



Technical Report Summary on the Seabee Gold Operation, Saskatchewan, Canada

S-K 1300 Report

SSR Mining Inc.

SLR Project No.: 138.21581.00005

Effective Date:

December 31, 2023

Signature Date:

February 12, 2024

Prepared by:

SLR International Corporation

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This technical report summary also contains financial measures which are not recognized under U.S. generally accepted accounting principles.



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1.0 Executive Summary

1.1 Summary

SLR International Corporation (SLR) was retained by SSR Mining Inc. (SSR) to prepare an independent Technical Report Summary (TRS) on the Seabee Gold Operation (SGO or the Property), located in northern Saskatchewan, Canada. SGO constitutes five principal deposits, Santoy 8, Santoy 9, Gap Hanging Wall (GHW), and Santoy Hanging Wall (SHW), together, Santoy Mine, and Porky West.

The purpose of this TRS is to support the disclosure of updated Mineral Resource and Mineral Reserve estimates. This TRS conforms to the United States Securities and Exchange Commission's (SEC) Modernized Property Disclosure Requirements for Mining Registrants as described in Subpart 229.1300 of Regulation S-K, Disclosure by Registrants Engaged in Mining Operations (S-K 1300) and Item 601 (b)(96) Technical Report Summary. SLR visited SGO on two occasions, between April 11 and April 14, 2023, and October 31, 2023 to November 2, 2023 and is serving as the Qualified Person (QP) as required by S-K 1300 for purposes of this TRS.

The Property is situated in Saskatchewan, Canada, at the northern tip of Laonil Lake, approximately 125 km northeast of La Ronge. The Property is wholly owned by SGO Mining Inc., a subsidiary of SSR, and includes the underground Santoy Mine, which has been in continuous commercial production since 2014, and the now-depleted Seabee Mine, which operated from 1991 to 2018. SSR holds seven mineral leases and 130 mineral claims totaling 73,820 ha.

SSR, a gold mining company listed on the Nasdaq Stock Exchange, Toronto Stock Exchange (TSX), and Australian Stock Exchange (ASX), acquired SGO in May 2016 through the acquisition of Claude Resources Inc. (Claude Resources) with additional contiguous exploration claims (Fisher, Leland and Truscott tenements) added through the acquisition of Taiga Gold Corp. in April 2022.

SSR has four producing assets located in USA, Türkiye, Canada, and Argentina, as well as numerous development and exploration projects globally.

The Property is situated at approximately 55.7° latitude north and 103.5° longitude west, with access via a fixed-wing aircraft to a 1,275 m airstrip on-site. A 60 km winter road is constructed during winter months to transport supplies and equipment between the mine site and Brabant Lake. Mining operations occur year-round in a borderline subarctic climate.

This report is an update of SSR's prior Technical Report Summary for the Property, dated as of September 29, 2022. All information presented in this report is as of December 31, 2023, unless explicitly stated otherwise.

1.1.1 Conclusions

SLR offers the following conclusions by area.

1.1.1.1 Geology and Mineral Resources

- Mineral Resources at SGO are estimated for the Santoy Mine and the Porky West deposit. They have been updated with data collected since the last Mineral Resource estimate dated as of December 31, 2021 (SSR, 2022a).



- The procedures for sample preparation, security, and analysis adhere to industry standards for ensuring data quality and integrity. There are no factors associated with sampling or sample preparation that would significantly affect the accuracy or reliability of the samples or assay results. The results of the quality assurance and quality control (QA/QC) procedures demonstrate that the assay results fall within acceptable ranges of accuracy and precision, affirming the adequacy of the resulting database to underpin the estimation of Mineral Resources.
- No material sample bias was identified during the review of the drill data and assays. The data is adequate for the purposes of Mineral Resource estimation.
- All the main gold deposits at SGO are considered orogenic quartz-vein hosted lode gold deposits. The geology and characteristics of gold mineralization at the Santoy 8 and 9 and Porky West projects are well understood while the GHW-SHW Project requires more analysis to fully understand its complexity. Gold zones on the Santoy Mine are connected in terms of origin and location to the existence of the large granodioritic complex. The known mineralization extends around two kilometers along strike and reaches approximately one kilometre across strike and depth.
- There is good potential to increase the Mineral Resource base for the Santoy Mine underground deposits at depth, and additional exploration and development is warranted.
- There is good potential to increase the Mineral Resource base at Porky West at depth and along strike, and additional exploration is warranted. SLR understands that an exploration plan is in place to increase the Mineral Resource footprint as well as continue infill drilling.
- The resource cut-off grade and underground reporting shapes used to identify those portions of the Mineral Resource estimation that meet the requirement of reasonable prospects for economic extraction and are considered to be appropriate for this style of gold deposit and mineralization.
- Measured Mineral Resources at the SGO are estimated to total 0.9 million tonnes (Mt) at a grade of 5.5 g/t Au and contain 16,300 ounces of gold (oz Au). Indicated Mineral Resources are estimated to total 1.47 Mt at a grade of 4.3 g/t Au and contain 202,000 oz Au. In addition, Inferred Mineral Resources are estimated to total 2.75 Mt at a grade of 5.2 g/t Au and contain 462,500 oz Au.

1.1.1.2 Mining and Mineral Reserves

- Mineral Reserve estimates, as prepared by SSR and reviewed and accepted by SLR, have been classified in accordance with definitions for Mineral Reserves in S-K 1300. Mineral Reserves as of December 31, 2023 total 2.1 Mt, grading 5.17 g/t Au and containing 343,000 oz Au.
- Mineral Reserves are estimated by qualified professionals using modern mine planning software in a manner consistent with industry practice.
- Measured and Indicated Mineral Resources were converted to Proven and Probable Mineral Reserves, respectively, through the application of modifying factors. Inferred Mineral Resources were not converted to Mineral Reserves.



- Santoy is a mature underground mine with years of operating experience and well established procedures.
- The estimated Mineral Reserves support a life of mine (LOM) plan that extends 4.2 years to 2028 at a maximum production rate of 511,000 tonnes per annum (tpa) (1,400 tonnes per day (tpd)) in 2026 and 2027, corresponding to the processing capacity.
- The planned increase in production rate from 2026 onwards will require robust short-term planning and sequencing. Future reserve conversion would allow the number of active mining areas to be maintained or expanded, and would facilitate the increase in production..
- Production mining uses a combination of longitudinal and transverse open stoping depending on the width of the orebody. Over the LOM, 55% of the production tonnes are planned using a transverse stope arrangement with the remainder mined longitudinally.
- An extraction factor of 89% is applied to both production stopes and ore development designs, and linear overbreak dilution of 0.7 m is applied to production designs. These factors are established and checked through the stope reconciliation process.
- At Santoy Mine, most mining to date has been in the Santoy 8 and Santoy 9 principal deposits. Over the remaining LOM, the proportion of ore mined in the GHW and SHW is expected to increase. In these hanging wall areas, the orebody is generally wider and at a shallower dip, and thus transverse stopes constitute a higher proportion of the mine plan. There is limited operating experience in these areas and SLR is of the opinion that meeting production targets will require ongoing efforts to optimize mine plans and stope designs in order to maximize extraction and minimize dilution.
- Mining, processing, and general and administrative (G&A) costs used for cut-off grade calculation are lower than recent actuals due to incorporating planned cost savings initiatives. Of the three components, the mining cost is most impacted by these savings. SLR is of the opinion that achieving the operating costs savings may be challenging while maintaining production targets, however, acknowledges that SGO has a plan in place.

1.1.1.3 Mineral Processing

- The SGO processing plant uses conventional crush, grind, gravity concentration, and cyanide leaching, followed by carbon adsorption, elution, electrowinning, and refining to recover gold and produce doré bars.
- The processing plant has been expanded and de-bottlenecked since initially entering operating in 1991 and is now capable of processing approximately 1,200 tpd of ore.
- Gold head grades, historically ranging from approximately 6 g/t to 15 g/t, and recently reaching almost 20 g/t at times during 2021 and 2022, have decreased to an average of approximately 6 g/t, ranging from approximately 4 g/t to 8 g/t since mid 2022.
- Historically high recoveries of 97% to 99% have subsequently also decreased slightly to between 96% and 98%.



1.1.1.4 Infrastructure

- SGO is a remote operation in northern Saskatchewan and is accessible by winter road and by air.
- The majority of annual supplies are transported to site via the 60 km winter road, which begins at Highway 102 near the community of Brabant Lake, Saskatchewan, and includes 12 portages and 11 lakes. The road is typically usable throughout the months of February and March, and until mid-April depending on ice quality. A 1,275 m airstrip is also located on the Property.
- A camp with a capacity of 251 people is located adjacent to the processing plant and other major surface infrastructure.
- A 14 km haul road connects the Santoy Mine to the processing plant site.
- Two tailings management facilities (TMF) with sufficient capacity until approximately 2030 (at the current processing rate) are used for tailings impoundment. Most of the water used in the process is reclaimed from the TMFs. Fresh make-up water as well as domestic and fire water is obtained from Laonil Lake near the camp and plant.
- The operation is connected to the Saskatchewan power grid via an approximately 15 km long transmission line connected to the 138 kV Island Falls transmission line.

1.1.1.5 Environment

- No known environmental issues were identified from the documentation review and site visit. SGO appears to have all pertinent permit and approvals at hand. Proper provisions have been made for safe disposal of tailings and water management.
- There is a comprehensive Environmental Management System in place, which includes a comprehensive monitoring program for effluent discharges, air quality, surface water quality, groundwater quality, terrestrial biology (vegetation and wildlife) and aquatic biology. SGO reports the results of the monitoring program to the authorities according to the frequency stated in the approved permits and no compliance issues have identified.
- A Mine Closure Plan has been developed that considers all pertinent provincial legislation. The Mine Closure Plan is updated periodically.

1.1.1.6 Capital and Operating Costs and Economics

- The economic analysis demonstrates that SGO's Mineral Reserves are economically viable at a LOM average realized gold price of US\$1,854/oz of Au and silver price of US\$23.74/oz of Ag. SGO's Base Case pre-tax net present value (NPV) at a 5% discount rate is approximately US\$111.2 million and SGO's Base Case after-tax NPV at a 5% discount rate is approximately US\$94.9 million.
- The operating costs used for calculating cut-off grade are 18% lower than the LOM average. SLR checked the impact that higher operating costs would have on cut-off grade and Mineral Reserves and is of the opinion that the impact is not material.



1.1.2 Recommendations

1.1.2.1 Geology and Mineral Resources

- 1 Complete an infill drilling program to upgrade Inferred Mineral Resources within the GHW-SHW LOM plan to at least a classification of Indicated. A total of 41,000 m of underground drilling is planned for 2024, with a proposed budget of US\$ 2.3 million.
- 2 Increase the collection of density measurements at all deposits to obtain a better understanding of the behaviour of density across lithologies and mineralized domains.
- 3 While the data collection, management, and verification procedures at site are considered to be adequate for this report, the development of standard protocols and actions with respect to drilling, drill hole sampling, channel sampling, QA/QC, and drill hole database management will improve the overall project integrity. Detailed recommendations are provided in each section.
- 4 Migrate from a MS Access database to an industry standard database management system.
- 5 Continue exploration drilling at Porky West to prove additional resources at depth and along strike and begin infill drilling to upgrade Inferred Mineral Resources. A total of 46,000 m of surface drilling is planned for 2024, with a proposed budget of US\$ 5.36 million.

1.1.2.2 Mining and Mineral Reserves

- 1 It is recommended that the stope strike length and stope optimizer post-processing parameters be re-evaluated during subsequent Mineral Reserve updates to ensure mineable shapes are generated in both longitudinal and transverse mining areas.
- 2 As more mining experience is gained in the GHW and SHW areas, re-evaluate the suitability of the dilution and extraction values currently based on the Santoy 8 and 9 stope performance.
- 3 The appropriateness of the stated cut-off grade is dependent on the realization of operating cost savings compared to recent years. Evaluate cut-off grades periodically as operating costs change.
- 4 Routinely reconcile the mine production numbers to the Resource model (F1 Factor), and milled production to Resource model (F3 factor), to measure the accuracy of the Resource and Reserve block model. SLR understands that new Resource block models and grade control models have recently been developed and implemented and recommends that a robust reconciliation process be put in place to allow for further model refinement.
- 5 Some stopes in the GHW and SHW areas are designed using a transverse arrangement though the mining width is narrower than the stated longitudinal/transverse demarcation measurement. Re-evaluate stope arrangements as more geological information and operating experience is gained in these areas.
- 6 Consider using cemented rockfill (CRF) rather than uncemented rockfill (URF) where stopes are planned adjacent to backfill, particularly in transverse stoping areas.



1.1.2.3 Mineral Processing

- 1 SGO has an on-going program of modernization and optimization underway aimed at optimizing processing and increasing throughput. Currently, metallurgical recovery and mine-to-mill reconciliation is based on monthly gold production, inventory changes within the process plant, and tails grades and is compared to leach feed grades determined from manual sampling. Manual sampling of crushed ore is also carried out, however, due to the presence of significant amounts of coarse gold in the ore, this sample is considered unreliable and is not used for metallurgical accounting. SLR recommends that frequent automatic sampling (and sample splitting) of crushed ore feeding the grinding circuit be included in this program of improvements to facilitate better mine-to-mill reconciliation and validation of gold recovery.

1.1.2.4 Infrastructure

- 1 Assess all infrastructure requirements necessary not only for the existing life of mine, but also for the potential for additional deposits being developed.

1.1.2.5 Environment

- 1 Continue to adhere to robust environmental and social standards.

1.2 Economic Analysis

The economic analysis contained in this TRS is based on the SGO Mineral Reserves, economic assumptions, and capital and operating costs provided by SSR corporate finance team and SGO finance and technical teams and reviewed and accepted by SLR. All costs are expressed in Q3 2023 US dollars. Unless otherwise indicated, all costs in this section are expressed without allowance for escalation, currency fluctuation, or interest. Costs quoted in Canadian dollars were converted to US dollars at an exchange rate of US\$1.00 = C\$1.33.

A summary of the key criteria is provided below.

1.2.1 Economic Criteria

1.2.1.1 Physicals

- Mine Life: 4.2 years (between 2024 and Q1-2028)
- Underground mining rate: Peak mining rate of 1,400 tonnes per day.
- LOM underground tonnes: 2,043 kt at 5.12 g/t of Au
- Stockpile feed to plant: 13 kt at 5.22 g/t of Au
- Total Ore Feed to Plant: 2,056 kt at 5.12 g/t of Au
- Contained Gold: 338,624 oz of Au
- Contained Silver: 8,804 oz of Ag (at an Ag/Au ratio of 2.6%)
- Recovered Gold: 326,696 oz
- Recovered Silver: 8,494 oz
- Average LOM Mill Recovery 96.4%



1.2.1.2 Revenue

- The metal prices and foreign exchange rate used in this report are based on analyst consensus prices as of November 2023. The LOM average realized gold and silver prices assumed for SGO are US\$1,854/oz Au and US\$23.74 Ag.
- Payable metals are estimated at 99.5% for gold and silver. These rates are based on actual SGO budget figures.
- Transportation charges of US\$20,000 per month
- Refining charges are estimated at US\$1.33/oz Au over the LOM based on actual SGO budget
- A private 3% net smelter return (NSR) royalty on LOM revenues with Osisko Gold Royalties (Osisko)
- LOM NSR revenue is US\$602 million (after Logistic and Refining Charges), and the net revenue is US\$584 million after including payable royalties.

1.2.1.3 Capital Costs and Operating Costs

- Sustaining capital costs for buildings and infrastructure, machinery and mobile equipment total US\$35.8 million.
- Underground capitalized development costs of US\$67.6 million
- Diamond drilling exploration and capital within the mine of US\$22.5 million
- Underground mining operating costs: US\$63.86/t ore mined
- Processing operating costs: US\$32.25/t ore milled
- G&A: US\$57.11/t ore milled
- Total unit operating costs US\$152.73/t ore milled
- LOM total operating costs: US\$314 million
- Annual bond premium for asset retirement obligation (ARO) totals US\$923 thousand over the LOM.
- Closure costs of US\$24 million are included in the analysis at the end of the LOM.

1.2.1.4 Taxation and Royalties

- Federal and provincial income taxes were applied at a rate of 15% and 12%, respectively.
- The Saskatchewan mining royalty (mineral tax) is enacted under the Crown Mineral Royalty Regulations, pursuant to the Crown Minerals Act. For precious metals the royalty rate is 10% of net revenue after deducting production costs, transportation costs and refinery processing charges, and applicable depreciation deductions.

1.2.2 Cash Flow Analysis

A summary of the life of mine cash flow is shown in Table 1-1.



Table 1-1: After-Tax Cash Flow Summary

Description	Units	Value
LOM	Years	4.2
Realized Market Prices		
Au (\$/oz)	US\$/oz	1,854
Ag (\$/oz)	US\$/oz	23.74
Payable Metal		
Au (koz)	koz	325
Ag (koz)	koz	8
Total Gross Revenue	US\$ million	603
Mining Cost	US\$ million	(130)
Process Cost	US\$ million	(66)
G & A Cost	US\$ million	(117)
Refining/Freight	US\$ million	(1)
Mining Royalties	US\$ million	(18)
Total Operating Costs	US\$ million	(333)
Operating Margin (EBITDA)	US\$ million	270
Working Capital	US\$ million	0
Sustaining Capital	US\$ million	(126)
Total Closure/Reclamation Capital	US\$ million	(25)
Total Capital	US\$ million	(151)
Pre-tax Free Cash Flow	US\$ million	119
Pre-tax NPV @ 5%	US\$ million	111
SK Mineral Tax	US\$ million	(11)
Federal & Provincial Income Tax	US\$ million	(5)
After-tax Free Cash Flow	US\$ million	102
After-tax NPV @ 5%	US\$ million	95

Note: Sum of individual values may not match total due to rounding

1.2.3 Sensitivity Analysis

A sensitivity review of the after-tax NPV at a 5% discount rate was carried out. The project is most sensitive to the gold price. A 10% reduction in gold price represents a 42% decrease in the after-tax NPV_{5%} value.



1.3 Technical Summary

1.3.1 Property Description

The SGO is located at the northern end of Laonil Lake, approximately 125 km northeast of the town of La Ronge, in Saskatchewan, Canada. The centre of the Property is located at approximately 55.7° latitude north and 103.5° longitude west.

The mine is a remote operation with access to the mine site by fixed wing aircraft to a 1,275 m airstrip located on the Property. Equipment and major resupply items are transported to the site via a 60 km winter ice road, which is typically in use during February and March.

1.3.2 Land Tenure

The SGO is comprised of seven mineral leases and 130 mineral claims that cover an area of approximately 73,820 ha. SSR holds a 100% interest in the Property through its wholly owned subsidiary, SGO Mining Inc. (SGO Mining).

1.3.3 History

Between 1947 and 1950, Cominco Inc. made the initial gold discovery at the Seabee Gold Operation (SGO), engaging in extensive prospecting and exploration activities. From 1958 to 1983, Cominco acquired mining leases and conducted drilling, eventually selling the property to BEC International Corporation in 1983. Subsequent ownership transitions occurred, with Claude Resources acquiring the property in 1985, conducting feasibility studies, and commencing production in 1991. Commercial production at the Santoy Mine commenced in 2011. SSR acquired Claude Resources in 2016 and added the Fisher property through the acquisition of Taiga Gold Corp. in 2022.

Historical exploration on the property consisted of rock and soil sampling programs by Placer (1985-1988) and Claude Resources (1990-2013), collecting over 30,000 soil samples and 4,000 rock samples. Additionally, aeromagnetic surveys in 2007 and a Titan-24 survey in 2010 identified geological structures related to gold mineralization.

1.3.4 Geological Setting, Mineralization, and Deposit

Northern Saskatchewan lies within the Churchill Province of the Canadian Shield and is part of the Proterozoic Trans-Hudson Orogen. The Trans-Hudson Orogen resulted from the collision of Archean continental fragments during the closure of the Manikewan ocean and is divided into two distinct zones: 1) the Cree Lake Zone, and 2) the Reindeer Zone. The SGO is located within the Glennie domain of the Proterozoic Trans-Hudson Orogen.

The Glennie domain within the Reindeer Zone features arcuate belts of Lower Proterozoic supracrustal rocks separated by granitoid gneisses. Seismic geophysical studies support the interpretation that the Glennie domain is underlain, in part, by Archean rocks. The complex geological history involves folding, nappes, and thrust complexes, as indicated by Archean windows within the Glennie domain.

The SGO, located in the Pine Lake greenstone belt within the Glennie domain, hosts gold deposits in three main geological domains: Santoy Mine Complex (SMC), Laonil Lake Intrusive Complex, and Porky. The Pine Lake greenstone belt itself comprises a variety of volcanic and intrusive rocks formed between ca. 1890 Ma and 1860 Ma.



Four major phases of deformation (D1 to D4) occurred during the protracted collision and amalgamation of Archean continental fragments. These phases involved gneissic foliation, thrusting, folding, and metamorphism.

The SMC's gold mineralization is found in dilatant portions of the Santoy Shear Zone and along the margin of the Lizard Lake Pluton. Laonil Lake Intrusive Complex hosts the now closed Seabee Mine, while Porky deposits are situated along the western margin of the Ray Lake synform within the Pine Lake Shear Zone.

The SGO deposits are orogenic, quartz-vein hosted lode gold deposits formed in major brittle-ductile to ductile shear systems. The gold mineralization exhibits complex geometrical patterns attributed to a combination of structural and lithological controls. Orogenic gold deposits can occur as en echelon veins, tabular veins, stockwork veinlets, or broad areas of fracturing. The mineralization is associated with quartz veins, carbonate alteration, and magmatic activity.

1.3.5 Exploration

Since the acquisition of the SGO, SSR has undertaken a review of historical exploration activities, soil sampling, grab sampling, an airborne magnetic and radiometric survey (2016), and surface and underground drilling on the original SGO property, as well as the Fisher and Truscott tenements.

Prior to SSR's acquisition of the SGO, and as at December 31, 2015, a total of 2,037 surface drill holes totalling approximately 389,281 m and 4,818 underground holes totalling approximately 861,514 m had been completed on the property. For the year ended December 31, 2023, SSR has drilled an additional 484 surface holes totalling approximately 185,841 m and 1,553 underground holes totalling approximately 319,847 m since acquiring the property from Claude Resources.

1.3.6 Mineral Resource Estimates

SLR conducted Mineral Resource estimations for the Santoy Mine deposits based on drill hole data available up to April 30, 2023. The database is composed of 3,250 drill holes for a total length of 710,645.11m. The database for the Santoy Mine Mineral Resource estimate consists of diamond drilling generally spaced from 10 m to 25 m apart, but up to 275 m locally. It includes 108,045 assays and 10,878 domain-intersecting gold assays from 1,160, 1,098 and 479 drill holes for the Santoy 8, 9, and GHW-SHW deposits, respectively. The creation of 3D wireframe models used a nominal 2.0 g/t Au threshold for all zones. Assays were composited to represent either 1 m, 1.5 m, or 2 m intercepts of each domain, and then capped by zone. Block model gold grades within the wireframe models were interpolated using the ordinary kriging (OK) method. A bulk density of 2.75 g/cm³, based on density measurements from core, channel, and muck samples, was assigned to Santoy 8 and Santoy 9, and a bulk density of 2.65 g/cm³ was assigned for GHW-SHW.

SLR conducted Mineral Resource estimations for the Porky West deposit based on drill hole data available up to October 15, 2023. The database is composed of 251 drill holes for a total length of 75,585 m. The database for the Porky West Mineral Resource estimate consists of diamond drilling generally spaced between 10 m and 25 m, but up to 75 m locally. It includes 19,642 assays and 3,728 domain intersecting gold assays. The creation of 3D wireframe models used a nominal 1.0 g/t Au threshold for all zones. Assays were composited to 1.5 m within each domain, and then capped by zone. Block model grades within the wireframe models were interpolated using the inverse distance cubed (ID³) method. Bulk densities were based on



the measurements taken on a bulk sample and were set at 2.71 g/cm³ for mineralized zones, 1.70 g/cm³ for the overburden, and 2.80 g/cm³ for host rock.

For both areas, blocks were categorized as Measured, Indicated, and Inferred, taking into account the local drill hole spacing and proximity to existing development. The drill hole spacing criterion was determined through variography conducted over the deposits and considering the observed continuity of mineralization. It was further adjusted to align with geological insights, grade continuity and to ensure consistent classification shapes. SLR validated the estimates using standard industry techniques.

Underground constraining shapes were created using Deswik Stope Optimizer (DSO) software, incorporating a 2.61 g/t Au cut-off grade and a 2.0 m minimum thickness.

Mineral Resources exclusive of Mineral Reserves, as of December 31, 2023, for SGO are presented in Table 1-2.

Table 1-2: Summary of Mineral Resources, exclusive of Mineral Reserves – December 31, 2023

Category	Project	Tonnage	Grade	Contained Metal	Cutt-off Grade	Metallurgical Recovery
		(000 t)	(g/t Au)	(000 oz Au)	(g/t Au)	%
Measured	Santoy Mine	91.9	5.5	16.3	2.61	96.4
	Total	91.9	5.5	16.3		
Indicated	Santoy Mine	1,021.30	3.9	127.1		
	Porky West	444.3	5.2	74.9		
	Total	1,465.60	4.3	202		
Total Measured + Indicated	Santoy Mine	1,113.20	4	143.4		
	Porky West	444.3	5.2	74.9		
	Total	1,557.50	4.4	218.3		
Inferred	Santoy Mine	1,658.60	4.3	230.3		
	Porky West	1,088.60	6.6	232.2		
	Total	2,747.20	5.2	462.5		

Notes:

1. The definitions for Mineral Resources in S-K 1300 were followed for Mineral Resources.
2. Mineral Resources are reported based on 31 December 2023 as-mined survey data.
3. Mineral Resources are estimated at a cut-off grade of 2.61 g/t Au.
4. Mineral Resources are estimated using a long-term gold price of US\$1,750 per ounce, and a US\$/C\$ exchange rate of 1.33.
5. Bulk density ranges by domain between 2.65 t/m³ and 2.80 t/m³. The density assigned to the overburden at Porky West is 1.70 t/m³.
6. Gold metallurgical recovery is 96.4%.
7. Mineral Resources at Santoy Mine are exclusive of Mineral Reserves
8. There are no Mineral Reserves at Porky West
9. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
10. Mineral Resources are reported within underground reporting shapes (DSO shapes).
11. The point of reference for Mineral Resources is the point of feed into the processing facility.
12. SSR has 100% ownership of the Project and Mineral Resources are shown on a 100% basis.
13. A minimum mining width of 2 m was used.
14. Totals may vary due to rounding.



1.3.7 Mineral Reserve Estimates

Mineral Reserves at the Santoy Mine, as estimated by SSR and reviewed and accepted by SLR, are summarized in Table 1-3. The mine life is estimated at 4.2 years.

Table 1-3: Summary of Mineral Reserves – December 31, 2023

Category	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)	Cut-off Grade ⁴ (g/t Au)	Metallurgical Recovery
Proven (In-situ)	238	6.00	46	1.86 and 2.85	96.4%
Proven (Stockpile)	13	11.24	5	-	96.4%
Probable	1,815	5.01	292	1.86 and 2.85	96.4%
Total Proven + Probable	2,066	5.17	343		

Notes:

1. Classification of Mineral Reserves is in accordance with the S-K 1300 classification system.
2. Mineral Reserves are reported based on 31 December 2023 as-mined survey data.
3. Mineral Reserves were estimated by SSR Mining and reviewed and accepted by SLR.
4. Mineral Reserves are estimated at a cut-off grade of 2.85 g/t Au for production stopes, and 1.86 g/t for development designs.
5. A mining extraction factor of 89% was applied to mined tonnes and contained metal.
6. The point of reference for Mineral Reserves is the point of feed into the processing facility.
7. SSR has 100% ownership of the Project and Mineral Reserves are shown on a 100% basis
8. Mineral Reserves are estimated using an average long-term gold price of US\$1,600 per ounce and a US\$/C\$ exchange rate of 1.33.
9. A minimum mining width of 2.0 m was used.
10. Bulk density is 2.75 t/m³ for Santoy 8 & 9, and 2.65 t/m³ for GHW & SHW.
11. Totals may vary due to rounding.

Measured Mineral Resources were converted to Proven Mineral Reserves, and Indicated Mineral Resources were converted to Probable Mineral Reserves. Inferred Mineral Resources were not converted to Mineral Reserves and are not included in the LOM plan.

Mineral Resources are converted to Mineral Reserves through the application of a minimum mining width of 2.0 m, a 2.85 g/t Au cut-off grade, and stope optimizer designs followed by the application of external dilution. A cut-off grade of 1.86 g/t Au is used for ore development reflecting the marginal nature of the development. An extraction factor of 89% is applied to both production stopes and ore development designs, and linear overbreak dilution of 0.7 m is applied to production designs. Mineral Reserves at SGO are estimated for the Santoy Mine only.

1.3.8 Mining Methods

Access to the Santoy underground mine is by decline. Levels are typically driven at 20 m vertical spacings and accessed by decline and incline ramps. The mining method used is sublevel open stoping with backfill in either a longitudinal or transverse arrangement depending on ore width. The mining front progresses upward from the lowest level of a mining block. The completed stopes are backfilled with waste rock.

Ore development following the establishment of level accesses and ancillary headings varies depending on the stoping method used. Where longitudinal retreat stoping is used, sill drifts are



driven on the ore along strike to the ore extents. One drift is driven along the bottom of the stoping block and a second along the top. Where transverse stoping is used a haulage drift is driven on the footwall side of the ore, and perpendicular drawpoints are driven to crosscut the ore. The drawpoints are used both for production drilling and mucking, are driven with two boom jumbos, and are bolted and screened to site standards.

Of the total production tonnes included in the mine plan, approximately 55% are planned to be mined using transverse stoping. This includes nearly all of the GHW area, and the lower portion of the SHW area. The remainder, including Santoy 8, Santoy 9, and the upper SHW areas, are planned using longitudinal retreat.

Uncemented rockfill (URF) is the primary type of backfill at the Santoy Mine. Ore and development waste are hauled within the mine, and to surface via 45 t haul trucks. Waste rock generated from development is stored underground where possible for use as backfill.

The Santoy primary ventilation circuit is a push system that currently provides 150 m³ per second (320,000 ft³ per minute (CFM)) through two fresh air raises (FAR) located at the Gap Main and Santoy 8 sites. Air is exhausted via the main ramp and the Santoy 8 East return air raise (RAR). Drop raises or Alimak raises are used to distribute air between levels and as secondary egress.

1.3.9 Processing and Recovery Methods

The Seabee mill has been in operation since 1991 and processed ore from the Seabee Mine for 25 years. The initial capacity of the mill was 500 tpd, which was later expanded to 1,000 tpd with the addition of a third grinding mill. Through de-bottlenecking and optimization actions, its capacity has been gradually increased to the current throughput of approximately 1,200 tpd. The mill was constructed immediately adjacent to the Seabee shaft. In 2017, Seabee Mine operations ceased, and ore from the Santoy Mine has been the sole feed to the mill since. Ore is hauled 14 km by truck from the Santoy Mine to the mill.

The mill flow sheet is a conventional crushing and grinding circuit employing gravity gold recovery and cyanide leaching with carbon-in-pulp (CIP) for recovery and production of doré gold on site. Crushing is carried out in a semi-mobile circuit consisting of a primary jaw crusher and secondary cone crusher in closed circuit with a screen to produce grinding circuit feed. The crushed ore is directed to the mill feed bin or external stockpile. The grinding circuit consists of two stages of grinding in ball mills, both in closed circuit with classifying cyclones. A portion of the cyclone underflow from the primary mill is directed to a gravity concentration circuit where between 50% and 70% of the gold in the mill feed is recovered. The gravity tail is recombined with the primary mill cyclone underflow. The primary mill cyclone overflow is ground in the secondary grinding circuit to a target 80% passing 115 µm for feed to the leaching circuit. The cyanide leaching circuit is followed by carbon adsorption in the CIP circuit, after which the carbon is stripped, regenerated, and returned to the CIP circuit. Gold is recovered by electrowinning and melted in a gas furnace to produce doré bars. The overall gold recovery for the mill typically ranges between 96% and 98%. Leach tails are deposited in a conventional slurry tailings storage facility and supernatant water is recycled to the mill for use in the process.

1.3.10 Infrastructure

SGO is a remote operation supported by regular flights from Saskatoon, stopping in Prince Albert, and a camp that accommodates up to 251 people.



The site can be accessed by a 60 km winter road, which begins at Highway 102 near the community of Brabant Lake, Saskatchewan, and includes 12 portages and 11 lakes. Most annual supplies are transported to site via the winter road.

Electrical power is provided by the provincial power authority, Saskatchewan Power Corporation, via a transmission line to the mine connected to a 138 kV transmission line from the Island Falls hydroelectric power station.

Potable water is obtained from potable water systems at both the Seabee and Santoy mine sites. To better meet the current and future Seabee site water needs, a new ultrafiltration potable water system was installed and commissioned in 2022.

There are two tailings management facilities (TMF) that are being used by the Seabee mill: the East Lake TMF and the Triangle Lake TMF. Tailings deposition alternates between the two TMFs where winter deposition occurs in the Triangle Lake TMF and summer deposition is in the East Lake TMF. The current remaining storage capacities of both TMFs, based on an average production rate at 1,200 tpd, will potentially be reached in late-2030. Maximum capacities also allow that 200,000 m³ of water are treated and discharged from the TMFs each year. To ensure the treatment volumes are attained, a new water treatment plant at East Lake TMF was constructed in 2017. Work is currently underway investigating options for extending the life of the TMFs to accommodate any further extensions of the SGO life.

1.3.11 Market Studies

The principal commodities at SGO is a doré product mainly consisting of gold, with minor amounts of silver. This type of product is freely traded at prices that are widely known, so that prospects for sale of any production are virtually assured.

1.3.12 Environmental Studies, Permitting and Plans, Negotiations, or Agreements with Local Individuals or Groups

SGO has been in production since 1991. As part of the initial environmental assessment, approvals and the subsequent expansions at the operation, the existing environment was characterised in three environmental assessments, in accordance with the applicable provincial regulations. The initial environmental assessment focused on the original Seabee Mine and mill and was completed in 1990. The second environmental assessment was necessary to assess the potential environmental impacts associated with the construction and operation of the Triangle Lake TMF and was completed in 2001. The third environmental assessment was necessary to assess the potential environmental impacts associated with the development of the Santoy Mine and was completed in 2009. For each of these assessments, baseline data was collected, and the potential environmental impacts associated with the proposed project were assessed. In all three environmental assessments, no significant potential environmental impacts were identified that could not be mitigated through the implementation of management plans. Subsequently, Ministerial Approvals to proceed to construction and operation were granted for each of the three environmental assessments.

Since its inception, the SGO has operated under the terms and conditions of an Approval to Operate, issued by the Ministry of the Environment for the Province of Saskatchewan (SMOE). The operation's current Approval to Operate number PO22-185, was issued in October 2022 and expires in September 2027. This approval outlines monitoring and reporting requirements for all operations.



SGO reports annually on the operations performance in its Annual Environment Report. According to the 2022 Annual Environment Report, dated March 31, 2023, SGO is in compliance with the terms and conditions of this approval.

1.3.13 Capital and Operating Cost Estimates

The estimated capital costs required to achieve the Mineral Reserve LOM are estimated to be US\$125.8 million. The capital costs were estimated by SSR and reviewed by SLR. Since SGO is an operating mine, all capital costs, as listed below, are categorized as sustaining:

- Mine capital development
- Diamond drilling exploration and capital within the mine
- Building and civil works such as mill improvements and TMF construction costs
- Mobile equipment such as new and replacement purchases and major rebuilds
- Replacement or refurbishment of major machinery or equipment components

The operating expenses estimated to validate the positive cash flow for the Mineral Reserve LOM are summarized in Table 1-4.

Table 1-4: Operating Costs Estimate

Cost Component	LOM Total (US\$ millions)	Average Annual ¹ (US\$ millions)	LOM Average (US\$/t milled)
Mining	130.3	31.6	63.86
Milling (incl. Fixed Plant)	66.3	16.1	32.25
G&A	117.4	27.6	57.11
Total Operating Cost	314.0	75.3	153.22

Notes:

1. For fully operational years (2024 – 2027)
2. Sum of individual values may not match total due to rounding.



2.0 Introduction

SLR International Corporation (SLR) was retained by SSR Mining Inc. (SSR, or the Company) to prepare an independent Technical Report Summary (TRS) on the Seabee Gold Operation (SGO), located in northern Saskatchewan, Canada. SGO constitutes five principal deposits, Santoy 8, Santoy 9, Gap Hanging Wall (GHW), Santoy Hanging Wall (SHW), together, Santoy Mine, and Porky West.

The purpose of this TRS is to support the disclosure of updated Mineral Resource and Mineral Reserve estimates. This TRS conforms to the United States Securities and Exchange Commission's (SEC) Modernized Property Disclosure Requirements for Mining Registrants as described in Subpart 229.1300 of Regulation S-K, Disclosure by Registrants Engaged in Mining Operations (S-K 1300) and Item 601 (b)(96) Technical Report Summary.

SSR is a mining company based in Denver, Colorado. The Company has four producing assets located in USA, Türkiye, Canada, and Argentina, as well as numerous development and exploration projects globally. SSR is listed under the ticker symbol SSRM on the Nasdaq Stock Exchange and Toronto Stock Exchange, and SSR on the Australian Stock Exchange.

2.1 Site Visits

The SLR geology QPs visited the site on April 11 to April 14, 2023. While at site, the SLR QPs held discussions with site personnel; visited the Santoy Mine underground operations; reviewed core; reviewed data collection and quality assurance and quality control (QA/QC) procedures; and reviewed geological interpretations, geological modelling, and Mineral Resource estimation procedures.

The other QPs from SLR visited the property from October 31, 2023 to November 2, 2023. During the site visit, the SLR QPs visited the underground mine, toured the surface facilities, visited the process plant, and met with key SSR staff on site.

2.2 Sources of Information

During the preparation of this TRS, discussions were held with personnel from SSR:

- Karthik Rathnam, SME Registered Member, Director Resource Geology, SSR Mining Inc.
- Jeffrey Kulas, P.Geo., Resource Development Manager – Canada, SSR Mining Inc.
- Kyle MacIntock, P.Geo., Senior Geologist, SSR Mining Inc.
- Andrew Fetch, P.Geo., Senior Geologist-Resource Development, SSR Mining Inc.
- Trent Kulbida, P.Geo., Senior Geologist-Resource Development, SSR Mining Inc.
- Patricia Goncalves Guimaraes, AusIMM Member, Senior Resource Geologist, SSR Mining Inc.
- Osman Uludağ, Director Resource Development, SSR Mining Inc.
- Brandon Hesser, PE, SME Registered Member, Director Mine Technical Services, SSR Mining Inc.
- Emma Dodds, P.Eng., Senior Underground Mining Engineer, SSR Mining Inc.



- Alain Boyer, Superintendent of Mine Engineering, SSR Mining Inc.
- Kevin Fitzpatrick, P.Eng., Senior Engineer, SSR Mining Inc.
- Nitin Laddha, Manager Business Evaluations, SSR Mining Inc.
- Graham Bussiere, P.Biol., Acting EHSS Manager, SSR Mining Inc.
- Bryan Koehler, P.Eng., Superintendent, Capital Projects, SSR Mining Inc.
- James Harrold, Senior Process Engineer, SSR Mining Inc.
- Ashley Theriault, Mill General Foreman, SSR Mining Inc.
- Roselyn Yeboah, Plant Metallurgist, SSR Mining Inc.

This TRS was prepared by SLR QPs. The TRS is based on information and data supplied to the SLR QPs by SSR and other parties where necessary. The documentation reviewed, and other sources of information, are listed at the end of this TRS in Section 24.0 References.

The SLR QPs have reviewed the supplied data and information and it appears accurate and complete and accept this information for use in the TRS. Section 25 describes any information and data supplied by SSR that was outside the areas of expertise of the SLR QPs and was relied upon when forming the findings and conclusions of this report.



2.3 List of Abbreviations

Units of measurement used in this TRS conform to the metric system. All currency in this TRS is US dollars (US\$) unless otherwise noted.

μ	micron	kVA	kilovolt-amperes
μg	microgram	kW	kilowatt
a	annum	kWh	kilowatt-hour
A	ampere	L	litre
bbl	barrels	lb	pound
Btu	British thermal units	L/s	litres per second
°C	degree Celsius	L/h/m ²	liters per hour per square meter
C\$	Canadian dollars	m	metre
cal	calorie	M	mega (million); molar
cfm	cubic feet per minute	m ²	square metre
cm	centimetre	m ³	cubic metre
cm ²	square centimetre	MASL	metres above sea level
d	day	m ³ /h	cubic metres per hour
dia	diameter	mi	mile
dmt	dry metric tonne	min	minute
dwt	dead-weight ton	μm	micrometre
°F	degree Fahrenheit	mm	millimetre
ft	foot	mph	miles per hour
ft ²	square foot	MVA	megavolt-amperes
ft ³	cubic foot	MW	megawatt
ft/s	foot per second	MWh	megawatt-hour
g	gram	oz	troy ounce (31.1035 g)
G	giga (billion)	oz/st, opt	ounce per short ton
gal	US gallon	ppb	part per billion
g/L	gram per litre	ppm	part per million
gpm	US gallons per minute	psia	pound per square inch absolute
g/t	gram per tonne	psig	pound per square inch gauge
gr/ft ³	grain per cubic foot	RL	relative elevation
gr/m ³	grain per cubic meter	s	second
ha	hectare	st	short ton
hp	horsepower	stpa	short ton per year
h	hour	stpd	short ton per day
Hz	hertz	t	metric tonne
in.	inch	tpa	metric tonne per year
in ²	square inch	tpd	metric tonne per day
J	joule	US\$	United States dollar
k	kilo (thousand)	V	volt
kcal	kilocalorie	W	watt
kg	kilogram	wmt	wet metric tonne
km	kilometer	wt%	weight percent
km ²	square kilometer	yd ³	cubic yard
km/h	kilometer per hour	yr	year
kPa	kilopascal		



3.0 Property Description

3.1 Location

The SGO is located at the northern end of Laonil Lake, approximately 125 km northeast of the town of La Ronge, in Saskatchewan, Canada (Figure 3-1). The centre of the property is located at approximately 55.7° latitude north and 103.5° longitude west.

The mine is a remote operation with access to the mine site by fixed wing aircraft to a 1,275 m airstrip located on the property. Equipment and major resupply items are transported to the site via a 60 km winter ice road, which is typically in use from January through March.

3.2 Mineral Rights

Exploration and mining in Saskatchewan are governed by the Crown Minerals Act, the Mineral Disposition Amendment Regulations (2012), and the Mineral Tenure Registry Regulations, which grant to the owner of a claim the right to explore for minerals. Exploration and mining are administered by the Mines Branch of the Saskatchewan Ministry of Energy and Resources. Mineral rights are owned by the Crown and are distinct from surface rights.

There are two key land tenure milestones that must be met for commercial production to occur in Saskatchewan:

- 1 Conversion of a mineral claim to mineral lease.
- 2 Granting of a surface lease to cover the specific surface area within a mineral lease where mining is to occur.

Several other permits, licences, and approvals are required both for ongoing exploration and eventual operation for the project to proceed. To carry out exploration at the Property, a Surface Exploration Permit, Forest Product Permit, and Aquatic Habitat Protection Permit are required.

3.2.1 Mineral Claim and Mineral Lease

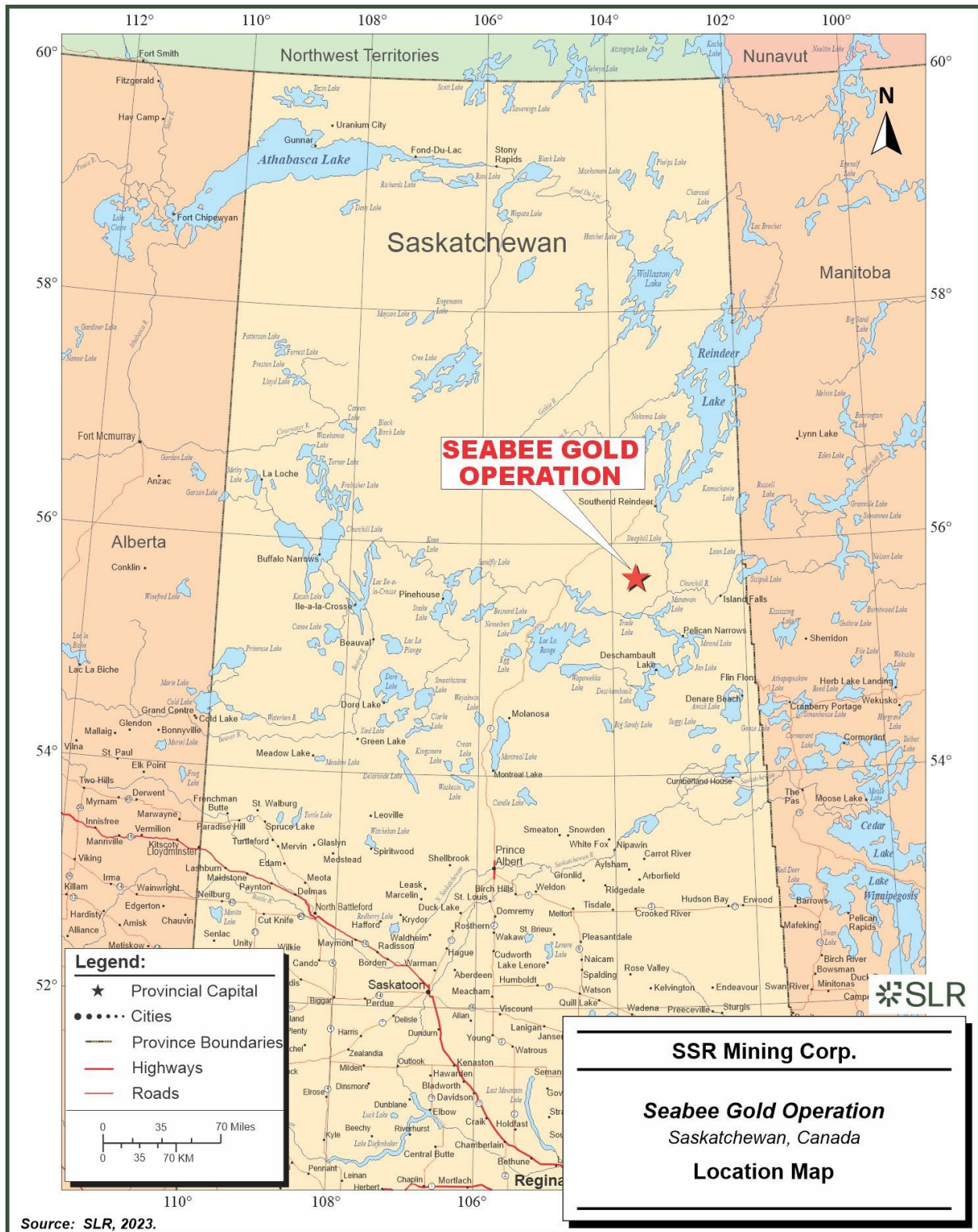
A mineral claim does not grant the holder the right to mine minerals except for exploration purposes. Subject to completing necessary expenditure requirements, mineral claim credits can be accumulated for a maximum of 21 years. To ensure that mineral claims are kept in good standing in Saskatchewan, the claim holder must undertake the minimum exploration work on a yearly basis. The current requirements are C\$15/ha per year for claims that have existed for 10 years or less, and C\$25/ha per year for claims that have existed in excess of 10 years. Excess expenditures can be accumulated as credits for future years.

A mineral claim in good standing can be converted to a mineral lease by applying to the mining recorder and having a completed boundary survey. In contrast to a mineral claim, the acquisition of a mineral lease grants the holder the exclusive right to explore for, mine, recover, and dispose of any minerals within the mineral lease.

Mineral leases are for a term of ten years and are renewable. A lease grants the holder the exclusive right to explore for, mine, recover, and dispose of any minerals within the lease lands. Annual expenditures of the lease are C\$25/ha for years 1 to 10, C\$50/ha for years 11 to 20, and C\$75/ha annually thereafter.



Figure 3-1: Location of the Seabee Gold Operation



3.2.2 Surface Lease

Land within the mineral lease, surface facilities, and mine workings are considered to be located on Provincial lands and therefore owned by the Province. Hence, the right to use and occupy those lands is acquired under a surface lease from the Province of Saskatchewan. A surface lease is issued for a maximum of 33 years and may be extended as necessary to allow the lessee to operate a mine and/or plant and undertake reclamation of disturbed ground.

Co-ordinated between various provincial government ministries and industry, the leases address a range of issues to which mining companies must respond, including land tenure, environmental protection measures, occupational health and safety provisions, and socio-economic benefits for residents of northern Saskatchewan. Beyond addressing business opportunities and other local benefits, each surface lease agreement also requires the company to negotiate a long-term Human Resource Development Agreement with the Ministry of Advanced Education, Employment and Labour. This plan must address efforts to recruit, train, and hire northern workers. For mining projects, the surface lease is negotiated between the proponent and the provincial government following the completion of a successful environmental assessment.

Once the surface lease is negotiated, the Provincial approval to operate a Pollution Control Facility is issued; it describes commitments that must be met in terms of monitoring and reporting.

3.3 Mineral Tenure

The SGO is comprised of seven mineral leases and 130 mineral claims that cover an area of approximately 73,820 ha (Table 3-1 and Figure 3-2). SSR holds a 100% interest in the property through its wholly owned subsidiary, SGO Mining Inc. (SGO Mining).

Claude Resources initially staked or acquired the SGO mineral leases and mineral claims prior to SSR's acquisition of the property on May 31, 2016. In January 1999, after Claude Resources fulfilled the conditions of an option agreement and obtained a 100% interest in the adjoining Currie Rose property, a portion of a previous claim CBS 7057 was converted to a mineral lease (ML 5520). The original 10 quartz mineral claims covering the Seabee Mine site were consolidated into a single mineral lease (ML 5519) granted by the Provincial Crown in November 1999. In July 2021, a formal request from the SGO to consolidate ML 5519 and ML 5520 into a single mineral lease ML 5559, a non-producing lease expiring in 2034, was granted.

Additional mineral leases were added at the Santoy 7 deposit (ML 5535) and Porky West deposit (ML 5536) in 2007, at the Santoy 8 deposit (ML 5543) in 2009, and at the Santoy Gap deposit (ML 5551) in 2013. The SGO is currently producing from mineral leases ML 5558, ML 5543, and ML 5551.

In April 2022, through the acquisition on Taiga Gold Corp., SSR consolidated a 100% interest in the Fisher property contiguous to the Seabee Mine, and eliminated a 2.5% net smelter return (NSR) royalty on the Fisher property. The Fisher property includes the Fisher, Fisher S, Leland and Truscott tenements.



Table 3-1: Mineral Tenure Information

Mineral Licence Type	No. Tenements	Area (ha)	Expiry Date Range (dd-mmm-yy)
Mineral Lease (all within Seabee Area)			
With Active Mining	3	237	31-Dec-24 to 24-Jan-33
Without Active Mining	4	470	1-Aug-25 to 1-Jul-43
Total Mineral Leases	7	707	31-Dec-24 to 1-Jul-43
Mineral Claim (summarized by area)			
Seabee Area	21	12,950	5-Dec-32 to 4-Dec-33
Seabee Carina	1	65	31-Oct-33
Seabee Fisher	53	30,493	5-Aug-31 to 16-Feb-34
Seabee Fisher S	10	5,535	21-Jun-30 to 20-Nov-33
Seabee New	18	9,444	6-Aug-32 to 19-Mar-34
Seabee Shane	1	642	7-Nov-33
Seabee Truscott	1	3,695	19-Mar-33
Seabee Leland	25	10,289	24-Jan-26 to 10-Dec-33
Total Mineral Claims	130	73,113	24-Jan-26 to 19-Mar-34
Total Mineral Leases and Claims	137	73,820	31-Dec-24 to 1-Jul-43

Note. All Tenements 100% SGO Mining Owned



Legend:

- Seabee
- Seabee Carina
- Seabee Fisher
- Seabee Fisher S
- Fisher S New
- Seabee Fisher New
- Seabee New
- Seabee Shane
- Seabee Truscott
- Leland
- NTS grid
- Crown Reserves
- Partial Cells
- Other Holders

NTS 63M

MLs In Production

0 5 10
Kilometres

Source: SSR, 2023.

3.4 Underlying Agreements

The SGO is subject to production and NSR royalties payable to third parties.

Claude Resources entered into a royalty agreement with Orion Mine Financial Fund (Orion) in 2014 to grant a 3% NSR royalty on gold sales from the SGO. Payments are to be made quarterly in cash or in physical gold at the average price of gold in each calendar month. This royalty has subsequently been transferred by Orion to Osisko Gold Royalties Ltd.

In the first quarter of 2016, Claude Resources also granted an aggregate 1% NSR royalty on gold production from certain mineral dispositions to an individual and a private company. These dispositions include MC00003518, MC00003532, MC00003571, MC00003573, MC00003594, MC00003631, MC00003716, and MC00003717 from which the SGO is not currently producing. SSR has an option to re-purchase one half of this NSR royalty for C\$1.0 million.

The SGO is also subject to certain royalty payments to the Province of Saskatchewan that are calculated on 10% of net operating profits and are payable once capital and exploration costs are recovered. No royalty payments have been made to the Province of Saskatchewan to date.

3.5 Encumbrances

SLR is not aware of any significant encumbrances to the Project including current and future permitting requirements and associated timelines, permit conditions, and violations and fines.

3.6 Environmental Considerations

The primary environmental considerations and potential liabilities with the SGO are related to the operation's solid waste (mill tailings) and the treatment and release of mine and mill effluent.

The tailings produced at the mill are currently managed in permanent management facilities (the East Lake tailings management facility (TMF) and the Triangle Lake TMF. The operation of these two facilities is conducted in accordance with the SGO's Tailings Operation, Maintenance, and Surveillance Manual (SRK Consulting (Canada) Inc. (SRK), 2020) and the Canadian Dam Safety Guidelines. In addition, the current approved SGO Preliminary Decommissioning and Reclamation Plan, 2016 Update (SRK, 2017b) addresses all potential long-term environmental and physical stability issues of the containment structures in accordance with the Canadian Dam Association Guidelines. The SGO cost estimate for closure activities was updated in 2020 and approved by the Ministry of Environment in July 2020 (Ministry of Environment, 2020).

With respect to water management and treatment, three discharge points exist at the operation. Mine water from the old Seabee Mine (also referred to as the 2B mine, not currently in operation) is pumped to surface settling ponds that discharge to Laonil Lake. Mine water collected in the Santoy Mine is pumped to surface and discharged to the Santoy settling ponds, which is treated in a Moving Biological Bed Reactor (MBBR) water treatment plant in order to remove ammonia and nutrients from the water prior to discharge to Lizard Lake.

In addition, mill effluent accumulating in the two TMFs that is not recycled to the mill as make-up process water is treated in a chemical treatment plant through the addition of lime, hydrogen peroxide, and ferric sulfate. The treated water from this plant currently discharges to the East Pond which flows through a series of wetlands and ultimately reports to the northern arm of Laonil Lake. A new chemical treatment plant combined with an MBBR was recently constructed to replace the existing chemical treatment plant. Both water treatment plants operate in



compliance with the SGO's Approval to Operate. All water discharges to the environment comply with applicable provincial and federal regulations.

3.7 Permits and Authorizations

Following a successful environmental assessment for a proposed gold mine development in the Province of Saskatchewan, applicants must secure a Surface Lease Agreement and subsequently an Approval to Operate a Pollutant Control Facilities (Approval to Operate) both issued by the Province of Saskatchewan's Ministry of Environment (SMOE).

The SGO currently has a valid surface lease with the Province of Saskatchewan, which was amended in March 2010. This surface lease provides SSR the Crown Land surface rights necessary to carry out the mining, milling, and associated operations at the SGO. The existing surface lease is in effect from March 2010 to its expiry date of May 31, 2040 (SMOE, 2010).

The SGO also holds an Approval to Operate No. PO22-185. This approval is issued by the SMOE pursuant to The Environmental Management and Protection Act, 2010 and its regulations. This approval was issued in October 2022 and is valid until September 2027. Renewal of this approval is triggered through an application submitted to the SMOE at least 90 days prior to its expiry date. Subject to the terms and conditions of this approval, SSR is authorized to operate all pollutant control facilities associated with the SGO's mine and mill (SMOE, 2016).

The SGO is also obligated to operate in compliance with the Canadian Metal and Diamond Mining Effluent Regulations issued pursuant to the Canadian Fisheries Act.

3.8 Other Significant Factors and Risks

SLR is not aware of any environmental liabilities on the property. SSR has all required permits to conduct the proposed work on the property. SLR is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the property.



4.0 Accessibility, Climate, Local Resources, Infrastructure and Physiography

4.1 Accessibility

Access to the SGO is by fixed-wing aircraft from the town of La Ronge, Saskatchewan to a 1,275 m airstrip located on the property. During the winter months (generally February and March), a 60 km winter road is built between the mine site and Brabant Lake on Highway 102, approximately 120 km north of La Ronge, to transport heavy supplies and equipment by truck.

4.2 Climate

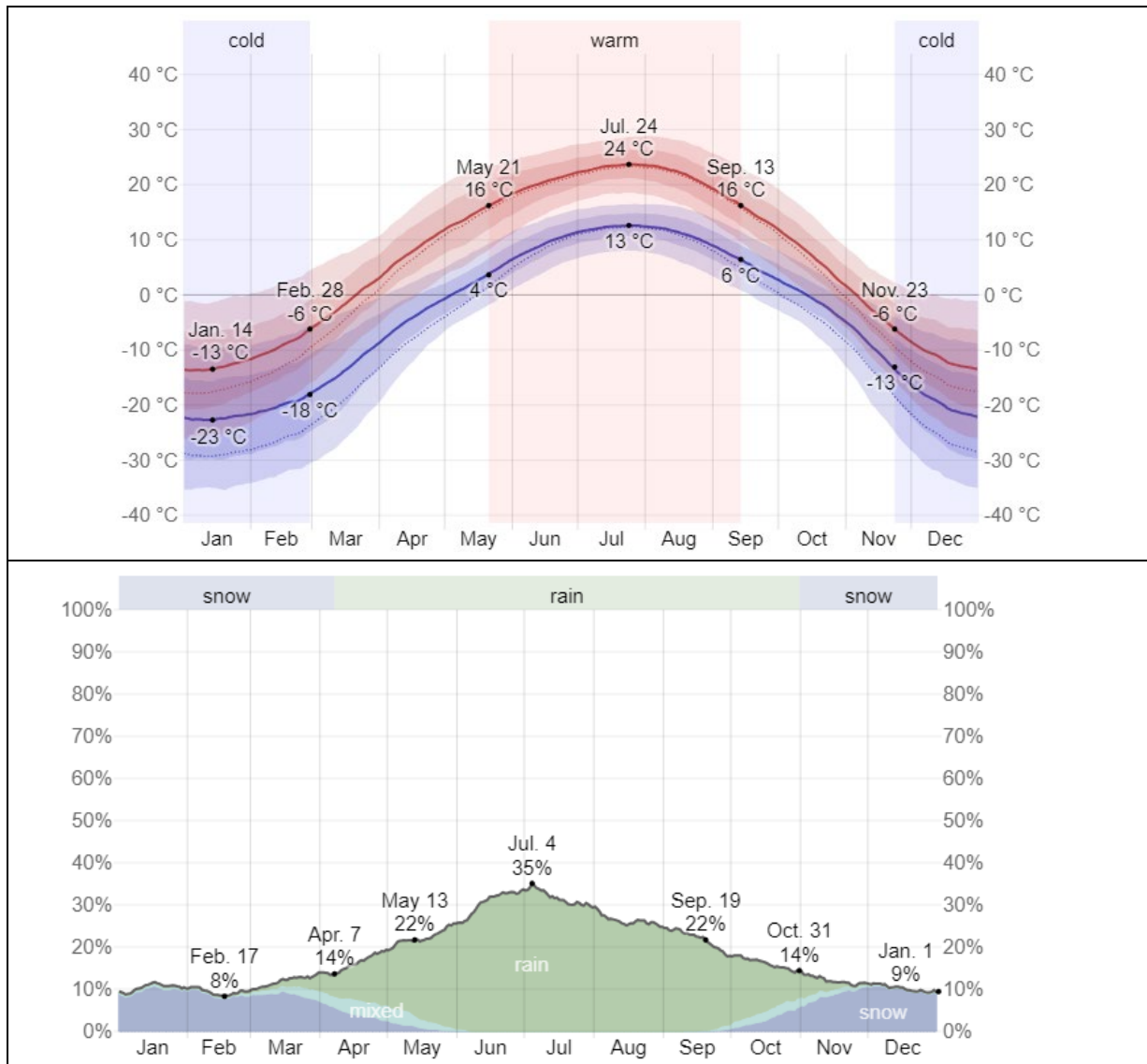
The summers at the SGO operation are comfortable and partly cloudy and the winters are frigid, snowy, and overcast. Over the course of the year, the temperature typically varies from -22 °C to 23 °C and is rarely below -35 °C or above 29 °C. The winter months can experience significant snowfall, and a mixture of rain and snowfall is commonly experienced during the spring and fall. Average monthly temperature and precipitation are presented in Figure 4-1. Operations are conducted year-round.

4.3 Local Resources

SGO is a remote site, and as such there are minimal local resources. All resources required for site operations need to be trucked in during a limited winter road season. Personnel and some consumables are flown into the operation on a year-round basis. SSR employs a workforce of approximately 415 employees who work on rotating schedules at the SGO.



Figure 4-1: Average Annual Temperature and Precipitation Fluctuations in La Ronde, Saskatchewan



Source: WeatherSpark website, 2023



4.4 Infrastructure

The SGO is comprised of the following main facilities:

- Underground mines Seabee and Santoy. Seabee with associated shaft, headframe, and ventilation raises. Santoy with associated portal, ramps, and ventilation raises.
- Powerhouse and electrical distribution system including a 138 kV hydroelectric transmission line from Island Falls through which the provincial power authority, the Saskatchewan Power Corporation, supplies electrical power to the site.
- Roads and airstrip, and winter road portages.
- Mill and administrative buildings and related services facilities including maintenance and truck shops, assay laboratory, crushing plant, shops and storage buildings, and miscellaneous infrastructure.
- Utilities including a potable water system, sewage disposal, fuel and explosives storage.
- Water supply and distribution, and water management ponds.
- Ore stockpile.
- Tailings management facility.
- Camp accommodation.

A detailed description of infrastructure is provided in Section 15.

4.5 Physiography

The site is relatively flat, with much of the area comprised of irregular, hummocky, rocky exposures. Low areas between hummocks that may have 5 m to 9 m of relief is commonly filled with pockets of glacial till, and occasionally with muskeg. Overburden soils are thin in this area, and often the rock outcrops are exposed.

The site is vegetated with a mixture of deciduous and coniferous trees and shrubs typical of a boreal forest. The area has been glacially scoured and is comprised of rocky, ice moulded ridges separated by lakes or muskeg filled depressions. Local relief in the surrounding area can be high, with the shoreline rising sharply to an elevation of 15 m to 20 m above the lake surface.



5.0 History

5.1 Ownership, Exploration, and Development History

Table 5-1 summarizes the ownership, exploration, and development history for the SGO. Details of exploration programs carried out prior to SSR's acquisition of the property in 2016 are provided in subsection 5.2.

Table 5-1: SGO Ownership, Exploration, and Development History

Activity Period	Activity
1947 – 1950	First gold discovery by prospectors working on behalf of Cominco Inc. (Cominco), who subsequently performed extensive prospecting, geological mapping, trenching, and diamond drilling program.
1958 -1983	1958: Cominco acquires 10 quartz mining leases covering the property on which the SGO is located. 1974-1983: Cominco conducts detailed drilling and exploration before selling the property to BEC International Corporation (BEC) in 1983.
1985 – 1988	BEC sells property to Claude Resources. Claude Resources options the property to Placer Development Limited (subsequently Placer Dome Inc. (Placer)). Placer conducts extensive exploration (mapping, trenching, stripping, geophysical, environmental and metallurgical studies) before allowing their option to expire and the property is returned to Claude Resources in 1988.
1988 – 1990	Claude Resources reviewed work completed by Placer and completed bulk sampling and drilling as part of a Feasibility Study for the Seabee deposit. Mineral reserves were estimated in 1988 followed by a positive Feasibility Study in 1989, a revised study, and a production decision in 1990.
1991	Mill construction was completed, and mining began.
1998 - 2016	Discovery of Porky West zone (2002); Santoy 7 deposit (2004); Santoy 8 and Santoy 8 East deposits (2005); Santoy Gap deposit (2010). Bulk sample at Porky West deposit commenced (2005). Commercial production at Santoy 7 (2007). Portal construction and surface infrastructure development of the Santoy Mine; Porky West bulk sample complete (2009). Santoy 7 production ended (2009). Environmental studies and permitting for commercial mining of the Santoy 8 and Santoy 8 East deposits (2010). Commercial production at Santoy Mine (2011). Discovery of the Santoy 9 Veins (2012).
2016	SSR acquired Claude Resources and the SGO. SSR entered into Option Agreement with Eagle Plains.
2022	Addition of Fisher property through acquisition of Taiga Gold Corp.



5.2 Historical Surface Exploration

5.2.1 Geochemistry

Historically, several rock and soil sampling programs have been executed on the SGO property (Figure 5-1 and Figure 5-2).

Placer collected over 1,200 surface rock samples and nearly 7,000 soil samples between 1985 and 1988. The majority of samples were collected from the western portion of the property in the vicinity of Laonil Lake and Pine Lake, and proximal to and north of Porky Lake. Sample spacing was approximately every 20 m to 25 m on 100 m spaced lines.

Claude Resources collected nearly 2,000 surface rock samples and over 7,000 soil samples between 1990 and 2013. Soil samples were primarily collected from the western portion of the property, with additional samples collected in the south-central portion of the property and in the Santoy area. Sample spacing was planned every 20 m to 25 m on 100 m spaced lines. In 1990, rock samples were largely collected around the Laonil Lake, Porky Lake, and Pine Lake areas, after which time the focus of exploration shifted to the Santoy area and samples were collected from the southeastern portion of the SGO property. Soil and rock sampling programs have continued at SGO to present, including tight soil grids with spacing planned every 5 m to 10 m on 25 m spaced lines over parts of the SMC. Overall, the SGO is covered by more than 30,000 soil samples and over 4,000 rock samples.



Figure 5-1: Historical Rock Samples Collected at the SGO

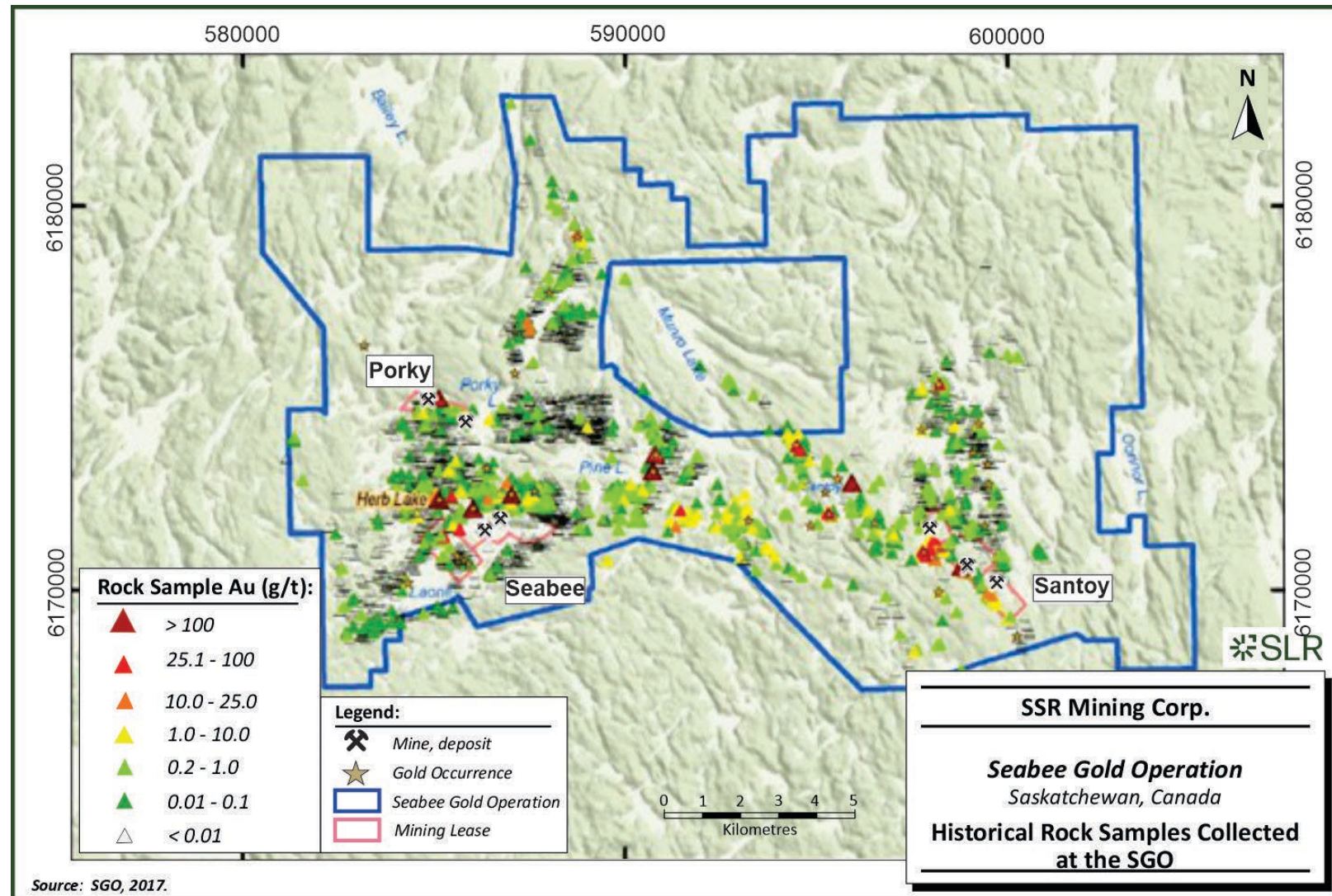
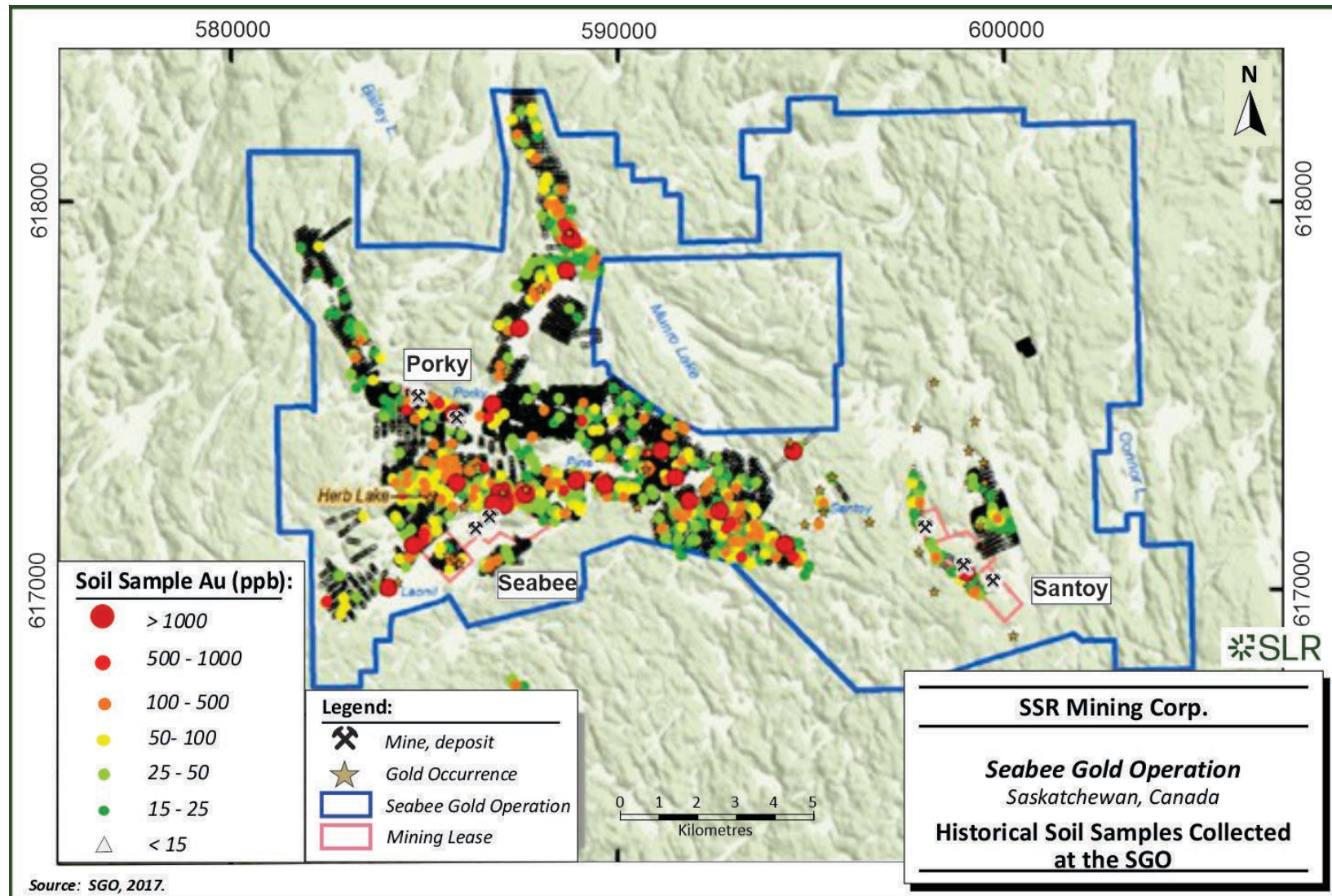


Figure 5-2: Historical Soil Samples Collected at the SGO



5.2.2 Geophysical Surveys

5.2.2.1 Fixed Wing Aeromagnetic Survey 2007

Goldak performed an aeromagnetic survey over the SGO property on behalf of Claude Resources from February 25 to March 15, 2007 (Goldak, 2007). North-south traverse lines were flown with 100 m spacing and a control line separation of 1,000 m, totalling 2,284 line kilometres of high-resolution magnetic data collected. Nominal terrain clearance was 80 m above ground level.

In 2009, SRK reviewed the aeromagnetic survey to make an integrated interpretation with the addition of using published literature, regional mapping data, and drilling data. The following recommendations were made regarding regional targeting:

- Regional deformation corridors have high prospectivity for gold, as structural complexity in the region over time has enhanced permeability.
- Key locations for gold mineralization can be identified by understanding the kinematics active during gold mineralization in combination with the interpreted fault geometry:
 - o Dilational jogs along D2 and D3 shear zones: shallower dipping segments of D2 and D3 reverse shear zones (similar setting to Santoy 7), left steps along D3 sinistral shear zones, and right steps along D3 dextral shear zones.
 - o Fault intersections (i.e., deformation corridors).
- Additional parameters that enhance gold mineralization in the Seabee area include:
 - o High competency contrast (i.e., variations in lithology).
 - o Presence of multiple intrusions exploiting similar structural pathways as potential hydrothermal fluids.
 - o Proximity to the Pine Lake conglomerates, a structurally bound conglomerate package similar to the Abitibi Timiskaming conglomerates.

5.2.2.2 Titan-24 DC/IP and MT Survey 2010

In early 2010, Quantec Geoscience Ltd. (Quantec) was commissioned to perform a Titan-24 direct current/induced polarization (DC/IP) and audio-magnetotelluric ground geophysical survey over the Santoy area on behalf of Claude Resources. The Titan-24 DC/IP data were inverted to produce cross sections of the resistivity and chargeability variations along four survey lines. In its standard configuration, the Titan-24 surveys typically image DC/IP to 500 m to 750 m in sub-vertical tabular geological settings, and up to 50% more for sub-horizontal geological settings. Audio-magnetotelluric inversion depth is generally limited to approximately half the length of the survey line or profile.

Quantec (2013) made the following observations and interpretations based on the 2010 survey results:

- Based on common features observed in the four lines, both the chargeability and resistivity showed weak to strong chargeability responses and low to high resistivity distribution.



- Low chargeability responses were generally observed from near surface to approximately 100 m depth and associated with the conductive cap. The northeastern part of the lines represents high chargeability from near surface to a greater depth than the rest of the grid and may be associated with a geological contact and/or fault zone.
- Below the low chargeability top layer, the central part of the grid shows moderate chargeability associated with high resistivity potentially consisting of the mineralization of interest. Drilling data provided by Claude Resources confirmed the presence of gold traces related to moderate chargeability. The change in chargeability between the northeast and central areas may describe the alteration zone related to gold mineralization.
- The geological setting of the region giving rise to a variety of geophysical responses for possible mineralization, and the inversion results of the DC/IP and audio-magnetotelluric models along with drilling data, confirmed that the gold deposit in this area is structurally controlled and dominated at gradient zones.

5.3 Past Production

The SGO has produced over 1.7 Moz of gold since production began in 1991. A summary of the production history of the SGO since 1996 is presented in Table 5-2.

Table 5-2: Historical Production from the SGO (1996–2022)

Year	Milled Ore			Recovery (%)	Gold Produced (oz)
	ktpa	tpd	Grade (Au g/t)		
1996	194	531	6.45		36,709
1997	211	579	9.36	92.2	58,467
1998	225	615	9.27	92.6	60,200
1999	245	672	7.30	92.3	54,100
2000	238	651	8.58	87.9	58,300
2001	275	753	6.13	88.8	46,300
2002	202	553	6.59	93.7	41,500
2003	209	572	7.95	94.7	50,800
2004	187	512	7.15	95.2	41,200
2005	236	648	6.32	92.9	42,200
2006	246	674	6.16	93.6	46,300
2007	228	624	6.35	95.4	44,323
2008	228	626	6.46	95.8	45,466
2009	248	678	6.17	95.3	46,827
2010	204	559	7.55	95.5	47,270
2011	257	705	5.68	95.3	44,750



Year	Milled Ore			Recovery (%)	Gold Produced (oz)
	ktpa	tpd	Grade (Au g/t)		
2012	275	754	5.86	95.6	44,756
2013	280	767	5.11	95.3	43,850
2014	280	766	7.32	95.7	62,984
2015	277	760	8.82	96.3	75,748
2016	313	857	7.91	96.6	80,351
2017	330	967	8.25	97.4	83,998
2018	352	1,125	9.16	97.4	95,602
2019	344	1,087	9.56	98.2	112,137
2020	255	1,163	10.10	98.4	81,686
2021	382	1,180	9.92	98.4	118,888
2022	414	1,133	10.36	98.0	136,125
2023	445	1,220	6.61	96.7	90,777



6.0 Geological Setting, Mineralization, and Deposit

6.1 Regional Geology

Northern Saskatchewan forms part of the Churchill Province of the Canadian Shield and has been subdivided into a series of litho-structural crustal units. The SGO is located within the Glennie domain of the Proterozoic Trans-Hudson Orogen (Figure 6-1).

The Trans-Hudson Orogen marks the collisional suture zone between the Archean Rae-Hearne, Sask, and Superior cratons formed during the closure of the Manikewan ocean (Stauffer 1984) and is divided into two distinct zones: 1) the Cree Lake Zone, and 2) the Reindeer Zone.

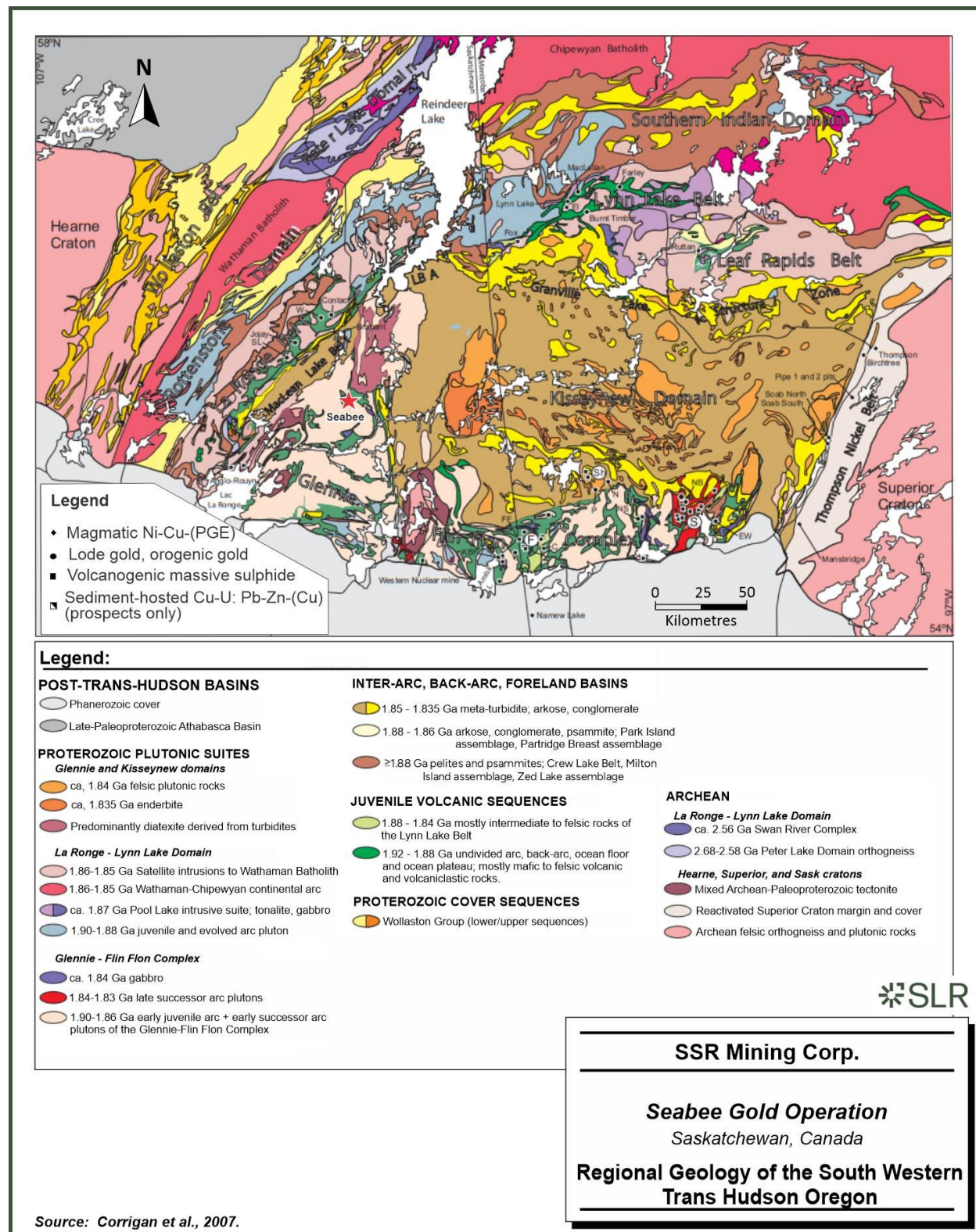
The Cree Lake Zone is composed of early Proterozoic continental shelf sedimentary rocks that overlie Archean rocks of the Hearne Province. The Reindeer Zone consists of mid-oceanic ridge basalts, oceanic island-arc basalts, inter-arc volcanogenic sedimentary rocks, and molasse-type sedimentary rocks. Plutonic rocks of various composition and age intrude both successions.

The Reindeer Zone is subdivided into litho-tectonic domains based on similarities of lithology, metamorphic grade, and structure (Lewry and Sibbald 1977). The Glennie domain is characterized by arcuate belts of Lower Proterozoic supracrustal rocks separated by granitoid gneisses and granitoid intrusions (Macdonald, 1987). It is bounded on the west by the north-northeast trending Stanley shear zone and on the east by the north-south trending Tabbornor fault zone.

Lewry et al. (1990) interpreted the Reindeer Zone as a folded stack of nappes and thrust complexes separated by ductile mylonitic zones, emplaced during the terminal collision of the Trans-Hudson Orogen. The interpretation was based in part on the presence of Archean windows within the Glennie domain and neighbouring Hanson Lake block (Bell and Macdonald, 1982; Chiarenzelli et al., 1987; Craig, 1989) suggesting that the Glennie domain is underlain in part by Archean rocks (Lewry et al., 1990; Bickford et al., 1990). Extensive seismic geophysical studies (White et al., 1994) and samarium-neodymium systematics (Chauvel et al., 1987) support the interpretation.



Figure 6-1: Regional Geology of the Southwestern Trans-Hudson Orogen



6.2 District Geology

The SGO is located in the northwestern portion of the Pine Lake greenstone belt (PLGB) in the Glennie domain. The PLGB comprises a variety of geochemically distinct ca. 1890 Ma to 1860 Ma tholeiitic mafic volcanic, intrusive, associated sedimentary rocks and felsic to intermediate intrusive rocks formed in juvenile island arc and back arc settings assigned to Assemblage A (Figure 6-2 and Figure 6-3). Assemblage A is unconformably overlain by the Pine Lake conglomerate which forms the base of Assemblage B. Siliciclastic rocks of Assemblage B become interlayered with felsic to intermediate volcanic rocks up section that have been dated at ca. 1838 Ma. The Porky Lake Group (Assemblage C) occupies the core of the Ray Lake synform, located in the northwestern portion of the PLGB, and is interpreted to unconformably overlie Assemblages A and B (Delaney, 1992), though the contact has been strongly reworked by subsequent deformation. Metamorphic grade across the Pine Lake greenstone belt ranges from upper greenschist to upper amphibolite facies. The belt has been complexly folded by at least four major phases of deformation.

Gold deposits in the SGO can be broadly assigned to three main geological domains (Figure 6-2):

- **Santoy Mine Complex (SMC):** The SMC is hosted in a sequence of Assemblage A mafic volcano-sedimentary rocks variably intruded by ca. 1875 Ma granodioritic rocks along an approximately 15 km roughly north–south trending sinistral to sinistral-reverse shear zone. The SMC occurs in an approximately 3 km long interpreted dilatant jog along this structure and is spatially associated with the ca. 1875 Ma Lizard Lake pluton.
- **Laonil Lake Intrusive Complex:** The historical Seabee and 5-1 mines occur along a series of conjugate shear zones within a coarsely layered ultramafic to mafic intrusion dominated by medium-grained, mesocratic gabbro.
- **Porky:** The Porky deposit area is a mineralized trend located near the nose of the Ray Lake synform, a 12 km long tightly folded and sheared contact separating siliciclastic rocks of the Porky Lake Group to the north from volcanic rocks to the south.



Figure 6-2: Local Geological Setting

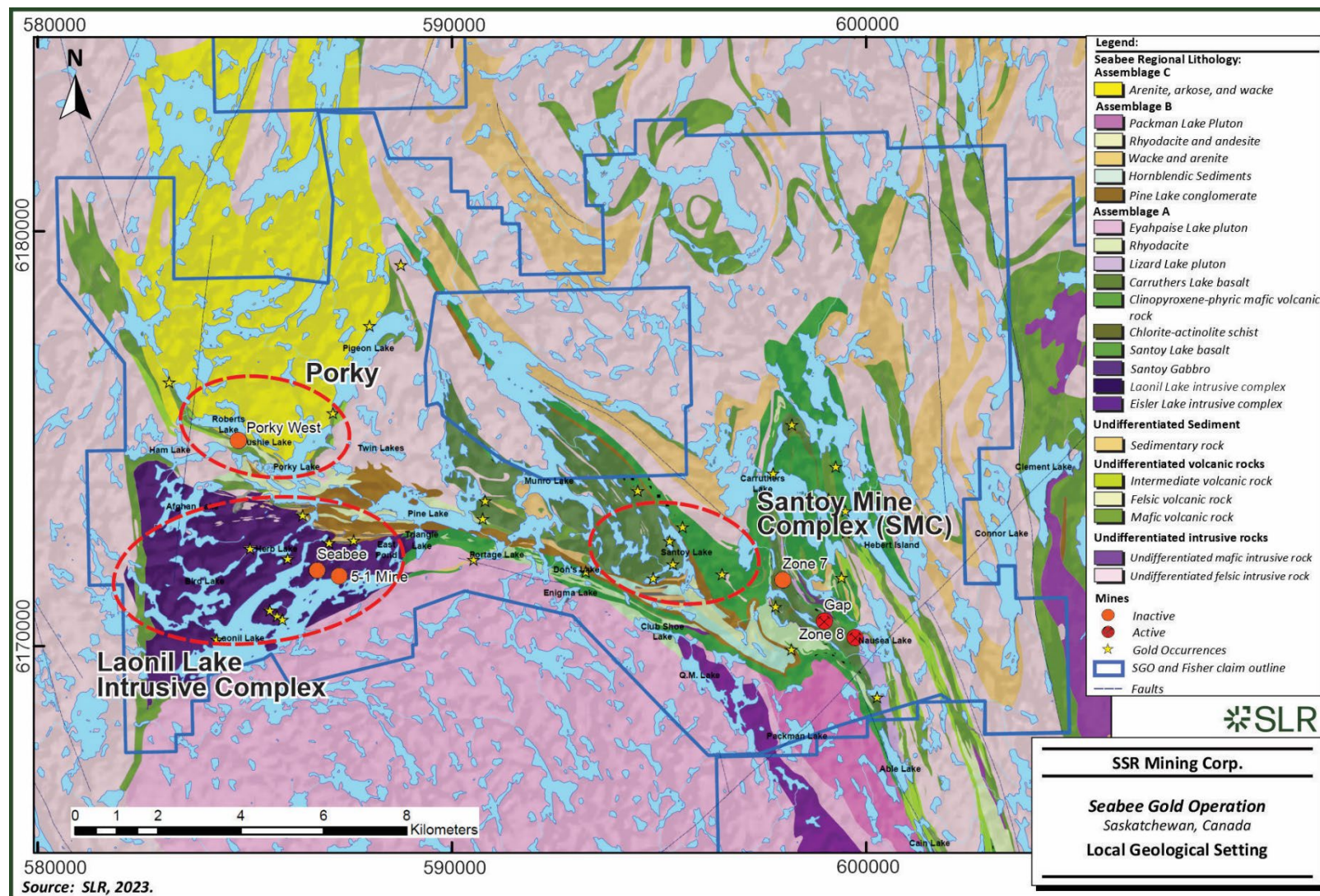
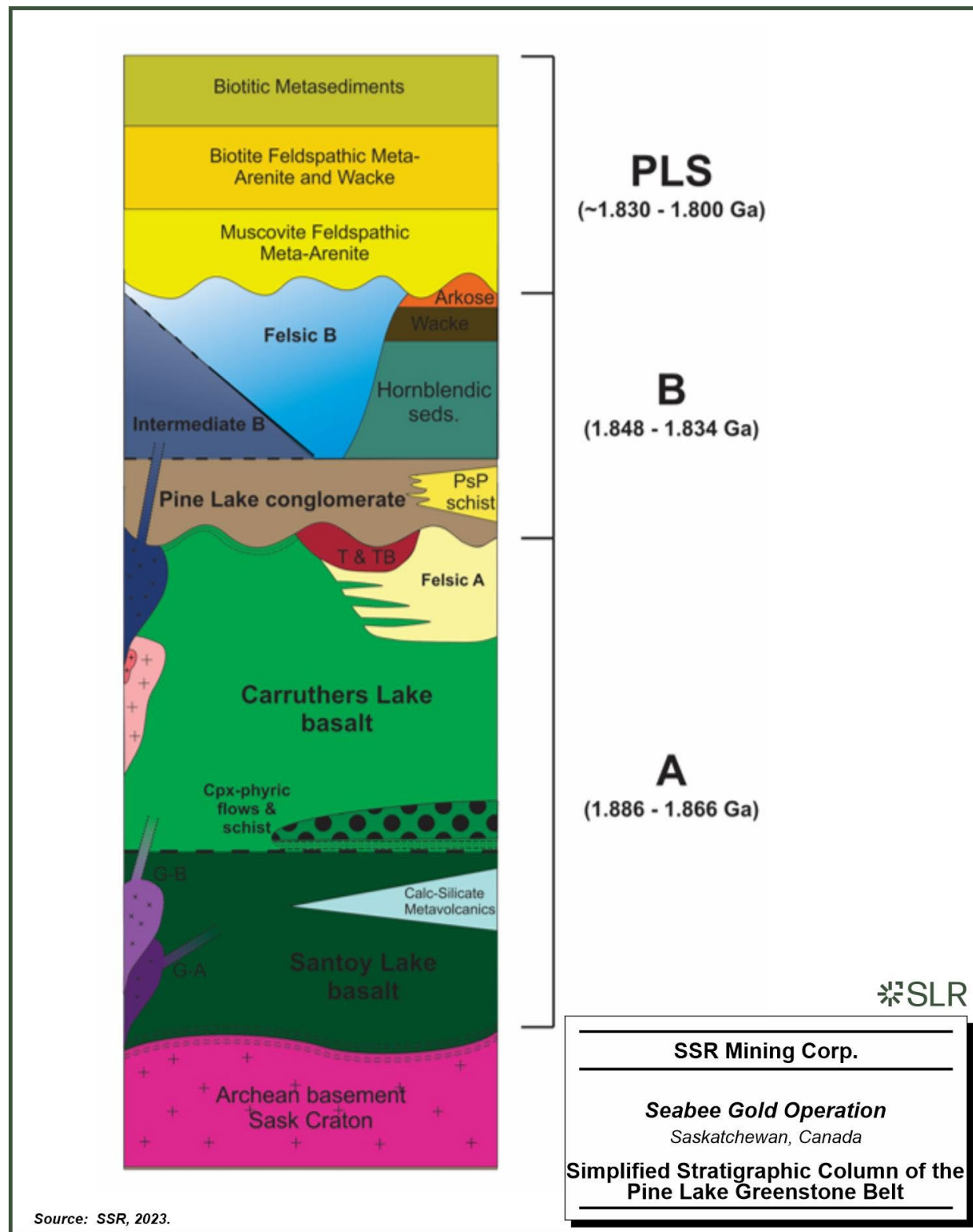


Figure 6-3: Simplified Stratigraphic Column of the Pine Lake Greenstone Belt



6.3 Structural Setting

Coeval folding and thrusting during a protracted period of progressive deformation associated with the collision and amalgamation of several Archean continental fragments resulted in four major phases of deformation on the SGO property that are characterized as follows (SRK 2009):

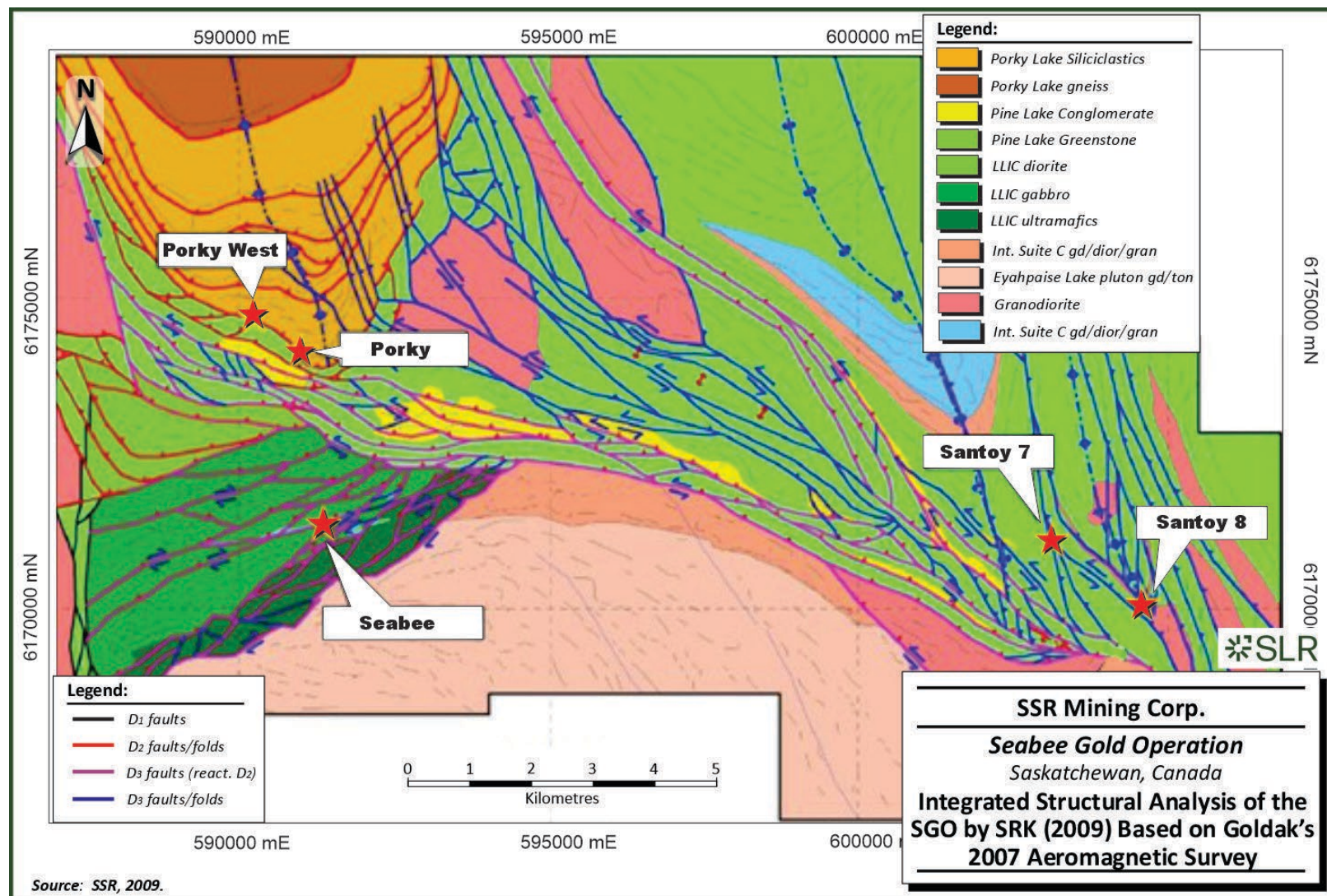
- D1 (approximately 1,870 Ma to 1,845 Ma): Development of gneissic foliation and intrafolial folds associated with amalgamation of the Glennie and Flin Flon domains.
- D2 (approximately 1,845 Ma to 1,830 Ma): South directed thrusting and roughly east–west folding associated with the collision of the Reindeer Zone and Sask craton.
- D3 (approximately 1,830 Ma to 1,800 Ma): West directed thrusting associated with north–northwest trending folding and transposition, and strike-slip reactivation of D2 shear zones controlled by the collision of the Superior and Sask cratons. Peak amphibolite grade metamorphism was reached at approximately 1,810 Ma.
- D4 (approximately 1,830 Ma): Re-folding of D3 folds into regional type 1 and type 2 interference patterns associated with the final formation of the Trans-Hudson Orogen.

SRK (2009) generated an integrated interpretation using published literature, regional mapping data, drilling data, and geophysical data that was collected during Goldak Airborne Surveys' (Goldak) 2007 (Goldak 2007) aeromagnetic survey over the SGO (see Section 7.1.2.1). The following observations were made:

- Minor D1 faults trend north–south in the southwest corner of the interpretation area; gneissic foliation and intrafolial folds cannot be observed on the scale of interpretation. D1 faults are present where a narrow strip of Pine Lake greenstone is interpreted to make the boundary between the Laonil Lake intrusive complex to the east and granodiorite units to the west. Any larger scale D1 features have been overprinted by subsequent deformation events.
- Regional north–south compression during D2 focussed on main deformation corridors and lithological contacts in the Laonil Lake intrusive complex. The Porky Lake metasedimentary belt was emplaced as late-stage southward thrust sheet(s) on the Pine Lake greenstone belt:
 - o Early-D2 gold mineralization in the Seabee deposit is hosted in isoclinally folded quartz veins within D2 reverse shear zones that were reactivated as dextral shear zones during D3. Mapped veins appear offset by late-D2 structures that are sub-parallel to the Eyahpaise Lake pluton intrusive margin (1,859 Ma), suggesting that gold emplacement commenced prior to 1,859 Ma.
 - o Late-D2 gold mineralization in the Porky deposits are associated with the development of a south verging thrust fault which formed late in the D2 phase when the Porky Lake metasedimentary belt was emplaced on the Pine Lake greenstone belt. The hosting fault was subsequently folded along a north–south axis, the Ray Lake synform, during D3 deformation.



Figure 6-4: Integrated Structural Analysis of the SGO by SRK (2009) Based on Goldak's 2007 Aeromagnetic Survey



- East–west compression during D3 reactivated deformation corridors and D2 structures in the Laonil Lake intrusive complex. Dextral kinematics were observed on west–southwest components, and sinistral kinematics were observed on all other components. Sinistral strike-slip shear zones observed in the central domain of the interpretation area, and north to northwest trending oblique-slip shear zones and folds in the eastern and western domains of the interpretation area. D3 folding affects D2 thrust faults (i.e., Ray Lake synform):
 - o Gold mineralization in the Santoy deposits are associated with north–northwest trending D3 reverse and sinistral-reverse shear zones. It is possible that the deposits are controlled by fault intersections, enhancing permeability.

6.4 Mineralization

Gold mineralization at the SMC is hosted within the Santoy Shear Zone (SSZ); a kilometer scale shear zone with a roughly north-south strike that dips moderately to steeply to the east. Economic concentrations of gold occur in two main settings within this structure. The first, and historically most significant source of ore, is within dilatant portions of the SSZ. Mineralization in this setting is typified by diopside-albite +/- titanite altered, variably deformed, mafic volcanic rocks with sheeted and massive quartz veining up to 30 m wide with 2% to 10% sulphides (pyrite > pyrrhotite > chalcopyrite) +/- coarse visible gold. This style of mineralization is the dominant style of the Santoy 7, 8A/B, and 9 Veins. The second setting for gold mineralization in the SMC is within apophyses, and along the margin, of the Lizard Lake Pluton (LLP), which is a granodiorite intrusion deformed by the SSZ. Mineralization in this setting follows foliation parallel fracturing and, most significantly, the plunge of axial traces of secondary folding where competency contrast during deformation allowed for the formation of larger scale (1 m to 10 m) fracture networks to trap mineralizing fluids. Significant mineralization within the LLP is typified by highly silicified, variably albite altered and quartz veined granodiorite with 2% to 5% sulphides (pyrrhotite > pyrite > chalcopyrite). A greenish hue, interpreted to be an alteration of albite, tends to accompany the highest gold grades in this mineralization setting. This mineralization is typical of the GHW, SHW, and Santoy 8F mineralization.

Gold mineralization at the Porky deposits occurs along the western margin of the Ray Lake synform within a kilometre scale shear zone, the Pine Lake Shear Zone (PLSZ), that strikes east-southeast and dips moderately to the south. Gold mineralization at the Porky deposits is hosted in two distinct settings. The gold mineralization of greatest economic significance is hosted in 2 m to 20 m wide sheeted quartz veins with 2% to 10% sulphides +/- coarse visible gold (arsenopyrite > pyrite > pyrrhotite > chalcopyrite) within the metasedimentary rocks of the Porky Lake Group either immediately at the contact with the mafic volcanics above or, more prominently, footwall to a conglomerate unit usually 20 m to 60 m from the mafic-sediment contact. The best developed veining appears to correlate with the intersection of the axial planes of large (hundreds of metres) scale folding within the Porky Lake Group and the PLSZ. The second setting for gold mineralization is within broad (5 m to 60 m wide) intervals of deformed, calc-silicate altered, and locally sulphide rich (5% to 20% sulphide; pyrrhotite > pyrite > chalcopyrite +/- arsenopyrite and visible gold) mafic volcanic rocks. This setting tends to exhibit a lower gold grade than the veining internal to the sediments.

Gold mineralization in the now-closed Seabee Mine occurs in sub-vertical, roughly east-west striking, interconnected shear structures internal to a mixed unit of gabbro and quartz-feldspar dikes named the Laonil Lake intrusive complex. Gold mineralization is hosted dominantly in



quartz veining with 2% to 7% sulphide (pyrite > pyrrhotite > chalcopyrite) +/- tourmaline, carbonate, and coarse visible gold. While the Seabee Mine is now closed, a number of sub-parallel structures to the ones which hosted the former mine have indications of economic mineralization in historic sampling.

Table 6-1 summarizes the key stratigraphic and structural elements controlling the mineralization at each of the SGO deposits.

Table 6-1: Key Stratigraphic and Structural Elements Controlling Mineralisation at the Seabee, Santoy, and Porky Deposits

Area	Zone Name	Mineralization Setting	Host Rock	Strike Length (m)	Vertical Extent (m)	Thickness (m)	Strike	Dip
Seabee	L62	Quartz-tourmaline veins in shear zones	Laonil Lake Intrusive Complex gabbro	150	700	1–11	E	Sub-Vertical
	2 Vein	Quartz-tourmaline veins in shear zones	Laonil Lake Intrusive Complex gabbro	1,800	1,400	2–7	ENE	Sub-Vertical
	5-1 Shear	Quartz-tourmaline veins in shear zones	Laonil Lake Intrusive Complex gabbro	800	1,100	1–11	ENE	Sub-Vertical
Santoy	Zone 7	Quartz veins in diopside-albite (calc-silicate) altered shear zones	Mafic metavolcanic rocks and lesser dioritic to granodioritic sills	330	120	2–10	N	Moderate to flat
	Zone 8	Quartz veins in diopside-albite (calc-silicate) altered shear zones	Mafic metavolcanic rocks and lesser dioritic to granodioritic sills	600	500	2.5–7	NW	Moderate
	Zone 8 East	Quartz veins and flooding in sheared and isoclinally folded granodiorite	Granodiorite stock in fold nose near hanging wall contact with mafic metavolcanic rocks	200	250	1.5–15	NNW	Moderate to flat
	Zone 9	Quartz veins in diopside-albite (calc-silicate)	Mafic metavolcanic rocks and lesser	650	650	2–30	NW	Moderate



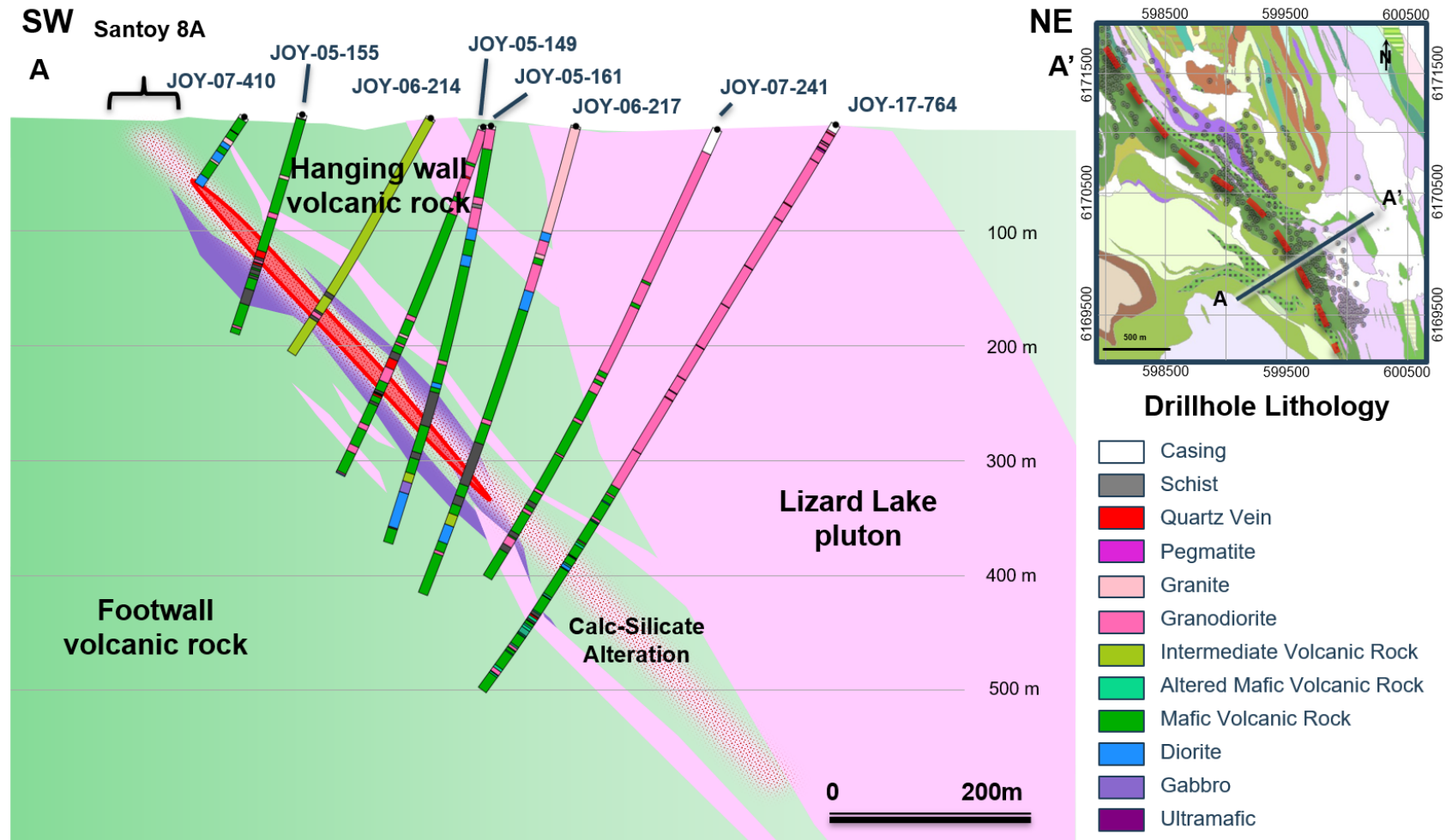
Area	Zone Name	Mineralization Setting	Host Rock	Strike Length (m)	Vertical Extent (m)	Thickness (m)	Strike	Dip
		altered shear zones	dioritic to granodioritic sills					
	Gap Hanging Wall	Quartz veins in folded granodiorite intrusion	Lizard Lake Pluton	200	800	1–20	EW	Moderate to low
	Santoy Hanging Wall	Quartz veins in folded granodiorite intrusion	Lizard Lake Pluton	400	600	1–10	S	Moderate to steep
Porky	Porky Main	Quartz veins in diopside-chlorite-actinolite (calc-silicate) altered shear zones	Mafic metavolcanic rocks and to a lesser extent arenaceous sedimentary rocks of the Porky Lake Group.	280	180	1–4	SSE	Moderate to steep
	Porky West	Quartz veins in silicified calc-silicate altered shear zones	Arenaceous sedimentary rocks of the Porky Lake Group.	1,300	500	1.5–20	ESE	Moderate

Source: SSR, 2017b.

Figure 6-5 to Figure 6-8 show typical cross sections of the mineralization lenses and lithologies of the Santoy Mine and Porky West deposits.



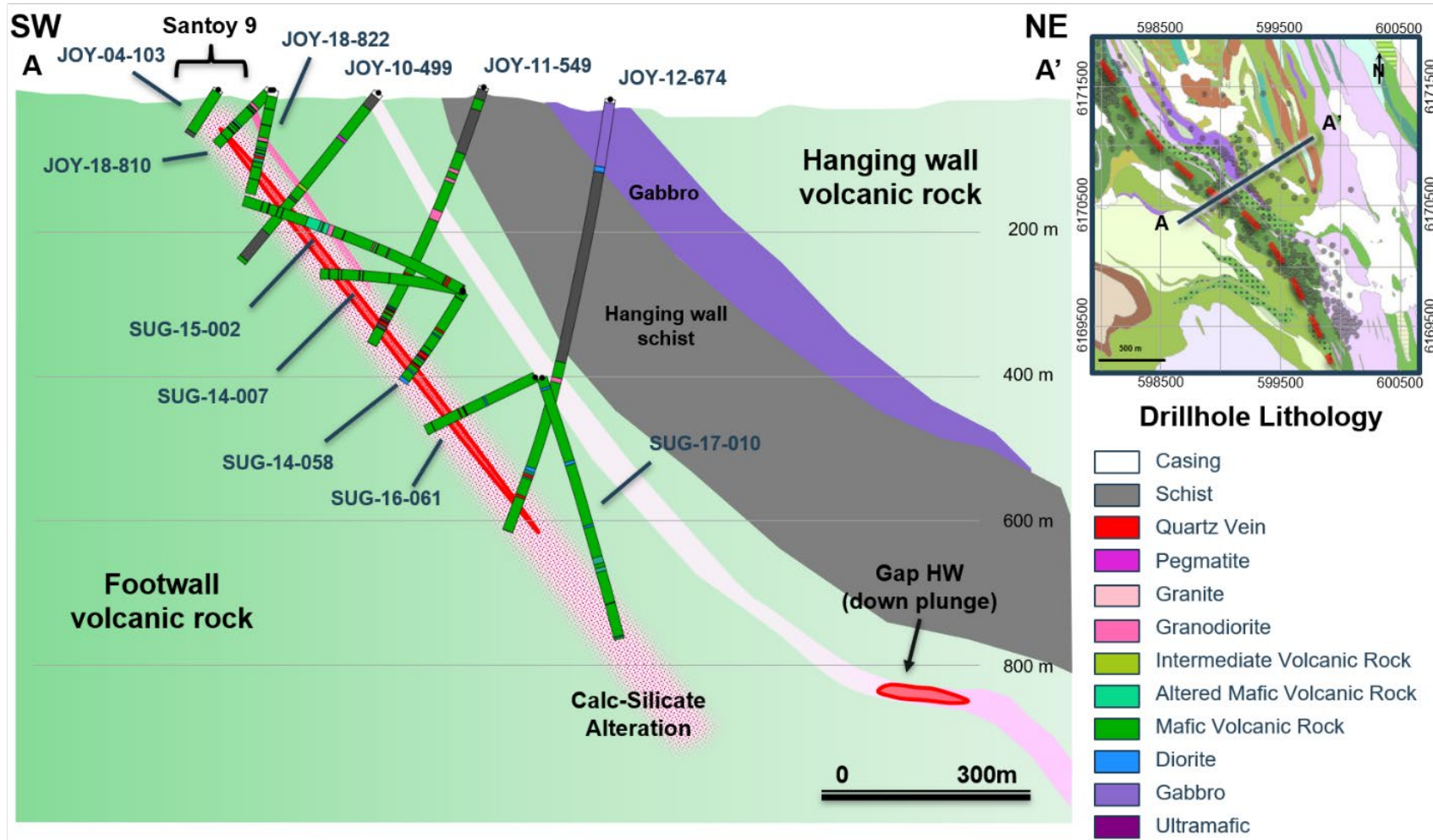
Figure 6-5: Representative Cross Section of Mineralization at Santoy 8



Source: SSR, 2023.



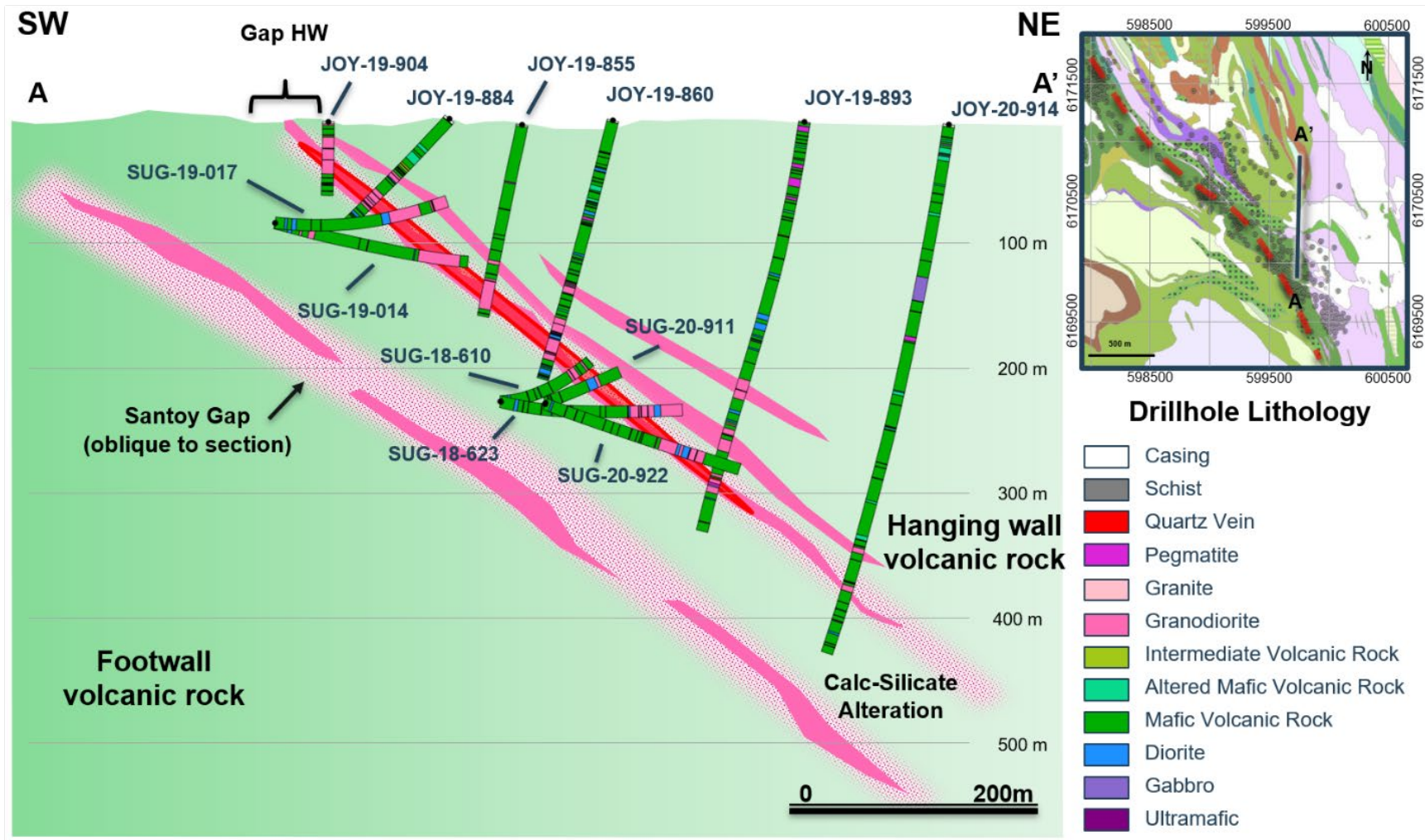
Figure 6-6: Representative Cross Section of Mineralization at Santoy 9



Source: SSR, 2023.



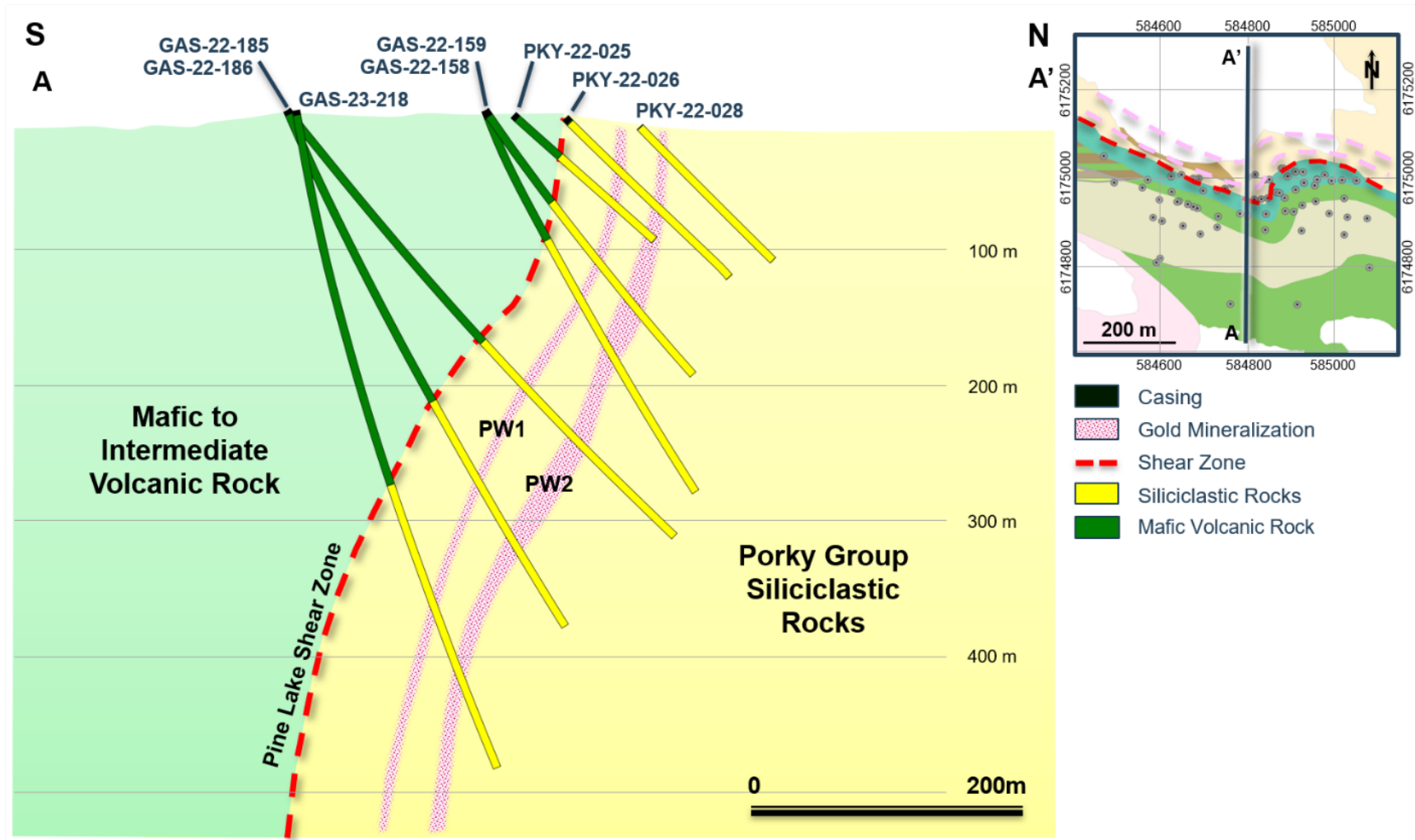
Figure 6-7: Representative Cross Section of Mineralization at Gap Hanging Wall



Source: SSR, 2023.



Figure 6-8: Representative Cross Section of Mineralization at Porky West



Source: SSR, 2023.



6.5 Deposit Types

The SGO hosts orogenic, quartz-vein hosted lode gold deposits developed in major brittle-ductile to ductile shear systems. The gold mineralization throughout the SGO exhibits complex geometrical patterns attributed to a combination of structural and/or lithological controls.

Mesothermal gold deposits typically emplaced as a system of en echelon veins, forming tabular veins in competent host rock lithologies, or as stockwork veinlets and stringers in less competent host rock lithologies. Lower grade bulk-tonnage style mineralization with gold associated with disseminated sulphides may develop in areas peripheral to quartz veins. Orogenic gold deposits can also be related to broad areas of fracturing, where gold and sulphides are associated with quartz veinlet networks. The quartz veins are typically in sharp contact with the wallrock and can display a variety of textures including massive, ribboned or banded, and stockworks with anastomosing gashes and dilations, which may subsequently be altered or destroyed during deformation. Gold-quartz veins are found within zones of intense and pervasive carbonate alteration along faults proximal to trans crustal breaks, and often occur at a high angle to the primary collisional fault zone. They are commonly associated with late syn-collisional, structurally controlled intermediate to felsic magmatism, with economic deposits generally hosted by large competent units, such as intrusions or blocks of obducted oceanic crust (Ash and Aldrick, 1996).

Delaney (1992) suggested that lithological heterogeneities between feldspar porphyry dikes and gabbros of the Laonil Lake intrusive complex are responsible for the localization and propagation of the shear zone. At Seabee, the structures trend between 045° and 085°, and dip north near vertically. Three discrete subsets of structures have been recognized trending at 070°, 085°, and 045°, with the 070° structures containing the auriferous veins. At Santoy, the structures trend between 340° to 315°, and dip moderately to the east. Vein geometry within the shear zones is commonly a combination of 'S' and 'Z' oblique and extensional types, and second order or Riedel shears.

High gold grades occur at the intersection of the primary 'S' shears with subordinate shear structures and/or where potassic altered diorite dikes have intruded the Laonil Lake gabbro prior to strain occurrence. It is probable that secondary dikes introduced additional gold to the system, which was later remobilized under strain conditions. Exploration at SGO is guided by applying techniques consistent with identification and discovery of other quartz-vein lode gold systems. Airborne magnetic data is used in surface exploration to identify structural corridors and asymmetrical features, folds and target areas that are known to host gold on the property. This geophysical data is used in conjunction with regional and detailed geological mapping to identify major zones of shearing and alteration, of which calc-silicate alteration has proven to be the most prospective variety on the SGO property.

Geochemical soil sampling is also used as a regional exploration technique to identify gold and trace element vectors associated with Seabee-style gold mineralization and has successfully identified gold mineralization at various locations across the property. Once targets have been delineated by the above exploration methods, diamond drilling at wide spacing is used to test the structural systems to allow for SSR's minimum threshold deposit size to be identified based on observed local grade. The SLR QPs considers the geology and characteristics of gold mineralization at the Santoy 8 and 9 and Porky West Projects are well understood while the GHW-SHW Project requires more analysis to fully understand its complexity.



7.0 Exploration

7.1 Surface Exploration

7.1.1 Geochemistry

Upon its acquisition of SGO, SSR undertook a review of all exploration activities conducted on the property by previous operators. An exploration program was subsequently undertaken, including detailed mapping of the Herb West and Santoy Lake areas, as well as the collection of accompanying soil samples to be submitted for gold assay. Limited anomalous occurrences were identified from grab and soil sample results, and no new showings or gold in soil trends were recognized. SSR plans to map additional regions to the north and east within the Herb Lake area as additional shear zones are targeted.

In the Santoy Lake area, mapping extended from Santoy Lake to the west end of the Santoy Mine. Soil sampling conducted over the same area resulted in the collection of 501 samples taken every 25 m on lines spaced 200 m apart. No anomalous trends of significance were identified. However, SSR has planned further exploration in prospective areas east and west of the 2016 exploration program area.

7.1.2 Geophysical Surveys

7.1.2.1 Airborne Magnetic and Radiometric Survey 2016

SSR contracted Precision GeoSurveys Inc. (Precision) to complete a high resolution airborne magnetic and radiometric survey over the most recently staked portion of the SGO land package from August 30 to September 4, 2016 (Precision 2016). The survey block covered an area of 22.9 km x 15.0 km and included 150 survey lines and 25 tie lines that totalled 1,815 line kilometres. Survey lines were spaced 100 m in an east–west orientation and tie lines were spaced 1,000 m in a north–south orientation. Nominal terrain clearance was specified at 75 m.

Selected anomalies were re-flown for confirmation, specifically those found on a single flight line. Lines to be re-flown were a minimum of 2,000 m long, so that survey line re-flights crossed at least two tie lines and tie line re-flights crossed at least five survey lines.

Survey overview maps (flight lines and digital terrain model), magnetic maps (total magnetic intensity, residual magnetic intensity, and calculated vertical gradient of the residual magnetic intensity), and radiometric maps were produced by Precision, with the objective of identifying potential new targets for gold mineralization on the Seabee property.

The magnetic data was collected to better observe the structural nature of the underlying bedrock and, where possible, determine major breaks in the regional stratigraphy along which shear zones can propagate, and the radiometric data was used to determine the relative amounts of uranium, thorium and potassium in the surficial rocks and soils to be used for the mapping of bedrock lithology, alteration and structure. The resultant data were found to be consistent with the structure of the bedrock and major lithological breaks previously interpreted by geological mapping, air photo interpretation and drilling. The data was also consistent with the two-dimensional structural architecture and intensity of previously flown surveys within juxtaposed survey blocks.



7.2 Drilling

Prior to SSR's acquisition of the SGO, and as of December 31, 2015, a total of 2,037 surface drill holes totalling approximately 389,281 m and 4,818 underground holes totalling approximately 861,514 m had been completed on the property.

As of December 31, 2023, SSR has drilled an additional 484 surface holes totalling approximately 185,841 m and 1,553 underground holes totalling approximately 319,847 m since acquiring the property from Claude Resources.

Table 7-1 summarizes the drilling completed on the SGO property (excluding the Fisher and Truscott tenements). Figure 7-1 displays the surface holes completed on the property. Details regarding the salient drill programs are discussed in greater detail in the subsections below.



Table 7-1: Surface and Underground Drilling Completed on the SGO to December 31, 2023

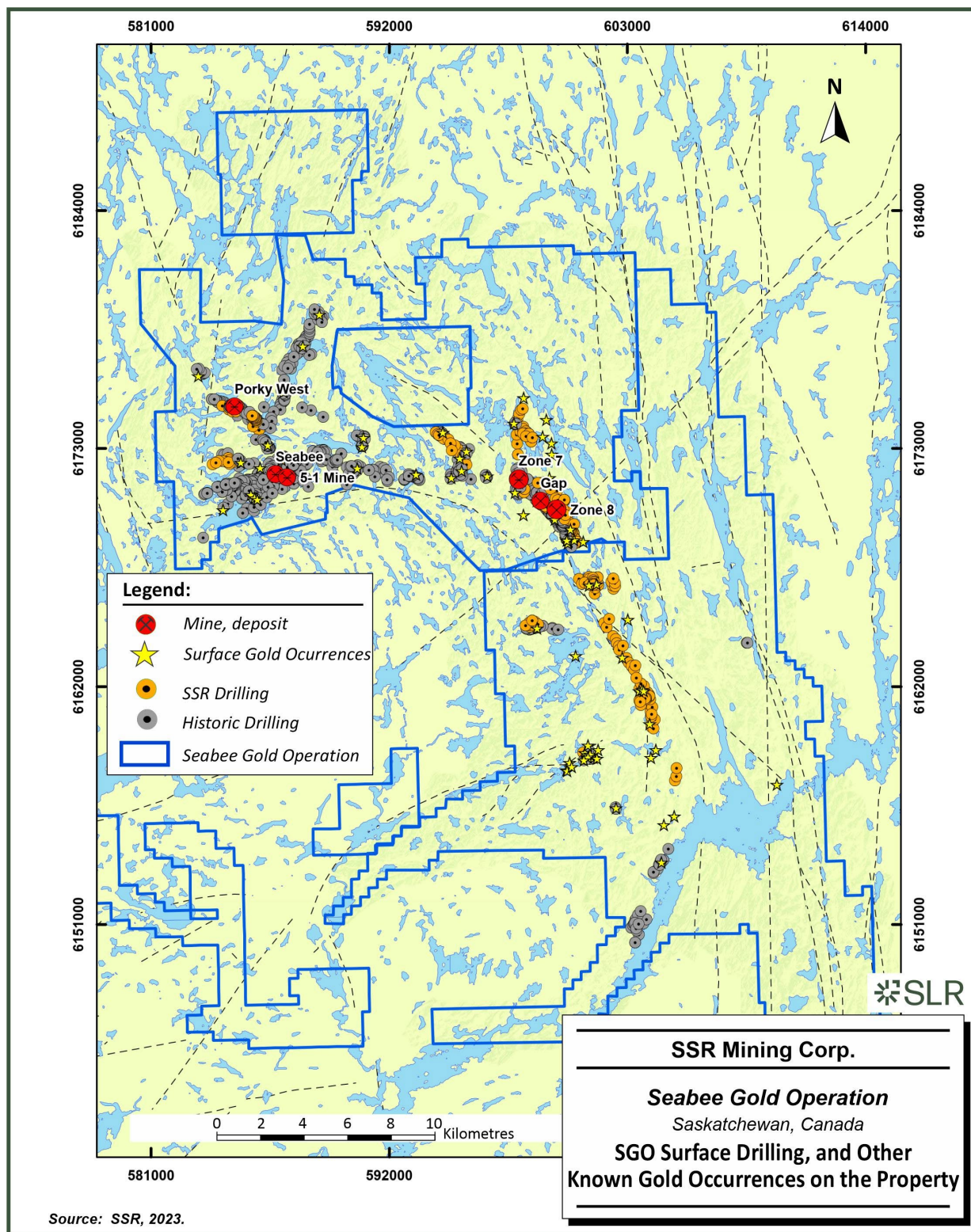
Drilling Program	Company	No. Surface Drill Holes	Surface Metres Drilled	No. Underground Drill Holes	Underground Metres Drilled	Total Number of Drill Holes	Total Metres
1947–1988	Various (Cominco, Claude Resources, Placer)	278	35,419	77	6,491	355	41,910
1989–2012	Claude Resources	1,742	344,415	4,190	724,858	5,932	1,069,273
2013–2015	Claude Resources	17	9,447	551	130,165	568	139,612
2016	Claude Resources/SSR	51	19,817	306	65,021	357	84,838
2017	SSR	14	10,506	159	61,179	173	71,685
2018	SSR	83	24,389	229	52,500	312	76,889
2019	SSR	44	16,888	174	51,278	218	68,166
2020	SSR	21	9,638	177	30,040	198	39,678
2021	SSR	74	25,678	276	39,652	350	65,330
2022	SSR	93	41,257	294	37,710	387	78,967
2023	SSR	155	57,485	267	49,748	422	107,233
Total		2,572	594,939	6,700	1,248,642	9,272	1,843,581

Note:

- Does not include drilling on the Fisher and Truscott exploration tenements.



Figure 7-1: SGO Surface Drilling, and Other Known Gold Occurrences on the Property



7.2.1 Drilling by Previous Operators

7.2.1.1 Drilling by Cominco, Claude Resources, and Placer 1947–1988

Cominco identified four gold-bearing zones on the SGO property from 1947 through 1950, after drilling 79 holes totalling 4,414 m, and in 1961 drilled two shallow holes of 41 m as part of an overall review of the known property data. In 1974, Cominco drill tested additional vein structures with 16 holes totalling 458 m, and commenced further exploration from 1982 through 1983 during which time 20 holes were drilled totalling 3,776 m. This drill program was not completed because Cominco sold the property in 1983.

Upon acquisition of the property, Claude Resources drilled three holes totalling 226 m to corroborate Cominco's work. Pursuant to an option agreement with Claude Resources, Placer executed an extensive surface and underground drilling program from June 1985 to June 1988, during which a total of 95 surface holes and 72 underground holes were completed. Placer determined that the property did not meet its criteria for development and returned the property to Claude Resources in 1988.

7.2.1.2 Drilling by Claude Resources 1989–2015

Seabee Area

After obtaining a 100% interest in the Currie Rose property from Currie Rose Resources Inc. in 1994, which consisted of over 4,000 ha surrounding the Seabee Mine, Claude Resources conducted a drilling program to test gold-bearing structures identified during a prospecting program in the previous year. The drill program consisted of 27 holes totalling 3,458 m. In 1996, definition drilling was carried out over the 10 zone, identified the previous year adjacent to the western boundary of the Seabee Mine. A total of 23 holes were drilled for 2,567 m. Diamond drilling in 1997 explored the vein extensions of the 10 vein and 2C vein structures with seven holes totalling 1,573 m. The 1999 drill program focused on an area southwest of the Seabee Mine trend and consisted of 7,726 m drilled in 47 holes.

As a follow-up, the majority of holes drilled in 2000 were collared to the west of ML 5520 in the Bird Lake area, to explore for mineralized structures parallel to the Seabee 2 vein. Targets in the Porky Lake and Pine Lake areas were also tested. Six additional remote targets, namely the Scoop, Porky, Herb, Pine, East, and West Bird Lakes were explored in 2001, with anomalous gold values encountered within variably sheared host rocks.

In 2002, drilling focused on a laterally extensive geochemical soil anomaly on the west shore of Porky Lake, and on a series of quartz-bearing shear structures north and east of the No. 5 ramp access. The drill program successfully discovered the Porky West zone and produced elevated gold values over narrow widths at the No. 5 ramp access.

Drilling in 2003 in the Porky area discovered the Porky West zone, an arenite-hosted high grade gold lens. Subsequent drilling in 2004 focused on delineation drilling at the Porky Main and Porky West zones, and exploration drilling on the eastern limb of the Porky Lake anticline targeted the contact between the mafic metavolcanics rocks and feldspathic arenite.

A small diamond drill program was completed in 2009, which extended the down plunge extent of the Porky West ore shoots.



Evaluation of the Neptune target, located approximately 6 km north of the Seabee Mine, was the focus of exploration in 2010, where drill testing included two holes. Exploration efforts in 2011 included a further 28 drill holes to test the 1.8 km strike length of the soil anomaly to vertical depths of up to 250 m, and in 2012, further drilling at the Neptune target confirmed the sporadic nature of the gold-bearing system.

Santoy Area

Prospecting and geological mapping in 1998 resulted in the discovery of numerous new veins in the Santoy area. The targets were drill tested in 2002 with encouraging results and became the focus of additional exploration programs leading to the discovery of the Santoy 7, Santoy 8, and Santoy 8 East deposits in 2004 and 2005. In 2004, five holes totalling 598 m were drilled at Santoy 6, 48 holes totalling 6,164 m were drilled at Santoy 7, and 21 holes totalling 2,797 m were drilled at Santoy 8. Drilling of the Santoy 8 and Santoy 8 East zones in 2005 was aimed at testing the north–northwest plunge and dip extensions of the mineralized shear structures outlined in previous drill programs. Sixty-eight holes totalling 15,296 m were drilled, with an additional 20 holes totalling 6,272 m drilled in the summer of 2005. Infill drilling continued in 2007 to collect information for proposed mine plans with 25 m infill data to a depth of 250 m completed on the Santoy 8 and Santoy 8 East deposits. A total of 31,670 m was drilled from 147 holes.

Exploration drilling in 2010 targeted the Santoy Gap area to test the Santoy shear system between the Santoy 7 and Santoy 8 deposits, as well as to continue to investigate the down-plunge continuity of the Santoy 8 and Santoy 8 East deposits. Results from the program outlined continuity at depth for both the Santoy 8 and Santoy 8 East deposit.

Drilling defined the Santoy deposit in 2011. Multiple high grade intervals were intercepted, expanding the strike length and width of the known mineralization. During 2012, exploration focused on defining the relationship between the Santoy and Santoy 8 deposits to depths up to 750 m. Infill and exploration drilling around the Santoy lens and Santoy Shear Zone continued to confirm and expand the Santoy system, and also identified a sub-parallel lens approximately 150 m of the east of the Santoy deposit.

In 2013, surface drilling programs targeted the down-plunge extension of the Santoy and Santoy 8 deposits, resulting in two out of three step-out holes returning high grade gold intercepts. The Santoy system was extended down plunge to 650 m depth and the Santoy 8 deposit was extended 400 m down plunge.

Underground drilling in 2014 focused on defining and expanding the Mineral Reserve and Mineral Resource at the Santoy deposit. Results identified high grade and promising widths of gold mineralization hosted within three vein systems, named the Santoy 9A, 9B, and 9C deposits. Additional underground drilling in 2015 focused on the expansion of Mineral Reserve and Mineral Resource at the Santoy deposit, and a 6,000 m drill program targeted the plunge continuity of the Santoy 8 deposit. Results from the Santoy up-dip drilling demonstrated the potential for expansion of the deposit, and drilling results within, down dip, and down plunge also increased confidence in the continuity of the deposit at depth.



7.2.2 Drilling by Current Operator 2016-2023

7.2.2.1 2016

Drilling in 2016 by SSR and Claude Resources on the SGO property had the objective of increasing and converting the Mineral Resource to Mineral Reserve.

An underground diamond drilling program to upgrade the Inferred Mineral Resource and explore the extension of the Santoy 8A and Santoy deposits was completed by SSR. From surface, drilling was conducted to upgrade the up-plunge extension of the Santoy 9A, 9B, and 9C deposits as well as to complete deeper infill drilling on the Santoy 8A Inferred Mineral Resource.

At the Seabee Mine, five holes were drilled on the 15 Vein target, an offset mineralized structure along the 19 Shear. At the Carr target, located 4 km along strike to the north of the Santoy Mine, SSR drilled nine holes over a 2 km strike length, totalling approximately 2,500 m. At the Herb West target, located 2.2 km west-northwest of the Seabee Mine, four holes totalling approximately 1,130 m were completed. Results from drilling the above targets revealed shear-hosted quartz-veining structures with gold-bearing sulphide mineralization and warranted follow-up drilling.

7.2.2.2 2017

Drilling in 2017 from underground continued to focus primarily on the definition and expansion of the resources on the Santoy 8 and 9 veins. During 2017, the first underground program designed to test the GHW target was implemented. A limited surface program focused on defining the margins of the Santoy 8 and 9 veins that could not be tested from underground. The exploration team drilled four surface holes attempting to locate the depth continuity of a variety of targets in and proximal to the SMC without success.

7.2.2.3 2018

Drilling in 2018 from underground continued to focus primarily on the definition and expansion of the resources on the Santoy 8 and 9 veins. One underground drill was dedicated to exploring the SHW target. Surface drilling focused on the definition of near surface Santoy 9 veins. A surface based deep exploration program was completed in an attempt to intersect the 926 zone. Additional exploration programs drill tested targets around Santoy Lake.

7.2.2.4 2019

Drilling in 2019 from underground shifted significantly to focus on the definition and expansion of the GHW target. Limited underground drilling was conducted on the Santoy 8 and 9 veins largely due to a paucity of suitable drill bays. Surface drilling also focused on the definition and expansion of the GHW target, the result of which was an initial resource for the GHW deposit at year end 2019 of 1.15 Mt at 7.5 g/t Au Indicated and 850 Mt at 7.9 g/t Au Inferred for 496 koz gold (OreWin, 2022). The Exploration team conducted a limited program along strike of the GHW target within the Lizard Lake Pluton following up on the previous year's prospecting and soil sampling program with limited success.



7.2.2.5 2020

Underground drilling in 2020 focused almost exclusively on the definition and expansion of the GHW deposit with limited definition drilling conducted on the Santoy 8 and 9 veins due largely to a paucity of suitable drill bays and size of the GHW. Surface drilling shifted focus to the SHW target with several smaller programs also conducted to test near-mine targets that could not be reached from underground platforms. Of the surface targets tested in 2020, only the SHW showed potential for developing into a resource. The exploration team conducted limited follow-up on their 2019 program along strike of the GHW with mixed success.

7.2.2.6 2021

Underground drilling in 2021 focused on near mine definition and expansion of known resources. The majority of the underground drilling targeted the SHW zone which was successful in defining economically significant mineralization in setting similar to the GHW resource. Modest programs were undertaken on the 8 and 9 veins with mixed results for resource growth. Surface drilling in 2021 continued to define and explore for additional mineralization in the Lizard Lake Pluton using the GHW and SHW mineralization controls as a model for exploration as well as at the Core target north of Santoy 7. A drill campaign was also carried out at the historic Shane showing testing a moderately plunging mineralization model as well as to assess the prospectivity of structures oriented obliquely to the Pine Lake Shear Zone (PLSZ). The drilling successfully encountered mineralization within four discrete planes along the PLSZ to a depth of approximately 400 m vertical. Drilling also encountered mineralization in structures oblique to the PLSZ which hosted visible gold bearing quartz veining over multiple meters. The oblique structure encountered appears to be laterally discontinuous but may represent a new model to target for economic mineralization at the larger Shane target area.

7.2.2.7 2022

Underground drilling in 2022 focused on the down plunge of the 9 veins with mixed results. The remaining meters focused on upgrading confidence in dominantly the 8 veins but also the GHW and SHW deposits. Surface drilling in 2022 focused equally on the Shane and Porky West target areas with a smaller program proximal to the SMC and Joker targets. The Shane drilling aimed to define a resource on the mineralization in the PLSZ identified in the previous year. While mineralization at Shane was continuous it was found to be subeconomic. Porky West drilling was initially undertaken to assess the viability of an open pit resource existing, but it was quickly realized that the geometry and continuity of the veins, along with the significant portion of the deposit under Porky Lake, made an underground mining scenario much more favourable. Significant gold mineralization was encountered to approximately 400 m vertical depth beneath the historic workings as well as at the Petunia target located approximately 400 m to the west of the historic workings.

7.2.2.8 2023

Underground drilling in 2023 focused on the plunge extension of the 8 and 9 veins. A concerted effort was also made to decrease the drill spacing around mining fronts on the GHW to help improve confidence in grade interpolation and stope planning. Surface drilling in 2023 focused on the Porky West deposit with some drilling to support near term mine planning at the SMC. At Porky West, mineralization deemed amenable to underground mining was defined over a strike of 1,400 m and to a vertical depth of 500 m. Additional drilling at the Petunia target identified in



2022 was carried out. Based on the drilling results, a strike length of approximately 2.8 km, from Petunia in the west to the historic Porky Main deposit in the east has been interpreted to be hosted along the same prospective structure within the Porky Lake siliciclastic rocks.

Surface drilling at Santoy mine complex tested deeper down-plunge extensions of the Santoy 8 and 9 veins to a maximum vertical depth of ~1200 m with only sub-economic results encountered. Exploration drilling in the Santoy 6 area confirmed sporadic but sub-economic Au mineralization associated with altered granodiorite dikes. SLR is of the opinion that there is good potential to increase the Mineral Resource base for Santoy Mine underground deposits at depth as well as Porky West, and additional drilling and development is warranted.

7.2.2.9 Fisher, Leland and Truscott Drilling

In 2016, SSR entered an Option Agreement with Eagle Plains (Taiga Gold was a spin off of Eagle Plains) for the Fisher, Leland and Truscott properties. Since entering the Option Agreement and following the April 2022 acquisition of Taiga Gold Corp., SSR has completed 126 surface exploration drill holes totaling 44,594.5 m on the Fisher, Leland and Truscott tenements. A summary of drilling on performed on these exploration tenements is provided in Table 7-2.

Table 7-2: Surface Drilling on the Fisher, Leland and Truscott Tenements

Drilling Program	Company	No. Surface Drill Holes	Surface Metres Drilled
2016 - April 2022	SSR	101	38,648
April 2022 - December 2023	SSR	25	5,946.5

7.3 SSR Drilling Procedures

7.3.1 Underground Drilling Procedures

The most important dataset informing the current Mineral Resource at the SGO is derived from underground drilling. Underground drill layouts are created using Geovia GEMS software three-dimensional (3D) software. Three dimensional lines are created between a desired pierce point and a collar location for each planned hole. The resulting azimuths from the developed hole traces are given to the survey department as a digital plan map, which is then uploaded into the Mine Markup tablet. All underground drill layouts are created in mine grid coordinates. The survey crew then goes underground to physically paint the drill lines of all holes on the excavation walls by means of numbered lines, with front sight and back sight marked accordingly. Spuds (resembling a small hook) are drilled into the lines with which the line number and azimuth are marked on flagging tape in the event the painted lines become obscured or illegible over time.

Underground drills are equipped with laser sighting systems for accurate alignment on the specified drill line. Dips are set using digital inclinometers magnetically attached on the drill's feed frame. Completed drill holes are surveyed using a Reflex multi-shot tool and wireless palm unit to measure the azimuth, dip, and total magnetic field. Drill holes are surveyed at 10 m intervals from the bottom of the hole to the collar. For holes exceeding 500 m, it is common practice to take single shots every 30 m to 50 m as the hole advances to ensure that deviation is within acceptable ranges. Stored data is transferred to a memory stick from the palm unit and



is then uploaded into a program called S-Process, where the data is visually verified and then transferred into the GEMS MS Access database as a comma-delimited text file (*.csv). Upon completion of each hole, the collar locations and azimuths are recorded by mine surveyors and the data is transferred to the drill geologist as a .csv file for inclusion into the GEMS survey field in the MS Access database. Completed holes are checked against planned hole traces to verify that they are spatially correct in the 3D model.

Core logging takes place at the drill chamber underground. Logging data is captured on paper log sheets and include header data containing the drill hole identification number, date, the logging geologist's name, and planned hole directional data. The main body of the log contains row and column fields for depth intervals, lithological descriptions, sample numbers, assay results, and rock quality designation (RQD) measurements. Upon completion of logging, the information is manually entered into the GEMS database by a mine geologist. Completed drill logs are placed in a file folder for future verification by the senior mine geologist before inclusion into resource updates. Completed assay data is housed in an MS Excel database owned by the Seabee mine laboratory. The geology department has read-only access to this file and can copy and paste results into the GEMS database. Implementation of MX Deposit database software is in progress, and this will replace the GEMS database that is being currently used.

7.3.2 Surface Exploration Drilling Procedures

Upon establishing drill targets, 3D points representing surface drill hole collar locations are created in Leapfrog or Gems software. Drill hole traces are planned to pierce the target as close to orthogonal as possible to obtain a true thickness of the stratigraphy. After the anticipated hole deviation is accounted for and an optimal trace is obtained, the surface location is inspected to ensure suitability.

In the field, hole collar locations and two front sights are recorded with a handheld global positioning system (GPS) prior to data being entered into MX Deposit. Alternatively, the drill contractor may align the drill using the DeviSight tool which uses GPS to derive an azimuth which is preferable to a compass and front sights due to the elimination of magnetic interference and operator error when aligning two pickets.

Reflex EZ-Gyro multi-shot device tests record the hole's azimuth and dip. Tests are completed at 30 m intervals during downhole drilling and may also be collected at 30 m to 100 m intervals upon completion of the hole as rods are being pulled if the desired density of measurements is insufficient with the shots taken while drilling. The data are collected via a handheld device that syncs to the Reflex tool downhole and are recorded onto Reflex paper sheets. The paper sheet and digital data are delivered to the supervising exploration geologist and are downloaded and input into a database to track the hole progression, ensuring that unexpected and/or excessive deviation has not occurred.

Once a hole has been completed, an aluminum plug is placed approximately 10 m downhole from the base of the casing and the hole is cemented to the top. The SGO mine survey team then takes a differential GPS waypoint of the collar location with the base station for final verification of its location, providing accuracy within 0.3 m of the hole location. Drill holes where this level of accuracy is not required may be surveyed in by handheld GPS unit or using the DeviSight's GPS coordinates with an accuracy of approximately ± 3 m. The digital data is sent to the supervising exploration geologist and the final 3D coordinates of the hole are entered into MX Deposit and tracked in modeling software.



Drill core is transported to the core logging facility, where it is marked and logged. Data from individual drill programs is captured in an MX Deposit database, including drill hole collar and header information, detailed descriptions of lithological units, structures, alteration and mineralization, core recovery and RQD data, and sample information. Photographs of core are taken both wet and dry, and digital copies are archived. Upon receiving laboratory results and confirming quality control results, the entire dataset is combined into a master MX Deposit database and incorporated into the tracking software. Core boxes are stacked and stored at the SGO core storage yard with metal tags affixed by staples indicating borehole ID, box number, and interval contained.

7.3.3 Drill Core Sampling

7.3.3.1 Sampling by Previous Operators 1949–2009

Generally, historical drill core sampling on the SGO was conducted by a geologist selecting mineralized intervals based on visual inspection of drill core. Selected intervals were split by hydraulic or manual power splitter and sent for analyses at the on-site laboratory or an off-site laboratory.

Information regarding historical sample preparation and analyses is incomplete or unavailable and is therefore not discussed in detail in this TRS. Multiple sampling methods are attributed to individual drilling campaigns without differentiation of the method applied to each hole.

Furthermore, drilling prior to 2009 tends only to have dip surveys and no control on azimuth, and is therefore unreliable.

Current Mineral Resource and Mineral Reserve estimates at the SGO are informed almost entirely by drilling post-2009, excluding the Mineral Resources attributed to the Porky West deposit. The historical sample preparation and analyses therefore does not have a significant material impact on the property.

7.3.3.2 Drill Core Sampling by Claude Resources and SSR 2009 to 2023

Drill core is logged in detail on site by SSR geologists. Rock quality and core recovery are documented, zones of potential mineralization are marked for sampling, and one to five samples are marked in both the hanging wall and footwall “winging” the interval of interest.

Surface diamond drill core samples are chosen based on geology and average 1.0 m to 1.5 m in width, with 0.3 m width samples taken for geological interpretation purposes. The sampling interval was established by minimum or maximum sampling lengths, and geological and/or structural criteria, and is not less than 0.10 m. Discrete intervals of mineralized or prospective lithologies which measure more than 0.10 m and less than 1.0 m may be sampled as a single sample. Mineralized or prospective lithologies which are greater than 1.0 m in width tend to be broken into one metre sample intervals internal to the interval of interest. Intervals immediately adjacent to mineralized or prospective lithologies are sampled, at a minimum, 1.0 m from the contact with the prospective mineralogy. Sampling of less prospective, or weakly altered lithologies, may be sampled at 1.5 m to 2.0 m intervals at the discretion of the logging geologist.

Intervals deemed not prospective for gold mineralization by the geologist are either un-sampled or sampled using a composite sample, not exceeding 8 m in length. The composite sample consists of not less than one 10 cm piece of core selected per 1.5 m in the total 8 m sample interval. The composite sample is used to ensure that mineralized zones not immediately



recognized by the geologist are not missed. If a composite sample grades more than 0.10 g/t Au, then the interval is re-logged and re-sampled at a 1.0 m sample interval to determine the source of the anomalous gold grade. Field geologists are trained to sample additional intervals that may have associated gold mineralization, such as zones of increased sulphide mineral content or quartz veining not previously associated with a known mineralized zone. Sample intervals are recorded in an MX Deposit database, and photographs of each core box are taken. Certified reference material (CRM), blanks, or duplicate samples are inserted into the sample stream at regular intervals of at least one in 20 samples.

After the drill core is logged and marked for assay, it is transferred to the core splitting facility, where the selected intervals are sawed lengthwise. The half core to be analyzed is double-bagged, sealed, and labelled with coded security tags, while the other half remains in the core box as a record. In the case of duplicate samples or re-sampling, core is sawn in quarters and a quarter core is retained as a record. Some core intervals are destroyed in metallurgical testing and are marked by survey stakes with metal labels in the core boxes from which the interval is removed. Samples to be sent for analyses are placed in white rice bags, weighed, and closed with a uniquely coded security zip tie. Sample submittal forms are sent to the appropriate laboratory indicating the number of samples, weight, and security tag numbers of each sample in the shipment. This data is verified by the laboratory when the shipment is received, and any broken tags or sample bags that appear to have been tampered with are reported.

Underground drill core is logged by geologists in the underground drill chamber. Sample intervals are selected by the logging geologist and measure no less than 0.10 m. Discrete intervals of mineralized or prospective lithologies which measure more than 0.10 m and less than 1.0 m may be taken as a single sample. Mineralized or prospective lithologies that are greater than 1.0 m in width are typically divided into 1.0 m sample intervals. Intervals immediately adjacent to mineralized or prospective lithologies are sampled, at a minimum, 1.0 m from the contact with the prospective mineralogy. Less prospective, or weakly altered lithologies may be sampled at 1.5 m to 2.0 m intervals. No samples are taken of core considered by the geologist to be unmineralized. Sample intervals are recorded on a tablet into an MX Deposit database.

Once the intervals to be sampled are selected, the whole core is placed in a sample bag with a uniquely numbered identification tag and delivered to the Seabee laboratory for analyses. Unsamplered core is dumped near the drill chamber and used as fill in the mine.

Unauthorized personnel are not permitted access to the drill machines or the core logging and core splitting facilities.

7.3.3.3 Underground Chip and Muck Sampling

Chip samples are collected by a geologist at the working face; the hanging wall to footwall is sampled, with intervals divided based on lithological boundaries and not exceeding 1.5 m in width. Wall rock is also included in this sample type, as it is primarily used as a daily estimate of grade being delivered to the mill. Muck samples are obtained by the geologist when they are unable to reach the working face in a heading. These samples consist of grabs of muck on the floor of the drift, with no less than three muck samples taken at a face unless extenuating circumstances requires fewer samples. Chip samples retain their specific width weighting, while muck samples are assigned a proxy interval based on the number of samples collected and the width of the sill from which the samples are collected. The samples are bagged, tagged with a unique identifying number, and transported to the Seabee laboratory for analyses following the



methodology described in the previous section. Assay values are tracked in an MS Access database.

7.3.4 Density

Density data was collected from NQ (47.6 mm) diameter drill core during the 2011 Santoy drilling program by the SGO exploration department. Half core was weighed within mineralized zones, while whole core was weighed within waste domains. A total of 433 density measurements were collected from 45 different holes. The results were tabulated, sorted, and averaged by lithology. Initially, weight percent estimates of the various zones of mineralization were calculated based on drill core and underground observations. Assigned densities are reviewed annually by comparing to collected daily density determinations carried out on mill feed samples. Analyses were performed on site by water displacement using the following methodology:

- Place a dry glass vessel on a balance and zero the weight.
- Collect a 20 cm to 25 cm piece of half core or whole core from the interval of interest and place into the vessel.
- Record the weight of the core, and zero the balance.
- Fill the vessel to marked line with cold water.
- Suspend core in water and weigh the vessel with the water and core.

The difference between the original water weight and the second reading is equal to the volume of water displaced by the core, from which the density was calculated using the original weight of the core sample. From this data, an average density value was calculated based on lithology.

Since mid-2014, the Seabee mill has been performing a daily density determination from an approximately 5 kg 24-hour composite sample collected from the belt. The samples are analyzed on site by water displacement using the following methodology:

- Riffle composite sample down to an approximately 1 kg representative sample.
- Place a dry flask on a 200 g balance and zero the weight.
- Add sample to the flask (greater than 55 g).
- Record the weight of the sample, and zero the balance.
- Fill the flask to marked line with cold water and ensure outside of flask is dry.
- Place the flask back on the balance and record the weight.

Two 200 mL flasks have been labelled by SSR staff with the water weight when filled to a specified line to be used for the original water weight. The difference between the original water weight and the second reading is equal to the volume of water displaced by the sample, from which the density is calculated using the original weight of the dry sample.



8.0 Sample Preparation, Analyses, and Security

8.1 Sample Preparation and Analysis

The drill hole sampling, sample preparation and analyses applied prior to 1989 have not been documented in detail.

All underground samples are assayed at the non-accredited and non-independent SGO laboratory (SGO Lab). Samples are dried for 30 to 60 min, crushed to 10 mesh, and riffle split using a Jones splitter until only 200 g of material remains. The samples are then pulverized in a ring and puck pulverizer until greater than 80% passes through a 200 mesh screen. Thirty grams of pulp material is then analyzed for gold by fire assay with gravimetric finish with a 0.01 g/t Au detection limit.

Most surface drilling samples were assayed at TSL Laboratories Inc. (TSL) in Saskatoon, Saskatchewan. TSL is independent of SSR. The laboratory was ISO 17025 accredited until April 18, 2017, and has since withdrawn from the Standard Council of Canada's system.

Upon receipt of samples, TSL attaches a bar code label to the original sample bag, and the label is scanned to record the sample weight, date, time, equipment used and operator name, allowing for complete traceability of each sample during the laboratory process. Samples are crushed to 70% passing 10 mesh in two stages. The crushed reject is homogenised by passing it once through a Jones riffle splitter down to 250 g and then recombining the two halves, from which 250 g are split using the same riffle splitter. The split is then ring pulverised to 95% passing 200 mesh. Samples are analysed for gold by 30 g fire assay with gravimetric finish using a 0.03 g/t Au detection limit. Pulps and rejects are stored in containers on the TSL laboratory property.

TSL employs comprehensive quality assurance and quality control protocol and control charts for standards assayed at the laboratory show routine performance within two standard deviations of the certified value. The relative precision for gold meets contract specifications and established limits.

Chip and muck samples are bagged, tagged with a unique identification number and transported to the SGO Lab for analysis following the same methodology.

As of May 2023, SGO started to send all surface drilling samples from Porky West to ALS laboratory in Vancouver. ALS holds accreditation with ISO/IEC 17025 for all relevant procedures. ALS prepares the samples with a crusher and rotary splitter combination which first crushes up to 70% of the material to less than 2 mm. Afterwards, one kilogram of the sample is split off and pulverized to greater than 85% passing 75 microns. The fire assays are analyzed with an atomic absorption finish on a 50 g aliquot to produce gold analytical results with a 0.01 g/t Au detection limit. Fire assays with gravimetric finish are prepared on the samples with a result greater than 10 g/t Au, with a 0.05 g/t Au detection limit.



8.2 Quality Assurance and Quality Control

Quality assurance (QA) consists of evidence that the assay data has been prepared to a degree of precision and accuracy within generally accepted limits for the sampling and analytical method(s) to support its use in a Mineral Resource estimate. Quality control (QC) consists of procedures used to ensure that an adequate level of quality is maintained in the process of collecting, preparing, and assaying the exploration drilling samples. In general, QA/QC programs are designed to prevent or detect contamination and allow assaying (analytical), precision (repeatability), and accuracy to be quantified. In addition, a QA/QC program can disclose the overall sampling-assaying variability of the sampling method itself.

As of 2006, the geology department of SGO has implemented a QA/QC program to validate the precision of its in-house, non-accredited assay laboratory. SSR has since adopted and adjusted this program. It includes the periodic insertion of controls at a rate of one per 20 samples, encompassing blanks, certified reference materials (CRMs), and pulp duplicates. Furthermore, monthly umpire check assays are carried out, with the outcomes submitted to an external certified laboratory.

SLR reviewed QA/QC information compiled and analyzed by OreWin in 2022 and has summarized these results alongside analysis of QA/QC samples collected from 2021 to 2023.

8.2.1 Certified Reference Materials

Results of the regular submission of CRMs (standards) are used to identify issues with specific sample batches, and biases associated with the non-certified internal laboratory (SGO Lab) and the external check CRMs submitted to either ALS, SRC GeoAnalytical Laboratories (SRC), or TSL.

Certified Reference Material (CRM) from Rocklabs Ltd. (Rocklabs) is incorporated into the assay process by a mine geologist at a frequency of one per 20 samples, regardless of the sample type. Typically, three distinct CRM samples are used in the rotation, representing low grade, average grade, and high grade materials. The mine geologist records the identification numbers of the CRM samples introduced into the assay stream and assesses them as either a pass or fail upon receiving laboratory results. Batches with failed CRM results undergo re-analysis. CRM results are digitally documented in a spreadsheet provided by Rocklabs or using predefined pass fail criteria in MX Deposit, enabling the tracking of pass and fail rates for each reference material. The compiled results are included in a monthly report, which is shared with relevant laboratories involved in the assay process.

SSR reviews the results from control samples to accept the data from each individual batch or to reject the data and request a re-run. A batch is rejected if the result for the standard exceeds the tolerance of the 95% confidence level stated on the standard's certificate.

A total of seventeen different CRMs were inserted between 2021 and 2023, totalling 1,760 individual samples. A summary of these CRMs analysis at SGO Lab is presented in Table 8-1.

SLR opted to include four CRMs in the analysis, covering the average gold grade, a low gold grade, and a high gold grade CRM with a high sample population and a long-term period of use for additional review. The SLR QP prepared control charts and analyzed temporal and grade trends, reviewed the data for low and high biases, and the failure rate of each CRM.



Table 8-1: Expected Values and Ranges of CRM

CRM	Period Range	No. Samples	Std Dev	Mean (Au g/t)	Expected Value	No. Outliers	Bias (%)	Outliers (%)
SQ87	(2021, 2023)	64	2.79	30.4	30.87	1	-2	2
SP73	(2021, 2023)	114	0.24	17.77	18.17	2	-2	2
SF85	(2021, 2023)	764	0.03	0.86	0.85	4	1	1
SL76	(2021, 2023)	125	0.07	5.98	5.96	3	0	2
SJ95	(2021, 2021)	42	0.07	2.72	2.79	0	-3	0
SG84	(2021, 2022)	449	0.03	1.01	1.03	13	-2	3
SH82	(2021, 2021)	16	0.04	1.35	1.33	0	1	0
SG113	(2021, 2022)	42	0.06	1.02	1.02	1	0	2
SG115	(2021, 2021)	55	0.03	1.01	1.02	0	-1	0
SN106	(2021, 2022)	90	1.05	8.31	8.46	2	-2	2
SJ111	(2021, 2023)	71	0.06	2.78	2.81	0	-1	0
SH98	(2021, 2023)	110	0.03	1.41	1.4	0	1	0
SJ121	(2023)	43	0.04	2.74	2.72	0	1	0
SP116	(2023)	13	0.18	17.78	18.09	0	-2	0
SN117	(2023)	13	1.61	8.02	8.44	1	-5	8
SK120	(2023)	7	0.06	4.13	4.08	0	1	0
SL123	(2023)	64	0.68	5.82	5.89	1	-1	2

Over the span of 2021 to 2023, the SGO Lab conducted an evaluation of 17 CRM types. The general performance showcased satisfactory scatter and accuracy levels. However, Figure 8-1 indicates that while most z-scores for these CRM types predominantly fit within the $\pm 3SD$ threshold, the CRM SG84 had two specific occurrences exceeding the acceptance limits.

The z-score analysis also revealed possible cases of sample mislabeling or swapping that required further investigation. Additionally, the CRMs used within the drill hole samples from the Porky area exhibited stable results at the Seabee Gold laboratory. Corresponding evaluations conducted at the ALS laboratory in 2023 produced comparable findings.

Results from Seabee CRM SG84 low grade gold samples presented in Figure 8-2 indicate that there were systematic failures in the first quarter of 2021, falling under 3SD. However, improvements were made to correct the negative bias since the second quarter. In the middle of the second quarter of 2022, a second low negative bias was also observed, triggering the presence of three outliers falling between -2SD and -3SD, along with one failure below -3SD. This issue was promptly addressed and corrected.

Results obtained from evaluating CRM SL76 samples in the onsite laboratory (SGO), which serve as a representation of the average gold grade (5.9 g/t Au) at the Seabee Gold deposit, are shown in Figure 8-3. These results exhibit a low positive bias of 0.2% from the expected value. Out of six samples, two fall between the 2SD and 3SD limits, and two samples slightly



below the 3SD limit during the fourth quarter of 2022. Notwithstanding, the laboratory's performance has remained acceptable throughout the utilization of this CRM from 2021 to 2023.

Figure 8-1: Z-score Scatter Plot

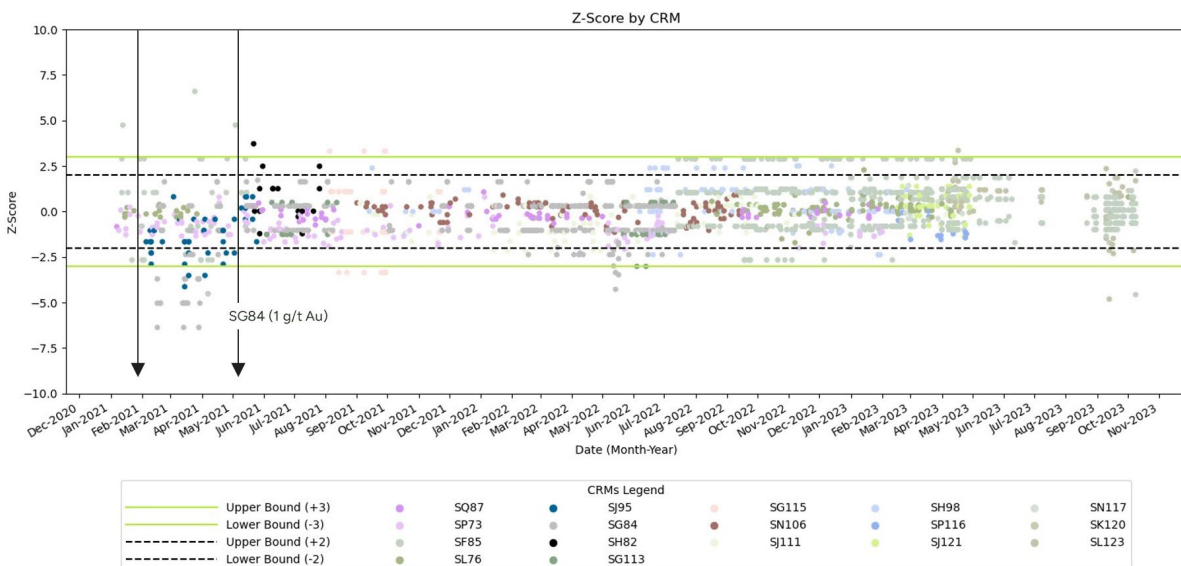


Figure 8-2: Control Chart of CRM SG84 for Gold at SGO Lab: 2021 to 2022

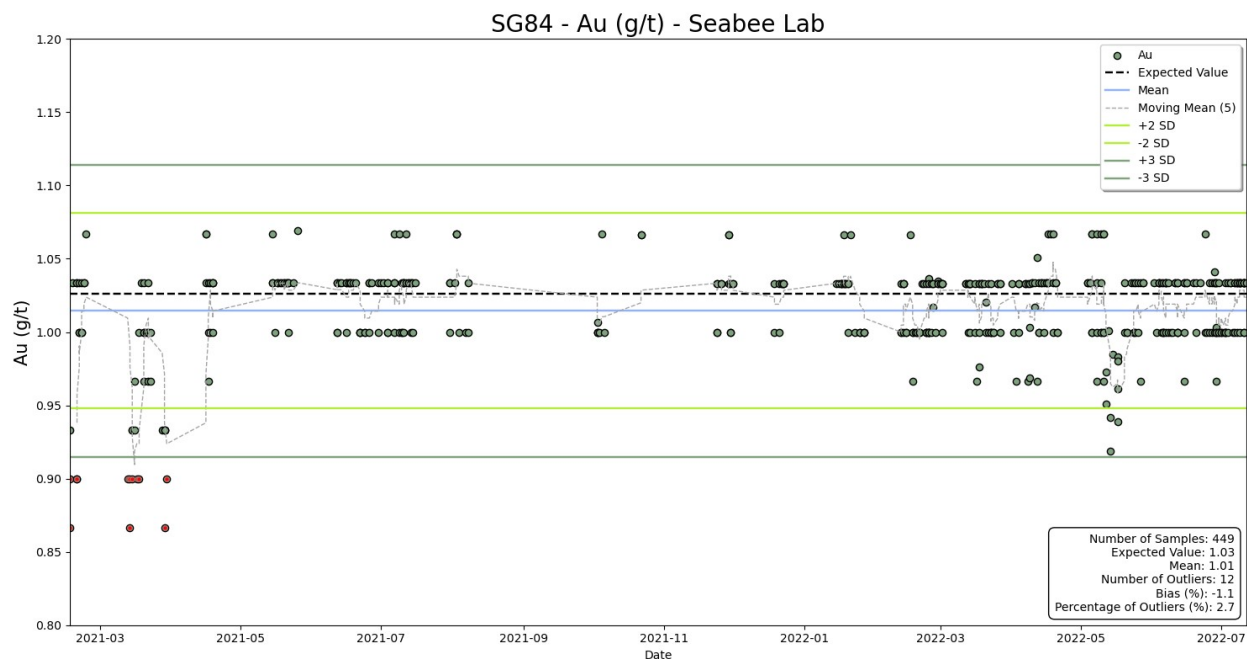
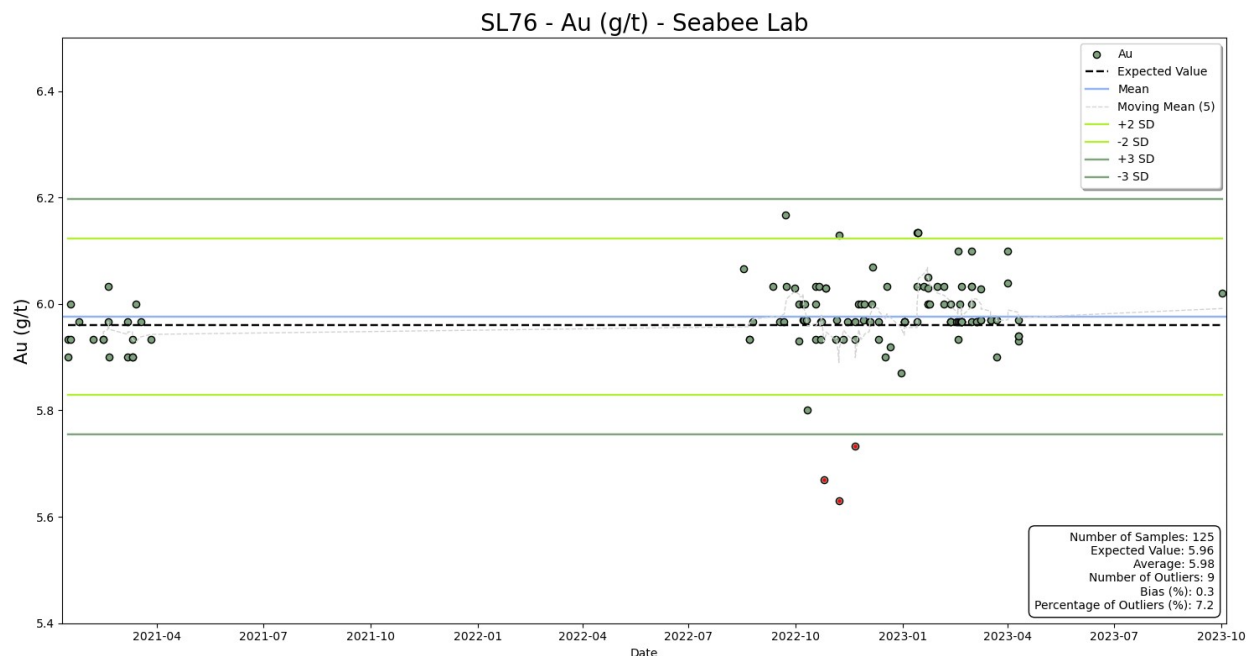


Figure 8-3: Control Chart of CRM SL76 for Gold at SGO Lab: 2021 to 2023



The gold control chart for CRM SP73, representing the high grade gold CRM (18.17 g/t Au), was also generated and reviewed. It was noted that gold values exhibit a low bias of -2.2% below the CRM expected value, with only two out of 114 CRMs slightly exceeding three SD. SLR notes that these parameters confirm a good accuracy and precision reached by the internal laboratory at these gold levels carried out between 2021 and 2022.

SLR recommends decreasing the variety of inserted CRM. Having three CRMs would effectively encompass the three main ranges of gold mineralization, enabling confident conclusions about accuracy and precision through extended timeline series charts. This adjustment would prevent the inclusion of a limited number of CRM inserted such as SK120 or SK123 which might not yield conclusive insights into analytical performance. It is also recommended to incorporate a priority category column into the database that would help distinguish which re-run values should be retained for QA/QC assessment purposes.

8.2.2 Blank Material

The regular submission of blank material is used to assess contamination whether during sample preparation or analyses, and to identify sample numbering errors. Blank materials were submitted as pre-prepared pulps after visible mineralization at a rate of one in twenty samples.

Between 2020 and 2023, a total of 1,962 blanks were inserted, including 1,892 samples submitted to the SGO Lab (Figure 8-4) and 70 samples from the Porky area sent to ALS (Figure 8-5). Blank failure samples are rejected if the results are greater than three times the detection limit. SLR is of the opinion that no systematic contamination of samples occurred during the SGO Lab analysis stage. Some potential cases of mislabeling were detected that require further investigation. Improvements in database management are required to better track sample details for future evaluations. SLR recommends inserting coarse blanks as well to evaluate the presence of contamination caused by carryover during the preparation process.



Figure 8-4: Fine Blanks – Seabee Gold Laboratory

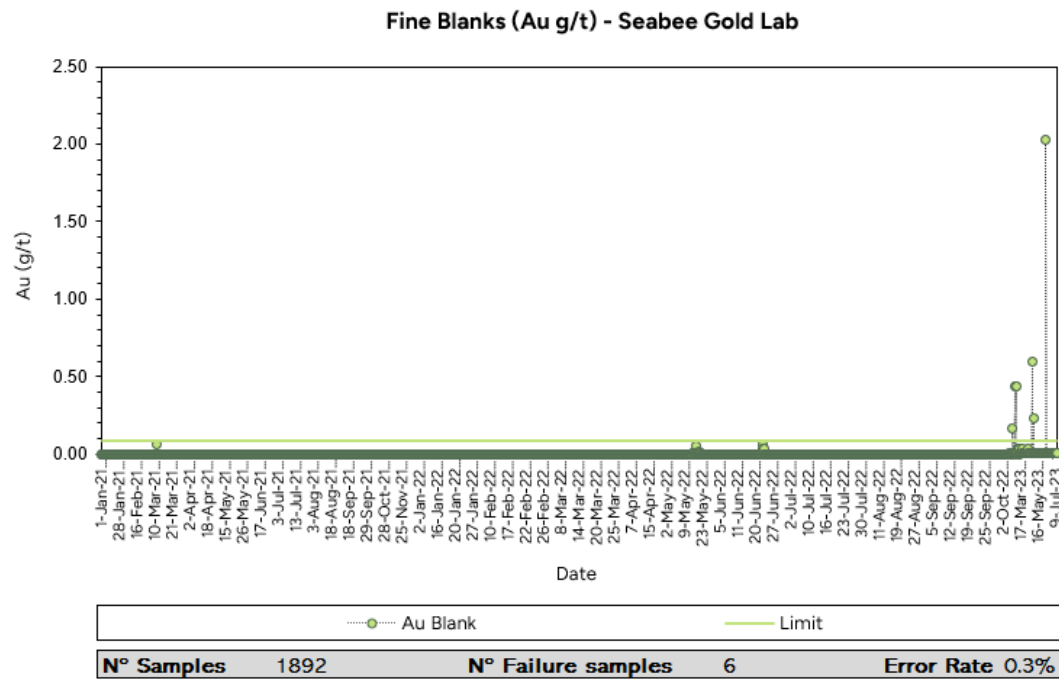
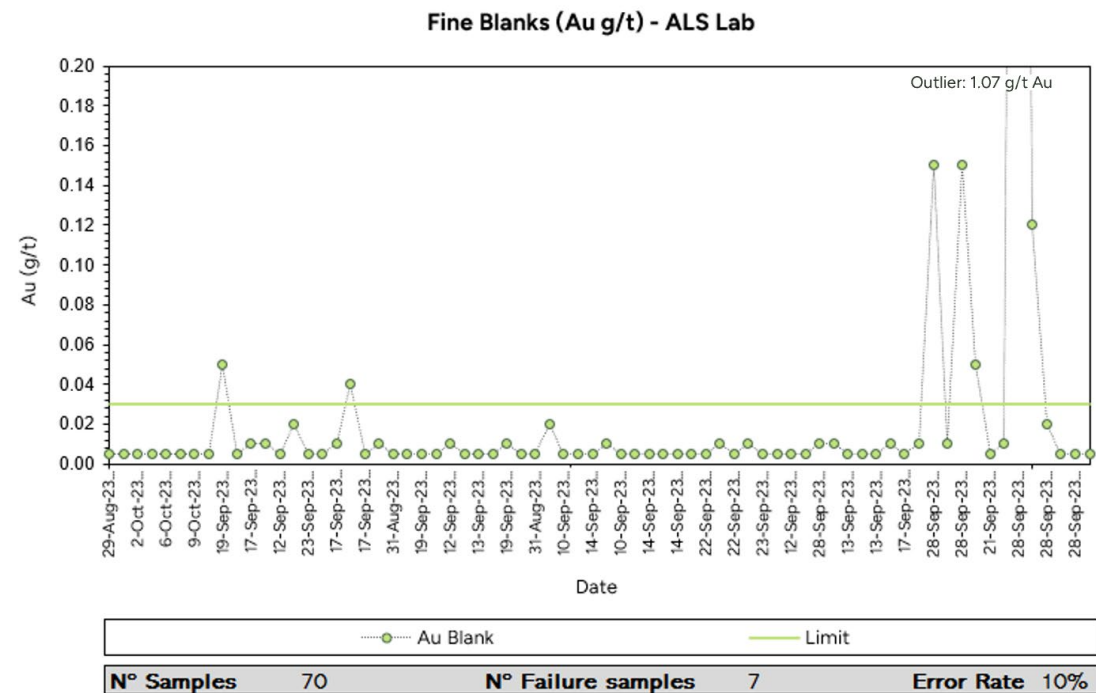


Figure 8-5: Fine Blanks – ALS Laboratory



8.2.3 Pulp Duplicates

Duplicate samples help monitor preparation, assay precision, and grade variability as a function of sample homogeneity and laboratory error. Field duplicates test the natural variability of the original core sample, as well as all levels of error including core splitting, sample size reduction in the preparation laboratory, sub-sampling of the pulverized sample, and analytical error.

The failure trigger for pulp duplicates is less defined due to the lode-gold nature of the mineralisation; however, batches are considered for re-run when duplicate assay values are greater than $\pm 10\%$.

SLR analyzed a complete database of pulp duplicate data compiled by SLR using the hyperbolic function and basic statistics, scatter, and relative error plots. SLR notes that 678 pairs have zero values (0.00 g/t Au) in the database and therefore only a total of 821 out of 1,499 sample pairs were only included in the analysis.

SLR used the Hyperbolic method for this evaluation, establishing the failure criteria for gold at 10 times the detection limit and up to 10% relative error (ER). This analysis is shown in Figure 8-6 where it is noticeable that a rate of failures of 16.9% was obtained, exceeding the minimum rate accepted.

Furthermore, in Figure 8-7, the scatter plot provides evidence of dispersion with a correlation coefficient of 0.922 and a difference between means of 8%. Additionally, when observing the relative error plot shown in Figure 8-8, it is noted that most of the unmatched pairs out of the 821 are below 3 g/t Au. This observation highlights an inherent nugget effect associated with the lode-gold nature of the Seabee Gold deposit.



Figure 8-6: Analysis of Pulp Duplicate Data for Gold by Hyperbolic Method: 2020 to 2022

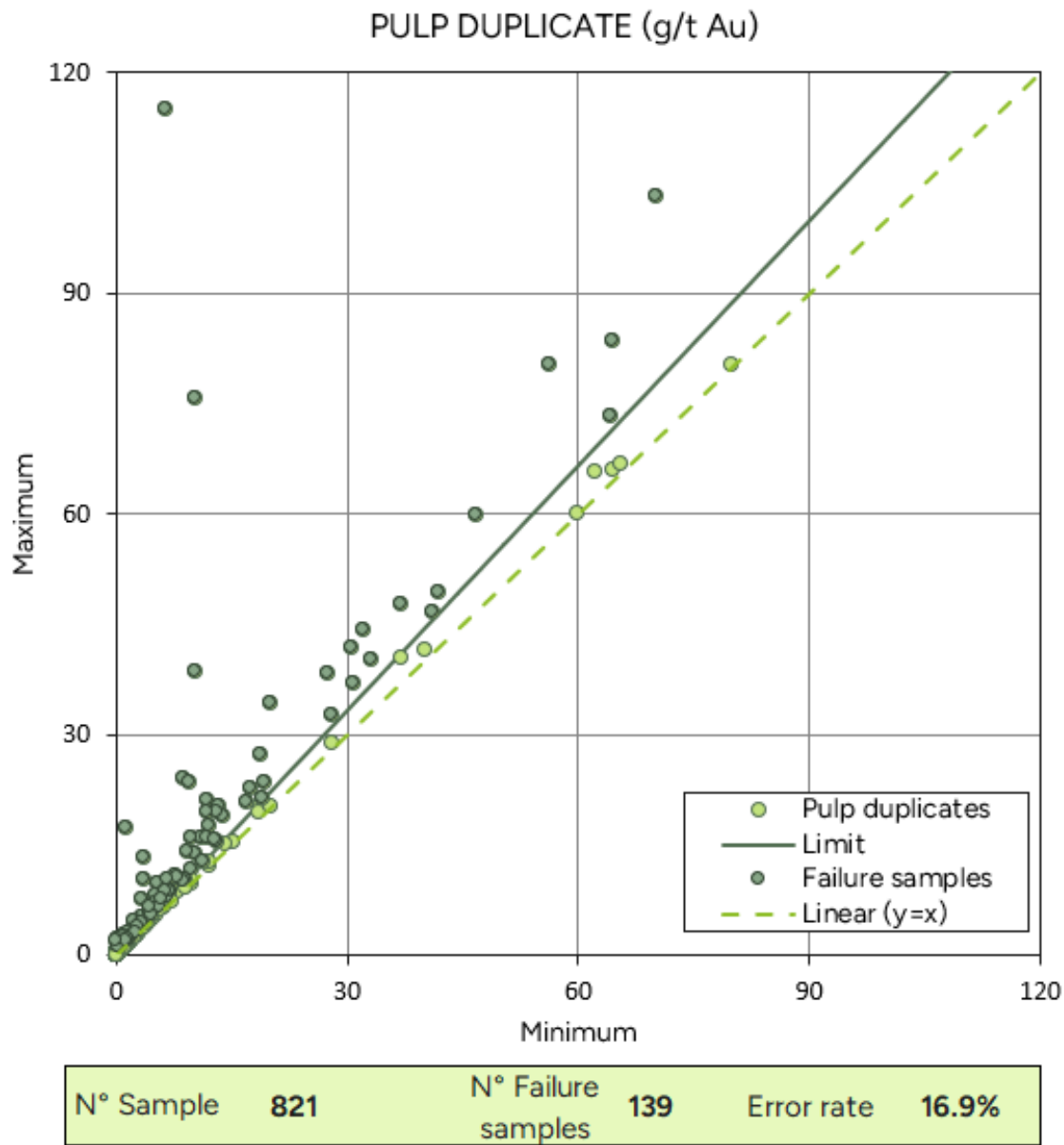


Figure 8-7: Scatter Plot of Pulp Duplicate Data for Gold: 2020 to 2022

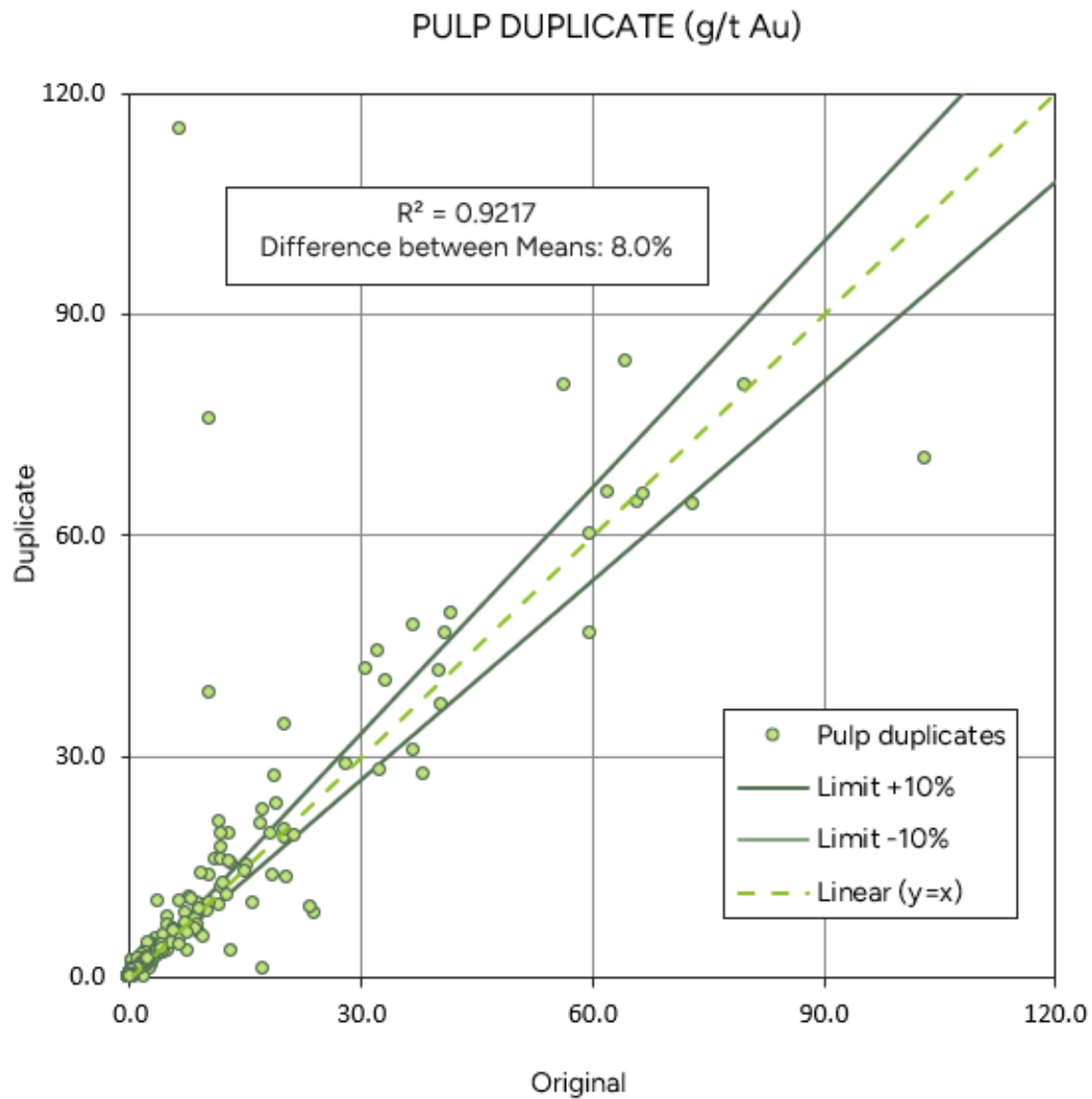
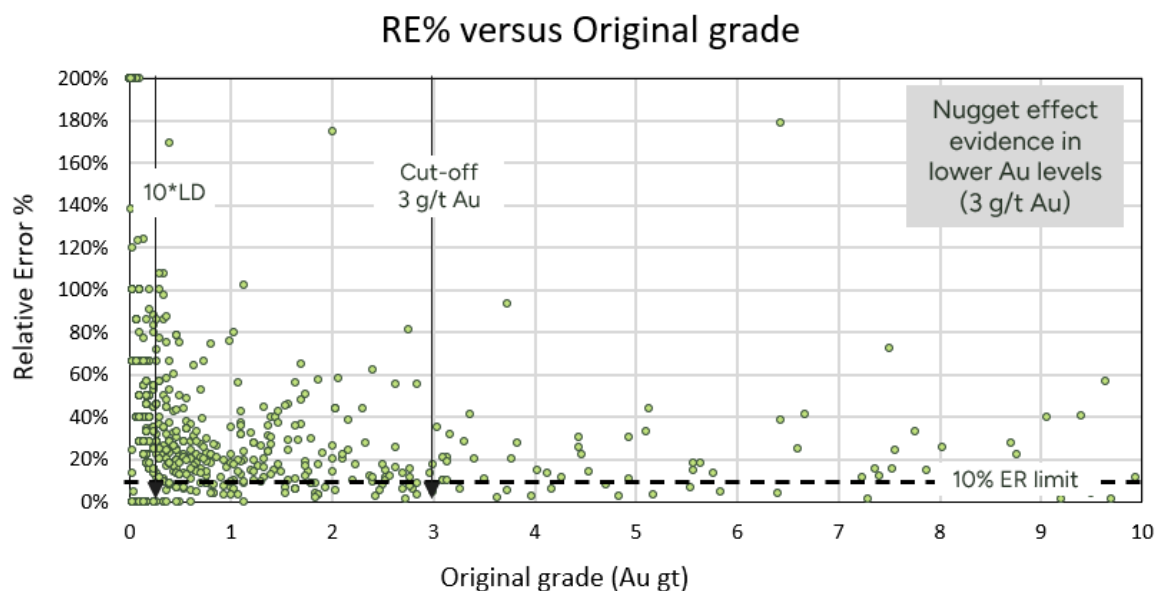


Figure 8-8: Relative Error Plot for Gold: 2020 to 2022



8.2.4 External Laboratory Checks

External laboratory check assays consist of submitting samples that were assayed at the primary laboratory (SGO Lab) to a third-party laboratory (TSL, SRC, or ALS) and re-analyzing them by using the same analytical procedures.

Every month, around 20 pulp samples undergo external analysis by TSL in Saskatoon, Saskatchewan. Each batch of external check samples includes one Certified Reference Material (CRM), and a sieve analysis is conducted on one of the pulps to determine percentages passing through –150 and –200 mesh. The results obtained from analyses at ALS, SRC, or TSL are then compared to on-site results and incorporated into a comprehensive monthly report.

Figure 8-9 plots 160 sample pairs of gold assays that were submitted for assay check in 2023 (from January to April). The results show a high variation between the pairs, and an overall bias of 12.4% reached between the primary laboratory and ALS. It is observed that below 3.0 g/t Au, the primary laboratory grades are slightly greater than ALS, whereas above this same gold grade cut-off, the primary laboratory tends to be lower than ALS.

Similarly, Figure 8-10 shows 40 sample pairs of gold assays that were submitted for assay check between October and November 2023. The results reveal a high variability between the primary laboratory and SRC, with the primary laboratory showing up to a 13.8% variation compared to SRC. This variability may be caused by the existing nugget effect in the Seabee deposit's nature.



Figure 8-9: Q-Q Plot and Scatter Plot for Gold Check Assay Pulpes Analyzed by ALS: 2023

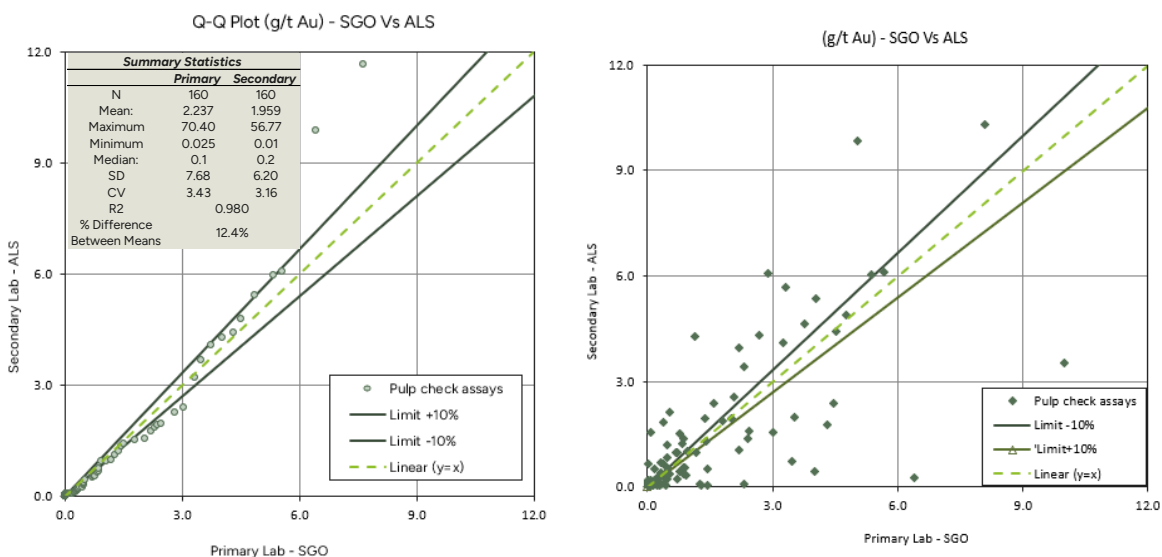
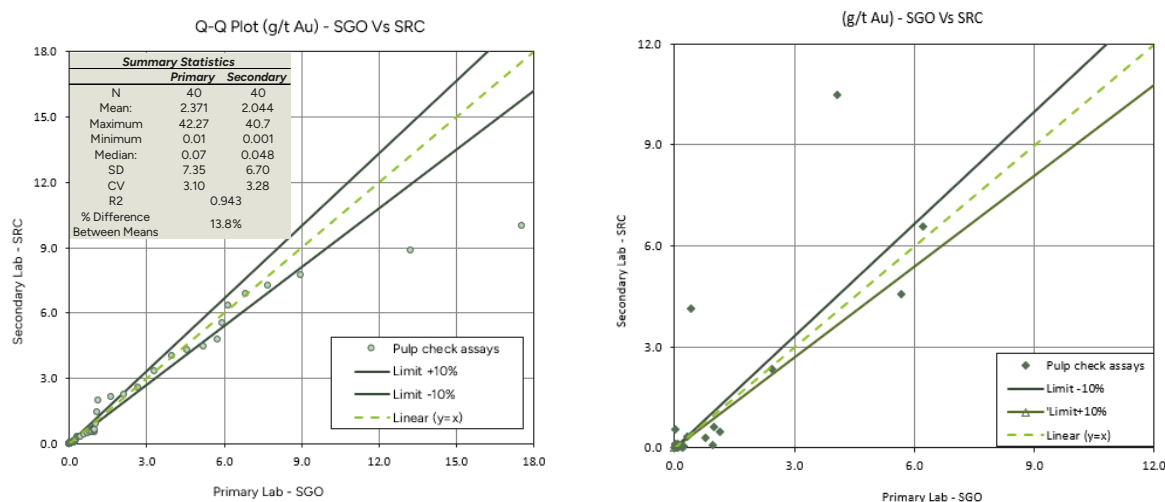


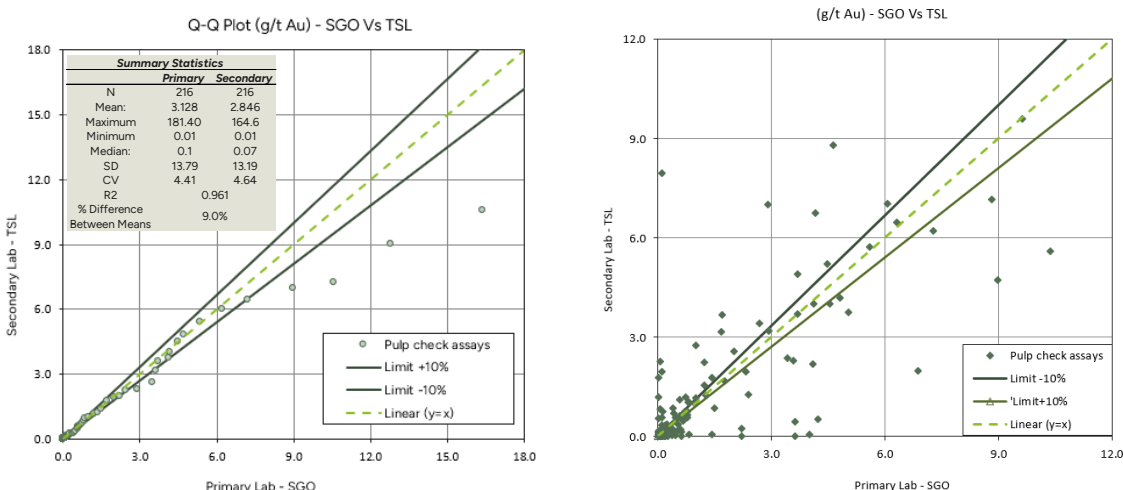
Figure 8-10: Q-Q Plot and Scatter Plot for Gold Check Assay Pulpes Analyzed by SRC: 2023



SLR noted that the pulp check assays conducted by TSL between 2020 and 2022 exhibited moderate to high variability among the 216 pairs. It is worth mentioning that TSL consistently reports lower grades than the primary laboratory, with differences of up to 9.0%. Despite this, TSL maintained lower differences between 2020 and 2022 compared to those conducted in 2023 by ALS and SRC.



Figure 8-11: Q-Q Plot and Scatter Plot for Gold Check Assay Pulps Analyzed by TSL: 2020-2022



8.3 Sample Security

Since 1989, drill core is monitored by SSR staff from the time it is taken out of the ground until it is split and the samples are delivered to the laboratory. Unauthorised personnel are not permitted access to the drill sites or the core logging and splitting facility. Samples that are split for assaying are double bagged within the splitting facility and identified with a coded security tag. Upon receipt of samples at the laboratory, any sample tags that are broken or any sample bags that appear to have been tampered with are reported to SSR.

Samples that are sent for assaying in Saskatoon or Vancouver undergo similar procedures. The staff prepare the samples for shipment by placing the samples in rice bags and securing them with security tags. All the rice bags are weighed and must be under 40 lbs. The weight, sample interval and security tag number are documented and tracked. When a sufficient number of bags are prepared, they will be placed on a pallet and prepared for shipping. Shipments are made on regular intervals using outbound aircraft. For Porky West samples going to ALS, the samples are transported from Saskatoon to the ALS Vancouver laboratory by Manitoulin Transport, a private courier service.

8.4 QP Opinion

In the opinion of the SLR QP, the procedures for sample preparation, security, and analysis are adequate and adhere to industry standards for ensuring data quality and integrity. There are no factors associated with sampling or sample preparation that would significantly affect the accuracy or reliability of the samples or assay results. The results of the QA/QC procedures demonstrate that the assay results fall within acceptable ranges of accuracy and precision, affirming the adequacy of the resulting database to underpin the estimation of Mineral Resources.

SLR recommends reducing the variety of inserted CRMs to three, covering low, average, and high gold grades. This would provide a comprehensive assessment of accuracy and precision over time. In addition, incorporating a priority category column into the database to distinguish



which re-run values should be retained will allow for effective database management for future QA/QC assessments.

SLR considers that the consistent high variability observed in pulp duplicates and pulp checks is likely a result of the deposit's nugget effect. The coarse gold particles are not evenly dispersed, even in finely crushed samples. Therefore, it is recommended to review the sampling techniques and laboratory protocols. These may not be adequately capturing the gold distribution due to sampling size, preparation methods, or both. Comparing these with external laboratory protocols is also essential. SLR therefore recommends exploring the homogenization procedures of the samples to improve the results of the check assays sent to external laboratories. Moreover, implementing rigorous grade control protocols is crucial to manage the variability stemming from the coarse gold effect.



9.0 Data Verification

9.1 Historic Data Verification

Table 9-1 summarizes historical data verification performed by other companies and QPs prior to SLR's involvement. The SLR QP has not reviewed the historical data verification. The data verification that SLR undertook for this Mineral Resource estimate is subsequently described in Section 9.2.

Table 9-1: Historical Data Verification

Year	Company	Verification
2016	SSR	585 pulp duplicates from the mine database were evaluated from randomly chosen samples, representative of the Santoy deposit
2016	SSR	54 screen metallic assay results were chosen, based on grade, from the 585 pulp duplicates for evaluation.
2016	SSR	A portion of the database was compared to the source information to understand the nature and frequency of database errors. Disagreement between surveyed collar azimuths and downhole magnetic surveys of six drill holes, and significant disagreements between high grade assays and re-runs were the most notable issues identified
2016	SSR	A review of the sampling, preparation, and analytical quality assurance of the 2016 Seabee exploration program
2016	SSR	An evaluation of 240 umpire pulp duplicates provided as matched pairs of Seabee Mine data from January to November 2016 and January 2017 was performed. The matched pairs were created by taking a second random selection of pulp material from Seabee Mine pulp samples and sending them to TSL for check analysis. A total of 238 matched pairs returned results above the reported lower detection limit of 0.03 g/t Au and were therefore suitable for precision analysis
2020	OreWin	OreWin QPs visited the SGO on 6 February 2020, accompanied by representatives of SSR. All aspects that could materially impact the integrity of the data informing the Mineral Resource estimate (core logging, sampling, analytical results, and database management) were reviewed with SSR staff
2020	OreWin	Review of accuracy and precision of analytical quality control data

9.2 SLR Data Verification

SLR received a single certificate from SGO's internal laboratory titled "Geology Assay Database". This certificate compiles data from 149,963 samples, including drill hole samples, chips, muck, and controls, detailing gold records from 2016 to 2023. While external laboratory certificates from ALS, TSL, and SRC were provided for check pulps, they do not verify the integrity of the assay database used for the mineral resource estimate. No other external laboratory certificates were included in this review.

The SGO Lab's assay certificate included both initial submissions and re-assays, leading to some sample IDs appearing up to three times in the same file. SLR reviewed the 'Assay.csv' database, which is updated through April 2023 and contains 98,197 assay samples. From this, 48,176 samples were cross-checked with the compiled laboratory assay file, accounting for 49%



of the total samples in the assay database. Of the compared samples, 998 exhibited discrepancies in gold values, representing 2.1% of the samples compared. Among these mismatches, 278 resulted from an average calculation between the initial value and the re-analysis, making up 0.6% of the total samples compared. Table 9-2 provides a summary of the entries compared and the yearly observation rates.

Table 9-2: Assay Data Verification Summary – SGO - SLR

Year	No. Entries	No. Samples Compared	Mismatches	% Mismatches
1997	86	-	-	-
2004	595	-	-	-
2005	1,518	73	2	2.7%
2006	1,117	207	1	0.5%
2007	4,509	734	95	12.9%
2010	3,163	-	-	-
2011	7,511	19	4	21.1%
2012	9,531	-	-	-
2013	2,432	3	3	100%
2014	3,451	1	1	100%
2015	3,295	-	-	-
2016	6,707	2,070	28	1.4%
2017	4,305	3,344	87	2.6%
2018	7,787	7,112	119	1.7%
2019	10,841	10,581	174	1.6%
2020	7,756	6,292	162	2.6%
2021	13,026	7,749	103	1.3%
2022	8,433	7,861	211	2.7%
2023	2,134	2,130	8	0.4%
Grand Total	98,197	48,176	998	2.1%

9.3 QP Opinion

In the opinion of the SLR QP, the data is adequate for the purposes of Mineral Resource estimation. No material sample bias was identified during the review of the drill data and assays. Observation of the drill core during the site visit and inspection and validation of the data collected indicate that the drill data is adequate for the estimation of Mineral Resources. However, it is recommended that the SGO internal laboratory routinely incorporate the issuance of original batch certificates into their reporting protocols. Likewise, it is recommended that the assay database should be enhanced to encompass specific details such as analysis dates, batch identifiers, and pertinent laboratory information. SLR understands that implementation of MxDeposit database is in progress and would resolve these issues.



10.0 Mineral Processing and Metallurgical Testing

10.1 Style of Mineralization

The SGO was originally developed based on bench scale metallurgical test work that characterised the Seabee deposit as a lode-style of mineralisation that was free milling and that would respond to a standard flow sheet employing gravity recovery and cyanidation. After the successful commissioning of the Seabee mill and the operation matured, the mill became the reference flow sheet for other mineralisation that was identified as possible mill feed sources.

In addition to the Seabee deposit, other known SGO deposits are also classified as lode-style deposits, and the gold is present in quartz veins typically in shear zones. Some variations of the host rock mineralisation occur, with gabbros at Seabee and mafic metavolcanics at the Santoy and Porky deposits. The Santoy deposit has been the sole source of mill feed since 2017 after the depletion of the Seabee deposit.

With the introduction of Santoy ore to the mill, metallurgical testing of Santoy drill composites representing the footwall, centre, and hanging wall of the stacked vein zones was completed and produced the following results:

- Diagnostic leach testing of a master composite indicated that 99% of the gold was extractable by cyanide leaching, indicating that the material is free milling
- In the master composite, approximately 55% of the gold grains were $>100\ \mu\text{m}$ in size, indicating that this gold should be recoverable by gravity concentration
- Recovery of up to 91% of the gold to a gravity concentrate at a 0.18% mass pull
- Cyanide leach gold recovery of gravity tailings of 95%
- Overall gold recovery by gravity concentration and cyanide leaching ranging from 95% to 99% for the samples tested.

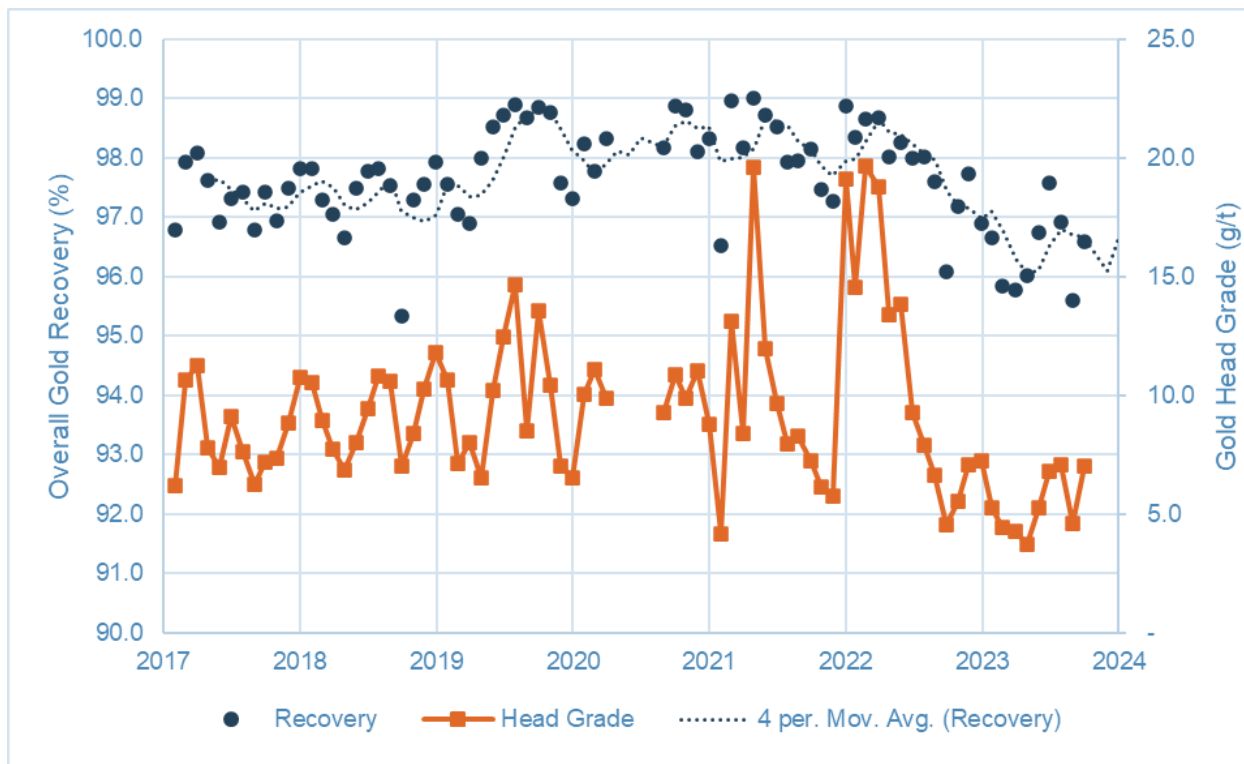
While the representativeness of these samples is unknown, the results were indicative of the metallurgical response that could be expected from Santoy ore and this has since been confirmed by actual plant performance while processing Santoy ore since 2017.

10.2 Process Plant Performance

Monthly average head grades and gold recoveries since 2017 are presented in Figure 10-1. Gold recovery is generally very consistent within a small range from 95% to 99%. There is a clear correlation between head grade and recovery, demonstrated by the daily data provided by SGO for 2022 and 2023 presented in Figure 10-2. This indicates that the lower head grades since mid to late 2022 are likely the main reason for the lower recoveries over the same period.



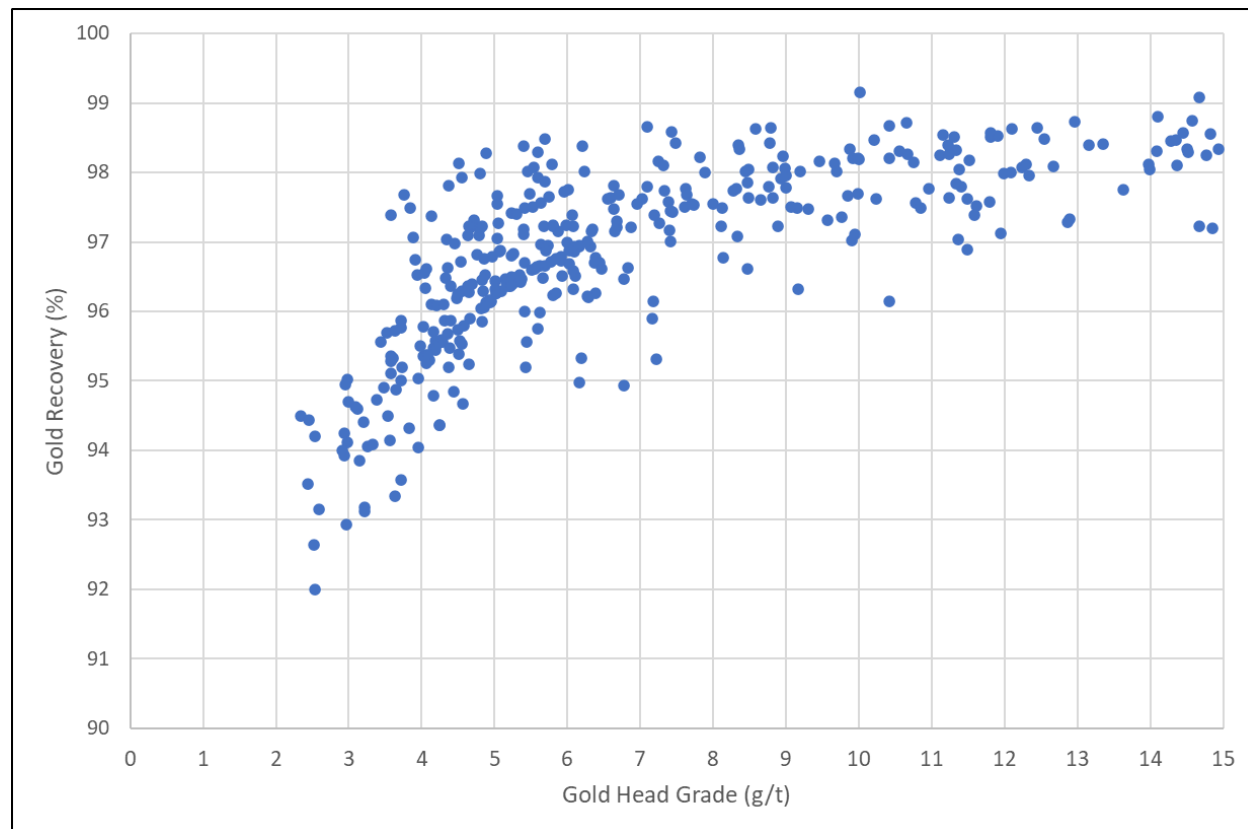
Figure 10-1: Monthly Plant Head Grade and Recovery



Source: SGO, 2023



Figure 10-2: Plant Recovery Versus Head Grade During 2022 and 2023



Source: SGO, 2023

10.2.1 Recovery Estimates

The presence of significant amounts of coarse gold in the Santoy ore (and previously in the Seabee ore) make gravity recovery critical to the overall gold recovery of the process plant. The installation of a new gravity recovery circuit including Acacia intensive leach reactor (ILR) intended to replace the original Knelson-table circuit has resulted in improved gravity recovery versus historical gravity recovery. Gravity gold recovery now typically ranges between 50% and 70% with the leach and CIP circuit accounting for the remainder. Overall gold recovery is typically 96% to 98% depending on head grade.

Future gold recovery from Santoy ore can be predicted by the correlation between head grade and recovery evident in Figure 10-2 using the data from 2022 and 2023.

10.2.2 Plant Throughput

With the consistent long-term metallurgical response of the Seabee and Santoy deposits, the focus of metallurgical investigations has been on de-bottlenecking the plant and reducing operating costs.

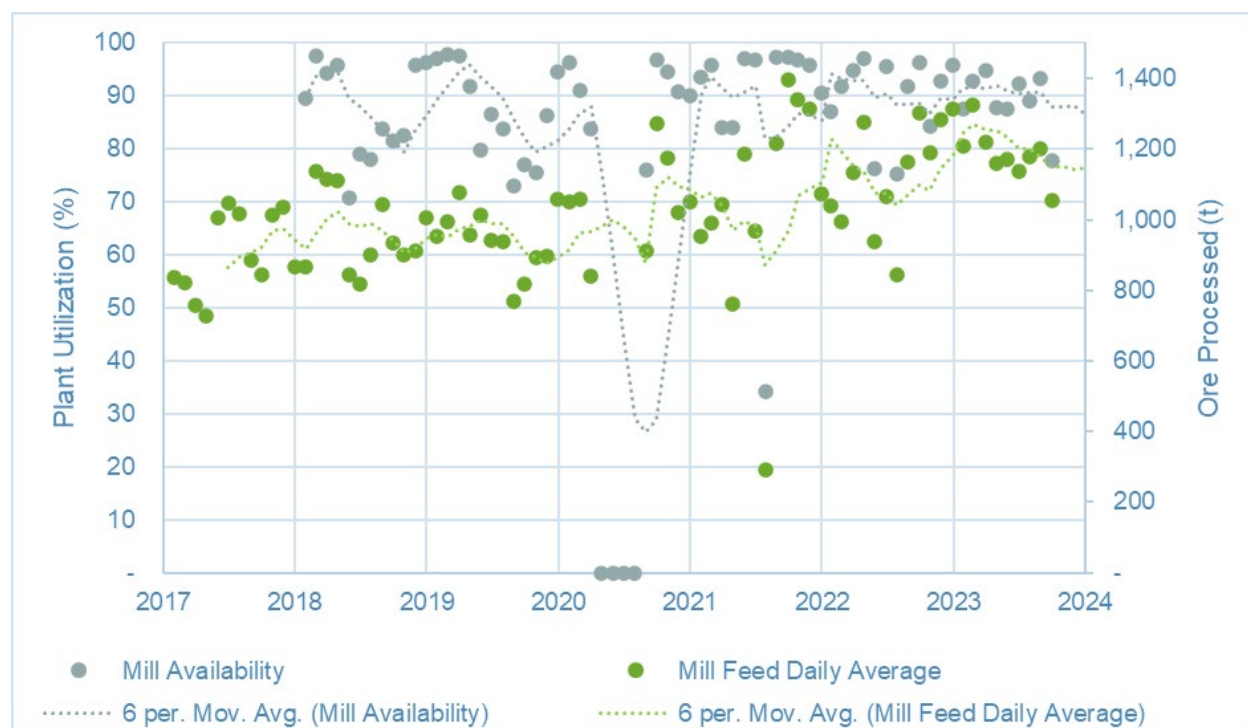
The plant was originally designed to be able to process 500 tpd. Subsequent capital projects have included the addition of a primary ball mill and an additional large leach tank. These additions as well as process optimization combined with setting higher operational targets have



resulted in throughput increasing to over 1,200 tpd. Process improvements have included improved grind size control, improved gravity circuit utilization, improved leach feed thickener chemistry, reduction in flocculant addition, and improved carbon and cyanide management. The new gravity recovery circuit and ILR unit have resulted in water balance issues at higher throughput, resulting in the need to use the original gravity recovery circuit at times. SGO is working to resolve this issue.

The average ore processed daily and plant utilization on a monthly basis are presented in Figure 10-3. The data shows a gradual increase in daily throughput over the seven years from 2017, as well as improved consistency in plant utilization, particularly since 2021 with 2020 significantly negatively affected by suspension of operations due to the COVID-19 pandemic.

Figure 10-3: Plant Average Daily Throughput and Utilization



Source: SGO 2023

SGO continues to work to de-bottleneck the plant targeting an average throughput of 1,400 t/d. Capacity improvement projects being investigated include:

- Optimization of the Acacia gravity recovery circuit and water balance
- Optimization of the grinding circuit performance
- Improvements in thickener performance and flocculant usage
- Improvements in carbon management, with recovery of fine carbon and carbon activity improvement
- Improvements in leach agitation



- Process automation

10.3 QP Opinion

The SLR QP is of the opinion that the data derived from the historical information presented is adequate for predicting future plant throughput and recovery. The SLR QP is not aware of any deleterious elements that would affect recovery or any reason why throughput should not continue at its current rate.



11.0 Mineral Resource Estimates

11.1 Summary

The SGO Mineral Resource estimate encompass the Santoy Mine (Santoy 8, Santoy 9 and GHW-SHW deposits) as well as the Porky West project. SLR conducted all the estimations.

The Santoy Mine and Porky West estimates relied only on diamond drill hole sample data. Leapfrog Geo was used to create wireframes, and Leapfrog Edge software facilitated grade interpolation into blocks using Ordinary Kriging (OK) for Santoy Mine and Inverse Distance Cubed (ID³) for Porky West. Blocks were classified as Measured, Indicated, and Inferred based on a distance-based criterion as well as proximity to development. SLR validated the estimates using industry standard validation techniques.

Underground constraining shapes for Mineral Resource reporting were generated with Deswik Stope Optimizer (DSO) software at a 2.61 g/t Au cut-off grade and a 2.0 m minimum thickness to ensure that the minimum criteria for Reasonable Prospects for Economic Extraction (RPEE) were met.

Mined-out areas were excluded from the Mineral Resource statement. Mineral Resources are reported exclusive of Mineral Reserves. A summary of underground Mineral Resources for Santoy Mine and Porky West as of December 31, 2023, is provided in Table 11-1.

Mineral Resources have been classified in accordance with the definitions for Mineral Resources in S-K 1300, which are similar to Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves dated May 10, 2014 (CIM (2014) definitions).



Table 11-1: Summary of Mineral Resources exclusive of Mineral Reserves – December 31, 2023

Category	Project	Tonnage	Grade	Contained Metal	Cutt-off Grade	Recovery
		(000 t)	(g/t Au)	(000 oz Au)	(g/t Au)	%
Measured	Santoy Mine	91.9	5.5	16.3	2.61	96.4
	Total	91.9	5.5	16.3		
Indicated	Santoy Mine	1,021.30	3.9	127.1		
	Porky West	444.3	5.2	74.9		
	Total	1,465.60	4.3	202		
Total Measured + Indicated	Santoy Mine	1,113.20	4	143.4		
	Porky West	444.3	5.2	74.9		
	Total	1,557.50	4.4	218.3		
Inferred	Santoy Mine	1,658.60	4.3	230.3		
	Porky West	1,088.60	6.6	232.2		
	Total	2,747.20	5.2	462.5		

Notes:

1. The definitions for Mineral Resources in S-K 1300 were followed for Mineral Resources.
2. Mineral Resources are reported based on 31 December 2023 as-mined survey data.
3. Mineral Resources are estimated at a cut-off grade of 2.61 g/t Au.
4. Mineral Resources are estimated using a long-term gold price of US\$1,750 per ounce, and a US\$/C\$ exchange rate of 1.33.
5. Bulk density ranges by domain between 2.65 t/m³ and 2.80 t/m³. The density assigned to the overburden at Porky West is 1.70 t/m³.
6. Gold metallurgical recovery is 96.4%.
7. Mineral Resources at Santoy Mine are exclusive of Mineral Reserves
8. There are no Mineral Reserves at Porky West
9. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
10. Mineral Resources are reported within underground reporting shapes (DSO shapes).
11. The point of reference for Mineral Resources is the point of feed into the processing facility.
12. SSR has 100% ownership of the Project and Mineral Resources are shown on a 100% basis.
13. A minimum mining width of 2 m was used.
14. Totals may vary due to rounding.

The SLR QP is of the opinion that with consideration of the recommendations summarized in Sections 1 and 23 of this TRS, any issues relating to all relevant technical and economic factors likely to influence the prospect of economic extraction can be resolved with further work.

11.2 Comparison with Previous Estimate

Changes to Mineral Resources since the previous estimate for Santoy Mine (effective December 31, 2022) and Porky West (effective December 31, 2021) can be attributed to the following main criteria in decreasing order of importance:

- Additional drilling at Porky West resulting in a significant increase in Mineral Resources and the conversion of Inferred to Indicated
- Additional drilling in the Santoy Mine resulting in the addition of Resources, conversion of categories, and conversion of Mineral Resources to Mineral Reserves
- Depletion due to mining activities at the Santoy Mine



- Use of underground reporting shapes (DSO)
- Migration of the model from Geovia Gems to Leapfrog Geo and Edge Software
- Modifications to the estimation approach

A comparison between the current Mineral Resource estimate, effective December 31, 2023, and the previous estimates, is provided in Table 11-2.

Table 11-2: Comparison with Previous Estimates

Category	Project	Previous Estimate ¹			Current Estimate			Difference %		
		Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)
Measured	Santoy Mine	84	11.97	32.3	91.9	5.50	16.3	9%	-54%	-50%
	Total	84	11.97	32.3	91.9	5.50	16.3	9%	-54%	-50%
Indicated	Santoy Mine	781	11.44	287.3	1,021.3	3.87	127.1	31%	-66%	-56%
	Porky West	52	5.03	8.4	444.3	5.24	74.9	754%	4%	791%
	Total	833	11.04	295.7	1,465.6	4.29	202.0	76%	-61%	-32%
Total Measured + Indicated	Santoy Mine	865	11.49	319.5	1,113.2	4.01	143.4	29%	-65%	-55%
	Porky West	52	5.03	8.4	444.3	5.24	74.9	754%	4%	791%
	Total	917	11.12	328.0	1,557.5	4.36	218.3	70%	-61%	-33%
Inferred	Santoy Mine	2,754	6.05	535.7	1,658.6	4.32	230.3	-40%	-29%	-57%
	Porky West	516	4.42	73.3	1,088.6	6.63	232.2	111%	50%	217%
	Total	3,270	5.79	609.0	2,747.2	5.23	462.5	-16%	-10%	-24%

Notes:

1. The Santoy Mine previous Mineral Resource estimate has an effective date of December 31, 2022, while the Porky West previous Mineral Resources estimate has an effective date of December 31, 2021.
2. Mineral Resources are exclusive of Mineral Reserves.

11.3 Mineral Resource Database

Drill hole data used in the updated Mineral Resource database is maintained in an MS Access database with coordinates in a mine grid projection. Drill hole data used in support of the updated Mineral Resource estimate were completed between 1947 and 2023 with cut-off dates for each area as set out in Table 11-3. SLR recommends moving from MS Access to an industry standard database management package.

Table 11-3: Summary of Mineral Resource Database

Area	Database Cut-off Date	Number of Holes	Length (m)
Santoy Mine	April 30, 2023	3,250	710,645.11
Porky West	October 16, 2023	251	75,584.58



Santoy Mine resource database includes 108,045 assays and 10,878 domain-intersecting gold assays from 1,160, 1,098 and 479 drill holes for the Santoy 8, 9, and GHW-SHW deposits, respectively. The resource database at Porky West includes 19,642 assays and 3,728 domain intersecting gold assays.

11.4 Cut-off Grade

Metal prices used for Mineral Reserves are based on consensus, long term forecasts from banks, financial institutions, and other sources. For Mineral Resources, metal prices used are slightly higher than those used for Mineral Reserves.

A cut-off grade of 2.61 g/t Au was developed for the Santoy Mine deposits and reflects assumed mining costs of sub-level open stoping (steeply dipping domains) with backfill in addition to processing costs and gold price. The full operating cost, including mining, processing, and general and administration (G&A) costs, have been used in the calculations. Capital costs, including sustaining capital, have been excluded. Table 11-4 lists the parameters used to calculate the cut-off grades.

The Mineral Resource cut-off grade developed for the Santoy Mine was used for Porky West.

Table 11-4: Mineral Resource Cut-Off Grade Inputs

Item	Unit	Sub-Level Stopping
Mining Rate	dry tpd	1,400
Processing Rate	dry tpd	1,400
Gold Metallurgical Recovery	%	95.6
Gold Price	US\$/oz	1,750
Exchange Rate (CAD to USD)	C\$:US\$	1.33
Mining and Maintenance cost	US\$/t milled	47.14
Processing and ROM Ore Transport	US\$/t milled	35.29
G&A	US\$/t milled	52.73
Total	US\$/t milled	135.16
	C\$/t milled	179.77
Break-Even Cut-Off Grade	g/t Au	2.61

Underground constraining shapes for Mineral Resource reporting were generated using DSO at a 2.61 g/t Au cut-off grade and a 2.0 m minimum thickness to ensure that the minimum criteria for RPEEE were met.

SLR notes that a generalised cut-off grade has been used across all deposits. While the cut-off grade as applied to all deposits is reasonable, SLR recommends investigating separate cut-off grades for each deposit to account for individual processing recoveries, mining methods, and particularities such as haulage distance and existing infrastructure.



11.5 Santoy Mine

The Santoy Mineral Resource estimate, with an effective date of December 31, 2023, is summarized by deposit in Table 11-5.

Table 11-5: Summary of Mineral Resources exclusive of Mineral Reserves for Santoy Mine, by Deposit – December 31, 2023

Category	Deposit	Tonnage	Grade	Contained Metal	Cutt-off Grade	Recovery
		(000 t)	(g/t Au)	(000 oz Au)	(g/t Au)	%
Measured	Santoy 8	71.5	5	11.4	2.61	96.4
	Santoy 9	20.4	7.41	4.9		
	Total	91.9	5.5	16.3		
Indicated	Santoy 8	181.6	4.3	25.1		
	Santoy 9	167.7	5.42	29.2		
	GHW-SHW	672	3.37	72.7		
	Total	1,021.30	3.87	127.1		
Total Measured + Indicated	Santoy 8	253.1	4.5	36.5		
	Santoy 9	188.1	5.64	34.1		
	GHW-SHW	672	3.37	72.7		
	Total	1,113.20	4.01	143.4		
Inferred	Santoy 8	437.6	4.9	68.9		
	Santoy 9	327	5.09	53.5		
	GHW-SHW	893.9	3.75	107.9		
	Total	1,658.60	4.32	230.3		

Notes:

1. The definitions for Mineral Resources in S-K 1300 were followed for Mineral Resources.
2. Mineral Resources are reported based on 31 December 2023 as-mined survey data.
3. Mineral Resources are estimated at a cut-off grade of 2.61 g/t Au.
4. Mineral Resources are estimated using a long-term gold price of US\$1,750 per ounce, and a US\$/C\$ exchange rate of 1.33.
5. Bulk density ranges by domain between 2.65 t/m³ and 2.80 t/m³. The density assigned to the overburden at Porky West is 1.70 t/m³.
6. Gold metallurgical recovery is 96.4%.
7. Mineral Resources are exclusive of Mineral Reserves.
8. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
9. Mineral Resources are reported within underground reporting shapes (DSO shapes).
10. The point of reference for Mineral Resources is the point of feed into the processing facility.
11. SSR has 100% ownership of the Project and Mineral Resources are shown on a 100% basis.
12. A minimum mining width of 2 m was used.
13. Totals may vary due to rounding.

11.5.1 Geological Interpretation

The previous interpretation completed by the SSR in 2022 was completed using explicit polyline interpretation in Geovia GEMS. The geological interpretation has been migrated to Leapfrog Geo for the 2023 Mineral Resource estimate update adopting Leapfrog's vein modelling approach. A total of twelve veins were modeled, in three separate projects:

- Santoy 8: 8A_B, 8A_FW, 8A_T, 8C, 8D, 8F and 8G.



- Santoy 9: 9A, 9B and 9C
- GHW: GHW, SHW, East and West. It is noted that only GHW and SHW were used as estimation domains.

Wireframe domains were built using an approximate gold grade cut-off of 2 g/t Au. Samples below this grade were included when the associated logged lithology corresponded to the mineralization zone. A minimum thickness of one metre was targeted, but was not always possible to maintain. Domain lateral extensions were defined at a limit of 50% of the distance to an excluded drill hole, although no consistent extension pattern was considered at depth to leave it open for exploration.

Santoy 8 and 9 veins are generally subvertical and extend from the base of overburden to a maximum of 1,100 vertical metres. Their strike is east-west, dipping approximately 50 degrees North. The average vein thickness ranges between 5 m for Santoy 8 and 3 m for Santoy 9, and maximum thicknesses oscillate from 14 m (Santoy 9) to 20 m (Santoy 8). Domain dimensions range along strike between 270 m and 1,150 m and down dip from 80 m to 1,500 m. There is good potential to increase the Mineral Resource base for Santoy Mine underground deposits at depth, and additional exploration and development is warranted.

GHW and SHW also generally strike east-west, with the dip slightly shallower than at Santoy 8 and 9, where the dip ranges between 37° and 40° to the northwest. Domains extend vertically 1,300 m below the surface. GHW-SHW thickness varies locally between 5 m and 30 m and domain dimensions along strike ranges between 600 m and 1,150 m (at depth) and approximately 2,000 m down dip.

The granodiorite that hosts GHW-SHW was modelled to serve as a guide to the mineralization wireframes given the strong relationship between grade and the intrusion contact. It should be noted that while grade occurs proximal to the contact, the angle of the veins responsible for gold mineralization ranges from parallel to perpendicular, depending on the orientation of the granodiorite with respect to deposit scale shearing.

Final mineralization wireframes of Santoy 8, Santoy 9, and GHW-SHW are presented in Figure 11-1 to Figure 11-3, respectively.



Figure 11-1: Santoy 8 Mineralization Wireframes

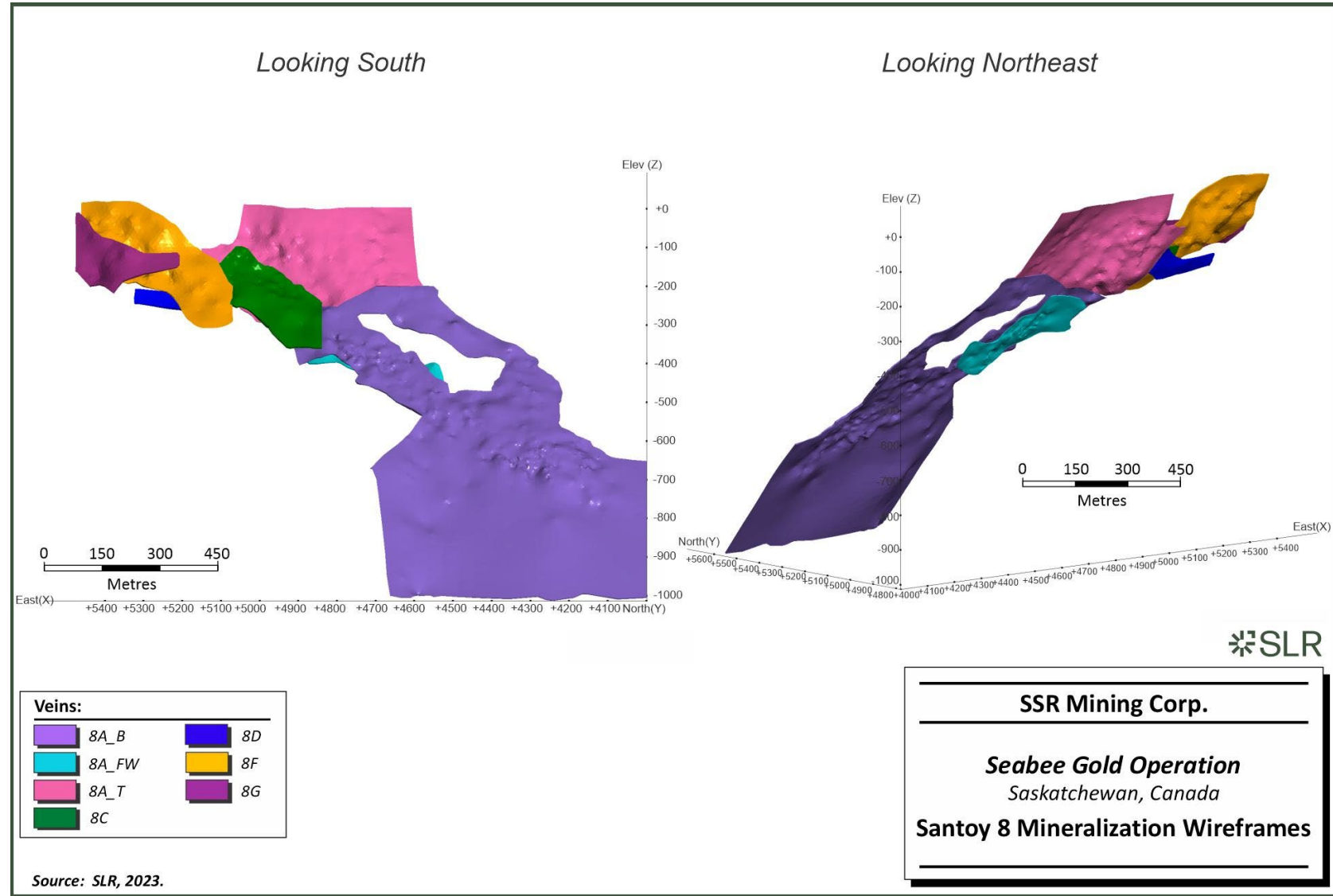


Figure 11-2: Santoy 9 Mineralization Wireframes

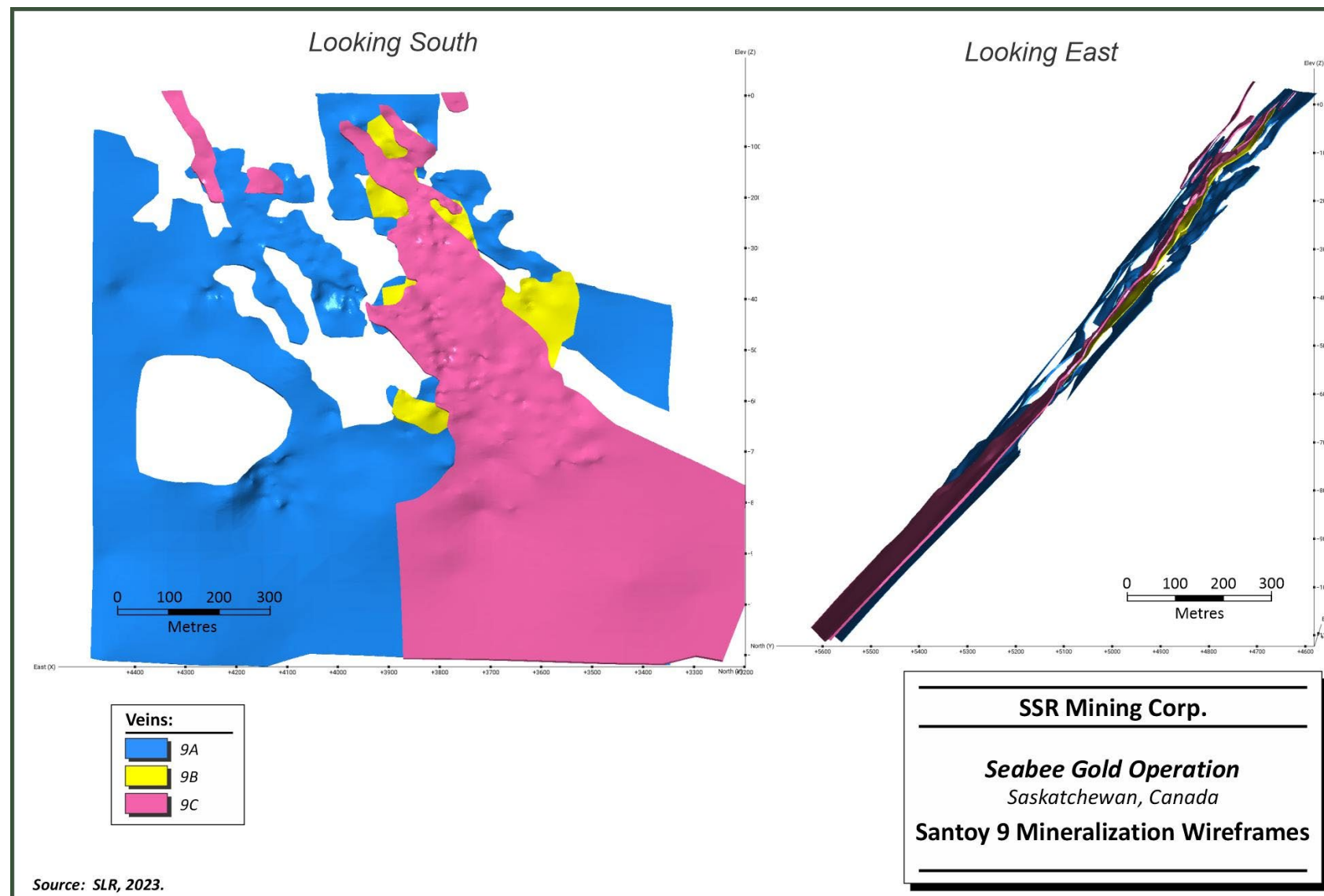
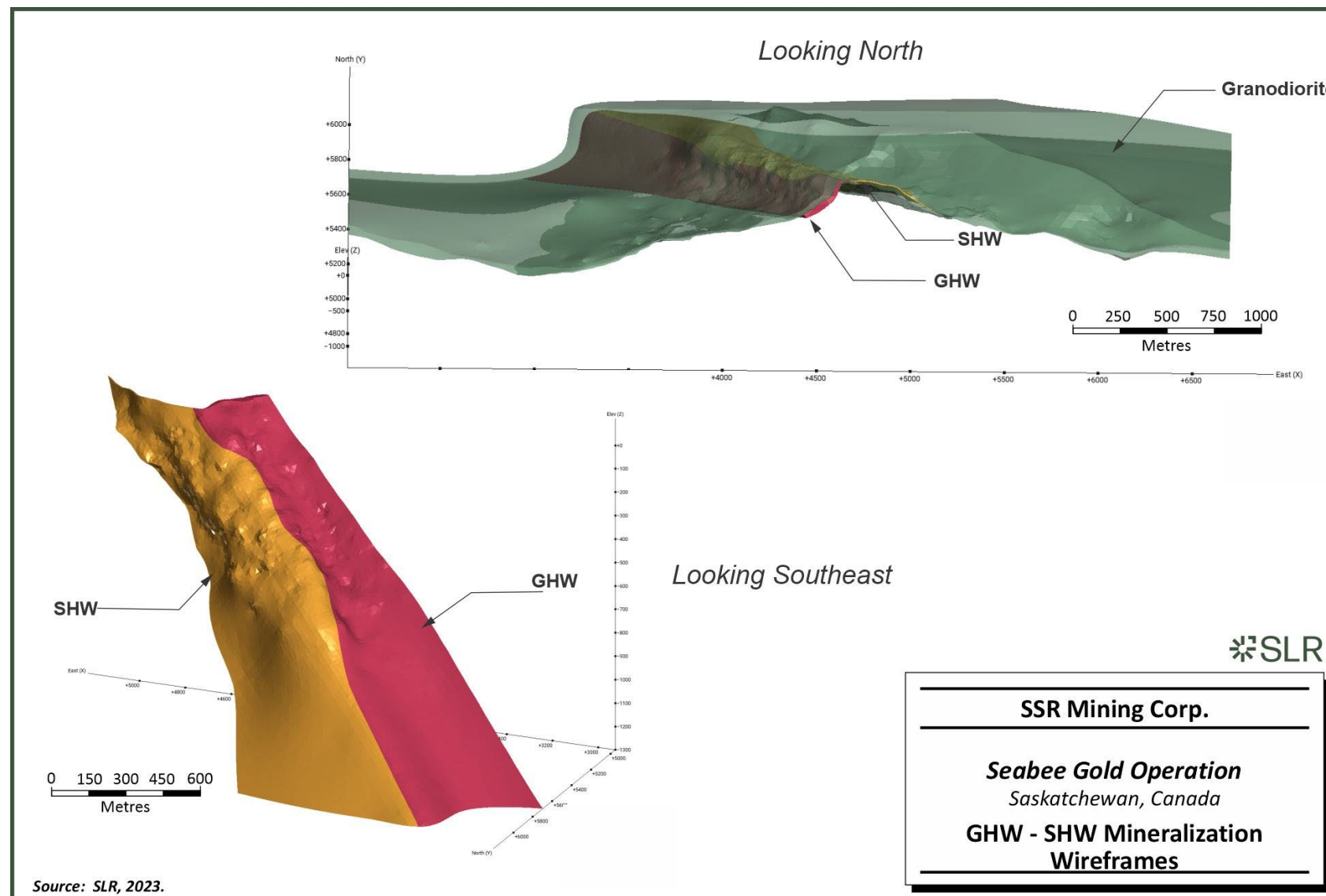


Figure 11-3: GHW-SHW Mineralization Wireframes



11.5.2 Resource Assays

11.5.2.1 Compositing

The compositing strategy used at the Santoy Mine is as follows:

- Santoy 8A_B, 8A_FW, 8A_T and 8G: 1 m
- Santoy 8C, 8D, 8F: 1.5 m
- Santoy 9A, 9B and 9C: 1 m
- GHW-SHW: 2 m

Gold assay and composite statistics per domain are summarized in Table 11-6.

Table 11-6: Gold Assay and Composite Statistics

Domain	Assay						Composite					
	Count	Length (m)	Min. (g/t Au)	Mean (g/t Au)	Max. (g/t Au)	CV	Count	Length (m)	Min. (g/t Au)	Mean (g/t Au)	Max. (g/t Au)	CV
	Santoy 8						1 m					
8A_B	4,843	5,034.30	0	4.00	322.03	3.79	5,296	5,035.38	0	4.00	245.00	3.25
8A_FW	772	749.33	0	4.53	140.37	2.70	804	749.24	0	4.53	106.46	2.35
8A_T	1,388	1,339.89	0	2.29	118.4	2.84	1,486	1,392.35	0	2.31	118.17	2.56
8G	93	109.58	0	1.70	36.45	2.59	135	125.85	0	1.85	36.45	2.74
	Santoy 8						1.5 m					
8C	808	848.00	0	2.28	144.38	4.06	628	868.34	0	2.35	144.38	3.58
8D	238	259.24	0	2.05	132.87	4.53	196	266.38	0	2.00	80.38	3.36
8F	807	891.00	0	3.29	157.4	3.46	675	923.97	0	3.24	95.55	2.55
	Santoy 9						1 m					
9A	2,427	2,918.41	0	5.99	3,887.8	11.28	3,198	2,918.08	0	5.99	2,332.68	8.15
9B	1,403	1,463.19	0	5.47	524	4.16	1,634	1,462.66	0	5.47	313.30	3.64
9C	2,192	2,307.76	0	9.73	4,851.80	8.41	2,510	2,307.51	0	9.73	2,426.47	6.12
	GHW-SHW						2 m					
GHW	5,904	7,027.73	0	1.55	292.57	5.00	3,523	7,029.54	0	1.55	148.24	3.75
SHW	3,324	4,121.53	0	1.06	117.60	4.52	2,072	4,131.13	0	1.06	57.99	3.18

Notes:

1. Length Weighted
2. Unsampled intervals assigned a null value



11.5.2.2 Treatment of High Grade Assays

Capping Levels

Table 11-7 summarizes the Santoy Mine capped gold composites statistics by domain. A capping strategy was developed by SSR, then reviewed by SLR using raw assays basic statistics, composite statistics, histograms, log probability plots, and decile analysis to determine a gold cap for each domain independently. For the most part, the capping levels were found to be reasonable and therefore adopted by SLR with the exception of a few minor changes for zone 8A_FW, 8D, 9A, 9B and GHW. Caps were applied to composites.

Table 11-7: Gold Composites Statistics and Capping Levels (in g/t Au)

Domain	Min	Max	Mean	CV ¹	Cap Value	No. of Cap	Capped Mean	Capped CV ¹	% Metal Loss
Santoy 8									
8A_B	0	245	4.00	3.25	110	14	3.87	2.97	3.25
8A_FW	0	106.46	4.53	2.35	60	8	4.31	2.1	4.86
8A_T	0	118.17	2.31	2.56	35	8	2.2	2.11	4.76
8C	0	144.38	2.35	3.58	30	6	1.98	2.39	15.74
8D	0	80.38	2	3.34	16	1	1.64	2.04	18.14
8F	0	95.55	3.24	2.55	45	6	3.05	2.23	5.86
8G	0	36.45	1.85	2.74	15	2	1.51	1.97	18.47
Santoy 9									
9A	0	2332.68	5.99	8.15	120	19	4.65	3.04	22.37
9B	0	313.3	5.47	3.64	100	14	4.83	2.92	11.7
9C	0	2426.47	9.73	6.12	130	25	7.49	2.57	23
GHW-SHW									
GHW	0	148.24	1.55	3.75	35	10	1.42	2.62	8.39
SHW	0	57.99	1.06	3.18	25	11	0.99	2.63	6.18

Note:

1. Coefficient of Variation (CV)

High Grade Restriction

To reduce the influence of high grade samples and artefacts in the GHW zone, but also capture the trend of the mineralization at depth, a restricted fourth pass was used. The high grade gold restriction capped the composites to 5 g/t Au at distances greater than 60 m in the x-axis and y-axis in the fourth pass of the GWH OK interpolation. High grade restrictions were not applied to any other zones of Santoy Mine.



11.5.3 Trend Analysis

11.5.3.1 Grade Contouring

The gold grade continuity for the Santoy and GHW-SHW projects was investigated by generating a set of grade shells in Leapfrog for each zone within the mineralized envelopes. Several moderately plunging trends were identified, generally trending from the southeast to the northwest in both the Santoy zones and GHW-SHW. Examples of the grade contouring of zone 9A and GHW-SHW are given in Figure 11-4 and Figure 11-5. The orientation of these trends assisted in during experimental variography and search ellipse setup.

11.5.3.2 Variography

Variogram models were fit to experimental variograms in original units and in normal-scored. In the case of the normal-scored variograms, the back transformed variogram models were used for interpolation. The most well supported and stable variogram for each deposit was used for interpolation purposes, namely; 9A, 8A_B, and 8A_FW, and GHW.

The variogram modes used during interpolation are provided in Table 11-8:

Table 11-8: Santoy Mine Variogram Parameters

Domain	Used For	Rotations ¹	Nugget	Variances ²	Structure 1 Type	Structure 2 Type	Structure 1 Ranges (m) ³	Structure 2 Ranges (m)
8A_B	8A_B, 8A_T, 8D	(52/1/46)	0.2	(0.60, 0.20)	Exponential	Spherical	(6,6,6)	(160,80,6)
8A_FW	8A_FW, 8C, 8F, 8G	(52/1/46)	0.18	(0.46,0.36)	Spherical	Spherical	(10,5,5)	(80,30, 5)
9A	All of Santoy 9	(49/359/44)	0.2	(0.58, 0.22)	Exponential	Spherical	(16,10,10)	(65,25,10)
GHW	GHW	(38/311/79)	0.3	(0.40,0.30)	Spherical	Spherical	(15,3,30)	(150,3.6,36)
SHW	SHW	(60/8/44)	0.15	(0.73)	Spherical	-	(100,30,5)	-

Notes:

1. Leapfrog rotation (Dip, Dip Azimuth, Pitch)
2. Variance for structures 1 and 2 (C1, C2)
3. Ranges in Major, Semi-Major and Minor directions

Figure 11-6 to Figure 11-8 show the variograms for the 8A_B, 9A vein, and GHW.

The variograms were used to support search ellipsoid anisotropy, linear trends observed in the data, and Mineral Resource classification decisions. In the case of the variogram used for the estimation of GHW, the semi-major and minor values were inversed to better represent the orientation of the mineralized veins within the GHW domain.



Figure 11-4: Trend Analysis for Santoy 9 – Zone 9A

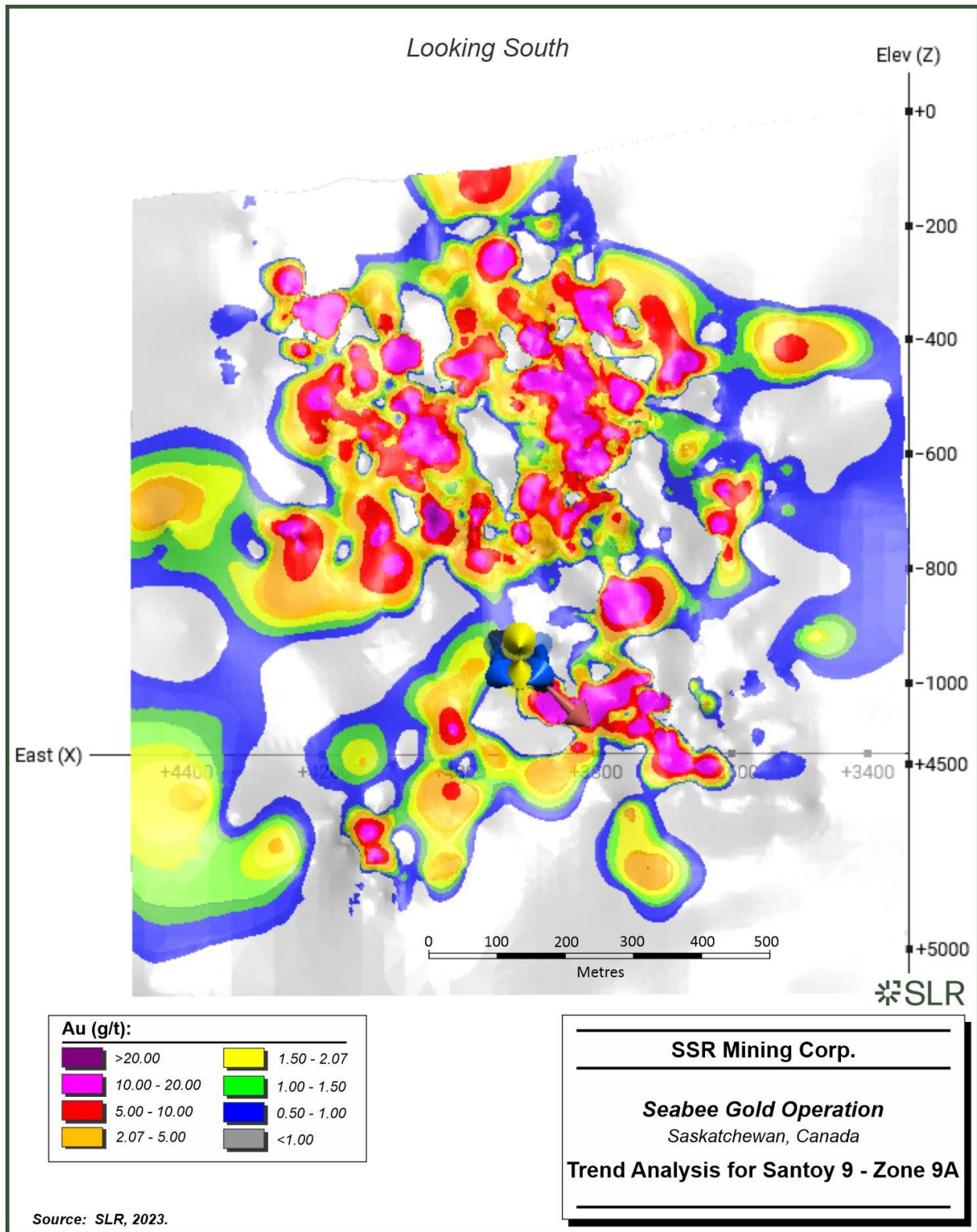


Figure 11-5: Trend Analysis for GHW-SHW

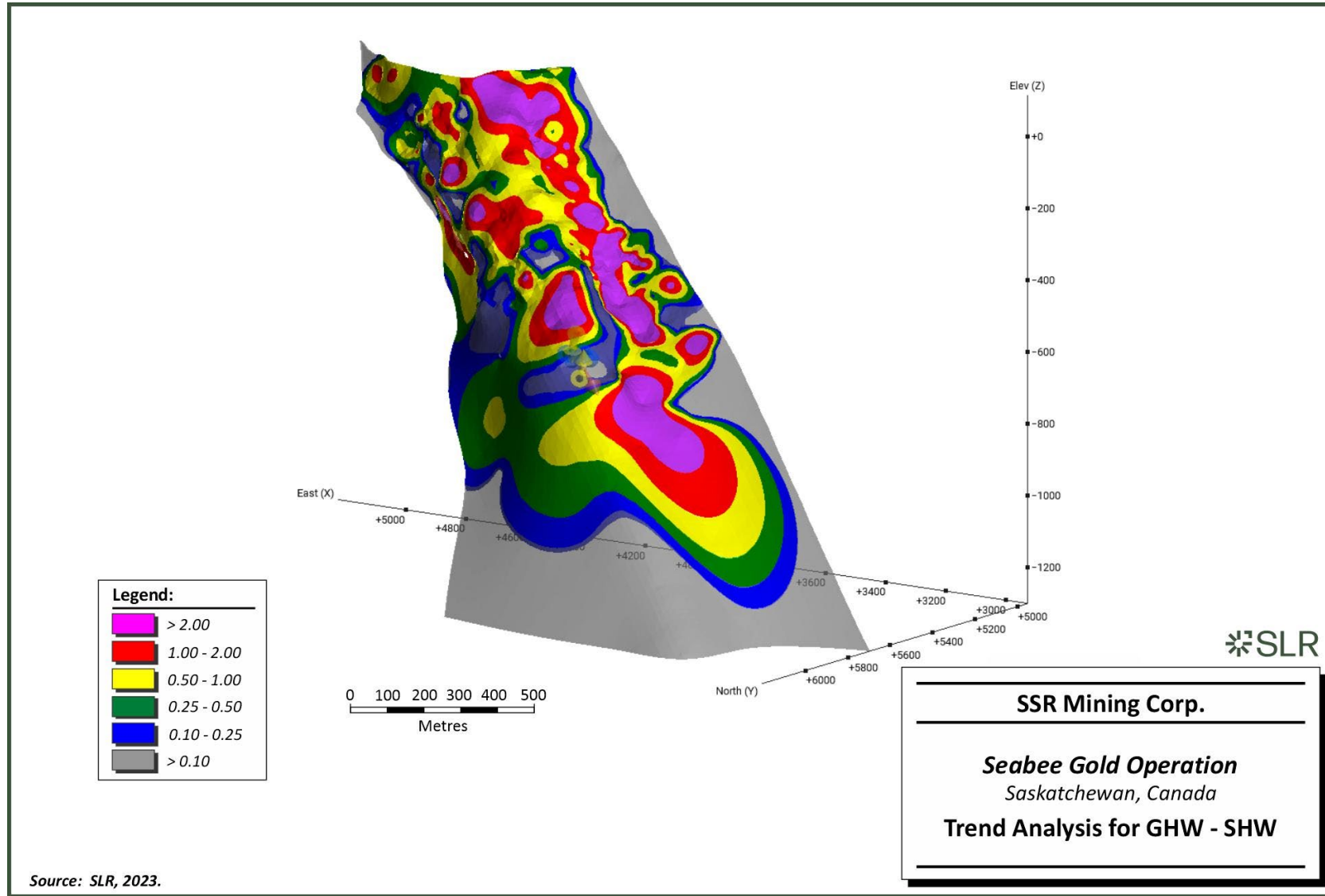


Figure 11-6: Back Transformed Variogram for 8A_B Zone

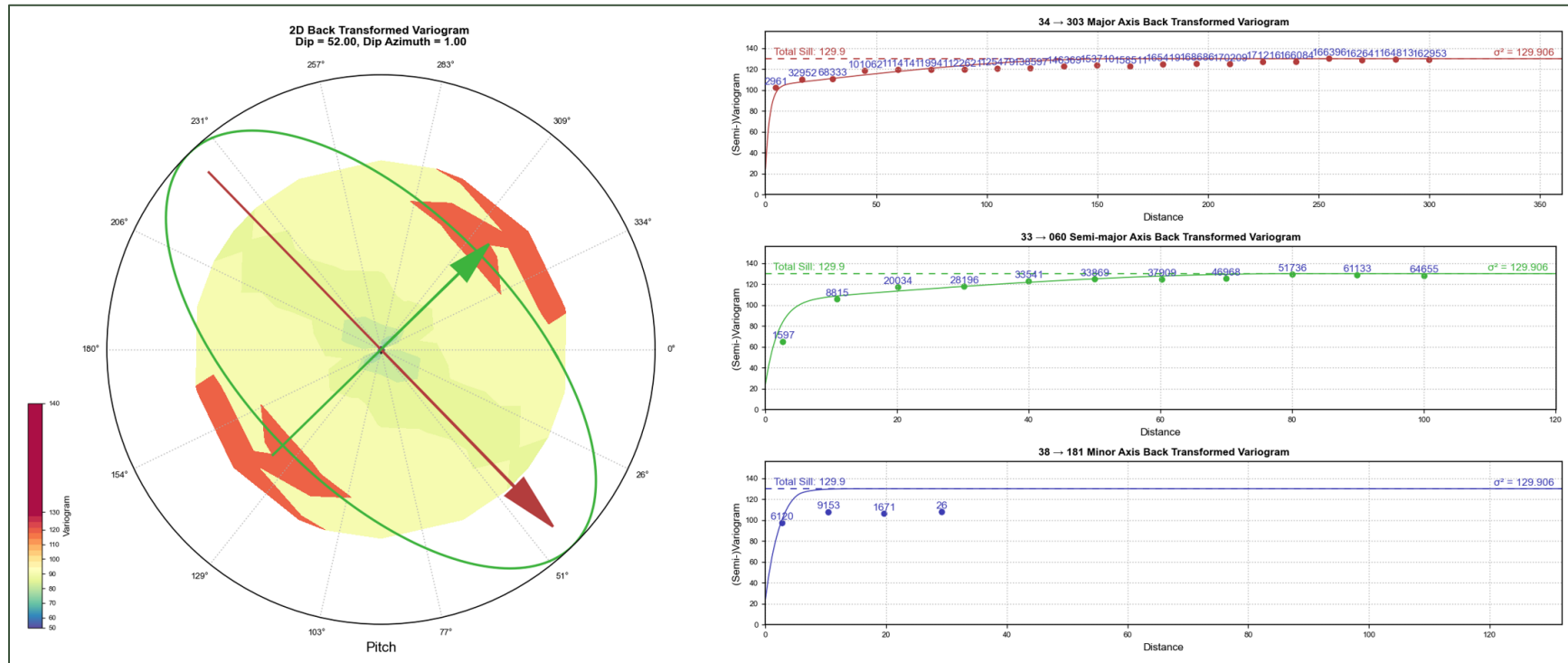


Figure 11-7: Back Transformed Variogram for 9A Zone

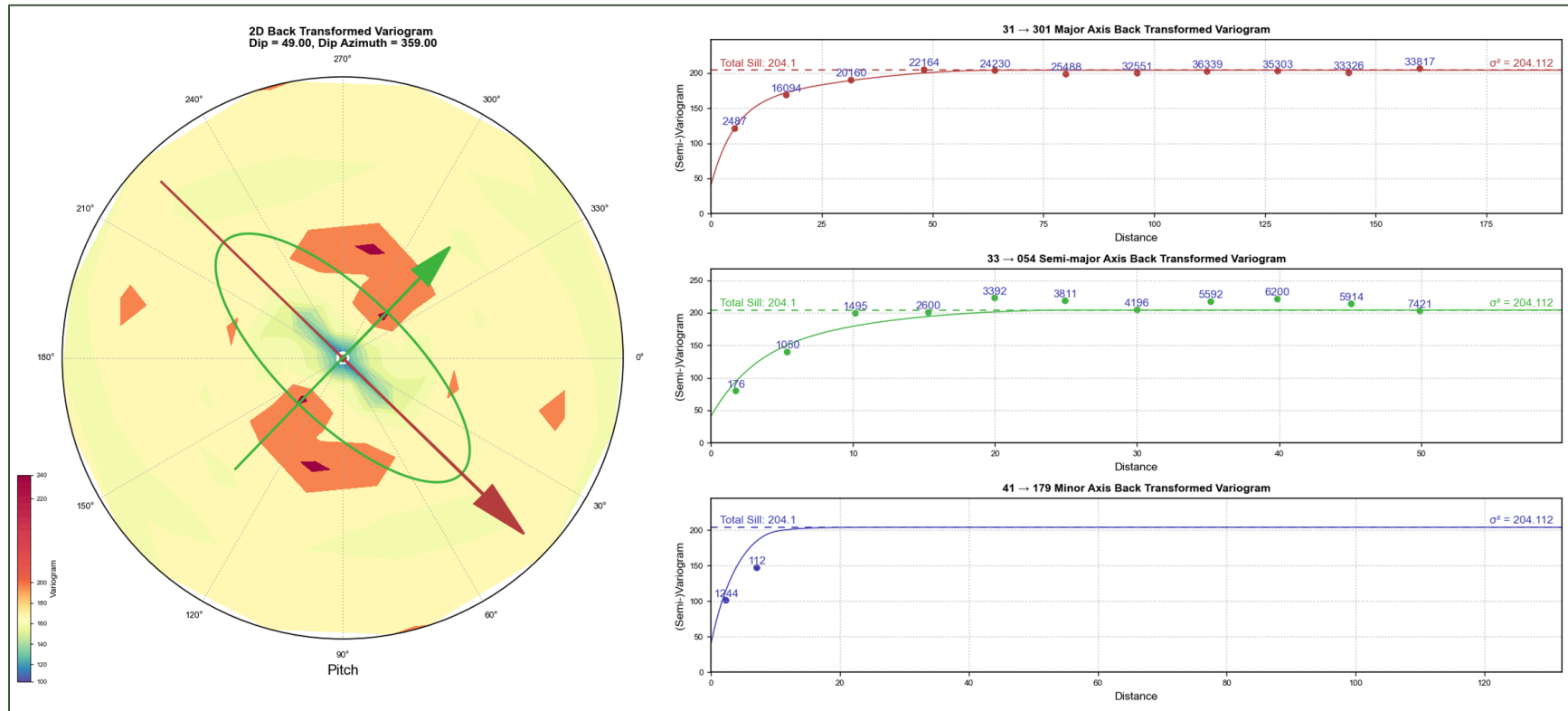
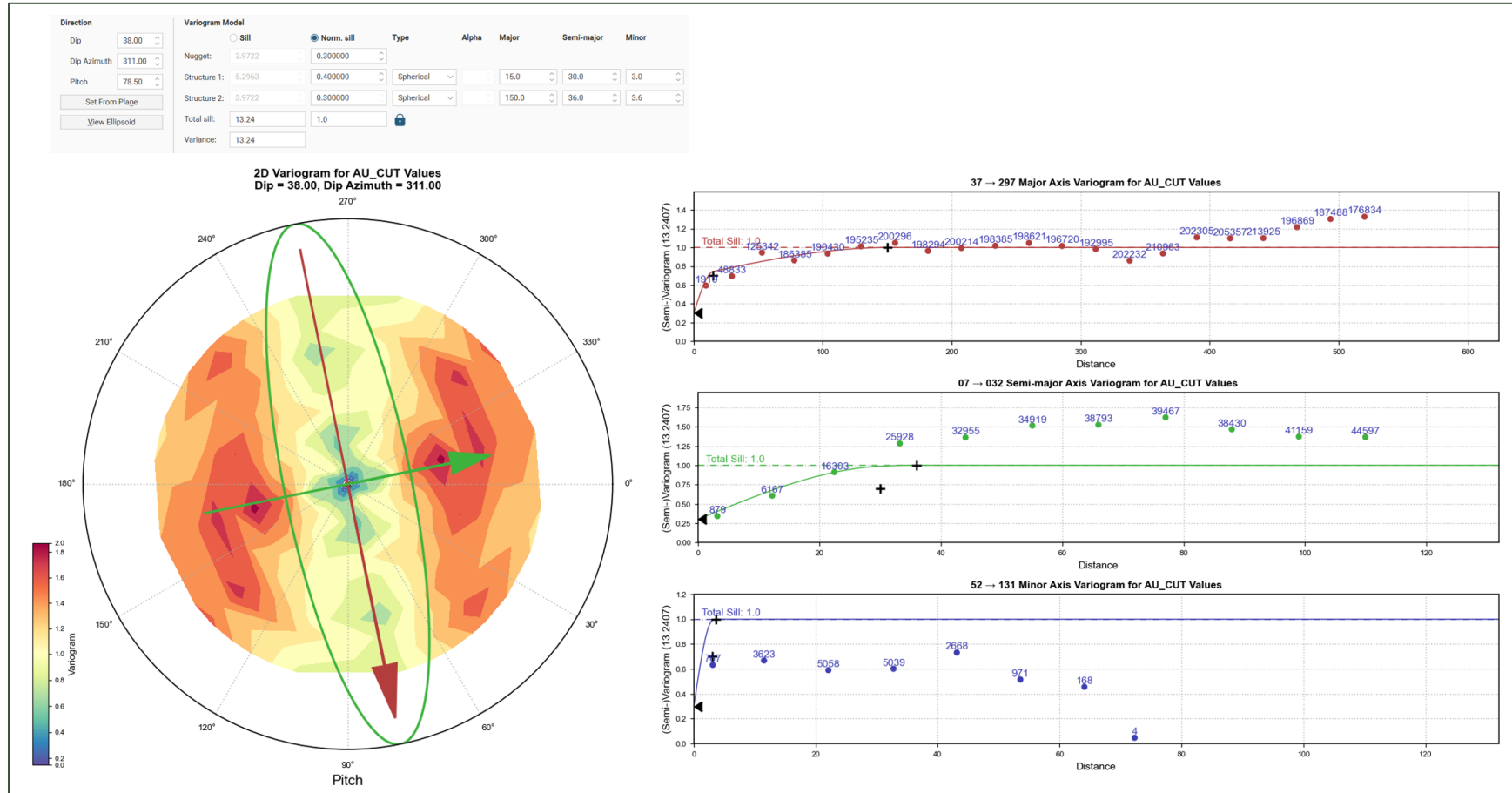


Figure 11-8: Directional Variogram for GHW Zone



11.5.4 Search Strategy and Grade Interpolation Parameters

Grade interpolation was performed on parent blocks using ordinary kriging (OK) interpolation approach with progressively larger interpolation passes (Table 11-9). Search ellipses for grade interpolation were anisotropic for all zones and oriented using variable orientation (VO). Search ellipse dimensions and orientations are detailed in Table 11-9 and the composite selection plan is outlined in Table 11-10.

Table 11-9: Search Strategy and Grade Interpolation Parameters

Deposit	Domain	Method	Orientation	1 st Pass			2 nd Pass			3 rd Pass			4 th Pass		
				X-axis	Y-axis	Z-axis	X-axis	Y-axis	Z-axis	X-axis	Y-axis	Z-axis	X-axis	Y-axis	Z-axis
				(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
Santoy 8	8A_B	OK	VO	16.5	15	1.5	33	30	3	66	60	6	-	-	-
	8A_FW	OK	VO	17.5	17.5	1.75	35	35	3.5	70	70	7	-	-	-
	8A_T	OK	VO	17.5	15	2	35	30	4	70	60	8	-	-	-
	8C	OK	VO	13.6	6.5	3	27	13	6	54	26	12	-	-	-
	8D	OK	VO	16	16	1.5	32	32	3	64	64	6	-	-	-
	8F	OK	VO	13.5	7.5	4	27	15	8	54	30	16	-	-	-
	8G	OK	VO	18	18	1.75	36	36	3.5	72	72	7	-	-	-
Santoy 9	9A	OK	VO	24	20.5	5	48	41	10	96	82	20	-	-	-
	9B	OK	VO	12.5	12.5	1.25	25	25	2.5	50	50	5	-	-	-
	9C	OK	VO	20	7	4	40	14	4	80	28	8	-	-	-
GHW	GHW	OK	VO	25	25	5	50	50	5	100	100	10	600	600	200
	SHW	OK	VO	75	25	6	150	50	6	300	150	10	-	-	-

Note:

1. GHW uses the variogram presented in section 11.2.4.2 but with the semi-major and minor values inversed to better represent the narrowness and perpendicular orientation of the mineralized veins within the GHW domain.



Table 11-10: Composite Selection Plan

Domain	1 st Pass			2 nd Pass			3 rd Pass			4 th Pass			
	Min No.	Max No.	DH Limit	Min No.	Max No.	DH Limit	Min No.	Max No.	DH Limit	Min No.	Max No.	DH Limit	HG Restriction
Santoy 8 and Santoy 9 (All veins)	5	8	2	3	8	2	2	12	-	-	-	-	-
GHW	6	15	5	6	15	5	6	15	5	1	10		5g/t at 10%
SHW	4	12	3	4	12	3	1	12	-	-	-	-	-

11.5.5 Bulk Density

Density values for each zone were provided by SSR and ranged between 2.65 g/cm³ and 2.75 g/cm³ within mineralization domains. In SLR's opinion, these are reasonable densities for this type of mineralization. Density has been measured by the site laboratory as well as sporadically by ALS as part of analysis process. The density database from drill holes contains 535 acceptable values for the Santoy 9 deposit and 97 in GHW deposit. Approximately 47 measurements on chip and muck samples were also available for this study. A total of 649 samples were available although only 316 measurements were able to be assigned to a particular zone.

Density values were assigned based on average density readings by domain, by proximal vein, or by the dataset average where no samples were taken. Assigned density values by vein are presented in Table 11-11. Measurements have been taken inconsistently through the years, and very few results are available to fully understand the density of each domain. Another 66 sample measurements taken at the mill were available for the evaluation of the density, although it was not possible to separate them per domain. The average of the Santoy 8 and Santoy 9 of the mill on these measurements is 2.75 g/cm³ and 2.64 g/cm³ for the bulk sample values of GHW. Although the average density for measurement in Santoy 9 zones are closer to 2.8 g/cm³, it was decided to maintain the density assigned in the previous Mineral Resource Estimate of 2022 of 2.75 g/cm³ due to the small population of data available and the results from the mill. SLR recommends adding density measurements as part of the drill hole sampling protocol particularly in domains that were not previously sampled, taking more density samples in non-mineralized lithology and continuing measurements in all mineralized zones.

Table 11-11: Density Values per Domain

Domain	Source	Count	Mean (g/cm ³)	Assigned Density (g/cm ³)
8A_B	Chips and Mucks	43	2.76	2.75
8A_FW	-	-	-	2.75
8A_T	-	-	-	2.75
8C	-	-	-	2.75
8D	-	-	-	2.75
8F	Chips and Mucks	4	2.76	2.75



Domain	Source	Count	Mean (g/cm ³)	Assigned Density (g/cm ³)
8G	No Data	-	-	2.75
9A	DH	92	2.85	2.75
9B	DH	32	2.83	2.75
9C	DH	63	2.81	2.75
GHW	DH	76	2.65	2.65
SHW	DH	6	2.64	2.65

11.5.6 Block Models

Block model setup and interpolation was completed in Seequent's Leapfrog Edge software. Block models position and dimensions for the three deposits of Santoy Mine are presented in Table 11-12 to Table 11-14. SLR considers the block model sizes appropriate for the deposit geometry and proposed mining methods.

Table 11-12: Santoy 8 - Block Model Extents and Dimensions

Type	X	Y	Z
Base Point (m)	3,940	4,560	30
Boundary Size (m)	1,551	1,098	1,056
Parent Block Size (m)	3	3	3
Min. Sub-block Size (m)	1.5	0.75	1.5
Rotation (°)	0	0	0

Table 11-13: Santoy 9 - Block Model Extents and Dimensions

Type	X	Y	Z
Base Point (m)	3,180	4,560	25
Boundary Size (m)	1,362	1,080	1,170
Parent Block Size (m)	3	3	3
Min. Sub-block Size (m)	1.5	0.75	1.5
Rotation (°)	0	0	0



Table 11-14: GHW-SHW - Block Model Extents and Dimensions

Type	X	Y	Z
Base Point (m)	2,450	4,570	27
Boundary Size (m)	4,254	1,530	1,329
Parent Block Size (m)	3	3	3
Min. Sub-block Size (m)	1.5	0.75	1.5
Rotation (°)	0	0	0

11.5.7 Classification

Mineral Resources have been classified in accordance with the definitions for Mineral Resources in S-K 1300, which are consistent with Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves dated May 10, 2014 (CIM (2014) definitions).

In the S-K 1300 classification, a Mineral Resource is defined as “a concentration or occurrence of 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 economic extraction”. Mineral Resources are classified into Measured, Indicated, and Inferred categories. A Mineral Reserve is defined as the “economically mineable part of a Measured and/or Indicated Mineral Resource” demonstrated by studies at Pre-Feasibility or Feasibility level as appropriate. Mineral Reserves are classified into Proven and Probable categories.

The previous Santoy Mine classification strategy was used for this estimate. Mineral Resources material represents areas defined within a certain drill hole spacing. At SGO, it consists principally of applying the ranges in meters of the ellipsoid corresponding to pass 1 to Measured material, pass 2 to Indicated material and pass 3 to Inferred material. Additionally, to classify material as Measured, it also requires proximity to development. Table 11-15 shows the differences and parameters used to generate the classification of Santoy Mine. These definitions are in places modified to consider geological understanding, grade continuity, and the creation of cohesive class boundaries. SLR notes that some lower grade material was included to preserve continuity.

Table 11-15: Mineral Resource Classification Parameters

Deposit	Zone	Measured	Indicated	Inferred
Santoy 8	8A_B	Up to ~15 m from existing development, drill spacing up to ~15m	drill spacing up to ~30 m	drill spacing up to ~60 m
	8A_FW	Up to ~15 m from existing development, drill spacing up to ~15 m	drill spacing up to ~30 m	drill spacing up to ~60 m
	8A_T	Up to ~20 m from existing development, drill spacing up to ~17.5 m (ellipsoid range Pass 1)	drill spacing up to ~35 m (ellipsoid range Pass 2)	drill spacing up to ~70 m (ellipsoid range Pass 3)
	8C	No Measured Material	No current Indicated Material - drill spacing up to	drill spacing up to ~54 m (ellipsoid range Pass 3)



Deposit	Zone	Measured	Indicated	Inferred
			~27 m (ellipsoid range Pass 2)	
	8D	No Measured Material	No current Indicated Material - drill spacing up to ~32 m (ellipsoid range Pass 2)	drill spacing up to ~64 m (ellipsoid range Pass 3)
	8F	No Measured Material	No current Indicated Material - drill spacing up to ~27 m (ellipsoid range Pass 2)	drill spacing up to ~54 m (ellipsoid range Pass 3)
	8G	No Measured Material	No current Indicated Material - drill spacing up to ~36 m (ellipsoid range Pass 2)	drill spacing up to ~72 m (ellipsoid range Pass 3)
Santoy 9	9A	Up to 25 m from existing development, drill spacing up to ~25 m	drill spacing up to ~50 m (ellipsoid range Pass 2)	drill spacing up to ~100 m (ellipsoid range Pass 3)
	9B	Up to 12.5 m from existing development, drill spacing up to ~12.5 m	drill spacing up to ~25m (ellipsoid range Pass 2)	drill spacing up to ~50 m (ellipsoid range Pass 3)
	9C	Up to 20 m from existing development, drill spacing up to ~20 m	drill spacing up to ~40 m (ellipsoid range Pass 2)	drill spacing up to ~80 m (ellipsoid range Pass 3)
GHW-SHW	GHW-SHW	No Measured Material	drill spacing up to ~50 m	drill spacing up to ~100 m

Figure 11-9 to Figure 11-11 illustrates the classification of Santoy 8, Santoy 9, and GHW-SHW, respectively.



Figure 11-9: Exclusive Underground Reporting Shapes of Santoy 8 Classification

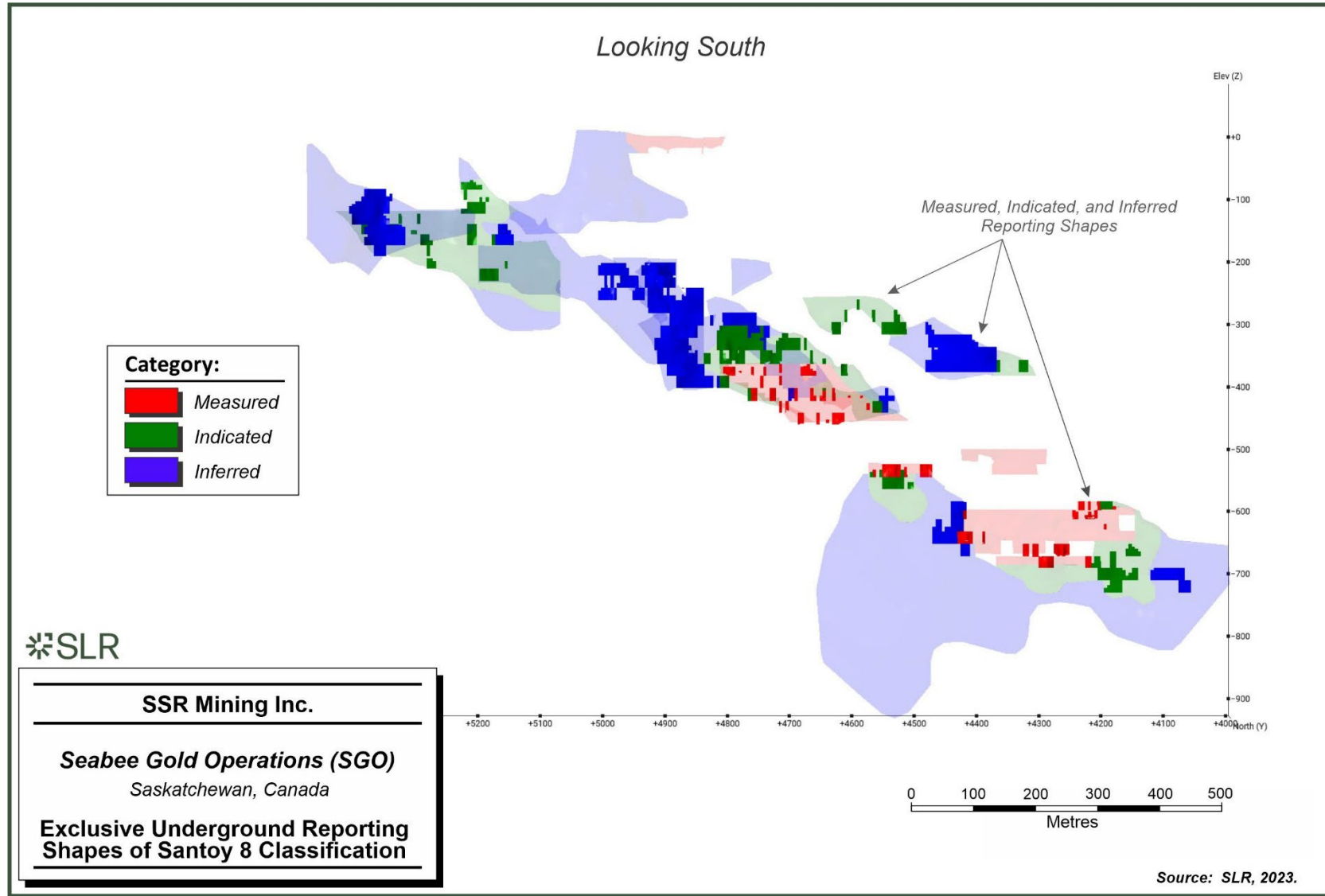


Figure 11-10: Exclusive Underground Reporting Shapes of Santoy 9 Classification

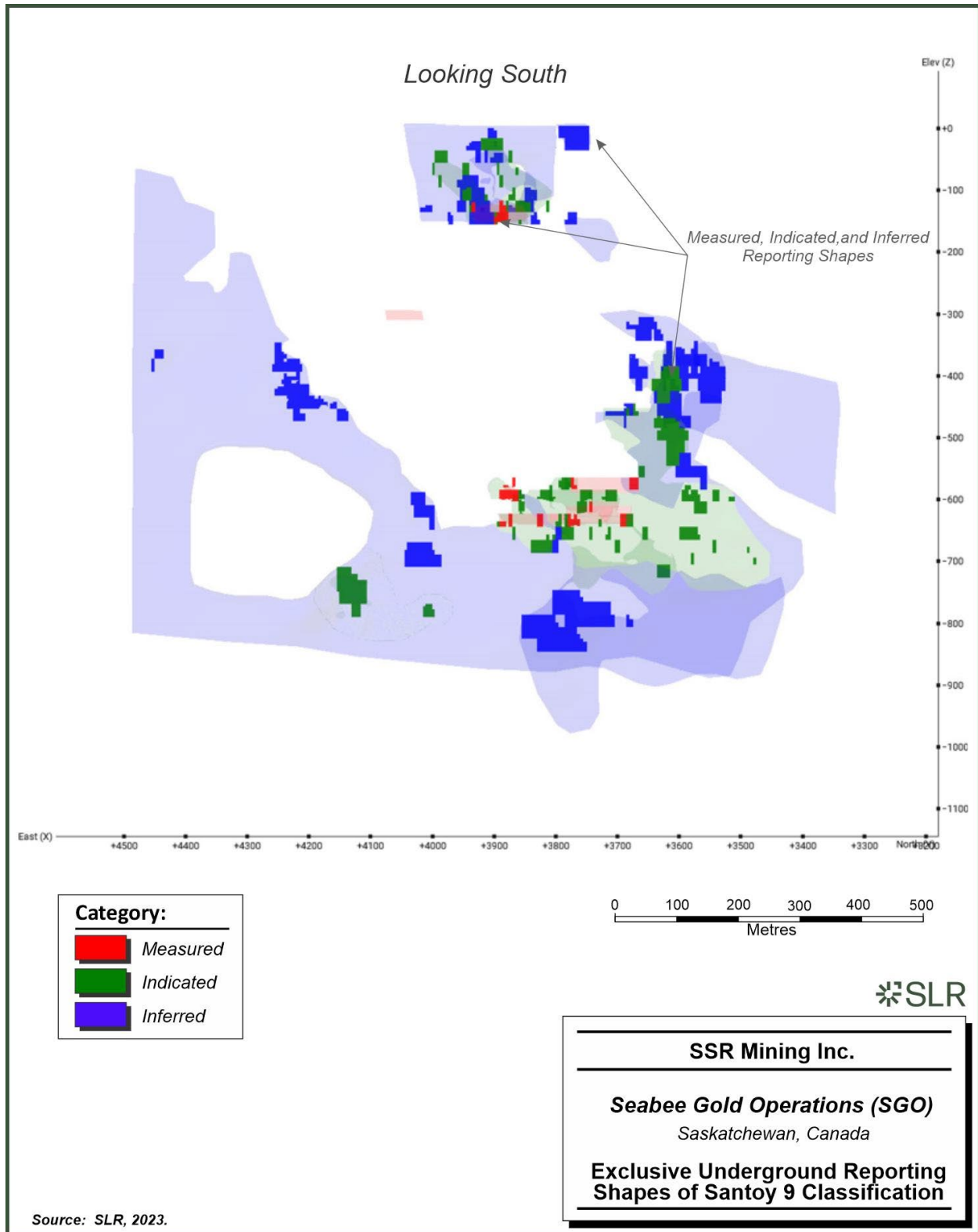
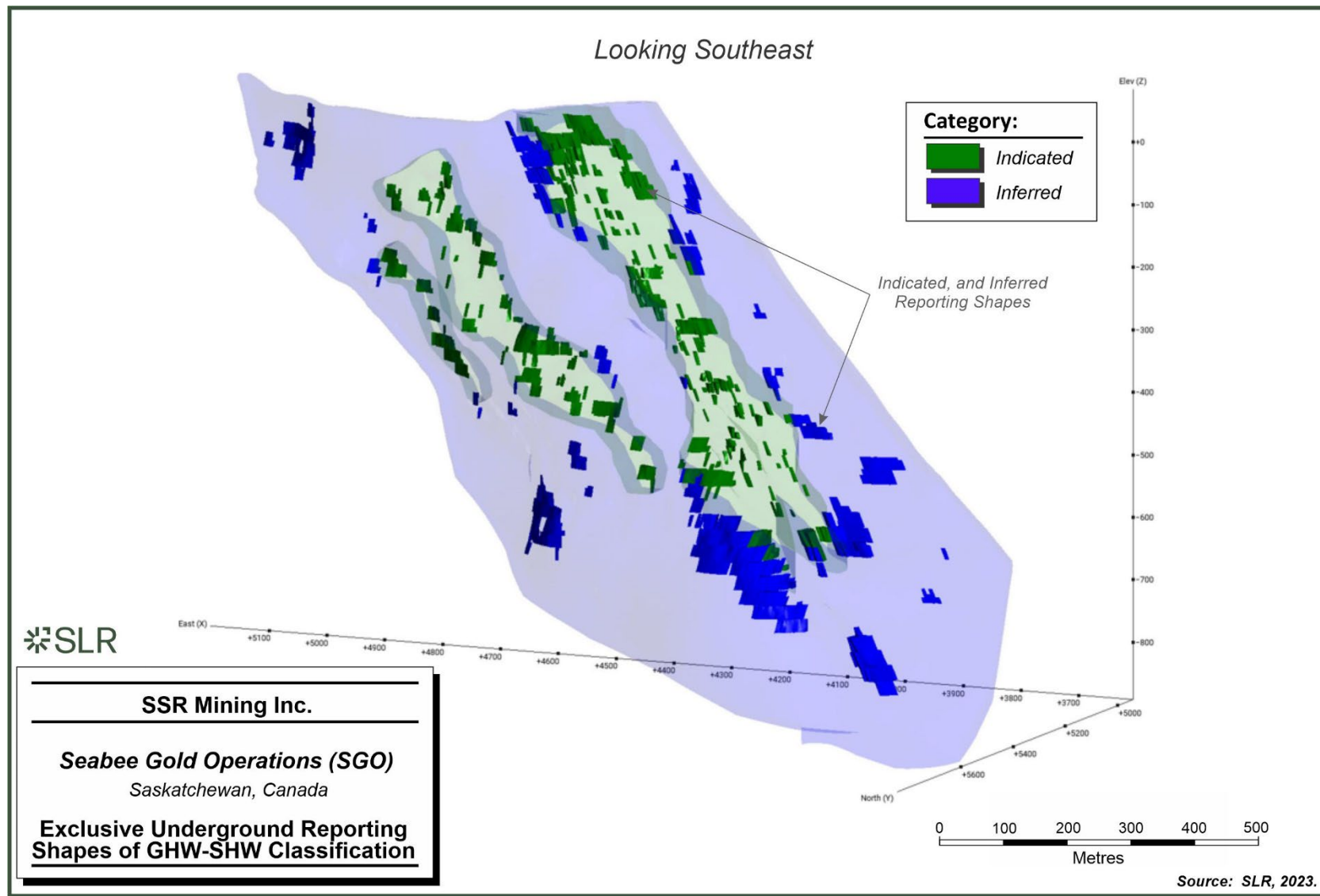


Figure 11-11: Exclusive Underground Reporting Shapes of GHW-SHW Classification



11.5.8 Block Model Validation

Blocks were validated using common validation techniques including:

- Visual inspection of composite versus block grades (Figure 11-12 and Figure 11-13)
- Comparison between ID², OK and nearest neighbour (NN) mean swath plots (Figure 11-14 and Figure 11-15)
- Wireframe to block model volume confirmation (Table 11-16)
- NN and ID² versus OK block statistics (Table 11-17)

Based on the validation steps performed, SLR is of the opinion that the Santoy Mine Mineral Resource estimates are suitable for public disclosure and to support the estimation of Mineral Reserves:

- Visual inspection of grade, mean comparisons and swath plots show that the estimation setups are working as intended, the boundary conditions and use of input data is appropriate, there is no significant over extrapolation of grades and the smoothing of grades as compared to the input data is as expected.
- The volume comparisons demonstrate that the block model is an appropriate volumetric representation of the in situ mineralization.



Figure 11-12: Visual Validation of 8A_B and 8A_FW Gold Composite and Block Grades

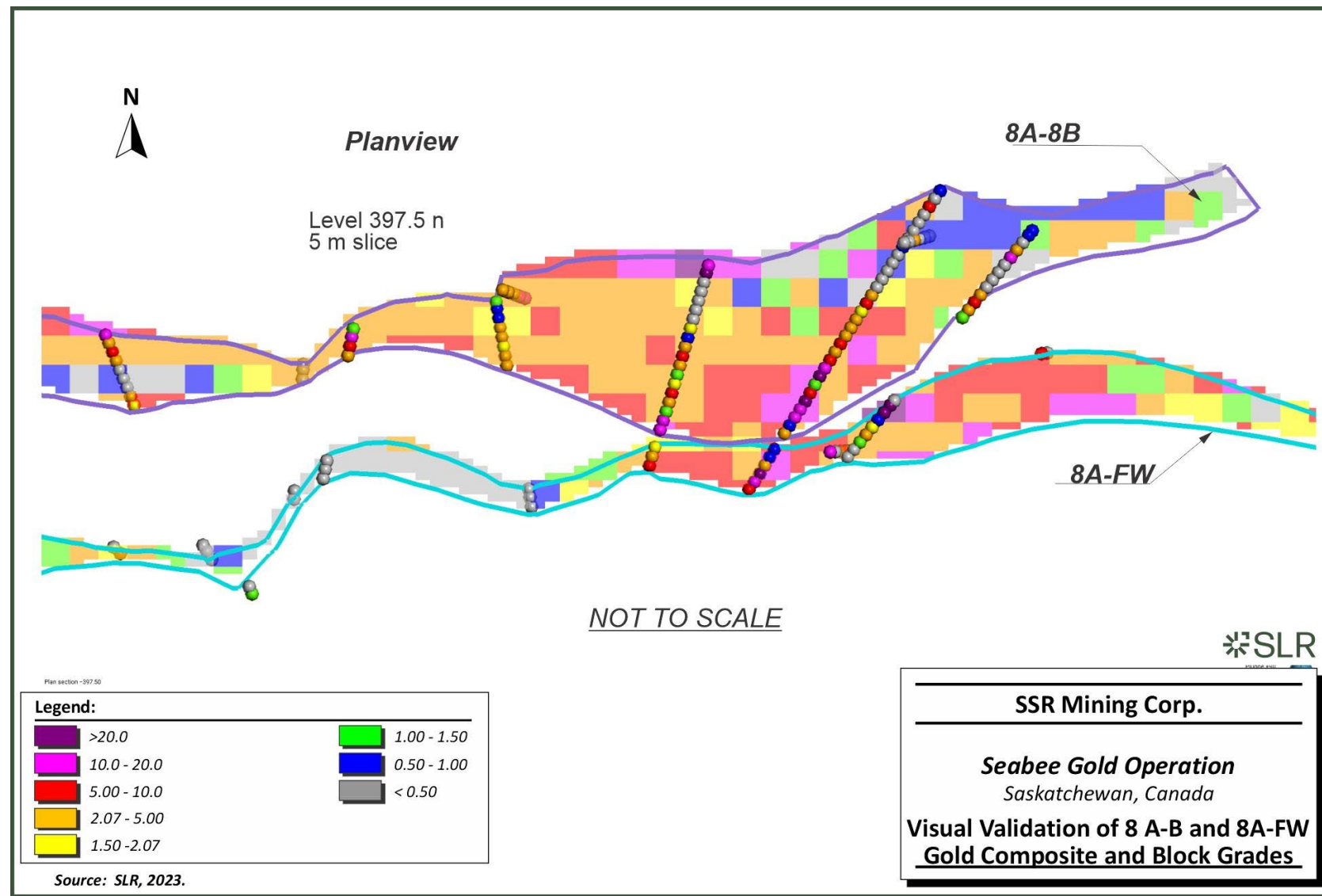


Figure 11-13: Visual Validation of Santoy 9 Gold Composite and Block Grades

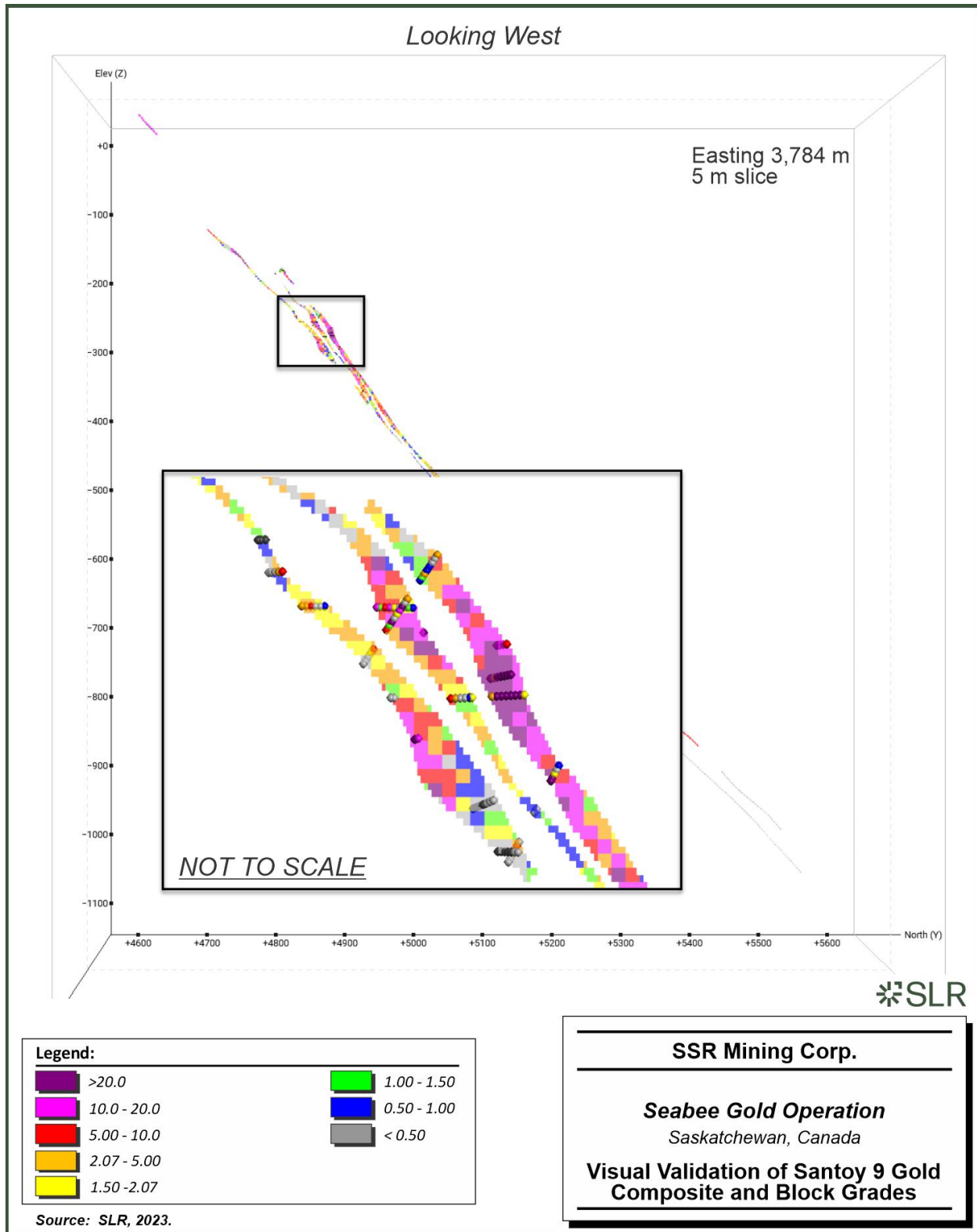
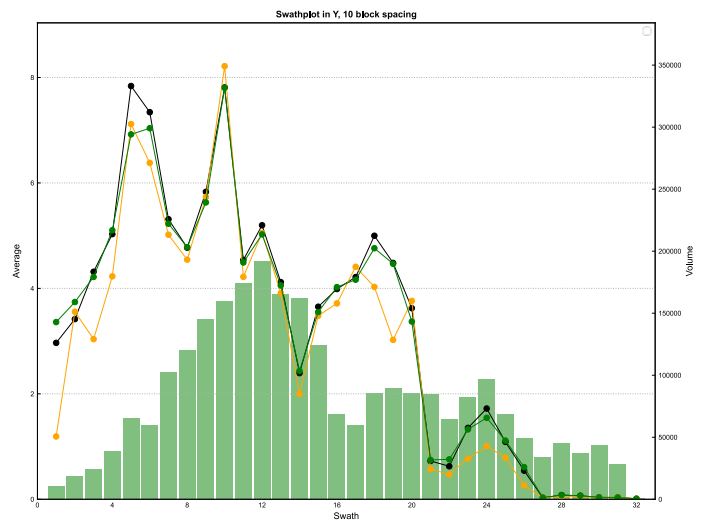
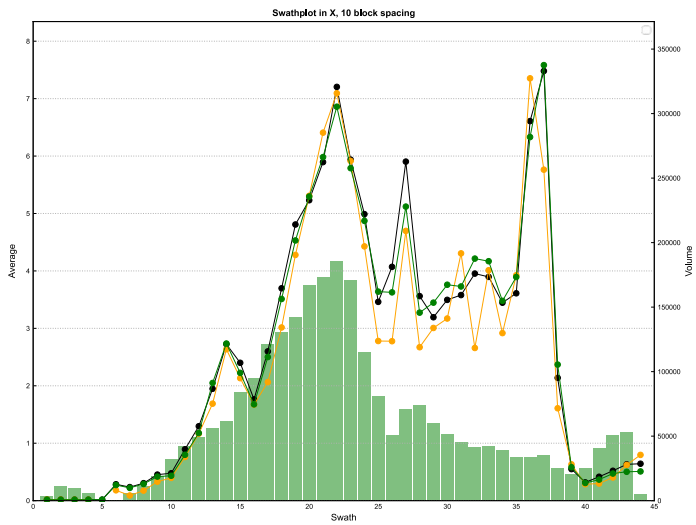


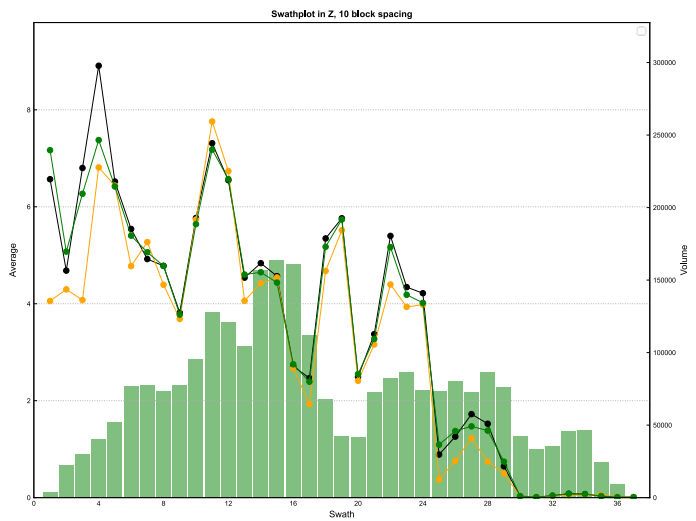
Figure 11-14: Swath Plots Comparing OK, ID² and NN Estimate Results within Santoy 9

X-axis

Y-axis



Z-axis



Notes:

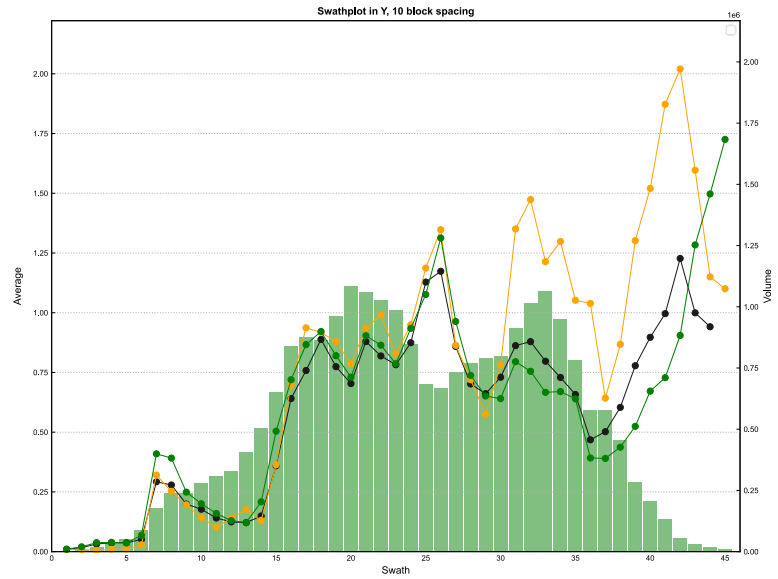
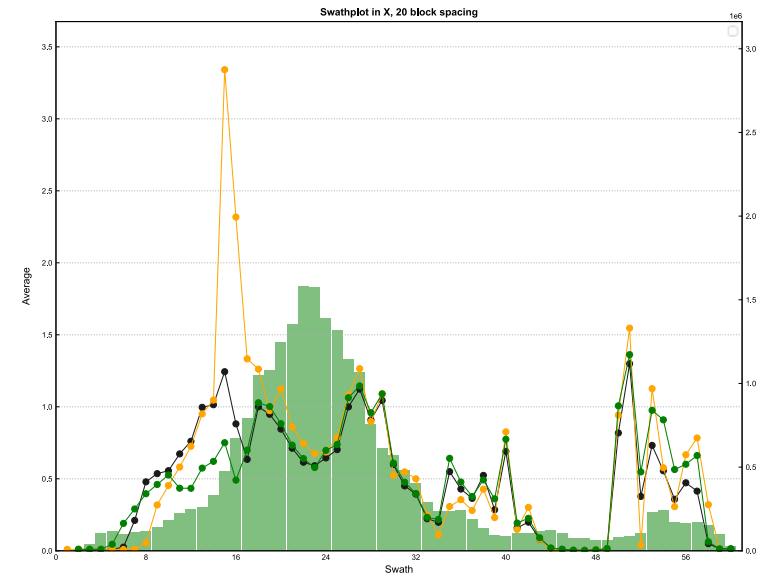
1. Orange, black, and green lines represent NN, ID, and OK estimate results, respectively.



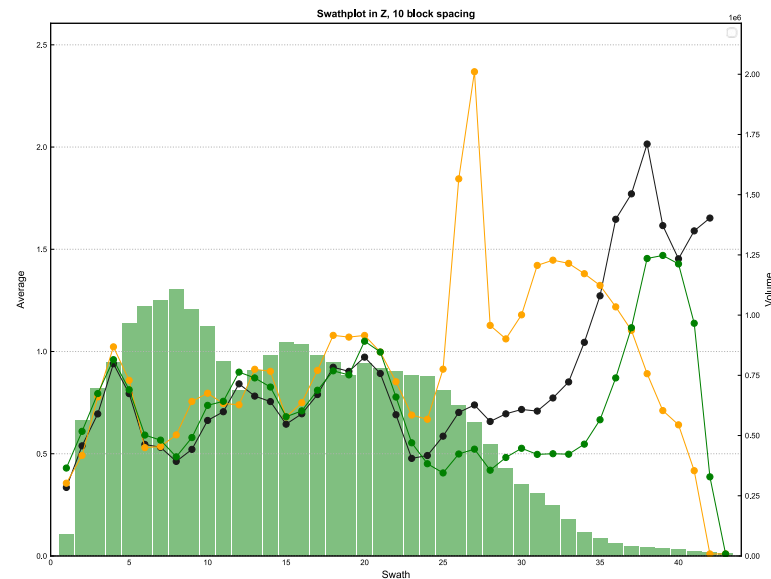
Figure 11-15: Swath Plots Comparing OK, ID² and NN Estimate Results within GHW-SHW

X-axis

Y-axis



Z-axis



Notes:

1. Orange, black, and green lines represent NN, ID, and OK estimate results, respectively.



Table 11-16: Wireframe to Block Model Volume Confirmation

Zones	Wireframe Volume (000 m ³)	Block Model Volume (000 m ³)	Confirmation %
8A_B	2,204,000	2,203,548	99.97
8A_FW	164,990	165,107	100
8A_T	586,770	587,228	100
8C	368,940	369,095	100
8D	174,890	174,874	99.99
8F	474,520	474,641	100
8G	150,130	150,111	99.98
9A	1,861,900	1,862,262	100
9B	294,070	293,942	99.95
9C	1,789,000	1,789,529	100
GHW	6,232,500	6,227,434	99.91
SHW	12,025,000	11,748,011	97.69
Total	26,326,710	26,045,782	98.93

Table 11-17: Gold Statistics between Validation NN and ID² Model and OK

Deposit	Mean (g/t Au)				Max (g/t Au)				CV			
	Capped Composite	Block Model NN	Block Model OK	Block Model ID ²	Capped Composite	Block Model NN	Block Model OK	Block Model ID ²	Capped Composite	Block Model NN	Block Model OK	Block Model ID ²
Santoy 8	3.32	2.69	2.65	2.61	110	110	83.37	107.34	2.84	3.01	1.64	1.90
Santoy 9	5.72	3.59	3.79	3.87	130	130	125.55	127.55	2.83	3.50	1.85	2.08
GHW-SHW	1.02	1.04	0.97	0.84	35	35	29.17	30.15	2.96	3.46	1.38	1.72



11.6 Porky West

The Porky West Mineral Resource estimate with an effective date of December 31, 2023, is presented in Table 11-18.

Table 11-18: Summary of Mineral Resources for Porky West – December 31, 2023

Category	Tonnage	Grade	Contained Metal	Cutt-off Grade	Recovery
	(000 t)	(g/t Au)	(000 oz Au)	(g/t Au)	%
Indicated	444.3	5.2	74.9	2.61	96.5
Inferred	1,088.60	6.6	232.2		

Notes:

1. The definitions for Mineral Resources in S-K 1300 were followed for Mineral Resources.
2. Mineral Resources are reported based on 31 December 2023 as-mined survey data.
3. Mineral Resources are estimated at a cut-off grade of 2.61 g/t Au.
4. Mineral Resources are estimated using a long-term gold price of US\$1,750 per ounce, and a US\$/C\$ exchange rate of 1.33.
5. The density assigned to the overburden at Porky West is 1.70 t/m³, in-situ mineralized material is 2.71 t/m³ and host rock is 2.80 t/m³.
6. Gold metallurgical recovery 96.5%.
7. There are no Mineral Reserves at Porky West
8. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
9. Mineral Resources are reported within underground reporting shapes (DSO shapes).
10. The point of reference for Mineral Resources is the point of feed into the processing facility.
11. SSR has 100% ownership of the Project and Mineral Resources are shown on a 100% basis.
12. A minimum mining width of 2 m was used.
13. Numbers may not add due to rounding.

11.6.1 Geological Interpretation

Porky West was last modelled in 2009 by SSR using explicit polyline interpretation in Geovia GEMS software. SLR modelled Porky West using Leapfrog Geo and Leapfrog Edge.

A total of twelve veins “PW_1 to PW_12” were modelled using Leapfrog Geo’s Vein tool, with PW_6 vein representing the “Porky West” zone.

Wireframe domains at Porky West were built using a nominal gold grade cut-off of 0.5 g/t Au, and a minimum thickness of 1.0 m was maintained where possible. For Porky West, wireframe extension distances were clipped at 50% of the distance to an excluded drill hole or 100 m.

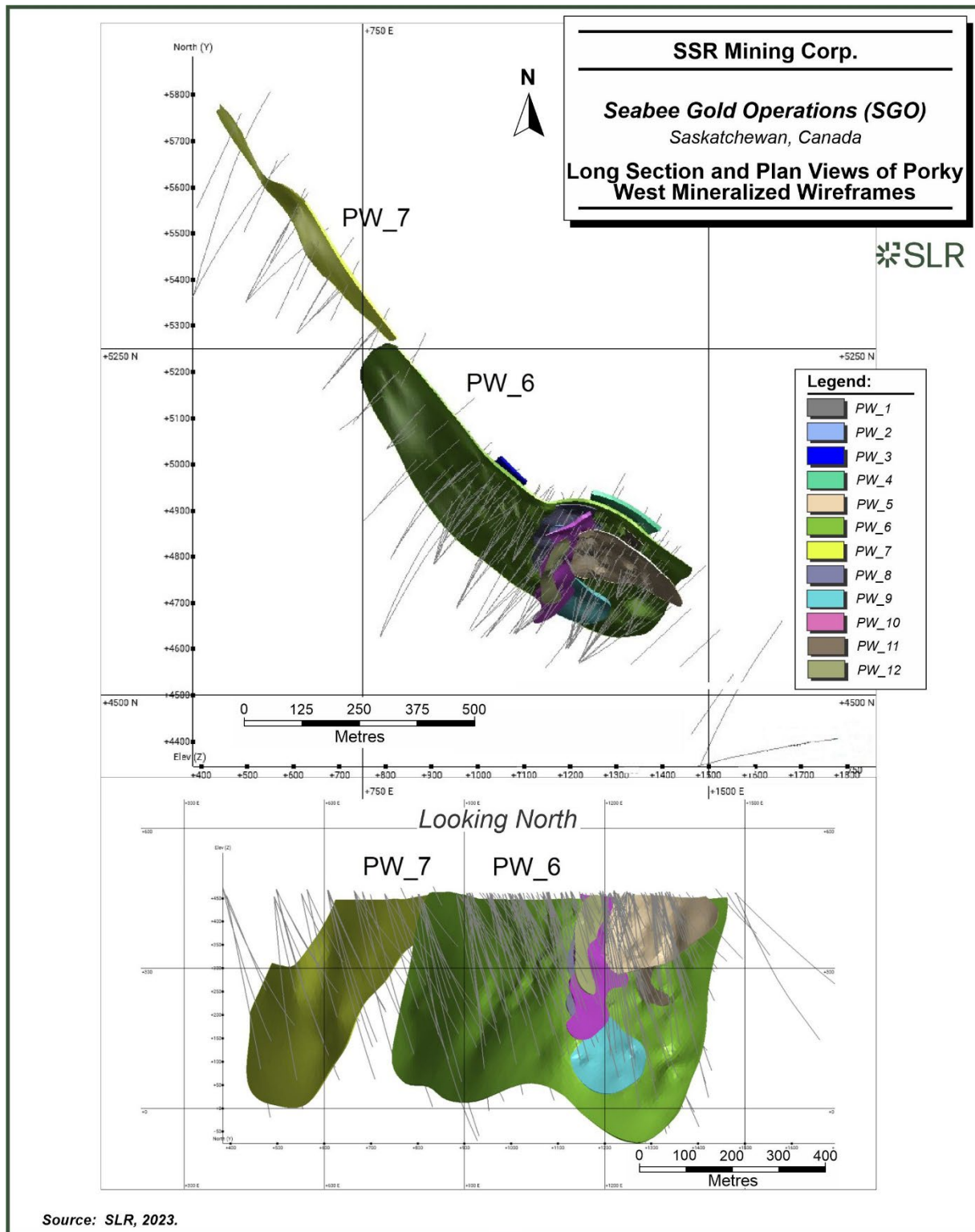
Porky West veins generally trend to the southeast, dipping on average 65°, but steepen to sub-vertical in the north. Porky West veins extend along strike 1,500 m and 500 m down dip. Vein thicknesses range between 1.0 m and 30.0 m, with PW_6 having an average thickness of 4.0 m.

SLR notes that Porky West remains open at depth and along strike and recommends additional exploration drilling to better understand mineral resource potential.

Final mineralization wireframes for Porky West are shown in Figure 11-16.



Figure 11-16: Long Section and Plan Views of Porky West Mineralized Wireframes



11.6.2 Resource Assays

11.6.2.1 Compositing

Assay samples at Porky West were composited to 1.5 m within modelled mineralization domains. Histograms of interval lengths for Porky West were created to help define the selected assay composite length. A histogram of interval lengths inside modelled wireframes for Porky West is shown in Figure 11-17.

Gold assay and composite statistics per domain for Porky West are summarized in Table 11-19.

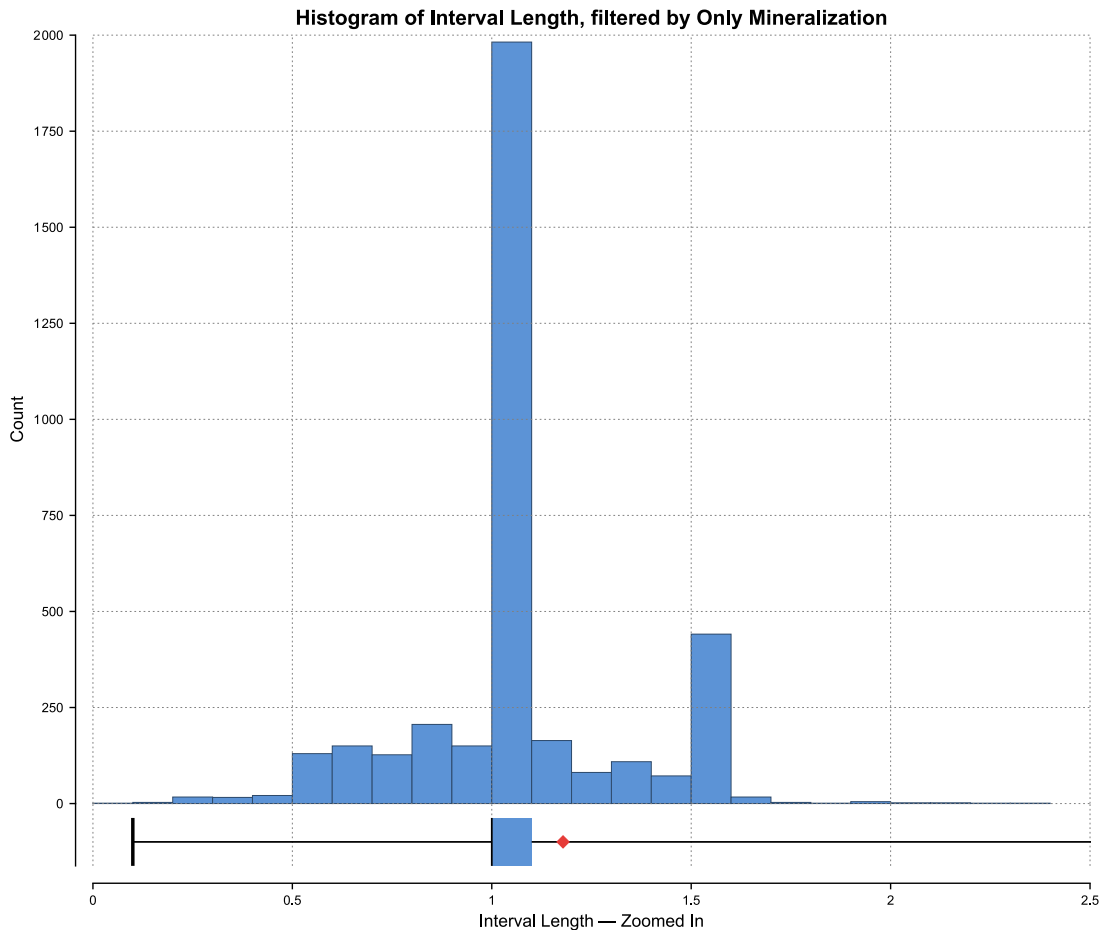


Table 11-19: Porky West Gold Assay and Composite Statistics

Domain	Assay						Composite					
	Count	Length	Min.	Mean	Max.	CV	Count	Length	Min.	Mean	Max.	CV
		(m)	(g/t Au)	(g/t Au)	(g/t Au)			(m)	(g/t Au)	(g/t Au)	(g/t Au)	
	Porky West						1.5 m					
PW_1	364	424.60	0.00	1.12	62.49	3.81	278	416.63	0.00	1.14	43.75	2.99
PW_2	71	75.25	0.00	1.75	43.35	2.62	58	83.47	0.00	1.58	17.03	1.98
PW_3	45	50.30	0.00	3.02	76.17	3.87	46	68.85	0.00	2.21	39.90	3.18
PW_4	272	415.03	0.00	0.61	11.23	1.90	227	334.91	0.00	0.75	6.88	1.31
PW_5	169	429.15	0.00	2.21	979.74	23.40	149	222.88	0.00	4.25	364.82	8.42
PW_6	2,382	2,534.93	0.00	2.23	271.00	4.69	1,753	2,636.90	0.00	2.14	174.21	3.52
PW_7	102	100.40	0.00	1.92	45.37	3.05	81	121.87	0.00	1.58	23.43	2.33
PW_8	170	179.41	0.00	1.42	62.23	3.63	136	202.16	0.00	1.26	41.49	3.19
PW_9	74	88.66	0.00	1.26	36.30	3.60	57	85.59	0.00	1.31	19.65	2.47
PW_10	9	10.40	0.02	0.80	1.97	0.64	10	14.41	0.00	0.58	1.35	0.85
PW_11	40	48.99	0.00	1.69	26.84	2.96	34	51.18	0.00	1.61	26.84	2.78
PW_12	29	35.80	0.00	0.57	3.78	1.50	27	38.92	0.00	0.52	3.78	1.56



Figure 11-17: Histogram of Interval Lengths in Porky West Mineralization



11.6.2.2 Treatment of High Grade Composites

11.6.2.2.1 Capping Levels

High grade values were capped by domain after compositing with levels selected upon review of assayed gold values using histograms, log probability plots, basic statistics, decile analysis and visual review. Table 11-20 summarizes the Porky West capped gold composite statistics by domain.



Table 11-20: Porky West Gold Composite Capping Statistics (in g/t Au)

Domain	Min	Max	Mean	CV	Cap Value	No of Cap	Capped Mean	Capped CV	% Metal Loss
Porky West									
PW_1	0	43.75	1.14	2.99	25	1	1.08	2.48	5.26
PW_2	0	17.03	1.58	1.98	25	0	1.58	1.95	0.00
PW_3	0	39.90	2.21	3.18	10	1	1.29	1.83	41.63
PW_4	0	6.88	0.75	1.31	10	0	0.75	1.31	0.00
PW_5	0	364.82	4.25	8.42	25	1	0.97	3.55	77.18
PW_6	0	174.21	2.14	3.52	60	4	2.01	2.65	6.07
PW_7	0	23.43	1.58	2.33	25	0	1.58	2.31	0.00
PW_8	0	41.49	1.26	3.19	25	1	1.14	2.51	9.52
PW_9	0	19.65	1.31	2.47	25	0	1.31	2.43	0.00
PW_10	0	1.35	0.58	0.85	25	0	0.58	0.78	0.00
PW_11	0	26.84	1.61	2.78	25	1	1.57	2.63	2.48
PW_12	0	3.78	0.52	1.56	25	0	0.52	1.52	0.00

11.6.3 Trend Analysis

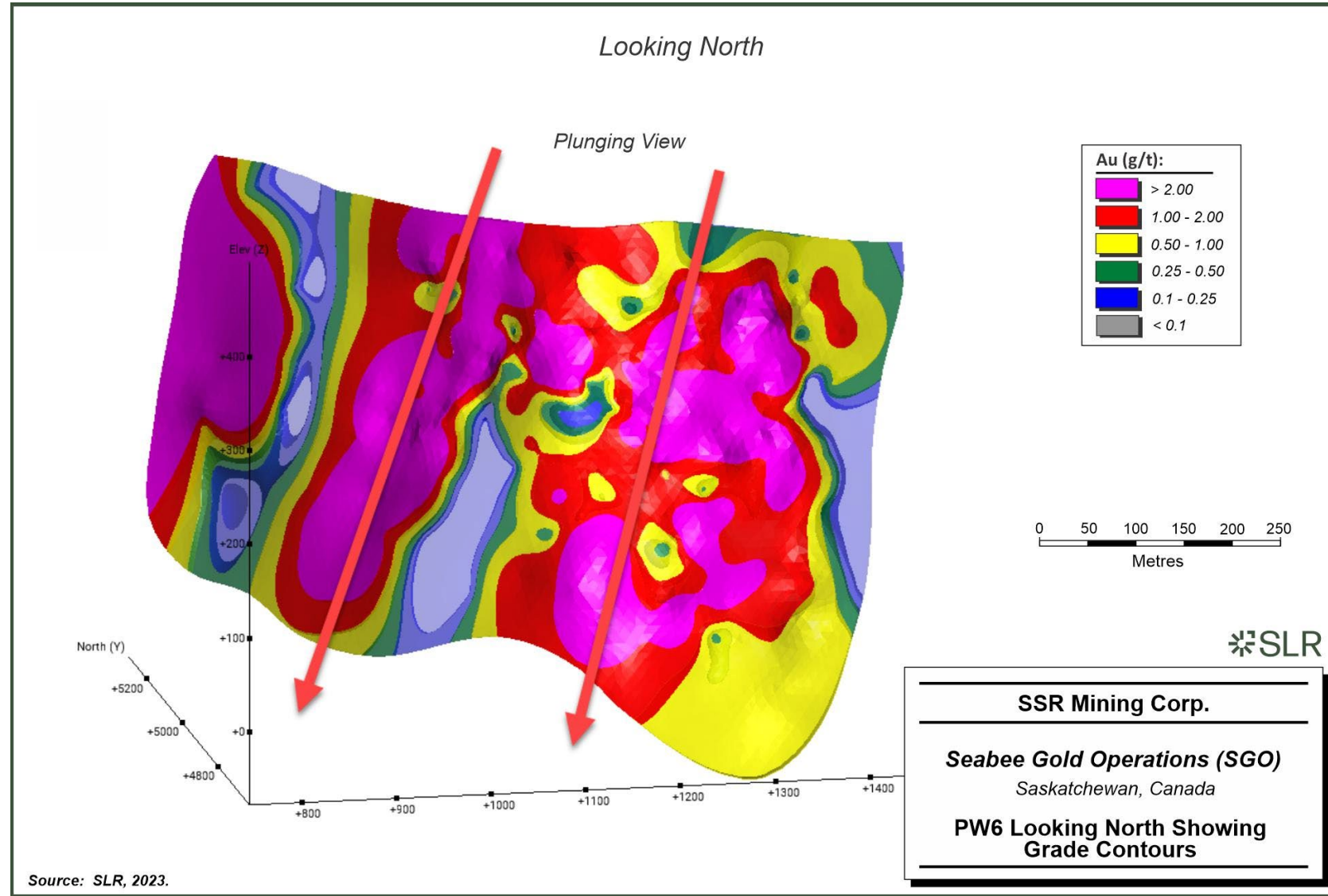
11.6.3.1 Grade Contouring

The gold grade continuity for the Porky West deposit was investigated by generating a set of grade shells in Leapfrog for each zone within the mineralized envelopes. Two primary trends in Porky were identified, both generally plunging steeply to the West.

Examples of grade contouring at Porky West is presented in Figure 11-18.



Figure 11-18: PW_6 Looking North Showing Grade Contours



11.6.3.2 Variography

While Inverse Distance Cubed (ID³) was used to interpolate grade and does not require a variogram, SLR performed experimental variography with the intention of understanding the spatial continuity of the deposit. SLR notes that the experimental variograms remain relatively unstable and subject to interpretation. SLR recommends revisiting the variograms once additional drilling has been completed and refining interpolation and search parameters based on the results.

11.6.4 Search Strategy and Grade Interpolation Parameters

Grade interpolation for Porky West was performed on parent blocks using an ID³ interpolation approach, consisting of three progressively larger interpolation passes (Table 11-21). Search ellipses for grade interpolation were anisotropic for all zones and oriented using variable orientation (VO). The composite selection plan is outlined in Table 11-22.

Table 11-21: Porky West Search Strategy and Grade Interpolation Parameters

Deposit	Method	Orientation	1 st Pass			2 nd Pass			3 rd Pass		
			X-axis	Y-axis	Z-axis	X-axis	Y-axis	Z-axis	X-axis	Y-axis	Z-axis
			(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
Porky West	ID ³	VO	40	20	8	80	40	16	160	80	32

Table 11-22: Porky West Gold Composite Selection Plan

Deposit	1 st Pass			2 nd Pass			3 rd Pass		
	Min No.	Max No.	DH Limit	Min No.	Max No.	DH Limit	Min No.	Max No.	DH Limit
Porky West	7	9	3	5	12	3	1	12	4

11.6.5 Bulk Density

Density values at Porky West were provided by SSR and were set at 2.71 g/cm³ for in-situ mineralization, 1.70 g/cm³ for the overburden, and 2.80 g/cm³ for host rock. In SLR's opinion, these are reasonable densities for this type of mineralization.

Density data for Porky West is sourced primarily from a bulk sample in the ore undertaken by Claude Resources on the deposit in 2006. 24 density measurements are available from sampling done in two locations, range from 2.68 to 2.75 g/cm³, and average 2.71 g/cm³ across the samples. Another 28 density measurements are available from sampling done at the mill, also averaging 2.71 g/cm³.

SLR recommends adding density measurements as part of the drill hole sampling protocol, particularly in mineralized domains.



11.6.6 Block Models

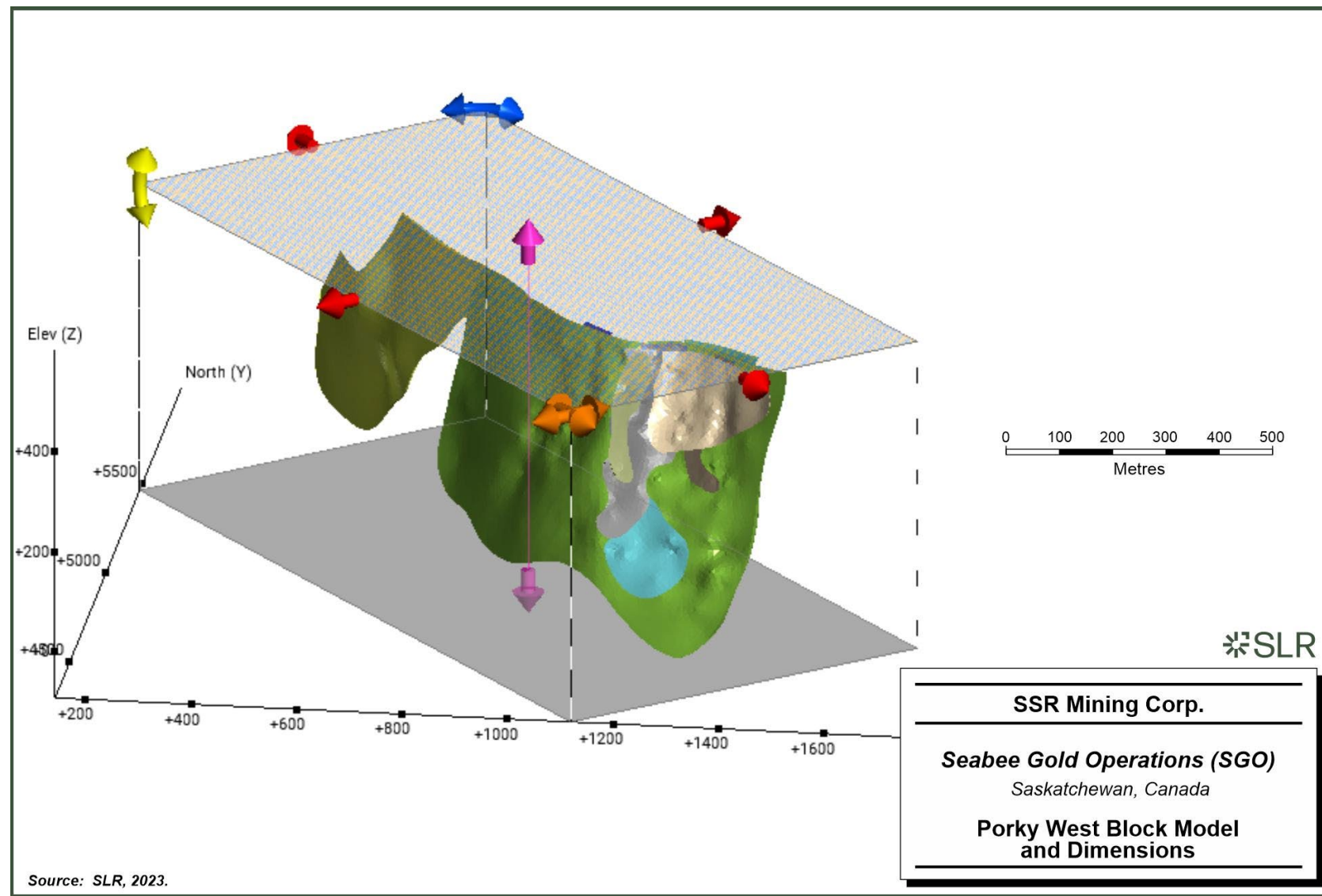
Block model construction and estimation was completed in Seequent's Leapfrog Edge software. The Porky West block model extents are presented in Figure 11-19, and the parameters are shown in Table 11-23. SLR considers the block model sizes appropriate for the deposit geometry and proposed mining methods.

Table 11-23: Porky West Block Model Parameters

Type	X	Y	Z
Base Point (m)	1,120	4,300	520
Boundary Size (m)	768	1,521	612
Parent Block Size (m)	3	3	3
Min. Sub-block Size (m)	0.75	0.75	0.75
Rotation (°)	0	0	0



Figure 11-19: Porky West Block Model and Dimensions



11.6.7 Classification

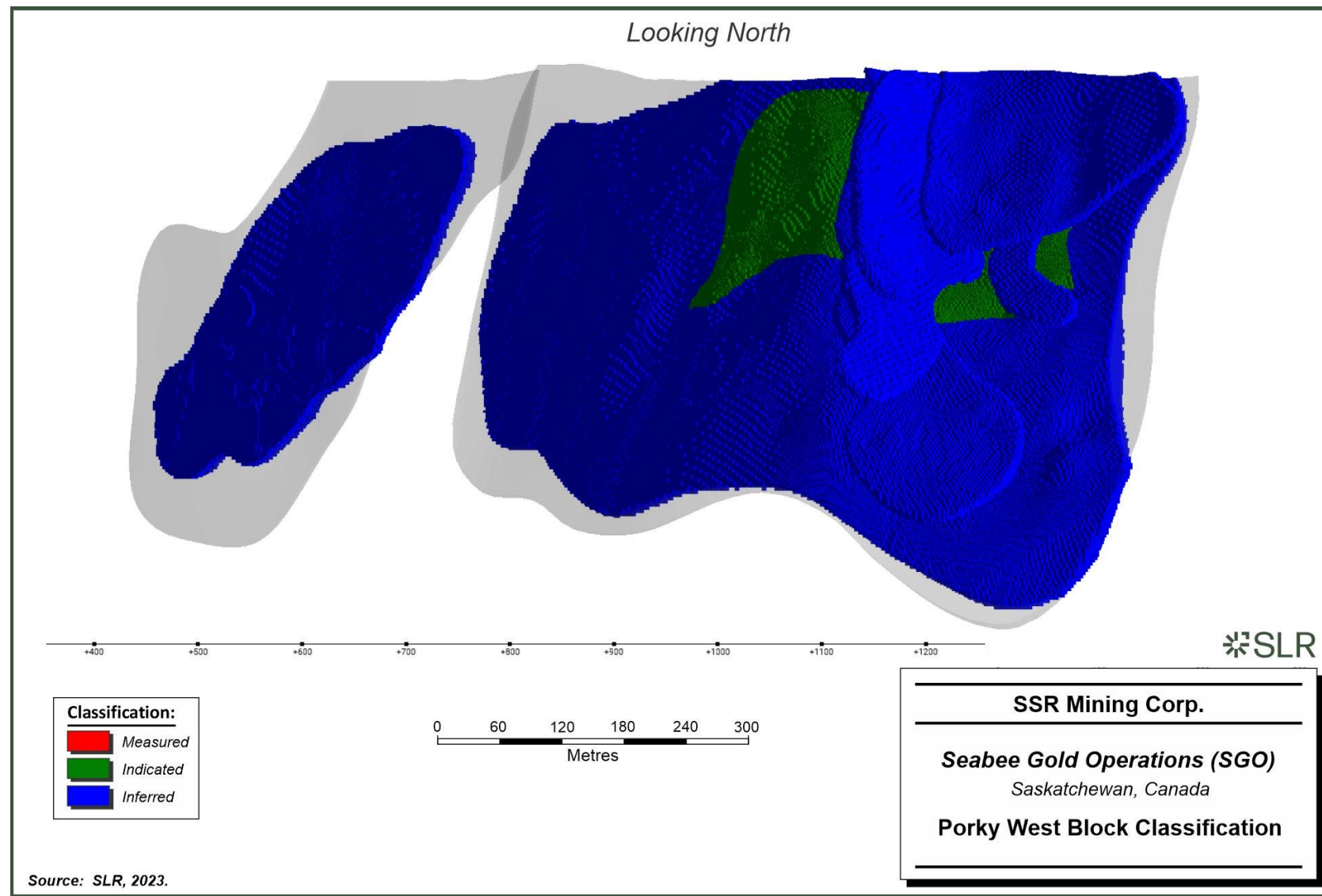
Mineral Resources have been classified in accordance with the definitions for Mineral Resources in S-K 1300, which are similar to Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves dated May 10, 2014 (CIM (2014) definitions).

In the S-K 1300 classification, a Mineral Resource is defined as “a concentration or occurrence of 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 economic extraction”. Mineral Resources are classified into Measured, Indicated, and Inferred categories. A Mineral Reserve is defined as the “economically mineable part of a Measured and/or Indicated Mineral Resource” demonstrated by studies at Pre-Feasibility or Feasibility level as appropriate. Mineral Reserves are classified into Proven and Probable categories.

At Porky West, blocks were classified using an approach that considered local drill hole spacing (based on the average distance to the closest three drill holes), geological understanding, grade continuity as well as the need to create cohesive class boundaries. Indicated blocks were primarily defined where drill hole spacings were less than 25 m (up to 30 m locally), and Inferred blocks where drill hole spacings were less than 100 m. “PW_6” and “PW_8” are the only two zones with Indicated blocks. Porky West block classification is presented in longitudinal section in Figure 11-20.



Figure 11-20: Porky West Block Classification



11.6.8 Block Model Validation

Blocks were validated using industry standard techniques, including:

- Visual inspection of composite versus block grades (Figure 11-21)
- Comparison between ID³ and NN mean swath plots (Figure 11-22)
- Wireframe to block model volume confirmation (Table 11-24)

Based on the validation steps performed, SLR is of the opinion that the Porky West Mineral Resource estimate is suitable for public disclosure and to future studies on the project:

- Visual inspection of grade, mean comparisons and swath plots show that the estimation setups are working as intended, the boundary conditions and use of input data is appropriate, there is no significant over extrapolation of grades and the smoothing of grades as compared to the input data is as expected.
- The volume comparisons demonstrate that the block model is an appropriate volumetric representation of the in situ mineralization.

Table 11-24: Porky West Block Model Volume Confirmation

Project	Zones	Wireframe Volume (000 m ³)	Block Model Volume (000 m ³)	Confirmation
Porky West	PW_1	197,440	197,483	100%
	PW_2	31,456	31,428	100%
	PW_3	59,630	59,599	100%
	PW_4	266,000	266,045	100%
	PW_5	119,980	119,964	100%
	PW_6	2,977,500	2,977,422	100%
	PW_7	579,730	575,687	99%
	PW_8	98,769	98,755	100%
	PW_9	95,778	95,729	100%
	PW_10	10,460	10,465	100%
	PW_11	32,696	32,687	100%
	PW_12	18,139	18,177	100%



Figure 11-21: Porky West Composite - Block Grade Comparison

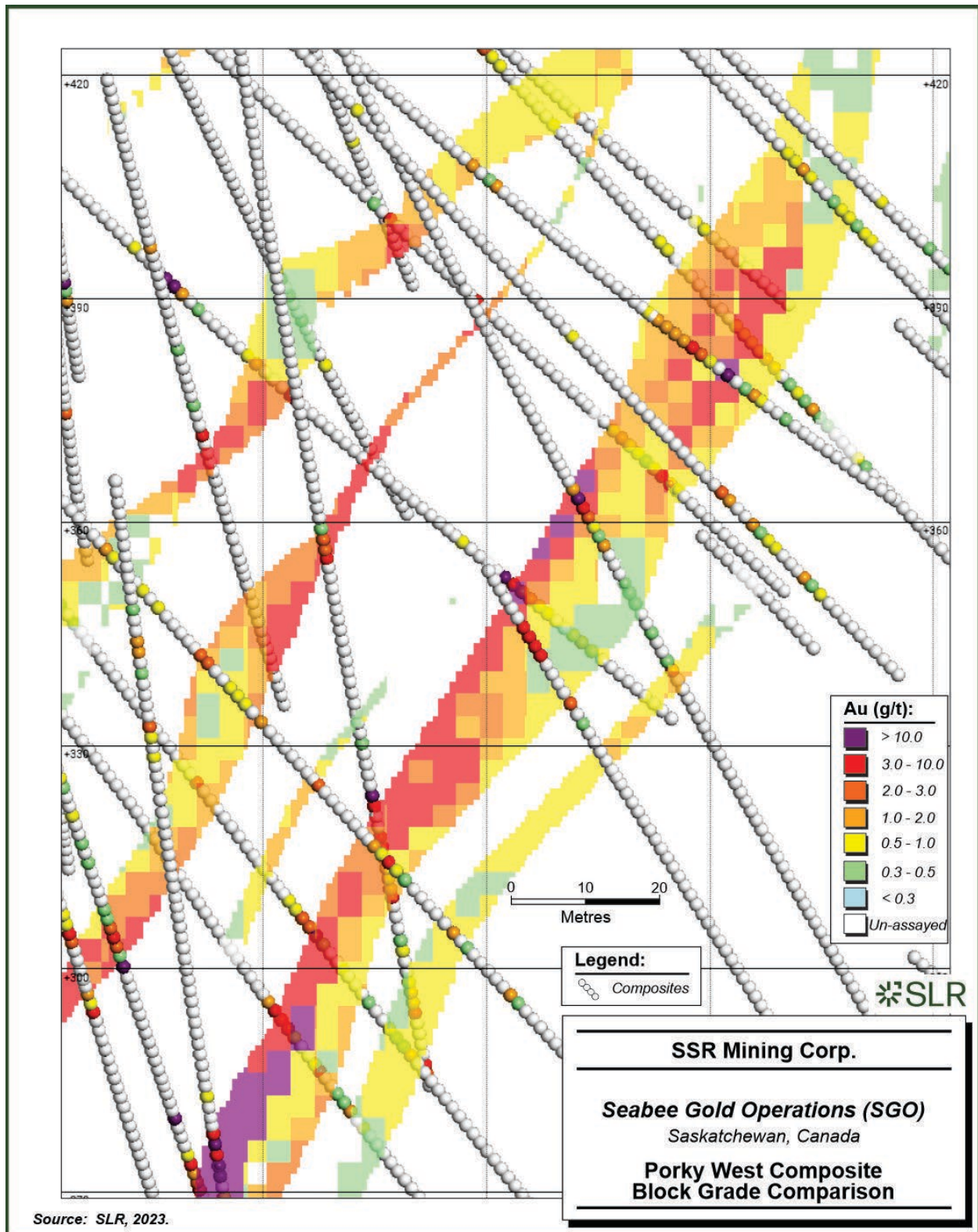
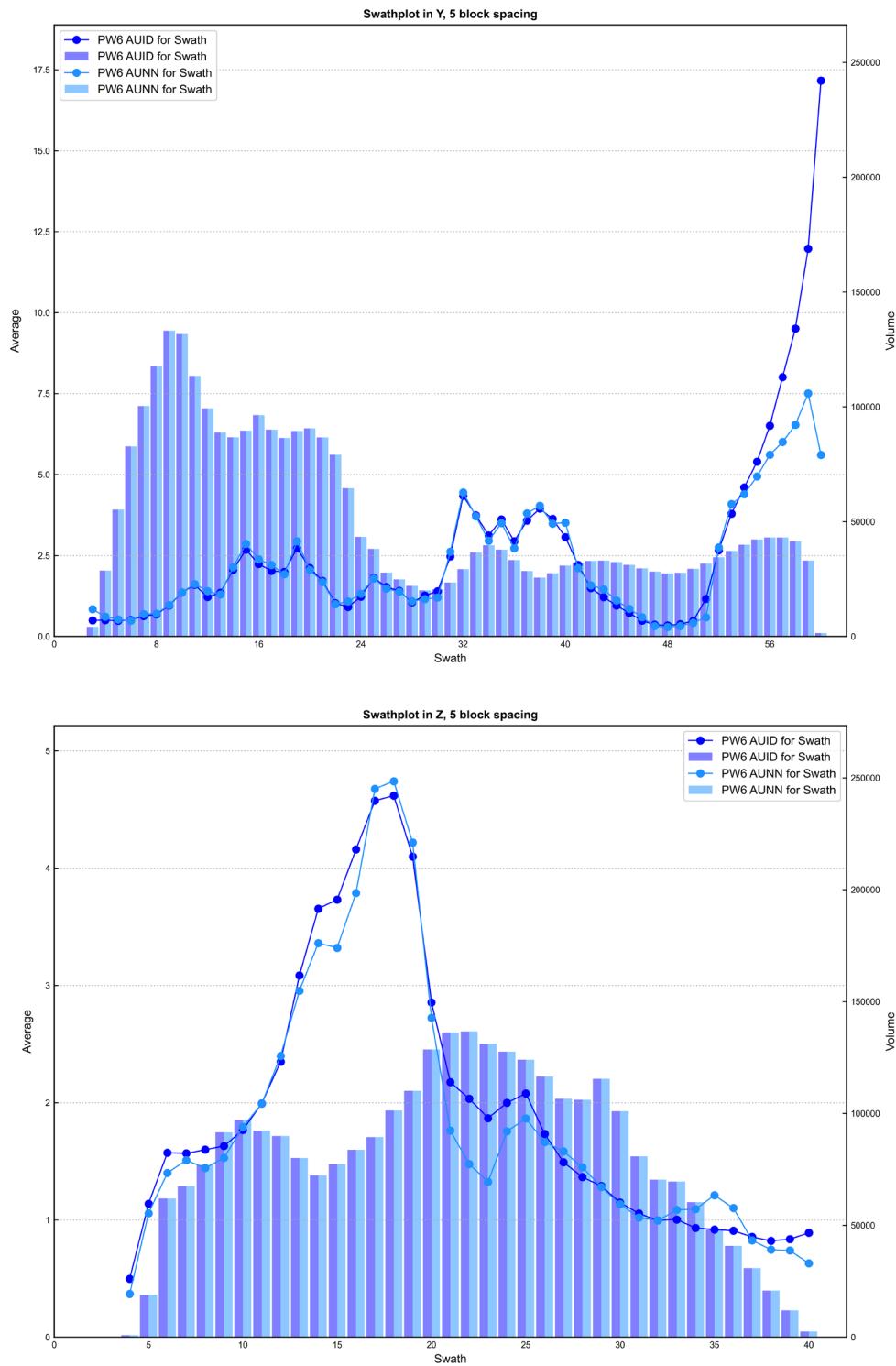


Figure 11-22: Porky West Y and Z Swath Plots



11.7 Mineral Resource Uncertainty

Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability, nor is there certainty that all or any part of the Mineral Resource estimated here will be converted to Mineral Reserves through further study.

Sources of uncertainty that may affect the reporting of Mineral Resources include sampling or drilling methods, data processing and handling, geologic modelling, and estimation. There are sources of uncertainty in the Mineral Resource estimate at the Property which depend on the classification assigned. The SLR QP has not identified any relevant technical and/or economic factors that require resolution with regards to the Mineral Resource estimate.

The SLR QP is of the opinion that with consideration of the recommendations summarized in Sections 1 and 23 of this TRS, any issues relating to all relevant technical and economic factors likely to influence the prospect of economic extraction can be resolved with further work.

11.8 QP Opinion

The SLR QP reviewed the assumptions, parameters, and methods used to prepare the Mineral Resources Statement and is of the opinion that the Mineral Resources are estimated and prepared in accordance with S-K 1300.

The SLR QP considers that the knowledge of the deposit setting, lithologies, structural controls on mineralization, and the mineralization style and setting, is sufficient to support the Mineral Resource estimate to the level of classification assigned.

The SLR QP considers the resource cut-off grade and underground reporting shapes guide to identify those portions of the Mineral Resource estimate that meet the requirement of the reasonable prospects for economic extraction to be appropriate for this style of gold deposit and mineralization.

The level of uncertainty has been adequately reflected in the classification of Mineral Resources for the Property. The Mineral Resource estimate presented may be materially impacted by any future changes in the break-even cut-off grade, which may result from changes in mining method selection, mining costs, processing recoveries and costs, metal price fluctuations, or significant changes in geological knowledge.



12.0 Mineral Reserve Estimates

12.1 Summary

The current Mineral Reserve estimates, as prepared by SSR and reviewed and accepted by SLR, reported as of December 31, 2023, are summarized in Table 12-1. Mineral Reserves at SGO are estimated for the Santoy Mine only.

Table 12-1: Summary of Mineral Reserves – December 31, 2023

Category	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)	Cut-off Grade ⁴ (g/t Au)	Metallurgical Recovery
Proven (In-situ)	238	6.00	46	1.86 and 2.85	96.4%
Proven (Stockpile)	13	11.24	5	-	96.4%
Probable	1,815	5.01	292	1.86 and 2.85	96.4%
Total Proven + Probable	2,066	5.17	343		

Notes:

1. Classification of Mineral Reserves is in accordance with the S-K 1300 classification system.
2. Mineral Reserves are reported based on 31 December 2023 as-mined survey data.
3. Mineral Reserves were estimated by SSR Mining and reviewed and accepted by SLR.
4. Mineral Reserves are estimated at a cut-off grade of 2.85 g/t Au for production stopes, and 1.86 g/t for development designs.
5. A mining extraction factor of 89% was applied to mined tonnes and contained metal.
6. The point of reference for Mineral Reserves is the point of feed into the processing facility.
7. SSR has 100% ownership of the Project and Mineral Reserves are shown on a 100% basis
8. Mineral Reserves are estimated using an average long-term gold price of US\$1,600 per ounce and a US\$/C\$ exchange rate of 1.33.
9. A minimum mining width of 2.0 m was used.
10. Bulk density is 2.75 t/m³ for Santoy 8 & 9, and 2.65 t/m³ for GHW & SHW.
11. Totals may vary due to rounding.

The SLR QP is not aware of any risk factors associated with, or changes to, any aspects of the modifying factors such as mining, metallurgical, infrastructure, permitting, or other relevant factors that could materially affect the Mineral Reserve estimate.

12.2 Comparison with Previous Estimates

The 2023 Mineral Reserves represent a net decrease of 138 koz (-29%) total contained gold ounces as compared with the 2022 Mineral Reserve estimate. In 2023, a total of 98 koz of contained gold was mined, contributing to 71% of the change in the Mineral Reserve estimate from the previous estimate. Other changes compared to the 2022 Reserves estimate are the result of updates to the block model, updates to cut-off grade calculation, and use of an incremental cut-off grade for development.



Table 12-2: Comparison to Previous Mineral Reserve Estimates

Zone	Tonnage (000 t)	Au (g/t)	Contained Gold (koz)
December 31, 2023 Proven & Probable Mineral Reserves			
Santoy 8	375	5.63	68
Santoy 9	372	7.26	87
SHW / GHW	1,305	4.37	183
Stockpile	13	11.24	5
Totals	2,066	5.17	343
December 31, 2022 Proven & Probable Mineral Reserves			
Santoy 8	808	7.14	185
Santoy 9	111	16.87	60
SHW / GHW	1,410	5.07	230
Stockpile	16	9.76	5
Totals	2,346	6.37	481

12.3 Conversion to Mineral Reserves

The Mineral Resource block model provided by the site Geology department to the Mine Engineering department forms the basis for estimating Mineral Reserves. Mineral Reserves estimates were defined by SGO Mine Planning team and have been reviewed and accepted by SLR.

Stope shapes are created using a stope optimizer algorithm with appropriate modifying factors applied. A summary of key stope optimizer inputs is presented in Table 12-3.

Table 12-3: Stope Optimizer Inputs

Parameter	Santoy 8 & 9	GHW / SHW
Level Spacing (m)	16 - 20	20
Stope Length (m)	5	5
Cut-off Grade (g/t Au)	2.85	2.85
Minimum Mining Width (m)	2.0	2.0
ELOS ¹	0.7	0.7
Minimum dip (°)	45°	45°

Note:

1. Equivalent linear overbreak / slough

Stope optimizer outputs are first checked for technical viability ensuring the geometries are minable. Examples of parameters that are checked include the minimum mining widths and cut off grades.



A preliminary development design is created that provides access and supporting infrastructure necessary for production in a given area. Using these preliminary designs, the economic viability of each stope design is checked to ensure there is a positive cashflow after accounting for the development costs necessary to access the stoping area.

With the stope economics confirmed the development design is refined and stope design solids are trimmed to the refined development design extents.

The stope and development designs are then interrogated directly against the block model and reported as Reserves after applying the appropriate extraction factor.

SLR notes that stope optimizer shapes are created at five metre lengths which is shorter than typical mined stopes. Some stope designs, particularly those designed in a transverse arrangement, have irregular walls which will be challenging to mine. SLR is of the opinion that this could result in overstating the Mineral Reserve grades or difficulty in achieving the planned extraction factor. It is recommended that the stope strike length and stope optimizer post-processing parameters be re-evaluated during subsequent Mineral Reserve updates to ensure mineable shapes are generated in both longitudinal and transverse mining areas.

12.4 Dilution

Stope are designed to a minimum mining width of 2.0 m and may encapsulate one or multiple ore veins and any waste material that lies between the veins. Where the ore vein package is narrower than the minimum width the footwall and hanging walls are offset into waste material until the minimum width is met. Where the ore vein package exceeds 2.0 m in width the stopes walls are designed based on the optimum economic stope limit. In either case additional dilution is applied as an equivalent linear overbreak / slough (ELOS) which accounts for expected hanging wall sloughage beyond the stope design extent and mucking of URF backfill from adjacent stopes. An ELOS value of 0.7 m is applied to all stopes which is derived from the stope reconciliation process that compares the stope design, to cavity monitoring surveys (CMS) and trucks counts, and back calculates stope underbreak and overbreak.

Dilution for ore development headings consists only of waste captured within the development designs. No additional overbreak is applied to ore development.

All dilution is applied in the stope design process and is assigned grades based on block model values. SLR is of the opinion that the applied dilution parameters are suitable based on the available reconciliation data and experience in similar orebodies.

12.5 Extraction

A mining extraction factor of 89% is applied to the tonnes and metal content of both production stopes and ore development headings. This value is derived from the stope reconciliation process and overall production reconciliation process and represents a comparison between actual stope excavations compared to stope designs.

SLR is of the opinion that the applied extraction parameters are suitable based on the available reconciliation data. Stoping has only recently begun in the SHW and GHW zones. It is recommended that as more mining experience is gained in these zones stope performance and the suitability of the dilution and extraction based on Santoy 8 and 9 stope performance should be re-evaluated.



12.6 Cut-off Grade

The estimated cut-off grade for Mineral Reserves was based on a \$1,600/oz gold price and current and forecast operating costs and metallurgical performance.

The gold price of \$1,600/oz was selected after consideration of the pricing information described in Section 16, which includes a description of the time frame used for the selection of the price and the reasons for selection of such a time frame. The metal price is representative of the range of price estimates publicly reported for Mineral Reserve cut-offs.

- Actual operating costs were used as a basis of estimate and then adjusted based on planned operational changes, cost savings initiatives, and forecast changes to consumable costs.
- A lower cut-off grade of 1.86 g/t Au was applied to development in ore. This excludes mining costs from the cut-off grade calculation reflecting the marginal nature of the development.

Table 12-4 details the parameters used for Mineral Reserve definition.

Table 12-4: Mineral Reserves Input Parameters

Item	Unit	Breakeven	Marginal
Mining	US\$/tonne	\$47.14	\$0.00
Processing	US\$/tonne	\$35.29	\$35.29
G&A	US\$/tonne	\$52.73	\$52.73
Total Operating Cost	US\$/tonne	\$135.16	\$88.02
Gold Price	US\$/oz	\$1,600	\$1,600
Mill Process Recovery	%	95.6%	95.6%
Royalty	%	3.0%	3.0%
Payable Gold	%	99.5%	99.5%
Treatment Charge	US\$/oz	\$3.09	\$3.09
Gold Price	\$/oz	\$1,600	\$1,600
Cut-off Grade	g/t	2.85	1.86

Mining, processing, and G&A costs used for cut-off grade calculation are lower than recent actuals due to incorporating planned cost savings initiatives. Of the three components, the mining cost is most impacted by these savings. SLR is of the opinion that achieving the operating costs savings may be difficult while maintaining production targets, however, SLR acknowledges that SGO has a plan in place. SLR notes that the appropriateness of the stated cut-off grade is dependent on the realization of these savings and recommends the cut-off grade be periodically evaluated as operating costs change.



12.7 Mineral Reserve Reconciliation

Reconciliation is completed on a monthly basis comparing the adjusted mill actuals to the mine claimed production tonnes. Mine claimed numbers are estimated using the Resource model, sill mapping in ore development drives, assays of chip and muck samples, and truck counts. Reconciliation data is presented in Table 12-5.

Table 12-5: Mineral Reserve Reconciliation Data

Year	Tonnes (t)	Au (g/t)	Au (koz)
Reconciled Mine Production			
2021	384,122	10.11	124,909
2022	424,883	10.37	141,678
2023	442,513	6.91	98,239
Unreconciled Mine Production			
2021	400,787	9.49	122,313
2022	414,423	8.40	111,948
2023	452,051	6.77	98,447
Reconciliation Ratio			
2021	0.96	1.07	1.02
2022	1.03	1.23	1.27
2023	0.98	1.02	1.00

This reconciliation process provides a good indication of the actual milled product to the best estimate of mine production (F2 Factor) but does not tie back to the Resource model. SLR recommends that the dilution and extraction assumptions be reviewed as part of the reconciliation process to refine future estimates.

SLR recommends that the reconciliation also routinely be completed comparing the mine production numbers to the Resource model (F1 Factor), and milled production to Resource model (F3 factor), to measure the accuracy of the Resource and Reserve block model. SLR understands that new Resource block models and grade control models have recently been developed and implemented and recommends that a robust reconciliation process be put in place to allow for further model refinement.



13.0 Mining Methods

13.1 Mine Design

Access to the Santoy underground mine is by decline. Levels are typically driven at 20 m vertical spacings and accessed by decline and incline ramps. The mining method used is sublevel open stoping with backfill in either a longitudinal or transverse arrangement. Stoping within a level is sequenced to retreat toward the level access point. The mining front progresses upward from the lowest level of a mining block. The completed stopes are backfilled with waste rock.

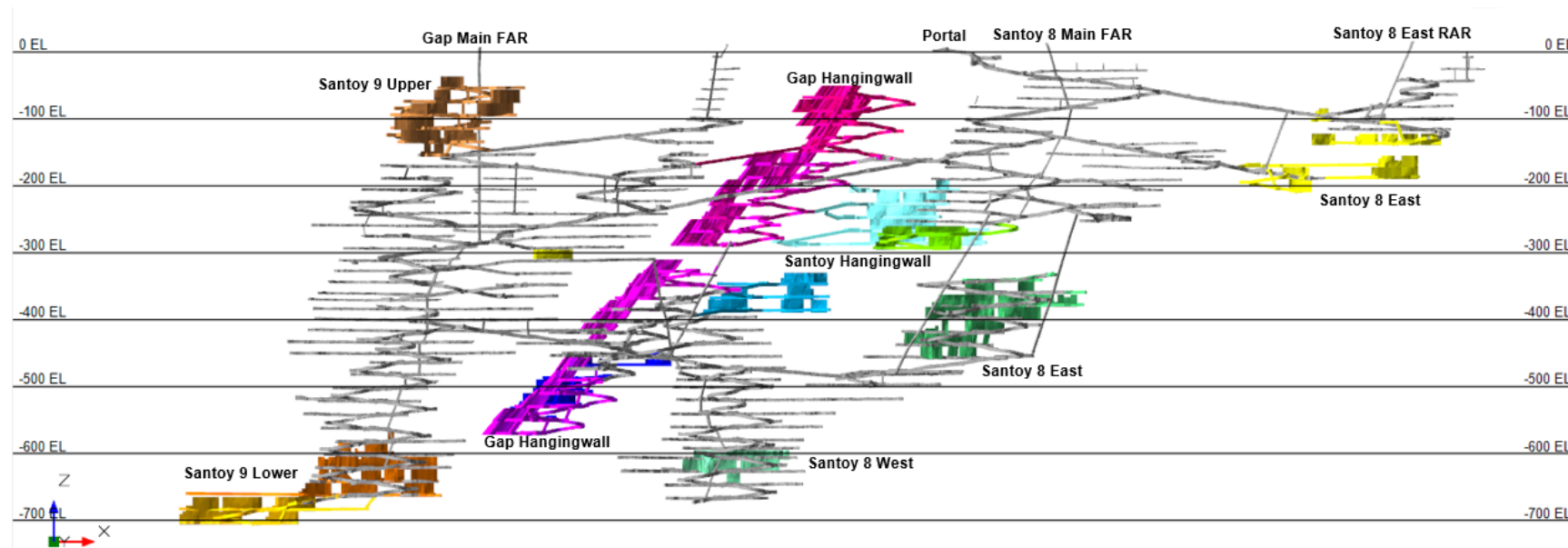
13.1.1 Access

Primary access to the Santoy Mine is via a portal and Santoy 8 Main decline. The Gap Decline tees off from the Santoy 8 Main Decline at 16 Level and continues west to the Santoy 9 orebodies and then east again to the lower Santoy 8 orebody. These two declines are the primary travel routes in the mine and are supplemented locally with additional inclines and declines. Both inclines and declines are driven with a 5.0 m wide x 5.2 m high arched cross section at a 15% grade with reduced grades at level intersections. The ramps are driven with two boom jumbos and are bolted and screened to site standards.

A long section showing the Santoy Mine is presented in Figure 13-1.



Figure 13-1: Santoy Mine Long Section Looking North



Source: SSR, 2023.



13.1.2 Development

Level accesses are driven from the ramps to crosscut the ore every 20 vertical metres. Level accesses will typically include a truck dump, used as a remuck, and storing backfill, and a sump. In addition, transformer cutouts, refuge stations and ventilation drifts connecting to vent raises are driven off level accesses.

In some areas drop raises are driven from one level access to the next for ventilation and to serve as a secondary egress. These raises are drilled off with a longhole drill with a 4 m x 4 m cross section, bolted and screened and equipped with ladders and landings as required. Where practical, Alimak raises with a 3 m x 3 m cross section are driven as an alternative to drop raises.

Ore development following the establishment of level accesses and ancillary headings varies depending on the stoping method used. Where longitudinal retreat stoping is used, sill drifts are driven on the ore along strike to the ore extents. One drift is driven along the bottom of the stoping block and a second along the top.

When transverse mining methods are used. A haulage drift on the footwall side of the ore is driven, and perpendicular drawpoints are driven to crosscut the ore. The drawpoints are used both for production drilling and mucking and are driven with two boom jumbos, and bolted and screened to site standards.

Standard dimensions of development headings are presented in Table 13-1.



Table 13-1: Excavation Dimensions

Category	Width (m)	Height (m)
Access	4.6	4.6
Alimak Chamber	5.0	4.6
Alimak Nest	4.2	6.5
Alimak Sublevel	7.0 max.	3.0
Haulage	4.6	4.6
Ramp	5.0	5.2
Refuge Station	6.0	5.0
Remuck	5.0	5.2
Safety Bay	1.5	2.4
Sill	8.0 max.	4.6
Sump	4.2	4.0
Truck Dump	5.0	6.7
Ventilation Access	4.6	4.6
Ventilation Raise – Alimak	3.0	3.0
Ventilation Raise – Longhole	4.0	4.0

13.1.3 Production

Of the total production tonnes included in the mine plan, approximately 55% are planned to be mined using transverse stoping. This includes nearly all of the GHW area, and the lower portion of the SHW area. The remainder, including Santoy 8, Santoy 9, and the upper SHW areas, are planned using longitudinal retreat. The determination of stope orientation depends on a number of factors including ore width, orebody dip, ore zone strike length, and the position of nearby infrastructure.

Typical stope strike lengths are between 15 m and 20 m. Stopes are drilled off, blasted, and mucked completely before being backfilled. Where a new stope is immediately adjacent to a backfilled stope, some of the previously placed backfill is removed to create a void to blast the next stope into. This modified AVOCA method is repeated until the stope is mined out. In this way unconsolidated rockfill rather than cemented rockfill is typically used, except above sill pillars.

Stopes are drilled with electric hydraulic longhole drills using a 3-inch bit. The standard drill pattern is burden of 1.5 m and a maximum spacing of 2.0 m. The majority of production drilling is downhole, with uppers used to mine up to cemented rockfill (CRF) pillars or where there is no drift above.



Stope blasting typically uses ANFO as the primary blasting agent. I-Kons with Pentex boosters are used to make larger blasts, reducing the total amount of time to blast the stope. Lomex is also used in the hanging wall holes to limit hanging wall damage.

Stopes are mucked with remote equipped Cat R1600 scoops. Backfilling with waste rock is completed promptly to reduce hanging wall failures in the stopes.

SLR notes that some stopes in the GHW and SHW areas are designed using a transverse arrangement though the mining width is narrower than the stated longitudinal/transverse demarcation measurement. SLR recommends that stope arrangements be re-evaluated as more geological information and operating experience is gained in these areas.

13.1.4 Backfill

Uncemented rockfill (URF) is the primary type of backfill at the Santoy Mine. Waste rock generated during development is stockpiled underground in available headings and re-mucks until it can be moved to mined out stopes and used as backfill.

Cemented rockfill (CRF) use is limited to the creation of sill pillars at the start of a mining front. The CRF consists of run-of-mine waste mixed with 5% binder that is comprised of 60% cement and 40% fly ash. The binder is transported to site in tote bags and mixed with water underground at the work location in a portable mixing plant. The resultant slurry is mixed with waste rock in a sump by load-haul-dump (LHD) units, before being trammed to the fill location.

The majority of backfill over the life of mine is sourced from waste generated from future development. However, in 2027 development rates are reduced as the end of the mine life is approached. In 2027 and 2028 waste currently stockpiled on surface will need to be backhauled underground to be used as backfill. Over the remaining mine life this represents approximately 10% of required backfill tonnage.

To reduce backfill related dilution the use of cemented rockfill (CRF) rather than uncemented rockfill (URF) should be considered where stopes are planned adjacent to backfill, particularly in transverse stoping areas.

13.1.5 Material Handling

Ore and development waste are hauled within the mine, and to surface via 45 t haul trucks. Waste rock generated from development is stored underground where possible for use as backfill. It is otherwise stockpiled on surface for later back haul as backfill. Ore is trucked to three surface stockpiles located near the Santoy portal, which are designated as low grade, high grade, and GHW zone ore. GHW ore is stored separately because the hardness is different than the rest of underground ore. Stockpiled ore is then transferred to 17 or 40 tonne dump trucks with a wheeled loader and hauled 14 km to stockpiles at the Seabee mill.

13.2 Geomechanics

13.2.1 Rock and Rockmass Conditions

The rock mass at the Santoy Mine is generally classified as 'good' with a rock mass rating (RMR₇₆) (Bieniawski, 1976) of 71–79. There are some areas that are classified as 'fair', with a RMR₇₆ range of 52 to 57.

Intact rock strength testing at the Santoy Mine was performed in 2018 and 2019 for Hanging wall and Orezone material. Footwall material is considered to have similar strength



characteristics to Hanging wall material. Intact rock strength test results are presented in Table 13-2.

Table 13-2: Summary of Intact Strength Testing at Seabee Mine

Zone	Point Load (MPa)	UCS (MPa)	Tensile Strength (MPa)	Static E (GPa)	Static ν	Dynamic E (GPa)	Dynamic ν
Hanging Wall	167 ± 37	114 ± 45	14 ± 3	77 ± 14	0.32 ± 0.10	68 ± 22	0.16 ± 0.07
Orezone	152 ± 60	116 ± 59	15 ± 4	75 ± 8	0.31 ± 0.17	73 ± 11	0.17 ± 0.04

In situ stress measurements have not been conducted at the Santoy Mine. It is assumed, based on typical Precambrian Canadian Shield conditions (Herget 1988), that the horizontal to vertical stress ratio is two and that the major principal stress direction is horizontal and parallel to the strike of the orebody. Rock and rockmass strengths are sufficiently high that stress induced failures are not a concern.

The most common mode of failure at the Santoy Mine is either structural or rock mass driven failure. In areas where the RMR is 71%–79%, the dominant mode of failure is structurally controlled. In areas where the RMR is 52%–57%, the dominant mode of failure is wedge failure. In either case failures are gravity controlled as the stress environment is generally low owing to the shallow depth of mining. Based on geotechnical underground mapping, there are three primary joint sets that contribute to potential structural failure with orientations presented below using dip/dip direction:

- JS1 – 58°/358°
- JS2 – 80°/267°
- JS3 – 13°/195°

13.2.2 Hydrogeology

Water inflow is generally well understood at SGO based on actual data and is not expected to change during the LOM. The current dewatering infrastructure system adequately manages water inflows and the system will continue to be expanded as the footprint of the Santoy Mine expands.

Higher than usual water make, between 5 gpm and 20 gpm, was encountered during diamond drilling in the upper Gap HW area from 16L of Santoy 8. Long term monitoring of these holes has indicated the area is now drained. A decommissioned sump is available on 17L of Santoy 8 where excess water can be directed to should it be encountered and persist during the mining of the upper GHW. The water makes and pressures are not expected to be significant enough to warrant changes to the ground support regime or stope stability analyses.



13.2.3 Ground Support Regime

13.2.3.1 Lateral Development

There are six typical ground support classes used in lateral development headings that are applied depending on heading type. A summary of the ground support classes is presented in Table 13-3.

Table 13-3: Ground Support Summary in Development Headings

Class	Applicable Headings	Designed Dimensions	Rockmass Rating (RMR ₇₆)	Back Support	Wall Support
1	Ramp, Accesses, Remucks, Sumps	Width: 5.0 m	60 - 81	8' #7 Threaded Rebar 5' x 5' pattern	6' Split Set 5' x 5' pattern
2	Ore Sills	Max Width: 8.0 m	60 - 81	8' #7 Threaded Rebar 5' x 5' dice 5 pattern	6' Split Set 5' x 5' pattern
3	Alimak Sublevels, Safety Bays	Max Width: 4.0 m	60 - 81	6' #7 Threaded Rebar 5' x 5' pattern	6' Split Set 5' x 5' pattern
4	Intersections	Max Span: 9.0 m	60 - 81	8' #7 Threaded Rebar 5' x 5' dice 5 pattern	6' Split Set 5' x 5' pattern
5	Ventilation Raises	Width: 3.0 m	60 - 81	4' #7 Threaded Rebar 4' x 4' pattern	4' Split Set 4' x 4' pattern
6	Refuge Stations	Max Width: 6.0 m	60 - 81	6' #7 Threaded Rebar 5' x 5' pattern	6' Split Set 5' x 5' pattern

13.2.3.2 Production Stopes

The most common stope stability issues encountered at Santoy are related to foliation that run sub-parallel to the design hanging wall contact which can result in hanging wall sloughage, particularly when cross-cutting structures are encountered. Stope sizes are usually limited such that secondary support measures are not required.

A stope stability evaluation is completed for each stope design using the Mathews Stability number and hydraulic radius. Stope design geometries typically have a hydraulic radius of 6 to 11, while the Modified Stability number typically falls between 7 and 25. These values usually result in stopes falling in the 'stable zone' or 'unsupported transition zone', or occasionally in the 'stable with support' zone of the Matthews Stability chart.

Where secondary support is deemed beneficial, cablebolts are installed in the hanging wall to limit sloughage. Cablebolts are typically drilled from the sill drive of the stope overcut, and installed in three to five bolt rings with bolt at toe spacings of between 1.5 m and 2.0 m.

13.2.4 Barrier Pillars

Barrier sill pillars are established on the first stoping level of a mining front where there are reserves immediately below. The sill pillars are made of cemented rock fill (CRF) composed of 5% binder mixed with development waste rock. Uppers stoping is used to mine the ore immediately beneath the CRF sill pillars. Four CRF sill pillars have been established to date.



Stoping above and below these pillars is complete in three of the four pillars, while stoping using uppers remains to be done under the sill pillar in Santoy 8 between levels 58 and 59.

13.3 Mine Infrastructure and Services

Infrastructure at the Santoy Mine includes:

- Roads
- Administrative, shop buildings, dry
- Powerhouse and electrical distribution system
- Portal
- Vent raises
- Ore stockpiles
- Waste rock pile
- Settling ponds
- Water treatment plant
- Cap and power magazines, and Amex plant

These facilities are shown in Figure 13-2 through Figure 13-4. Major components are described in the following subsections.

13.3.1 Ventilation

The Santoy primary ventilation circuit is a push system that currently provides 150 m³ per second (320,000 ft³ per minute (CFM)) through two fresh air raises (FAR) located at the Gap Main and Santoy 8 sites. Air is exhausted via the main ramp and the Santoy 8 East return air raise (RAR). The Gap Main FAR provides fresh air via two fans in parallel with a total power of 597 kw (800 hp), while the Santoy 8 Main FAR provides fresh air via a single fan with a total power of 149 kw (200 hp).

From the Gap Main FAR fans, 87 m³ per second (185,000 CFM) is sent down the raise until it reaches 31L vent drift where 35 m³ per second (75,000 CFM) is split off and sent down to the bottom of the Gap decline with the help of a 74 kw (100 hp) booster fan located in 31L vent drift. The remaining 54 m³ per second (115,000 CFM) continues down a system of raises to the bottom of the 41 decline. There is a 149 kw (200 hp) booster fan located on 47L of the 41 decline to assist with the movement of air to this area.

The Santoy 8 Main FAR pushes 64 m³ per second (135,000 CFM) from surface to the bottom of 48 decline through a system of raises. At the bottom of this system are two 74 kw (100 hp) booster fans in parallel that assist with airflow. From here, 32 m³ per second (68,000 CFM) moves up the 49 incline and provides ventilation at the face, while the remaining 32 m³ per second (68,000 CFM) is sent up the 48 decline and joins the air upcasting from the Gap Decline.

The Gap Hanging Wall (GHW) development is currently ventilated by using 100 hp fan to draw the air from the Gap Decline, up the 46L GHW Incline to 37 Level, down an Alimak raise to 46 Level and up a short raise to 44 Level on 45 Incline. Another 100 hp fan in a bulkhead is



installed on 44L, moves the air down 45 Incline to rejoin the Gap Decline and exhausts to surface.

The Gap HW and Santoy HW workings from 30 to 7 Levels will be ventilated by means of a new ventilation drift from 19 Incline to the planned 17 Level in Gap HW. This new 200 meter drift will take a split of air from the existing Gap Main FAR at 16 Level, moving the air down 23 Incline, up 19 Incline, through the new vent drift to 17L in Gap HW and splitting the flow to two new 150 meter Alimak raises, one upcast and one downcast. The lower raise will be collared at 31 Level in the Gap HW going up to meet with the ventilation drift. The upper raise will be collared from the ventilation drift on the Gap HW 17 Level, going up to 7 Level in the Gap HW. The decline and incline recently started to access the Gap HW and Santoy HW in this area will access these Alimak raises for ventilation as the ramp proceeds.

This new development makes use of the existing surface infrastructure, including heaters and propane tank farms for heating the mine air through the colder winter months. A mine long-section showing the primary air routing is shown in Figure 13-5.



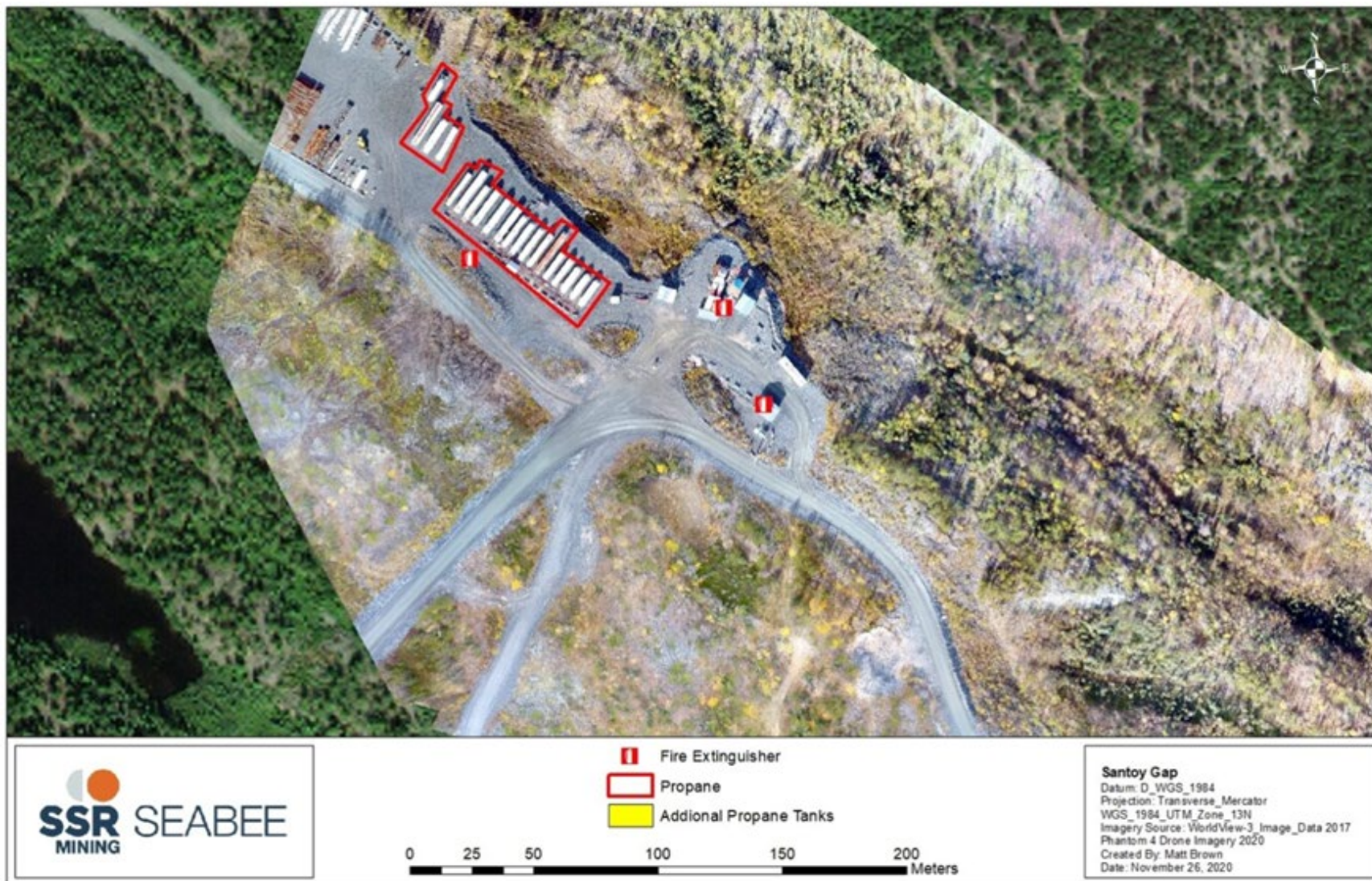
Figure 13-2: Santoy 8 Site



Figure 13-3: Santoy 7 Site



Figure 13-4: Santoy Gap Site



Gap Main FAR

Santoy 8 Main FAR

Santoy 8 East RAR

23 Incline

Main Ramp

GHW Incline

45 Incline

49 Incline

41 Decline

Gap Decline

48 Decline

53 Ramp

Portal

Old Main

RAR

LEGEND:

- FRESH AIR (Blue line)
- RETURN AIR (Red line)
- MIXED AIR (Yellow line)

GAS READINGS CAN BE FOUND ON PRIMARY VENTILATION TABLE (PAGE 1)

GAP HANGING WALL (GHW) AREA

LOOKING: SOUTH WEST

45 Incline

Gap Ramp to 44L

Gap Ramp to 48L

NOTE: AIR INTAKE IN GHW INCLINE IS RECYCLED AIR FROM GAP DECLINE

REV	DESCRIPTION	DATE	DWN BY	CHK'D BY	APP'D BY

SSR SEABEE MINING

SSR MINING INC.
Seabee Gold Operations
T: 306 635-2015
F: 306 635-2015
www.ssrmining.com

SUBJECT PRIMARY VENTILATION **LOCATION** Santoy

MINE Santoy Mine **ZONE** WEEK 35 **LEVEL**

SCALE 1:5000 **DRAWN BY** AGIroux **CREATION DATE** 18 Dec 2023

FILENAME S_All Mine Asbuilts Primary.dcf **REV.** 0

13.3.2 Dewatering

Mine dewatering is accomplished via a main sump and pumping station located on 49L of the lower Santoy 8 area. This replaces the previous pumping station located higher in Santoy which simplifies the water handling system and increases the dewatering capacity to 1,900 m³/day. Water from the different mining areas is pumped to one of two dirty water sumps on 49L where the water decants into a central clean sump. A transfer pump moves water from the main clean sump to the pumping station where a 250 hp, ten stage Technosub pumps to the surface mine water management pond located near the Santoy portal.

The Santoy Mine dewatering requirements are summarised in Table 13-4 and are based on actual operating data from 2022 and 2023. Groundwater ingress to excavations accounts for approximately 60% of discharged water, while the remaining is attributable to consumption through various mining activities.

Table 13-4: Santoy Mine Dewatering Requirements

Source	Dewatering Requirement	
	m ³ /day	US gallons/min
Ground Water	328	60
Mining Activities	229	42
Total	557	102

13.3.3 Maintenance Facilities

A maintenance shop exists on surface at the Santoy site near the mine portal where all major maintenance of underground equipment occurs. A small underground maintenance shop exists where minor repairs and diagnoses can be made.

13.3.4 Power

The Santoy Mine receives electrical power from the Seabee site through a 25 kV line feeding 3 MVA and 3.75 MVA transformers stepped down to 4160 V for distribution throughout the mine. Substations are established to step down to 600 V in active mining areas.

13.3.5 Communication

Two-way radios are the primary means of communication underground with leaky-feeder cable installed in permanent and long-term ramps and level accesses.

13.4 Mine Equipment

The core underground mobile equipment fleet at Santoy Mine is summarized in Table 13-5. Equipment will be replaced as part of sustaining capital.



Table 13-5: Underground Mine Equipment Fleet

Equipment Type	Description	Number of Units
Jumbos	1-boom	2
	2-boom	5
Mechanical Bolters		2
Scissor Decks		9
LHDs	2.5-yard	2
	4-yard	2
	6-yard	5
	8-yard	1
Haul Truck	30-tonne	2
	40-tonne	1
	45-tonne	4
Longhole Drill		6

Historically primary ground support was installed manually using jackleg and scissors decks. In 2021 ground support was mechanized with the purchase of two Epiroc Boltec mechanical bolters. With these the site has been able to significantly reduce the manual installation of ground support resulting in improved productivity and safety. Two additional mechanical bolters will be purchased in 2024. Some scissor decks will remain in the fleet for utility work.

13.5 Personnel

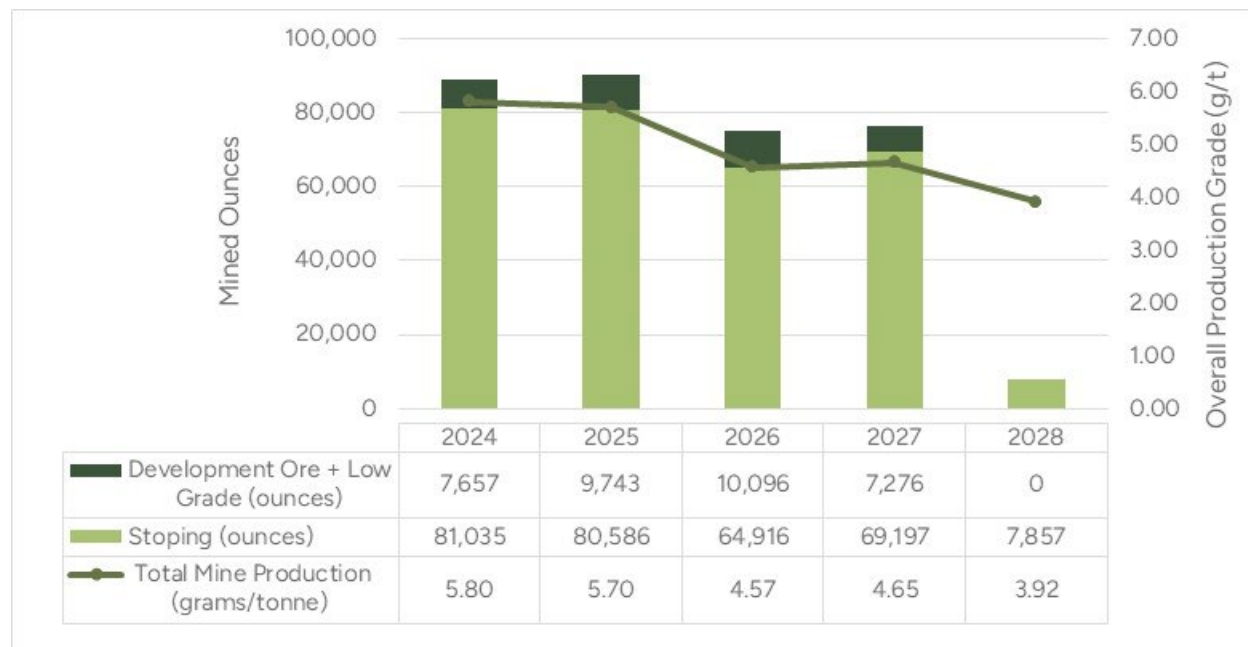
The current workforce at Santoy Mine is 104 hourly and 14 salaried employees. The majority are employed by SSR with contractor support used for drilling and special projects. Headcount is expected to remain relatively static through the mine life.

13.6 Mine Schedule

The mine plan and schedule to support the Mineral Reserves was developed by the SSR Technical Services Department. The mine plan commences January 1, 2024, and extends to the first quarter of 2028. Production rates are process limited, maxing out at 511 ktpa in 2026 and 2027. A total of 2.04 Mt of ore at an average grade of 5.12 g/t Au is mined over the four and a half year mine life. The total mined gold over this period is 336 koz. Ore grade decreases over the mine life from a maximum of 5.76 g/t Au in 2024 to a low of 3.78 g/t Au in 2028. The production profile in ore tonnes and gold ounces is shown respectively in Figure 13-6 and Figure 13-7.



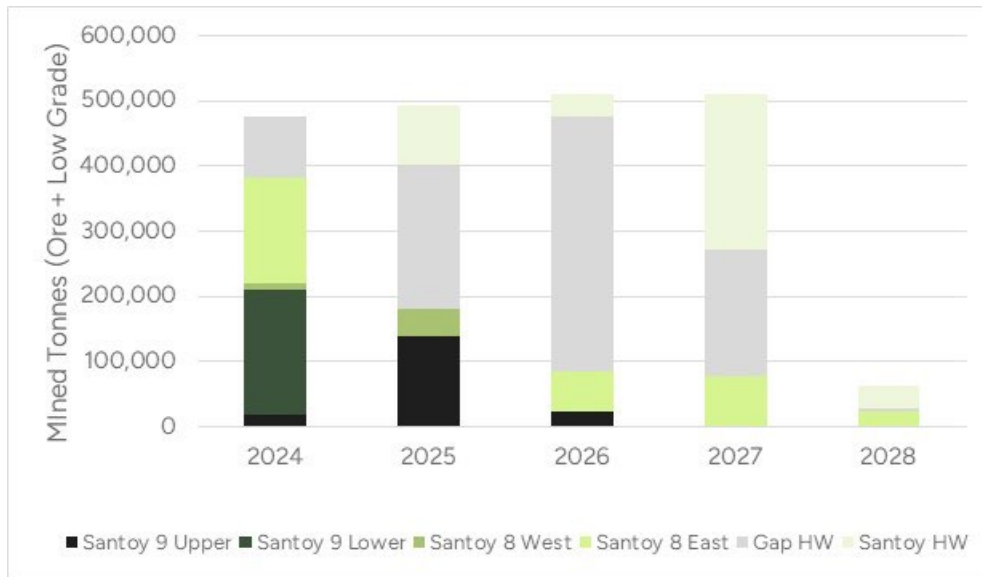
Figure 13-6: Life of Mine Production Tonnes and Grade

Figure 13-7: Life of Mine Gold Ounces and Grade


In 2024, Santoy 8 and Santoy 9 provides the majority of the ore, while production in the newer GHW area is ramped up. The GHW and SHW provide the bulk of production in the final three and a half years of the mine life as production decreases in Santoy 8 and 9. A breakdown of production tonnes by mine area is presented in Figure 13-8.

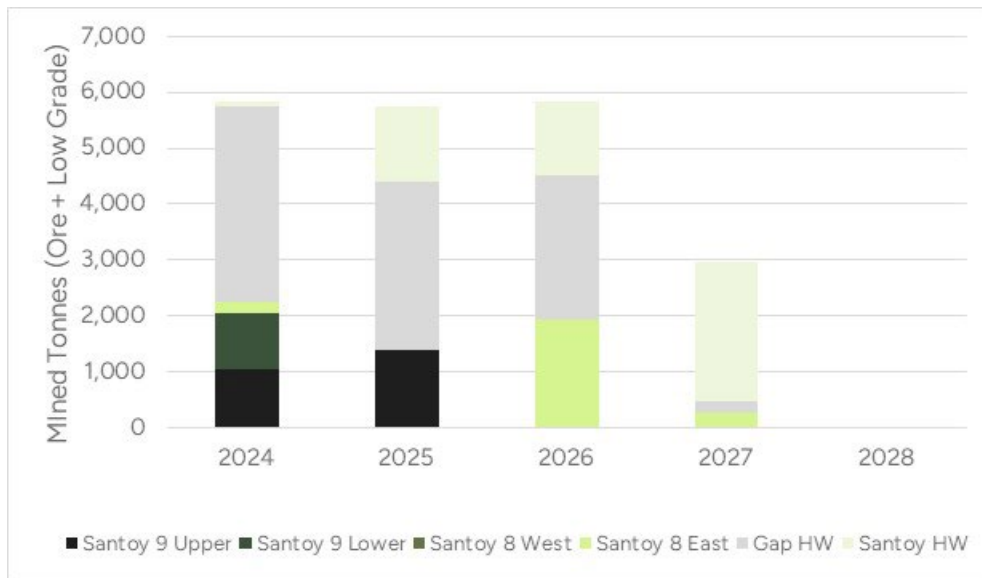


Figure 13-8: Production Tonnes by Area



Lateral development requirements are consistent through the next three years of mining at approximately 5,800 m per year, or just under 16 m/day, before dropping off in 2027. The planned development rates are comparable to what was achieved by the operation in 2022.

Figure 13-9: Lateral Development by Mining Area



Key metrics related to mine development and production are presented by year in Table 13-6.



Table 13-6: Development, Waste Rock, and Backfill Summary

Item	Unit	2024	2025	2026	2027	2028	Total
Capital Lateral Development	m	3,907	3,433	3,391	1,038	0	11,769
Operating Lateral Development	m	1,917	2,321	2,457	1,917	0	8,612
<i>Operating Ore</i>	<i>m</i>	<i>571</i>	<i>677</i>	<i>733</i>	<i>513</i>	<i>0</i>	<i>2,495</i>
<i>Operating Low Grade</i>	<i>m</i>	<i>200</i>	<i>240</i>	<i>303</i>	<i>308</i>	<i>0</i>	<i>1,051</i>
<i>Operating Lateral Waste</i>	<i>m</i>	<i>1,145</i>	<i>1,403</i>	<i>1,422</i>	<i>1,096</i>	<i>0</i>	<i>5,066</i>
Total Lateral Development	m	5,824	5,754	5,848	2,955	0	20,381
Alamac Raise	m	109	0	0	0	0	109
Drop Raise	m	96	143	129	23	0	390
Total Raise Development	m	205	143	129	23	0	499
Longhole drilling (total)	km	112	85	90	89	1	378
Waste Rock Generated	kt	361	336	323	152	0	1,181
Backfill Requirement	kt	315	308	307	318	62	1,310

Notes:

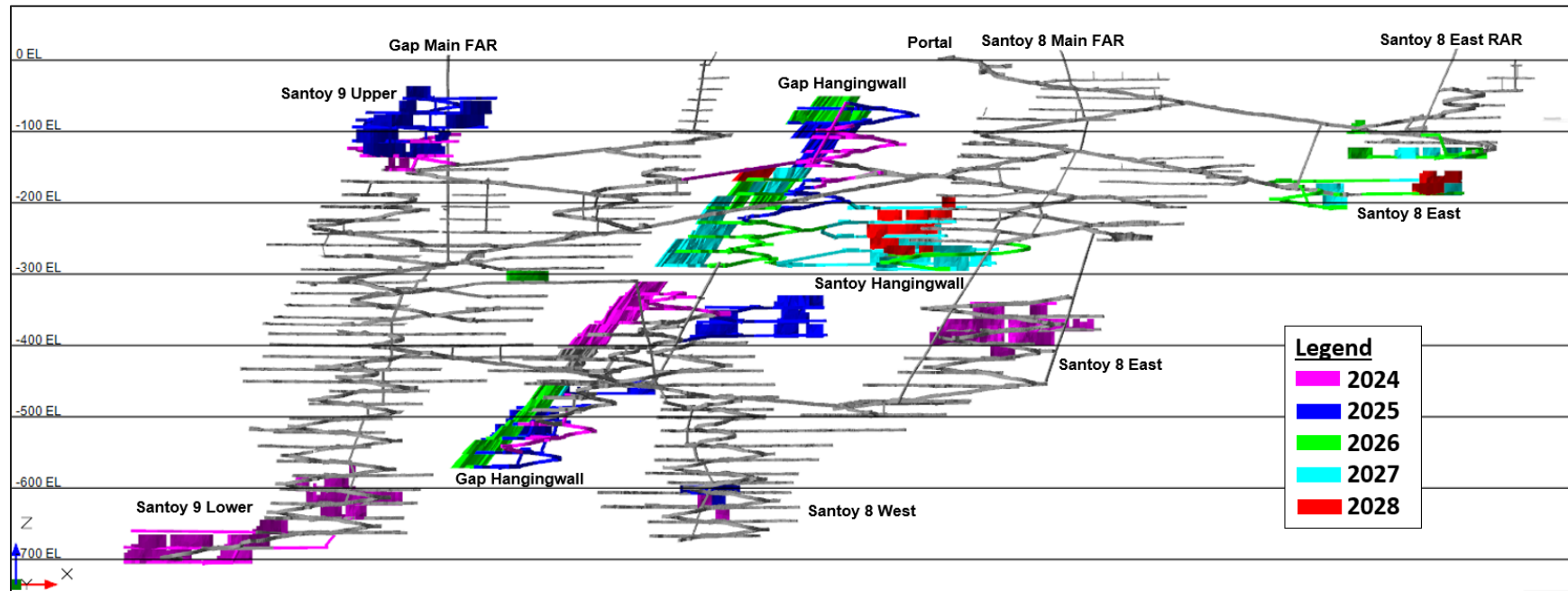
1. Sum of individual values may not match total due to rounding.

In general, mine physicals are relatively flat through the next three years of mining and begin to decrease in 2027 as mine development is completed. Longhole drilling requirements are highest in 2024, but in line with achieved results in recent years. Haulage capacity will be high during 2024 due to mining a greater proportion of production in lower areas of the mine and in areas with longer haul distances. The haulage capacity requirements will be met by adding and replacing aging haul trucks within the fleet.

A long section showing the mining areas by year is presented in Figure 13-10. Development mined prior to 2023 is shown in grey. As-built production stopes are not shown for clarity.



Figure 13-10: Mine Plan Long Section by Year



Source: SSR, 2023



14.0 Processing and Recovery Methods

14.1 Overview

The Seabee deposit was processed for 25 years in the mill constructed immediately adjacent to the Seabee shaft. Ore from the Santoy Mine has been the sole feed to the mill since 2017.

The remote location of the mine in northern Saskatchewan is sustained by air transport for the workforce and winter road access for supplies. The operation was initially developed and operated on diesel power and later connected to Saskatchewan grid power in 1992. The initial capacity was 500 tpd, which was later expanded to 1,000 tpd with the addition of a third grinding mill, and through de-bottlenecking, its throughput has been gradually increased to the current throughput of approximately 1,200 tpd. The mill flow sheet as shown in Figure 14-1 is a conventional crushing and grinding circuit employing gravity gold recovery and cyanide leaching with carbon-in-pulp (CIP) for recovery and production of doré bars on site.

Production figures for the last ten years are presented in Table 14-1.

14.2 Process Description

14.2.1 Crushing

ROM ore is hauled from the Santoy Mine to the mill by truck, a distance of approximately 14 km, and delivered to the primary crusher or deposited on stockpiles arranged by grade. The crushing circuit is made up of mobile crushing units including a primary jaw crusher and a secondary cone crusher in closed circuit with a triple deck screen. The product from the crushing circuit at minus 7 mm is conveyed to the ore storage bin, which has a live capacity of 400 t. Additional crushed ore storage capacity on an outside stockpile is available, which allows for crusher breakdowns or scheduled maintenance. When the crushing circuit is not operating, ore from the stockpile is fed into the plant through the original single-stage jaw crusher feed point.

14.2.2 Grinding

The grinding circuit consists of a 2.9 m diameter and 3.7 m long ball mill serving as the primary grinding mill in closed circuit with classifying cyclones, followed by two 2.7 m diameter and 2.6 m long secondary ball mills also in closed circuit with classifying cyclones. The primary cyclone overflow slurry is divided to feed the two secondary ball mills operating in parallel. The secondary mills have separate discharge sumps, cyclone feed pumps and cyclone clusters. The overflow from the secondary milling circuits is combined in the leach feed thickener. The secondary circuits can be run independently. The target grind for the leach circuit is 80% passing 115 µm. The ground product is thickened to 48% solids in a 12 m diameter thickener prior to entering the leach circuit. Lime is introduced to the grinding circuit to maintain the pH levels for optimum leach conditions.

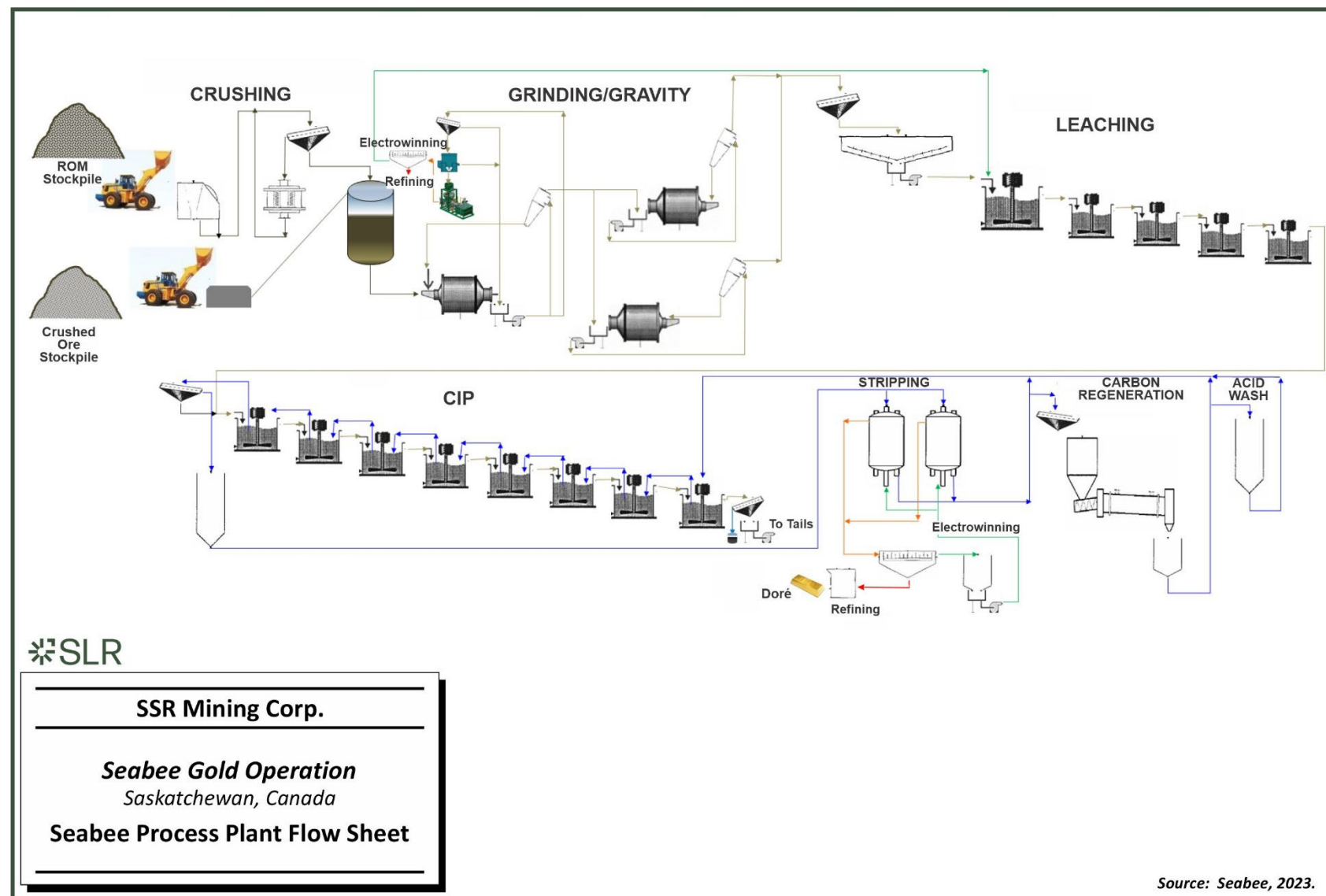


Table 14-1: Seabee Mill Production Statistics 2014–2023

Item	Units	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Feed Total	t	279,597	277,386	312,679	330,415	352,000	344,040	255,172	382,478	413,574	445,274
Feed Daily Rate	tpd	756	760	857	967	1,125	1,087	1,163	1,180	1,133	1,220
Feed Grade	g/t Au	7.32	8.82	7.91	8.25	9.16	9.56	10.10	9.92	10.36	6.62
Recovery	%	95.7	96.3	96.6	97.4	97.4	98.2	98.4	98.4	98.0	96.7
Gold Produced	oz	62,984	75,748	80,351	85,395	100,953	110,864	81,540	120,030	136,125	90,777



Figure 14-1: Seabee Process Plant Flow Sheet



14.2.3 Gravity Recovery

A portion of the cyclone feed from the primary grinding mill is directed to the gravity recovery circuit, either the original Knelson and table circuit or the new gravity circuit. The new gravity recovery circuit consists of two Knelson concentrators and an Acacia leach reactor, which recovers the gold from the gravity concentrate in a separate intensive cyanide leach (ILR) and electrowinning (EW) circuit. Installation of this equipment was completed in 2017. The gravity concentrate or electrowon metal, containing between 50% and 70% of the total gold recovered, is refined along with the gold recovered in the leach-CIP circuit.

Optimization of the Acacia circuit is being undertaken to further improve gravity gold recovery and resolve water balance issues that occur at higher plant throughputs.

14.2.4 Cyanide Leaching

The leach circuit consists of five agitated leach tanks, one of which is 14.6 m in diameter and 14.6 m in height, and four of which are 8.8 m in diameter and 8.8 m in height. Air injection is maintained in all tanks and cyanide is added to the initial tank to maintain the free cyanide level. At the current mill throughput the tanks provide approximately 48 hours of residence time.

14.2.5 Carbon-in-Pulp

The carbon absorption circuit consists of eight tanks that are 3.4 m in diameter and 4.6 m in height equipped with launder screens to retain the carbon in the tanks. The carbon circuit typically contains about 17.2 t of carbon distributed in the tanks. The CIP tanks provide approximately 3.5 hours of retention time. Loaded carbon at between 3,000 g/t and 6,000 g/t gold is routinely advanced to the strip circuit.

14.2.6 Carbon Elution and Electrowinning

The loaded carbon is stripped at atmospheric pressure with a heated solution (95°C) of caustic and iso-propyl alcohol over an average of three days. There are two elution vessels, each with a capacity of 3.56 t of carbon. Current throughput and head grades require that up to four strips be carried out per week. Gold is collected on stainless steel cathodes in a single EW cell.

14.2.7 Gold Refining

The gold recovered by EW from the CIP circuit and the gold recovered by gravity is periodically refined in a gas-fired furnace and poured in doré gold bars on site.

14.2.8 Carbon Regeneration

To maintain the activity level of the carbon inventory, the carbon is regenerated after stripping. Following elution, the carbon is subjected to heat treatment and attrition in a rotary kiln and screened to remove fines prior to being returned to the CIP circuit. The acid wash step in the carbon elution and regeneration process, while available, is not in use.

14.2.9 Tailings

Leach residues are pumped to a conventional tailings storage facility approximately 3 km from the plant.

All tailings solutions in excess of the mill recycle water that are released to the environment are treated with cyanide destruction to maintain the water quality within release quality standards.



14.2.10 Water

The mill operates primarily on recycled water with 96% of the mill water requirements recycled within the grinding circuit and from reclaim water from the tailings management area. Fresh water make-up is from Laonil Lake near the plant and averaged approximately 4,400 m³/month during 2023. Continued de-bottlenecking of the plant will likely lead to a need for proportionally more fresh water.

14.2.11 Energy

Electrical power is provided by the provincial power authority, Saskatchewan Power Corporation. The total power usage for SGO is approximately 8.9 MVA, of which approximately 3.6 MVA can be attributed to the mill. The electricity consumption of the mill will increase as throughput increases, mainly due to increased grinding and pumping requirements, and will require upgrading of certain on-site power supply infrastructure (the mill motor control centre) and has been planned for in the sustaining capital cost estimate.

14.2.12 Reagents and Consumables

The main reagents and consumables are:

- Grinding balls
- Sodium Cyanide
- Quicklime
- Flocculant
- Caustic Soda
- Propane.

All reagents and consumables are transported to site by truck over the winter road. This necessitates the maintenance of large storage facilities at the site.

14.2.13 Personnel

SGO is a fly-in fly-out operation with on-site accommodation facilities. Operations personnel work 12-hour shifts on a two-week-on two-week-off basis. The mill and laboratory complement is a total of 38 people consisting of operators and technicians, supervisors, two general foremen, two metallurgists, and a superintendent.

The total maintenance complement for the mill is 26 people consisting of nine millwrights and 12 electricians, two supervisors, two general foremen, and a superintendent. These personnel also support the mine.



15.0 Infrastructure

15.1 Major Infrastructure

The major infrastructure required for SGO is shown in Figure 15-1, Figure 15-2, Figure 15-3, and Figure 15-4. Major infrastructure includes the following:

- Site roads and airstrip
- Mill buildings and related services facilities including maintenance and truck shops, assay lab, crushing plant, shops and storage buildings
- Santoy Mine Portal
- Ventilation raises
- 2B mine water management ponds
- Administrative buildings
- Water supply and distribution
- Waste management facility
- Fuel storage
- Supply storage facilities
- Explosive storage
- Powerhouse and electrical distribution system
- Ore stockpiles
- TMFs and return water management
- East Lake water treatment plant
- Camp accommodation
- Winter road.



Figure 15-1: Seabee Gold Operation Major Infrastructure

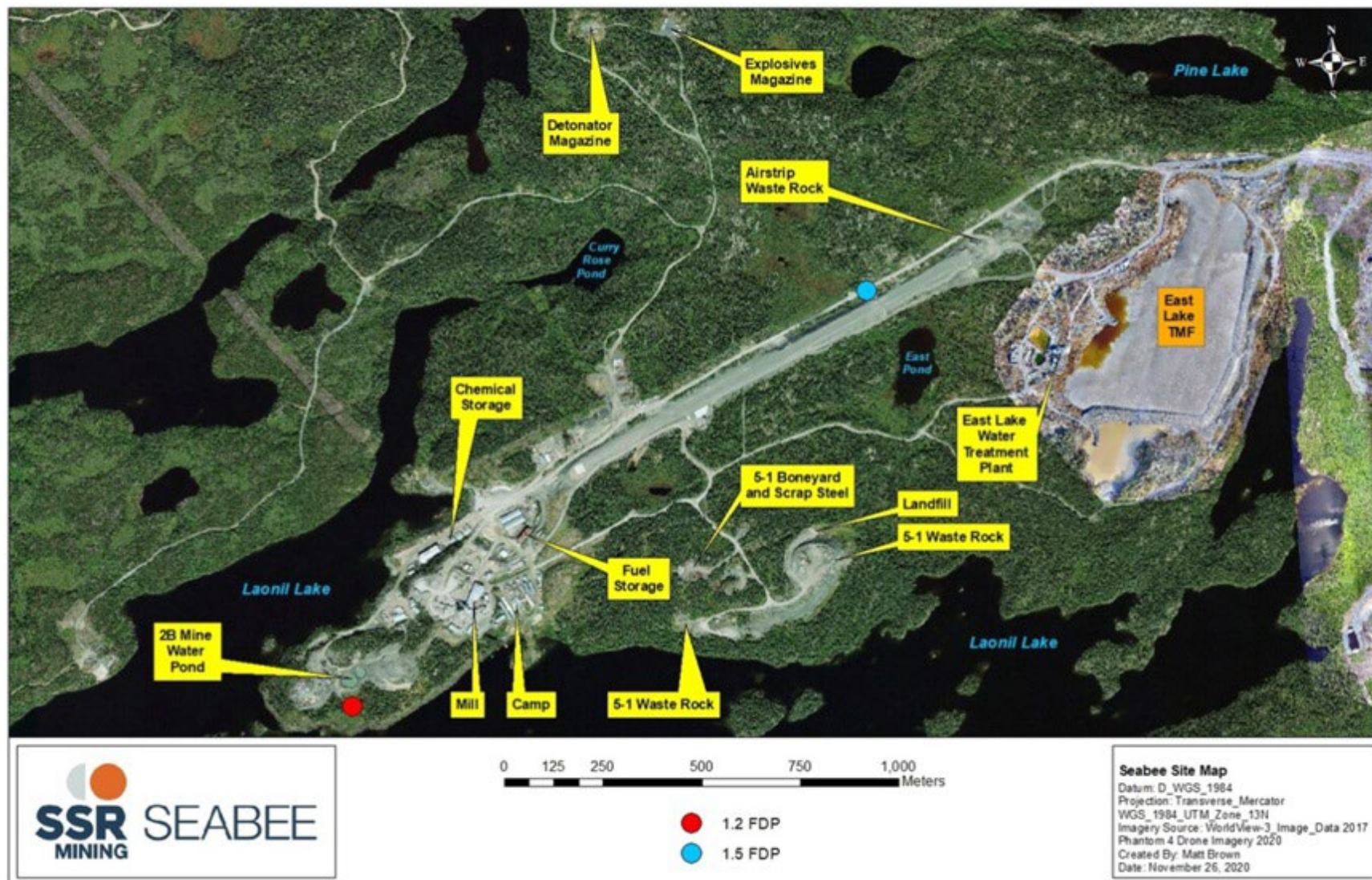


Figure 15-2: Seabee Gold Operation Mill Site Infrastructure

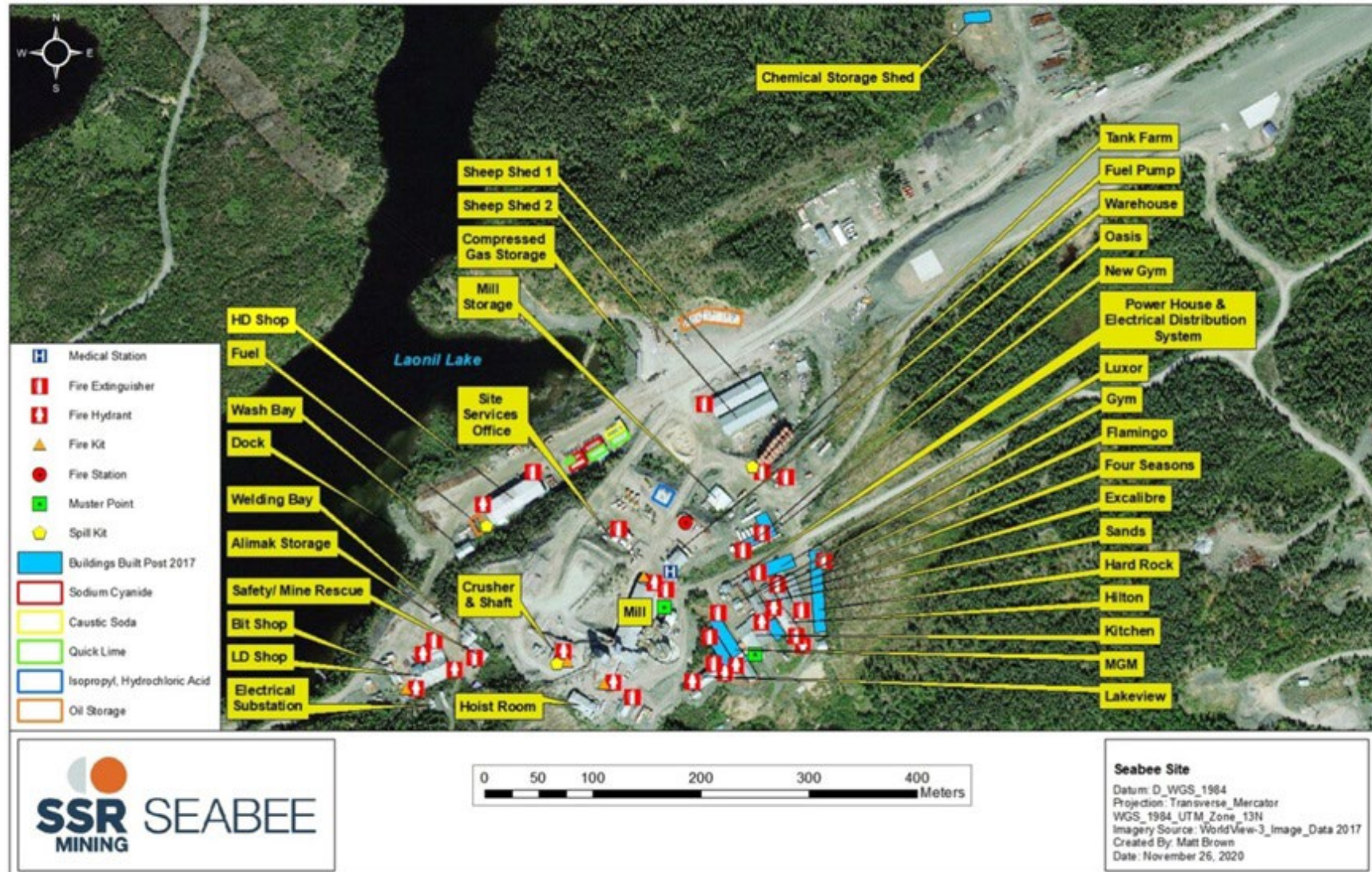
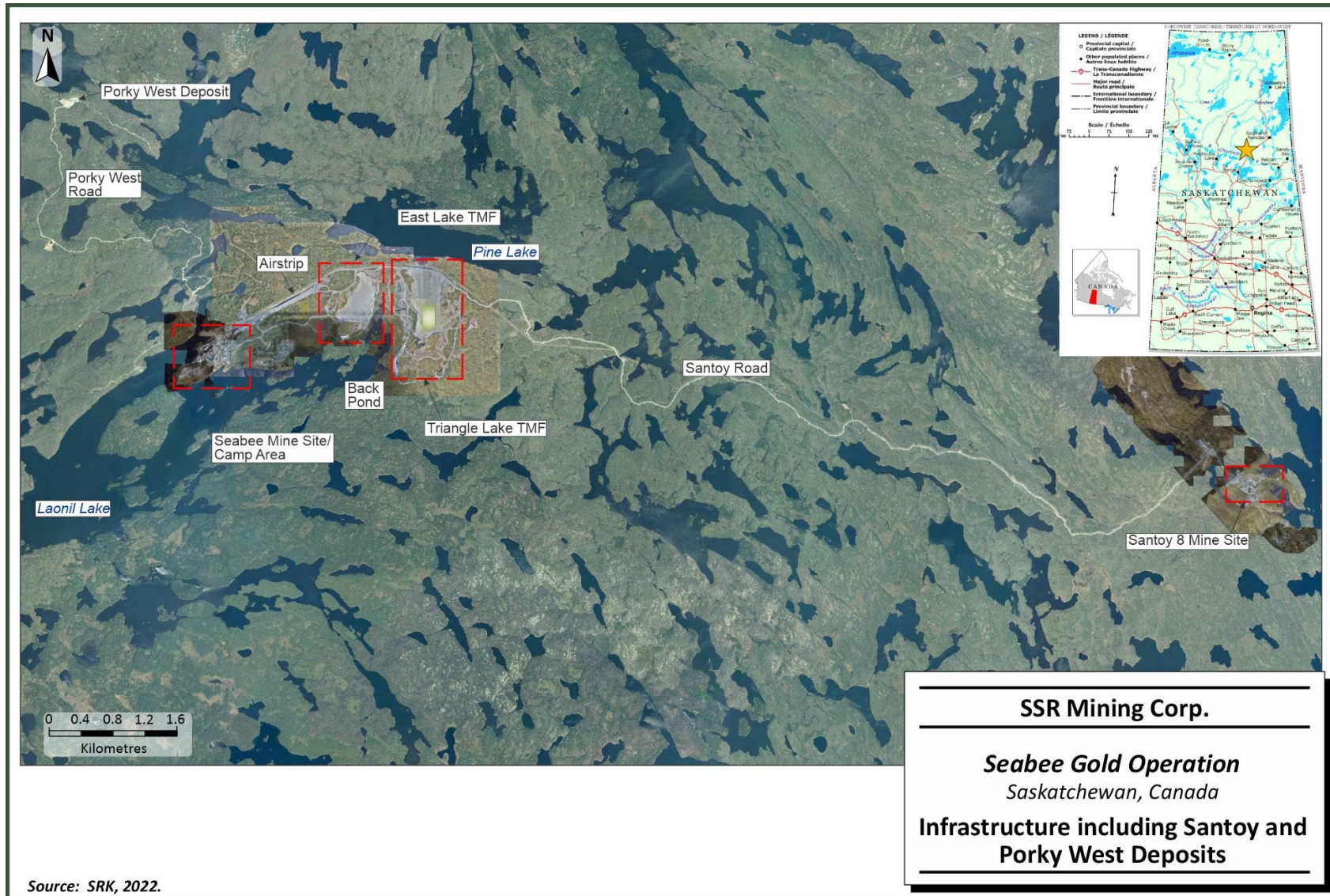


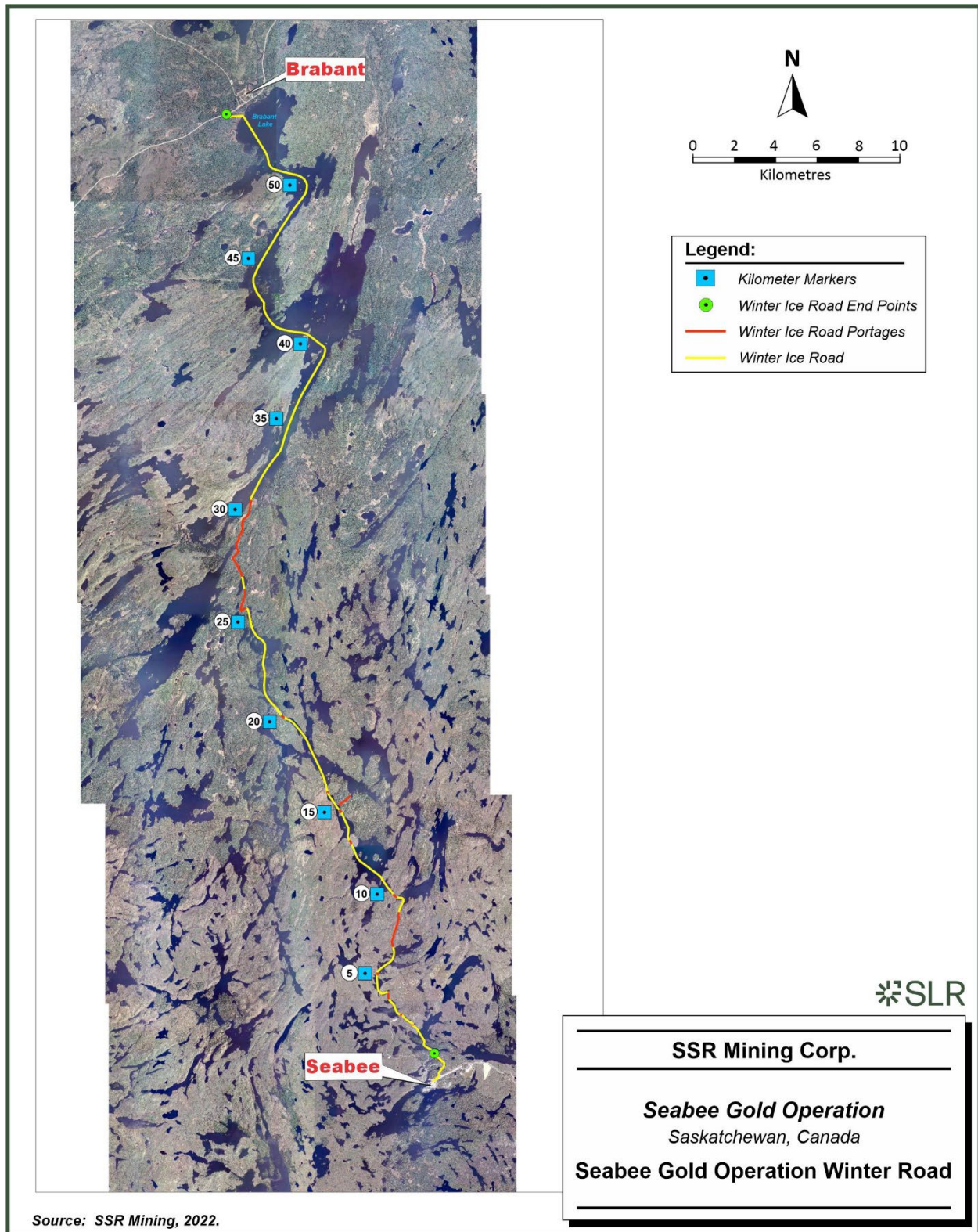
Figure 15-3: Seabee Gold Operation Infrastructure including Santoy and Porky West Deposits



Source: SRK, 2022.



Figure 15-4: Seabee Gold Operation Winter Road



15.2 Accommodation Camp

The current camp facilities at SGO can accommodate approximately 250 employees. SGO has begun a program of accommodation module replacement to update some of the older accommodation units currently on site.

15.3 Access Roads

The site can be accessed by a 60 km winter road, which begins at Highway 102 near the community of Brabant Lake, Saskatchewan, and includes 12 portages and 11 lakes. The majority of annual supplies are transported to site via the winter road, typically throughout the months of February and March, and until mid-April depending on ice quality.

The mill site and Santoy Mine site are connected by a 14 km haul road called the Santoy Road. This access road is a one-way road that is operated using radio callouts every 1 km and has specific travel convoy times throughout the day. There are also several roads throughout both the Seabee Mine and Santoy Mine areas that provide access to infrastructure.

15.4 Power

Electrical power is provided by a transmission line to the site by the provincial power authority, Saskatchewan Power Corporation, connected to a 138 kV hydroelectric power line from Island Falls. A 25 kV line connects the Santoy Mine to the main SGO site.

The total power usage for SGO is approximately 8.9 MVA and the electrical distribution system has an installed capacity of 10.0 MVA.

15.5 Water

15.5.1 Potable Water

Potable water is obtainable locally through SSR's potable water system at both the Seabee and Santoy mine sites. The site currently uses a slow sand filter system. To better meet the current and future site water needs, a new ultrafiltration potable water system has been installed and was commissioned in Spring of 2022.

15.5.2 Mine Water Facilities

The Santoy Mine has one water management structure, which is the Santoy 8 deposit water management pond. The old Seabee Mine has two water management structures: the East Lake water treatment plant and the 2B mine water settling ponds.

15.5.2.1 Santoy Mine

Mine water from the Santoy underground mine is discharged into the north-west corner of the Santoy 8 deposit water management pond where it is then pumped to a water treatment plant. The water is treated by a moving bed bioreactor unit to reduce ammonia concentrations. The treated water is pumped into settling Pond 1 where biomass from the process settles out and from there water flows to settling Pond 2 via an overflow spillway. The water is discharged from settling Pond 2 through a culvert and into the north-east corner of the mine water management pond for final settling. Final discharge to the environment is done via a pump situated at the



south end of the mine water management pond. Approximately 100,000 m³ of water from the underground mine is treated and discharged annually.

Settling Ponds 1 and 2 have a perimeter of approximately 105 m and 90 m, respectively, and a maximum height of approximately 3.3 m and 3.8 m, respectively. The ponds are lined with 60 mil HDPE and have a combined total storage volume of approximately 2,250 m³.

The mine water management pond is contained by a main dike situated at the south end of the facility and a north saddle dike located at the north-west flank. Both structures are comprised of waste rock with slopes graded at 2.0 H:1 V. The upstream slopes are lined with 60 mil HDPE, which are keyed into a low permeable till foundation. The main dike and north saddle dike are approximately 180 m and 120 m in length, respectively and have a maximum height of approximately 7 m and 3.5 m, respectively. The storage volume of the mine water management pond is approximately 40,000 m³.

15.5.2.2 Seabee Mine

The East Lake water treatment plant and associated settling ponds 1 and 2 are used to treat and settle the supernatant water from the East Lake TMF and Triangle Lake TMF. Supernatant is transferred from the Back Pond at the East Lake TMF to the water treatment plant where it is initially treated with lime, ferric sulfate, and peroxide. Subsequently, the treated water is discharged to settling pond 1, which overflows to settling pond 2. From here the treated water is pumped to East Pond where it is monitored prior to the final discharge to the environment. Settling ponds 1 and 2 have a perimeter of approximately 190 m and 100 m, respectively, and a depth of 2.5 m and 6 m, respectively. The ponds are lined with 60 mil HDPE and have a combined storage capacity of approximately 13,000 m³. Approximately 80,000–100,000 m³ are treated and discharged to the environment annually, which correlates to a treatment rate of approximately 835 m³ per day, based on a four-month treatment period.

As previously stated, a water treatment plant was constructed in 2017. The water treatment plant has capacity to treat up to 3,400 m³ per day, removing cyanide, ammonia, and copper from the TMF supernatant. In general, the treatment process consists of a pre-treatment step for removal of copper and cyanide followed by a moving bed bioreactor unit for removal of ammonia.

15.6 Product Shipping

The product from the processing facility (doré bars) is transported by air to a third-party refiner.

15.7 Utilities

15.7.1 Sewage Disposal

At the Seabee Mine, sewage is discharged with the tailings to either the East Lake TMF or Triangle Lake TMF.

The septic system at the Santoy Mine is a mound system, which is pumped every second day by a vacuum truck to prevent leakage from the system.

15.7.2 Fuel Storage

Fuel farms and propane tanks are located at both the Seabee Mine and Santoy Mine sites.



15.7.3 Explosives Storage

A magazine and an explosives storage area are located at the Santoy 7 deposit servicing the Santoy Mine, with a secondary magazine and explosive storage area used previously for the old Seabee Mine site situated just off the Porky access road, approximately 1.3 km north-east from the Seabee mill area. Both of these areas have been designed and prepared in accordance with the Mines Regulations (The Mines Regulations 2018, Saskatchewan Employment Act).

15.8 Tailings Management Facilities

There are currently two tailings management facilities (TMF) that are being used by the Seabee mill: the East Lake TMF and the Triangle Lake TMF, as shown in Figure 15-5. Tailings deposition alternates between the two TMFs where winter deposition occurs in the Triangle Lake TMF and summer deposition is in the East Lake TMF. The current remaining storage capacities of both TMFs, based on an average production rate at 1,200 tpd, will potentially be reached in late-2030, which extends past the current LOM.

Maximum capacities also allow that 200,000 m³ of water are treated and discharged from the tailings management facilities each year. To ensure the treatment volumes are attained, a new water treatment plant at East Lake TMF was constructed in 2017.

Work is currently underway investigating options for extending the life of the TMFs to accommodate any further extensions of the SGO life.

15.8.1 East Lake Tailings Management Facility

East Lake was a natural lake that was converted to a TMF when the Seabee Mine was initially developed in 1991. East Lake was partially dewatered prior to tailings deposition, which provided containment for the first six years of operation. Subsequently, vertical concrete dams lined with high density polyethylene (HDPE) were constructed along the topographic lows along the east and south flanks of the TMF to provide additional storage capacity up to mid-2004. At this time, tailings deposition was relocated to the newly constructed Triangle Lake TMF. To accommodate an increased mine life, further expansion of the East Lake TMF was implemented in 2015. The expansion consisted of a 6 m high expansion dike that is comprised of waste rock. Stage 1 construction of the expansion dike (Crest elevation 463 m) was completed in 2016 and additional raises have lifted the dike to its current elevation of 465 m.

The existing tailings line is a 6" diameter HDPE pipe that is approximately 2 km in length and stretches from the mill to the East Lake TMF. Spigot locations at the TMF vary over time.

Supernatant water during tailings deposition in the East Lake TMF is regulated by a pump station situated at the north-east corner of the facility. The pond level is maintained below the maximum operating level by pumping and discharging supernatant to either the Back Pond or to the Triangle Lake TMF. There are also three freshwater diversion pumps situated along the western flank of the East Lake TMF that capture and divert water towards Laonil Lake.

15.8.2 Triangle Lake Tailings Management Facility

Similar to the East Lake TMF, the Triangle Lake TMF was a natural lake that was converted to a TMF. To provide initial containment, a North dam was constructed along the northern shoreline of the TMF and tailings deposition commenced in 2004. In 2007, the north dam was raised and the south dam was constructed along the southern shoreline of the TMF. Both dams were vertical concrete structures lined with HDPE.



As part of the combined East Lake TMF and Triangle Lake TMF expansion to accommodate an increased mine life, the design of the Triangle Lake TMF was modified so that both structures would be raised with mine rock and lined with non-woven geotextile and HDPE liner. The expansion of the TMF was staged, which also included construction of two saddle dikes: saddle dikes W2 and W2A, situated east of the North dam. The design of the saddle dikes was consistent with the raise to the North dam (i.e., rockfill construction with non-woven geotextile and HDPE liner). In the final stage of construction, an emergency spillway was situated at the west abutment of the South dam, accommodating the design storm event for the TMF.

Further wall lifts have been completed on the Triangle Lake TMF and it is currently constructed to its final permitted elevation at 466 m, which will accommodate tailings until late 2030.

Construction of a seepage collection system commenced in the summer of 2014 along the downstream toe of the North dam to collect and manage seepage.

There is a 6" diameter HDPE pipe that connects to the tailings line at the East Lake TMF and extends approximately 1.2 km to either the North or South dams at the Triangle Lake TMF. Spigot locations at the TMF vary over time.

Water from the East Lake TMF is immediately discharged to the Triangle Lake TMF and thus the water repository and overall water management is accommodated and regulated at the Triangle Lake TMF. Reclaimed supernatant from the Triangle Lake TMF is discharged into the Back Pond, which serves as a lift station, where supernatant is either pumped to the East Lake water treatment plant for treatment or to the Seabee mill as reclaim. Two freshwater diversion pumps are situated along the eastern flank of the TMF that capture and divert water towards Laonil Lake.

15.9 Waste Rock Structures

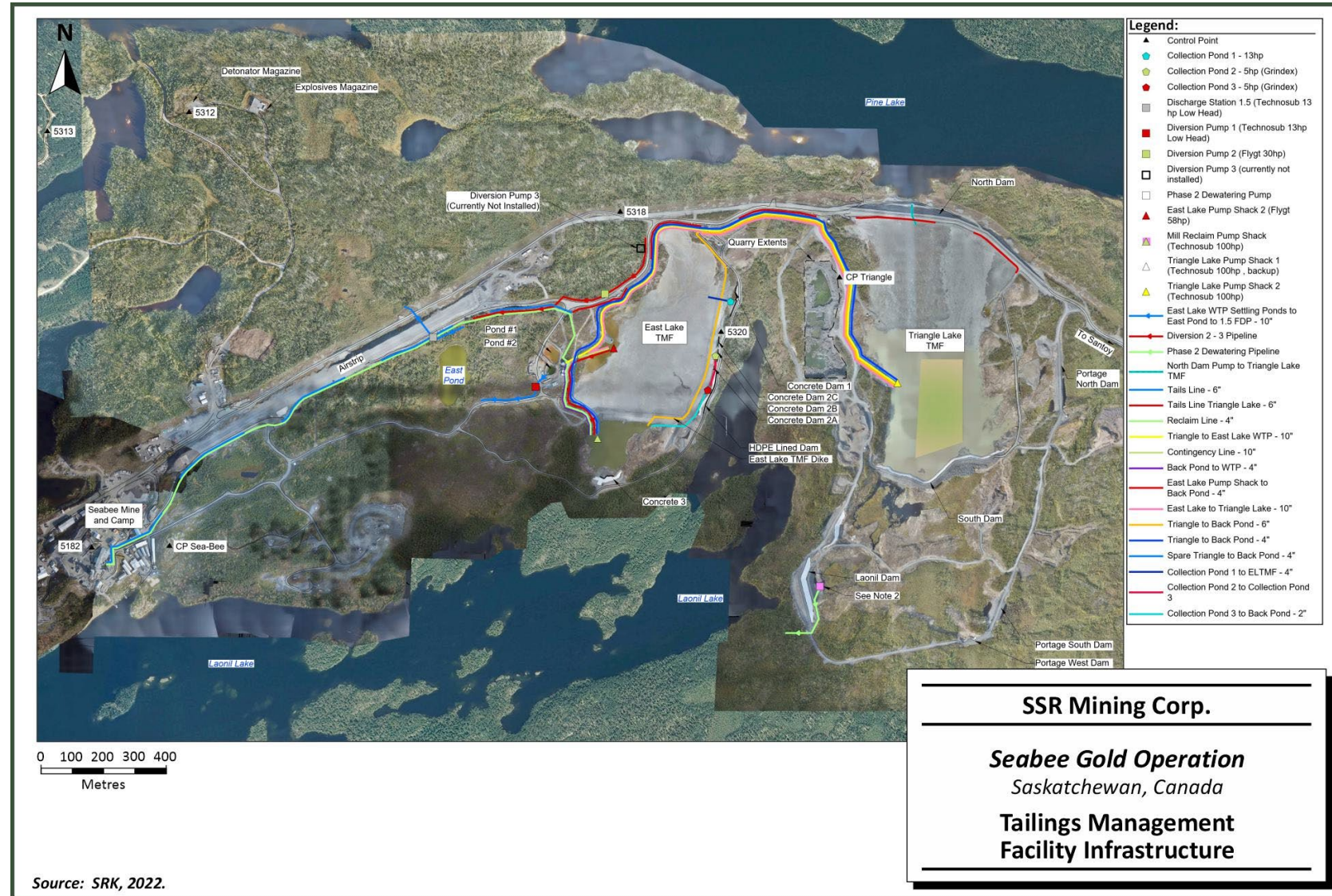
Access roads, the airstrip, dams, dikes, laydown areas, and general site areas were constructed using waste rock, which was characterised as non-acid generating.

15.10 Rock Quarry

In order to sustain waste rock requirements for construction, SSR developed a rock quarry at SGO. The location of the quarry is adjacent to the existing Triangle Lake TMF. To date, the main consumption of the waste rock has been for the expansions of both TMFs and for the Santoy road upgrade / maintenance.



Figure 15-5: Seabee Gold Operation Tailings Management Facility Infrastructure



16.0 Market Studies

16.1 Marketing and Metal Prices

The principal commodity at SGO is a doré product mainly consisting of gold, with minor amounts of silver. This type of product is freely traded at prices that are widely known, so that prospects for sale of any production are virtually assured. The metal prices and foreign exchange rate used in this report are based on analyst consensus prices. The metal prices selected for the SGO vary by year and are shown in Table 16-1.

Table 16-1: Economic Analysis Gold Price and Exchange Rate Assumptions

Commodity	Unit	2023	2024	2025	2026	2027	2028 and Long- Term
Gold	\$/oz	1,925	1,930	1,890	1,810	1,780	1,755
Silver	\$/oz	23.50	24.00	23.95	23.70	23.35	22.75
Exchange Rate	US\$/C\$	1.33	1.33	1.33	1.33	1.33	1.33

SGO currently produces doré bars. The doré refining terms are typical and consistent with standard industry practices and similar to contracts for the refining of doré elsewhere.

The doré is transported by secure freight to a refinery, refined into gold bullion and sold by SSR to banks that specialize in the purchase and sale of gold bullion.

No external consultants or market studies were directly relied on to assist with the sales terms and commodity price projections used in this report. The SLR QP for this Section 16 agrees with the assumptions and projections presented.

16.2 Contracts

There are a number of acceptable refineries with capacity to refine doré. Currently, SSR is in a non-exclusive contractual relationship with Asahi Refining Canada Ltd. (Asahi). The terms of this contract with Asahi are within industry norms. The cost for transport and refining of the doré is in accordance with industry standards.

In addition to doré sales, SGO has numerous contracts with suppliers for consumables, reagents, maintenance, general and administrative requirements, and other services to support a remote mine operation. In the SLR QP's opinion, all of the contracts that SGO have entered into are based on normal commercial arrangements.



17.0 Environmental Studies, Permitting, and Plans, Negotiations, or Agreements with Local Individuals or Groups

17.1 Environmental Aspects

As described in Section 3.1, SGO is located at the northern end of Laonil Lake, approximately 125 km north-east of the town of La Ronge, in Saskatchewan within the traditional territories of the Lac La Ronge Indian Band (LLRIB) and the Peter Ballantyne Cree Nation (PBCN). It has been in operation since 1991 and despite a few exceptions, it has operated consistently throughout the last 31 years. The site is accessed via air transportation year-round and seasonally via a winter road beginning at Highway 102 near the community of Brabant Lake, Saskatchewan. The majority of annual supplies required to run the operation are transported to site via the winter road throughout the months of February and March and until approximately mid-April depending on ice quality.

Laonil and Pine Lakes surround the Seabee Mine and TMFs and are the largest lakes of the immediate area. No local residences, cottages or outfitter camps are located in the direct vicinity of SGO, although a few hunting/fishing camps are found within the region (EIS 1990). The closest camp is located at Pointer Lake Lodge, approximately 10 km southwest of Laonil Lake. A fly-in camp is located at Glennie Lake and Josdal Camps has an outpost camp at Steephill Lake, which are both greater than 15 km from the operation.

Environmental studies completed since the 1980's include baseline assessments, environmental impact assessments, and operational monitoring programs.

At the closest government station at La Ronge, the coldest months on average were both January and February, with a daily mean temperature of -16.7 °C, while July was the warmest month with a daily mean temperature of 17.7 °C. The mean daily maximum temperature during this period, ranged from a low of -12.1 °C in January, to a high of 23.6 °C in July. The mean annual precipitation was 524.0 mm, of which 386.6 mm (or 74%) fell as rain. Approximately 73% of the total precipitation fell between the months of April through September. Mean annual snowfall for this same period was 132.9 cm. On average, snowfall occurred in every month of the year except June through August.

The prevailing wind direction for the months of July to February was from the west, whereas prevailing winds from March to June were from the northeast. Average wind speeds typically ranged from 10.1 km/h in December to 12.6 km/h in May, with maximum hourly wind speeds as high as 65.0 km/h in December.

Groundwater quality monitoring at the 12 monitoring stations surrounding the East Lake TMF, the Triangle Lake TMF, and the landfill is required monthly from May to October as per the Approvals to Operate. The purpose of this monitoring program is to detect any seepage from the TMFs and the landfill.

The Seabee Operation lies within the Churchill River drainage basin (184,000 km²) in northern Saskatchewan. Surface water is drained from the project area by three local drainage sub-basins, Laonil Lake, Pine Lake, and Carruthers Lake.

Water enters Laonil Lake from the northwest and flows southeast through Stephens Lake and the Pickerel River before entering the Churchill River system in the eastern portion of Trade



Lake. Since 2004 tailings were deposited into dewatered Triangle Lake, which naturally drains to the Pine Lake system. To avoid further increases to the inflow of the Triangle Lake TMF, the surface inflows from the muskeg area south of Triangle Lake have been re-routed towards Laonil Lake.

Currently, during the summer months, water that is drawn from the East Lake TMF and Triangle Lake TMF is treated at the East Lake WTP, passed through two lined settling ponds and then pumped into a final polishing pond before being discharged to the Laonil Lake basin. Since 2019, no tailings have been deposited in the East Lake TMF. Water quality and discharge rates are routinely monitored at this station.

Fresh surface water from Laonil Lake is used in milling circuits and for dust suppression, emergency fire line, and other camp and kitchen needs.

A large portion of the operational monitoring for the operation is completed in the aquatic environment. Components include effluent quality monitoring, surface water quality monitoring, sediment quality monitoring, and fish tissue chemistry monitoring. In addition, biological monitoring of aquatic receptors including benthic invertebrate communities and small-bodied fish populations is also conducted to meet the federal Metal and Diamond Mining Effluent Regulations (MDMER, 2002) requirements.

There are two environmental monitoring programs required for the operation: 1) the provincial Environmental Monitoring Program (EMP) regulated by the Saskatchewan Ministry of Environment (SMOE) and 2) the federal Environmental Effects Monitoring Program (EEM) regulated by Environment and Climate Change Canada (ECCC). The EMP is required for compliance with the provincial laws under the Approval to Operate Pollutant Control Facilities (PO 19-193). The federal EEM program is a requirement under the Metal and Diamond Mining Effluent Regulations of the Fisheries Act.

Two types of treated mine effluents are produced as part of the Seabee Operation: 1) treated mine water effluent and 2) treated tailings effluent. Concentrations of licensed parameters at both mine dewatering final discharge points, as well as at the final discharge point of the East Lake TMF water treatment plant, met all applicable maximum monthly limits and all maximum grab sample limits. The measured concentrations of licensed parameters were usually one or several orders of magnitudes lower than the limits under license.

Other environmental monitoring includes air quality monitoring for Total Suspended Particulate (TSP), Particulate matter (PM_{2.5}, PM₁₀) and Nitrogen dioxide (NO₂).

Solid non-hazardous waste generated at the site is disposed of in the approved landfill. In accordance with the SGO's Approval to Operate, hazardous wastes are stored in approved facilities at the site until the winter, when these materials are transported off site for disposal at approved hazardous waste disposal facilities. In addition, recyclable materials such as scrap metal are stored in segregated piles on an approved lay down area, and later transferred off site as backhaul material on emptied supply trucks via the winter road.

Sodium cyanide, ferric sulfate, lime, hydrogen peroxide, diesel, gasoline, propane, and all other consumables are transported to the site via truck over the winter road, which is generally operational throughout February and March and until mid-April depending on ice quality. All consumables are transported to the site in accordance with the Transport Canada Transportation of Dangerous Goods Regulations and stored in approved bulk storage facilities in accordance with the SGO's Approval to Operate and Saskatchewan's Hazardous Substances and Waste Dangerous Goods Regulations.



SSR has characterised mine rock and tailings for the potential of acid rock drainage/metal leaching at the SGO since 2012. The results of these analyses are reported to the SMOE as part of the operation's annual reporting commitments. Similar programmes will be refined and periodically carried out as operations continue. To date, the findings indicate that the mine rock is non-acid generating. All ores mined at the SGO have a low sulfide content, which is consistent with most vein hosted gold deposits. The current data set shows the Santoy ores carry a lower sulfide content than the ores of the now-ceased Seabee Mine. From a geochemical perspective, this means the tailings with the higher sulfur content are located in the lower elevations of the tailings facilities, which are typically saturated or partially saturated. These tailings are then covered stratigraphically by the Santoy tailings through continued operation. The Santoy tailings display the lowest sulfur content (less than 1%) and an equivalent balance of carbonate content, meaning that the residual sulfur content after the carbonate is consumed in the neutralisation process, would not likely support acidic drainage from the upper-most layers of tailings in both facilities. Thus, tailings found in the unsaturated zones of the facilities that will be more readily oxidised are the most geochemically stable tailings. Following over 30 years of operation, the site continues to display no evidence of acid drainage.

The geochemical characterisation to date, combined with the tailings operational plan, which ensures that at closure, the unsaturated zone consists of low sulfur bearing tailings, supports the current closure plans for these facilities.

17.2 Tailings Disposal and Water Management

As described in Section 15.8 there are currently two TMFs that are being, in principle, used by the Seabee mill: the East Lake TMF and the Triangle Lake TMF. Tailings deposition historically alternated between the two TMFs where winter deposition occurs in the Triangle Lake TMF and summer deposition is in the East Lake TMF. The current remaining storage capacities of both TMFs, based on an average production rate at 1,200 tpd, will potentially be reached in by the end of 2030.

Maximum capacities also allow that 200,000 m³ of water are treated and discharged from the tailings management facilities each year. To ensure the treatment volumes are attained, a new water treatment plant at East Lake TMF was constructed in 2017.

At the time of the SLR QP's site visit the East Lake TMF was not in use and it has not been used since 2019, while a portion of the tailings dam will be buttressed with tailings. The site is not fully closed out as it may be raised in the future. The current dam crest elevation is 465 masl with a maximum permitted elevation of up to 466 masl.

The Triangle Lake TMF is currently in use. The site has a long-term deposition plan and has the capacity to store the tailings of the current operation.

Seabee mill effluent from the Triangle Lake TMF is treated in the East Lake Water Treatment Plant (WTP). After treatment it is discharged to a clarifier pond and then a holding pond before release to a polishing pond (East Pond). The final discharge point to the environment is located upstream of a natural muskeg which drains into Currie Rose Pond and ultimately into the northwestern arm of Laonil Lake.

Discharge is treated for Total suspended solids, copper and cyanide and ammonia.

Cyanide levels in the TMF are usually in the range of 20 to 50 mg/L Total CN. Cyanide levels in the discharge to the environment values are generally near the detection limit of 0.001 mg/L



Total CN, which is several orders of magnitude below the regulated effluent limit of 1 mg/L Total CN.

Mining process water and inflowing groundwater to the Santoy 8 mine is collected in underground sumps, which is then pumped to the surface and treated by nitrifying bacteria that convert ammonia to nitrates at the Santoy 8 WTP. From the Santoy 8 WTP, treated mine effluent is discharged to two lined settling ponds which are gravity-drained to the Santoy 8 Mine Water Management Pond. Treated mine effluent is discharged into a natural muskeg, approximately 300 m from the shoreline of Inflow Bay of Lizard Lake (Inflow Bay). The treated mine effluent flows through the muskeg area and into a creek that flows into Inflow Bay.

17.3 Project Permitting

17.3.1 SGO Environmental Assessments

SGO has been in production since 1991. As part of the initial environmental assessment, approvals and the subsequent expansions at the operation, the existing environment was characterised in three environmental assessments, in accordance with the applicable provincial regulations. The initial environmental assessment focused on the original Seabee Mine and mill and was completed in 1990. The second environmental assessment was necessary to assess the potential environmental impacts associated with the construction and operation of the Triangle Lake TMF and was completed in 2001. The third environmental assessment was necessary to assess the potential environmental impacts associated with the development of the Santoy Mine and was completed in 2009. For each of these assessments, baseline data was collected, and the potential environmental impacts associated with the proposed project were assessed. In all three environmental assessments, no significant potential environmental impacts were identified that could not be mitigated through the implementation of management plans. Subsequently, Ministerial Approvals to proceed to construction and operation were granted for each of the three environmental assessments.

The Triangle Lake TMF, as well as the Santoy Mine projects, were screened by the Canadian Environmental Assessment Agency in 2001 and 2009, respectively. As previously mentioned, SGO has never required a federal environmental assessment.

17.3.2 Environmental Permits/Authorizations

Following a successful environmental assessment, SGO is required to obtain a number of federal and provincial permits, approvals, and licences. These permits outline the environmental operating specifications and reporting requirements of the operation. Although all regulatory permits and approvals carry the same level of importance, the Provincial Approval to Operate (PO) is the primary regulatory approval required to operate a gold mine in Saskatchewan. The PO is issued in accordance with numerous provincial legislation and regulations governing Saskatchewan's mining industry.

Since its inception, the SGO has operated under the terms and conditions of a PO, issued by the SMOE. The operation's current Approval to Operate number PO22-185, was issued in October 2022 and expires in September 2027. This approval outlines monitoring and reporting requirements for all operations, including:

- Surface and groundwater in immediate and surrounding areas
- Sediment quality of surrounding lakes



- Aquatic biota in surrounding lakes
- Facilities and areas requiring daily, weekly, and monthly inspections
- Regular acid rock drainage/metal leaching testing
- Annual geotechnical inspection by a Professional Geotechnical Engineer
- Development and regular updates to a variety of management plans

SGO reports annually on the operations performance in its Annual Environment Report. According to the 2022 Annual Environment Report, dated March 31, 2023, SGO is in compliance with the terms and conditions of this approval. The report also lists the environmental permits obtained in 2022.

17.4 Social or Community Aspects

The SGO is within the Treaty 10 area and borders the Pelican Narrows and Brabant Lake community areas of influence (SMOE 2003). These communities were consulted during the completion of previous environmental assessments in support of the project throughout its operating history. The socio-economic study area for the Santoy Mine environmental impact statement (the most recent environmental assessment completed in 2009) included La Ronge, Air Ronge, Kitsakie IR 156B, Lac La Ronge IR 156, Nemeiben River IR 156C, Stanley Mission IR 157, Grandmother's Bay IR 219, Brabant Lake, Pelican Narrows IR 184B, Pelican Narrows, Sandy Lake, Southend IR 200, and Deschambault Lake IR 203.

In accordance with the terms and conditions of the operation's Surface Lease Agreement, continual effort has been made at the SGO to engage the nearby communities in order to maximise northern employment opportunities as well as the local purchase of goods and services to support the mine. The operation continues to honour its social commitments outlined in the project's surface lease agreement.

Since SSR's purchase of the SGO, a concerted effort has been made to maintain and strengthen the relationship with the surrounding communities, including the LLRIB and the PBCN.

In addition, stakeholder engagement plans have been developed and activities defined in these plans are currently underway. SGO reports the following:

- 2023 year to date (YTD) – approximately 15% employees are northern Saskatchewan residents
- 2023 YTD – approximately 28% of workforce is of indigenous ancestry
- 2023 YTD – 421 total employees
- SGO is currently going through the final stages of Exploration agreements negotiations with LLRIB and PBCN.

17.5 Mine Closure Requirements

In accordance with Saskatchewan's Mineral Industry Environmental Protection Regulations (1996), the SGO has, since 1996, submitted to the SMOE a decommissioning and reclamation plan (closure plan) and cost estimate. In accordance with these regulations and the site's Approval to Operate, this closure plan is required to be revised and submitted for review and approval at least every five years or as requested by the SMOE. The most recent closure plan



(SGO Preliminary Decommissioning and Reclamation Plan, 2021 Update) was submitted in May 2022 and accepted by the Government of Saskatchewan June 2023.

The closure plan meets the following objectives:

- Complies with previous environmental assessment and existing commitments as outlined in the SGO's Approval to Operate.
- Meets the SMOE's final mine closure objectives as outlined in the Guidelines for Northern Mine Decommissioning and Reclamation (SMOE 2008), specifically:
 - o Leaves all disturbed areas safe for traditional land uses and in an ecological condition that is consistent with the surrounding physical and biological environment.
 - o Leaves the site in a state that requires minimal or no maintenance.
- Eliminates potential short and long-term health, safety and environmental risks associated with any aspect of the site.
- Ensures long term physical stability of all landforms and containment structures, in accordance with the Canadian Dam Association Guidelines.

The total estimated cost to implement the closure plan through an independent contractor is approximately C\$36.9 million. The financial assurance was accepted by regulators in September 2023.

SSR, in accordance with the Mineral Industry Environmental Protection Regulations, is responsible to post financial assurance equalling the closure cost estimate with the Government of Saskatchewan. An update to the closure estimate is currently underway, to cover the approved expanded TMF.

In accordance with the EAB guidance, effluent discharges from the site during the implementation of closure activities will meet Saskatchewan Effluent Quality Limits. Final decommissioning and reclamation water quality objectives for the site, which are determined jointly by the operator and the SMOE, will be met at the site prior to the Ministry's acceptance of the property into its Institutional Control Program.

The closure cost estimate allows for mine closure in three phases:

1. A decommissioning and reclamation phase to complete the closure activities;
2. A transitional phase to allow for the monitoring of all decommissioning and reclamation activities, ensuring that all closure criteria have been met; and
3. An institutional control phase.

Saskatchewan's Institutional Control Programme requires funds to be set aside for maintenance and monitoring during a 100-year period and requires additional funds to manage the maintenance that may occur as a result of unforeseen events. SSR, in accordance with the Mineral Industry Environmental Protection Regulations, is responsible to post financial assurance equalling the closure cost estimate with the Government of Saskatchewan, covering the three phases of mine closure.

In summary, key site infrastructure will be closed out as follows:

- Site infrastructure will be decontaminated, as needed, removed, where practicable, or demolished and disturbed areas will be regraded and reclaimed. Soils will be decontaminated as needed. Roads, parking areas, lay down areas, settling ponds, winter



road portages, and footprint of the air strip will be scarified to support revegetation following the removal of all culverts, power lines, pipelines, and other miscellaneous infrastructure. This infrastructure will be disposed of as part of the major infrastructure decommissioning and reclamation plan.

- The site will be revegetated in accordance with SMOE's Guidelines for Northern Mine Decommissioning and Reclamation through a combination of natural and active revegetation.
- Non-hazardous demolition waste will be disposed of in the on site landfill, hazardous waste will be hauled off site for disposal in licensed facilities.
- The TMFs will be decommissioned and reclaimed using a cover comprised of low PAG waste rock cover graded towards the closure spillway, located at the south end of the facilities. The dams are constructed of rockfill that is resistant to erosion and the current dam slopes will remain. Soil will not be placed on the dam slopes and the rockfill will be left exposed. A closure spillway will be constructed in bedrock at both TMFs and will accommodate the Probable Maximum Flood (PMF).
- Water treatment sludges at the mine are relatively small in volume. Following the decommissioning and reclamation of the water treatment plant, the sludges will be covered in place with a till cover or a combination of a liner, till, sand, or mine rock cover.
- No mine rock associated with the SGO is characterised as being potentially net acid generating, and therefore the closure objective is to ensure long-term physical stability of the piles. The largest single source of mine rock in a central location forms the foundation of the airstrip. All of this material will be used as the construction material for the tailings facility covers. A portion of the remaining mine rock will be used as cover material for the clean demolition debris and backfill material for the existing portals and mine openings, where appropriate. Any remaining mine rock not used as construction material in the decommissioning and reclamation activities, will be contoured to a 3:1 slope and allowed to naturally revegetate.
- In the event hydrocarbon contaminated material is identified, the material will be excavated and land farmed in a designated area. Liquid product produced from the land farm will be transferred into drums and sent offsite for disposal in a licenced facility or used in the waste oil burner.
- The current operating procedures for the landfill call for progressive reclamation. Following placement of refuse, it is covered with mine rock. At closure, slopes of the covered landfill will be contoured to a minimum of a 3:1 slope.
- The underground mine workings will be allowed to flood naturally following operations.
- The East Lake water treatment plants will remain operational throughout the decommissioning and reclamation activities until such time as further water treatment is not required. Following the need for water treatment, the plants will be dismantled and removed from site.
- The underground workings will be inspected and all hazardous wastes and dangerous goods will be transferred to the surface and ultimately off site for disposal at an approved facility. Following this recovery of assets and decontamination, the mines will be allowed to flood naturally.



- There are 12 vertical to sub-vertical vent raises and one shaft associated with the SGO. Each of these openings will also be fitted with an engineered concrete reinforced cap keyed into bedrock, in accordance with accepted industry practices. The sub-horizontal openings (five portals) will be backfilled with approximately 15 m of waste rock. The waste rock will be extended past the portal entrance and will be contoured to a slope of 3:1.
- A final evaluation of all crown pillars will be completed as part of the engineering of the final closure plan. Crown pillars determined to pose a higher risk of failure will be collapsed as part of the decommissioning process.

17.6 Safety

The management of safety and health at the SGO reflects the effective management of risk. The mine's safety and health strategy is two-fold: to ensure full compliance with the Saskatchewan Mine Act regulations; and to minimise residual risk in relation to regulatory compliance through a risk-centred safety and health management system.

SGO is committed to continuous improvement in all functions and especially in Safety, Health, and Environment. In 2022, SGO recorded a Total Recordable Injury Frequency Rate (TRIFR) of 17.92 per million work hours. SGO had set a target to reduce the TRIFR in 2023 by half. By November 2023, SGO was on target to meet this objective.

Mining-related hazards are inventoried and characterised in terms of their risk, i.e., development of a comprehensive risk registry. Controls, in the form of appropriate engineering and mine design, fixed and mobile equipment optimisation, work processes, training and competency verification, and others, are implemented in relation to risks with proportional emphasis on catastrophic risk. Special emphasis is given to risks such as geotechnical, mine design and operational risk.

In addition to the central risk management framework, the mine employs a wide variety of policies, processes and procedures that populate the safety and health management system including, but not limited to: safety committees, daily workplace audits, safety communication, proper use of protective equipment, job hazard analysis and standard operating equipment, contractor management, a focus on behaviour modification and human error, and incident investigation and root cause analysis, among others.

In instances where changes to risk management practices occur as a result of changes to mine equipment, practices, geotechnical information as well as other change criteria, the mine undertakes a change management review to ensure that those changes do not result in an increase in potential risk. Where change does result in additional risk, relevant control measures are modified.

While the SGO's approach to risk management is primarily focused on the prevention of incidents, and has substantially reduced safety incidents, the operation also maintains a properly staffed, trained, and provisioned mine rescue team that is prepared to address any foreseeable emergency that might occur underground or on surface. Dedication, and diligent preparation and training have resulted in provincial recognition for the mine's rescue team and system.

SGO's safety and health management system, like all effective management systems, undergoes review of continuous improvement involving performance metrics and other training and leading key performance indicators. However, SSR also recognises that the system is only as effective as the organisational culture and the degree to which the system is adopted by its



members as common practice. In 2023, SGO implemented the “Leadership in the Field” campaign, which promotes and encourages proactive hazard identification through conversations in the field. The program has since seen positive results in the reduction frequency of incidents, but more importantly, it encourages leaders to be in the field having safety focused conversations. Accordingly, there is also recognition that the behaviour of leaders at the mine has a substantial impact on the mine’s operational culture. As such, the mine emphasises culture assessment and enhancement through leadership development.

17.7 QP Opinion

Following a review of the information supplied, the opinion of the SLR QP is that significant environmental and social analysis has been conducted for the project over an extended period, the project has been in operation for a number of years, SSR employs professionals and other personnel with responsibility in these areas.



18.0 Capital and Operating Costs

18.1 Capital Costs

The estimated capital costs required to achieve the Mineral Reserve LOM are summarized in Table 18-1. The capital costs were estimated by SSR and reviewed by SLR. Since SGO is an operating mine, all capital costs are categorized as sustaining. Sustaining capital costs have been estimated by SSR on a three-year rolling forecast, and are based in their latest operating budget and actual costs. SLR has made reasonable allowances to estimate sustaining capital for the balance of the mine life. The operating costs are estimated to the equivalent of an Association for the Advancement of Cost Engineering (AACE) Class 1 estimate with an accuracy range of -10% to +15%, although it is noted that AACE does not typically apply to operating costs. The sustaining capital is estimated to an AACE Class 3 estimate with an accuracy range of -20% to +30%. The sustaining capital costs include:

- Mine capital development
- Diamond drilling exploration and capital within the mine
- Building and civil works such as mill improvements and TMF construction costs
- Mobile equipment such as new and replacement purchases and major rebuilds
- Replacement or refurbishment of major machinery or equipment components

Table 18-1: Capital Costs Estimate

Cost Component	Value (US\$ millions)
Capital Development	67.6
Diamond Drilling and Exploration	22.5
Building and Civil Work	9.4
Mobile Equipment	13.3
Machinery and Automation	13.1
Total Sustaining Capital Cost	125.8

18.2 Operating Costs

The operating costs were estimated based on the actual operating expenditures at the SGO through 2023. The costs were estimated by SSR and reviewed by SLR and include an evaluation of fixed and variable components.

The operating expenses estimated to validate the positive cash flow for the Mineral Reserve LOM are summarized in Table 18-2. The mining expense includes all labour, supplies, consumables, and equipment maintenance to complete mining related activities, less exploration diamond drilling and capital excavations and construction which are capitalized. The milling expense includes all labour, supplies, consumables to complete milling related processes and activities. The administrative expense includes all labour, supplies, consumables, and equipment maintenance to complete administrative, finance, human



resources, environmental, safety, supply chain, site services, camp and kitchen, and travel related activities.

As the project has been in operation for a number of years, the level of project definition for the operating cost estimates is very high. Given the available project performance data and the high level of project definition, no contingency was included in the operating cost estimate.

Table 18-2: Operating Costs Estimate

Cost Component	LOM Total (US\$ millions)	Average Annual ¹ (US\$ millions)	LOM Average (US\$/t milled)
Mining	130.3	31.6	63.86
Milling (incl. Fixed Plant)	66.3	16.1	32.25
G&A	117.4	27.6	57.11
Total Operating Cost	314.0	75.3	153.22

Notes:

1. For fully operational years (2024 – 2027)
2. Sum of individual values may not match total due to rounding.



19.0 Economic Analysis

The economic analysis contained in this TRS is based on the SGO Mineral Reserves, economic assumptions, and capital and operating costs provided by SSR corporate finance team and SGO finance and technical teams and reviewed by SLR. All costs are expressed in Q3 2023 US dollars. Unless otherwise indicated, all costs in this section are expressed without allowance for escalation, currency fluctuation, or interest. Costs quoted in Canadian dollars were converted to US dollars at an exchange rate of US\$1.00 = C\$1.33. The complete cash flow is presented in Appendix 1.

A summary of the key criteria is provided below.

19.1 Economic Criteria

19.1.1 Production Physicals

- Mine Life: 4.2 years (between 2024 and Q1-2028)
- Underground mining rate: Peak mining rate of 1,400 tonnes per day.
- LOM underground tonnes: 2,043 kt at 5.12 g/t of Au
- Stockpile feed to plant: 13 kt at 5.22 g/t of Au
- Total Ore Feed to Plant: 2,056 kt at 5.12 g/t of Au
- Contained Gold: 338,624 oz of Au
- Contained Silver: 8,804 oz of Ag (at an Ag/Au ratio of 2.6%)
- Recovered Gold: 326,696 oz
- Recovered Silver: 8,494 oz
- Average LOM Mill Recovery 96.4%

19.1.2 Revenue

- The metal prices and foreign exchange rate used in this report are based on analyst consensus prices as of November 2023, as defined in Table 19-1.

Table 19-1: Economic Analysis Gold Price and Exchange Rate Assumptions

Commodity	Unit	2024	2025	2026	2027	2028 and Long- Term
Gold	\$/oz	1,930	1,890	1,810	1,780	1,755
Silver	\$/oz	24.00	23.95	23.70	23.35	22.75
Exchange Rate	US\$/C\$	1.33	1.33	1.33	1.33	1.33

- Payable metals are estimated at 99.5% for gold and silver. These rates are based on actual SGO Budget figures.
- Transportation charges of US\$20,000 per month.



- Refining charges are estimated at US\$1.33/oz Au over the LOM based on actual SGO Budget.
- A private 3% NSR royalty on LOM revenues with Osisko Gold Royalties (Osisko).
- LOM NSR revenue is US\$602 million (after Logistic and Refining Charges) and the net revenue is US\$584 million after including payable royalties.

19.1.3 Capital and Operating Costs

- Sustaining capital costs for buildings and infrastructure, machinery, and mobile equipment total US\$35.8 million
- Underground capitalized development costs of US\$67.6 million
- Diamond drilling exploration and capital within the mine of US\$22.5 million
- Underground mining operating costs: US\$63.86/t ore mined
- Processing operating costs: US\$32.25/t ore milled
- G&A: US\$57.11/t ore milled
- Total unit operating costs US\$152.73/t ore milled
- LOM total operating costs: US\$314 million
- Annual bond premium for ARO total US\$923 thousand over the LOM
- Closure costs of US\$24 million are included in the analysis at the end of the LOM

19.1.4 Taxation and Royalties

- Federal and provincial income taxes were applied at a rate of 15% and 12%, respectively, after allowable depreciation deductions.
- The Saskatchewan mining royalty (mineral tax) is enacted under the Crown Mineral Royalty Regulations, pursuant to the Crown Minerals Act. For precious metals the royalty rate is 10% of net revenue after deducting production costs, transportation costs and refinery processing charges, and applicable depreciation deductions.
- SLR prepared the tax calculations and were reviewed and approved by SSR Finance and Tax teams.

19.2 Cash Flow Analysis

SLR prepared a LOM unlevered after-tax cash flow model to confirm the economics of the Property over the LOM (between 2024 and 2028). Economics have been evaluated using the discounted cash flow method by considering annual processed tonnages and gold and silver grades. The associated process recovery, metal prices, operating costs, refining and transportation charges, royalties, sustaining capital costs, and reclamation and closure costs were also considered.

The base discount rate assumed in this TRS is 5% as per SSR corporate guidance. Discounted present values of annual cash flows are summed to arrive at the Project's Base Case NPV.



To support the disclosure of Mineral Reserves, the economic analysis demonstrates that SGO's Mineral Reserves are economically viable at a LOM average gold price of US\$1,854/oz and silver price of US\$23.74/oz.

SGO's Base Case undiscounted pre-tax net cash flow is approximately \$119 million and the undiscounted after-tax net cash flow is approximately \$102.2 million.

SGO's Base Case pre-tax NPV at a 5% discount rate is approximately \$111.2 million and the SGO's Base Case after-tax NPV at a 5% discount rate is approximately \$94.9 million.

The World Gold Council Adjusted Operating Cost (AOC) after Silver by-product credits is US\$1,024/oz Au. The mine life sustaining capital cost is US\$464/oz Au, for an AISC after Silver by-product credits of US\$1,488/oz Au. The mine average annual gold production during the LOM is approximately 79,200 oz per year between 2024 and 2027 (full production years), silver production is 2,000 oz per year between 2024 and 2027.

The after-tax cash flow summary is presented in Table 19-2.



Table 19-2: After-Tax Cash Flow Summary

Description	Units	Value
LOM	Years	4.2
Realized Market Prices		
Au (\$/oz)	US\$/oz	1,854
Ag (\$/oz)	US\$/oz	23.74
Payable Metal		
Au (koz)	koz	325
Ag (koz)	koz	8
Total Gross Revenue	US\$ million	603
Mining Cost	US\$ million	(130)
Process Cost	US\$ million	(66)
G & A Cost	US\$ million	(117)
Refining/Freight	US\$ million	(1)
Mining Royalties	US\$ million	(18)
Total Operating Costs	US\$ million	(333)
Operating Margin (EBITDA)	US\$ million	270
Working Capital	US\$ million	0
Sustaining Capital	US\$ million	(126)
Total Closure/Reclamation Capital	US\$ million	(25)
Total Capital	US\$ million	(151)
Pre-tax Free Cash Flow	US\$ million	119
Pre-tax NPV @ 5%	US\$ million	111
SK Mineral Tax	US\$ million	(11)
Federal & Provincial Income Tax	US\$ million	(5)
After-tax Free Cash Flow	US\$ million	102
After-tax NPV @ 5%	US\$ million	95

Note: Sum of individual values may not match total due to rounding



19.3 Sensitivity Analysis

Project risks can be identified in both economic and non-economic terms. Key economic risks were examined by running cash flow sensitivities on after-tax NPV at a 5% discount rate. The following items were examined:

- Gold price
- Gold head grade
- Gold metallurgical recovery
- Operating costs
- Capital costs (sustaining and closure)

After-tax sensitivity over the base case has been calculated for -20% to +20% (for gold grade), -5% to +5% (for gold recovery), -20% to +20% (for gold price), and -10% to +15% (operating costs and capital costs) variations to determine the most sensitive parameter for SGO. The sensitivities are shown in Figure 19-1 and Table 19-3.

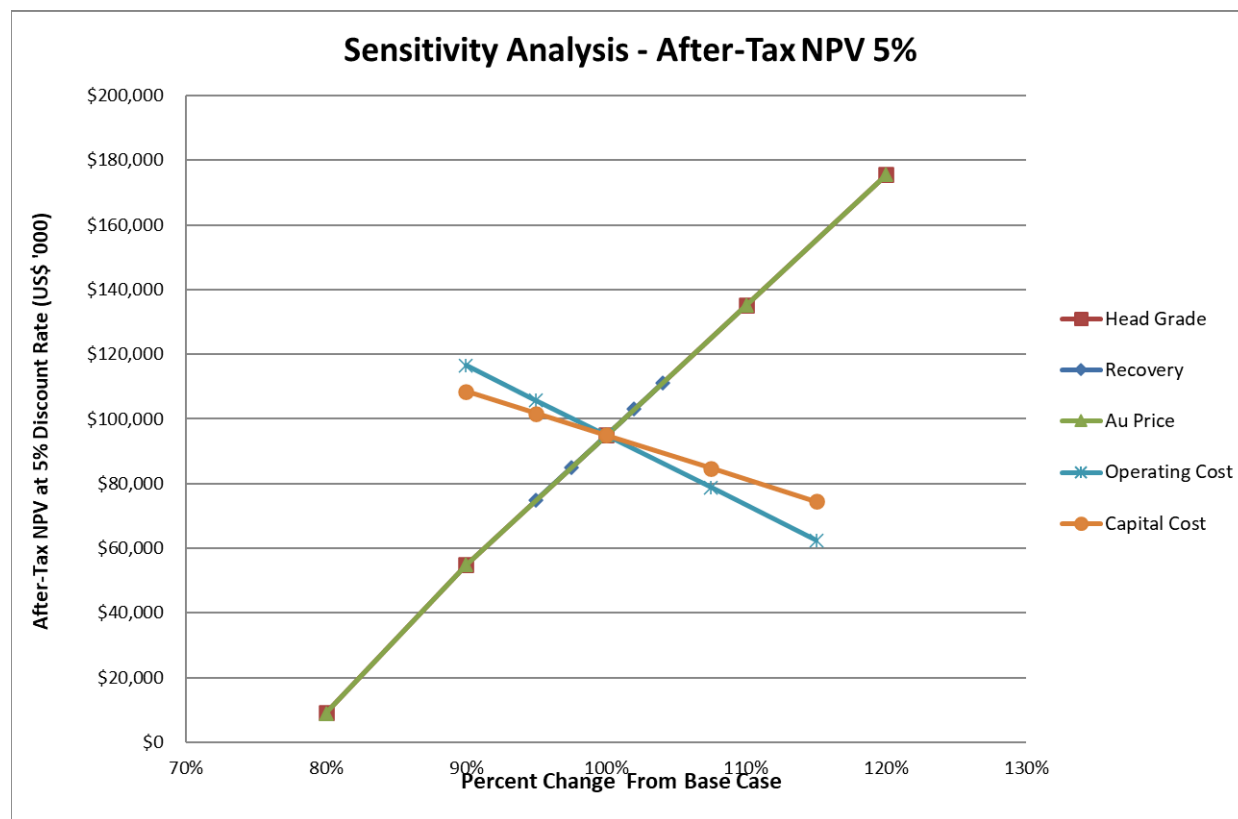


Table 19-3: After-Tax Sensitivity Analyses

Variance	Head Grade (g/t Au)	NPV at 10% (US\$000)
80%	4.10	9,065
90%	4.61	54,838
100%	5.12	94,942
110%	5.63	135,109
120%	6.15	175,480
Variance	Recovery (% Au)	NPV at 10% (US\$000)
95%	91.6%	74,898
98%	94.0%	84,920
100%	96.4%	94,942
102%	98.4%	102,960
104%	100.0%	111,229
Variance	Metal Prices (US\$/oz Au)	NPV at 10% (US\$000)
80%	1,484	8,988
90%	1,669	54,808
100%	1,854	94,942
110%	2,040	135,138
120%	2,225	175,538
Variance	Operating Costs (US\$/t)	NPV at 10% (US\$000)
90%	137.45	116,562
95%	145.09	105,752
100%	152.73	94,942
108%	164.18	78,727
115%	175.63	62,461
Variance	Capital Costs (US\$000)	NPV at 10% (US\$000)
90%	135,755	108,533
95%	143,297	101,738
100%	150,839	94,942
108%	162,152	84,750
115%	173,464	74,557



Figure 19-1: After-Tax Sensitivity Analysis



The sensitivity analysis shows that the after-tax NPV_{5%} at SGO is most sensitive to gold price, head grade, and metallurgical recovery, followed by operating costs and capital costs. A 10% reduction in gold price, represents a 42% decrease in the after-tax NPV 5% value.



20.0 Adjacent Properties

SGO is contiguous with claims held by various companies and individuals. SLR has not relied upon any information from the adjacent properties in the preparation of this report.



21.0 Other Relevant Data and Information

SSR is evaluating the Porky West deposit for eventual inclusion in the life of mine. At the time of issuing this report, SSR was conducting an initial assessment of the Porky West deposit. The SLR QP understands that the concept being put forward would involve Porky West being developed as a stand-alone mine, with mineralized material being sent to the Seabee mill for processing. The SLR QP has not had direct involvement with this assessment.

From an environmental permitting and approval perspective, the addition of the Porky West area would be a relatively simple addition to the current Provincial Approval to Operate (PO) and Preliminary Decommissioning and Reclamation Plan, as Porky West is part of the existing mining lease.

The development of the Porky West area would require the recommissioning of the existing water management ponds in order to manage the underground water, which would be settled and treated similar to the other underground mining areas.

The understanding is that in order to manage the additional tailings from Porky West, one or both of the existing TMFs may need to be expanded. If a new TMF in a different location were required, depending on the location, additional environmental permitting may be required, potentially including federal permits under MDMER and, if fish-bearing waters were to be affected, a Schedule 2 amendment under that regulation.

No additional information or explanation is necessary to make this TRS understandable and not misleading.



22.0 Interpretation and Conclusions

SLR offers the following conclusions by area.

22.1 Geology and Mineral Resources

- Mineral Resources at SGO are estimated for the Santoy Mine and the Porky West deposit. They have been updated with data collected since the last Mineral Resource estimate dated as of December 31, 2021 (SSR, 2022a).
- The procedures for sample preparation, security, and analysis adhere to industry standards for ensuring data quality and integrity. There are no factors associated with sampling or sample preparation that would significantly affect the accuracy or reliability of the samples or assay results. The results of the quality assurance and quality control (QA/QC) procedures demonstrate that the assay results fall within acceptable ranges of accuracy and precision, affirming the adequacy of the resulting database to underpin the estimation of Mineral Resources.
- No material sample bias was identified during the review of the drill data and assays. The data is adequate for the purposes of Mineral Resource estimation.
- All the main gold deposits at SGO are considered orogenic quartz-vein hosted lode gold deposits. The geology and characteristics of gold mineralization at the Santoy 8 and 9 and Porky West projects are well understood while the GHW-SHW Project requires more analysis to fully understand its complexity. Gold zones on the Santoy Mine are connected in terms of origin and location to the existence of the large granodioritic complex. The known mineralization extends around two kilometers along strike and reaches approximately one kilometre across strike and depth.
- There is good potential to increase the Mineral Resource base for the Santoy Mine underground deposits at depth, and additional exploration and development is warranted.
- There is good potential to increase the Mineral Resource base at Porky West at depth and along strike, and additional exploration is warranted. SLR understands that an exploration plan is in place to increase the Mineral Resource footprint as well as continue infill drilling.
- The resource cut-off grade and underground reporting shapes used to identify those portions of the Mineral Resource estimation that meet the requirement of reasonable prospects for economic extraction and are considered to be appropriate for this style of gold deposit and mineralization.
- Measured Mineral Resources at the SGO are estimated to total 0.9 million tonnes (Mt) at a grade of 5.5 g/t Au and contain 16,300 ounces of gold (oz Au). Indicated Mineral Resources are estimated to total 1.47 Mt at a grade of 4.3 g/t Au and contain 202,000 oz Au. In addition, Inferred Mineral Resources are estimated to total 2.75 Mt at a grade of 5.2 g/t Au and contain 462,500 oz Au.



22.2 Mining and Mineral Reserves

- Mineral Reserve estimates, as prepared by SSR and reviewed and accepted by SLR, have been classified in accordance with definitions for Mineral Reserves in S-K 1300. Mineral Reserves as of December 31, 2023 total 2.1 Mt, grading 5.17 g/t Au and containing 343,000 oz Au.
- Mineral Reserves are estimated by qualified professionals using modern mine planning software in a manner consistent with industry practice.
- Measured and Indicated Mineral Resources were converted to Proven and Probable Mineral Reserves, respectively, through the application of modifying factors. Inferred Mineral Resources were not converted to Mineral Reserves.
- Santoy is a mature underground mine with years of operating experience and well established procedures.
- The estimated Mineral Reserves support a life of mine (LOM) plan that extends 4.2 years to 2028 at a maximum production rate of 511,000 tonnes per annum (tpa) (1,400 tonnes per day (tpd)) in 2026 and 2027, corresponding to the processing capacity.
- The planned increase in production rate from 2026 onwards will require robust short-term planning and sequencing. Future reserve conversion would allow the number of active mining areas to be maintained or expanded, and would facilitate the increase in production..
- Production mining uses a combination of longitudinal and transverse open stoping depending on the width of the orebody. Over the LOM, 55% of the production tonnes are planned using a transverse stope arrangement with the remainder mined longitudinally.
- An extraction factor of 89% is applied to both production stopes and ore development designs, and linear overbreak dilution of 0.7 m is applied to production designs. These factors are established and checked through the stope reconciliation process.
- At Santoy Mine, most mining to date has been in the Santoy 8 and Santoy 9 principal deposits. Over the remaining LOM, the proportion of ore mined in the GHW and SHW is expected to increase. In these hanging wall areas, the orebody is generally wider and at a shallower dip, and thus transverse stopes constitute a higher proportion of the mine plan. There is limited operating experience in these areas and SLR is of the opinion that meeting production targets will require ongoing efforts to optimize mine plans and stope designs in order to maximize extraction and minimize dilution.
- Mining, processing, and general and administrative (G&A) costs used for cut-off grade calculation are lower than recent actuals due to incorporating planned cost savings initiatives. Of the three components, the mining cost is most impacted by these savings. SLR is of the opinion that achieving the operating costs savings may be challenging while maintaining production targets, however, acknowledges that SGO has a plan in place.



22.3 Mineral Processing

- The SGO processing plant uses conventional crush, grind, gravity concentration, and cyanide leaching, followed by carbon adsorption, elution, electrowinning, and refining to recover gold and produce doré bars.
- The processing plant has been expanded and de-bottlenecked since initially entering operating in 1991 and is now capable of processing approximately 1,200 tpd of ore.
- Gold head grades, historically ranging from approximately 6 g/t to 15 g/t, and recently reaching almost 20 g/t at times during 2021 and 2022, have decreased to an average of approximately 6 g/t, ranging from approximately 4 g/t to 8 g/t since mid 2022.
- Historically high recoveries of 97% to 99% have subsequently also decreased slightly to between 96% and 98%.

22.4 Infrastructure

- SGO is a remote operation in northern Saskatchewan and is accessible by winter road and by air.
- The majority of annual supplies are transported to site via the 60 km winter road, which begins at Highway 102 near the community of Brabant Lake, Saskatchewan, and includes 12 portages and 11 lakes. The road is typically usable throughout the months of February and March, and until mid-April depending on ice quality. A 1,275 m airstrip is also located on the Property.
- A camp with a capacity of 251 people is located adjacent to the processing plant and other major surface infrastructure.
- A 14 km haul road connects the Santoy Mine to the processing plant site.
- Two tailings management facilities (TMF) with sufficient capacity until approximately 2030 (at the current processing rate) are used for tailings impoundment. Most of the water used in the process is reclaimed from the TMFs. Fresh make-up water as well as domestic and fire water is obtained from Laonil Lake near the camp and plant.
- The operation is connected to the Saskatchewan power grid via an approximately 15 km long transmission line connected to the 138 kV Island Falls transmission line.

22.5 Environment

- No known environmental issues were identified from the documentation review and site visit. SGO appears to have all pertinent permit and approvals at hand. Proper provisions have been made for safe disposal of tailings and water management.
- There is a comprehensive Environmental Management System in place, which includes a comprehensive monitoring program for effluent discharges, air quality, surface water quality, groundwater quality, terrestrial biology (vegetation and wildlife) and aquatic biology. SGO reports the results of the monitoring program to the authorities according to the frequency stated in the approved permits and no compliance issues have identified.
- A Mine Closure Plan has been developed that considers all pertinent provincial legislation. The Mine Closure Plan is updated periodically.



22.6 Capital and Operating Costs and Economics

- The economic analysis demonstrates that SGO's Mineral Reserves are economically viable at a LOM average realized gold price of US\$1,854/oz of Au and silver price of US\$23.74/oz of Ag. SGO's Base Case pre-tax net present value (NPV) at a 5% discount rate is approximately US\$111.2 million and SGO's Base Case after-tax NPV at a 5% discount rate is approximately US\$94.9 million.
- The operating costs used for calculating cut-off grade are 18% lower than the LOM average. SLR checked the impact that higher operating costs would have on cut-off grade and Mineral Reserves and is of the opinion that the impact is not material.



23.0 Recommendations

23.1 Geology and Mineral Resources

- 1 Complete an infill drilling program to upgrade Inferred Mineral Resources within the GHW-SHW LOM plan to at least a classification of Indicated. A total of 41,000 m of underground drilling is planned for 2024, with a proposed budget of US\$ 2.3 million.
- 2 Increase the collection of density measurements at all deposits to obtain a better understanding of the behaviour of density across lithologies and mineralized domains.
- 3 While the data collection, management, and verification procedures at site are considered to be adequate for this report, the development of standard protocols and actions with respect to drilling, drill hole sampling, channel sampling, QA/QC, and drill hole database management will improve the overall project integrity. Detailed recommendations are provided in each section.
- 4 Migrate from a MS Access database to an industry standard database management system.
- 5 Continue exploration drilling at Porky West to prove additional resources at depth and along strike and begin infill drilling to upgrade Inferred Mineral Resources. A total of 46,000 m of surface drilling is planned for 2024, with a proposed budget of US\$ 5.36 million.

23.2 Mining and Mineral Reserves

- 1 It is recommended that the stope strike length and stope optimizer post-processing parameters be re-evaluated during subsequent Mineral Reserve updates to ensure mineable shapes are generated in both longitudinal and transverse mining areas.
- 2 As more mining experience is gained in the GHW and SHW areas, re-evaluate the suitability of the dilution and extraction values currently based on the Santoy 8 and 9 stope performance.
- 3 The appropriateness of the stated cut-off grade is dependent on the realization of operating cost savings compared to recent years. Evaluate cut-off grades periodically as operating costs change.
- 4 Routinely reconcile the mine production numbers to the Resource model (F1 Factor), and milled production to Resource model (F3 factor), to measure the accuracy of the Resource and Reserve block model. SLR understands that new Resource block models and grade control models have recently been developed and implemented and recommends that a robust reconciliation process be put in place to allow for further model refinement.
- 5 Some stopes in the GHW and SHW areas are designed using a transverse arrangement though the mining width is narrower than the stated longitudinal/transverse demarcation measurement. Re-evaluate stope arrangements as more geological information and operating experience is gained in these areas.
- 6 Consider using cemented rockfill (CRF) rather than uncemented rockfill (URF) where stopes are planned adjacent to backfill, particularly in transverse stoping areas.



23.3 Mineral Processing

- 1 SGO has an on-going program of modernization and optimization underway aimed at optimizing processing and increasing throughput. Currently, metallurgical recovery and mine-to-mill reconciliation is based on monthly gold production, inventory changes within the process plant, and tails grades and is compared to leach feed grades determined from manual sampling. Manual sampling of crushed ore is also carried out, however, due to the presence of significant amounts of coarse gold in the ore, this sample is considered unreliable and is not used for metallurgical accounting. SLR recommends that frequent automatic sampling (and sample splitting) of crushed ore feeding the grinding circuit be included in this program of improvements to facilitate better mine-to-mill reconciliation and validation of gold recovery.

23.4 Infrastructure

- 1 Assess all infrastructure requirements necessary not only for the existing life of mine, but also for the potential for additional deposits being developed.

23.5 Environment

- 1 Continue to adhere to robust environmental and social standards.



24.0 References

- AACE International, 2012, Cost Estimate Classification System – As applied in the Mining and Mineral Processing Industries, AACE International Recommended Practice No. 47R-11, 17 p.
- Ash, C., and Alldrick, D., 1996. Au-quartz Veins; in Lefebure, D.V. and Höy, T. (eds.) Selected British Columbia Mineral Deposit Profiles Volume 2 – Metallic Deposits, British Columbia Ministry of Employment and Investment, Open File 1996-13, pp. 57–58.
- Beak Associates Consulting Ltd., 1990. Seabee Project: Environmental Impact Statement. Prepared for Claude Resources Inc.
- Bell, K., and Macdonald, R., 1982. Geochronological Calibration of the Precambrian Shield in Saskatchewan; in Summary of Investigations. Saskatchewan Geological Survey, Saskatchewan Energy and mines Miscellaneous Report 82-4, pp. 17–22.
- Bickford, M.E., Collerson, K.D., Lewry, J.F., Van Schmus, W.R., and Chiarenzelli, J.R., 1990. Proterozoic Collisional Tectonism in the Trans-Hudson Orogen, Saskatchewan; *Geology*, v. 18, pp. 17–22.
- CanNorth Environmental Services, 2016a. Silver Standard Resources Inc. Seabee Gold Operations Tailings Management Facility Expansion and Rock Quarry Heritage Resources Impact Assessment.
- CanNorth Environmental Services, 2016b. Vegetation Inventory Studies for the Silver Standard Seabee Gold Operations' Triangle Lake Tailings Management Facility Expansion.
- Chauvel, C., Arndt, N.T., Kielinczuk, S., and Thom, A., 1987. Formation of Canadian 1.9 Gold Continental Crust. I: Nd Isotopic Data; *Canadian Journal of Earth Science*, v. 24, pp. 14–18.
- Chiarenzelli, J.R., Lewry, J.F., and Landon, M., 1987. Bedrock Geology, Iskwatikan Lake Area: Evidence for Hudsonian Juxtaposition of Proterozoic and Archean Rocks along a Ductile Detachment Surface; In Summary of Investigations 1987, Saskatchewan Geological Survey, Saskatchewan Energy and Mines, Miscellaneous Report 87-4, pp. 46–51.
- Corrigan, D., Galley, A.G., Pehrsson, S., 2007. Tectonic evolution and metallogeny of the southwestern Trans-Hudson Orogen; in Goodfellow, W.D. (ed.), *Mineral Deposits of Canada: A Synthesis of Major Deposit-Types, District Metallogeny, the Evolution of Geological Provinces, and Exploration Methods*; Geological Association of Canada, Mineral Deposit Division, Special Publication No. 5, pp. 881–902.
- Claude Resources Inc., 2013. Mineral Resource and Mineral Reserve Estimate Seabee Gold Operation Saskatchewan, Canada; 2012 Year End NI 43-101 Technical Report.
- Craig, L., 1989. Geology of the Pelican Narrows Area of East Central Saskatchewan; Unpublished Ph.D. thesis, University of Saskatchewan.
- Delaney, G.D., 1992. Gold in the Glennie Domain; Saskatchewan Energy and Mines, Miscellaneous report 92-5, 71 pp.
- Goldak Airborne Surveys., 2007. Technical Report on a Fixed Wing Gradiometer Survey, Seabee Block Central Saskatchewan; Internal report prepared for Claude Resources Inc.



- Golder Associates Ltd., 2009. Environmental Impact Statement for the Proposed Santoy 8 Satellite Mine at Seabee Gold Mine, Saskatchewan.
- Herget, G., 1988. Stresses in rock. Rotterdam: Balkema.
- KHS Environmental Management Group Ltd., 2001. Seabee Mine Tailings Management Facility Expansion Environmental Impact Statement.
- KHS Environmental Management Group Ltd, 2001. Seabee Mine, Tailings Management Facility Expansion – EIS SGO-1700, December 2001.
- Konst, R., 2016a. Project Clydesdale Analytical Precision. Internal report prepared for Silver Standard Resources Inc.
- Konst, R. 2016b. Project Clydesdale Screen Fire Assays. Internal report prepared for Silver Standard Resources Inc.
- Konst, R., 2016c. Seabee Mine Site Drilling and Assay Audit; Internal report prepared for Silver Standard Resources Inc.
- Konst, R., 2016d. Seabee Exploration Program 2016 Sampling, Preparation, and Analytical Quality Assurance. Internal report prepared for Silver Standard Resources Inc.
- Konst, R., 2017. Seabee Mine Analytical Precision; Internal report prepared for Silver Standard Resources Inc.
- Lewry, J.F., and Sibbald, T.I.I., 1977. Variation in Lithology and Tectonometamorphic Relationships in the Precambrian Basement of Northern Saskatchewan; Canadian Journal of Earth Sciences, v. 14, pp. 1453–1467.
- Lewry, J.F., Thomas, D.J., Macdonald, R., and Chiarenzelli, J., 1990. Structural relations in accreted terranes of the Trans-Hudson Orogen, Saskatchewan: telescoping in a collisional regime?; in Lewry, J.F. and Stauffer, M.R. (eds.), The Early Proterozoic Trans-Hudson Orogen of North America, Geological Association of Canada, Special Paper 37, pp. 75–94.
- Macdonald, R., 1987. Update on the Precambrian Geology and Domainal Classification of Northern Saskatchewan; in Summary of Investigations. Saskatchewan Geological Survey, Saskatchewan Energy and Mines, Miscellaneous Report 87-4, pp. 87–104.
- Ministry of Environment, 2020. Acceptance of Decommissioning and Reclamation Plan and Update to Financial Assurance, Letter from Government of Saskatchewan Ministry of Environment, 2 July 2020.
- NewFields, 2019. Independent Technical Review Seabee Mine – Triangle Lake TMF Expansion, Northern Saskatchewan No. 680.0002.000, January 2019.
- North Rock Mining Solutions, 2018. Santoy Mine – 2018 Ramp Inspection and Related Mining Geotechnics, November 2018.
- North Rock Mining Solutions, 2020. Q4 Mining-Geotechnical Site Visit Summary Notes, September 2020.
- OreWin Pty Ltd. (OreWin), 2022. Seabee 2021 Technical Report Summary. Prepared for SSR Mining Inc. September 29, 2022.
- Pakalnis & Associates, 2017. Report on site visit – Santoy mine, Seabee gold operation silver standard SGM-01/17, June 2017.



- Precision GeoSurveys Inc., 2016. Airborne Geophysical Survey Report, Seabee Block; Internal report prepared for Silver Standard Resources Inc.
- Quantec Geoscience Ltd., 2013. Titan-24 DC/IP and MT Survey Geophysical Report (Santoy Gap), Seabee Gold Project, La Ronge, Saskatchewan, Canada; Internal report prepared for Claude Resources Inc.
- Silver Standard Resources Inc., 2017a. Silver Standard Seabee Gold Operations 2017 Life of Mine Plan.
- Silver Standard Resources Inc., 2017b. Silver Standard Annual Information Form.
- SGO Mining Inc., 2021. Seabee Gold Operation, Ground Control Analysis – GHW Mining GCA-20200225, June 2021.
- [SMOE] Saskatchewan Ministry of Environment, 2003. Amisk-Atik Integrated Forest Land Use Plan.
- [SMOE] Saskatchewan Ministry of Environment, 2008. Guidelines for northern mine decommissioning and reclamation, version 6. Saskatchewan Ministry of Environment, Industrial, Uranium and Hardrock Mining Unit, EPB 381.
- [SMOE] Saskatchewan Ministry of Environment, 2010. Seabee Surface Lease Agreement.
- [SMOE] Saskatchewan Ministry of Environment, 2016. Approval to Operate a Pollutant Control Facilities Approval No. PO16-002.
- SRK Consulting (Canada) Inc., 2009. Structural Interpretation of Aeromagnetic Data. Seabee Gold Project Saskatchewan, Canada. Internal report prepared for Claude Resources Inc.
- SRK Consulting (Canada) Inc., 2016. Annual Geotechnical, Inspection of Tailings Facilities and Water Management Ponds ICC042.013, March 2017.
- SRK Consulting (Canada) Inc., 2016a. Seabee Mine Quarry Rock ML/ARD Assessment.
- SRK Consulting (Canada) Inc. 2016b. Seabee Mine Tailings Alternatives Assessment. Claude Resources Inc.
- SRK Consulting (Canada) Inc., 2017. Seabee Mine, Tailings Alternatives Assessment (Draft) ICC042.006, March 2016.
- SRK Consulting (Canada) Inc., 2017a. NI 43-101 Technical Report for the Seabee Gold Operation, Saskatchewan, Canada, 5CS010.001, October 2017. (SGOTR17)
- SRK Consulting (Canada) Inc., 2017b. Seabee Gold Operation Preliminary Decommissioning and Reclamation Plan, 2016 Update – Final.
- SRK Consulting (Canada) Inc., 2018. Triangle Lake TMF Expansion Detailed Design ICC042.025, July 2018.
- SRK Consulting (Canada) Inc., 2018 Annual Geotechnical Inspection of Tailings Facilities and Water Management Ponds ICC042.025, July 2018.
- SRK Consulting (Canada) Inc., 2018. Triangle Lake and East Lake Tailings Management Facilities – Dam Breach Analysis – DRAFT ICC042.029.500, August 2019.
- SRK Consulting (Canada) Inc., 2019. Triangle Lake and East Lake Tailings Management Facilities – Dam Breach Analysis – DRAFT ICC042.029.500, August 2019.



- SRK Consulting (Canada) Inc., 2020. Seabee Tailings Operation, Maintenance and Surveillance (OSM) Manual.
- SSR Mining Inc. (SSR), 2021. Seabee Gold Operation, Standards and Guidelines - Ground Control SGO-1700, May 2021.
- SSR, 2021. Seabee Gold Operation, Preliminary Decommissioning & Reclamation Plan Update
- SSR, Seabee Gold Operation, Environmental Performance Report 2016 – 2020
- SSR, 2022a, Seabee 2021 Technical Report Summary, Job No 21014, September 2022
- SSR, 2022b. Form 10-K – Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, December 2022.
- SSR, 2023. Operations-Exploration-Amisk,
<https://www.ssrmining.com/operations/exploration/amisk/> (accessed November 28, 2023).
- Stantec Mining, 2015. Geomechanical Overview of Stope and Pillar Stability for the Santoy Gap Orebody Project no. 169514558, March 2015.
- Stauffer, M.R., 1984. Manikewan: and early Proterozoic ocean in central Canada, its igneous history and orogenic closure; *Precambrian Research*, v. 25, pp. 257–281.
- The Mines Regulations, 2003. Chapter 0-1.1 Reg 2 (effective July 16, 2003).
- US Securities and Exchange Commission. 2018. Regulation S-K, Subpart 229.1300, Item 1300 Disclosure by Registrants Engaged in Mining Operations and Item 601 (b)(96) Technical Report Summary.
- White, D.J., Lucas, S.D., Hajnal, A., Green, A.G., Lewry, J.F., Weber, W., Bales, A.H., Syme, E.C., and Ashton, K., 1994. Paleo-Proterozoic Thick-Skinned Tectonics: Lithoprobe Seismic Reflection Results from the Eastern Trans-Hudson Orogen; *Canadian Journal of Earth Sciences*, v. 31, pp. 458–469.
- Wood, C.R., 2016. Structural study of the auriferous Santoy shear zone, northeastern Glennie domain, Saskatchewan; Unpublished masters thesis, University of Regina, Regina, Saskatchewan.



25.0 Reliance on Information Provided by the Registrant

This TRS has been prepared by SLR for SSR. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to SLR at the time of preparation of this TRS.
- Assumptions, conditions, and qualifications as set forth in this TRS.
- Data, reports, and other information supplied by SSR and other third party sources.

For the purpose of this TRS, SLR has exclusively relied on ownership information provided by SSR in a document dated January 3, 2024, entitled Seabee Land Tenure Status Report. SLR has not researched property title or mineral rights for SGO as we consider it reasonable to rely on SSR and their legal counsel who is responsible for maintaining this information.

SLR has exclusively relied on SSR for guidance on applicable taxes, royalties, and other government levies or interests, applicable to revenue or income from SGO in the Executive Summary and Section 19.

The Qualified Persons have taken all appropriate steps, in their professional opinion, to ensure that the above information from SSR is sound. Apart from mineral tenure information and the application of taxes and royalties, the SLR QPs take responsibility for all other information in this report.

Except as provided by applicable laws, any use of this TRS by any third party is at that party's sole risk.



26.0 Date and Signature Page

This report titled “Technical Report Summary on the Seabee Gold Operation, Saskatchewan, Canada” with an effective date of December 31, 2023 was prepared and signed by:

(Signed) *SLR International Corporation*

Dated at Lakewood, CO
February 12, 2024

SLR International Corporation

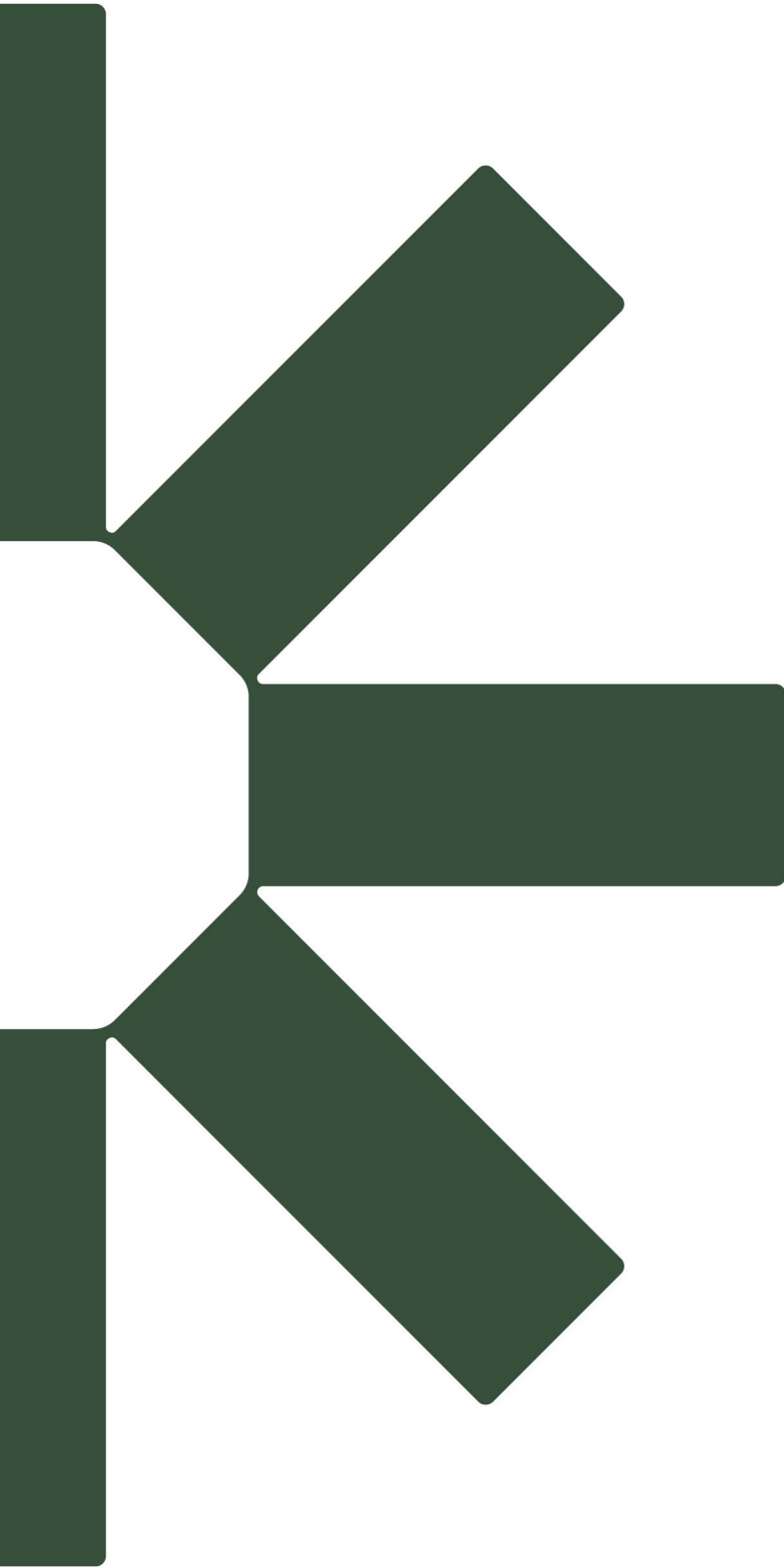


27.0 Appendix 1 Cash Flow Summary



Economic Model Annual Summary													
		Company	SSR Mining										
		Project Name	Seabee Gold Operation										
		Scenario Name	Seabee \$1,600 Au Reserve Price										
		Analysis Type	S-K 1300 TRS Update										
Calendar Year				2024	2025	2026	2027	2028	2029	2030	2031	2032 to 2042	
Project Timeline in Years				1	2	3	4	5	6	7	8	9 to 19	
Time Until Closure In Years			US\$ & Metric Units	LoM Avg / Total	5	4	3	2	1	-1	-2	-3	-4 to -14
Market Prices													
Gold, Forecast		US\$/oz	\$1,850	\$1,930	\$1,890	\$1,810	\$1,780	\$1,755	\$1,755	\$1,755	\$1,755	\$1,755	
Silver, Forecast		US\$/oz	\$24.00	\$24.00	\$23.95	\$23.70	\$23.35	\$22.75	\$22.75	\$22.75	\$22.75	\$22.75	
Physicals													
Total Ore Mined		kt	2,043	476	493	511	511	52	-	-	-	-	
Total Waste Mined		kt	-	-	-	-	-	-	-	-	-	-	
Total Material Mined		kt	2,043	476	493	511	511	52	-	-	-	-	
Stripping Ratio		W:O	-	-	-	-	-	-	-	-	-	-	
Total Ore Rehandled		kt	13	-	0.00	0.00	-	13	-	-	-	-	
Total Material Moved		kt	2,056	476	493	511	511	65	-	-	-	-	
Total Ore Processed		kt	2,056	476	493	511	511	65	-	-	-	-	
Gold Grade, Stacked		g/t	5.12	5.76	5.70	4.48	4.75	4.08	-	-	-	-	
Contained Gold, Stacked		koz	339	88.1	90.3	73.6	78.1	8.6	-	-	-	-	
Average Recovery, Gold		%	96.5%	96.8%	96.8%	96.1%	96.2%	95.2%	--	--	--	--	
Recovered Gold, Stacked		koz	327	85.3	87.3	70.7	75.2	8.2	-	-	-	-	
Produced Gold, Total		koz	327	85.3	87.3	70.7	75.2	8.2	-	-	-	-	
Produced Silver, Total		koz	8	2.2	2.3	1.8	2.0	0.2	-	-	-	-	
Payable Gold, Total		koz	325	84.8	86.9	70.4	74.8	8.1	-	-	-	-	
Payable Silver, Total		koz	8	2.21	2.26	1.83	1.95	0.2	-	-	-	-	
Cash Flow													
Gold Gross Revenue		99.97% \$000s	602,804	163,754	164,233	127,389	133,160	14,269	-	-	-	-	
Silver Gross Revenue		0.03% \$000s	201	53	54	43	45	5	-	-	-	-	
Gross Revenue Before By-Product Credits		100.0% \$000s	603,005	163,807	164,287	127,432	133,205	14,274	-	-	-	-	
Gold Gross Revenue		\$000s	602,804	163,754	164,233	127,389	133,160	14,269	-	-	-	-	
Silver Gross Revenue		\$000s	-	-	-	-	-	-	-	-	-	-	
Gross Revenue After By-Product Credits		\$000s	602,804	163,754	164,233	127,389	133,160	14,269	-	-	-	-	
Mining Cost		\$000s	(130,275)	(30,494)	(35,048)	(29,123)	(31,652)	(3,959)	-	-	-	-	
Process Cost		\$000s	(66,315)	(18,277)	(16,642)	(15,274)	(14,273)	(1,848)	-	-	-	-	
G&A Cost		\$000s	(117,418)	(30,197)	(28,288)	(25,956)	(25,956)	(7,021)	-	-	-	-	
Refining and Freight Cost		\$000s	(1,434)	(353)	(356)	(334)	(340)	(50)	-	-	-	-	
NSR Royalty		\$000s	(17,696)	(4,808)	(4,822)	(3,739)	(3,908)	(418)	-	-	-	-	
Subtotal Cash Costs Before By-Product Credits		\$000s	(333,138)	(84,129)	(85,157)	(74,425)	(76,129)	(13,297)	-	-	-	-	
By-Product Credits		\$000s	201	53	54	43	45	5	-	-	-	-	
Total Cash Costs After By-Product Credits		\$000s	(332,937)	(84,076)	(85,102)	(74,382)	(76,084)	(13,292)	-	-	-	-	
Operating Margin		45% \$000s	269,867	79,678	79,130	53,007	57,076	977	-	-	-	-	
EBITDA		\$000s	269,867	79,678	79,130	53,007	57,076	977	-	-	-	-	
Depreciation Allowance		\$000s	(172,753)	(39,980)	(39,748)	(36,847)	(24,042)	(13,190)	(7,731)	(4,550)	(2,689)	(3,976)	
Earnings Before Taxes		\$000s	97,114	39,698	39,383	16,160	33,034	(12,213)	(7,731)	(4,550)	(2,689)	(3,976)	
SK Mineral Tax		\$000s	(11,481)	-	(3,274)	(2,879)	(5,188)	(140)	-	-	-	-	
Federal & Provincial Income Tax		\$000s	(5,313)	(6,223)	(5,254)	910	(3,023)	4,459	3,818	-	-	-	
Net Income		\$000s	80,320	33,475	30,855	14,191	24,823	(7,894)	(3,914)	(4,550)	(2,689)	(3,976)	
Non-Cash Add Back - Depreciation		\$000s	172,753	39,980	39,748	36,847	24,042	13,190	7,731	4,550	2,689	3,976	
Working Capital		\$000s	0	(5,145)	(1,490)	269	(576)	1,960	4,982	-	-	-	
Operating Cash Flow		\$000s	253,073	68,310	69,112	51,306	48,288	7,257	8,799	-	-	-	
Sustaining Capital		\$000s	(125,847)	(49,433)	(39,357)	(27,957)	(9,101)	-	-	-	-	-	
Closure/Reclamation Costs		\$000s	(24,982)	(185)	(185)	(185)	(185)	(185)	(486)	(9,856)	(11,079)	(2,649)	
Total Capital		\$000s	(150,839)	(49,617)	(39,541)	(28,141)	(9,285)	(185)	(486)	(9,856)	(11,079)	(2,649)	
Cash Flow Adj./Reimbursements		\$000s	-	-	-	-	-	-	-	-	-	-	
LoM Metrics													
Economic Metrics													
Discount Rate		MidPoint 5%		0.976	0.929	0.885	0.843	0.803	0.765	0.728	0.694	0.507	
a) Pre-Tax													
Free Cash Flow		\$000s	119,029	24,916	38,099	25,135	47,214	2,753	4,496	(9,856)	(11,079)	(2,649)	
Cumulative Free Cash Flow		\$000s		24,916	63,015	88,150	135,364	138,116	142,612	132,756	121,677	119,029	
NPV @ 5%		\$000s	111,220	24,315	35,410	22,248	39,802	2,210	3,438	(7,178)	(7,684)	(1,343)	
Cumulative NPV @ 5%		\$000s		24,315	59,726	81,974	121,777	123,987	127,424	120,247	112,563	111,220	
b) After-Tax													
Free Cash Flow		\$000s	102,234	18,693	29,571	23,165	39,003	7,072	8,313	(9,856)	(11,079)	(2,649)	
Cumulative Free Cash Flow		\$000s		18,693	48,264	71,429	110,432	117,505	125,818	115,962	104,883	102,234	
NPV @ 5%		\$000s	94,942	18,242	27,484	20,505	32,880	5,678	6,357	(7,178)	(7,684)	(1,343)	
Cumulative NPV @ 5%		\$000s		18,242	45,727	66,232	99,112	104,790	111,147	103,969	96,286	94,942	
Operating Metrics													
Mine Life		Years	4.2										
Average Daily Mining Rate		t/d moved	1,360	1,300	1,350	1,400	1,400	867	-	-	-	-	
Average Daily Processing Rate		t/d processed	1,310	1,300	1,350	1,400	1,400	1,091	-	-	-	-	
Mining Cost		\$ / t moved	\$63.36	64.09	71.13	56.99	61.94	60.47	-	-	-	-	
Processing Cost		t/d processed	\$32.25	38.41	33.77	29.89	27.93	28.23	-	-	-	-	
G&A Cost		t/d processed	\$57.11	63.47	57.41	50.79	50.79	107.24	-	-	-	-	
Subtotal Direct Operating Costs		t/d processed	\$152.73	165.97	162.31	137.68	140.67	195.94	-	-	-	-	
Refining and Freight Cost		t/d processed	\$0.70	0.74	0.72	0.65	0.67	0.77	-	-	-	-	
NSR Royalty		t/d processed	\$8.61	10.11	9.79	7.32	7.65	6.39	-	-	-	-	
Total Operating Cost		t/d processed	\$162.03	176.82	172.82	145.65	148.98	203.10	-	-	-	-	
Sales Metrics													
Au Sales		koz	325										
Total Cash Cost		\$ / oz Au	1,024										
Total AISC		\$ / oz Au	1,488										
Avg. LOM Annual Au Sales (incl. rinsing phase)		koz/yr	79.2										





Making Sustainability Happen