certified Professional Geologist (CPG #11901) with the American Institute of Professional Geologists (AIPG), a Professional Geoscientist (PGeo #3024) with Professional Geoscientists Ontario (PGO), and a licensed/registered Professional Geologist (PG) in several U.S. states (Georgia PG #1792, Alabama PG #1231, South Carolina PG #2500, and Florida PG #3175).
5. I have practiced my profession for over 25 years. I have been directly involved in base and precious metal exploration, resource geology, three-dimensional (3D) modeling, geostatistical estimation, due diligence reviews, independent audits, planning and supervising geologic logging, sampling, mapping, and feasibility projects, and managing large exploration programs leading to mine development. My geoscience background has been developed at multiple organizations spanning from major miners to small-cap explorers to mining, geotechnical engineering, and environmental consultancies.
6. I have read the definition of "Qualified Person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for those sections of the Technical Report that I am responsible for preparing.
7. I visited the Sunshine Mine property on February 28 to March 3, 2022, and May 29 to June 1, 2023, for 3.5 days each time. The purpose of my visit was to review the site geology, audit drilling/sampling procedures, and conduct data verification.
8. I am responsible for Geology and Mineral Resources, Sections 2 through 12, 14 through 24 and portions of Sections 1, 25, 26, and 27 of the Technical Report.
9. I am independent of the issuer applying all of the tests in Section 1.5 of NI 43-101.
10. I have had prior involvement with the property that is the subject of the Technical Report. The nature of my prior involvement is peer review of the recent vein modeling process undertaken by SOP.
11. I have read NI 43-101 and Form 43-101F1 and the sections of the Technical Report I am responsible for have been prepared in compliance with that instrument and form.

    As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 24th Day of January 2024

________Signed/Sealed____________

Berkley J. Tracy, MSc Geology, PG, CPG, PGeo

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Coeur D Alene, Idaho 83814
208 819 0008
mirish@irishmetals.com

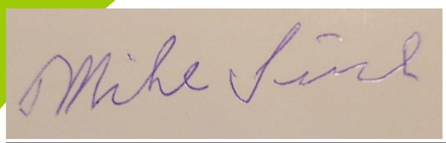
CERTIFICATE OF QUALIFIED PERSON

I, Mike Irish, BS, MS, PE, QP, do hereby certify that:

1. I am Metallurgist of Irish Metals, 212 W Ironwood Dr Ste D 203 Coeur D Alene Idaho 83814
2. This certificate applies to the technical report titled "NI 43-101 Technical Report, Sunshine Mine, Idaho" with an Effective Date of December 21, 2023, (the "Technical Report").
3. I graduated with a degree in Metallurgical Engineering from University of Idaho in 1981. In addition, I have obtained a MS in Metallurgical Engineering. I am a Member of the SME. I have worked as a Metallurgist for a total of 39 years since my graduation from university. My relevant experience includes working as a Plant Metallurgist for Sunshine Mining Company Hydrometallurgical Complex
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the Sunshine property on multiple visits specific dates 5/30/2023, 6/20/2023, and 8/10/2023 in 2023 for 5 days total site visits.
6. I am responsible for Metallurgy Sections Section 13, and portions of Sections 1, 25, and 26 summarized therefrom.
7. I am an independent of the issuer applying to all of the tests in section 1.5 of NI 43-101.
8. I have had prior involvement with the property that is the subject of the Technical Report. The nature of my prior involvement is Plant Metallurgist for previous owners and operators of the mine.
9. have read NI 43-101 and Form 43-101F1 and the sections of the Technical Report I am responsible for have been prepared in compliance with that instrument and form.

10. As of the aforementioned Effective Date, to the best of my knowledge, information and belief, the sections of the Technical Report I am responsible for contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 24th Day of January, 2024.



Mike Irish