Technical Report Summary on the Marigold Complex, Nevada, USA

S-K 1300 Report

SSR Mining Inc.

SLR Project No.: 138.21581.00002

Effective Date:

September 30, 2023

Signature Date:

February 12, 2024

Prepared by:

SLR International Corporation

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Cautionary Note Regarding Forward-Looking Statements:

Certain statements contained in this report are "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and are intended to be covered by the safe harbor provided for under these sections. Forward looking statements can be identified with words such as “may,” “will,” “could,” “should,” “expect,” “plan,” “anticipate,” “believe,” “intend,” “estimate,” “projects,” “predict,” “potential,” “continue” and similar expressions, as well as statements written in the future tense. Forward-looking statements are based on information known at such time and/or with a good faith belief with respect to future events. Such statements are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in the forward-looking statements. Many of these risks and uncertainties cannot be controlled or predicted. Given these risks and uncertainties, readers are cautioned not to place undue reliance on forward-looking statements. Forward-looking statements include, among things: metal price assumptions, cash flow forecasts, projected capital and operating costs, metal recoveries, mine life and production rates, and other assumptions used in this report.

Such forward-looking information and statements are based on a number of material factors and assumptions, including, but not limited to: the inherent speculative nature of exploration results; the ability to explore; communications with local stakeholders; maintaining community and governmental relations; status of negotiations of joint ventures; weather conditions at our operations; commodity prices; the ultimate determination of and realization of Mineral Reserves; existence or realization of Mineral Resources; the development approach; availability and receipt of required approvals, titles, licenses and permits; sufficient working capital to develop and operate the mines and implement development plans; access to adequate services and supplies; foreign currency exchange rates; interest rates; access to capital markets and associated cost of funds; availability of a qualified work force; ability to negotiate, finalize, and execute relevant agreements; lack of social opposition to our mines or facilities; lack of legal challenges with respect to our properties; the timing and amount of future production; the ability to meet production, cost, and capital expenditure targets; timing and ability to produce studies and analyses; capital and operating expenditures; economic conditions; availability of sufficient financing; the ultimate ability to mine, process, and sell mineral products on economically favorable terms; and any and all other timing, exploration, development, operational, financial, budgetary, economic, legal, social, geopolitical, regulatory and political factors that may influence future events or conditions. While we consider these factors and assumptions to be reasonable based on information currently available to us, they may prove to be incorrect.

The above list is not exhaustive list of the factors that may affect any of the forward-looking statements and information included in this report, and such statements and information will not be updated to reflect events or circumstances arising after the date of such statements or to reflect the occurrence of anticipated or unanticipated events.

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 Incorporated (SSR) to prepare an independent Technical Report Summary (TRS) on the Marigold Complex (Marigold or the Property), located in Humboldt and Lander counties, Nevada, USA. The Marigold Complex includes the Marigold Mine (including Mackay, Valmy, and New Millennium) and the Buffalo Valley and Trenton Canyon deposits. SSR holds a 100% interest in the Property through its wholly owned subsidiary, Marigold Mining Company (MMC).

The purpose of this TRS is to disclose the results of the Mineral Resource and Mineral Reserve estimates for the Property with an effective date of September 30, 2023. This TRS conforms to 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 the Property on June 13 to 14, 2023.

SSR is a gold mining company with four producing assets located in the USA, Türkiye, Canada, and Argentina, and with development and exploration assets in the USA, Türkiye, and Canada. SSR is listed on the NASDAQ (NASDAQ: SSRM), the Toronto Stock Exchange (TSX: SSRM), and on the Australian Stock Exchange (ASX: SSR).

SSR's Marigold Complex is located approximately five kilometres south–southwest of the town of Valmy, and approximately 24 km northwest of Battle Mountain. The open pit heap leach gold mine has been in production since 1989 and has produced over four million ounces of gold. The operation consists of several open pits, waste rock stockpiles, leach pads, a carbon adsorption facility, and a carbon processing and gold refining facility.

1.1.1 Conclusions

SLR offers the following conclusions by area.

1.1.1.1 Geology and Mineral Resources

- The gold deposits at Marigold and Trenton Canyon are best classified as Carlin-type gold deposits. Gold mineralizing fluids were primarily controlled by fault structure and lithology, with tertiary influence by fold geometry. Buffalo Valley is considered a distal disseminated silver-gold deposit with strong controls along the margins of felsic porphyry dikes and by favorable lithologies.
- The Property has been the site of considerable mining and exploration, including the drilling and logging of 12,636 drill holes totaling over 2.4 million meters drilled.
- The estimates of Mineral Resources were prepared using a domain-controlled, ordinary kriging technique with verified drill hole sample data derived from exploration activities conducted by various companies from 1968 to 2023.
- The SLR QP is of the opinion that the drilling and sampling procedures adopted at Marigold are consistent with generally recognized industry best practices. The resultant drilling pattern is sufficiently dense to interpret the geometry and the boundaries of gold mineralization with confidence. The reverse circulation (RC) samples were collected by

competent personnel using procedures meeting generally accepted industry best practices. The process was conducted or supervised by qualified geologists.

- The SLR QP is of the opinion that the samples are representative of the source materials, and there is no evidence that the sampling process introduced a bias. Accordingly, there are no known sampling or recovery factors that could materially impact the accuracy and reliability of drilling results.
- In the SLR QP's opinion, the sample preparation, security, and analytical procedures meet industry standards, and the QA/QC program, as designed and implemented at Marigold are adequate; consequently, the assay results within the drill hole database are suitable for mineral resource estimation purposes. Neither the SSR in-house quality control nor SSR predecessor's quality control yielded any indication of quality concerns.
- The SLR QP was provided unlimited access for data verification purposes by SSR during this Mineral Resource estimate audit. The SLR QP is of the opinion that database verification procedures for Marigold comply with industry standards and are adequate for the purposes of Mineral Resource estimation.
- Based on the data validation and the results of the standard, blank, and duplicate analyses, the SLR QP is of the opinion that the sampling methods, chain of custody procedures, and analytical techniques are appropriate and meet acceptable industry standards. The assay and bulk density databases are of sufficient quality for Mineral Resource estimation at the Marigold Complex deposits (Marigold Mine and Buffalo Valley).
- 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 the U.S. Securities and Exchange Commission (US SEC) Regulation S-K subpart 1300 rules for Property Disclosures for Mining Registrants (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 MRE to the level of classification assigned.
- The estimate of Mineral Resources presented were prepared for Marigold, with an effective date of September 30, 2023, and for Buffalo Valley with an effective date of July 31, 2023.
- The conversion of Mineral Resources to Mineral Reserves used industry best practices to determine operating costs, capital costs, and recovery performance. Therefore, the estimates are considered to be representative of actual and future operational conditions.
- The SLR QP considers the resource cut-off grade and Whittle pit shapes guide to identify those portions of the MRE that meet the requirement for the prospects for economic extraction to be appropriate for this style of gold deposit and mineralization.
- The Mineral Resources estimates at the Property include the following by deposit area:
  - Marigold: 103.72 million tonnes (Mt) Indicated Resources at an average gold (Au) grade of 0.44 g/t containing 1.47 million ounces (Moz) Au and an additional 19.09 Mt at an average grade of 0.36 g/t Au containing 0.22 Moz of Inferred Resources.
  - Buffalo Valley: 14.89 Mt Indicated Resources at an average grade of 0.57 g/t Au containing 0.27 Moz Au and 8.77 Mt at an average grade of 0.51 g/t Au containing 0.15 Moz in the Inferred category.

- There are no Measured Resources at the Property.
- The level of uncertainty has been adequately reflected in the classification of Mineral Resources for the Property. The MRE 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.
- 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.

1.1.1.2 Mining and Mineral Reserves

- SSR Mining has extensive experience with open pit mining at Marigold and a strong understanding of the work requirements and costs based on its current operations.
- Open Pit operations at Marigold are carried out using standard open pit mining methods including drilling, blasting, loading, hauling, and dumping to the designated leach pads or waste rock storage areas (WRSA) at the mine.
- Mineral Reserves estimation practices follow industry standards.
- Total Probable Mineral Reserves at the Marigold mine are estimated to be 174.8 Mt grading 0.47 g/t Au containing 2.98 Moz Au, including the 0.346 Moz Au contained within the leach pad inventory.
- The Marigold Mine Mineral Reserves support a LOM over 16 years of operational life, including ten years of active mining followed by six years of processing the heap leach pad inventory.
- The LOM production schedule is reasonable but will require robust short-term planning and sequencing to be successful.
- The geotechnical parameters used for pit designs are reasonable and supported by previous operations.
- An appropriate mining equipment fleet, maintenance facilities, and workforce are in place, with various options for additions and replacements estimated, to meet the LOM production schedule requirements.
- Sufficient storage capacity for waste rock and leach pads have been identified to support the production of the Mineral Reserve.
- The SLR QP reviewed the assumptions, parameters, and methods used to prepare the Mineral Reserves Statement and is of the opinion that the Mineral Reserves are estimated and prepared in accordance with S-K 1300.

1.1.1.3 Mineral Processing

- The Marigold processing facilities comprise conventional run-of-mine (ROM) cyanide heap leaching, carbon adsorption, electrowinning, and refining circuits (ADR) to produce a final precious metal product. The heap leach pad was originally constructed in 1990 and with ongoing expansions has operated very consistently throughout the years providing an excellent library of operating data.

- The mineralogy of the ore and deportment of the gold along fracture surfaces of the rock rather than in the rock matrix, provides rapid access of leach solutions to the gold particles and relatively fast gold extraction independent of rock size. The SLR QP agrees that the ore is uniquely favorable to run of mine heap leaching, which has been employed for the life of mine.
- Gold recovery is determined from both historical operating performance and from laboratory column and bottle roll leach testing. Gold recovery is consistent and is predicted using a relationship between fire assay and cyanide soluble gold analyses. It is the SLR QP's opinion that the Marigold operating practices are consistent with industry standards, and the ROM method of operation and the methods of determining gold recovery and reagent consumptions are appropriate for this deposit.
- Cumulative gold production from the Marigold leach pad (through September 2023) is equivalent to 70.6% recovery, and total gold recovery, including recoverable gold inventory in the pad, is estimated at 74%.
- Gold production data from the leach pad provide the best indicator for future processing recoveries because the ore from 1999 to present has been very consistent metallurgically and mineralogically. Gold recovery from future ore is estimated to be 74.5% based on a review of historical assay and recovery data as well as metallurgical test work on future ore.
- Test work has been conducted on a variety of Marigold ore samples, including representative pit samples taken by ore-control geologists, leach pad grab samples from mine production, and various pit blasthole drill cuttings. Bottle roll test work has also been conducted on exploration reverse circulation (RC) drill samples to determine expected gold recovery from deposits that will be mined in the future.
- A large number of column leach tests and bottle roll tests have been performed on the same samples to determine the relationship between their results. Column leach test work continues; however, bottle roll tests can be performed to generate metallurgical data in days rather than months that are required for column leach tests.
- Permeability testing has been performed on ore samples with varying fines content. The testing simulated compaction under multiple lifts of ore stacked up to 200 m, the current maximum height of the heap leach pads above the liner elevation is 122 m. Overall, the tested blends demonstrated relatively consistent permeability on increasing loads after 50 m and acceptable permeabilities with material blended to a 40% fines to 60% durable ratio. Flow rates for the blends ranged from 178 L/h/m^2 to 284 L/h/m^2 under no load. Under 122 m effective height loading, flow rates ranged from 34 L/h/m^2 up to 188 L/h/m^2. All tests resulted in low, but acceptable permeabilities.
- Gold recovery at Marigold is predicted using a relationship developed between the fire assay, which determines total gold in a sample, and the cyanide soluble gold assay, which determines the amount of cyanide soluble gold in a sample.
- Average LOM Au recovery at Marigold is 74% based on production records. The ratio of cyanide soluble gold to total gold (AuCN/AuFA) using the 2017 database of assay pairs was approximately 0.8 (80%). Using the ratio to determine the actual LOM recovery of 74% results in a factor of 0.92.

- The Current Model to predict Marigold heap leach recovery is *Heap Leach Recovery = (AuCN/AuFA) x 0.92*.
- Gold recovery in each of the four lithologies at Buffalo Valley are dependent on particle size. Gold recovery by particle size distribution was compiled using the current and historical Buffalo Valley metallurgical test results. The results were used to determine the gold recovery for each material type for resource calculations.

1.1.1.4 Infrastructure

- Marigold is readily accessible via Interstate Highway 80 in northern Nevada and is approximately 5 km south–south-west of Valmy in Humboldt County. The site access road supports two lanes of traffic and consists of hard packed clay and gravel.
- The infrastructure facilities at Marigold include ancillary buildings, offices and support buildings, access roads into the plant site, power distribution, source of fresh water and water distribution, fuel supply, storage and distribution, waste management and communications. The infrastructure facilities are sufficient for supporting the current Marigold operations.
- The power supply for Marigold is provided by NV Energy Inc. via a 120 kV transmission line to site. Site power draw is 5 MW. After exiting the main substation, power is distributed through a 25 kV distribution grid. Power supply is consistent and dependable and is not a limiting factor for current operations.
- Marigold has sufficient groundwater rights and water well capacity to support the ongoing process operations. The water is primarily consumed by retention in the heap leach pad, evaporation, processing operations and dust suppression.
- It is the SLR QP's opinion that it is reasonable to rely on the information provided by SSR as outlined above for use in the TRS because the Property has been in operation for a number of years, and SSR employs professionals and other personnel with responsibility in these areas that have a good understanding of the operating requirements for the Property.

1.1.1.5 Environment

- Specific federal, state, and local (Humboldt County, Nevada) regulatory and permitting requirements apply to MMC, including the following:
  - The Plan of Operations (PoO) permitted via the United States (U.S.) Bureau of Land Management (BLM)
  - The Water Pollution Control Permit (WPCP) issued by the Nevada Department of Environmental Protection (NDEP)
  - The temporary discharge permit allowing for the discharge of dewatering water to rapid infiltration basins (RIBs) issued by NDEP
  - The reclamation permit issued by the Nevada Bureau of Mining Regulation and Reclamation (BMRR)
- MMC currently holds and is in compliance with active, valid permits for all current facets of the mining operation.
- At present, there are no known environmental issues that impact the ability to extract Mineral Resources at the Property.

- All activities associated with MMC require an approved reclamation plan that includes a Reclamation Cost Estimate (RCE) for all permitted facilities and activities. This was updated and approved by federal and state agencies in 2022.
- MMC is actively engaged with the local communities and stakeholders and there are no outstanding negotiations or social commitments for the operation of the mine.
- The SLR QP's opinion is that it is reasonable to rely on the information provided by SSR as outlined above for use in the TRS because significant environmental and social analyses have been conducted for the Property over an extended period, the Property has been in operation for a number of years, and SSR employs professionals and other personnel with responsibility in these areas that have a good understanding of the permitting, regulatory, and environmental requirements for the Property.

1.1.1.6 Capital and Operating Costs

SSR's forecasted capital and operating costs estimates related to the development of Mineral Reserves are derived from annual budgets and historical actuals over the long life of the current operation. According to the American Association of Cost Engineers (AACE) classifications, these estimates would be Class 1 with an accuracy range of -3% to -10% to +3% to +15%.

1.1.2 Recommendations

SLR offers the following recommendations by area.

1.1.2.1 Geology and Mineral Resources

The SLR QP offers the following recommendations regarding advancement of the Property.

1. SSR has proposed a two-year exploration drilling (2024 and 2025) program with a total budget of US$10,000,000 to advance development of the Buffalo Valley deposit and exploration target areas. The objective of the exploration program will be to target potential gold-bearing structures to expand the mineralization footprint and as well as to convert the current Resource to Reserve. The SLR QP agrees with the objectives and overall scope of this exploration program.
2. Conduct an additional 30,000 m drilling at the Marigold mine where there are opportunities to increase orebody knowledge and confidence of mineral estimates.

1.1.2.2 Mining and Mineral Reserves

1. Continue optimizing haulage profiles over the LOM including exploring opportunities for ore material from the New Millennium area to be sent to alternate destinations.
2. Maintain and improve the grade control procedures on site as situation demands, including infill drilling in areas as required and resourcing workforce to execute the same on time, enabling improved quality of ore delivered to leach pads.
3. With existing stockpiles currently being mined, closely monitor grade control procedures in these areas for accurate ore reconciliation.
4. Focus on equipment maintenance and reliability given the age of existing assets and extended lifetime planned for excavators to achieve planned utilization.

5 Ensure dewatering is done on time and does not hamper progress of mine operations. Code projections of dewatering progress to the mining model.

6 Ensure the planned laboratory audit is completed and that the transition from Atomic Absorption (AA) assays to Inductively Coupled Plasma (ICP) assays occurs in early 2024, which will assist mining operations to better control the grade of ore delivered to the leach pads.

1.1.2.3 Mineral Processing

1 Conduct regular assessments of the AuCN/AuFA ratio using updated exploration and blast hole data.

2 Continue to conduct column and bottle roll metallurgical testing on heap leach feed composites to determine maximum possible gold recovery.

3 Conduct metallurgical test work on any future ore sources to develop geometallurgical properties and parameters.

4 Complete further studies and assessment of heap leach recoverable gold inventory.

1.1.2.4 Infrastructure

1 Continue to maintain the infrastructure facilities in good working order to ensure that critical services such as power and water management, pumping and storage facilities are fully available for potential upset conditions.

1.1.2.5 Environment

There are no recommendations related to the environment.

1.1.2.6 Capital and Operating Costs

SLR has no recommendations related to capital and operating costs.

1.2 Economic Analysis

An after-tax Cash Flow Projection has been generated from the Life of Mine production schedule and capital and operating cost estimates and is summarized in Table 1-1. A summary of the key criteria is provided below. The complete cash flow is presented in Section 27.0 Appendix.

1.2.1 Economic Criteria

1.2.1.1 Revenue

- 52,000 tonnes ore per day stacked (approximately 20 Mt per year) average stacked grade of 0.47 g/t Au (ROM and stockpile mine plan)
- LOM average 212,000 ounces per year gold recovered from mine plan with LOM stacked ore recovery averaging 74.3%. Total 1.96 Moz recovered over LOM operation (including Q4 2023 through 2032)

- Estimated 12% additional ounces (243,000 ounces produced) included in work in progress: 25,000 additional ounces produced during the ten year heap pad operations and 218,000 additional ounces produced during six year rinsing operations after mining ceases.
- Metal price: US$1,790 per ounce gold (LOM realized), US$1,755 per ounce gold long term price (2028+), US$23.00 per ounce silver (LOM realized), US$22.75 per ounce silver long term price (2028+).
- Gold at refinery 99.95% payable, 100% silver payable.
- Net Smelter Return includes doré refining, transport, and insurance costs.
- Revenue is recognized at the time of gold production.

1.2.1.2 Costs

- Mine life: 15 years, excluding Q4 2023 (nine years of mining and six years of heap pad rinsing).
- Life of Mine production plan as summarized in Table 13-3.
- Mine life sustaining capital totals $257.6 million
- Final reclamation costs total $69.2 million.
- Average operating cost over the mine life is $11.56 per tonne stacked.

1.2.1.3 Taxation and Royalties

Marigold is subject to Nevada Net Proceeds of Minerals Tax, Nevada property and sales taxes, and U.S. federal income tax. The economic analysis calculates these taxes in accordance with legislation enacted as of January 1, 2022. Property and sales taxes are accounted for in the operating costs of the mine.

1.2.1.3.1 Nevada Gross Proceeds Tax

In 2021, the State of Nevada enacted Assembly Bill 495, effective July 1, 2021, which is an annual excise tax on gold and silver revenue. Under the bill, the tax rates vary based on the taxpayer's Nevada gross revenue. A 0.75% rate is imposed on Nevada gross revenue of more than $20 million but not more than $150 million in a taxable year (defined as the calendar year). A rate of 1.10% applies to Nevada gross revenue exceeding $150 million in any tax year. The LOM average rate for Marigold is approximately 0.9% and average $3.5 million per year during the remaining nine full years of mine operations.

1.2.1.3.2 Nevada Net Proceeds Tax

The State of Nevada imposes a 5% net proceeds tax on the value of all minerals extracted in the State. This tax is calculated and paid based on a prescribed net income formula applied only to income and expenses from mining, disallowing deductions for exploration and related-party financing costs. This tax is normally assessed at 5% of net income for major mine operations like Marigold. It is a deductible expense for U.S. federal income tax and averages $6.3 million per year over the remaining nine full years of mine operations.

1.2.1.3.3 US Federal Income Tax

Federal income tax is determined under regulations that came into effect on January 1, 2022. Under these regulations, which removed alternative minimum tax, the mine is subject to a federal income tax rate of 21%. SLR utilized Unit of Production depreciation, depletion allowances, and Net Operating Losses (NOL) as deductions. Total U.S. federal tax payable averages $11.6 million per year over the remaining nine year mine operations.

1.2.1.3.4 Royalties

Marigold is subject to a variety of NSR royalty payments, payable to various parties under the terms of the leases, as described in Section 3. The annual average NSR royalty payments range from 3.7% to 10.0% and averages $27.4 million per year over the remaining nine year mine operations.

1.2.2 Cash Flow Analysis

Considering the Property on a stand-alone basis, the undiscounted pre-tax cash flow totals $1,274 million over the mine life. The after-tax Net Present Value (NPV) at a 5% discount rate (midpoint with November 1, 2023, as time zero) is $800 million, as shown in Table 1-1.

Table 1-1: After-Tax Cash Flow Summary

Description	LOM
Realized Market Prices	
Au ($/oz) – Average	$1,790
Ag ($/oz) – Average	$23.00
Payable Metal	
Au (koz)	2,198
Ag (koz)	46
Cash Flow Summary	**US$ million**
Total Gross Revenue	**3,942**
Mining Cost	(974)
Maintenance Cost	(432)
Process Cost	(415)
G & A Cost	(199)
Exploration	(6)
Refining/Freight	(4)
Mining Royalties	(277)
NGPT[1]	(34)
Total Operating Costs	(2,342)
Operating Margin (EBITDA)	1,600
Cash Taxes Payable	(202)
Working Capital[2]	0
Operating Cash Flow	1,399
Sustaining Capital	(258)
Total Closure/Reclamation Capital	(69)
Pre-tax Free Cash Flow	**1,274**
Pre-tax NPV @ 5%	953
After-tax Free Cash Flow	**1,072**
After-tax NPV @ 5%	800

Notes:

1. Nevada Gross Proceeds Tax
2. All working capital adjustments net to zero at end of mine life

The World Gold Council Adjusted Operating Cost (AOC) is $1,065/oz Au. The mine life capital unit cost, including sustaining and closure/reclamation, is $148/oz, for an All in Sustaining Cost (AISC) of $1,213/oz Au. The average annual gold production during operation, excluding rinsing phase, is 212,000 ounces per year over the ten year mine life and 36,000 ounces per year during the six year rinsing phase.

1.2.3 Sensitivity Analysis

After-tax IRR sensitivity over the base case has been calculated for -20% to +20% variations for head grade, recovery, and gold price and -15% to +15% for variations for operating and capital costs. The Project is most sensitive to changes in head grade, metallurgical recovery, and metal price (usually with same magnitude of impact) followed by operating cost and finally capital costs.

1.3 Technical Summary

1.3.1 Property Description

Marigold is located in southeastern Humboldt County along the Interstate Highway 80 corridor in the northern foothills of the Battle Mountain Range, Nevada, U.S. Activities at the Property are centred at approximately 40°45′ N Latitude and 117°8′ W Longitude.

The Property is situated approximately five kilometres south–southwest of the town of Valmy, Nevada, at Exit 216 off Interstate Highway 80. Other nearby municipalities include Winnemucca and Battle Mountain, Nevada, which lie approximately 58 km to the northwest and 24 km to the southeast of the Property, respectively.

1.3.2 Land Tenure

The Marigold Complex includes two main land packages, the Marigold Land Package and the Sterling Land Package, collectively, the Property or project areas.

The Marigold Land Package encompasses approximately 10,477 hectares (ha), including the approximately 3,296 ha within the Marigold Mine Plan of Operations (PoO). The Sterling Land Package (9,383 ha) includes properties associated with the Trenton Canyon Mine and Buffalo Valley Mine.

Land and mineral ownership within the project areas are within the corridor initially governed by the Pacific Railroad Act of 1862, and, as such, these areas generally have a “checkerboard” ownership pattern. Mineral claims in Nevada are managed federally by the BLM. SSR holds a 100% interest in the Property through its wholly-owned subsidiary, MMC. Surface and mineral rights at the Property comprise the following: real property owned by MMC; unpatented mining claims owned by MMC; and leasehold rights held by MMC with respect to unpatented mining claims, mill site claims, and certain surface lands.

Some of the leases require MMC to make certain net smelter return (NSR) royalty payments to the lessors and comply with other obligations, including completing certain work commitments or paying taxes levied on the underlying properties. The NSR royalty payments are based on the specific gold-extraction areas and are payable when the corresponding gold ounces are extracted, produced, and sold. The NSR royalty payments vary between 0% and 10.0% of the value of gold production, net of off-site refining costs, which equates to an annual average ranging from 3.7% to 10.0% and a weighted average of 7.8% over the life-of-mine (LOM).

1.3.3 History

The first recorded gold production from the Property near Valmy, Nevada, occurred in 1938 when the Marigold Mining Company, owned by Frank Horton, operated an underground mine which came to be known as Marigold. The Horton family processed approximately 9,000 t of ore averaging about 6.85 g/t Au before World War II halted production. In 1943, Mr. Horton's estate sold its interest in the Property and claims. Several unsuccessful attempts were made to open and operate the mine before exploration activities began again in 1968.

From 1968 through 1985, several companies conducted exploration programs in the Marigold area and completed a total of 126 exploratory drill holes. Records document the activities of Homestake (1968), St. Joe (1979), Decker Exploration (1979), Placer Amex (1979–1980), True North, Marigold Development Company (MDC) (1981–1983), Welcome North (1984), and Nevada North Resources (USA) Inc. (1985–1986). Other groups that conducted work in the area include Newmont, Kerr-McGee, SFP Minerals Corporation, Cordex/Rayrock Mines, and Vek/Andrus Associates (partnership between Vic Kral, Ralph Roberts, Bob Reeve, and Bill Andrus composed of Vek Associates and Andrus Resources Corporation).

The operating partner Cordex, an exploration syndicate composed of Dome Exploration (U.S.) Ltd., Lacana Gold Inc. (Lacana) and Rayrock Mines, leased the Vek/Andrus Associates claim block in September 1985 and began a drilling program in November 1985. Drill holes NM-3 and NM-4 intersected 21.3 m of 2.40 g/t Au and 25.9 m of 7.54 g/t Au, respectively. These were the discovery holes for the 8 South (8S) ore body.

Following further drilling in the 8S deposit in the spring of 1986, a joint venture was formed between SFP Minerals and the Cordex group, which consolidated some of the land holdings over the Marigold area.

In late-1986, the Cordex group leased other claims, including the historical Marigold mine, Mackay (Top Zone, East Hill, and Red Rock) area from various claim holders.

In March 1988, Rayrock Mines (operating company for Cordex) made a production decision on the 8S deposit, and, by September 1988, it began stripping on the 8S pit (McGibbon, 2004).

In August 1989, the first gold doré bar was poured at the Marigold mill.

In March 1992, Rayrock Mines purchased a two thirds ownership interest in the Property, and Homestake Mining Company (Homestake), which had taken Lacana's interest through previous corporate mergers, held the remaining one third ownership interest in the Property.

In 1994, mining of the 8S deposit was completed, and the Marigold mill was no longer used to process ore. At this point, Marigold became a run-of-mine (ROM) heap leach operation.

In March 1999, Glamis Gold Ltd. (Glamis Gold) purchased all the assets of Rayrock Mines, resulting in Glamis Gold holding a two thirds ownership interest in Marigold, and Homestake continuing to hold a one third ownership interest. By January 2001, a total of one million ounces of gold had been recovered from the Property.

In 2006, Glamis Gold merged with Goldcorp Inc. (Goldcorp), resulting in a Goldcorp subsidiary holding a two thirds ownership interest in Marigold and being the operator. Homestake, which had been acquired by Barrick Gold Corporation (Barrick) in 2001, continued to hold the remaining one third ownership interest. In 2007, discovery holes were drilled in the Red Dot deposit.

By mid-2009, two million ounces of gold had been recovered from Marigold.

On April 4, 2014, SSR (formerly Silver Standard Resources Inc.) completed the acquisition of Marigold from subsidiaries of Goldcorp and Barrick.

In August 2015, Marigold mine acquired 2,844 ha of adjacent land from Newmont. This land included previously mined areas known as the Mud pit, NW pit, and the Valmy pits. Exploration drilling in the area had been completed by a combination of companies including Hecla Mining Company (Hecla), SFP Minerals, and Newmont.

In June 2019, SSR acquired the Trenton Canyon and Buffalo Valley properties from Newmont Goldcorp Corporation (Newmont). The Trenton Canyon target is located approximately four kilometres south of New Millennium and the Buffalo Valley target is located approximately 10 km southwest of New Millennium. Both properties are included in an 8,900 ha parcel that is contiguous to the south boundary of the Marigold property

1.3.4 Geological Setting, Mineralization, and Deposit

Marigold is located in the Battle Mountain district of north-central Nevada within the Basin and Range physiographic province bounded by Sierra Nevada to the west and the Colorado Plateau to the east. Paleozoic basement rocks of north-central to north-eastern Nevada generally comprise four distinct tectonostratigraphic assemblages: the eastern carbonate assemblage; the slope or transitional assemblage; the western siliceous and volcanic assemblage; and the overlap assemblage (Roberts, 1964). These rocks record a complex history of compressional and extensional tectonics and magmatism affecting the western margin of North America from the early Paleozoic through present. The Battle Mountain district hosts numerous mineral occurrences, including porphyry copper–gold, porphyry copper–molybdenum, skarn, placer gold, distal disseminated silver-gold, and Carlin-type gold systems.

The gold deposits at Marigold are best characterized as Carlin-type deposits and cumulatively define a north-trending alignment of gold mineralized rock more than eight kilometres long. Gold mineralizing fluids were primarily controlled by fault structure and lithology, with tertiary influence by fold geometry. Within the Valmy Formation, higher gold grades are observed in the hinge zones of open folds that trend west-northwest and plunge gently. When viewed down plunge, the undulation of these folds is mimicked by gold mineralized horizons. The deposition of gold was restricted to fault zones and quartzite dominant horizons within the Valmy Formation and high permeability units within the Antler sequence.

The Buffalo Valley gold deposit is a distal disseminated silver-gold deposit and formed along a southeast trending zone of felsic porphyry dikes and faults. Gold occurs in arsenian iron sulfide overgrowths on pyrite in sheeted quartz+sericite+pyrite (QSP) veinlets within the central granodiorite and dacite porphyry dikes, subparallel to dike margins in the country rock, and within faults (e.g., the Front fault). Outboard of the intrusions, gold mineralization is stratiform in receptive horizons of Havallah sequence metasedimentary rocks.

Gold mineralization at Trenton Canyon is best described as a Carlin-type deposit and primarily hosted in a network of transtensional faults locally intruded by Eocene dikes and sills. Hydrothermal and/or phreatomagmatic breccias within these structures typically contain increased concentrations of gold. Gold mineralization is well confined to structures, although a small (several meter) halo of lower grade, more disseminated mineralization may be present. Quartz veining, illite, iron oxides, and iron hydroxides (goethite) are the primary indicators of gold mineralization where oxidized.

1.3.5 Exploration

Since acquiring the Property in April 2014, SSR has conducted several surface exploration programs including soil sampling, geophysics, and in-fill/delineation drilling.

Reverse Circulation (RC) and Core (Diamond Drilling-DD) drilling on the Property is the principal method of exploration and delineation of gold mineralization after initial targeting using soil sampling and geophysical surveys. Drilling can generally be conducted year-round on the Property.

As of the effective date of this TRS, SSR and its predecessor companies have completed over 2.4 million metres of drilling in 12,636 drill holes across the Marigold, Buffalo Valley, and Trenton Canyon areas.

Since 2022, exploration at the Property has focused on the following:

- Exploration drilling to expand Mineral Resources and Mineral Reserves through systematic step out drilling.
- Infill drilling to increase the confidence of Mineral Resource estimates, specifically targeting areas with widely spaced drilling (approximately 35m to 50 m) and around drill holes drilled prior to 2006 with missing assays.
- Drilling to confirm the final position of the pit highwall.
- Defining mineralization at Trenton Canyon and Buffalo Valley.

From December 1, 2021, through to the end of June 2023, a total of 491 holes have been drilled (456 RC holes and 35 diamond core holes), totalling 139,839 m.

1.3.6 Mineral Resource Estimates

Mineral Resources have been classified in accordance with the definitions for Mineral Resources in S-K 1300. SLR has reviewed, audited, and accepted the Mineral Resource estimates prepared by SSR and Red Pennant Geoscience Consulting (Red Pennant) for Marigold and Buffalo Valley, respectively. The Mineral Resource estimates are based on block model values developed from assays on the mineralized properties. The Marigold Mine and Buffalo Valley Mineral Resources as of September 30, 2023 are summarized in Table 1-2.

The Mineral Resource estimates were completed using conventional block modeling approach in Hexagon(MineSight) and Seequent's Leapfrog Geo (Leapfrog Geo) software.

Estimates were validated using standard industry techniques including statistical comparisons with composite samples and parallel inverse distance squared (ID2) and nearest neighbor (NN) estimates, swath plots, and visual reviews in cross-section and plan. A visual review comparing blocks to drill holes was completed after the block modeling work was performed to ensure general lithologic and analytical conformance and was peer reviewed prior to finalization.

Table 1-2: Summary of Marigold Mine and Buffalo Valley Mineral Resources

Deposit	Measured Mineral Resources			Indicated Mineral Resources			Measured + Indicated Mineral Resources			Inferred Mineral Resources			Cut-off Grade (g/t Au)
	Amount (Mt)	Grade (g/t Au)	Rec. (%)	Amount (Mt)	Grade (g/t Au)	Rec. (%)	Amount (Mt)	Grade (g/t Au)	Rec. (%)	Amount (Mt)	Grade (g/t Au)	Rec. (%)	
Marigold	0	0	0	103.72	0.44	75.5%	103.72	0.44	75.5%	19.09	0.36	75.9%	0.069
Buffalo Valley	0	0	0	14.89	0.57	62.7%	14.89	0.57	62.7%	8.77	0.51	64.6%	0.134 to 0.279
Total	**0**	**0**	**0**	**118.61**	**0.46**	**73.5%**	**118.61**	**0.46**	**73.5%**	**27.86**	**0.46**	**71.2%**	

Notes:

1. The Mineral Resource estimate was prepared in accordance with S-K 1300.
2. The effective date of Mineral Resources at Marigold is September 30, 2023, and the effective date of Mineral Resources at Buffalo Valley is July 31, 2023.
3. The Mineral Resource estimate is based on optimized pit shells using a cut-off grade of 0.069 g/t payable gold (gold assay for recovery, royalty, and net proceeds), with a gold price assumption of $1,750/oz, for Marigold, and using cut-off grades based on lithology type (calc-silicate hornfels=0.279 g/t gold, greenstone = 0.184 g/t gold, intrusive = 0.134 g/t gold, and siliceous hornfels = 0.158 g/t Au, payable gold factored for recovery, royalty, and net proceeds), with a gold price assumption of $1,750/oz, for Buffalo Valley.
4. For Marigold, bulk densities (in t/m^3) were assigned by lithologies: alluvium = 2.10, Havallah = 2.48, Valmy/Antler = 2.4076+(0.0001*DEPTH), and Valmy = 2.64. For Buffalo Valley, bulk densities (in t/m^3) were assigned by lithology ranging from a low of 2.426 (Overburden) to a high of 2.737 (Basalt) with a weighted average of 2.63.
5. The Mineral Resources estimate is reported below the as-mined surface as of September 30, 2023, for Marigold, and below the as-mined surface as of July 31, 2023, for Buffalo Valley.
6. The point of reference for Mineral Resources is the entry to the carbon columns in the processing facility.
7. Mineral Resources are reported exclusive of Mineral Reserves.
8. The Property is 100% owned by SSR through its subsidiary MMC.
9. All ounces reported represent troy ounces, and g/t represents grams per metric tonne.
10. Totals may vary due to rounding.

1.3.7 Mineral Reserve Estimates

Mineral Reserves in this TRS are derived from the current Mineral Resources. The Mineral Reserves are reported as contained gold and are based on open pit mining from the Marigold Mine. The Proven and Probable Mineral Reserves for Marigold are estimated as of September 30, 2023, and summarized in Table 1-3.

Table 1-3: Summary of Marigold Mineral Reserves Estimate as of September 30, 2023

	Proven		Probable		Total			Cut-off Grade (g/t)	Metallurgical Recovery (%)
	Tonnage (Mt)	Au Grade (g/t)	Tonnage (Mt)	Au Grade (g/t)	Tonnage (Mt)	Au Grade (g/t)	Contained Gold (Moz)		
In Situ	–	–	154.7	0.51	154.7	0.51	2.54	0.069	74.2
Stockpile			20.1	0.14	20.1	0.14	0.09	0.069	76.8
Leach Pad Inventory							0.35		70.6
Total	**–**	**–**	**174.8**	**0.47**	**174.8**	**0.47**	**2.98**	**0.069**	**73.8**

Notes:

1. The Mineral Reserve estimate was prepared in accordance with S-K 1300 definitions.
2. The Mineral Reserve estimate is based on a metal price assumption of $1,450/oz gold and is reported at a cut-off grade of 0.069 g/t payable Au (Au assay factored for recovery, royalty, and net proceeds).
3. No mining dilution is applied to the grade of the Mineral Reserves. Dilution intrinsic to the Mineral Reserves estimate is considered sufficient to represent the mining selectivity considered.
4. The Property is 100% owned by SSR through its subsidiary MMC.
5. Metals shown in this table are the contained metals in ore mined and processed.
6. All ounces reported represent troy ounces, and g/t represents grams per metric tonne.
7. Stockpiles, included in previous disclosures as In situ, have been reported as a separate line item to clearly differentiate the ore source.
8. Totals may vary due to rounding.

SLR 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.

1.3.8 Mining Methods

Marigold Mine is mined using conventional surface mining methods. The Mine uses large 280-t mining trucks, and some areas of the pit require long hauls to the leach pads. The surface operations include:

- Clearing and grubbing
- Overburden removal
- Drilling and blasting
- Loading and haulage

The Mineral Reserve is based on the ongoing annual average ore production of 18.9 Mt from the Mackay (includes the Red Dot area), Valmy, North Mackay and New Millenium areas, delivering an average of 287 koz of contained gold per year over the nine years of full production and tapering off in the final year as the mine reaches the end of LOM.

Mining and processing operations are scheduled 24 hours per day, and the mine production is scheduled to directly feed the leach pads.

The current LOM plan provides 16 years of operational life, including ten years of active mining followed by an additional six years of processing the heap leach pad inventory. The average stripping ratio from the pits excluding the stockpile ore is 4.5 waste units to 1 unit of ore (4.5 stripping ratio).

There are 33 mining pits/phases in the four mining areas with varying dimensions, with a maximum depth of approximately 430 m attained in the Red Dot pit area.

Primary production for all mine pits includes drilling 22.2 cm diameter blast holes. A production blast hole of 16.7 m depth is drilled. Burden and spacing varies depending on the material being drilled. The holes are filled with explosives and blasted. A combination of hydraulic excavators and electric shovels load the broken material into 280-t-payload mining trucks for transport from the pit to the Waste Rock Storage areas (WRSAs) and Leach Pads.

The major pieces of pit equipment include electric shovels, hydraulic excavators, haul trucks, drills, bulldozers, and graders. Extensive maintenance facilities are available at the mine site to service mine equipment.

Marigold headcount is 478 persons, which includes personnel in mine operations, mine maintenance, geology, process and laboratory, and general and administration.

1.3.9 Processing and Recovery Methods

The Marigold processing facilities combine industry standard run-of-mine (ROM) cyanide heap leaching, recovery of gold from the leach solution using carbon adsorption, desorption, electrowinning, and refining circuits (ADR) to produce a final precious metal product.

The heap leach pad was originally constructed in 1990 and has since expanded as required, with ongoing expansion of solution processing facilities to match production rate and leach area. Approximately 427 ha of heap leach pads are divided into 25 cells, along with six pregnant (gold bearing) solution ponds and two barren solution ponds. There are 15 cells currently active.

ROM ore is delivered from the mine at a rate of approximately 20 Mt per year to the leach pad by mine haul trucks and stacked in 6 m to 12 m lifts.

Barren leach solution is pumped to the leach pad by two independent barren solution distribution systems. Combined barren solution flow capacity from the two pumping systems is 3,400 m^3/h. Drip tubing is used to distribute the barren solution from the main barren solution pipelines to each cell. Solution is applied to the ore at a rate of 4.6 L/h/m^2 to 8.6 L/h/m^2 using drip emitters. Impact sprinklers, wobblers, or drip emitters are used to irrigate the side slopes of the heap.

Pregnant solution from the leach pad is collected in the pregnant solution ponds and pumped to the carbon-in-column (CIC) adsorption plant located on the north side of Barren Pond No. 1 to recover the gold by adsorption. The carbon adsorption circuit consists of seven parallel carbon column trains, each with five columns.

Loaded carbon from carbon adsorption is transported by a dedicated truck to the nearby carbon processing facility where gold is eluted (re-dissolved) from the carbon in two 2.7 t capacity carbon elution vessels. Gold is eluted from the carbon using the Pressure Zadra process where a hot caustic solution at approximately 140°C is circulated under pressure through the elution column, from bottom to top. The resulting rich gold eluant flows through two parallel 2.8 m^3 electrowinning cells to recover the gold. The barren eluant discharging the electrowinning cells is recirculated through heat exchangers to the bottom of the elution vessel to strip more gold. The process continues until the majority of the gold is recovered from the carbon.

The stripped carbon is acid washed with hydrochloric acid. The acidified carbon is then neutralized with water in the same column. The carbon is discharged from the column and transferred to the reactivation kiln. The carbon is reactivated by heating in a rotary kiln at 750°C. The reactivated carbon is quenched and screened before being returned to the carbon adsorption circuit to be reloaded with gold.

The plated material (sludge) resulting from electrowinning is collected in a filter press and then retorted for drying and mercury removal. After retorting, the sludge is mixed with flux and smelted in a propane fired furnace for final precious metal recovery.

1.3.10 Infrastructure

Marigold is accessible via Interstate Highway 80 in northern Nevada and is approximately 5 km south-southwest of Valmy in Humboldt County. The site access road supports two lanes of traffic and consists of hard packed clay and gravel.

The infrastructure facilities at Marigold include ancillary buildings, offices and support buildings, access roads into the plant site, power distribution, source of fresh water and water distribution, fuel supply, storage and distribution, waste management and communications.

The power supply for Marigold is provided by NV Energy Inc. via a 120 kV transmission line to site. Site power draw is 5 MW. After exiting the main substation, power is distributed through a 25 kV distribution grid.

Water for Marigold is supplied from three existing groundwater wells located near the access road to the Property. Marigold owns groundwater rights and collectively allows up to 3.134 million m^3 of water consumption annually, the majority of which is used as makeup water for process operations. On average, total freshwater makeup is 2.4 m^3/min. Approximately 5.3 m^3 /min of fresh water is required during peak periods in the summer months. The water is primarily consumed by retention in the heap leach pad, evaporation, processing operations and dust suppression.

The following buildings and facilities are in the main plant and offices area:

- Truck shop and mobile maintenance warehouse
- Carbon elution and regeneration / refinery building
- Heap leach carbon columns
- Wash bay
- Administration building and light vehicle (old) shop
- Assay laboratory
- Metallurgical laboratory
- Health & Safety Building
- Radio Shop

- Motor control center (MCC)

Additional buildings and facilities on site include:

- Explosives magazine
- Leach pads and solution ponds
- Waste rock storage areas
- Site access building
- Potable water treatment building
- Process line-out building
- Crusher
- Radio shop
- Safety building
- Hose shop and storage
- Tire pad
- Fuel stations
- Welding and fabrication shop
- Section 20 line-out building
- Dispatch/MineCare office and Mine Operations building
- GPS dispatch receiver
- Diesel tanks and fueling station

1.3.11 Market Studies

The Marigold Mine produces gold and silver contained in doré. Marigold is an active producer and has been for over three decades.

Gold is the principal commodity at the Marigold Mine and is freely traded at prices that are widely known, so that prospects for sale of any production are virtually assured. A gold price of $1,450/oz Au was used for estimation of Mineral Reserves and a long-term price of $1,755/oz Au was used for the economic analysis.

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

Specific federal, state, and local (Humboldt County, Nevada) regulatory and permitting requirements apply to MMC, including the Plan of Operations (PoO) permitted via the United States (U.S.) Bureau of Land Management (BLM); the Water Pollution Control Permit (WPCP) issued by the Nevada Department of Environmental Protection (NDEP); the temporary discharge permit allowing for the discharge of dewatering water to rapid infiltration basins (RIBs) issued by NDEP; and the reclamation permit issued by the Nevada Bureau of Mining Regulation and Reclamation (BMRR).

MMC currently holds active, valid permits for all current facets of the mining operation. MMC is currently in compliance with all permits. At present, there are no known environmental issues that impact the ability to extract Mineral Resources at the Property. All activities associated with MMC require an approved reclamation plan that includes a Reclamation Cost Estimate (RCE) for all permitted facilities and activities. This was updated and approved by federal and state agencies in 2022. MMC is actively engaged with the local communities and stakeholders and there are no outstanding negotiations or social commitments for the operation of the mine.

1.3.13 Capital and Operating Cost Estimates

SSR's forecasted capital and operating cost estimates related to the development of Mineral Reserves are derived from annual budgets and historical actuals over the life of the current operation. According to the American Association of Cost Engineers (AACE) classifications, these estimates would be Class 1 with an accuracy range of -3% to -10% to +3% to +15%.

LOM project capital costs, which considers all costs incurred before October 1, 2023, as sunk, are summarized in Table 1-4.

Table 1-4: Capital Costs Summary

Capital Costs	Total ($ million)
Mining Equipment Replacement	32.1
Equipment/Building Maintenance	151.9
Administration	1.0
Processing/Pads/Ponds	33.6
Permitting	27.9
Exploration/Mine Development	11.0
Subtotal Sustaining Capital	**257.6**
Reclamation	69.2
Total Capital Costs	**326.8**

The LOM (from October 1, 2023) operating costs estimate is $11.56/t of stacked ore, as shown in Table 1-5.

Table 1-5: Operating Costs Summary

Description	Total LOM ($ million)	$/t stacked*
Mining	974	5.43 (1.11/t moved)
Maintenance	432	2.52 (0.49/t moved)
Processing	415	2.37
Site Support	205	1.14
Total	**2,027**	**11.56**

2.0 Introduction

SLR International Corporation (SLR) was retained by SSR Mining Inc. (SSR) to prepare an independent Technical Report Summary (TRS) on the Marigold Complex (Marigold or the Property), located in Humboldt and Lander counties, Nevada, USA. The Marigold Complex includes the Marigold Mine (including Mackay, Valmy, and New Millennium) and the Buffalo Valley and Trenton Canyon deposits. SSR holds a 100% interest in the Property through its wholly owned subsidiary, Marigold Mining Company (MMC).

This TRS conforms to 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 gold mining company with four producing assets located in the USA, Türkiye, Canada, and Argentina, and with development and exploration assets in the USA, Türkiye, and Canada. SSR is listed on the NASDAQ (NASDAQ:SSRM), the Toronto Stock Exchange (TSX:SSRM), and the Australian Stock Exchange (ASX:SSR).

SSR's 100% owned Marigold Complex is located in Humboldt County, Nevada, approximately five kilometers south–southwest of the town of Valmy, and approximately 24 km northwest of Battle Mountain. The Marigold Complex is owned directly by SSR's wholly-owned subsidiary, Marigold Mining Company (MMC). The open pit heap leach gold mine has been in production since 1989 and has produced over four million ounces of gold. The operation consists of several open pits, waste rock stockpiles, leach pads, a carbon adsorption facility, and a carbon processing and gold refining facility.

2.1 Site Visits

SLR visited the site on June 13 to 14, 2023. During the site visit, the SLR Qualified Persons (QP) received a project overview by site management with specific activities as follows:

The SLR geology QP toured operational areas and project offices, inspected various parts of the property and infrastructure, inspected the core handling facility, sampling procedures, and interviewed key personnel involved in the collection, interpretation, and processing of geological data and preparation of the Mineral Resource estimates.

The SLR mining QP toured operational areas and project offices, inspected various parts of the mining operations and infrastructure, interviewed key personnel involved with the operations and technical services involved with the preparation of the Mineral Reserve estimates and Life of Mine (LOM) plan.

2.2 Sources of Information

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

- Rex Brommecker, SVP Exploration and Geology, SSR
- Jonathan Holden, VP Innovation and Technical Services, SSR
- Bill Patterson, Studies Contractor, SSR
- Christa Zaharias, P.E., Study Manager, SSR
- Karthik Rathnam, Director Resources, SSR

- Matt Fithian, Principal Geologist, SSR
- Brandon Heser, P.E., Director, Mine Technical Services, SSR
- Erik Veinberg, Finance Director, (formerly SSR)
- Jered Kullos, Principal Mine Engineer, SSR
- James Harrold, P.E., Senior Process Engineer, SSR
- Osman Uludağ, Director Resource Development, SSR
- Andrew Smith, Interim Geology Manager, SSR
- Jerry Johnson, Technical Services Manager, SSR
- James Madson, Mine Engineer, SSR
- Chris Nelson, Chief Metallurgist, SSR
- Richard Zaggle, Study Manager, SSR

This report is an update of a Technical Report Summary with a report date of September 29, 2022 (OreWin, 2022).

This TRS was prepared by SLR QPs. The TRS is based on information and data supplied to the 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.

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

3.0 Property Description

This section has been modified from OreWin (2022).

3.1 Location

Marigold is located in southeastern Humboldt County along the Interstate Highway 80 corridor in the northern foothills of the Battle Mountain Range, Nevada, U.S. Activities at the Property are centred at approximately 40°45′ N Latitude and 117°8′ W Longitude.

The Property (Figure 3-1) is situated approximately five kilometres south–southwest of the town of Valmy, Nevada, at Exit 216 off Interstate Highway 80. Other nearby municipalities include Winnemucca and Battle Mountain, Nevada, which lie approximately 58 km to the northwest and 24 km to the southeast of the Property, respectively.

Figure 3-1: Location Map

Source: SLR, 2023.

3.2 Land Tenure

SSR holds 100% interest in the Property through its wholly owned subsidiary, Marigold Mining Company (MMC). Surface and mineral rights at the Property comprise real property owned by MMC; unpatented mining claims owned by MMC; and leasehold rights held by MMC with respect to unpatented mining claims and mill site claims and surface lands.

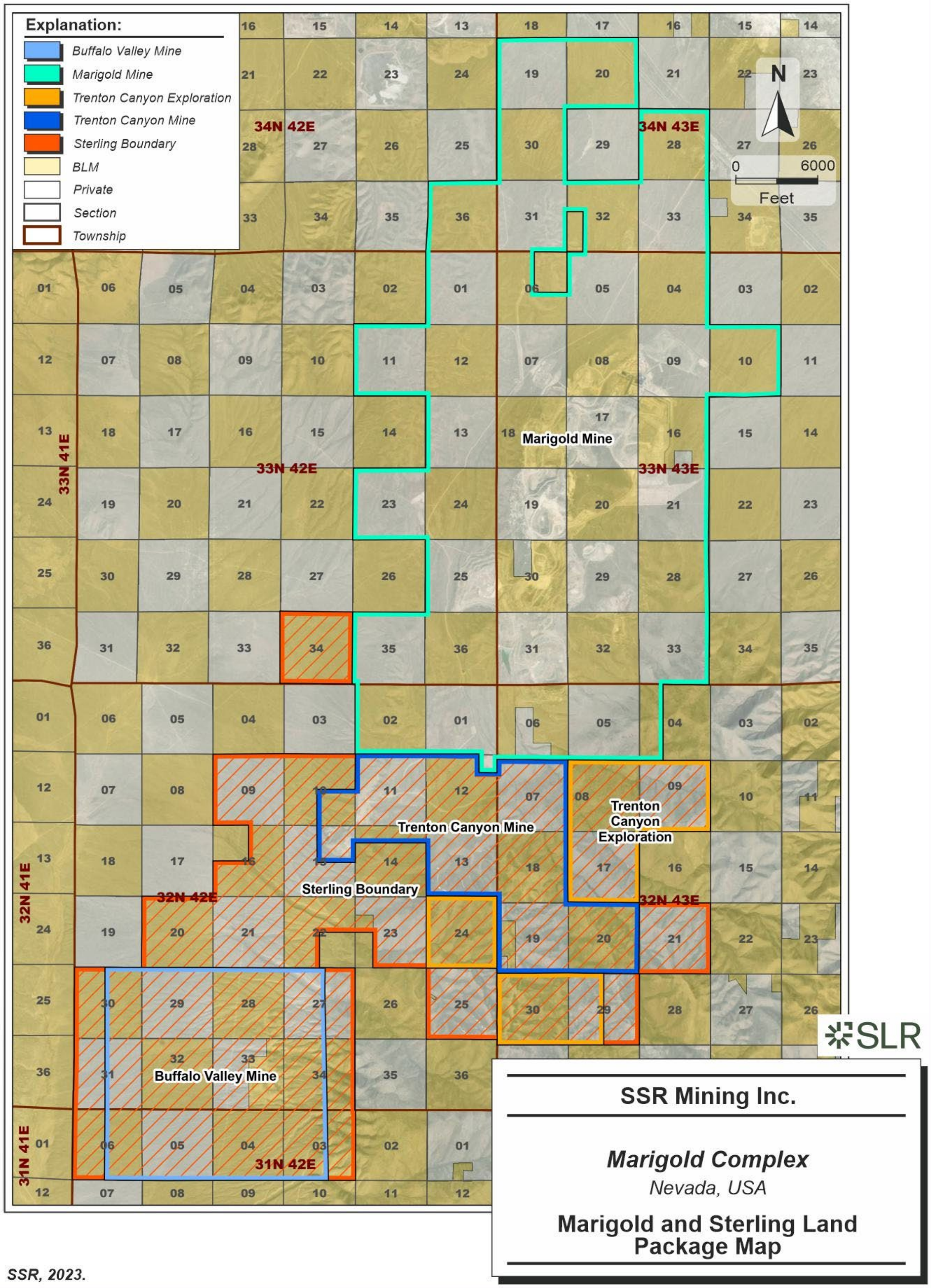
The properties described herein are associated with one of two main land packages, the Marigold Land Package and the Sterling Land Package (both also referred to as project areas) totalling approximately 19,860 ha (Table 3-1, Figure 3-2). The Marigold Land Package (10,477 ha) includes the properties within the Marigold Mine PoO (3,296 ha). The Sterling Land Package (9,383 ha) includes properties associated with the Trenton Canyon Mine or Buffalo Valley Mine.

Table 3-1: List of Land Package Areas (in hectares)

Property Name	Total (ha)	Public (ha)	Private (ha)
Sterling Land Package Total	9,383	4,936	4,446
Buffalo Valley Mine and Exploration	*2,415*	*1,471*	*945*
Trenton Canyon Mine	*2,001*	*935*	*1,066*
Trenton Canyon Exploration	*1,433*	*780*	*653*
Sterling Boundary	*3,534*	*1,750*	*1,783*
Marigold	10,477	5,101	5,375
Total Land Package (Sterling + Marigold)	**19,860**	**10,038**	**9,822**

Land and mineral ownership within the PoO are within the corridor initially governed by the Railroad Act, and, as such, these areas generally have a “checkerboard” ownership pattern. Mineral claims in Nevada are managed federally by the Bureau of Land Management (BLM).

Figure 3-2: Marigold and Sterling Land Package Map



Source: SSR, 2023.

3.2.1 Owned Real Property

Surface lands at Marigold owned by MMC are listed in Table 3-2.

Table 3-2: MMC Surface Lands

Parcel Number	Hectares	Location	Ownership Type	Project Area
010-400-03	259.0	Section 03, T.31N, R.42E	Minerals Only	Sterling
07-0491-14	194.3	Section 17, T.32N, R.43E	Fee Simple	Sterling
07-0401-25	65.3	SE1/4 Section 22, T.34N, R.43E	Surface Only	Marigold
07-0404-10, 07-0404-11, 007-0404-12, 07-0404-13 (Lot 8, Parcel 1-4), 07-0404-05 (Lot 11), 07-0404-06 (Lot 12), 07-0404-09 (Lot 15)	65.7	Section 33, T.34N, R.43E	Surface Only	Marigold
07-0403-03 (Lot 3)	18.7	Section 33, T.34N, R.43E	Surface Only	Marigold
07-0461-09	259.0	Section 9, T.33N, R.43E	Surface Only	Marigold
07-0461-14	259.0	Section 17, T.33N, R.43E	Surface Only	Marigold
07-0461-42 (Parcel A) and 07-0461-43 (Parcel B)	259.0	Section 21, T.33N, R.43E	Fee Simple	Marigold
07-0461-44 (Parcel C) and 07-0461-45 (Parcel D)	259.0	Section 29, T.33N, R.43E	Fee Simple	Marigold
07-0461-39	16.2	Section 16, T.33N, R.43E	Fee Simple	Marigold
07-0461-41	32.4	Section 30, T.33N, R.43E	Fee Simple	Marigold
07-0481-06	254.4	Section 1, T.32N, R.42E	Fee Simple	Marigold
07-0481-11	259.0	Section 11, T.32N, R.42E	Fee Simple	Sterling
07-0481-13	16.2	Section 12, T.32N, R.42E	Fee Simple	Marigold
07-0481-17	194.3	Section 15, T.32N, R.42E	Fee Simple	Sterling
07-0481-19	194.3	Section 13, T.32N, R.42E	Fee Simple	Sterling
07-0491-02	64.8	Section 6, T.32N, R.43E	Fee Simple	Marigold
07-0491-03	277.9	Section 5, T.32N, R.43E	Fee Simple	Marigold
07-0491-07	259.0	Section 7, T.32N, R.43E	Fee Simple	Sterling
07-0491-09	259.0	Section 9, T.32N, R.43E	Fee Simple	Sterling
010-200-02	64.8	Section 15, T.32N, R.42E	Fee Simple	Sterling
010-200-04	64.8	Section 13, T.32N, R.42E	Fee Simple	Sterling
010-200-10	257.5	Section 25, T.32N, R.42E	Fee Simple	Sterling
010-200-12	145.7	Section 33, T.32N, R.42E	Fee Simple	Sterling
010-210-02	64.8	Section 17, T.32N, R.43E	Fee Simple	Sterling
010-210-06	259.0	Section 21, T.32N, R.43E	Fee Simple	Sterling
010-210-12	259.0	Section 29, T.32N, R.43E	Fee Simple	Sterling
010-230-01	8.1	Section 19, T.32N, R.43E	Fee Simple	Sterling
010-230-03	210.1	Section 19, T.32N, R.43E	Fee Simple	Sterling

3.2.2 Owned Unpatented Mining Claims

MMC owns a total of 347 unpatented mining claims within the Marigold project area, as shown in Table 3-3, and 499 unpatented mining claims within the Sterling (Trenton Canyon and Buffalo Valley) project area, as shown in Table 3-4.

All claims, which are renewed annually in September of each year, are in good standing until September 1, 2024 (at which time they will be renewed for the following year as a matter of course). All unpatented mining claims are subject to an annual federal mining claim maintenance fee of $165 per claim plus approximately $10 per claim for county filing fees to the BLM.

Table 3-3: MMC-Owned Unpatented Mining Claims within the Marigold Mine Project Area

BLM Serial Numbers	Claims	Total Number of Claims
NMC371561 to NMC371573	APRI # 1 to APRI # 13	13
NMC519580	APRI # 14	1
NMC552229	APRI # 15	1
NMC361136 to NMC361161	VAL #237 to VAL #262	26
NMC600391 to NMC600402	VAL #1013 to VAL #1024	12
NMC371574 to NMC371609	TYLER # 1 to TYLER # 36	36
NMC454876 to NMC454911	REMARY #237 to REMARY #272	36
NMC552228	REMARY FRACTION	1
NMC359040 to NMC359057	MARY # 73 to MARY # 90	18
NMC400277 to NMC400288	HS #123 to HS #134	12
NMC400289	HS #134A	1
NMC358968 to NMC359003	MARY# 1 to MARY # 36	36
NMC371610	BONZ # 1	1
NMC371612	BONZ # 3	1
NMC371614	BONZ # 5	1
NMC371616	BONZ # 7	1
NMC371618 to NMC371627	BONZ # 9 to BONZ # 18	10
NMC371630 to NMC371639	BONZ # 21 to BONZ # 30	10
NMC451485 to NMC451488	BONZ # 33 to BONZ # 36	4
NMC487422	REBONZ # 2	1
NMC487423	REBONZ # 4	1
NMC487424	REBONZ # 6	1
NMC487425	REBONZ # 8	1
NMC487426 to NMC487427	REBONZ # 19 to REBONZ # 20	2
NMC487428	REBONZ # 31	1

BLM Serial Numbers	Claims	Total Number of Claims
NMC524363	REBONZ # 32	1
NMC1112641 to NMC1112686	GINGER #1 to GINGER #46	46
NMC362237 to NMC362272	LCL #1 to LCL #36	36
NMC684371 to NMC674382	EJM #1 to EJM #12	12
NV106305030 to NV106305053	CB 1 to CB 24	24
Total Number of Claims		**347**

Notes:

1. Claims require an annual maintenance fee / renewal notification in September each year.
2. All claims expire on August 31, 2024 at 11:59:59 A.M.

Table 3-4: MMC-Owned Unpatented Mining Claims within the Sterling Project Area

BLM Serial Numbers (NMC prefix are Legacy Serial Numbers)	Claims	Total Number of Claims
NMC408889 to NMC408906	AP # 1 to AP # 18	18
NMC408907 to NMC408924	AP # 37 to AP # 54	18
NMC670367 to NMC670368	AP #9A to AP #10A	2
NMC689220 and NMC689221	AP 1R and AP 3R	2
NMC632168 to NMC632170	AP 200 to AP 202	3
NMC632172 to NMC632173	AP 204 to AP 205	2
NMC689222 to NMC689224	AP 202R, AP 204R to AP 205R	3
NMC663238	AP 207	1
NMC454061 to NMC454096	APTC # 1 to APTC # 36	36
NMC643209 to NMC643212	Barb # 1 to Barb # 4	4
NMC1192488 to NMC1192495	BERNAL 1 to BERNAL 8	8
NMC933184 to NMC933201	Calf 1 to Calf 18	18
NMC952352 to NMC952369	CALF 19 to CALF 36	18
NMC639207 to NMC639265	CAPE #1 to CAPE #59	59
MC639266 to NMC639268	CAPE #78 to CAPE #80	3
NMC639271 to NMC639277	CAPE #83 to CAPE #89	7
NV105732218 to NV105762251	CB 25 to CB 58	34
NMC976967 to NMC976968	FAIR 1 to FAIR 2	2
NMC728801 to NMC728812	FM 97 to FM 108	12
NMC398105 to NMC398112	FOR # 1 to FOR # 8	8
NMC479569 to NMC479572	FOR # 9 to FOR # 12	4
NMC663239 to NMC663245	FORTOO 1 to FORTOO 7	7
NMC663248 to NMC663253	FORTOO 10 to FORTOO 15	6

BLM Serial Numbers (NMC prefix are Legacy Serial Numbers)	Claims	Total Number of Claims
NMC672352 to NMC672353	FORTOO NO 16 to FORTOO NO 17	2
NMC812860 to NMC812861	FORTOO 18 to FORTOO 19	2
NMC1192496 to NMC1192498	Hatcher 1 to Hatcher 3	3
NMC639282 to NMC639301	HGS #37 to HGS #56	20
NMC639318 to NMC639320	HGS #284 to HGS #286	3
NMC639321 to NMC639323	HGS #288 to HGS #290	3
NMC639324 to NMC639326	HGS #292 to HGS #294	3
NMC639327, NMC415697, NMC415698	HGS #296, HGS #305, HGS #306	3
NMC415702 to NMC415703	HGS #310 to HGS #311	2
NMC479550, NMC479551, NMC409749	Karen # 1, Karen # 3, Karen # 4	3
NMC479552, NMC409750, NMC479553	Karen # 5, Karen # 6, Karen # 7	3
NMC409751, NMC409752	Karen # 8, Karen # 10	2
NMC1192499 to NMC1192516	KUHN 1 to KUHN 18	18
NMC639365 to NMC639382	MAG #47 to MAG #64	18
NMC1001050 to NMC1001066	NP 1 to NP 17	17
NMC479554 to NMC409748	Peg #1 to Peg #10	10
NMC918807 to NMC918826	PEG 1 to PEG 20	20
NMC541209 to NMC541255	PF # 1 to PF # 47	47
NMC556959 to NMC556963	RCL #173 to RCL #177	5
NMC1192517 to NMC1192518	TBJ 8A to TBJ 9A	2
NMC216402 to NMC216435	TCL # 1 to TCL # 34	34
NMC639278 to NMC639281	WP 1 to WP 4	4
Total Number of Claims		**499**

Notes:

1. Claims require an annual maintenance fee / renewal notification in September each year.
2. All claims expire on August 31, 2024 at 11:59:59 A.M.

3.2.3 Leasehold Rights

MMC holds leasehold rights in each of the following leases:

- Mineral Lease Agreement made and entered into as of June 20, 1986, by and between Donald J. Decker and Suzanne R. Decker, as lessors, Nevada North Resources (USA) Inc., as lessee, and Nevada North Resources Inc. (as amended, the “Decker Lease”).
- Lease Agreement made and entered into as of September 15, 1985, by and between Vek Associates, as lessor, and Rayrock Mines, doing business as Cordex, as lessee (as amended, the “Vek & Andrus Lease”).

- Lease Agreement made and entered into as of August 1, 1988, by and between Euro-Nevada Mining Corp., Inc., as lessor, and Rayrock Mines, doing business as Cordex, as lessee (as amended, the "Euro-Nevada Lease").
- Lease Agreement made and entered into as of August 1, 2018, by and between the Board of Regents of the Nevada System of Higher Education on behalf of the University of Nevada, Reno, as lessor, and Marigold Mining Company, as lessee (the "University of Nevada Lease").
- Minerals Lease dated and effective June 17, 1988, by and between SFP Minerals Corporation, as lessor, and Santa Fe Pacific Mining, Inc., as lessee (the "SFP Lease").
- Minerals Lease dated and effective as of February 19, 1986, by and between Southern Pacific Land Company, as lessor, and SFP Minerals Corporation, as lessee (the "Southern Pacific Land Company Lease").
- Minerals Sublease dated and effective April 30, 1986, by and between SFP Minerals Corporation, as sublessor, and Santa Fe Pacific Mining, Inc., as sublessee (as amended, the "Southern Pacific Land Company Sublease" and, together with the Decker Lease, the Vek & Andrus Lease, the Euro-Nevada Lease, the University of Nevada Lease, the SFP Lease and the Southern Pacific Land Company Lease, collectively, the "Leases").
- Minerals Lease Agreement made and entered into as of June 5, 1987, by and between Donald J. Decker and Suzanne R. Decker, as lessors, Nevada North Resources (USA) Inc. and Welcome North Mines (U.S.) Inc., as lessees (the "Franco-Nevada Lease").
- Minerals Lease Agreement made and entered into as of December 20, 1994, by and between Nevada North Resources (USA), Inc. by and between Nevada North Resources (USA), Inc., as lessors, and Santa Fe Pacific Gold Corporation, as lessee (the "Nevada North Lease").
- Minerals Lease Agreement made and entered into as of June 1, 2006, by and between Nevada North Resources (USA), Inc., as lessor, and Newmont USA Limited, d/b/a Newmont Mining Corporation, as lessee (as amended, the "New Nevada 2006 Lease")
- Minerals Lease Agreement made and entered into as of October 16, 2012, by and between New Nevada Resources, LLC and Lease Agreement made and entered into as of October 16, 2012, by and between New Nevada Resources, LLC and New Nevada Lands, LLC, as lessors, and Newmont Mining Company, as lessee (the "New Nevada 2012 Lease").
- Minerals Lease Agreement made and entered into as of December 3, 2014, by and between New Nevada Resources, LLC and Lease Agreement made and entered into as of December 3, 2014, by and between New Nevada Resources, LLC and New Nevada Lands, LLC, as lessors, and Newmont Mining Company, as lessee (the "New Nevada 2014 Lease").

3.2.3.1 Decker Lease Claims

Pursuant to the Decker Lease, MMC has leasehold rights to 170 unpatented mining claims, as shown in Table 3-5. The initial term for the Decker Lease was through May 25, 1991, and thereafter, as long as operations continue.

Table 3-5: Decker Lease Unpatented Mining Claims

BLM Serial Numbers (1), (2), (3)	Claims	Total Number of Claims
NMC48409 to NMC48412	RED # 21 to RED #24	4
NMC48415 to NMC48426	RED # 27 to RED # 38	12
NMC56187 to NMC56198	RED # 39 to RED # 50	12
NMC56199 to NMC56216	RED # 52 to RED # 69	18
NMC271665 to NMC271688	RED #201 to RED #224	24
NMC271689 to NMC271716	RED #601 to RED #628	28
NMC365642 to NMC365677	KIT # 1 to KIT # 36	36
NMC678030 to NMC678047	RED 1801A to RED 1818A	18
NMC678055 to NMC678063	RED 1826A to RED 1834A	9
NMC552226 to NMC552227	RED # 23A to RED # 24A	2
NMC871541 to NMC871547	NURED 1819 to NURED 1825	7
Total Number of Claims		**170**

Notes:

1. Claims require an annual maintenance fee / renewal notification in September each year.
2. All claims expire on August 31, 2024 at 11:59:59 A.M.

3.2.3.2 Vek & Andrus Lease Claims

Pursuant to the Vek & Andrus Lease, MMC has leasehold rights to 205 unpatented mining and millsite claims, as shown in Table 3-6. The initial term for the Vek & Andrus Lease was through September 15, 1995, and runs for terms of ten years and, at the lessee's sole option, may be renewed for up to eight successive ten-year periods, upon prior written notice. A notification of intent to extend the lease was provided to VEK & Andrus on August 13, 2015.

Table 3-6: Vek & Andrus Lease Unpatented Mining and Millsite Claims

BLM Serial Numbers (1), (2), (3)	Claims	Total Number of Claims
NMC271972 to NMC272007	COT # 1 to COT # 36	36
NMC275733	COT # 38	1
NMC275750 to NMC275753	COT # 55 to COT # 58	4
NMC275755	COT # 60	1
NMC275757	COT # 62	1
NMC275759 to NMC275767	COT # 64 to COT # 72	9
NMC342068 to NMC342071	COT # 73 to COT # 76	4

BLM Serial Numbers (1), (2), (3)	Claims	Total Number of Claims
NMC297554 to NMC297571	VAL # 1 to VAL # 18	18
NMC347463 to NMC347475	VAL # 19 to VAL # 31	13
NMC297572 to NMC297607	VAL # 37 to VAL # 72	36
NMC361164 to NMC361172	COT FRAC # 1 to COT FRAC #	9
NMC371559 to NMC371560	COT # 75A to COT # 76A	2
NMC822614	RECOT 37	1
NMC822615 to NMC822619	RECOT 39 to RECOT 43	5
NMC822620	RECOT 45	1
NMC822621	RECOT 47	1
NMC822622 to NMC822626	RECOT 50 to RECOT 54	5
NMC822627	RECOT 59	1
NMC822628	RECOT 61	1
NMC822629	RECOT 63	1
NMC822630	RECOT 63B	1
NMC822560 to NMC822613 (2)	GMMCMS 1 to GMMCMS 54	54
Total Number of Claims		**205**

Notes:

1. NMC822560 to NMC822613 are Mill Site Claims and require an annual maintenance fee / renewal notification in September each year.
2. Claims require an annual maintenance fee / renewal notification in September each year.
3. All claims expire on August 31, 2024 at 11:59:59 A.M.

3.2.3.3 Euro-Nevada Lease Claims

Pursuant to the Euro-Nevada Lease, MMC has leasehold rights to 36 unpatented mining claims, as shown in Table 3-7. The original term for the Euro-Nevada Lease was five years, and, at the lessee’s option, the Euro-Nevada Lease may be renewed for up to 10 additional and successive five-year periods, upon giving the lessor prior written notice. The Euro-Nevada Lease was extended for one additional five-year term commencing May 24, 2023.

Table 3-7: Euro-Nevada Lease Unpatented Mining Claims

BLM Serial Numbers (1), (2)	Claims	Total Number
NMC373649 to NMC373684	SAR# 37 to SAR# 72	36
	Total Number of Claims	**36**

Notes:

1. Claims require an annual maintenance fee / renewal notification in September each year.
2. All claims expire on August 31, 2024 at 11:59:59 A.M.

3.2.3.4 University of Nevada Lease Claims

Pursuant to the University of Nevada Lease, MMC has leasehold rights to property in Section 19, T.33N., R.43E., Humboldt County, Nevada, identified as Humboldt County Assessor's parcel number 007 461 19. The initial term of the University of Nevada Lease was ten years, and the lessee may renew the lease for successive ten-year periods upon providing the lessor with prior written notice. A new agreement was executed on August 1, 2018, and extends through July 31, 2038.

3.2.3.5 SFP Lease Claims

Pursuant to the SFP Lease, MMC has leasehold rights to property in Sections 5, 9, 17, and 31, T.33N., R.43E., Humboldt County, Nevada. The initial term of the SFP Lease was for 20 years or for so long, thereafter, as mining is conducted on a continuous basis.

3.2.3.6 Southern Pacific Land Company Sublease Claims

Pursuant to the Southern Pacific Land Company Sublease, MMC has leasehold rights to certain property in Sections 19 and 31, T.34N., R.43E.; Section 7, T.33N., R.43E.; and Sections 1, 13, and 25, T.33N., R.42E., Humboldt County, Nevada. The initial term of the Southern Pacific Land Company Sublease was for 25 years beginning on April 30, 1986, and for so long, thereafter, as the lessee exercises any rights granted by such sublease.

3.2.3.7 Franco-Nevada Lease Claims

Pursuant to the Franco-Nevada Lease, MMC has leasehold rights to 82 unpatented mining claims, as set out in Table 3-8. The initial term for the Franco-Nevada Lease was from June 5, 1987, for a period of 50 years and for so long, thereafter, as the lessee exercises any rights granted by such lease.

Table 3-8: Franco-Nevada Lease Unpatented Mining Claims

BLM Serial Numbers (1), (2)	Claims	Total Number of Claims
NMC379514 to NMC379585	N-1 to N-72	72
NMC623992 to NMC623995	N-109 to N-112	4
NMC676435	N-20A	1
NMC676436	N-22A	1
NMC676437 to NMC676440	N-28A to N-31A	4
Total Number of Claims		**82**

Notes:

1. Claims require an annual maintenance fee / renewal notification in September each year.
2. All claims expire on August 31, 2024 at 11:59:59 A.M.

3.2.3.8 Nevada North Lease

Pursuant to the Nevada North Lease, MMC has leasehold rights to 48 unpatented mining claims, as set out in Table 3-9. The initial term for the Nevada North Lease was from December 20, 1994, for a period of 10 years and for so long, thereafter, as long as the lessee exercises any rights granted by such lease.

Table 3-9: Nevada North Lease Unpatented Mining Claims

BLM Serial Numbers [(1), (2)]	Claims	Total Number of Claims
NMC409224 to NMC409235	BC-1 to BC-12	12
NMC409236 to NMC409271	BC-13 to BC-48 (Sterling)	36
Total Number of Claims		**48**

Notes:

1. Claims require an annual maintenance fee / renewal notification in September each year.
2. All claims expire on August 31, 2024 at 11:59:59 A.M.

3.2.3.9 New Nevada 2006 Lease Claims

Pursuant to the New Nevada 2006 Lease, MMC has leasehold rights to 112 unpatented mining claims in Sections 33, T.33N, R.43E, Humboldt County, Nevada, as set out in Table 3-10. The initial term for the New Nevada 2006 Lease was from June 1, 2006, for a period of 20 years and for so long, thereafter, as long as the lessee exercises any rights granted by such lease.

Table 3-10: New Nevada 2006 Unpatented Mining Claims

BLM Serial Numbers [(1), (2)]	Claims	Total Number of Claims
NMC750721 to NMC750736	CHU 17 to CHU 32	16
NMC752847 to NMC752882	MB 82 to MB 117	36
NMC780924 to 780959	LOU 1 to LOU 36	36
NMC821539 to NMC821562	BISON # 1 to BISON # 24	24
Total Number of Claims		**112**

Notes:

1. Claims require an annual maintenance fee / renewal notification in September each year.
2. All claims expire on August 31, 2024 at 11:59:59 A.M.

3.2.3.10 New Nevada 2012 Lease

Pursuant to the New Nevada 2012 Lease, MMC has leasehold rights to property in Sections 33, T.33N, R.43E, Humboldt County, Nevada. The initial term for the New Nevada 2012 Lease was from October 16, 2012, for a period of 20 years and for so long, thereafter, as long as the lessee exercises any rights granted by such lease.

3.2.3.11 New Nevada 2014 Lease

Pursuant to the New Nevada 2014 Lease, MMC has leasehold rights to property in Section 5 T.31N., R.42E.; Sections 9, 21, 27, 29, 31, and a portion of Section 23 T.32N., R42E; Sections 11, 23, and 35 T.33N, R.42E, Humboldt County, Nevada. The initial term for the New Nevada 2014 Lease was from December 3, 2014, for a period of 20 years and for so long, thereafter, as long as the lessee exercises any rights granted by such lease.

3.2.3.12 Waseco Options Agreement

The Option Agreement between Waseco Resources US Inc. and Marigold Mining Company, dated effective July 1, 2020, recorded October 1, 2020 (at Document No. 294819 in Lander County, Nevada), provides an option to acquire the Amended and Restated Mining Lease, among Waseco Resources US Inc., Aquarian Mining Exploration Inc. and William Fyvie Holdings Ltd, dated July 1, 2020, recorded October 1, 2020 (at Document No. 294817 in Lander County, Nevada), covering the following unpatented mining claims (Table 3-11) located in Section 20, T. 32N, R. 43E, MDBM, Lander County, Nevada:

Table 3-11: Waseco Options Unpatented Mining Claims

BLM Serial Numbers (1), (2)	Claims	Total Number of Claims
NMC937844 to NMC937852	SBD 1 to SBD 9	9
NMC937853 to NMC937872	SBD 11 to SBD 30	20
Total Number of Claims		**29**

Notes:

1. Claims require an annual maintenance fee / renewal notification in September each year.
2. All claims expire on August 31, 2024 at 11:59:59 A.M.

3.3 Encumbrances and Royalties

Some of the leases require MMC to make certain net smelter return (NSR) royalty payments to the lessors and comply with certain other obligations, including completing certain work commitments or paying taxes levied on the underlying properties. These NSR royalty payments are based on the specific gold-extraction areas and are payable when the corresponding gold ounces are extracted, produced, and sold. The NSR royalty payments vary between 0% and 10.0% of the value of gold production net of off-site refining costs, which equates to an annual average ranging from 3.7% to 10.0% and a weighted average of 7.8% over the life-of-mine (LOM).

3.4 Required Permits and Status

Mining activities at Marigold are authorized by and conducted under both federal and state regulatory requirements, notably the General Mining Law of 1872, the National Environmental Policy Act of 1970, and the Federal Land Policy and Management Act of 1976. All requirements are administered by the BLM, along with applicable statutes and regulations within the Nevada Revised Statutes and Nevada Administrative Code, administered by the Nevada Division of Environmental Protection.

Further discussion regarding the Property's mineral and surface rights, including leasehold rights under the Leases, is provided in Section 3.2. Further discussion regarding permitting requirements with respect to the Property is provided in Section 17.0. MMC holds active, valid permits for all facets of the current mining operation as required by county, state, and federal regulations. MMC performs duties on leased lands pursuant to all federal and state requirements, and all the Leases are maintained in good standing. As part of the Nevada permitting process, MMC engages in concurrent reclamation practices and is bonded for all permitted features.

3.5 Other Significant Factors and Risks

SLR is not aware of any environmental liabilities on the property. SSR Mining Inc. 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

This section has been modified from OreWin (2022).

4.1 Accessibility

Access to the Property is via a five kilometre public road (hard-packed clay and gravel) off the Valmy exit (Exit 216) on Interstate Highway 80. The area around the Property is a well-developed mining area close to necessary all-season infrastructure and resources.

4.2 Climate

The climate is typical of the Great Basin region of the western U.S., with temperatures ranging from highs of 40°C in summer to lows of –7°C in winter. Annual precipitation is relatively low, ranging from 15 cm to 20 cm per year, with approximately 50% of precipitation occurring as snowfall during the months of December through March.

The climate presents no restrictions on the operating season, and Marigold operates year-round.

4.3 Local Resources

The nearby towns of Winnemucca and Battle Mountain host the majority of the skilled labor workforce. Contractor support, transportation, accommodation, meals, bulk fuel, heavy equipment rental, and general suppliers are all readily available in these communities as well as in Elko, which is located approximately 142 km east of Marigold and serves as a major hub for mining operations in northern Nevada. Employees are transported to the Property primarily by contract buses and light-duty vehicles owned by MMC.

4.4 Infrastructure

Marigold has been in continuous operation since 1989. There is significant existing infrastructure on site for delivering power and water to the various mine shops, leach pad, and process and ancillary facilities. The Property is located in a favorable area for natural resource development with significant resources in place to support the mining industry.

Water for Marigold is supplied from three existing groundwater production wells located near the access road to the Property and dewatering wells located around the pits. Marigold owns groundwater rights that collectively allow up to 3.134 million m^3 of water consumption annually, the majority of which is used as makeup water for process operations. On average, total freshwater makeup is 2.4 m^3/min.

Dewatering water is used for makeup water for process operations and dust suppression however the majority is sent to the rapid infiltration basins (RIBs) for infiltration back into the aquifer. A pipeline has been constructed to connect the dewatering circuit to the process circuit so the dewatering water can be used as make-up supply water to the process. This connection minimizes the need for the three production wells, and they will only be used for back-up as needed.

Approximately 5.3 m^3/min of fresh water is required during peak periods in the summer months. The water is primarily consumed by retention in the heap leach pad, evaporation, processing operations, and dust suppression. Marigold also owns 0.893 Mm^3 annually of surface water storage rights associated with the Trout Creek Dam (J-666). In addition, in October 2019, Marigold was issued water right permits associated with the activities described in the Plan of Operations – Mackay Optimization Project Amendment, including permits for the dewatering during mine operations and evaporative losses from a future pit lake that will develop in closure.

The power supply for Marigold is provided by NV Energy Inc. via a 120 kV transmission line to site. Site power draw is 5 MW. After exiting the main substation, power is distributed through a 25 kV distribution grid.

The tailings storage facility (TSF) has been decommissioned and reclaimed. The only remaining activity concerning the TSF is ongoing monitoring.

Details regarding completed, in progress, and future waste rock storage areas (WRSA) at Marigold can be found in Section 13. The leach pad is discussed in detail in Section 14. Further discussion on the Property's infrastructure is provided in Section 15.

4.5 Physiography

Elevations at Marigold range from approximately 1,372 metres above mean sea level (MASL) to 1,890 MASL. Terrain varies from a relatively flat alluvial plain to sloped foothills at the base of the Battle Mountain Range. Vegetation mainly comprises sagebrush, rabbit brush, and a variety of grasses and forbs. Fauna is not abundant on the Property primarily due to the lack of surface water and limited forage. No threatened or endangered plant or animal species have been noted within the Property's operating area.

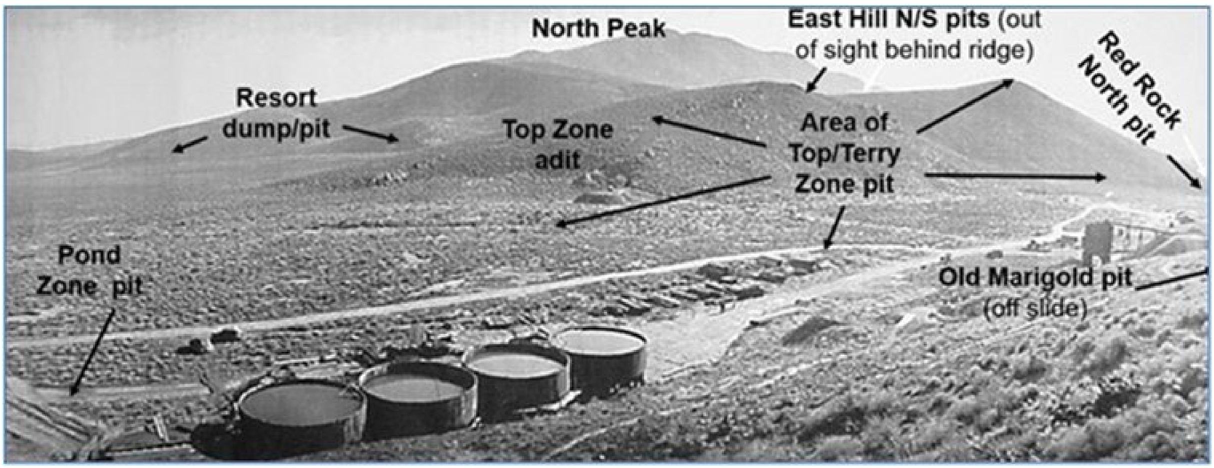
5.0 History

This section has been modified from OreWin (2022).

5.1 Ownership, Exploration, and Development History

The first recorded gold production from the Property near Valmy, Nevada, occurred in 1938 when the Marigold Mining Company, owned by Frank Horton, operated an underground mine which came to be known as Marigold. Figure 5-1 shows the Marigold mine prior to World War II.

Figure 5-1: View to the East–Southeast over the Cyanide Leach Tanks from the Marigold Mine prior to World War II



Source: SSR, 2017

The Horton family processed approximately 9,000 t of ore averaging about 6.85 g/t Au before World War II halted production. In 1943, Mr. Horton's estate sold its interest in the Property and claims. Several unsuccessful attempts were made to open and operate the mine before exploration activities began again in 1968.

From 1968 through 1985, several companies conducted exploration programs in the Marigold area and completed a total of 126 exploratory drill holes. Records document the activities of Homestake (1968), St. Joe (1979), Decker Exploration (1979), Placer Amex (1979–1980), True North, Marigold Development Company (MDC) (1981–1983), Welcome North (1984), and Nevada North Resources (USA) Inc. (1985–1986). Other groups that conducted work in the area include Newmont, Kerr-McGee, SFP Minerals Corporation, Cordex/Rayrock Mines, and Vek/Andrus Associates (partnership between Vic Kral, Ralph Roberts, Bob Reeve, and Bill Andrus composed of Vek Associates and Andrus Resources Corporation).

From 1983 through 1984, MDC excavated a small open pit over the historical Marigold underground workings, producing 2,812 t containing 271 oz gold (McGibbon, 2004).

In 1985, Vek/Andrus Associates drilled three holes under the supervision of Ralph Roberts in the Section 8 area of the Property, just northeast of the old underground mine. Roberts invited Andy Wallace of Cordex to view the drilling results, and Wallace was encouraged by the deep level of oxidation, presence of favorable rock units, anomalous indicator elements, and anomalous gold values. The operating partner Cordex, an exploration syndicate composed of Dome Exploration (U.S.) Ltd., Lacana Gold Inc. (Lacana) and Rayrock Mines, leased the

Vek/Andrus Associates claim block in September 1985 and began a drilling program in November 1985. Drill holes NM-3 and NM-4 intersected 21.3 m of 2.40 g/t Au and 25.9 m of 7.54 g/t Au, respectively. These were the discovery holes for the 8 South (8S) ore body (Roberts, 2002).

The Property is within the “checkerboard” railway lands, where the U.S. Government originally awarded the surface, water, and mineral rights for alternate sections (2.5 km^2 of land) to the Santa Fe Pacific Railroad as an incentive to develop the transcontinental railway project in the 1860s. Santa Fe Pacific Railroad eventually became the parent company of SFP Minerals. Following further drilling in the 8S deposit in the spring of 1986, a joint venture was formed between SFP Minerals and the Cordex group, which consolidated some of the land holdings over the Marigold area.

In late-1986, the Cordex group leased other claims, including the historical Marigold mine, Mackay (Top Zone, East Hill, and Red Rock) area from various claim holders.

In March 1988, Rayrock Mines (operating company for Cordex) made a production decision on the 8S deposit, and, by September 1988, it began stripping on the 8S pit (McGibbon, 2004).

In August 1989, the first gold doré bar was poured at the Marigold mill.

In March 1992, Rayrock Mines purchased a two thirds ownership interest in the Property, and Homestake Mining Company (Homestake), which had taken Lacana’s interest through previous corporate mergers, held the remaining one third ownership interest in the Property.

In 1994, mining of the 8S deposit was completed, and the Marigold mill was no longer used to process ore. At this point, Marigold became a run-of-mine (ROM) heap leach operation.

In March 1999, Glamis Gold Ltd. (Glamis Gold) purchased all the assets of Rayrock Mines, resulting in Glamis Gold holding a two thirds ownership interest in Marigold, and Homestake continuing to hold a one third ownership interest. In the same year, the Basalt, Antler, and Target II deposits were discovered at the south end of the Property in Section 31. These deposits were mined and partially backfilled with the unmined East Basalt deposit which is currently under development as an easterly extension of the original Basalt pit.

By January 2001, a total of one million ounces of gold had been recovered from the Property. In July 2001, Glamis Gold released a revised NI 43-101 Technical Report (Glamis Gold, 2001) to report the Mineral Resources and Mineral Reserves for Section 31 of the Property.

In 2006, Glamis Gold merged with Goldcorp Inc. (Goldcorp), resulting in a Goldcorp subsidiary holding a two thirds ownership interest in Marigold and being the operator. Homestake, which had been acquired by Barrick Gold Corporation (Barrick) in 2001, continued to hold the remaining one third ownership interest.

In 2007, discovery holes were drilled in the Red Dot deposit.

By mid-2009, two million ounces of gold had been recovered from Marigold.

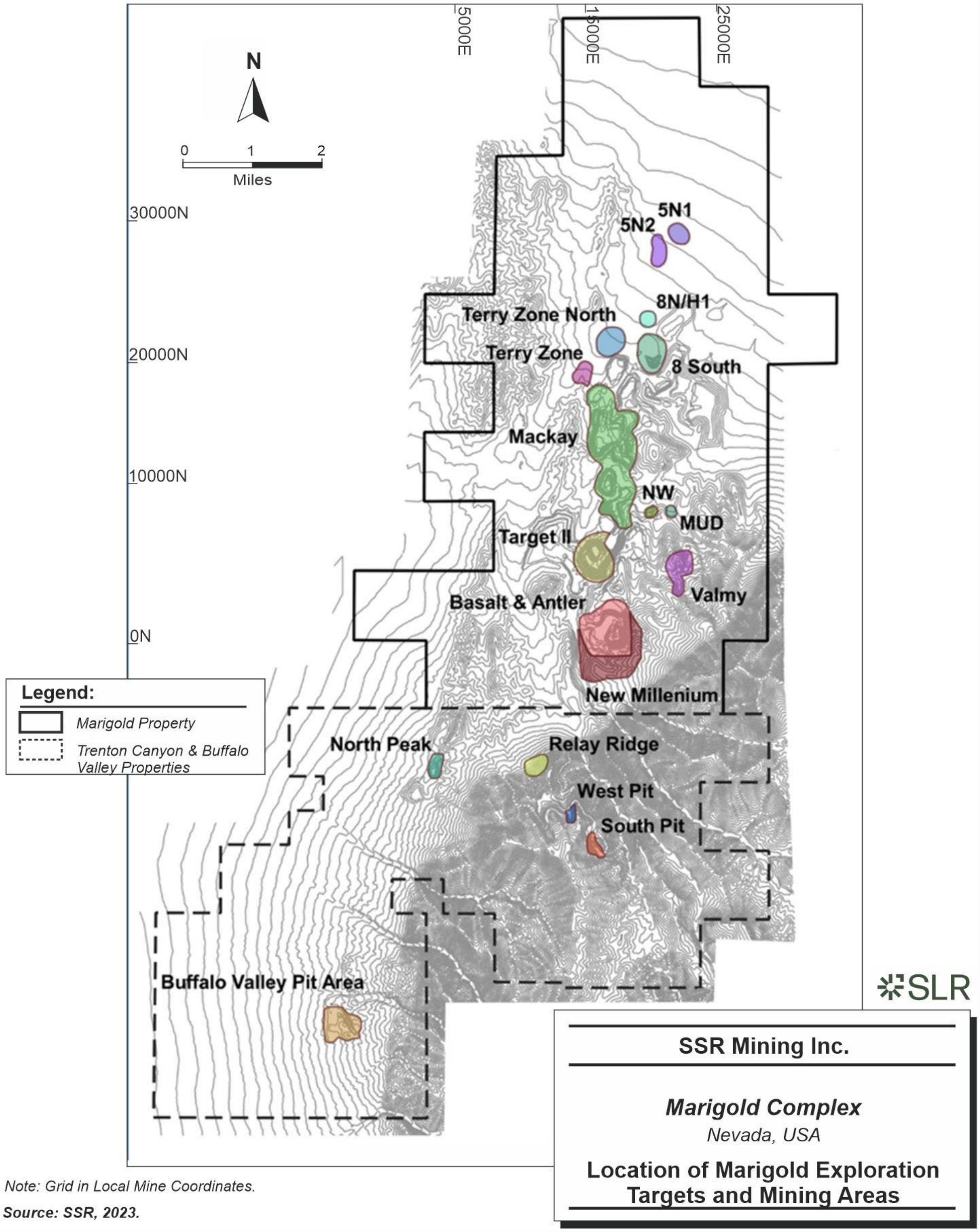
On April 4, 2014, SSR (formerly Silver Standard Resources Inc.) completed the acquisition of Marigold from subsidiaries of Goldcorp and Barrick, and prepared updated Mineral Resources and Mineral Reserves estimates (Silver Standard, 2014).

In August 2015, Marigold mine acquired 2,844 ha of adjacent land from Newmont. This land included previously mined areas known as the Mud pit, NW pit, and the Valmy pits. Exploration drilling in the area had been completed by a combination of companies including Hecla Mining Company (Hecla), SFP Minerals, and Newmont.

In June 2019, SSR acquired the Trenton Canyon and Buffalo Valley properties from Newmont Goldcorp Corporation (Newmont). The Trenton Canyon target is located approximately four kilometres south of New Millennium and the Buffalo Valley target is located approximately 10 km southwest of New Millennium. Both properties are included in an 8,900 ha parcel that is contiguous to the south boundary of the Marigold property

A summary of the historical exploration work carried out on the Property is shown in Table 5-1. Figure 5-2 presents the exploration targets and mining areas for the Property.

Figure 5-2: Location of Marigold Exploration Targets and Mining Areas



Note: Grid in Local Mine Coordinates.

Source: SSR, 2023.

Table 5-1: Summary of Historical Exploration

Year	Property	Company	Exploration Type	Details
1968–1985	Marigold	Various exploration and mining groups	Drilling	7,037.2 m in 126 drillholes.
1985–1999	Marigold	Cordex and Rayrock Mines	Drilling	335,500.7 m in 2,358 drillholes.
			Geophysics	1989 – CSAMT survey conducted by Quantec Geoscience using Zonge CSAMT System covering 33 EW and NW-SE lines, spaced 300.3 m and 499.9 m. A total of 59.2 km covered.
				1997/1999 – CSAMT survey conducted by Zonge Geoscience using Zonge CSAMT System covering 33 EW and NW–SE lines, spaced 300.3 m and 499.9 m. A total of 51.8 km covered.
				1998 – Gravity survey conducted by Zonge Geoscience using Scintrex Gravity Meter, Trimble GPS System survey conducted on 150 m square grid and data collected from a total of 1,252 stations.
				1999 – Induced Polarization conducted by Zonge Geoscience using Zonge IP system, Dipole-Dipole Array, A = 182.9 m, one line N20W. A total of 3.0 km covered.
1999–2006	Marigold	Glamis Gold	Drilling	486,648.9 m in 2,506 drillholes.
			Geophysics	2004 – Airborne Magnetic conducted by Pearson, deRidder & Johnson, Inc. using Ultra Light System / 75.0 m EW flight lines, 300.3 m NS tie lines. A total of 323.5 km covered.
2006–2013	Marigold	Goldcorp	Drilling	528,225.7 m in 1,870 drillholes.
			Geophysics	2009 – Magneto-telluric/Induced Polarization survey conducted by Quantec Geoscience, using Quantec Titan System. 11 lines in various orientations. A total of 46.4 km covered.
				2010 – Induced Polarization conducted by Zonge Geoscience using Zonge IP system, Dipole-Dipole Array, A= 150.0 m and 200.0 m, 27 lines EW, spaced 300.3 m –1,499.9 m. A total of 117.5 km covered.
				2009–2010 – Review of all geophysical survey data and compilation of Marigold geophysical data by J L Wright Geophysics.

Year	Property	Company	Exploration Type	Details
2006–2013	Marigold	Goldcorp	MMI Survey	2007–2009 – Initial survey in 2007 covered Red Dot area, and, in 2008–2009, most of undisturbed land within Marigold was covered. A total of 11,493 samples were taken. Samples collected every 15.2 m along 117 EW lines separated by 30.5 m. In 2007, samples were analysed for Ag, As, Au, Ba, Cd, Co, Cu, Pb, Pd, Sm, Y, Zn, and Zr. In 2008, Pd was dropped. In 2009, Co, Sm, Y, and Zr were dropped and replaced with Mg, Sr, and Sb.
1985–2006	Valmy property	Newmont (including Hecla and SFP Minerals)	Drilling	109,363 m in 867 drillholes. Data was acquired from Newmont with the acquisition of the 2,844 ha Valmy property in 2015.
1980-2012	Buffalo Valley and Trenton Canyon	Newmont (including Fairmile, Hecla and others)	Drilling	1574 RC and Core drillholes for 183,079m at Buffalo Valley 1,149 RC and Core drillholes for 153,701m at Trenton Canyon.
1980-2012	Buffalo Valley and Trenton Canyon	Newmont (including Fairmile, Hecla and others)	Geophysics	Multiple Geophysical survey were carried over Buffalo Valley and Trenton Canyon properties by 5 different contractors and Newmont; these include – Airborne Electromagnetic Survey (AEM), Aero magnetic survey (AMAG), Airborne Radiometric Survey (ARAD), Controlled Source Audio Magneto-telluric Survey (CSMAT), Gravity (GRAV).

5.2 Past Production

5.2.1 Marigold

Gold recovery at Marigold was initially done by a milling circuit with a carbon-in-leach (CIL) process and then a ROM heap leach process where the ore was dumped on a lined leach pad and irrigated with a diluted cyanide solution. The tonnes, grade, and contained and recovered ounces from the start of commercial production in August 1989 to April 1, 2014, is provided in Table 5-2; operations included both milled and leach pad processing. The tonnes, grade, and contained and recovered ounces from April 1, 2014, when SSR acquired the Complex, to September 30, 2023, is provided in Table 5-3. Processing from April 1, 2014 to date is leach pad only.

An overall average recovery for the milling circuit was 95%, and it was calculated to be at 70.6% with the ROM heap leach process for the period August 1989 to September 30, 2023.

Table 5-2: Marigold Historical Production from August 1989 to April 1, 2014

Process Type	Tonnes (Mt)	Au Grade (g/t)	Contained Gold (koz)	Recovered Gold (koz)
Leach Pad	146.1	0.67	3,139	2,265
Milled	4.6	3.13	483	458
Total	**150.7**	**0.75**	**3,622**	**2,723**

Table 5-3: Marigold Production from April 1, 2014 to September 30, 2023

Year	Tonnes (Mt)	Au Grade (g/t)	Contained Gold (koz)	Recovered Gold (koz)
2014	11.20	0.60	215	130
2015	20.61	0.44	294	207
2016	23.56	0.46	345	205
2017	25.59	0.35	285	202
2018	27.53	0.37	324	205
2019	25.68	0.40	327	220
2020	23.56	0.39	297	234
2021	20.00	0.41	263	235
2022	18.06	0.56	323	195
2023	18.14	0.46	268	196
Total	**213.91**	**0.43**	**2,941**	**2,030**

5.2.2 Trenton Canyon

The Trenton Canyon property operated as an open pit run-of-mine heap leach operation from 1996 to 2001 producing approximately 290,000 ounces of gold from the North Peak, West, and South pits.

5.2.3 Buffalo Valley

Mining was carried out on the Buffalo Valley property from 1989 to 1991 producing approximately 50,000 ounces of gold.

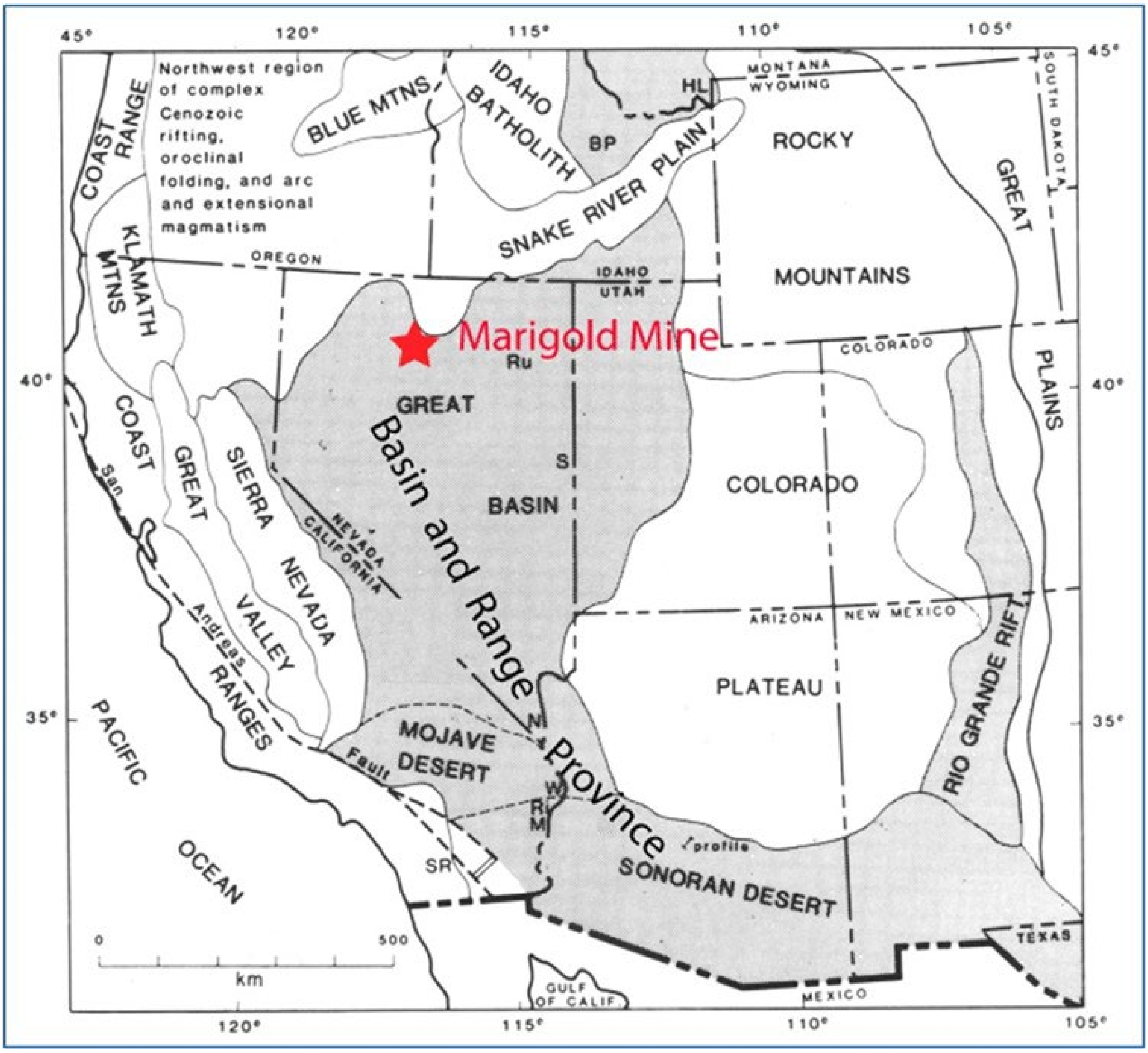
6.0 Geological Setting, Mineralization, and Deposit

The following sections contained in this TRS have been derived, and in some instances extracted, from documentation (OreWin, 2022) and information supplied to SLR by SSR for review and audit.

6.1 Regional Geology

Marigold is located in north-central Nevada within the Basin and Range physiographic province bounded by Sierra Nevada to the west and the Colorado Plateau to the east (Figure 6-1).

Figure 6-1: Location of the Marigold Mine in North-Central Nevada within the Basin and Range Physiographic Province



Source: Modified after Hamilton, 1987

Paleozoic basement rocks of north-central to north-eastern Nevada generally comprise four distinct tectonostratigraphic assemblages: the eastern carbonate assemblage; the slope or transitional assemblage; the western siliceous and volcanic assemblage; and the overlap assemblage (Roberts, 1964).

In north-central Nevada, western assemblage rocks are tectonically emplaced over slope and eastern assemblage rocks along the Roberts Mountain thrust, although the legitimacy of the thrust is disputed (Ketner, 2013). Uplift and erosion of the Antler highland in the Pennsylvanian shed clasts of western assemblage rocks into a foreland basin, forming basal units of the Pennsylvanian-Permian overlap assemblage.

Marine sedimentary rocks and submarine volcanic rocks accumulated in a basin west of the Antler orogenic belt from the Mississippian to the Permian. These rocks were transported eastward and structurally emplaced on top of western assemblage and overlap assemblage rocks along the Golconda thrust during the Permo-Triassic Sonoma orogeny (Roberts, 1964). The mechanism for compression resulting in the Sonoma orogeny is controversial, and modern work by Ketner (2008) has called into question the relationship between the Sonoma orogeny and the Golconda thrust.

Compression during the Jurassic and Early Cretaceous resulted in subduction of oceanic plate material beneath continental crust of western North America, generating large volumes of intermediate to felsic melts along a magmatic arc and emplacement of plutons into the Sierra Nevada batholith. Continued compression resulted in accretion of oceanic arc terrane onto the continental margin, forming thrust belts and ophiolite sequences. Collectively, these Andean and Cordilleran style compression events are known as the Nevadan orogeny. The Nevadan orogeny resulted in substantial back-arc shortening and formation of the Luning-Fencemaker fold-thrust belt in Nevada (Wyld et al., 2003). A major mode of felsic plutonism also occurred in Nevada during the late Jurassic (~155–160 Ma) (du Bray, 2007).

Late Jurassic and Cretaceous compression formed an extensive fold and thrust belt further east in Utah and Wyoming during the Sevier orogeny. Flat-slab subduction of the Farallon plate underneath North America from the late Cretaceous to Eocene resulted in thick-skinned deformation and uplift of the Rocky Mountains from New Mexico to British Columbia during the Laramide orogeny. The second major mode of felsic plutonism occurred in Nevada during this time (~90–95 Ma) (du Bray, 2007), associated with porphyry-style base metal mineralization events.

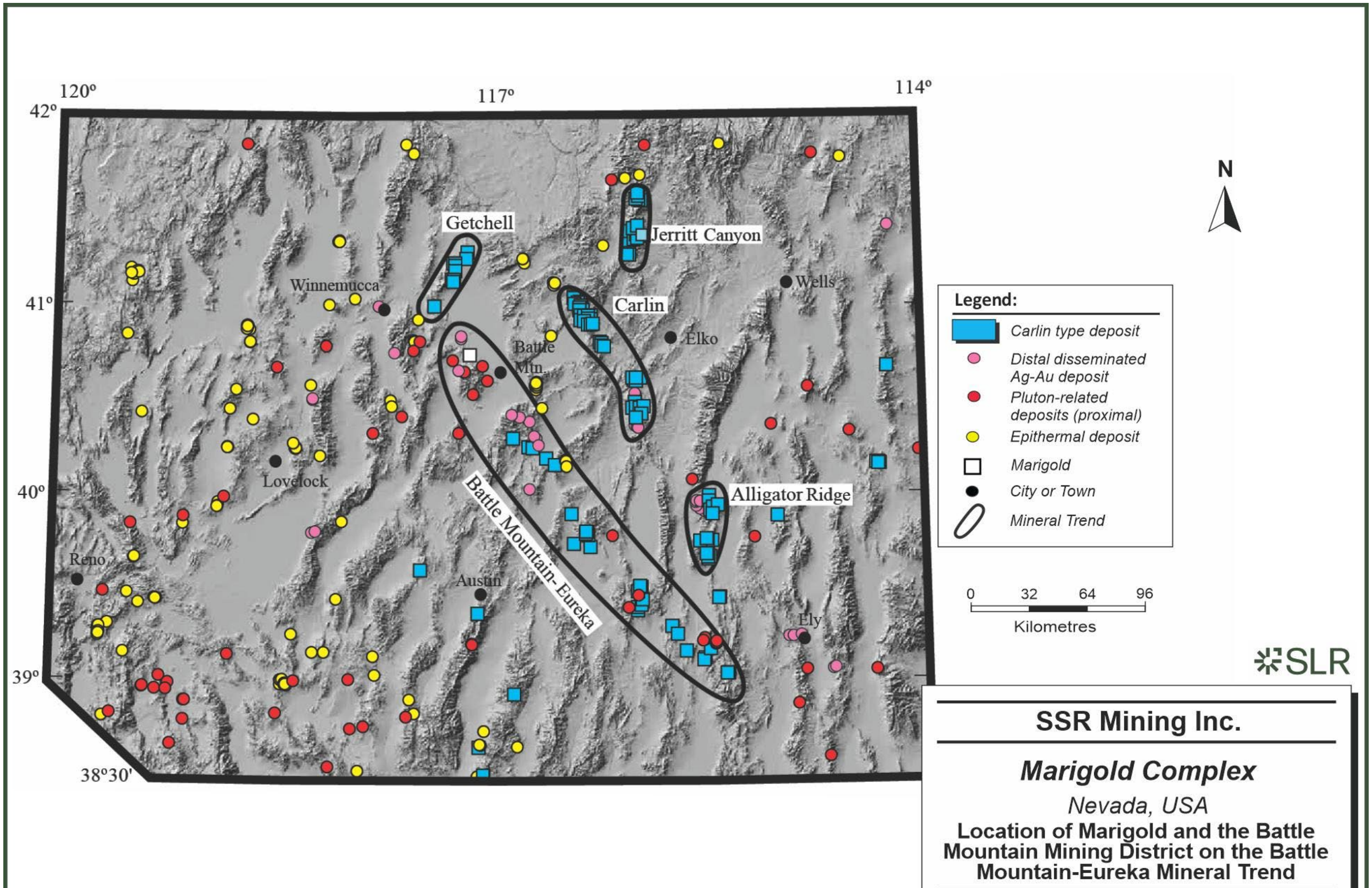
As the Laramide orogeny waned into the Eocene, there was a major transition from compressional to extensional tectonic regimes in Nevada. Extensional tectonic stresses resulted in the development of basin and range physiography seen throughout central Nevada. The landform is characterized by a series of horsts and grabens that created narrow north–north-east oriented ranges separated by flat bottomed valleys. Extension and resultant crustal thinning are associated with the third major magmatic pulse in Nevada, during which time several porphyry copper–gold systems developed. In addition, the famous Carlin-type gold deposits (CTGD) of northern Nevada are thought to have formed during this time (~36–42 Ma) (Cline et al., 2005).

Magmatism of andesitic to rhyolitic affinity dominated from the Late Eocene to Early Miocene with the production of voluminous ash flowsheets, plutons, hypabyssal intrusives and calderas. Volcanic arc-related andesitic igneous activity continued in western Nevada from early to late Miocene. Further east in central and eastern Nevada, rift related bi-modal rhyolite and tholeiitic basalt were emplaced in the Mid Miocene and are related to epithermal silver–gold deposits in the region.

6.2 Local Geology

The Property is in the Battle Mountain mining district on the northern end of the Battle Mountain-Eureka trend, a conspicuous lineament of sedimentary-hosted gold deposits (Figure 6-2). The Battle Mountain district hosts numerous mineral occurrences, including porphyry copper–gold, porphyry copper–molybdenum (Cu-Mo), skarn, placer gold, distal disseminated silver-gold, and Carlin-type gold systems.

Figure 6-2: Location of Marigold and the Battle Mountain Mining District on the Battle Mountain-Eureka Mineral Trend



Source: Modified after Wallace et al., 2004.

6.2.1.1 Stratigraphy

The Battle Mountain mining district is underlain by Paleozoic metasedimentary and metavolcanic rocks that are cut by Jurassic, Cretaceous, and Eocene intrusions. Post-mineralization tuff, volcanic rock, and detritus were deposited and preserved in structural and paleotopographic lows. The oldest rocks in the Battle Mountain mining district are para-autochthonous Cambro-Ordovician carbonate, clastic, and volcanic rocks in the footwall of the Roberts Mountain allochthon; these are assigned to the Comus-Preble Formation (Cook, 2015). The Comus-Preble Formation comprises fine-grained siliciclastic turbidite sequences, mudstone, siltstone, limey mudstone, limestone, debris flows, and mafic volcanic flows.

Rocks of the Roberts Mountain allochthon were thrust eastward during the Devonian-Mississippian Antler orogeny. This event resulted in intense deformation, including folding and intra-formational thrusting of the metasedimentary units that comprise the Roberts Mountain allochthon. Rocks of the allochthonous clastic assemblage in the Battle Mountain district were previously separated into the Cambrian Scott Canyon Formation, Cambrian Harmony Formation, and the Ordovician Valmy Formation, complicating the understanding of Paleozoic tectonic processes affecting the district. Recent work by Ketner (2008; 2013) proposed the abandonment of the Scott Canyon Formation and reassignment of these rocks to the Valmy and Harmony Formations. Ketner (2008) demonstrated the Harmony Formation conformably overlies the Valmy Formation, eliminating the necessity for the Dewitt thrust mapped by Roberts (1964) and Theodore (1991).

Unconformably overlying rocks of the clastic assemblage is the autochthonous Antler overlap sequence; a Pennsylvanian-Permian package of conglomerate, limestone, siltstone, and debris flow. Basal Antler sequence rocks were deposited as material eroded off the Antler highland into a foreland basin during the Antler orogeny. The base of the Antler sequence, the Battle Formation, is a coarse conglomerate up to approximately 220 m thick (Roberts, 1964) that contains clasts derived from the Roberts Mountain allochthon and underlying para-autochthonous rocks. The Battle Formation was deposited in a fluvial-to-shallow marine environment, with coarse, locally derived boulders at the base and interbedded limestone and siltstone units toward the top.

Disconformably overlying the Battle Formation is the Antler Peak Limestone Formation, a package of shallow marine carbonate rocks over 180 m thick at its type locality (Roberts, 1964). The Antler Peak Limestone Formation contains abundant brachiopod, coral, and crinoid fossils. The type of section for the Antler Peak Limestone Formation is in the Battle Mountain Range at Antler Peak.

The Permian Edna Mountain Formation disconformably overlies the Antler Peak Formation and consists of locally present basal debris flow and brown weathering phosphatic siltstone (McGibbon, 2005) at least 120 m thick. Unoxidized Edna Mountain Formation is black in color and difficult to differentiate from unoxidized siltstone of the Havallah sequence in drill cuttings and in the field.

Allochthonous rocks of the Mississippian-Permian Havallah sequence were tectonically emplaced over rocks of the Antler sequence, Valmy Formation, and Preble-Comus Formation during the Permo-Triassic Sonoma orogeny (Theodore, 2000; McGibbon, 2005). The Havallah sequence includes chert, siltstone, limestone, conglomerate, sandstone, and submarine volcanic rocks. The total thickness of the sequence is thought to exceed 2.8 km (Roberts, 1964).

Igneous Rocks

The oldest igneous rocks in the district are submarine pillow basalts within the Cambro-Ordovician Preble-Comus and Ordovician Valmy Formations.

Volcanic rocks within the Preble-Comus are only known from drill core and consist of submarine pillow basalt and volcaniclastic units derived from a continental source. These rocks are typically highly altered due to their age, submarine emplacement, present surface to near-surface position, and exposure to hydrothermal systems.

Metabasalt belonging to the Valmy Formation outcrops in the vicinity of Trout Creek south of the Oyarbide fault. On the east side of the district at Elder Creek, diorite dikes of Devonian age are inferred based on cross-cutting relationships. Mesozoic igneous rocks include a relatively unaltered Jurassic lamprophyric dike (Fithian, 2015) and an abundance of north-west striking Cretaceous granodiorite and quartz monzonite porphyry dikes and stocks.

Late Cretaceous granodiorite and quartz monzonite porphyry rocks are associated with molybdenum mineralizing systems at Buckingham, Trenton Canyon, and Buffalo Valley (Doebrich and Theodore, 1996).

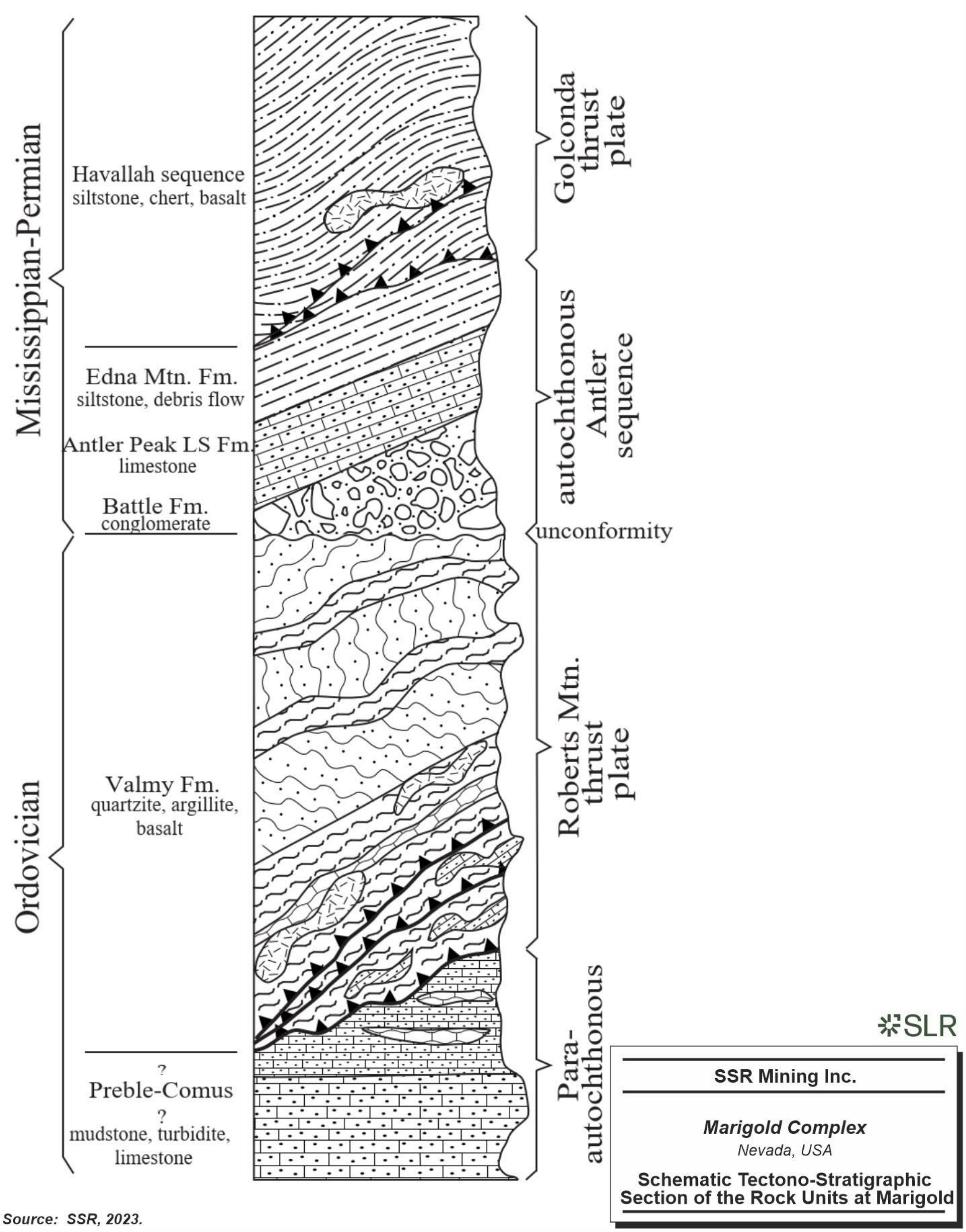
Cenozoic igneous activity coincided with the onset of extensional tectonism throughout the Basin and Range province and normal reactivation of north and north-west striking faults in the Battle Mountain district (Doebrich and Theodore, 1996).

Late Eocene to Early Oligocene granodiorite to monzogranite intrusive stocks and dikes are associated with copper-gold mineralizing systems in the district, such as those at Converse and Copper Canyon. Intrusive dikes and sills are typically low relief slope forming units with very little outcrop in part due to argillic alteration where it has been exposed to hydrothermal fluids.

Tertiary volcanic rocks in the district are post-mineralization. Oligocene to Miocene rhyolitic tuff and basaltic andesite flows are intercalated with Tertiary gravels and are locally ridge-forming units. The youngest volcanic rock, Pliocene (2.8–3.3 Ma) basalt, is present south-east of Copper Canyon (Doebrich and Theodore, 1996).

The Project stratigraphy is illustrated in Figure 6-3.

Figure 6-3: Stratigraphic Column for the Marigold Complex



Source: SSR, 2023.

6.2.2 Structure

Geophysical and isotopic evidence indicate that broad structural zones within the Battle Mountain-Eureka trend may be related to large-scale tectonic processes affecting the western margin of North America from the late Proterozoic through Mesozoic (Grauch et al., 2003). These features may be associated with deep crustal faults that originated as rift or transform faults during Proterozoic breakup of Rodinia, or as faults accommodating late Paleozoic compressional tectonic events (Grauch et al., 2003). Within the Battle Mountain-Eureka trend, deep crustal normal faults with a north-west, north, and north-east strike have influenced sedimentation, deformation, magmatism, extension, and mineralization (Grauch et al., 2003).

In the Battle Mountain mining district, the most prominent surface fault expressions are thrust faults related to Paleozoic-Mesozoic compressional tectonism, and normal faults related to Cenozoic extensional tectonic regimes. There is evidence of a more cryptic late Paleozoic transtensional fault system throughout the district, which is potentially late to post-Antler orogeny. These structures do not display significant slip in post-Permian aged rocks, and as a result are commonly concealed. Structures related to the transtensional fault system are responsible for preservation of thick wedges of Antler sequence rocks.

The Permo-Triassic Golconda thrust fault is traceable throughout the entire Battle Mountain range. Onset of the latest crustal extension began in the late Eocene and has continued sporadically to present. The most prominent extensional faults in the district are the range-bounding normal faults that define the Battle Mountain range, including the post-mineralization, south-west striking Oyarbide fault (Doebrich and Theodore, 1996).

At least four generations of folding are recorded in Ordovician rocks of the Roberts Mountain allochthon, including tight-to-isoclinal overturned F1 folds with north-west–south-east fold axes, open and upright F2 folds with west–north-west fold axes, large-scale open and upright F4 folds with north–north-east fold axes, and roll-over anticline style F5 folds that affect the entire rock package. Fold events F1 and F2 pre-date deposition of Antler sequence rocks. The F3 fold event is restricted to the Havallah sequence. F4 folds are thought to be related to Mesozoic tectonics and affect Comus-Preble Formation, Valmy Formation, Antler sequence, and Havallah sequence rocks, while F5 folds appear to affect the entire rock package including Tertiary rocks.

6.3 Property Geology

6.3.1 Marigold

6.3.1.1 Property Stratigraphy

Sedimentary Rocks

Four packages of Paleozoic sedimentary and metasedimentary rocks are present at Marigold. In ascending tectono-stratigraphic order, they include: the Cambro-Ordovician Comus-Preble Formation; the Ordovician Valmy Formation of the Roberts Mountain allochthon; the Pennsylvanian-Permian Antler overlap sequence; and the Mississippian-Permian Havallah sequence of the Golconda allochthon. The distribution of these Paleozoic units is shown in plan view in Figure 6-4.

There are no Mesozoic sedimentary rocks in the Marigold mine area; however, approximately two thirds of the Property is covered by Tertiary to Quaternary intercalated gravel and volcanic material.

Comus-Preble Formation

The assignment of rocks to the Comus-Preble Formation at Marigold is the result of an extensive effort to explore the depths of the Marigold system. On the basis of lithology and deformation style, rocks believed to be positioned below the Roberts Mountain Thrust were assigned to the Comus-Preble Formation.

The Comus-Preble Formation consists of fine-grained siliciclastic turbidite sequences, mudstone, siltstone, limey mudstone, limestone, debris flows, and mafic volcanic flows. Based on data compiled from downhole televiewer logs, abrupt lithologic change from overlying rocks correlates with a transition from tight, east-vergent, overturned folds to open folds.

Valmy Formation

The Valmy Formation consists of quartzite, argillite, and lesser chert and metabasalt, all of which are complexly folded and faulted in the Marigold mine area. The total thickness of the Valmy Formation is approximately 450 m at Marigold, although true thickness of the section is likely less than 200 m.

Fold deformation in the Valmy Formation is characterized by tight, east-vergent, and overturned folds. This fold deformation has resulted in shattering of quartzite beds and ductile deformation of argillite. Where the contact is not eroded or structurally displaced, the top of the Valmy Formation is unconformably overlain by rocks of Pennsylvanian age. Silurian and Devonian rocks are not present either due to nondeposition or erosion.

Antler Sequence

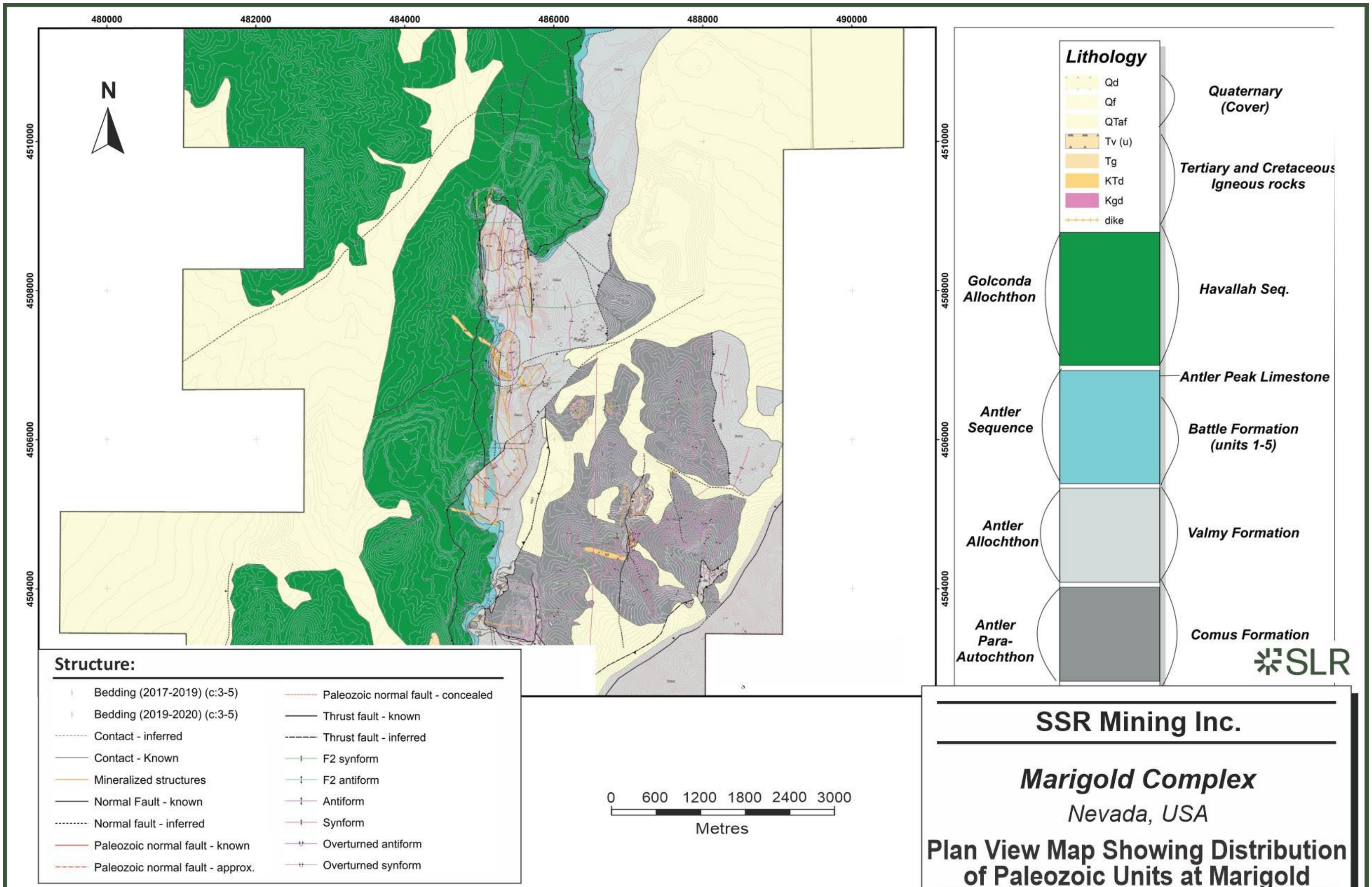
The Antler overlap sequence is composed of Pennsylvanian to Permian-aged rocks assigned to three formations: the basal Battle Formation; the Antler Peak Limestone Formation; and the Edna Mountain Formation. These Formations represent a transgressive sequence of fluvial-to-shallow marine rocks that include conglomerate, sandstone, limestone, siltstone, and debris flows. There is evidence the Antler sequence was locally deposited into sub-basins developed by normal offset on growth faults of likely Late Pennsylvanian to Early Permian age.

Antler sequence rocks are relatively undeformed, except for offset and rotation along Basin and Range normal faults and potentially low-amplitude, long-wavelength (kilometres to tens of kilometres) F4 folding likely related to Mesozoic deformation. The Antler sequence is in thrust contact with the overlying and partially contemporaneous Havallah sequence.

Havallah Sequence

The uppermost package of Paleozoic rocks exposed at Marigold is the Mississippian-Permian Havallah sequence. The Havallah sequence is an assemblage dominated by siltstone, metabasalt, chert, sandstone, conglomerate, and carbonate rocks. These marine sedimentary rocks were deposited in a fault-bounded deep-water trough (Ketner, 2008) and subsequently obducted over the Antler sequence along the Golconda thrust (Roberts, 1964). Fold deformation in the Havallah sequence is highly variable, ranging from relatively undeformed to tight to isoclinal, overturned and recumbent F3 folds.

Figure 6-4: Plan View Map Showing Distribution of Paleozoic Units at Marigold



Source: SSR, 2023.

Igneous Rocks

A 2 m interval of an extremely biotite-rich intrusive rock, interpreted to be lamprophyre, was intersected in a single drill hole approximately 1,100 m below the pre-mining topography. Even though the rock is relatively unaltered, the lamprophyre is Jurassic in age (160.7 ± 0.1 Ma Ar-Ar of biotite) (Fithian, 2018) and is age-equivalent to lamprophyre intrusions in northern Nevada.

A series of Late Cretaceous (~92.22 ± 0.05 Ma to 97.63 ± 0.05 Ma, CA-TIMS of zircon) (Fithian, 2015) porphyritic quartz-monzonite dikes crosscut the Paleozoic rock package at Marigold. The intrusions are up to tens of metres wide, and several can be traced along strike for hundreds of metres. The dikes strike south-east to north–south and are typically steeply dipping. No alteration aureole related to these intrusive rocks has been identified at Marigold (Fithian, 2015). The dikes contain phenocrysts of plagioclase feldspar, biotite, hornblende, and quartz. The mafic phenocrysts have all been altered to secondary mineral assemblages to varying degrees.

Oligocene (~31.8 ± 0.8, 31.4 ± 1.0 Ma) (Theodore, 2000) basaltic andesite is present on the Property, and forms a small, mesa-like landform between Trout and Cottonwood Creeks. The basaltic andesite is crudely columnar in this location.

Late Oligocene to Early Miocene (22.9 ± 0.7 Ma) (McKee, 2000) post-mineralization rhyolite tuff is intercalated with gravel throughout the Property. The tuff contains phenocrysts of biotite and is typically altered to white clay. The tuff provides a minimum age of mineralization at Marigold, as it is unmineralized and immediately overlies the orebody at the 8S deposit (Theodore, 2000; McGibbon and Wallace, 2000).

6.3.1.2 Property Structure

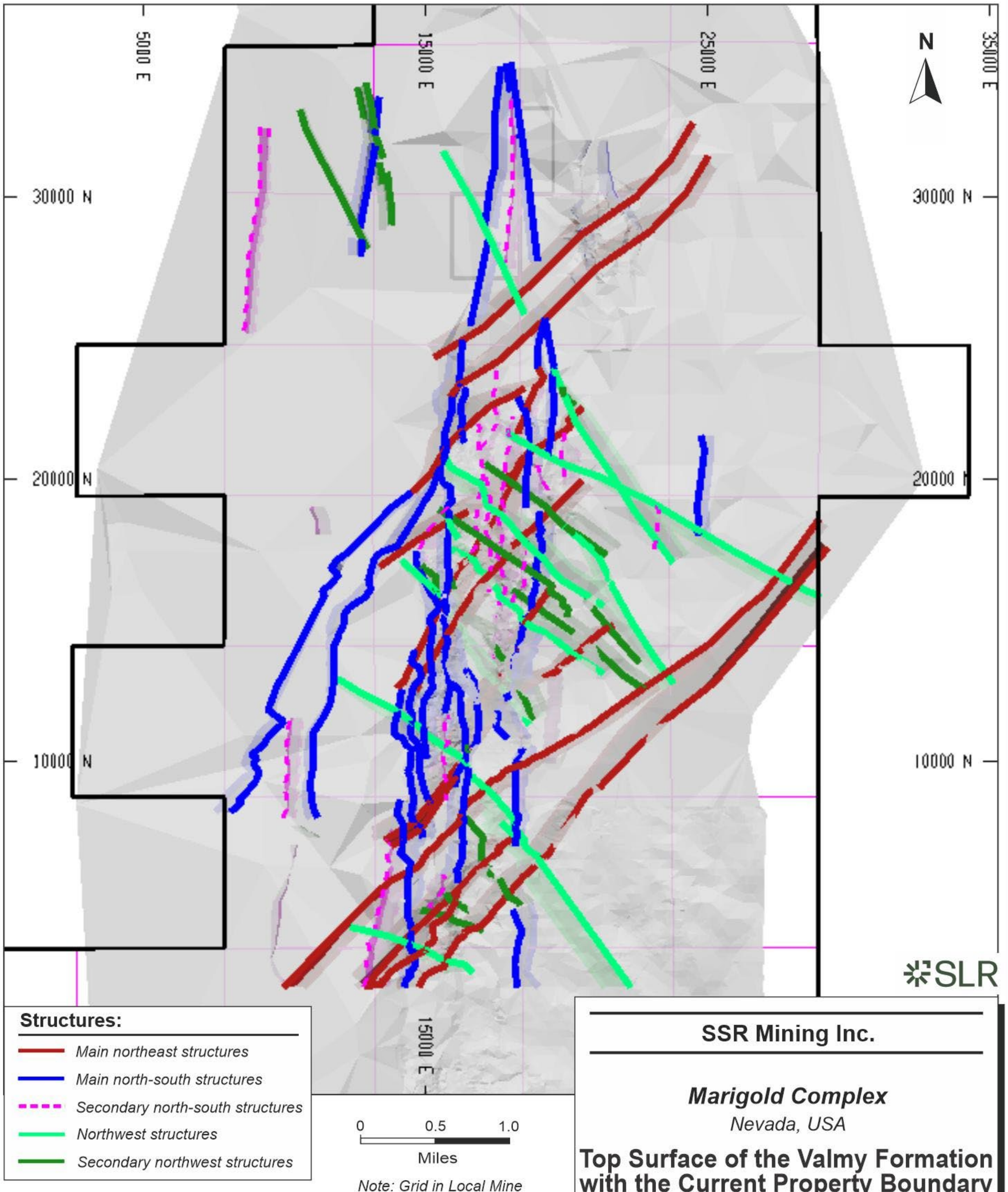
The main structural corridor and apparent primary controlling feature for the localization of the deposits at Marigold is a 1.5 km wide by >10 km long half graben rotated no more than 045° to the west and bound by east dipping early Permian growth faults and younger (post-Triassic) east dipping faults. This half graben structure is cut by north-west to north-east striking pre-mineralization structures with relatively minor offset and a series of south-west striking post-mineralization extensional normal faults parallel to the Oyarbide fault (Figure 6-5).

Valmy Formation rocks are highly deformed, with interpreted imbricate low-angle intra-plate thrust faults and at least two generations of pre-Pennsylvanian folding. The first generation of deformation related to folding of the Valmy Formation, D1, is characterized by tight, east verging folds with approximately north-west–south-east to north–south striking fold axes. The second deformation event, D2, is defined by open folds with approximately east–west striking fold axes. Folds of this orientation are best defined on the southernmost part of the property, including the Basalt pit area.

Although D1 and D2 folds are described individually because of their unique character, it is possible that these fold sets are the product of the same deformation event. The areas of confluence of D1 and D2 folds are thought to have played a role in the localization of mineralizing fluids.

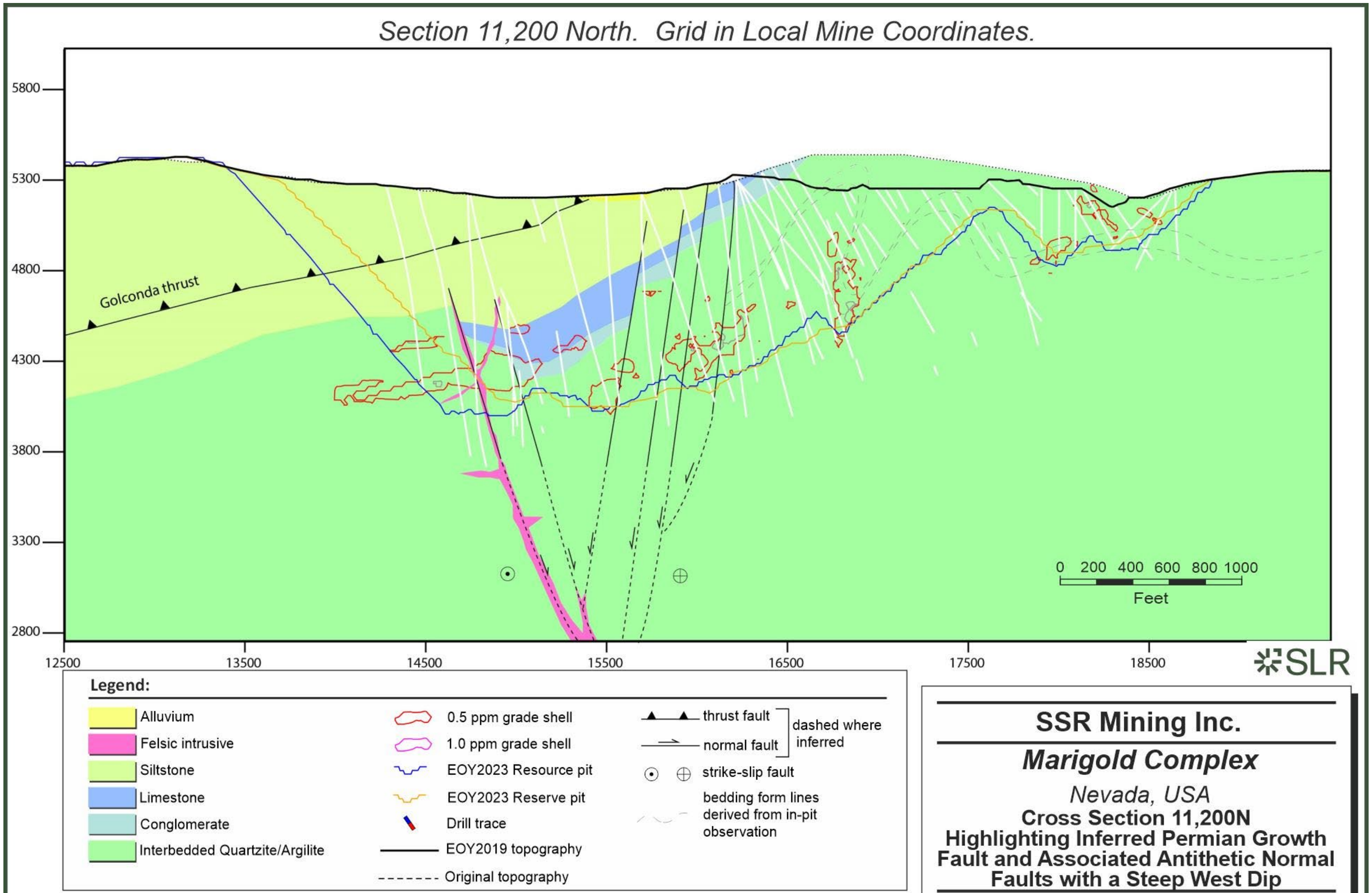
Argillite beds within the Valmy Formation deformed plastically while brittle quartzite beds shattered, creating open fracture space amenable for precipitation of auriferous iron sulfides. Antler sequence rocks are cut by, and rotated along, Early Permian and Cenozoic normal faults. The timing of the proposed Early Permian growth faults is based on preservation of Battle Formation, Antler Limestone Formation, and a thicker wedge of Edna Mountain Formation in the hanging wall of east dipping normal faults, with little-to-no appreciable offset of the overlying Havallah sequence (Figure 6-6).

Figure 6-5: Top Surface of the Valmy Formation with the Current Property Boundary



Source: SSR, 2023.

Figure 6-6: Cross Section 11,200N Highlighting Inferred Permian Growth Fault and Associated Antithetic Normal Faults with a Steep West Dip



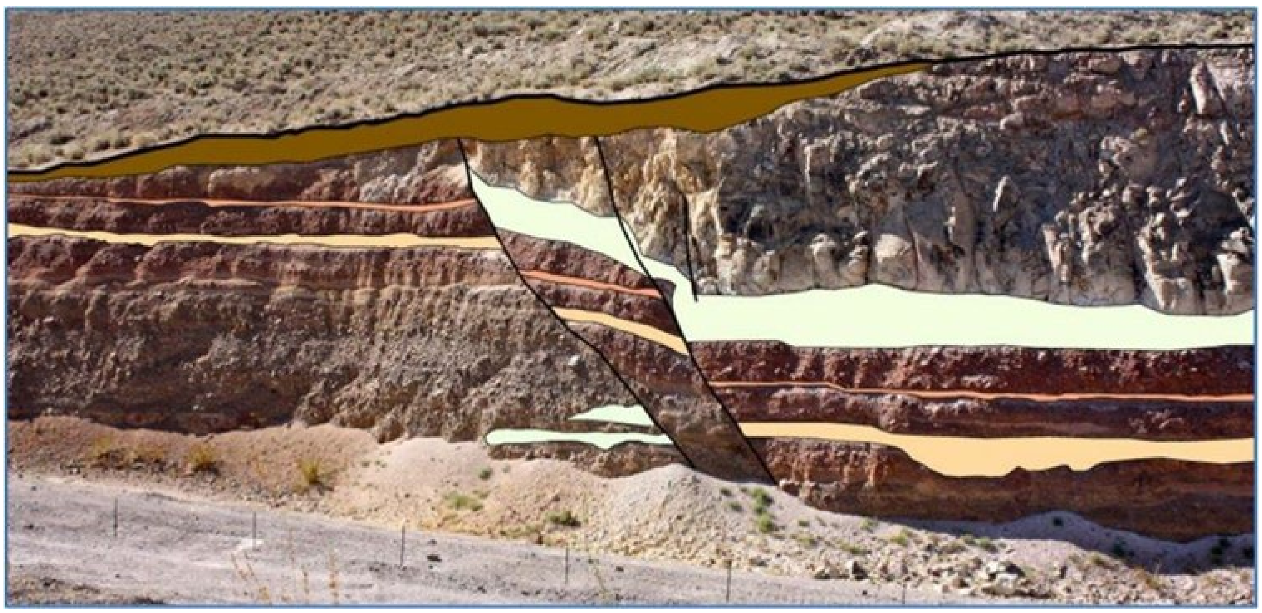
Source: SSR, 2023.

Rocks of the Antler sequence are deformed by F4 and F5 folds, which are not easily recognized in the field. Despite the position between two inferred major allochthonous packages, the Antler sequence does not display more-intense fold deformation akin to F1 and F2 folds.

Havallah sequence rocks were deformed by thrusting and folding related to compression during the Permo-Triassic Sonoma orogeny. An extensive series of thrust faults and folds are documented by Theodore (1991) in the Valmy and North Peak quadrangles west of the Marigold mine area.

Deformation of the Havallah sequence is apparently unrelated to gold mineralization at Marigold. Development of basin and range normal faults and reactivation of Paleozoic faults during the Cenozoic affected the entire stratigraphic section at Marigold, including displacement of post-mineralization Oligocene tuff and Quaternary gravel (Figure 6-7).

Figure 6-7: Normal Displacement of Alluvium and Tuff Immediately South of the Basalt Pit



Notes: Looking south

Source: Fithian, 2015

6.3.1.3 Property Mineralization

The gold deposits at Marigold are considered Carlin-type and cumulatively define a north-trending alignment of gold mineralized rock more than eight kilometres long (Figure 6-8).

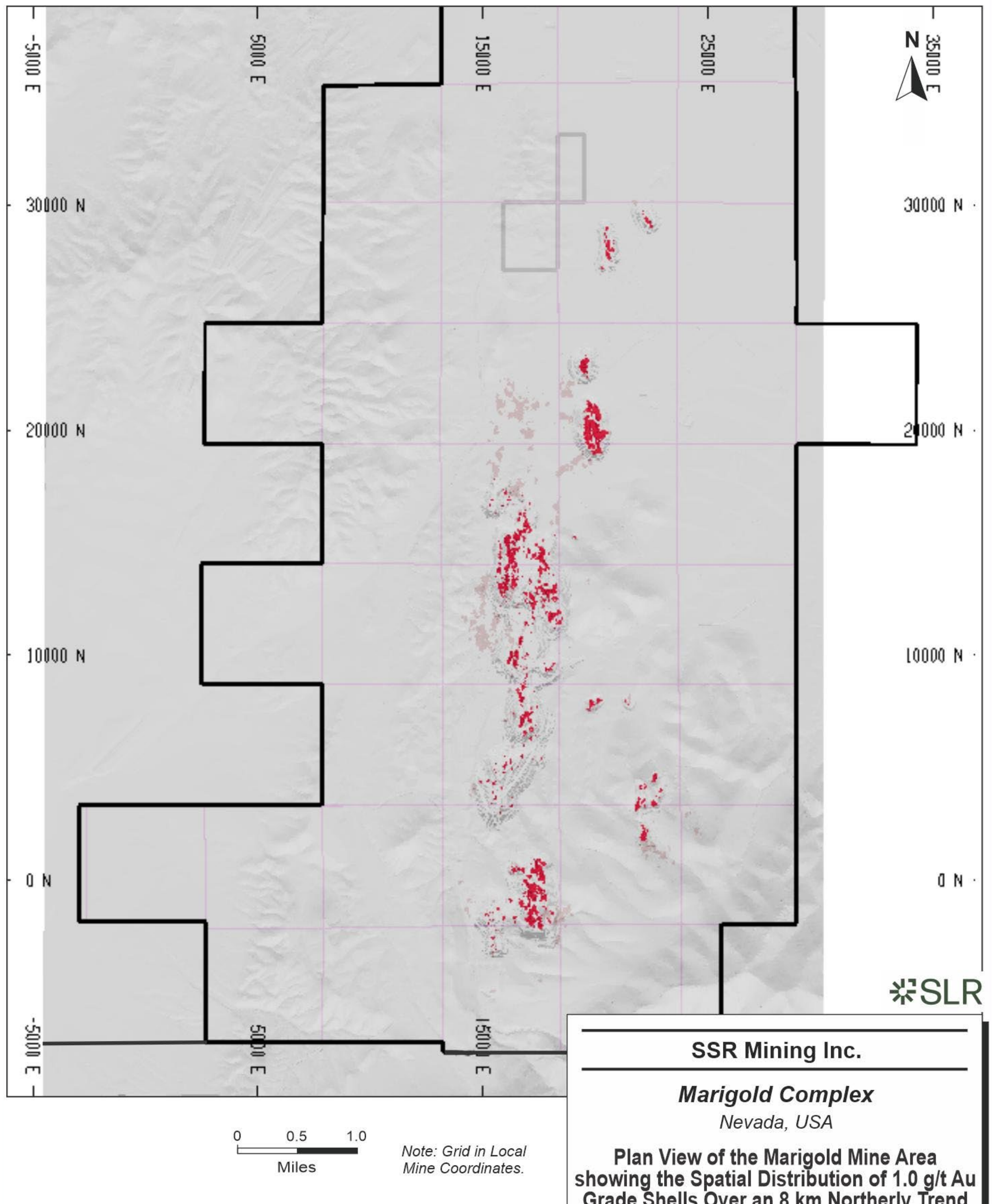
Gold mineralizing fluids were primarily controlled by fault structure and lithology, with tertiary influence by fold geometry. Within the Valmy Formation, higher gold grades are observed in the hinge zones of open folds that trend west–north-west and plunge gently. When viewed down plunge, the undulation of these folds is mimicked by gold mineralized horizons. The deposition of gold was restricted to fault zones and quartzite dominant horizons within the Valmy Formation and high permeability units within the Antler sequence.

In unoxidized rocks, gold occurs in arsenic-enriched overgrowths on pre-ore pyrite. Arsenopyrite is also present on pre-ore pyrite grains but is not auriferous. Geochemically, the gold mineralization event is characterized by elevated arsenic, barium, antimony, and mercury, among others. Gangue minerals include quartz, arsenopyrite, stibnite, calcite, clay, and barite. Hypogene sulfide minerals do not occur in ore as these gold-bearing phases are not amenable to heap leaching.

In oxidized rocks, gold occurs natively in fractures associated with iron oxide. Rocks within the Marigold mine area are oxidized to a maximum depth of approximately 450 m. The redox boundary is not consistent throughout the property and is substantially influenced by lithology. Shale, argillite, and siltstone units are frequently unoxidized adjacent to pervasively oxidized quartzite horizons.

A silver and base metal mineralizing event at Marigold includes a mineral association of chalcopyrite, argentiferous tennantite, galena, and sphalerite. The absolute age of this event is unclear, although it may be related to late Cretaceous magmatism in the district.

Figure 6-8: Plan View of the Marigold Mine Area showing the Spatial Distribution of 1.0 g/t Au Grade Shells Over an 8 km Northerly Trend



Source: SSR, 2023.

6.3.1.4 Property Alteration

Alteration of rocks includes silicification along mineralizing structures and decalcification of carbonate horizons (primarily in the Antler sequence). Argillic alteration of quartz monzonite intrusive bodies occurs in fault zones and areas of high hydrothermal fluid flow (Fithian, 2015). The intensity of alteration decreases towards the core of the intrusions.

Studies have demonstrated a spatial correlation between gold mineralized rock and increased white mica crystallinity index (Kester, 2015). There is evidence for large volumes of quartz precipitation within and outboard of gold mineralized zones, including jasperoid bodies, cryptic silicification, and quartz vein breccias.

6.3.2 Buffalo Valley

The Buffalo Valley project is located approximately 14 km southwest of the Mackay complex at Marigold and eight kilometres southwest of Trenton Canyon on the immediate western flank of the Battle Mountains. Early works relating to deposit genesis have variably ascribed the Buffalo Valley gold system to distal disseminated silver-gold, porphyry copper-molybdenum, and gold skarn deposit models. Recent work tends to favor the distal disseminated silver-gold model as most of the gold mineralization is associated with quartz+sericite+pyrite (QSP) veins and veinlets that postdate development of the various hornfels and skarn alteration assemblages. The Buffalo Valley deposit is hosted by Eocene felsic dikes and metasedimentary rocks and basalt of the Mississippian-Permian Havallah sequence that are pervasively altered to skarn and hornfels in the vicinity of the deposit area.

6.3.2.1 Property Stratigraphy

Sedimentary Rocks

In the Buffalo Valley mine area, there are three distinct metasedimentary units of the Havallah sequence (Figure 6-3). The three units are extensively metasomatically altered and metamorphosed proximal to felsic intrusive phases throughout the project area. The protolith equivalents of the three units are as follows:

- The lower unit consists of limestone, ribbon chert, and calcareous siltstone. This unit occurs below the base of the historical open pit and does not crop out in the immediate mine area; however, it is well documented by deeper drilling.
- The middle unit consists of interbedded sandstone, siltstone, and chert and is colloquially referred to as the “sandy” unit by the mine geology group.
- The upper unit structurally overlies the middle unit and consists of interbedded chert, siltstone, and limestone. In the mine area, the base of the upper unit is marked by pillow-textured basalt that appears to be faulted out of the sequence at depth to the west of the mine. The upper unit is thought to be tectonically thickened due to fold and thrust deformation.

Bedding in the Buffalo Valley mine area generally dips to the southwest between 40 and 60 degrees. Chemical, textural, and mineralogical data support interpretation of multi-phase emplacement of felsic intrusions.

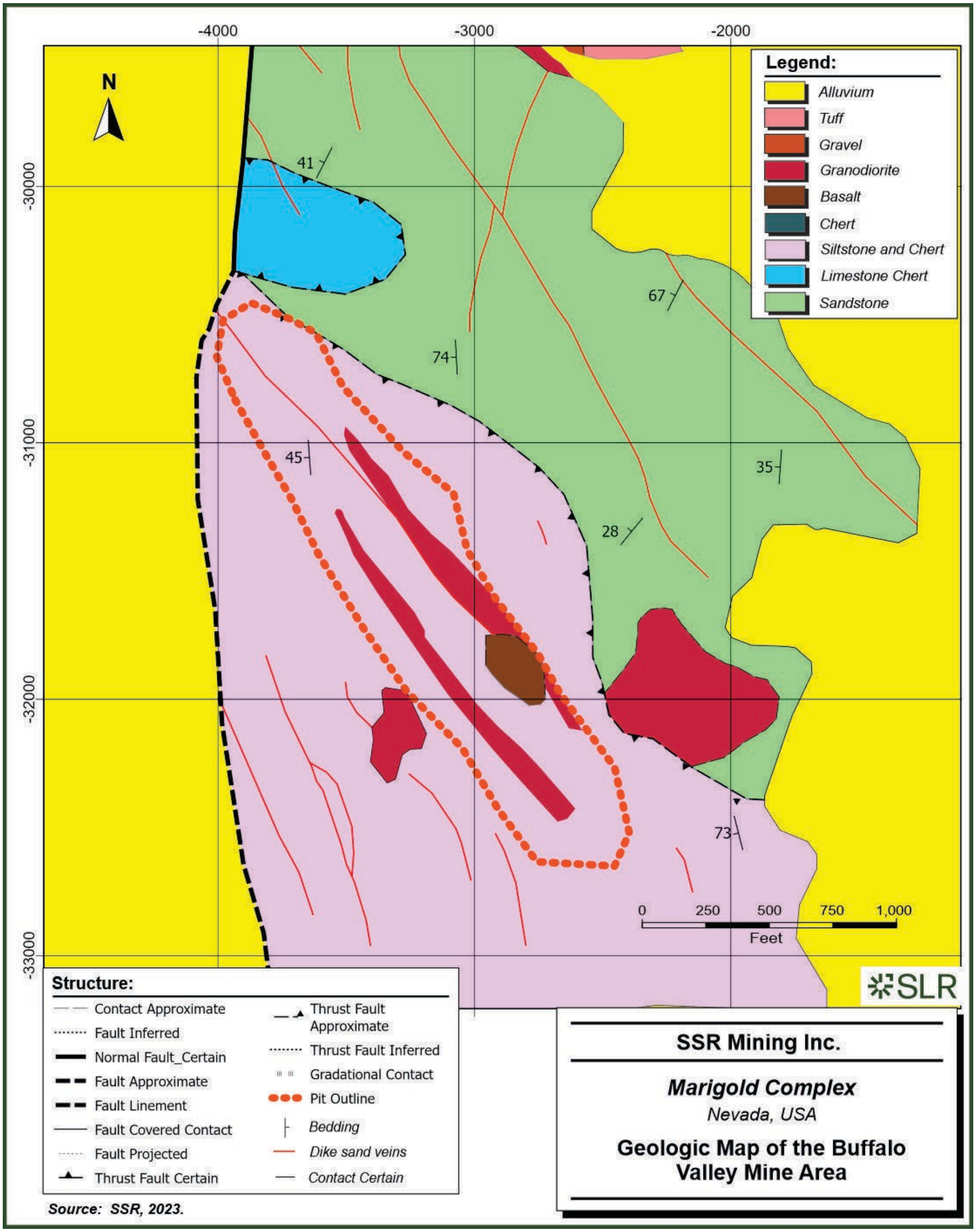
Intrusive Rocks

Havallah sequence rocks were intruded and altered by a swarm of northwest striking granodiorite and dacite porphyry dikes in the late Eocene to early Oligocene (Reid et al., 2010). Spatially related to the gold deposit is a porphyry dike system with two primary splays that strike SE (approximately 140°) and steeply dip to the SW. The western dike is described by previous workers as fine-grained granodiorite porphyry while the eastern dike is described as dacite porphyry. This dike system is continuous along strike for at least one kilometre, although the west dike appears to coalesce with the east dike near the northwestern extent of the pit. Both east and west dike splays are disrupted by a dacite porphyry plug south of the historical pit that is chemically similar to a dacite stock east of the pit. A quartz diorite stock and associated dikes crop out west of the pit area. Small lamprophyre and pebble dikes are also documented by previous workers (Reid et al., 2010).

Volcanic Rocks

Beds of Cenozoic airfall and ash-flow tuff are intercalated with alluvium and exposed on surface north of the historical pit. Cenozoic strata are thickened in the immediate hanging wall of the range front fault that defines the western flank of the Battle Mountains and in the structural block west of the deposit that is downdropped into the geographic Buffalo Valley on the Front fault. The base of the volcanic tuff sequence is marked by a welded conglomerate that contains subrounded clasts of quartzite and chert (Figure 6-9).

Figure 6-9: Geologic Map of the Buffalo Valley Mine Area



Source: SSR, 2023.

Note: Grid in Local Mine Coordinates.

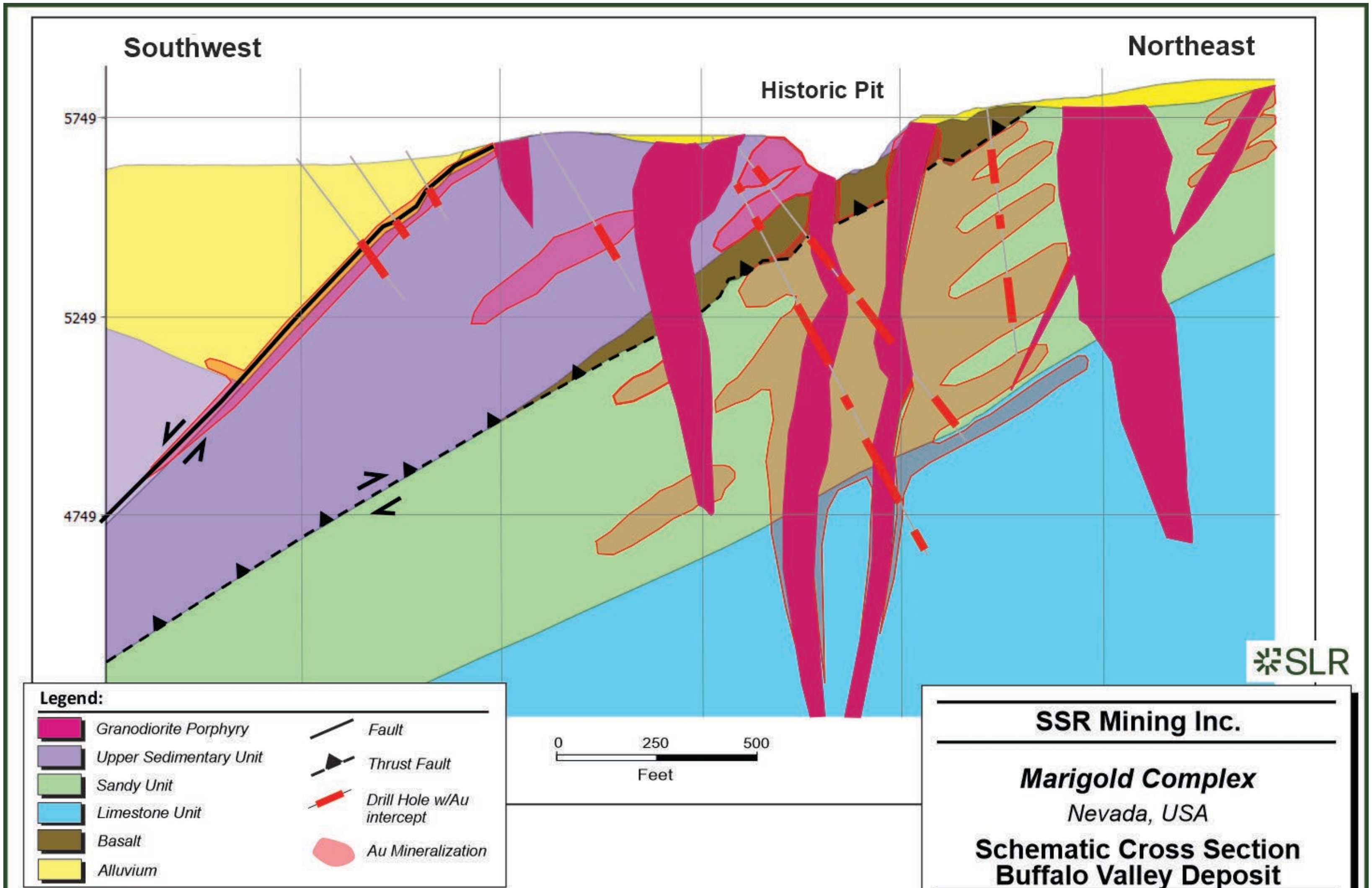
6.3.2.2 Property Structure

The most prominent fault set in the Buffalo Valley project area are south striking structures that define the range bounding fault system. The structural block that hosts the Buffalo Valley deposit is bound by the Range Front fault to the east and the moderately dipping (34 to 48 degrees) Front fault to the west (Seedorff et al., 1991). Bedrock in this block is exposed at surface and may indicate increased transfer of slip to the Front fault or other subsidiary faults in the vicinity of the deposit. The Front fault is mineralized but also offsets Quaternary alluvium, constraining the minimum age of initiation to the early Oligocene and latest slip to the Quaternary. Dikes and hydrothermal fluids exploited dilational SE-striking relay structures related to N-S oriented master fault structures (Rhys, 2022; internal communication). This fault zone is well characterized by a large aeromagnetic anomaly that can be traced for more than seven kilometres (Doebrich and Theodore, 1996).

6.3.2.3 Property Mineralization

The Buffalo Valley gold deposit formed along a southeast trending zone of felsic porphyry dikes and faults. Gold occurs in arsenian iron sulfide overgrowths on pyrite in sheeted QSP veinlets within the central granodiorite and dacite porphyry dikes, subparallel to dike margins in the country rock, and within faults (e.g., the Front fault). Outboard of the intrusion's gold mineralization is stratiform in receptive horizons of Havallah sequence metasedimentary rocks (Figure 6-10). In general, gold concentration decreases with increasing distance from the granodiorite and dacite porphyry dike system. Although most of the gold mineralization at Buffalo Valley occurs in QSP veinlets that overprint skarn alteration assemblages, a lesser amount of gold is documented as native grains within garnet and amphibole crystals associated with prograde skarn development (Reid et al., 2010). Minerals associated with gold mineralization in oxidized zones include scorodite, manganese and iron oxides, calcite, and clay.

Figure 6-10: Schematic Cross Section Buffalo Valley Deposit



Source: SSR, 2023.

6.3.2.4 Property Alteration

The alteration styles and assemblages at Buffalo Valley are well documented by Reid et al., 2010 and is, in part, summarized here. The most intense alteration at Buffalo Valley is focused on the SE-striking relay structures that, in part, controlled Eocene to Oligocene dike emplacement. Proximal to these structures' limestone and other carbonate-bearing protoliths were altered to prograde exoskarn assemblages including Fe-rich pyroxene, Ca and Fe-rich garnet, quartz, and calcite. Prograde endoskarn assemblages include Mg-rich pyroxene, actinolite, biotite, quartz, and chlorite. Sulfide minerals associated with prograde skarn include chalcopyrite, pyrrhotite, sphalerite, galena, and pyrite. Retrograde skarns are manifested in shallower levels of the deposit and are characterized by potassic alteration assemblages that include shreddy biotite and K-feldspar. Sulfide minerals associated with retrograde skarn include pyrrhotite, pyrite, and chalcopyrite. A late QSP event overprints skarn and hornfels and is associated with most of the gold mineralization. Oxidation is the last alteration event to affect the rock package, extending from surface to depths of over 200 m proximal to the central Buffalo Valley fault system. Oxidation is a critically important process for liberation of gold nanoparticles locked in arsenian iron sulfide phases.

6.3.3 Trenton Canyon

The Trenton Canyon property is located approximately 5 km south of the Marigold deposit and comprises an area of approximately 34 km^2. Trenton Canyon is separated from Marigold by the southwest-striking Oyarbide fault, a range-bounding fault on the northern flank of the Battle Mountains. Gold deposits at Trenton Canyon are hosted by siliciclastic and carbonate rocks of Cambro-Ordovician and Pennsylvanian-Permian age proximal to potentially genetically related Eocene felsic dikes. The gold deposits are on the margin of a calc-silicate and hornfels alteration aureole attributed to emplacement of the Cretaceous Trenton Canyon stock, exposed on surface approximately one kilometer southwest of the historical South pit.

6.3.3.1 Property Stratigraphy

The general lithotectonic stratigraphy of Paleozoic sedimentary rocks exposed at Trenton Canyon is reasonably well constrained (Figure 6-3) by decades of aggregate knowledge of the lithotectonic stratigraphy at the adjacent Marigold mine complex. The succession is underlain by allochthonous to parautochthonous lower Paleozoic marine slope and basin lithofacies rocks provisionally assigned to the Valmy and Comus Formations. These rocks are unconformably overlain by Pennsylvanian to Permian, non-marine to marine conglomerate of the Battle Formation and limestone of the Antler Peak Limestone Formation, both of which belong to the Antler overlap sequence. These two lithotectonic packages are structurally overridden by the Mississippian to Permian Havallah sequence, which includes submarine basalt, chert, argillite, sandstone, siltstone, calcareous sandstone, gritstone, and conglomerate of the Golconda allochthon. The paucity of coherent intraformational lithostratigraphy, due to fold and fault deformation as well as inferred localized deposition during sedimentation, inhibits intraformational lithostratigraphic correlation on the property scale.

Early Paleozoic Rocks

Use of the term Comus Formation for rocks at Trenton Canyon is provisional and serves as a placeholder assignment of Cambro-Ordovician rocks atypical of the Valmy Formation in the district. The formation outcrops very poorly across the property and is best studied along road cuts and where it is present in open pits. At Trenton Canyon, the Comus Formation is a sequence of siliciclastic and carbonate marine rocks and basalt deposited on the slope and basal slope of the passive margin. These rocks formed distal to the Comus carbonate seamount to the north, but record influx of carbonate detritus into the basin at least as far south as Trenton Canyon. The Comus and Valmy Formations are quasi-time equivalent rock packages and are intercalated at the base of slope. In the district, the Comus Formation is distinguished from the Valmy Formation by the presence of carbonate and preservation of higher energy features like debris flows, turbidites, slumps and large rip-up clasts.

Sedimentary units of the Valmy Formation are restricted to deep water chert, massive quartz arenite or quartzite, and argillite units that do not display sedimentary features indicative of higher energy slope facies. The simplistic stratigraphy of the Valmy Formation is a basal massive quartzite that is devoid of bedding and other sedimentary features. The quartzite unit is overlain by a highly contorted thin to medium bedded green to grey chert. Above the chert unit is typically a massive pillow basalt unit. This unit is discontinuous across the property and is best observed on Hollywood Ridge and the North Fork of Trout Creek at Trenton Canyon. The intraformational units of the Valmy Formation are certainly more complex than described above but broadly adhere to this succession in the vicinity of Trenton Canyon.

There are no known Silurian or Devonian rocks at Trenton Canyon.

Late Paleozoic Rocks

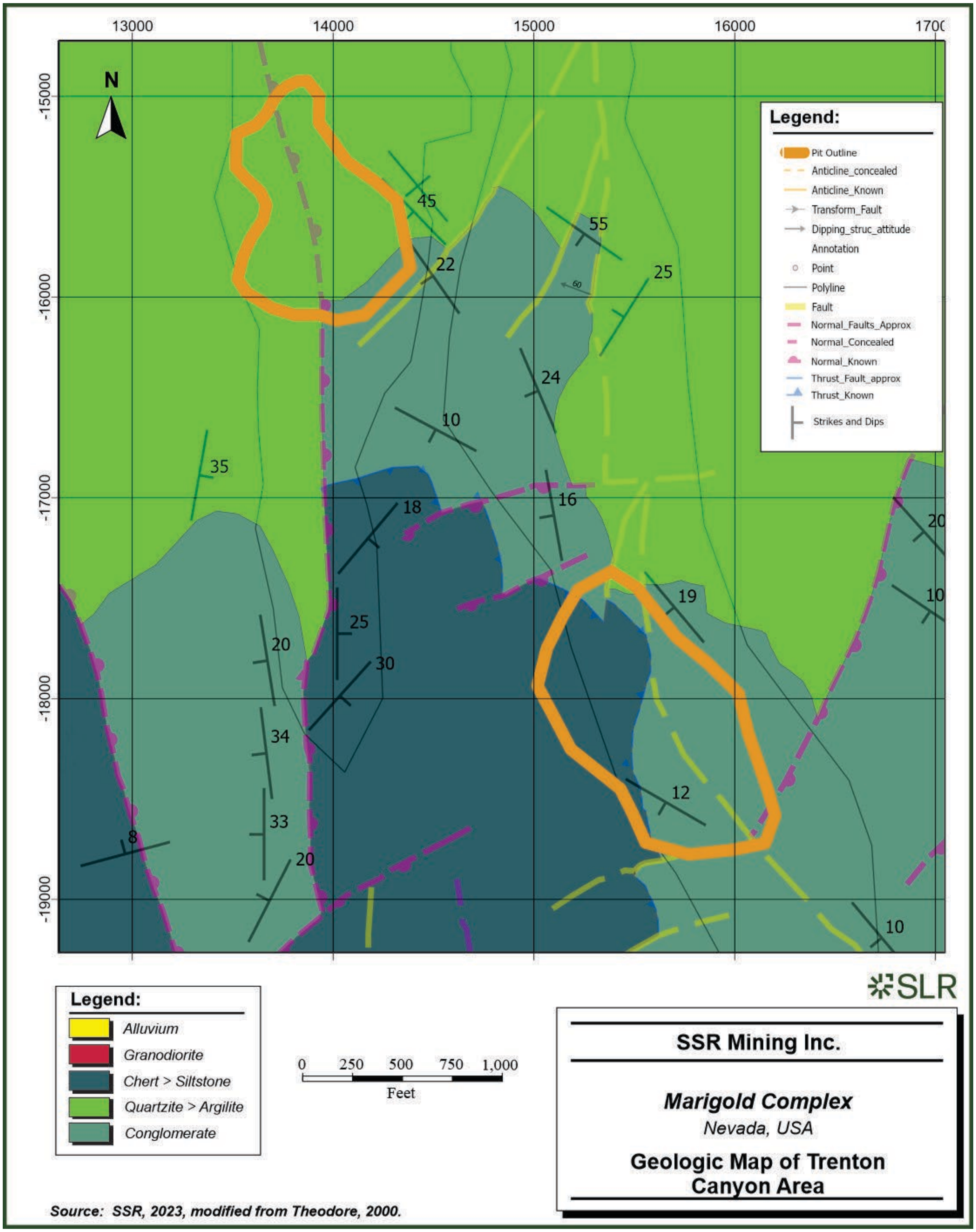
At the type locality approximately five kilometers south-southeast of Trenton Canyon, the transgressive Pennsylvanian Battle Formation consists of up to 250 m of alluvial and marine conglomerate, sandstone, mudstone, and lesser limestone (Saller and Dickinson, 1982).All these lithologies are recognized at Trenton Canyon despite the drastic northwestward thinning of the formation from the type-locality to the footwall of the Oyarbide fault at Relay Ridge where the strata are either absent or no more than five meters thick. Based primarily on clast composition and sedimentary structures, five informal map units (Pb1-5) and one marker bed within the Battle Formation at Trenton Canyon are recognized. Mapped relations of Battle Formation subunits suggest deposition was synchronous with crustal extension in the Pennsylvanian.

The Havallah Sequence is a Mississippian to Permian sedimentary succession that includes submarine basalt, chert, argillite, sandstone, siltstone, calcareous sandstone, gritstone, and conglomerate. This succession of clastic marine rocks makes up the Golconda allochthon emplaced during the Sonoma Orogeny. The succession is highly deformed by tight to isoclinal overturned folds hindering the understanding of intraformational lithostratigraphy.

Igneous Rocks

The Cretaceous Trenton Canyon stock is the most prominent intrusion on surface in the Trenton Canyon project area. The medium-grained crystalline monzonite stock has a bulbous surface exposure and weathers recessively. The stock has altered the adjacent country rock resulting in a contact metamorphic aureole discernable in regional geophysics. Local base metal (Cu-Mo-Ag-Zn) mineralization also occurs along the periphery of the stock (Figure 6-11).

Figure 6-11: Geologic Map of Trenton Canyon Area



Source: SSR, 2023, modified from Theodore, 2000.

Eocene granodiorite dikes up to several meters in width also occur within the Trenton Canyon area. The dikes intrude a network of north to northwest striking faults and primarily dip to the east at approximately 55 degrees but locally exploit south to southeast striking structures with similar to slightly more inclined dips. Phreatomagmatic textures are observed on dike margins on surface, in road cuts, and in drill core. The breccias primarily contain irregularly shaped clasts of the intrusion, suggesting a degree of plasticity at the time of brecciation, and lesser quartzite and argillite clasts in a matrix of igneous rock flour. The dike margins and phreatomagmatic breccias are locally well mineralized. In addition to phreatomagmatic brecciation, melting and incorporation of country rock is also evident on the margins of some dikes. The dikes at Trenton Canyon may have played a role in the localization of gold mineralizing fluids as deposit geometry typically mimics the spatial distribution pattern of the intrusions.

Lamprophyre dikes are also observed in the project area. The lamprophyres are assumed to be Jurassic in age, based on geochronologic analysis of lamprophyre at Marigold and the temporal distribution of lamprophyre in northern Nevada. The lamprophyres are medium-grained crystalline, often with a felted texture and chilled margins. These lamprophyres do not seem to be associated with gold mineralization and are more often observed in deeper drill holes.

6.3.3.2 Property Structure

A generalized model of the deformation history preserved at Trenton Canyon is described below. Sections are in chronological order and describe fault systems from oldest to youngest. It is important to note that these fault and fold systems likely experienced a complex protracted and reactivated history making a formal chronologic breakout challenging.

Irregularities in basement architecture are likely responsible for the development of structural complexities, e.g., stress localization and ramp development during orogenesis. The surficial expression of these structures is difficult to delineate, though it is interpreted that the large-scale anticlinorium and imbricated thrust sheets present at Trenton Canyon formed in response to a basement cored irregularity where stress localized during the emplacement of the Antler allochthon. Later, Cenozoic extension inherited the architecture of the anticlinorium forming a horst-block, i.e., sets of west and east dipping faults along the strike length of the deposit. The anticlinorium and overprinting horst-block has an inherent control on mineralization. Understanding the structural style and geometry of the lateral and frontal ramps is very important as the frontal ramp sections of the complex are likely to have experienced more ground preparation for mineralizing fluids to exploit. Furthermore, the NW and NE extensional fault grain responsible for depositional growth of Battle Formation is thought to potentially have soft and hard links to basement structures.

Expressions of deformation related to the Antler orogeny include tight F1 folds and internal Valmy Formation thrust faults. In addition, thrust faults exposed on surface at Trenton Canyon demonstrate the imbricated nature of Cambro-Ordovician rocks interpreted to have formed in quiescent and high energy depositional environments.

Following Antler orogenesis, deposition of the Antler overlap sequence was occurring in extensional basins along the Antler Highlands. Understanding the internal stratigraphy of the Battle Formation was instrumental in demonstrating syn-depositional extension along a NW and NE to EW trending fault system. These Pennsylvanian-age faults preserve proximal growth stratigraphy of the lower Battle Formation subunits and are onlapped by the upper units. The NW and NE Paleozoic fault system documented at Trenton Canyon displays a complex array of NE to EW transfer zones (or relay faults) connecting the long NW grain. This complexity in the fault system lends to increased clastic sedimentation at transfer zones. Due to the fault-tip propagation style of growth stratigraphy displayed in the lower subunits, this fault set is interpreted to be deep-seated and potentially soft-linked to older basement-cored architectures. The NW long-grain and EW short-grain are often gold mineralized, with grade enhancement at intersections with the Eocene NNE fault set (described below).

Quasi-contemporaneous with deposition of Antler sequence rocks, Havallah sequence rocks were forming in the Havallah basin to the west of the Antler highlands. The Sonoma Orogeny structurally juxtaposed the Havallah sequence east over the Antler overlap sequence and lower Paleozoic assemblages along the Golconda thrust. Two major Sonoma aged thrust faults are recognized at Trenton Canyon, as well as multiple internal thrusts and folds. The structurally lowest thrust is the Golconda thrust. The Golconda thrust juxtaposes a package of black to blueish-grey siltstones and gritstones on top of the Antler Sequence (Battle Formation and Antler Peak LS Formation.). The Willow Creek thrust is a structurally higher plate that emplaces a deeper water package of green-brown chert and siltstone on top of the siltstone/gritstone package. The Willow Creek thrust coalesces with the Golconda thrust to the south where the black to bluish-grey siltstone unit is structurally removed and the green-brown chert/siltstone package is in contact with the Antler Peak Limestone.

Cretaceous contractional deformation is interpreted to be recorded by a set of north trending upright and open folds. Felsic dikes (NW trending) and stocks intrude the Battle Mountains at approximately 98 Ma. It is uncertain whether this igneous event is due to the advancing flat subducting Farallon slab during the Sevier-Laramide orogenies, or if the retro-arc was undergoing extension which introduced peraluminous magmas into the middle crust.

A major north to NNE and south to SSW fault set at Trenton Canyon is thought to be related to early Eocene extension. These faults switch polarity from west to east dipping and are inheriting their architecture from deformation attributed to the Antler orogeny. The result of this extension is the formation of a horst block throughout the project area. The most notable N-NNE trending fault at Trenton Canyon is the Windy Ridge fault system that hosts economic gold mineralization in the historical West Pit. This fault set is occupied locally by Eocene intrusions.

Post mineral faulting is best demonstrated by the Oyarbide and associated Oyarbide parallel faults. These structures trend NE-SW and very clearly display younger slip due to the development of topographic facets and the offset of mineralization. While the latest slip is post-gold mineralization, this fault set likely has a protracted deformational history with hard and soft links to basement structures.

Blasthole patterns indicate gold mineralization in the previously mined South and West pits was localized where principal faults branch into antithetic and synthetic splays and relays. Enhanced permeability related to curvature of horsetail structures promoted gold mineralization (Rhys, 2022; internal communication).

Folding

The first generation (F1) of folding observed in the Battle Mountains is a set of tight to isoclinal overturned folds with short wavelengths and high amplitudes, that trend NW-SE to NNW-SSE. This fold set is recording allochthonous deformation of upper-plate siliciclastic rocks along the Roberts Mountains Thrust (RMT) during the Antler orogeny. F1 folds primarily deform Valmy Formation chert, argillite, and quartzite; but is not limited to upper-plate rocks. RMT equivalent thrust faults in the area demonstrate a complex nature of imbricated panels that deform earlier thrust faults and lower-plate rocks.

The second generation (F2) of folding observed is an open and upright set of folds that trend 250° to 300° and plunge very shallowly. F2 folds are best observed in the Basalt pit but are documented across Marigold and Trenton Canyon. Intersections of F2 hinge lines with F1 hinge lines form type-1 fold interference patterns, or domes and basins. This style of fold interference has led to significant ground preparation of the area and controls the distribution of mineralization. F2 is not observed in the Antler overlap sequence rocks. Therefore, it is interpreted that F2 is time equivalent with F1 and formed in response to the development of lateral thrust ramps during the Antler orogenesis.

The third generation (F3) of folding documented is a set of tight to isoclinal, overturned and recumbent folds that trend approximately north-south. This set is restricted to allochthonous Havallah sequence rocks emplaced during the Sonoma Orogeny. This deformation event had very little effect on autochthonous rocks below the Golconda Thrust.

The fourth generation (F4) of folding is observed on a much bigger scale. This folding event formed a very open broad and upright set of folds that trend approximately north-south to NE-SW. This set deforms the entire rock column present at Marigold and Trenton Canyon on a Mountain Range scale. This deformation event is interpreted to be related to Mesozoic tectonics during the Sevier and Laramide orogeneses, though timing constraints are poor.

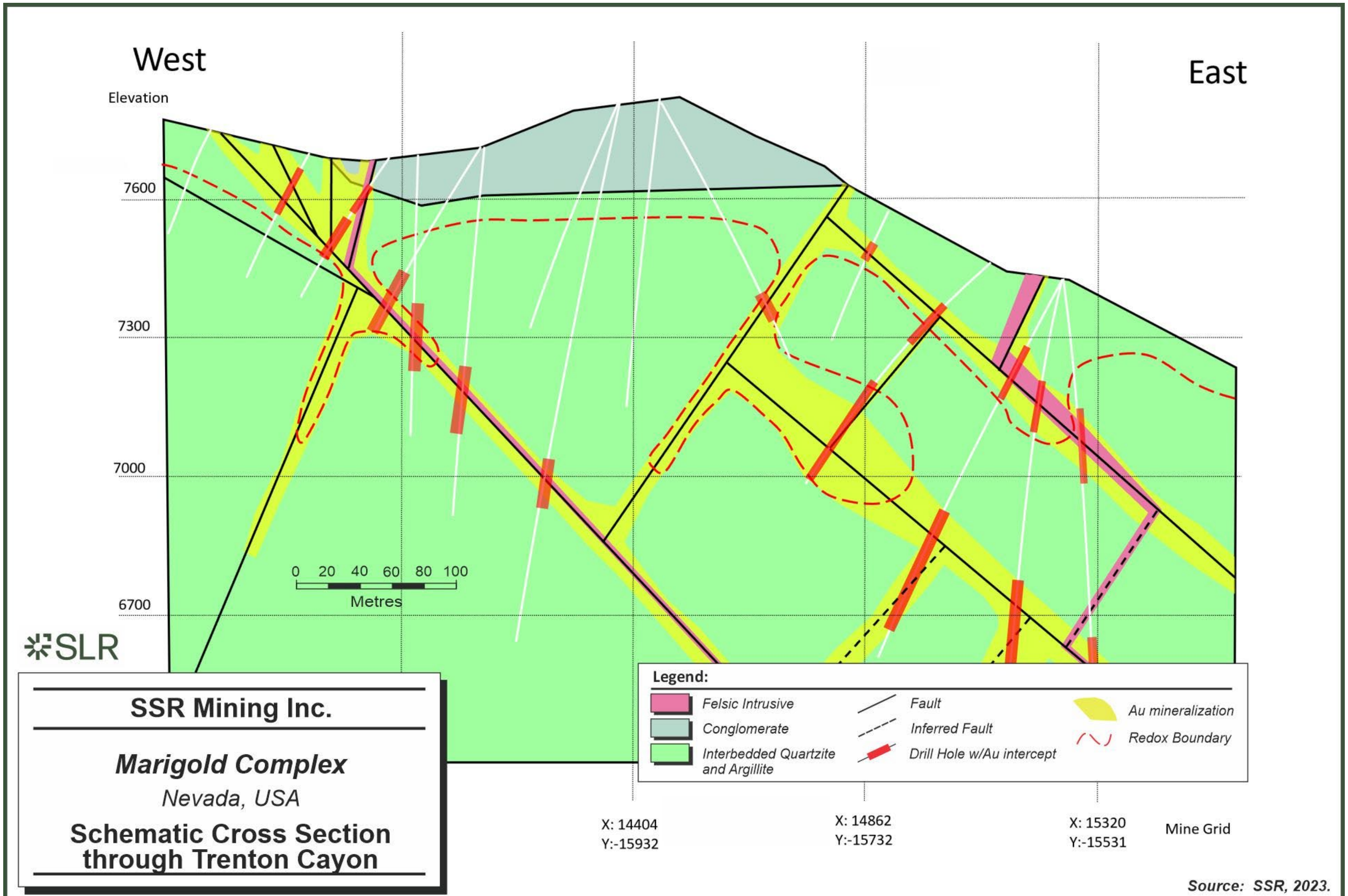
6.3.3.3 Property Mineralization

A Cretaceous base metal mineralization event, thought to be related to emplacement of the Trenton Canyon stock, is characterized by a sulfide association of pyrrhotite, chalcopyrite, and pyrite in unoxidized samples, and a gangue association of tremolite, calcite, muscovite, diopside, and garnet. This event pre-dates Eocene gold mineralization at Trenton Canyon, which is characterized by a sulfide association of auriferous arsenic-bearing iron sulfides and argentiferous tennantite, and a gangue association of quartz, carbonate, phyllosilicates, clays, carbon, and stibnite.

Gold mineralization at the South, West, and East pit areas is primarily hosted in a network of transtensional faults locally intruded by Eocene dikes and sills. Hydrothermal and/or phreatomagmatic breccias within these structures typically contain increased concentrations of gold. Gold mineralization is well confined to structures, although a small (several meter) halo of lower grade, more disseminated mineralization may be present. Quartz veining, illite, iron oxides, and iron hydroxides (goethite) are the primary indicators of gold mineralization where oxidized.

At Cottonwood Ridge there is a complex interplay of stratigraphic control, intrusive influence, and structure that localizes mineralization. Relay Ridge mineralization is primarily strata bound but hosted close to the intersection with the regional scale Oyarbide and Havallah West faults which possibly played a role in enhancing permeability. Oxidation boundaries at Trenton Canyon are complex and influenced by structure-induced permeability. The inherently low permeability of the Valmy formation results in a relatively shallow supergene phreatic oxidation/reduction boundary; however, secondary permeability created by faulting enables oxidation to occur at depth. Figure 6-12 is a cross section through Trenton Canyon showing interplay of faulting, intrusives, mineralization, and oxidation.

Figure 6-12: Schematic Cross Section through Trenton Canyon



Source: SSR, 2023.

6.3.3.4 Property Alteration

The dominant forms of alteration observed at Trenton Canyon represent both metasomatic (calc-silicate) and isochemical (hornfels) processes associated with the contact aureole of the Cretaceous Trenton Canyon stock. Alteration related to the Eocene hydrothermal system locally overprinted the calc-silicate and hornfels assemblages.

Alteration associated with gold mineralization is well constrained to fault zones, intrusions, and intrusion margins. Silicification in the form of drusy quartz, quartz stockwork veins and veinlets is present within and around fault zones. Iron oxides and hydroxides, including goethite, hematite, and limonite, as well as clays (illite, kaolinite) are associated with these veins. Eocene dikes are quartz, sericite, pyrite (QSP) altered in the deposit area and often have Liesegang banding where oxidized.

6.4 Deposit Type

Doebrich and Theodore (1996), Theodore (1998), and Theodore (2000) described the deposits at Marigold as distal disseminated silver–gold deposits. These deposits are disseminated equivalents of polymetallic vein deposits, characterized by a geochemical signature that includes silver, gold, lead, manganese, zinc, copper, antimony, arsenic, mercury, and tellurium (Cox and Singer, 1990). Typically, they contain substantially more silver relative to gold than other types of disseminated gold deposits and may feature supergene enrichment of silver if significantly oxidized.

In Nevada, distal disseminated silver–gold deposits are proximal to Jurassic, Cretaceous, and mid-Tertiary granitoid intrusions (Hofstra and Cline, 2000). A fundamental requirement of the distal disseminated silver–gold model necessitates a genetic link between silver–gold mineralization and causative intrusions (Hofstra and Cline, 2000); however, no such relationship has been conclusively demonstrated at Marigold (Fithian, 2015).

A Carlin-type gold deposit (CTGD) is a unique type of disseminated, sedimentary rock-hosted gold deposit. The genesis of CTGDs is currently not well understood. In Nevada, CTGDs occur along several main mineralization trends, including the Carlin trend and Battle Mountain-Eureka trend, and are primarily hosted by silty carbonate rocks.

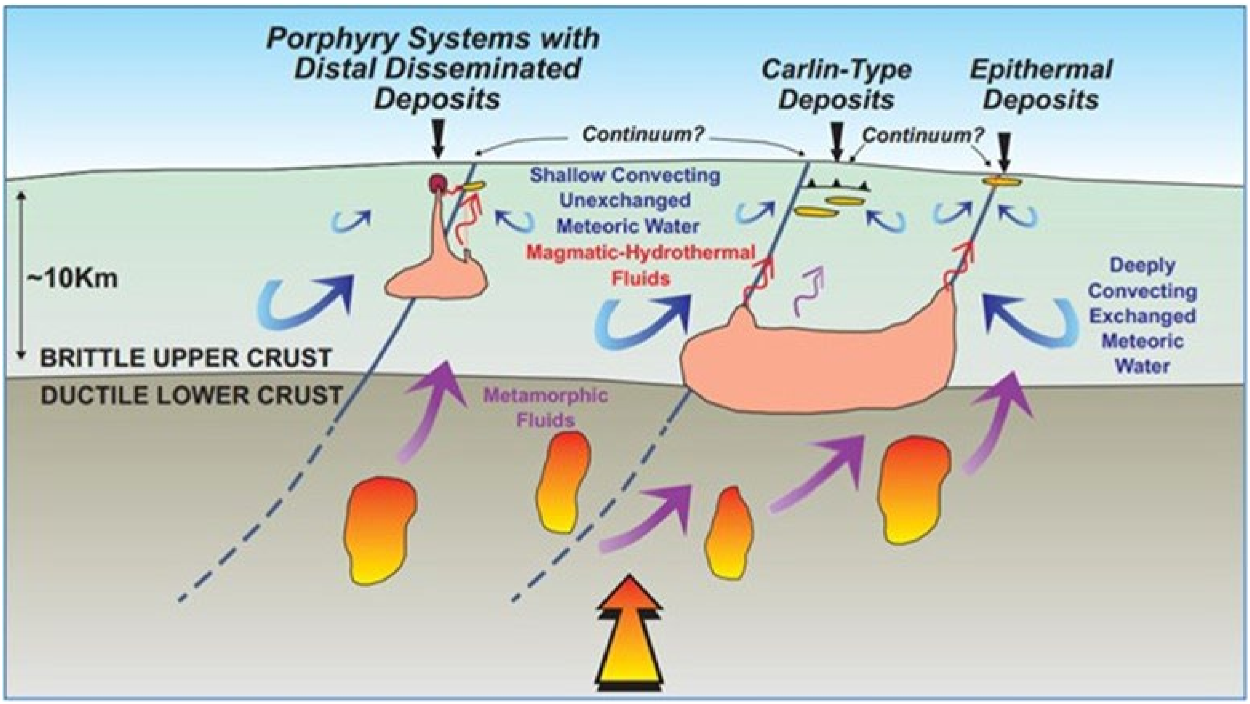
Gold in a CTGD occurs in arsenian pyrite rims on pyrite grains and is associated with arsenic, sulfur, antimony, mercury, and thallium (Cline et al., 2005). There is considerable debate regarding the source of gold in CTGDs. Leading theories include a magmatic-hydrothermal origin (e.g., Sillitoe and Bonham, 1990; Johnston and Ressel, 2004; Ressel and Henry, 2006; Muntean et al., 2011) and gold sourced from the sedimentary host package (e.g., Ilchik and Barton, 1997; Emsbo et al., 2003; Large et al., 2011). Even though the genesis of CTGDs remains enigmatic, there is consensus that all CTGDs in Nevada formed during the Eocene period (42 to 36 Ma) (Cline et al., 2005).

Distal disseminated silver–gold deposits may share similarities with CTGDs, including orebody morphology, structural setting, and alteration styles, but drastically differ with respect to alteration zonation, geochemical signature, hypogene mineralogy, and endowment. Distal disseminated silver–gold deposits show a more definitive magmatic signature than CTGDs that includes zoning of alteration relative to felsic hypabyssal intrusions, base metal enrichment, significantly higher Ag/Au ratios, and distinctive hypogene ore mineralogy (e.g., base metal sulfides, native gold and silver, electrum, silver sulfides, and silver sulfosalts) (Cox and Singer, 1990; Cox, 1992; Hofstra and Cline, 2000), and are typically much smaller in terms of gold endowment.

There is increasing support for a model that proposes a continuum between CTGDs, distal disseminated silver–gold deposits, and epithermal deposits. This model implies a magmatic source for heat and metal. Marigold and Trenton Canyon show characteristics closer to the CTGD endmember and Buffalo Valley shows characteristics closer to the distal disseminated silver-gold endmember.

Figure 6-13 is a diagrammatic representation of the deposit model.

Figure 6-13: Model Illustrating Inferred Processes Related to Formation of Carlin-Type Gold Deposits (CTGD) and Distal Disseminated Silver–Gold Deposits



Source: Muntean and Cline, 2018

7.0 Exploration

Since acquiring the Property in April 2014, SSR has conducted several surface exploration programs including soil sampling, and geophysics, as summarized in Table 7-1.

Table 7-1: Summary of Exploration Completed by SSR

Year	Property	Company	Exploration Type	Details
2014	Marigold	SSR	Geophysics	Magee Geophysical Services LLC conducted the field data collection. The gravity measurements were collected from 1,358 stations using two LaCoste and Romberg Model-G gravity meters at a grid spacing of 150 m x 150 m. (Magee, 2014). J L Wright Geophysics processed and interpreted the data.
2016	Marigold	SSR	Geophysics	Gravity survey conducted by Magee Geophysical Services LLC. A total of 1,806 stations were acquired on a 150 m square grid and 150 m x 300 m staggered grid. Relative gravity measurements were made with LaCoste and Romberg Model-G gravity meters. Topographic surveys were performed with Trimble Real-Time Kinematic (RTK) and Fast-Static GPS. (Magee, 2016). J L Wright Geophysics processed and interpreted the data.
2020	Marigold and Trenton Canyon	SSR	Geophysics	Two reflection seismic lines covering 16.9 km. The lines were surveyed by Riolada Surveying LLC and Xtreme Drilling completed the shot holes. Bird Seismic acquired the data, and processing was completed by SubTerraSeis and Wright Geophysics.
2021	Trenton Canyon	SSR	Geophysics / Soil Samples	In 2021 a proprietary airborne hyperspectral dataset was acquired with district-scale coverage. This dataset includes mineral maps generated from short and long wave infrared sources. A soil sampling program was completed by North American Exploration on behalf of SSR Mining consisting of 3,284 soil samples covering 14.5 km^2 of mountainous terrain predominantly east the previously mined pits at Trenton Canyon.
2023	Buffalo Valley, Trenton Canyon, and Marigold	SSR	Geophysics	EarthEx completed a UAV-borne magnetic survey of the Buffalo Valley, North Peak, and New Millennium areas. The project encompassed 3,324.7 line-km at 25 m line spacing and 250 m tie line spacing with mean terrain clearance of 20 m

7.1 Geophysical and Geochemical Surveys

7.1.1 Gravity

7.1.1.1 2016

After finalizing the purchase of Valmy in 2015 (additional Newmont owned land to the east and west of the previous land boundary), SSR in 2016 expanded the geophysical gravity survey to include this new ground, resulting in a total of 1,806 new gravity stations collected on variable station spacing on a 150 m square grid and a 150 m x 300 m staggered grid. The purpose of the survey was to assist in delineation of structures in the area in conjunction with geologic mapping and exploration drilling.

7.1.1.2 2019

The acquisition of Buffalo Valley and Trenton Canyon from Newmont in 2019 resulted in the addition of 952 gravity stations to the Marigold database.

7.1.1.3 2020

In 2020, 766 gravity stations were acquired by Magee Geophysical Services on a 122 m x 244 m grid at Trenton Canyon. Relative gravity measurements were made with LaCoste & Romberg Model-G gravity meters. Topographic surveying was performed with Trimble (RTK) and Fast-Static GPS. The gravity survey is tied to the US Department of Defense gravity base Battle Mountain (DoD reference number 2344-2) via an intermediate base established on the property.

The Marigold gravity database now contains a total of 6,665 stations.

7.1.2 Seismic

In August 2020, two reflection seismic lines were completed to assess the utility of reflection seismic for imaging structural and lithological domains in a challenging geological setting. The test program included two lines totaling approximately 16.9 line kilometers (line-km). The survey was conducted by Bird Seismic of Globe, Arizona, and processed by SubTerraSeis of Reno, Nevada. Results were finalized and interpreted by Wright Geophysics of Elko, Nevada.

7.1.3 Soil Sampling

In 2020, North American Exploration of Layton Utah was contracted to collect 3,284 soil samples covering approximately 14.5 km^2 at Trenton Canyon.

7.1.4 Drone-based Magnetic

In 2022 and 2023, EarthEx Geophysical Solutions of Selkirk, Manitoba, was contracted to complete a drone-based magnetic survey over portions of Buffalo Valley, Trenton Canyon, and Marigold. Approximately 3,325 line-km were flown at a spacing of 25 m with a mean terrain clearance of 20 m. The purpose of the survey was to help delineate structure and intrusions in the area.

7.2 Drilling

Reverse Circulation (RC) and Core (Diamond Drilling-DD) drilling on the Property is the principal method of exploration and delineation of gold mineralization after initial targeting using soil sampling and geophysical surveys. Drilling can generally be conducted year-round on the Property.

As of the effective date of this TRS, SSR and its predecessor companies have completed over 2.4 million metres of drilling in 12,636 drill holes across the Marigold, Buffalo Valley, and Trenton Canyon areas, as summarized in Table 7-2, Table 7-3, and Table 7-4.

Since the previous TRS (OreWin, 2022), exploration at the Property has focused on the following:

- Exploration drilling to expand Mineral Resources and Mineral Reserves through systematic step out drilling.
- Infill drilling to increase the confidence of Mineral Resource estimates, specifically targeting areas with widely spaced drilling (approximately 35 m to 50 m) and around drill holes drilled prior to 2006 with missing assays.
- Drilling to confirm the final position of the pit highwall.
- Defining mineralization at Trenton Canyon and Buffalo Valley.

From December 1, 2021, through to the end of June 2023, a total of 491 holes have been drilled (456 RC holes and 35 diamond core holes), totalling 139,839 m.

Figure 7-1 illustrates all drilling completed by year on the Property as of the effective date of this TRS.

Table 7-2: Summary of Drilling at Marigold

Drilling Program	Company	No. of RC Holes	RC Drilling (m)	No. of Diamond Holes	Diamond Drilling (m)	Total Holes	Total Drilling (m)
1968–1985	Various exploration and mining groups	126	7,037			126	7,037
1985–1999	Cordex and Rayrock Mines	2,350	333,325	8	2,176	2,358	335,501
1999–2006	Glamis Gold	2,498	484,619	8	2,030	2,506	486,649
2006–2013	Goldcorp	1,856	520,163	14	8,063	1,870	528,226
1968–2006	Newmont and other mining groups (Valmy property)	852	108,326	15	1,037	867	109,363
2014	SSR	116	21,653	1	1,235	117	22,888
2015	SSR	171	39,070	4	4,270	175	43,340
2016	SSR	231	55,147	1	955	232	56,102
2017	SSR	188	54,814	1	1,128	189	55,942
2018	SSR	259	93,276	0	0	259	93,276
2019	SSR	183	63,629	25	10,265	208	73,893
2020	SSR	109	37,955	0	0	109	37,955
2021	SSR	150	52,579	6	1,636	156	52,214
2022	SSR	200	55,628	0	0	200	55,628
H1 2023	SSR	70	15,993	7	1,832	77	17,825
Total Drilling		**9,359**	**1,943,214**	**90**	**34,627**	**9,449**	**1,975,839**

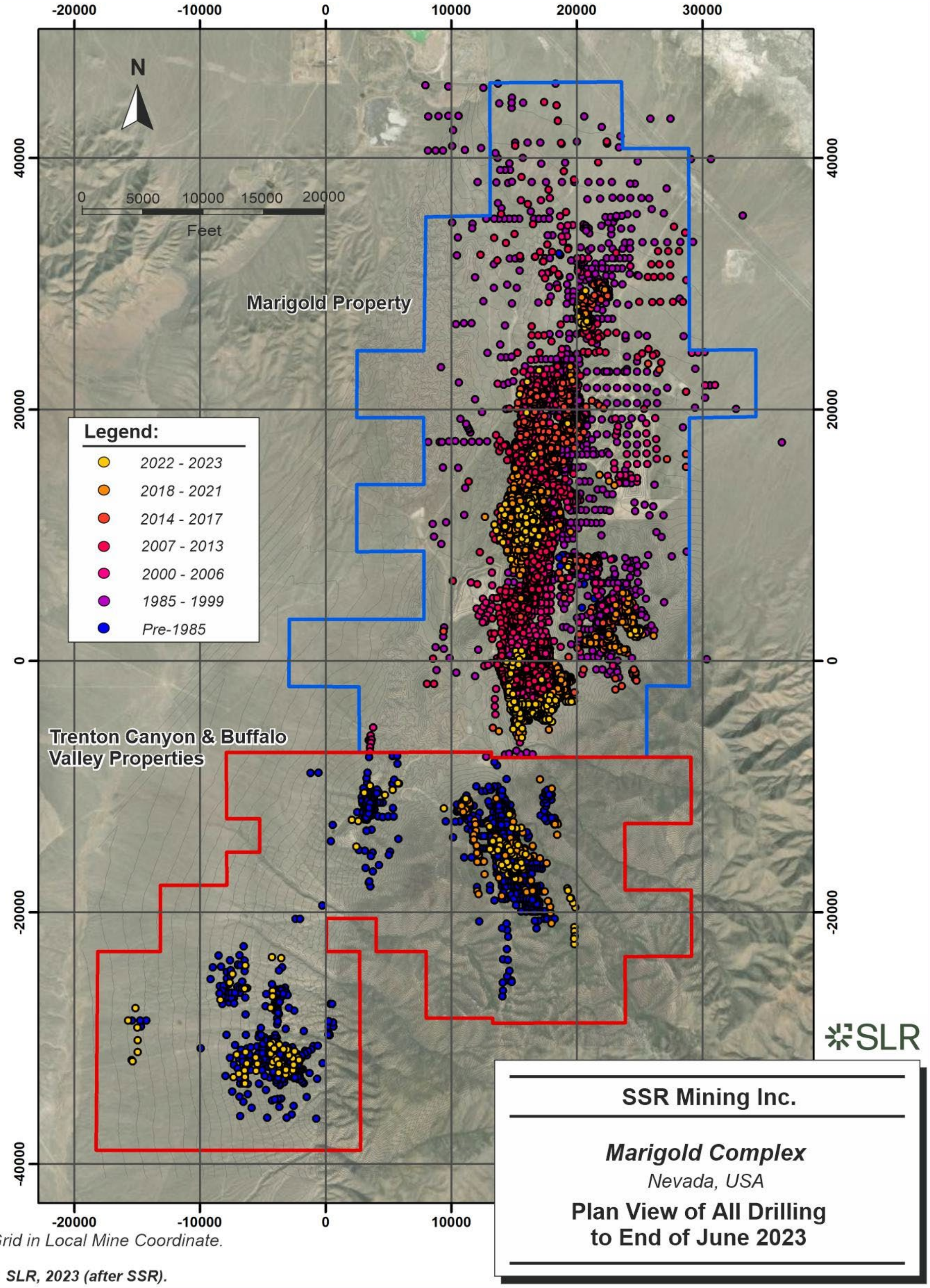
Table 7-3: Summary of Drilling at Buffalo Valley

Drilling Program	Company	No. of RC Holes	RC Drilling (m)	No. of Diamond Holes	Diamond Drilling (m)	Total Holes	Total Drilling (m))
1980–2011	Newmont and other mining groups	1,550	178,892	24	4,187	1,574	183,079
2019	SSR	0	0	0	0	0	0
2020	SSR	0	0	0	0	0	0
2021	SSR	0	0	3	837	3	837
2022	SSR	36	14,426	7	3,315	43	17,741
H1 2023	SSR	39	11,636	9	2,900	48	14,536
Total Drilling		**1,625**	**204,954**	**43**	**11,239**	**1,668**	**216,193**

Table 7-4: Summary of Drilling at Trenton Canyon

Drilling Program	Company	No. of RC Holes	RC Drilling (m)	No. of Diamond Holes	Diamond Drilling (m)	Total Holes	Total Drilling (m)
1991–2011	Newmont and other mining groups	1,143	152,792	6	909	1,149	153,701
2019	SSR	64	19,112	0	0	64	19,112
2020	SSR	97	28,840	7	5,902	104	34,742
2021	SSR	86	24,844	3	1,518	89	26,362
2022	SSR	64	18,983	10	3,984	74	22,967
H1 2023	SSR	37	8,232	2	434	39	8,667
Total Drilling		**1,491**	**252,804**	**28**	**12,746**	**1,519**	**265,550**

Figure 7-1: Plan View of All Drilling to End of June 2023



Note: *Grid in Local Mine Coordinate.*

***Source:* SLR, 2023 (after SSR).**

7.2.1 QP Opinion

The SLR QP is of the opinion that the drilling and sampling procedures adopted at Marigold are consistent with generally recognized industry best practices. The resultant drilling pattern is sufficiently dense to interpret the geometry and the boundaries of gold mineralization with confidence. The reverse circulation (RC) samples were collected by trained personnel using procedures meeting generally accepted industry best practices. The process was conducted or supervised by suitably qualified geologists.

The SLR QP is of the opinion that the samples are representative of the source materials, and there is no evidence that the sampling process introduced a bias. Accordingly, there are no known sampling or recovery factors that could materially impact the accuracy and reliability of drilling results.

8.0 Sample Preparation, Analyses, and Security

Exploration activities conducted by three companies between 1985 and 2013 have contributed to most of the assays in the Marigold database. Sampling and analytical procedures for this period are known and documented, and it can be assumed that analytical information acquired prior to 1985 will not impact the current Mineral Resources because sampled volumes collected prior to 1985 have been mined out.

Most of the samples that inform the resource database were generated from RC drill cuttings. In general, the process for collecting RC samples has changed very little since 1985; however, over time, there have been numerous improvements in sample preparation, security, and analysis. As an operating mine, Marigold generally followed and continues to follow industry best practice standards.

At the Property, there is an extensive sample storage facility that preserves the raw sample material that supports the resource database. Most of the laboratory pulp reject (since 1987), coarse reject (since 2006), and split diamond drill core are catalogued and stored securely in shipping containers on the Property.

A detailed account of the pre-2014 sampling and analytical protocols is described in SSR (2014). The following sections contained in this TRS have been derived, updated, and in some instances extracted from documentation from OreWin (2022) and standard operating procedures (SOP) supplied to SLR by SSR for review and audit.

8.1 Sample Preparation and Analysis

A summary of historical analytical methods and assay results that comprise the Marigold database is presented in Table 8-1. Except for the Marigold, Pinson, and Dee Mine site laboratories, all laboratories listed in Table 8-1 are commercial laboratories that were independent from SSR.

Until the end of 1999, fire assay (FA) with gravimetric finish was the preferred analytical method for determining gold in samples. Since then, all samples have been subjected to first-pass gold cyanide solution (CN) assay; if results were greater than 0.17 g/t Au, samples were also subjected to either FA determination with gravimetric finish at the on-site Marigold mine laboratory or FA with atomic absorption (AA) finish and FA with gravimetric finish for over-limits at commercial laboratories.

All the Newmont-provided samples that inform the resource database for the Valmy area were assayed at various commercial laboratories. The preferred assay method was FA with AA spectroscopy finish, followed by gold cyanide solution assay on select samples within the mineralized zone.

Since 2014, all exploration samples from Marigold are analysed at American Assay Laboratories (AAL), an ISO 17025 certified facility in Sparks, Nevada. AAL is independent from SSR. All samples are subjected to first pass FA determination with an AA finish and FA with gravimetric finish for over-limits. This is followed by a gold cyanide solution assay with an AA finish on samples that have FA values greater than or equal to 0.03 g/t Au. In 2019 and 2020 Marigold Mine submitted drill samples to Paragon Geochemical Laboratories, a privately held corporation located in Sparks, Nevada. Analytical procedures utilized are ISO/IEC 17025:2017 accredited and ISO 9001:2015 certified. Samples were prepared under strictly controlled processes, and 30g aliquots fire assayed with lead collection. The analytical determinations were with aqua regia digestion and inductively coupled plasma (ICP) – optical emission spectroscopy (OES) analysis (Au-OES30). Results greater than 8 g/t were fire assayed with gravimetric finish (Au-GR30). Quality control utilizes layers of embedded indicators that are monitored during operations and used for final certification. Paragon is independent of SSR.

Table 8-1: Analytical Methods for Gold for the Marigold Assay Resource Database

Period	Laboratory	Preparation	Analytical Method	Reported DL[1] (Au g/t)
1985–1989	Pinson or Dee Mine site labs	Undocumented	30 g FA, gravimetric finish	0.17
1990–1999	Pinson or Dee Mine site labs or Inspectorate Labs	Undocumented	30 g FA, gravimetric finish	0.17
1980-2010 (Buffalo Valley Historic)	Multiple Laboratories	Undocumented	30 g FA, AA finish and/or 15 g CN assay on select samples	Unknown
1987–1998 (Valmy + Trenton Canyon)	Barringer Laboratories	Undocumented	30 g FA, AA finish 15 g cyanide gold (CN) assay on select samples	FA: 0.17 CN assay: 0.17
	X-Ray Assay Laboratories	Undocumented	30 g FA, gravimetric finish 15 g CN assay on select samples	FA: 0.03 CN assay: 0.03
	Rocky Mountain Geochemical Nevada	Undocumented	30 g FA, gravimetric finish 15 g CN assay on select samples	FA (AA): 0.03–0.003 CN assay: 0.03
	Chemex Labs Ltd.	Undocumented	15 g FA, AA finish 30 g FA, gravimetric finish 15 g CN assay on select samples	FA (AA): 0.06–0.003 CN assay: 0.03
2000–2004 (Valmy + Trenton Canyon)	Chemex Labs Ltd.	Dry, crush and riffle split for pulverizing; pulverize to 100µ	All samples 30 g FA, AA finish 15 g CN assay on select samples	FA (AA): 0.01 CN assay: 0.03
2000–2006	Marigold Mine laboratory	Dry 6–12 hrs at 310°F; crush >95% –2 mm; riffle split to collect 250 g – 400 g for pulverizing; pulverize to >90% –75µ	All samples 10 g CN assay, AA finish If CN assay >0.17 g/t, the 2nd pulp split at 30 g FA, gravimetric finish	0.03
	American Assay or Inspectorate Labs	Dry 6–12 hrs at 310°F; crush (using jaw and roll) >90% –2 mm; riffle split to collect 500–	All samples 15 g CN assay, AA finish If CN assay >0.17 g/t, the 2nd pulp split at	0.03

Period	Laboratory	Preparation	Analytical Method	Reported DL[1] (Au g/t)
		1,000 g for pulverizing; pulverize to >90% –100µ	30 g FA, AA finish over-limits by 30 g FA, gravimetric finish	
2006–2013	Marigold Mine laboratory	Dry 6–12 hrs at 310°F; crush >95% –2 mm; riffle split to collect 250 g – 400 g for pulverizing; pulverize to >90% –75µ	All samples 10 g CN assay, AA finish If CN assay >0.17 g/t, the 2nd pulp split at 30 g FA, gravimetric finish	0.03
	American Assay or Inspectorate Labs	Dry 6–12 hrs at 310°F; crush (using jaw and roll) >90% –2 mm; riffle split to collect 500 g – 1,000 g for pulverizing; pulverize to >90% –100µ	All samples 15 g CN assay, AA finish If CN assay >0.17 g/t the 2nd pulp split at 30 g FA, AA finish over-limits by 30 g FA, gravimetric finish	0.03
2014–2023	American Assay Laboratories	Dry 6–12 hrs at 310°F; crush (using jaw and roll) >90% –2 mm; riffle split to collect 500 g – 1,000 g for pulverizing; pulverize to >90% –100µ	All samples 30 g FA, AA finish over-limits by 30 g FA, gravimetric finish If FA >0.03 g/t, the 2nd pulp split at 15 g CN assay, AA finish	FA: 0.003 CN assay: 0.03
	Marigold Mine laboratory	Dry 6–12 hrs at 310°F; crush >95% to –2 mm; riffle split to collect 250 g to 400 g for pulverizing; pulverize to >80% –74µm	All samples 10 g CN assay, AA finish If CN assay >0.17 g/t, the 2nd pulp split at 30 g FA, gravimetric finish	0.03
2019-2020	Paragon Laboratories	Dry – 6 to 12 hrs at 310°F; crush (using jaw and roll) >90% minus 2 mm; riffle split to collect 500 g to 1,000 g for pulverizing; pulverize to >85% minus 75µ	All samples 30 g FA, AA finish Over-limits by 30 g FA, gravimetric finish If FA >0.03 g/t, the 2nd pulp split at 15 g CN assay, AA finish	FA, 0.003 CN assay, 0.03

Notes:

1. Detection Limit

8.2 Quality Assurance and Quality Control

Quality assurance (QA) consists of evidence to demonstrate that the assay data has precision and accuracy within generally accepted limits for the sampling and analytical method(s) used in order to have confidence in a 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.

8.2.1 QA/QC Procedures Pre-2014

8.2.1.1 Historical Marigold Assay – Analysis of Low Detection Limit

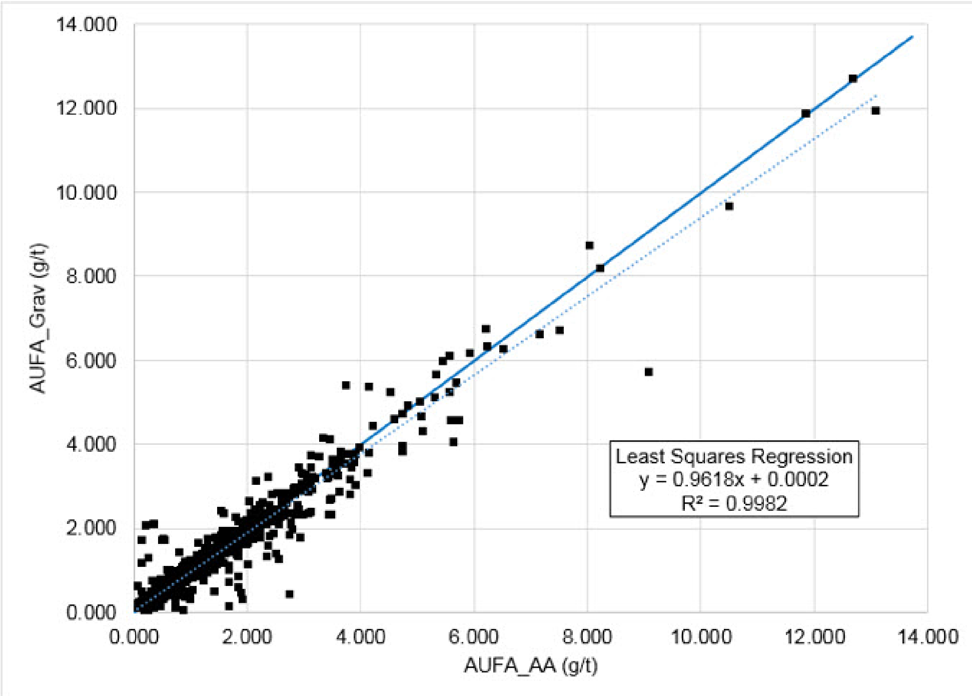
The oldest hole in the Marigold exploration database is from 1968. Over time, QA procedures for the drill hole database have been inconsistent with current industry standards and best practices.

There have been changes in the lower detection limit for cyanide soluble gold assays over time as the ROM cut-off grade has been reduced. Prior to 2009, assay values below detection were entered into the database as 0.0 oz/t. This data artefact was under-representing the mineralized volume of the Mineral Resources estimate at the low-grade range of the analytical distribution and contributing to the positive reconciliation experienced at Marigold.

Because the historical QA/QC procedures at Marigold did not meet current-day best practices, the issue of below-detection-limit analyses in the database was addressed through a systematic assay program implemented by SSR in 2015 and 2016 (the Assay Program). SSR selected a spatial and temporal representation of samples from the well-preserved drill hole sample pulps (from the years 1987 to 2013) stored at Marigold. A total of 1,974 samples collected between 1987 and 2003 were re-assayed for FA with AA finish and gravimetric finish analysis at the ISO 17025 certified AAL facility in Sparks, Nevada. Drill hole sample pulp material was not available for the period 1968 to 1987.

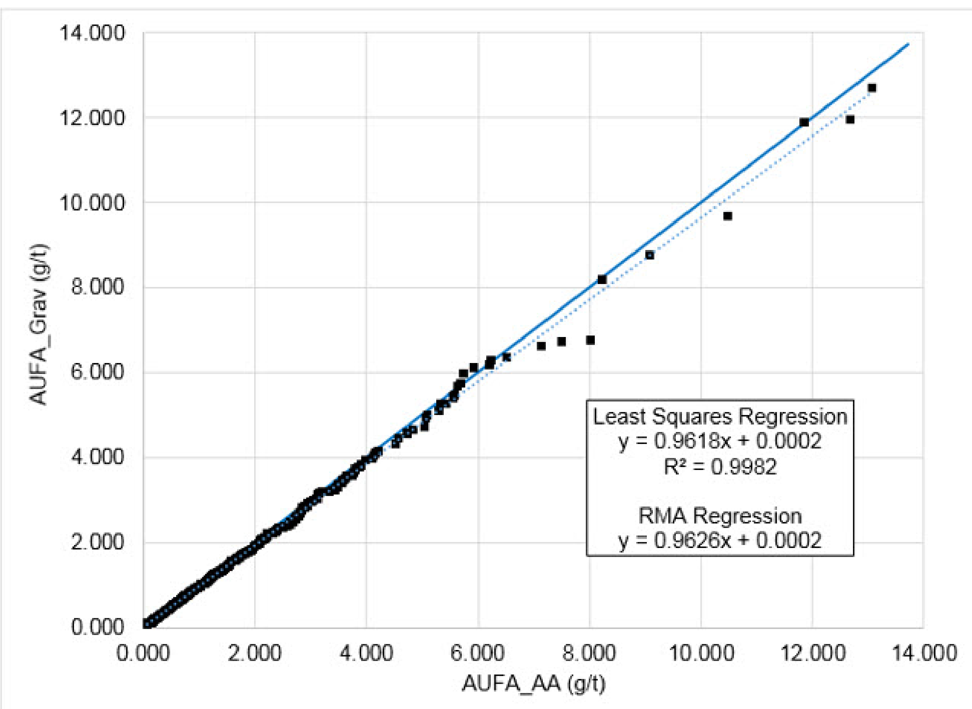
Of these 1,974 assay pairs, 1,029 samples were below the as-mined topography and within the mineralized envelopes. This represents 12% of samples that are within the mineralized envelope and below the mined-out topography that had been previously estimated as 0.0 opt or deemed as waste. The assay results for both the finishes were compared, and results are presented in Figure 8-1 and Figure 8-2. The scatter shown in the data is acceptable (R2 = 0.9982), and the reduced major axis (RMA) regression indicates a bias of 3.7% for all the assay pairs that are below the mined-out topography.

Figure 8-1: Scatter Plot Between FA Gold Values with AA Finish and Gravimetric Finish



Source: SSR, 2023

Figure 8-2: Q-Q Plot between FA Gold Values with AA Finish and Gravimetric Finish



Source: SSR, 2023

Between 2015 and 2016, an Assay Program was carried out in which a total of 153,023 pulp samples from pre-2009 drill holes reporting a 0.0 opt gold cyanide soluble result and located within the reserve pits were recovered from storage and analysed for gold at AAL. Certified standards and blanks were inserted into the pulp sample list at a rate of one standard in 20 samples and one blank in 50 samples. The samples were analysed using aone assay ton (30 g) FA with an AA finish, followed by a gold cyanide solution assay with an AA finish for those samples that returned FA results of 0.03 g/t or greater.

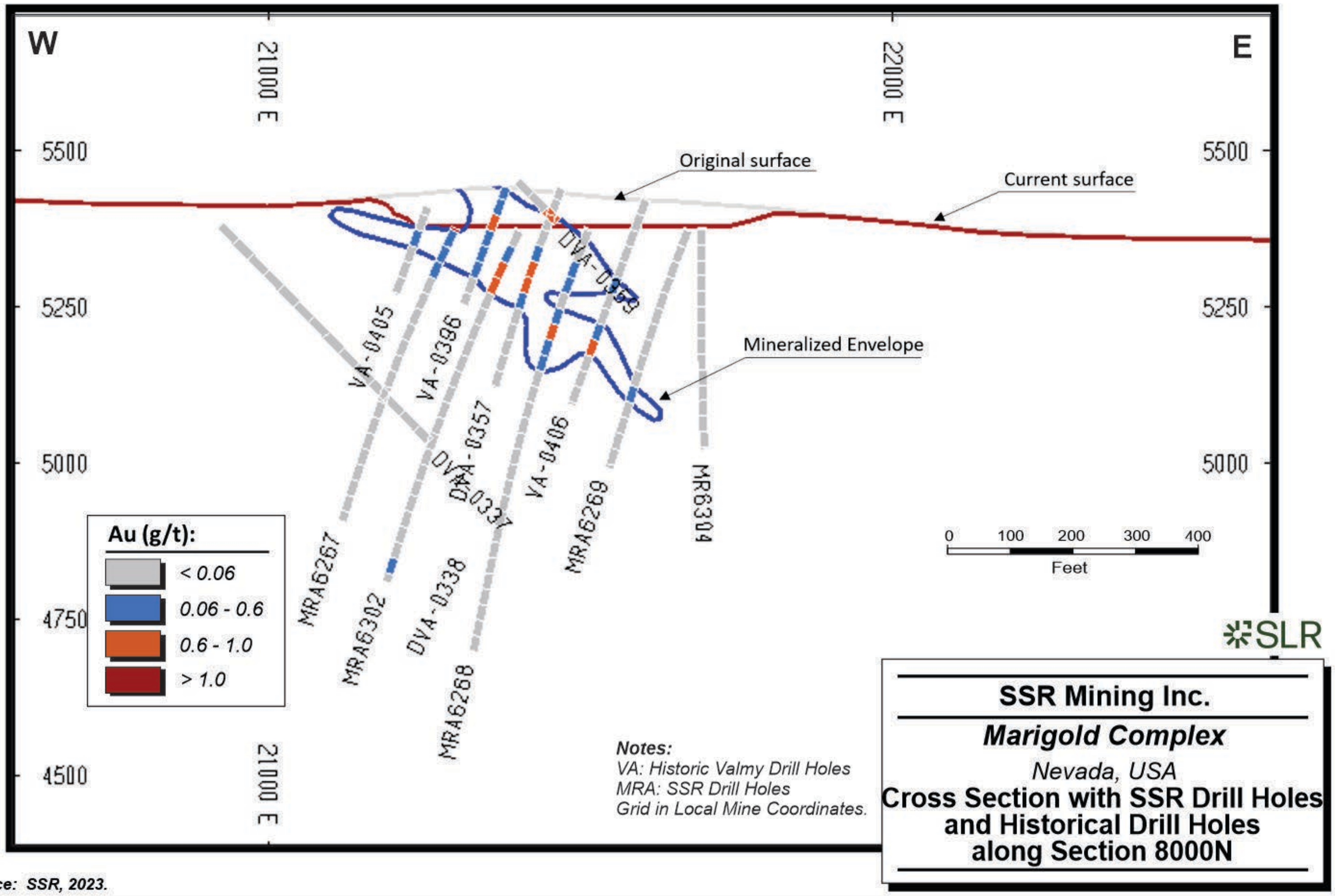
8.2.1.2 Valmy Property

As at Marigold, the QA/QC procedures followed between 1987 and 1998 at the Valmy property did not meet the current day industry standards and best practices. Newmont began inserting certified standards in the sample stream in 2000. A total of three QC samples were used, but SSR was unable to evaluate the assay accuracy without the expected gold values for these samples.

Because the historical QA/QC procedures for the Valmy property did not meet current day industry standards, SSR drilled eight drill holes within a resource block of 200 m by 150 m. A total of 11 historical drill holes were within the same block. The cross section comparing the SSR drilling to the historical drilling is presented in Figure 8-3.

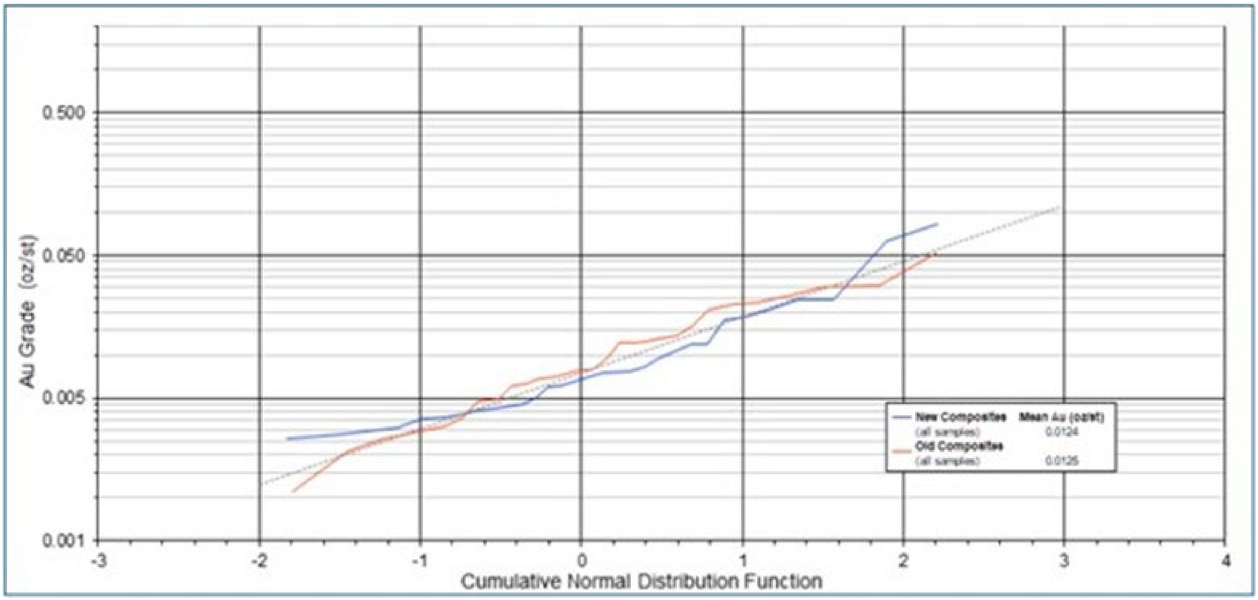
The cumulative normal distribution comparing the SSR drill composites to the composite from the historical drill holes is provided in Figure 8-4.

Figure 8-3: Cross-Section with SSR Drill Holes and Historical Drill Holes Along Section 8000N



Source: SSR, 2023.

Figure 8-4: Cumulative Normal Distribution Comparing Composites from SSR Drilling and Historical Drilling



Source: SSR, 2018

The nearest neighbour (NN) gold grade model estimates were also compared to the assay results from historical drilling and the new drilling. To compare historical Newmont data to SSR data, two NN models were developed: one estimate used only assay results from the historical database; and a second estimate used only the assay results from the SSR drill holes within the same mineralized envelope. The percentage difference between historical and SSR results was approximately less than 4% (Table 8-2).

Table 8-2: Comparison of Valmy Deposit NN Mean Gold Grades

Estimate	Mean Gold Grade (g/t)
Nearest Neighbour with Historical Composites	0.624
Nearest Neighbour with SSR Composites	0.600

SSR concluded that there was no systematic error or bias in the accuracy and precision of analytical assays in the historical sampling and assaying methodology when compared to current practices and the assays are suitable for use in Mineral Resource estimation.

8.2.1.3 Buffalo Valley Historical Data

In 2011, before SSR's acquisition of the Buffalo Valley property, AMEC Americas Ltd. (AMEC) conducted an audit of Newmont's Buffalo Valley drill hole database and found good agreement between the database and the original data sources. The database was comprised of data from numerous drilling campaigns between the years of 1980 to 2011, with drill holes from multiple campaigns selected for the audit. The drill hole data from Newmont was directly imported into SSR's new Seequent MX Deposit (MX Deposit) database.

8.2.2 QA/QC Procedures 2014-2023

SSR's QA/QC protocol involves the insertion of a certified reference material standards (CRM) every 20th sample, the insertion of a blank sample every 50th sample, the collection of field duplicates every 50th sample for RC holes and the re-analysis of returned pulverized material at the original laboratory, as well as at an umpire laboratory. SSR's protocol targets the total number of QA/QC samples, comprised of the above-mentioned sample types, to exceed 15% of the total number of original samples. For simplification of plotting, results from 2014-2017 have been excluded in the following sections.

8.2.2.1 Certified Standards

Results of the regular submission of CRMs are used to identify issues with specific sample batches, and biases associated with the laboratory.

Certified reference material (CRM) standards were used to evaluate the analytical accuracy and precision of AAL. CRMs were inserted every 20th sample, which represents 5% of the total samples submitted. Three different CRMs were used in any one submission. The CRMs were selected based on the cut-off grade and gold distribution at Marigold mine:

- cut-off grade (0.1 g/t)
- mean grade (0.45 g/t)
- 90th percentile (2.3 g/t)

Between 2018 and June 2023, eleven different CRMs, purchased from ROCKLABS and Geo Chem Laboratories, were used. CRMs purchased from Ore Research & Exploration Pty Ltd. Were only used in 2014 for a short period of time. The CRMs were assigned sample numbers in sequence with their accompanying drill samples and inserted into the drill-sample stream. The list of CRMs used between 2018 and June 2023 is shown in Table 8-3.

Exploration personnel monitor the assay results on a real-time basis and import the data into the Geology database. Internal validation checks in the database highlight any certified standard assay failures. In the case of normally distributed data, 95% of the standard assay results are expected to lie within two standard-deviation limits of the certified value. All samples outside the three standard-deviation limits were considered to be failures. Failures trigger a re-run of five samples above and five samples below the failed standards, including the failed standard.

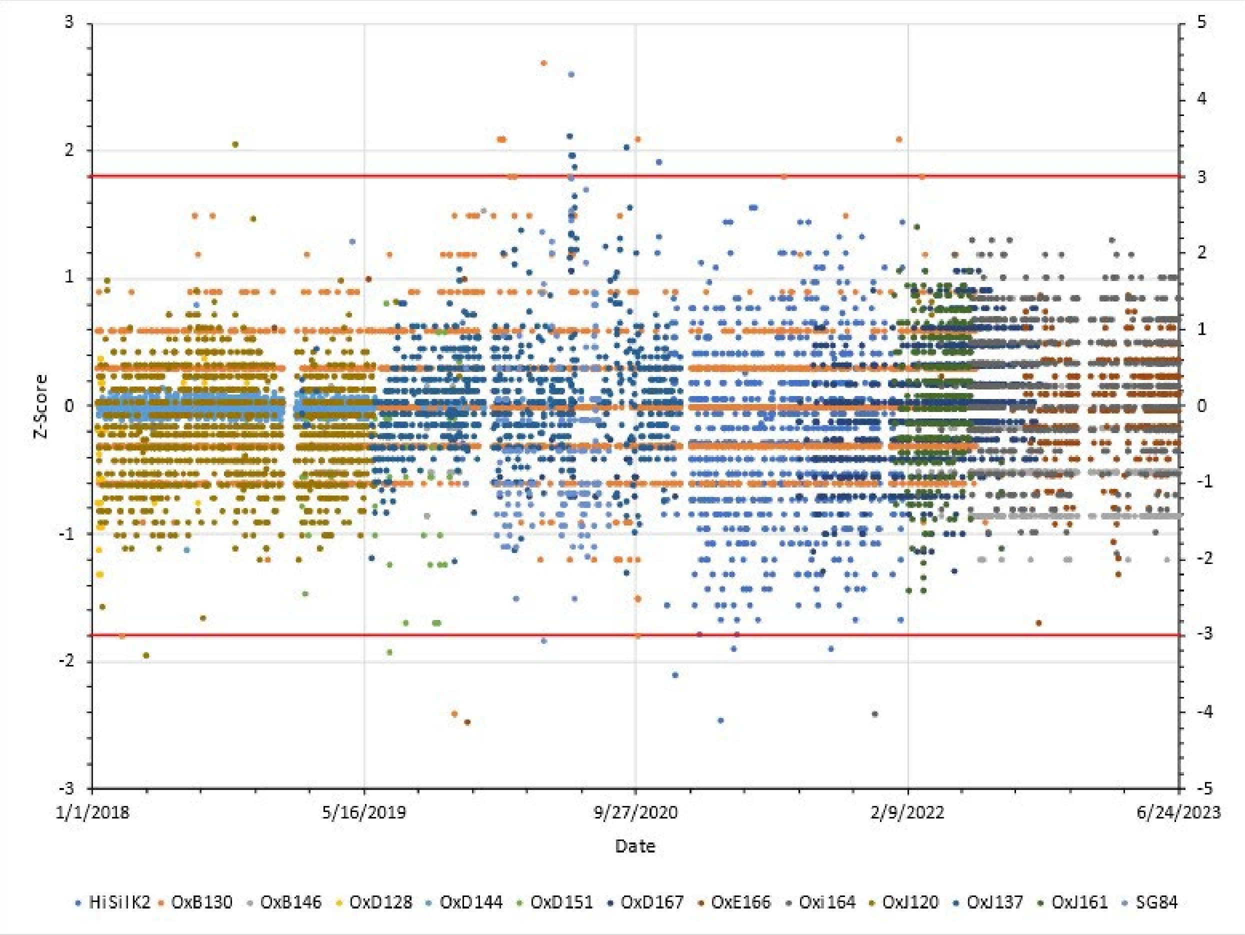
Table 8-3: List of CRM Standards used between 2018 and June 2023

CRM Standard	Years in Use	Expected Gold Value (g/t)	Standard Deviation (g/t)	No. of Samples Assayed
HiSilk2	2019-2022	3.474	0.087	869
OxB130	2018-2023	0.123	0.006	4,256
OxB146	2019-2023	0.132	0.006	943
OxB186	2023	0.121	0.003	73
OxD128	2018	0.425	0.0109	23
OxD144	2018-2020	0.417	0.009	1,325
OxD151	2019-2021	0.43	0.009	1,632
OxD167	2020-2022	0.462	0.014	1,138

CRM Standard	Years in Use	Expected Gold Value (g/t)	Standard Deviation (g/t)	No. of Samples Assayed
OxE166	2019, 2022-2023	0.652	0.016	516
Oxi164	2019, 2022-2023	1.79	0.036	965
OxJ120	2018-2019, 2022	2.365	0.063	1,446
OxJ137	2019-2020	2.416	0.069	869
OxJ161	2021-2022	2.501	0.0549	430
SG84	2019-2020	1.026	0.025	207

CRM Z-score assay values received from the lab are routinely plotted temporally to monitor potential analytical drift over time at the main laboratory (Figure 8-5).

Figure 8-5: Z-Scores of all CRM Results (2018 – June 2023)



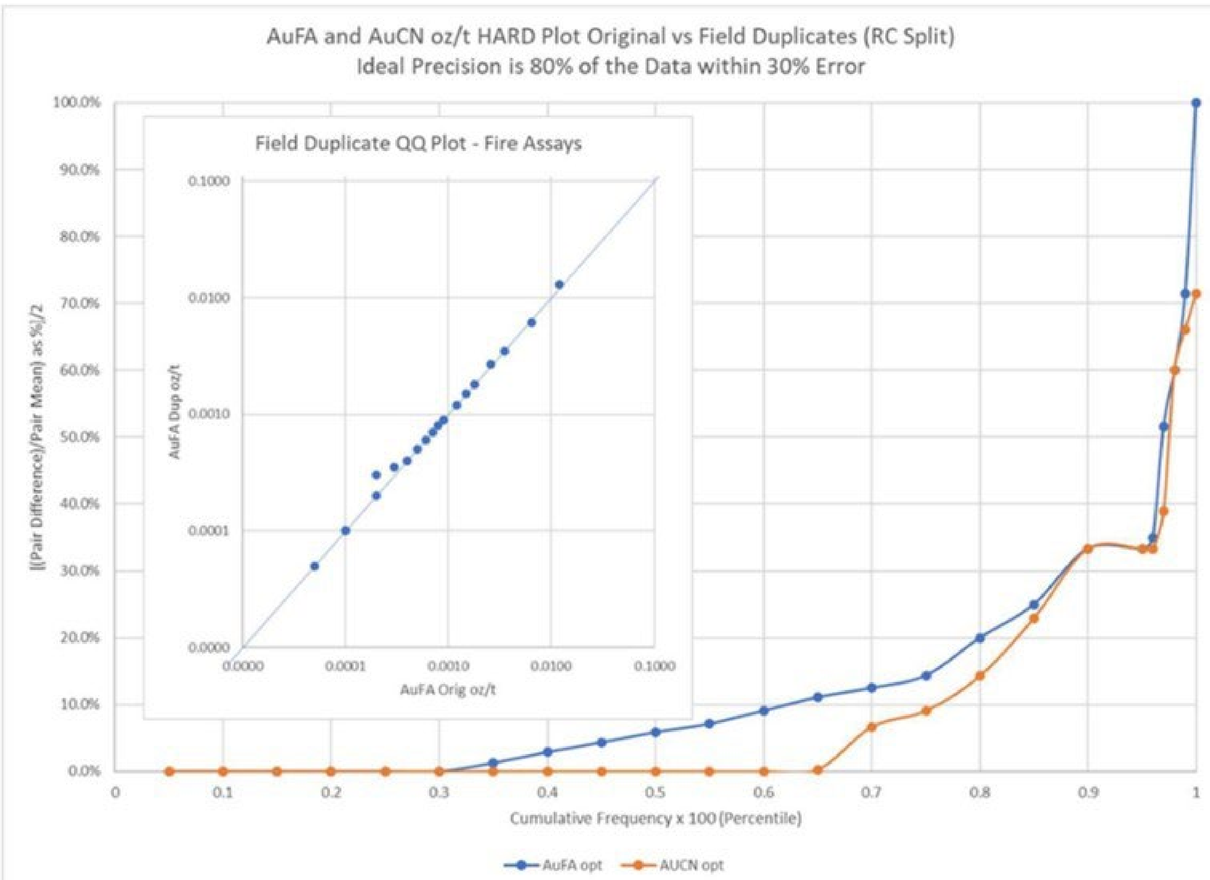
Source: SSR, 2023

8.2.2.2 Field Duplicates

Duplicate samples are used to monitor preparation, assay precision, and grade variability as a function of sample homogeneity and laboratory error.

Field duplicate samples were collected every 50th sample, and two sample bags marked "A" or "B" were provided to collect an original and a duplicate sample. The secondary sample was obtained from the secondary opening in the rotary sampler. Between 2022 and June 2023, 1,425 duplicate samples were collected and assayed. Absolute relative difference (ARD) was used to estimate precision; results are presented in Figure 8-6.

Figure 8-6: Field Duplicate HARD Plot for Fire Assay (AuFA) and Cyanide Soluble (AUCN) Analyses. Inset QQ Plot of Original vs. Duplicate Results.



Notes:

1. Fire assay gold grade (AuFA), cyanide soluble gold grade (AuCN)

Source: SSR, 2023

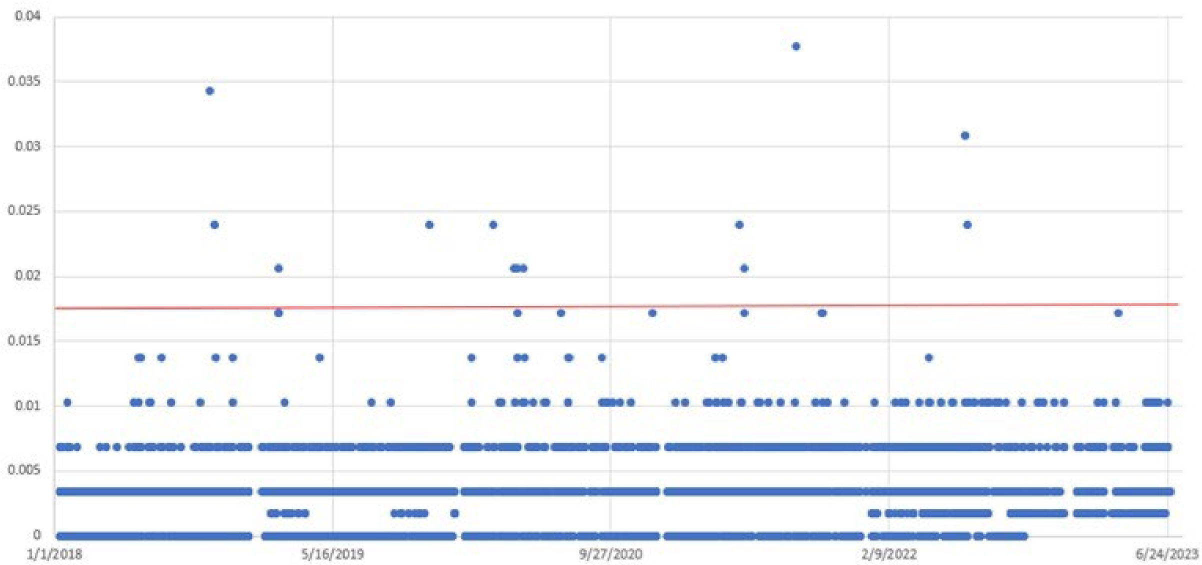
8.2.2.3 Blanks

Blank material is used to assess contamination or sample-cross contamination during sample preparation and to identify sample numbering errors.

The size of the blanks was similar to the size of the RC samples, and they were processed through the same crushing and pulverizing stages as the drill samples. The blank samples were placed one in every 50 samples. Blank results that were greater than 5 times the lower detection limit (LDL) were typically considered failures that required further investigation and possible re-assaying of associated drill samples. The lower detection limit of AAL analyses is 0.0034 g/t, therefore blank samples assaying in excess of 0.017 g/t were considered to be failures.

Between January 2018 and June 2023, 1,663 blanks were inserted into the sample stream, with less than 1% resulting in failures. The protocol followed for failures was to re-prepare and assay five samples above and below the failures. The new assays were entered into the database for the samples. The assay results for the blank samples between January 2018 and June 2023, are shown in Figure 8-7.

Figure 8-7: Blank Results (January 2018 – June 2023)



Source: SSR, 2023.

The total number of field duplicates and blank samples included for assay is provided in Table 8-4).

Table 8-4: Number of Blanks and Field Duplicates

Year	Number of Blanks Sent	Number of Field Duplicates Sent
2018	1,103	1,103
2019	1,240	986
2020	780	787
2021	902	899
2022	1,201	1,062
2023	549	490

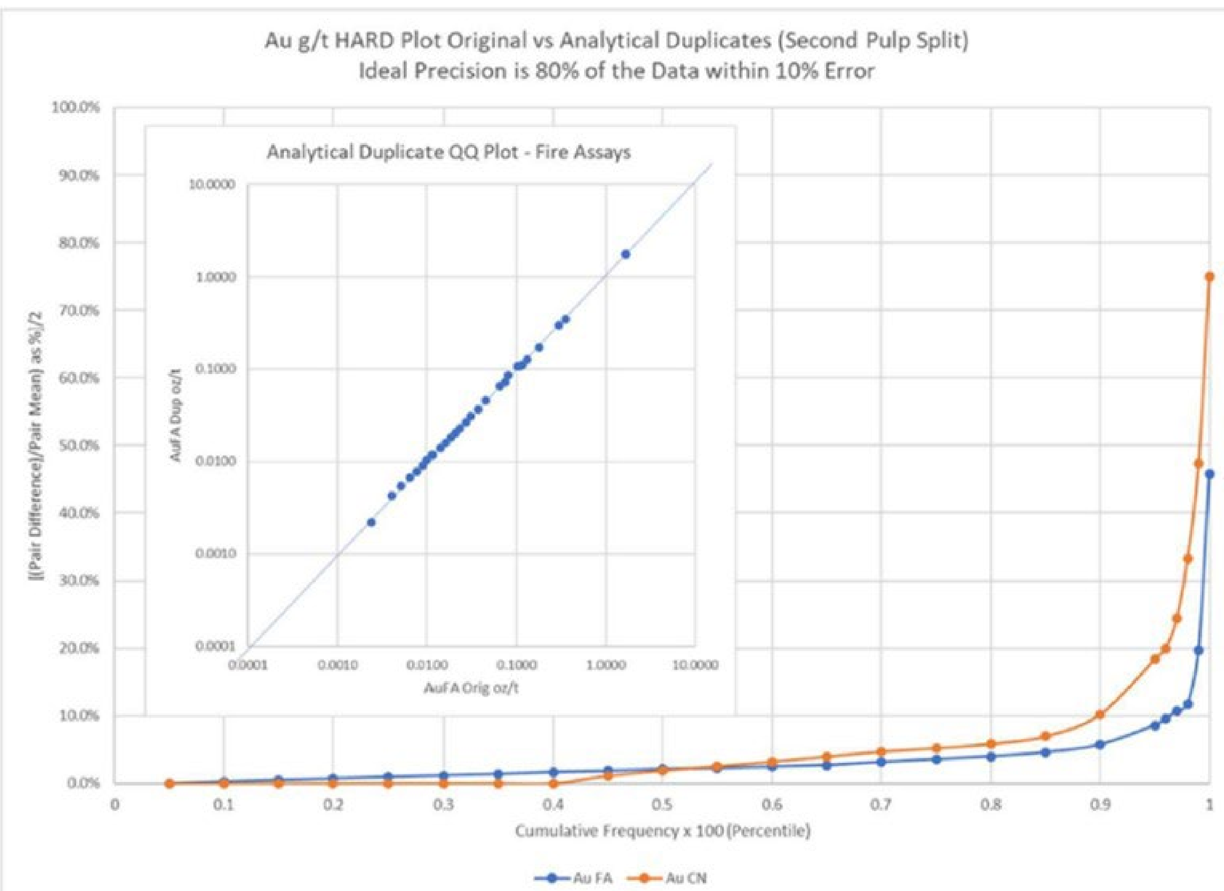
8.2.2.4 Re-Assay and Umpire Samples

After completing original assays/analysis, the primary laboratory returns coarse rejects and pulverized material to Marigold for storage. From the pulverized material, analytical duplicates are selected to have a re-assay (original lab), umpire assay (second lab), or both completed. Samples are selected based on their original grade, such that the secondary assay results form a distribution representative of the grades seen at Marigold. Re-assays are sent back to the same laboratory that conducted the original assay and are used to monitor precision attributable to the analytical process. In the period since OreWin (2022), re-assays were completed by American Assay Laboratories whereas ALS was utilized for umpire analysis.

Figure 8-8 shows a HARD plot for the re-assay samples for the period of October 2022 through June 2023.

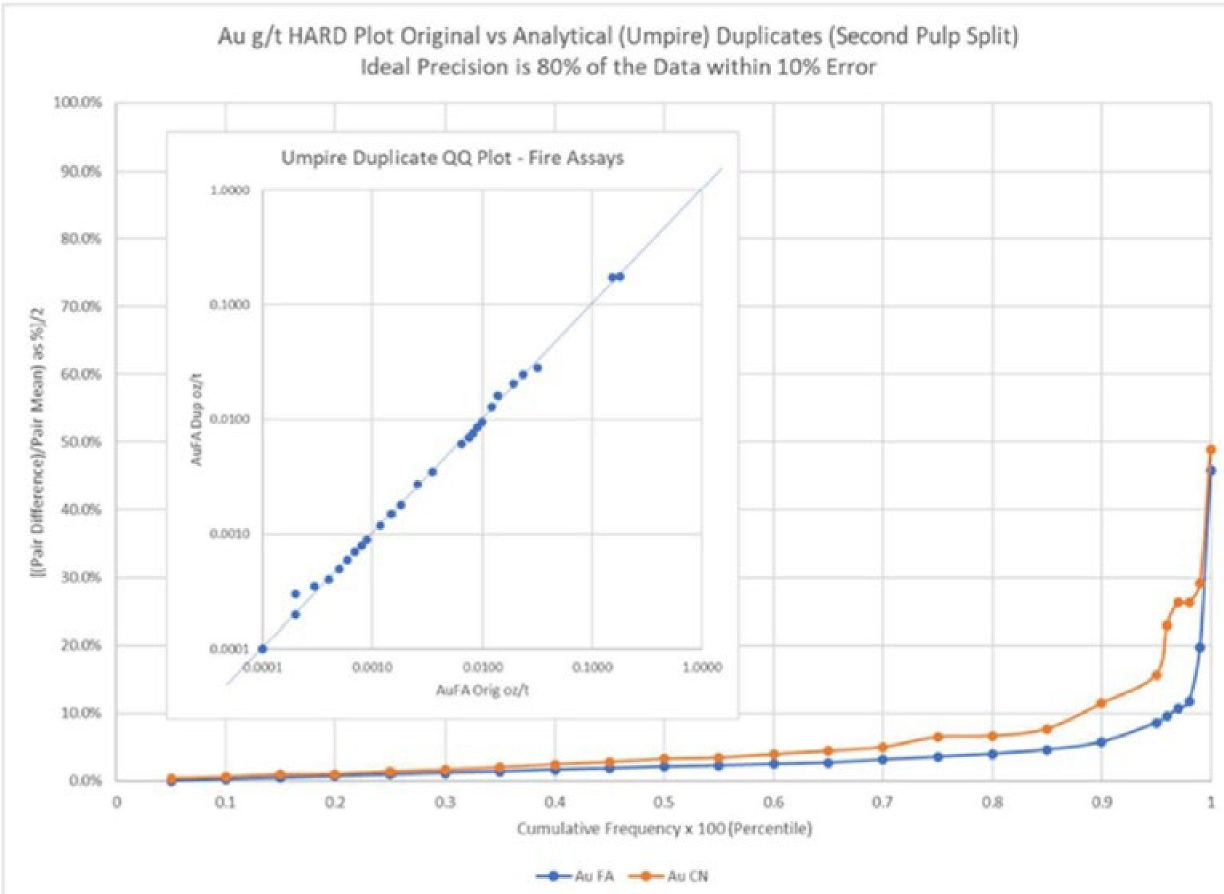
Umpire samples are sent to monitor any calibration differences between the main and umpire labs. Figure 8-9 shows are HARD plot for umpire assays for the period of October 2022 through June 2023.

Figure 8-8: Re-Assay Analytical Duplicate HARD Plot for Fire Assay (AuFA) and Cyanide Soluble (AUCN) Analyses. Inset QQ Plot of Original vs. Umpire Results



Source: SSR, 2023.

Figure 8-9: Umpire Analytical Duplicate HARD Plot for Fire Assay (AuFA) and Cyanide Soluble (AUCN) Analyses. Inset QQ Plot of Original vs. Umpire Results



Source: SSR, 2023.

8.3 Sample Security

8.3.1 Sample Security until 2013

The bulk of the data in the Marigold resource assay database was for samples analysed at the secure on-site Marigold mine laboratory. Samples shipped off site were either delivered to the commercial lab by an MMC Exploration Department geologist or technician, or samples were collected from the mine by a laboratory employee. All samples were sent with a manifest listing the number of samples included in the shipment. Exploration personnel were unaware of any instances of tampering with samples either on site or in transit to a laboratory.

8.3.2 Sample Security Newmont Projects

Newmont provided scanned copies of driller's logs, sample manifest sheets, and signed assay sheets from commercial laboratories and geologist logging sheets for all the drill holes that inform the resource database for the Valmy and Buffalo Valley properties. Based on the documented evidence, the likelihood of tampering with the samples either on site or in transit were negligible.

8.3.3 Sample Security 2014–2023

All exploration samples were collected from the mine site by employees of the external laboratories (either AAL or Paragon). All sample dispatches included a manifest listing the sample identifiers and number of samples included in the shipment. AAL/Paragon electronically acknowledged the receipt of the samples within 24 hours after physically reconciling the samples with the manifest. SSR exploration personnel are unaware of any instances of tampering with samples either on site or in transit to a laboratory.

8.4 QP Opinion

After reviewing, it is the SLR QP's opinion, the sample preparation, security, and analytical procedures meet industry standards, and the QA/QC program, as designed and implemented at Marigold are in line with industry best practices. Based on the data validation and the results of the standard, blank, and duplicate analyses, SLR believes that the assay and bulk density databases are of ample quality and suitable for mineral resource estimation purposes. SLR is not aware of any drilling, sampling, or recovery factors that could materially impact the accuracy and reliability of the results. Neither the SSR in-house quality control nor SSR predecessor's quality control yielded any indication of quality concerns.

9.0 Data Verification

Data verification is the process of confirming that data has been generated with proper procedures, is transcribed accurately from its original source into the project database and is suitable for use as described in this TRS.

SLR was not directly involved in the exploration drilling, logging, and sampling programs that formed the basis for collecting the data used to support the geological model and MRE for the Property.

9.1 Marigold Database Migration

Since publishing the previous TRS (OreWin, 2022), all drill hole data has been migrated to an MX Deposit database and audited by the SLR QP for completeness and validity. Migrated data were validated extensively by SSR for any errors or missing values by comparing old tables to the new. The new database was configured to streamline the collection, validation, and use of all data to maximize efficiency and minimize errors by limiting data handling and manual entry.

All new drill hole data collected after the migration, with the exception of lithology logging, were imported directly into the geological database without any keyboard input. Data validation was conducted after import, but before the locking and subsequent use of the data in any model, analysis, interpretation, etc. Geologic logging is done directly into the database, with validation of the data being done on a weekly basis.

The verification for the exploration data collected before SSR acquired Marigold includes the results of AMEC Americas Ltd.'s external review and data verification to identify any material issues with the database used to generate the Mineral Resource estimate.

SSR subsequently acquired the adjacent Valmy and Buffalo Valley properties, and the associated data was appended to the Marigold drill hole database.

The appended data for Valmy comprises collar, downhole survey, lithology, and assay information (provided in comma delimited digital files) for 867 drill holes drilled by Newmont, Hecla, and Santa Fe Pacific Corp. Newmont provided this information in hardcopy or scanned versions of the originals which were used to verify the database.

MMC's exploration personnel manually checked the entire drill hole database against the original documents for data entry errors. Less than 1% of the drill holes had any issues, and these were subsequently corrected.

As an additional check, SSR acquired the chip trays for 687 drill holes, pulps from 57 drill holes, and sample rejects from 66 drill holes, of which 5% were reviewed for lithology and alteration. The original logging was deemed accurate and was used to construct the lithological models.

The collar positions of 43 Valmy drill holes were verified using differentially corrected GPS methods. Subsequent to AMEC's 2011 audit of the Buffalo Valley drilling database, SSR verified the collar location of eight holes drilled by Newmont and one hole drilled by Fairmile that included a drill hole identification marker in the field. The results showed a maximum variance of 4 m in the X/Y planes (easting and northing) and <1 m in the Z dimension (elevation). This error-shift is less than half the size of a resource model cell and is not material to any resulting estimate. The Valmy and Buffalo Valley data, as appended, was deemed accurate and precise, and appropriate for resource estimation purposes.

For data collected after April 2014, the following verification steps were completed to support the estimation of Mineral Resources:

- The location of planned drill holes was compared to the location of as-built drill holes in real time. Regular field checks were completed on drill and sampling systems.
- Downhole survey intervals that encountered major deviations were reviewed and validated (AMEC, 2014).
- Precision and accuracy of laboratory assay results were verified using a QA/QC program that followed an industry standard protocol using the blind insertion of blanks and certified standards.
- The elevation of all surveyed drill hole collar coordinates was checked against the original/current/depleted topographic surface to identify any variations of more than one metre. No discrepancies were found.
- Profiles of all mined-out pits, backfilled pits, and WRSA were cross checked, updated annually, and incorporated into the current topography.

Assay results for all drill holes are individually plotted and examined for cyclicity and decay, which are forms of downhole contamination. Any hole that has confirmed contamination will have the contaminated samples removed from any form of resource estimation.

9.1.1 Data Verification Procedures

SLR was provided with a digital drill hole database for the Property in a series of Microsoft Excel comma delimited files ("CSV" format) and Seequent Leapfrog GEO digital files. The SLR QP used the information provided to validate the Mineral Resource interpolation, tonnage, grade, and classification.

As part of the data verification procedure, drill data was spot checked and audited by the SLR QP for completeness and validity using standard database validation tests. In addition, the SLR QP reviewed the QA/QC methods and results, verified assay certificates against the database assay table, and completed one site visit that included a review of drill core. No limitations were placed on SLR's data verification process. The review of the QA/QC program and results is presented in Section 8.0, Sample Preparation, Analyses and Security.

The SLR QP performed the following digital queries. No significant issues were identified.

- Header table: searched for incorrect or duplicate collar coordinates and duplicate hole IDs.
- Survey table: searched for duplicate entries, survey points past the specified maximum depth in the collar table, and abnormal dips and azimuths.
- Core recovery table: searched for core recoveries greater than 100% or less than 80%, overlapping intervals, missing collar data, negative lengths, and data points past the specified maximum depth in the collar table.
- Lithology: searched for duplicate entries, intervals past the specified maximum depth in the collar table, overlapping intervals, negative lengths, missing collar data, missing intervals, and incorrect logging codes.

9.2 QP Opinion

The SLR QP was provided unlimited access for data verification purposes by SSR during this Mineral Resource estimate audit. The SLR QP is of the opinion that database verification procedures for Marigold comply with industry standards and are adequate for the purposes of Mineral Resource estimation.

10.0 Mineral Processing and Metallurgical Testing

When production began at Marigold in 1989, ore was processed primarily with a rod-and-ball-mill grinding circuit with gold recovery by carbon-in-leach (CIL). In March 1990, heap leaching commenced at Marigold. Since April 1999, all Marigold ore deposits have been processed via truck dump ROM heap leaching.

Cumulative gold production from the Marigold leach pad through June 2023 is equivalent to 70.6% recovery, and total gold recovery, including recoverable gold inventory in the pad, is estimated at 74%

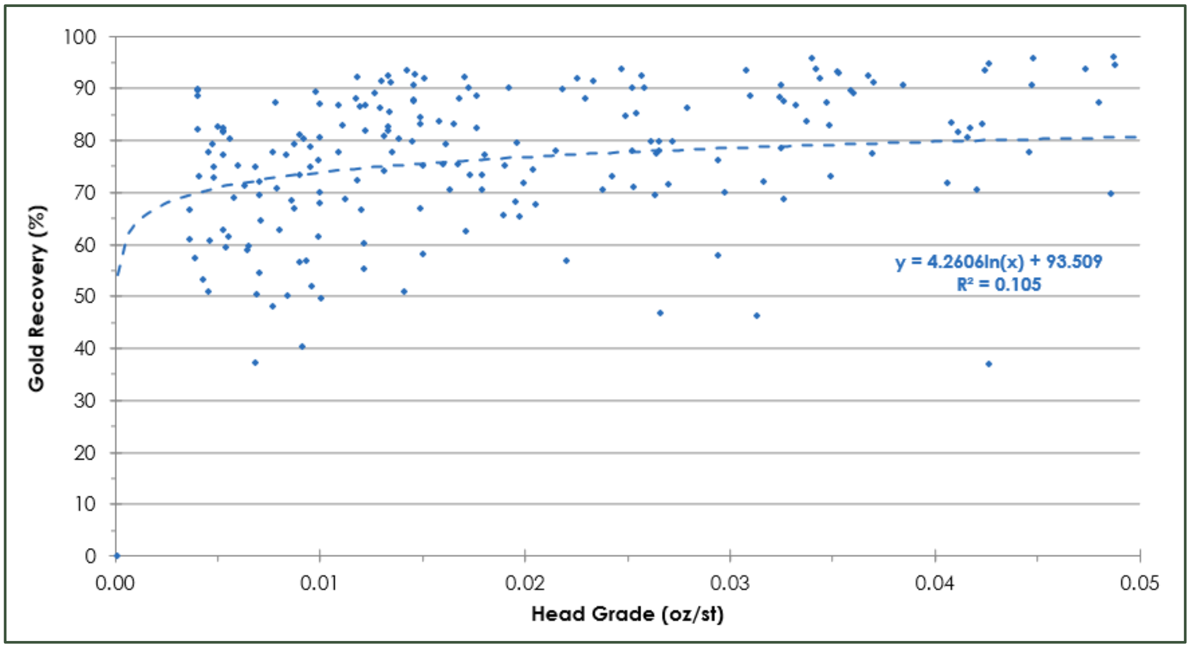
Gold production data from the leach pad operation provides the best information for predicting future processing recoveries because the ore type has been consistent since 1999. Gold recovery from future ore is estimated to be 74% based on a review of historical assay and recovery data as well as metallurgical test work on future ore.

10.1 Marigold Metallurgical Test Work

The objectives of metallurgical testing activities at Marigold are to determine methods to improve gold recovery, to generate information to guide short and long-range production planning, to optimize reagent additions, and to minimize processing costs. The studies comprise both small column leach (25.4 cm diameter by 1.2 m high, with minus 51 mm ore) and standard bottle roll leach tests. Testing has been performed on a variety of Marigold ores, including representative pit samples taken by ore-control geologists, leach pad grab samples from mine production, and various pit blasthole drill cuttings. Bottle roll test work has also been conducted on exploration RC drill samples to determine expected gold recovery from deposits that will be mined in the future.

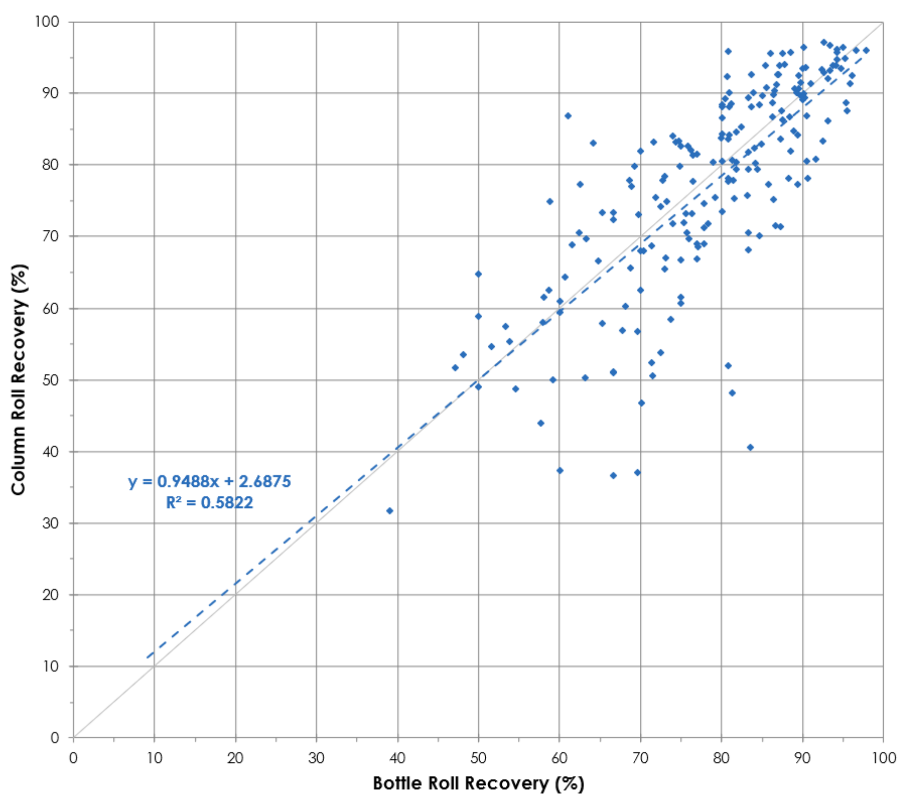
Historical gold recovery versus gold grade results for all laboratory column tests are shown in Figure 10-1. In addition to column leach tests, bottle roll tests were also completed on the same samples to develop a correlation between column and bottle roll results. The relationship is shown in Figure 10-2. The use of bottle roll tests in place of column leach tests enables more metallurgical tests to be undertaken in a shorter time frame (i.e., days for bottle rolls versus months for columns).

Figure 10-1: Column Test Results – Marigold



Source: SSR, 2023

Figure 10-2: Bottle Roll vs. Column Recovery – Marigold



Source: SSR, 2023

10.1.1 Marigold Process Optimization Metallurgical Test Work

Additional test work, such as permeability testing, reagent dosage, solution application rate, and carbon activity, is conducted to optimise the processing variables that are controllable on a large heap leach pad and plant.

Permeability testing has been performed on ore samples with varying fines content. The testing simulated compaction under multiple lifts of ore stacked up to 200 m. Overall, the blends tested demonstrated relatively consistent permeability on increasing loads. Flow rates for the blends ranged from 178.8 L/h/m^2 to 284.2 L/h/m^2 under no load. Under 122 m effective height loading, flow rates ranged from 34.4 L/h/m^2 up to 188 L/h/m^2. All tests resulted in low, but acceptable permeabilities.

10.1.2 Marigold Gold Recovery Modeling

Marigold uses two assay methods: fire assay that measures the total gold in a sample and a second method known as ‘cyanide soluble gold’. The latter technique generates a value that represents the head grade of the ore in terms of the amount of gold in a finely ground sample that can be dissolved by a strong sodium cyanide solution, or the maximum cyanide soluble gold content.

All Marigold blasthole samples are assayed for cyanide soluble gold. Samples from each ore polygon delineated by ore control are selected for fire assay based on the grade distribution for the polygon tonnage and targeting a minimum of one sample per every 1,814 t (2,000 st) of ore. Therefore, some samples have two assay values: an AuCN (cyanide soluble) value and an AuFA (fire assayed) value. The ratio of AuCN to AuFA provides the theoretical maximum gold recovery that can be achieved.

For example, if the AuFA ore grade is 0.10 g/t, and the AuCN ore grade is 0.08 g/t, the ratio is 0.008/0.010 = 0.80. This indicates that the maximum gold recovery using cyanide leaching from this ore sample is 80%.

Test work has demonstrated that, generally, all ore at Marigold behaves similarly. The ratio of AuCN/AuFA is an important characteristic determined for each ore block.

The most recent assessment of the predicted recovery for Marigold ore was conducted in 2017. The 2017 exploration database contains approximately 155,000 pairs of fire assays (field AUFA in the database) and cyanide soluble assays (field AUAA in the database). These assay pairs represent all the mine ore types. On an individual ore block basis, the ratio AuCN/AuFA includes all the local geological variables for that ore block (rock type, degree of oxidation, head grade, etc.). The result is the best estimate of maximum recovery. Figure 10-3 shows AuFA plotted against AuCN for all data pairs through 2017.

A best-fit linear regression shows the AuCN/AuFA ratio is 0.80.

The LOM actual leach pad recovery, based on ounces poured, is 74% (including in-process gold inventory) through June 2023.

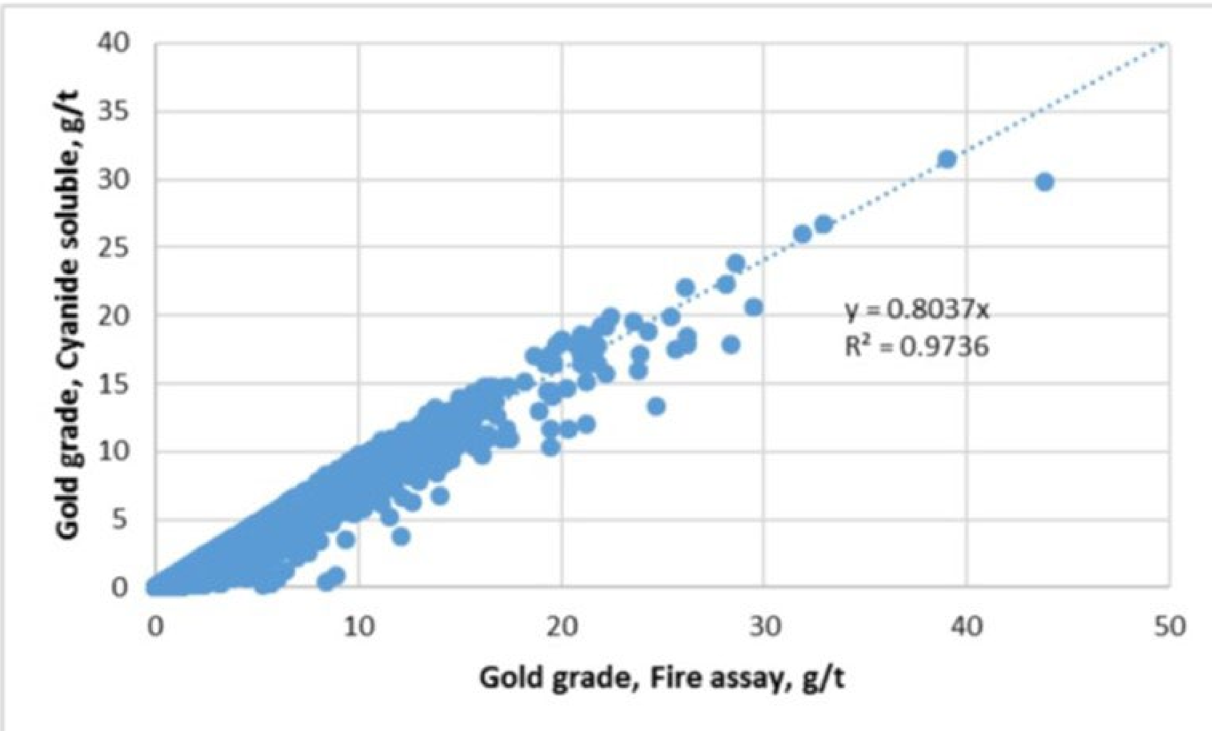
An adjustment factor can be calculated using the chemical maximum AuCN/AuFA recovery and the actual pad recovery:

$$\text{Actual: } 74\% \ / \ \text{Chemical: } 80\% = 0.92$$

Therefore, the estimated recovery from the ROM heap leach can be expressed as:

$$\text{Heap Leach Recovery} = \text{AuCN} \ / \ \text{AuFA} \times 0.92$$

Figure 10-3: Exploration Database (2017) AuCN vs AuFA – All Data



Source: SSR, 2018

10.1.3 Marigold Preg-Rob Test Program

Preg-robbing is the loss of leached gold cyanide complex from solution by adsorption onto natural carbon contained in the ore. Current control measures to mitigate preg-rob material issues on the heap leach pad include blasthole analysis and logging, training of shovel operators to identify black rock (preg-rob material), and ore control routing for segregation of material on the pad. A study is being conducted to assist with further understanding preg-rob material in the Marigold ore bodies with respect to evaluating current test procedures and the correlation to both time and particle size. This study includes the standardized preg-rob procedure conducted in the Marigold Analytical Lab, coarse bottle rolls, and a column test with samples containing preg-robbing material.

One of the objectives of this study is to assess whether the placement of preg-robbing material on the Marigold heap leach facility is being adequately accounted for in the current AuCN/AuFA ratio and ore control practices. If it is found that preg-robbing material is not being accounted for, then it will be necessary to assess what additional factors may need to be applied to the metallurgical recovery equation.

The study work program includes the following test work:

- Standard preg-rob test with extended leaching times and increased gold spike concentrations.
- Standard bottle roll procedure using a coarser particle size sample with the addition of goldspike to mirror the laboratory SOP for preg-rob.

- Standard column procedure with addition of gold spike in barren solution.

10.1.4 Marigold Summary and Recommendations

Marigold ore types behave similarly based on metallurgical test work and operating performance. To predict future gold recovery, it is recommended that the following studies and work be undertaken:

- Regular assessment of the AuCN/AuFA ratio using updated exploration and blast hole data.
- Ongoing column and bottle roll metallurgical tests on heap leach feed composites to determine maximum possible gold recovery.
- Metallurgical test work on any future ore sources to develop geometallurgical properties and parameters.
- Further studies and assessment of heap leach recoverable Au inventory.

10.2 Buffalo Valley Metallurgical Test Work

10.2.1 Historical Test Work

The Buffalo Valley deposit consists of a sequence of siltstone, limestone, and greenstone rocks that are a part of the Havallah Formation, which has several tertiary-age, nearly vertical intrusions. Two of these intrusives align with the historical pit. Mineralization is spread out among the various lithologies but is associated with the main intrusives and faulting. The deposit is deeply oxidized, down to 244 m in places, and again associated with faulting and intrusives.

Significant prior metallurgical test work was performed by Newmont on the Buffalo Valley deposit. A total of 53 composites were analyzed for gold-cyanide amenability in columns, bottle roll, and gravity processes. Substantial free gold was seen in most tests but required fine-grinding in order to liberate the gold particles. There was also a large correlation between crush size and gold recovery which varied between lithologies. For the main siliceous hornfels ore, the recovery is 81% at 200-mesh grind (75 micron) versus 57% in a ROM (300 mm) environment.

10.2.2 McClelland Laboratories 2023

This section was extracted from the McClelland Test Report (McClelland, 2023).

A metallurgical testing program is currently in progress at McClelland Laboratories, Inc. in Sparks, Nevada. A PQ core hole, DDH-7924, was drilled in late 2022 through 241 m of the intrusive lithology. Two composites were generated: a low-sulfur (0.06% sulfide sulfur (SS)), oxide from the upper portion and a higher-sulfur (1.01% SS), transitional ore from the lower half. Average gold grades of the two composites were 1.88 g/t Au and 5.06 g/t Au, respectively. Silver grades were relatively low (2.8 g/t Ag or less).

Testing included bottle roll cyanide leach testing at particle size distributions of P_{80} 1.7 mm and P_{80} 75 µm. Tests at the finer sizer were conducted with carbon added during and with gravity concentration pre-treatment. Extended gravity recoverable gold tests (E-GRG) were also conducted. Column leach tests of both composites at feed sizes of P_{80} 38 mm and P_{80} 19 mm were also performed. A summary of results from all testing is presented in Table 10-1.

Table 10-1: Summary Metallurgical Results, Buffalo Valley Intrusive Drill Core Composites

Comp	Test Type[(1)]	Feed Size	Leach / Rinse Time in Days	Au Recovery (%)	Au Extracted (g/t ore)	Leach Tail (g/t ore)	Calculated Head (g/t ore)	Average Head (g/t ore)	NaCN Consumed (kg/t ore)	Lime Added (kg/t ore)
4906-001	CLT	80%-38mm	119	94.3	1.82	0.11	1.93	1.88	0.86	2.8
4906-001	CLT	80%-19mm	98	94.0	1.71	0.11	1.82	1.88	0.78	2.8
4906-001	BRT	80%-1.7mm	4	93.2	1.77	0.13	1.90	1.88	0.17	3.2
4906-001	BRT	80%-75µm	3	95.0	1.72	0.09	1.81	1.88	0.11	3.1
4906-001	CIL	80%-75µm	3	94.7	1.60	0.09	1.69	1.88	0.47	2.6
4906-001	Grav/BRT	80%-75µm	3	95.5	1.71	0.08	1.79	1.88	0.12	3.2
4906-002	CLT	80%-38mm	140	88.8	4.46	0.56	5.02	5.02	1.17	3.1
4906-002	CLT	80%-19mm	148	88.6	4.13	0.53	4.66	5.02	1.54	3.1
4906-002	BRT	80%-1.7mm	4	88.8	4.74	0.60	5.34	5.02	0.22	3.4
4906-002	BRT	80%-75µm	3	90.1	4.39	0.48	4.87	5.02	0.35	2.8
4906-002	CIL	80%-75µm	3	91.8	4.56	0.41	4.97	5.02	0.60	3.3
4906-002	Grav/BRT	80%-75µm	3	91.7	4.30	0.39	4.69	5.02	0.27	3.7

Notes:

1. CLT - column leach tests; BRT - bottle roll leach tests; CIL - carbon-in-leach bottle roll leach test; Grav/BRT - gravity concentration with gravity tailings bottle roll leach test.

Results show that both composites were readily amenable to cyanidation during bottle roll testing at the P_{80} 1.7 mm feed size. Gold recoveries at this size were 93.2% for the low-sulfide sulfur composite and 88.8% for the high-sulfide sulfur composite. Column results show no difference between the P_{80} 19 mm and 38 mm crusher sizes, with recoveries of 94.1% and 88.7% for the low-sulfide and high-sulfide composites, respectively.

Results suggest that the composites were not significantly sensitive to feed size within the range of 38 mm to 75 µm. Bottle roll and column test recoveries at the various feed sizes were within 2.3% of each other.

Recoveries were not significantly improved by leaching in the presence of activated carbon. Results from 75 µm tests conducted with and without activated carbon were within 1.7% of each other or less.

Gravity concentration pre-treatment was also ineffective for significantly improving recoveries. Combined gold recoveries from gravity/cyanidation were within 1.6% or less of recoveries from baseline tests at the same size (80% -75µm). Results from E-GRG testing show that neither composite was amenable to gravity concentration at sizes ranging from P_{100} 850 µm to P_{80} 75 µm.

Column leach test cyanide consumption is currently low to moderate but will increase as the tests continue. Cyanide consumption was generally low during agitated cyanidation at 1.7 mm and 75 µm feed sizes. Lime requirements for pH control were moderate.

10.2.2.1 Buffalo Valley Intrusive Ore Characterization

Average gold head grades of the low-sulfide and high-sulfide Intrusive composites were 1.88 g/t and 5.06 g/t, respectively. The head grade agreement was good and relative standard deviation was equivalent to 6.1% of the average head grade or less. Average silver head grades were relatively low at 1.9 g/t and 2.8 g/t, respectively. Silver head grade agreement was also good.

Cyanide solubility assay results (AuCN/AuFA ratios) were high and indicate gold extractions of 90% or higher. These extractions are comparable to extractions from bottle roll and column testing.

Calculated metallic screen assay gold head grades (1.86 g/t and 5.42 g/t) were consistent with the other determined head grades. Results show that gold values were not concentrated in the +106 µm fraction ("metallic fraction"). These results suggest that the composites did not contain significant coarse metallic gold.

Carbon speciation results show that the composites contained very little organic carbon (0.03%). Sulfide sulfur content was very low in composite 4906-001 (0.06%) and relatively higher in composite 4906-002 (1.01%). Inorganic carbon and sulfate sulfur content were low in both composites. Speciation was conducted with hydrochloric acid digestion (for carbon speciation) and sodium carbonate digestion (sulfur speciation) with LECO finish.

ICP scan results show that composite copper content was low (62.5 and 79.5 mg/kg). Both composites contained significant amounts of arsenic (1,280 and 2,130 mg/kg) and mercury (2.47 and 4.10 mg/kg).

X-ray diffraction (XRD) analysis results show that the composites were comprised primarily of quartz, feldspar, and mica/illite. Both composites contained smectite (around 10%); smectite is known to be a "swelling clay". This occurrence of smectite may have a negative impact on permeability during heap leaching of this material. Loaded permeability testing is being conducted on the tailings samples from this test program but is incomplete at the time of this report.

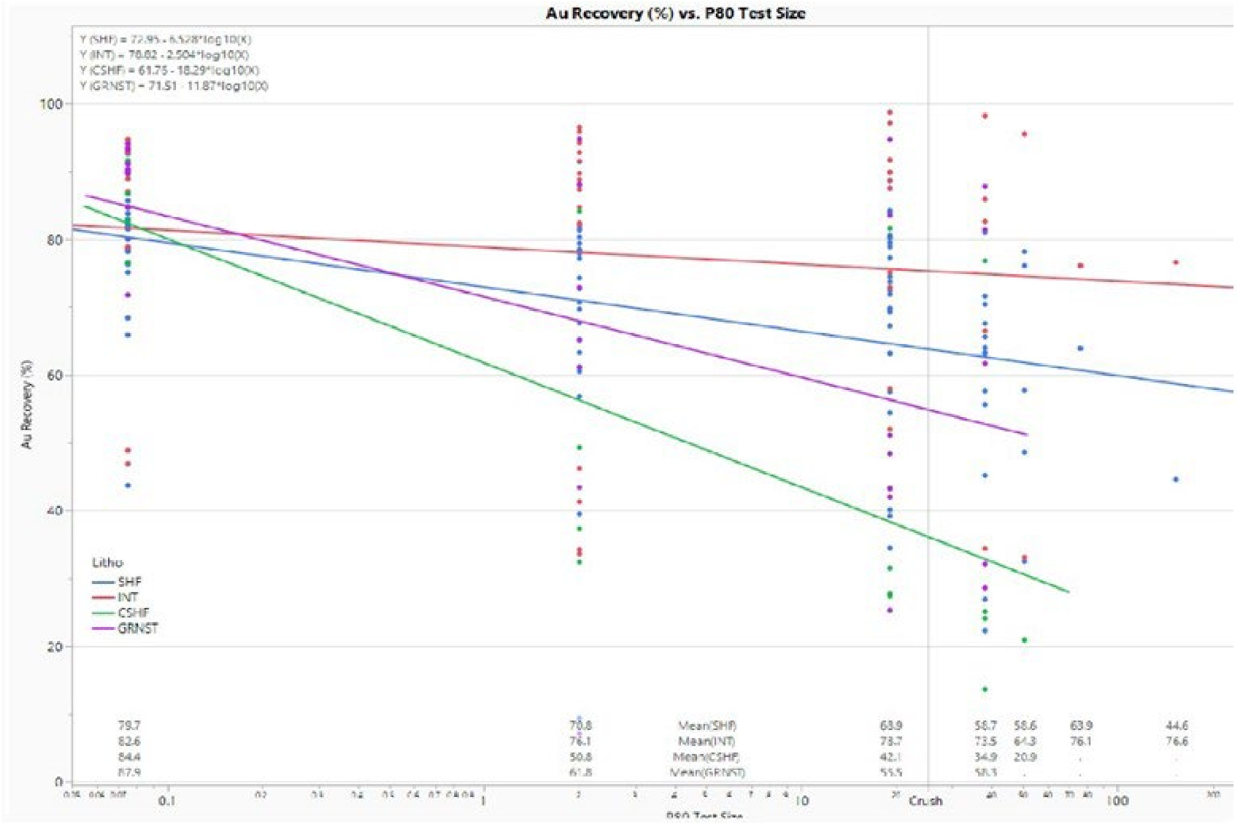
10.2.3 Buffalo Valley Au Recovery by Size Results

Gold recovery by particle size distribution was compiled using the current and historical Buffalo Valley metallurgical test results. Results of Au recovery by size for each lithology are presented in Table 10-2. The results were used to determine the Au recovery for each material type for Mineral Resource estimations. The selected recoveries for each lithology are presented in Figure 10-4.

Table 10-2: Gold Recovery by Lithology

Lithology ID	Lithology	ROM Material, P_{80} 300 mm	Crushed Material, P_{80} 25 mm
SHF	Siliceous Hornfels	56.8	63.8
INT	Intrusive	72.6	75.3
CSHF	Calc-silicate Hornfels	16.5	36.2
GRNST	Greenstone	42.1	54.9

Figure 10-4: Buffalo Valley Au Recovery by Size for each Lithology



10.3 QP Opinion

In the opinion of the QP the metallurgical test work data is adequate for the purposes used in this TRS and the analytical procedures used in the analysis are of conventional industry practice. The Buffalo Valley deposit differs from the Marigold deposit in that the gold recoveries of the various lithologies associated with the Buffalo Valley deposit are dependent on crush size. The main deleterious element in the Marigold deposit is organic carbon, which must not be placed on the heap, and in the Buffalo Valley ore, significant amounts of Hg and As are present, which are mitigated in the process. Smectite clays are swelling clays that are present at Buffalo valley and can cause reductions in heap leach permeability.

11.0 Mineral Resource Estimates

11.1 Summary

Mineral Resources have been classified in accordance with the definitions for Mineral Resources in S-K 1300. SLR has reviewed, audited, and accepted the Mineral Resource estimates for Marigold and Buffalo Valley, prepared by SSR and Red Pennant Geoscience Consulting (Red Pennant), respectively (Table 11-1). The Mineral Resource estimates are based on block model values developed from assays on the mineralized properties.

The Mineral Resource estimates were completed using conventional block modeling approach in Hexagon Mining MineSight (MineSight) and Seequent's Leapfrog Geo (Leapfrog Geo) software.

Estimates were validated using standard industry techniques including statistical comparisons with composite samples and parallel inverse distance squared (ID2) and nearest neighbor (NN) estimates, swath plots, and visual reviews in cross-section and plan. A visual review comparing blocks to drill holes was completed after the block modeling work was performed to ensure general lithologic and analytical conformance and was peer reviewed prior to finalization.

In the opinion of the SLR QP, the resource evaluation reported herein is an appropriate representation of the gold Mineral Resources found at the Marigold Complex at the current level of sampling. 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.

Table 11-1: Summary of Marigold Mine and Buffalo Valley Mineral Resources

Deposit	Measured Mineral Resources			Indicated Mineral Resources			Measured + Indicated Mineral Resources			Inferred Mineral Resources			Cut-off Grade (g/t Au)
	Amount (Mt)	Grade (g/t Au)	Rec. (%)	Amount (Mt)	Grade (g/t Au)	Rec. (%)	Amount (Mt)	Grade (g/t Au)	Rec. (%)	Amount (Mt)	Grade (g/t Au)	Rec. (%)	
Marigold	0	0	0	103.72	0.44	75.5%	103.72	0.44	75.5%	19.09	0.36	75.6%	0.069
Buffalo Valley	0	0	0	14.89	0.57	62.7%	14.89	0.57	62.7%	8.77	0.51	64.6%	0.134 to 0.279
Total	**0**	**0**	**0**	**118.61**	**0.46**	**73.5%**	**118.61**	**0.46**	**73.5%**	**27.86**	**0.41**	**71.2%**	

Notes:

1. The Mineral Resource estimate was prepared in accordance with S-K 1300.
2. The effective date of Mineral Resources at Marigold is September 30, 2023, and the effective date of Mineral Resources at Buffalo Valley is July 31, 2023.
3. The Mineral Resource estimate is based on optimized pit shells using a cut-off grade of 0.069 g/t payable gold (gold assay for recovery, royalty, and net proceeds), with a gold price assumption of $1,750/oz, for Marigold, and using cut-off grades based on lithology type (CSHF=0.279 g/t gold, GRNST = 0.184 g/t gold, INT = 0.134 g/t gold, and SHF = 0.158 g/t gold, factored for recovery, royalty, and net proceeds), with a gold price assumption of $1,750/oz, for Buffalo Valley.
4. For Marigold, bulk densities (in t/m^3) were assigned by lithologies: alluvium = 2.10, Havallah = 2.48, Valmy/Antler = 2.4076+(0.0001*DEPTH), and Valmy = 2.64. For Buffalo Valley, bulk densities (in t/m^3) were assigned by lithology ranging from a low of 2.426 (Overburden) to a high of 2.737 (Basalt) with a weighted average of 2.63.
5. The Mineral Resources estimate is reported below the as-mined surface as of September 30, 2023, for Marigold, and below the as-mined surface as of July 31, 2023, for Buffalo Valley.
6. The point of reference for Mineral Resources is the entry to the carbon columns in the processing facility.
7. Mineral Resources are reported exclusive of Mineral Reserves.
8. SSR has 100% ownership of the Properties.
9. All ounces reported represent troy ounces, and g/t represents grams per metric tonne.
10. Totals may vary due to rounding.

11.2 Marigold

The following sections contained in this TRS have been derived, and in some instances extracted, from documentation (OreWin, 2022) and information supplied to SLR by SSR for review and audit.

SSR prepared the Mineral Resource estimate for Marigold with an effective date of September 30, 2023. The Mineral Resource estimate is based on all available data for Marigold as of June 30, 2023. The SLR QP has reviewed and accepted this information for use in this TRS.

Mineral Resources are reported exclusive of Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration.

11.2.1 Resource Database

The digital drill hole database used for this estimate contains a total of 9,449 drill holes with a total length of 1,957,839 m. SSR uses MX Deposit, a commercially available geology database management system.

The project resource database, dated July 31, 2023, includes collar coordinates, downhole surveys, assays, rock types and oxidation details in separate tables. The database included all the gold re-assays from the Assay Program conducted in 2015 and 2016 and all the data from the Valmy property purchased from Newmont. All relevant validation checks were conducted while importing the data into the database. Once imported, the database was checked for errors using the validation tools available in MineSight.

11.2.2 Geological Interpretation

11.2.2.1 Domain Models

The gold mineralization at Marigold is closely associated with the intersection of high-angle fault structures and favorable horizons that intersect these structures. Favorable host rocks in the Antler Sequence are the debris flow horizon in the Edna Mountain Formation, the interbedded limestone/sandstone/siltstone and conglomerate in the Antler Peak Formation, and the conglomerate in the Battle Formation. Favorable host rocks in the Valmy Formation are quartzite and interbedded quartzite-argillite.

The Marigold deposit is divided into seven broad domains based on orientation of the mineralizing structures, density of structures, orientation of the mineralized zones, and grade distribution.

Figure 11-1 shows the seven major domain areas:

- Domain 1 Basalt and Antler pit areas
- Domain 2 Target
- Domain 3 Mackay (HideOut, East Hill, Herco North)
- Domain 4 Mackay North 2 (8Sx, 8S, 8N)
- Domain 5 5N/5NE

- Domain 6 Mackay North 1 (TZN)
- Domain 7 Valmy pit

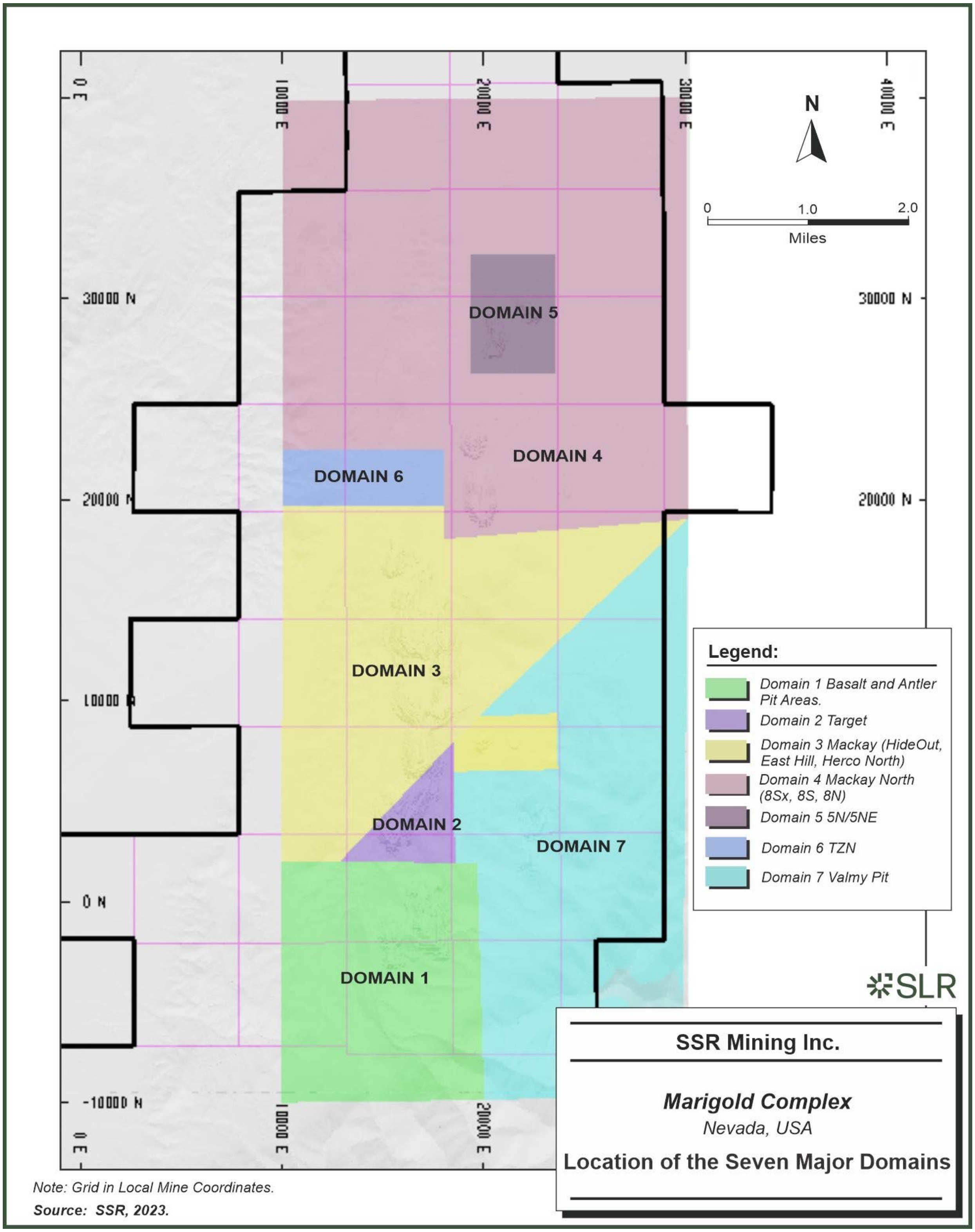
Geological mapping and drill hole data were used to identify the major structural orientations that control the distribution of mineralization at Marigold. These structural orientations trend north–south, north–east, and north–west and are shown on Figure 6-5 .

An envelope was developed around the interpreted high-angle structures to represent the high-angle domains. Figure 11-2 shows a typical cross section with interpreted structures and high-angle domain envelopes.

The first drill intersection of the formational contact and the interpreted structural data were used to generate the bottom surface for Alluvium, the bottom of Havallah Formation, the top of Antler Sequence, and the top of the Valmy Formation. The Antler and Valmy Formations are considered two different formational domains for the exploratory data analysis and grade estimation process.

The base of the oxidized and transition zones was interpreted with respect to geological logging and analytical data.

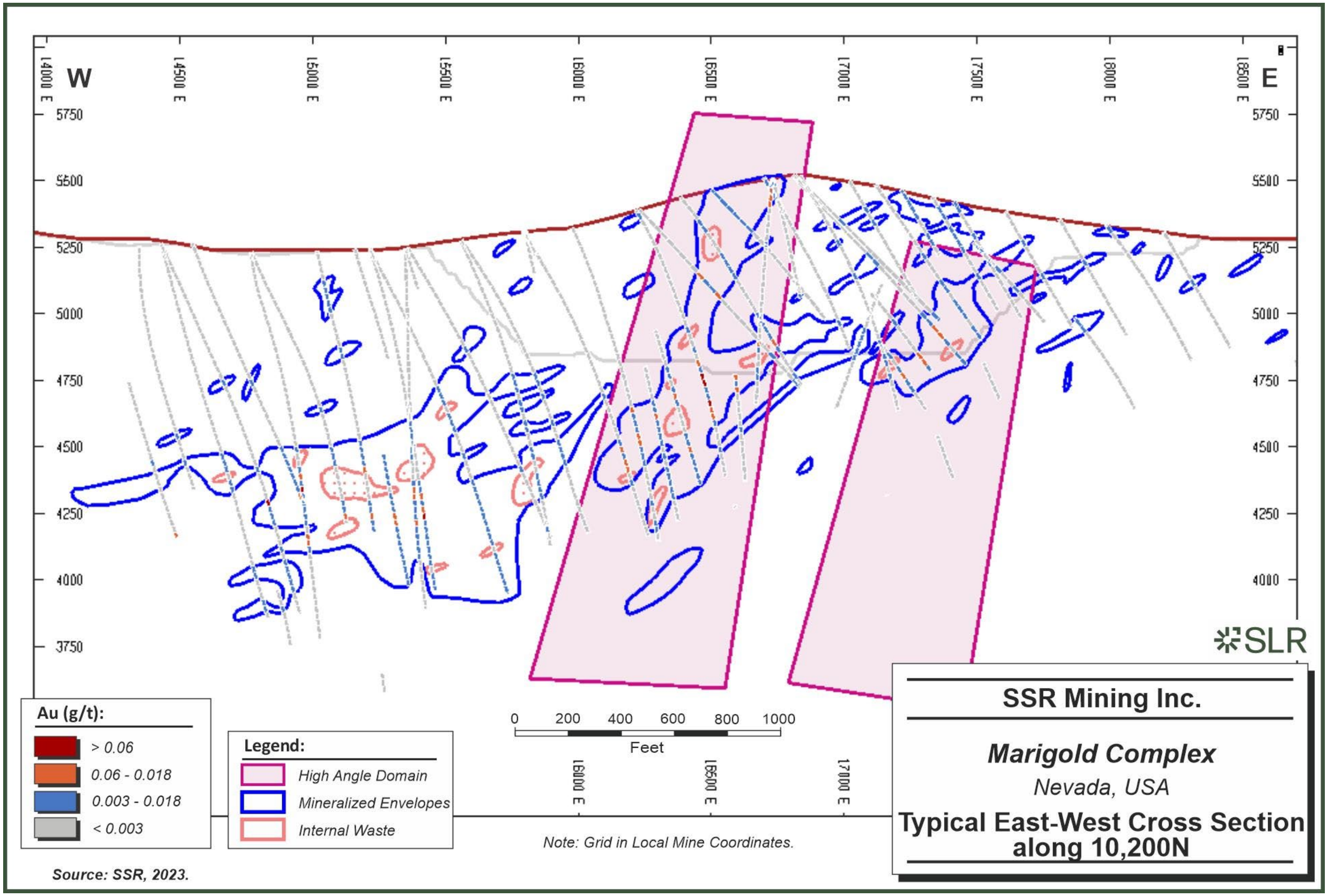
Figure 11-1: Location of the Seven Major Domains



Note: Grid in Local Mine Coordinates.

***Source:* SSR, 2023.**

Figure 11-2: Typical East–West Cross Section along 10,200 N



Source: SSR, 2023.

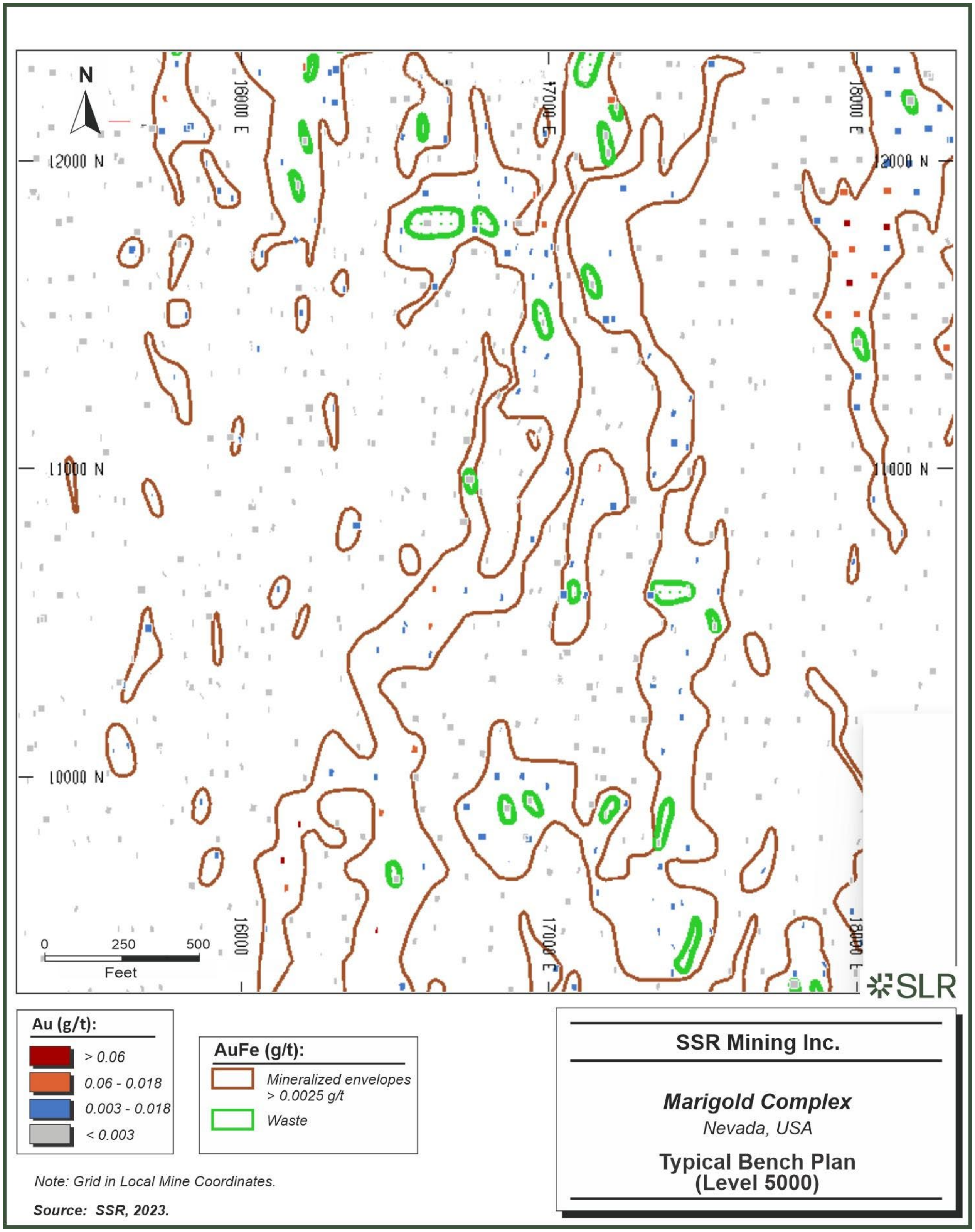
11.2.2.2 Structural Model

Geological interpretations of structures and rock types were initially conducted on east–west cross sections every 30 m, with select north–south long sections and oblique sections as part of the iterative process.

Internal waste was delineated within the mineralized envelopes wherever possible. In the previous estimates, the internal waste envelopes were defined by connecting these intervals between drill holes on sections and into the preceding and succeeding sections. Based on the large positive tonnage reconciliation and grade control information gathered over the previous three-to-four-year period, no effort was made to connect these intervals unless there was a continuity on the preceding and succeeding cross sections. The internal waste was defined as small envelopes encompassing composites that were less than 0.1 g/t Au inside the mineralized envelope.

The complex nature of the mineralized envelopes made it impractical to create 3D wireframes. The mineralized and waste envelopes from the cross sections were sliced at 7.6 m bench plans and were used to define the mineralized envelopes on each bench. The mineralized envelopes from the bench plans were reviewed and verified on cross section in an iterative process and any volume discrepancies were corrected on plans and sections. A typical bench plan is shown in Figure 11-3.

Figure 11-3: Typical Bench Plan (level=5000)



11.2.3 Treatment of High-Grade Assays

The SLR QP is of the opinion that the influence of high-grade assays must be reduced or controlled, and a number of industry best practice methods can be used to achieve this goal.

11.2.3.1 Capping Levels

Where the assay distribution is skewed positively or approaches log-normal, erratic high grade assay values can have a disproportionate effect on the average grade of a deposit. One method of treating these outliers to reduce their influence on the average grade is to cut or cap them at a specific grade level.

Grade capping is a technique used to mitigate the potential effect that a small population of high-grade sample outliers can have during grade estimation. These high-grade samples are not considered to be representative of the general sample population and are therefore capped to a level that is more representative of the general data population. Although subjective, grade capping is a common industry practice when performing grade estimation for deposits that have significant grade variability. In the absence of production data to calibrate the capping level, inspection of the assay distribution can be used to estimate a “first pass” cutting level.

The spatial distribution of the high-grade populations suggests that these elevated grades appear to be clustered and are likely associated high-angle structures and favorable rock types are not ‘outliers’ but are key characteristics of this deposit type and geometry and are indicative of mineralization which can influence the estimates that must be controlled/restricted in the estimate rather than being capped.

11.2.3.2 High Grade Restriction

In addition to capping thresholds, a secondary approach to reducing the influence of high-grade composites is to restrict the search ellipse dimension (high yield restriction) during the estimation process. The threshold grade levels, chosen from the basic statistics and from visual inspection of the apparent continuity of very high grades within each estimation domain, may indicate the need to further limit their influence by restricting the range of their influence, which is generally set to approximately half the distance of the main search.

Bench composites were examined for the presence of local high-grade outliers, which are closely associated with the high-angle structures and favorable rock types. The high-grade outliers were restricted to a certain grade and distance during the grade interpolation process instead of being capped to a specific grade value (Table 11-2).

Table 11-2: Outlier Restriction Values and Distance for Various Domains

Domain Location	Formation	Structural Domain	Outlier Range (m)	Outlier Threshold (g/t Au)
Basalt	Antler	Low Angle	15.2	2.23
	Valmy		22.9	4.11
Target II	Antler	Low Angle	15.2	1.71
		High Angle	15.2	1.37
	Valmy	Low Angle	22.9	2.06
		High Angle	22.9	2.40

Domain Location	Formation	Structural Domain	Outlier Range (m)	Outlier Threshold (g/t Au)
Mackay	Antler	Low Angle	15.2	2.75
		High Angle	15.2	2.05
	Valmy	Low Angle	22.9	5.14
		High Angle	22.9	6.20
Mackay North 2 (8S, 8Sx, 8N)	Antler	Low Angle	15.2	8.57
	Valmy		15.2	2.06
5N/5NE	Antler	Low Angle	15.2	3.60
	Valmy		15.2	3.60
Mackay North 1 (TZN)	Antler	Low Angle	15.2	3.43
	Valmy		15.2	3.43
Valmy	Valmy	Low Angle	15.2	2.74

11.2.4 Compositing

Mineralized envelopes were delineated using the breakeven cut-off greater than or equal to 0.1 g/t bench (7.6 m) composite gold values in cross sections (east–west) 30 m apart with a clipping of 15m on either side. Bench composites were used to define the ore zones instead of mineralized drill hole widths because selective mining is not considered an option. The addition of the lower grade gold values from the 2015-2016 Assay Program expanded the mineralized envelopes. The mineralized envelopes define the ore zones within which the gold grades were estimated. All known and interpreted structures were considered when the mineralized envelopes were generated.

11.2.5 Trend Analysis

11.2.5.1 Variography

Correlograms were used in this estimation of Mineral Resources as a tool to describe the pattern of spatial continuity or strength of the spatial similarity of a variable with separation distance and direction. A correlogram measures the correlation between data values as a function of their separation distance and direction. Correlograms were generated using the domain coded composite data using SAGE2001 software (Isaaks & Co.). Structural information from mapping and interpreted structures from the orientation of gold grades were used as a guide to select the along-strike, across-strike, and along-dip directions.

The correlogram was completed for different domains, and the parameters are shown in Table 11-3.

Table 11-3: Correlogram Parameters Used to Estimate Different Domains

Domain Location	Structural Domain	First Structure			Second Structure			Direction/Dip			Variances		
		X	Y	Z	X	Y	Z	X	Y	Z	C0	C1	C2
Basalt	Low Angle	77	22	8	90	71	265	261/31	169/3	74/59	0.269	0.47	0.26
Mackay and Target II	High Angle	21	96	11	41	263	176	232/7	322/–2	275/20	0.315	0.44	0.25
	Low Angle	9	15	18	83	290	187	102/–77	348/–5	77/12	0.246	0.54	0.22
Mackay North 2 (8S, 8Sx, 8N) and 5N/5NE	Low Angle	15	112	33	54	235	274	81/76	55/–13	327/6	0.181	0.573	0.246
Mackay North 1 (TZN)	Low Angle	47	24	11	93	235	56	292/71	92/18	4/–6	0.279	0.378	0.343
Valmy	Low Angle	27	26	7	169	312	30	70/20	355/15	285/15	0.15	0.55	0.3

11.2.6 Exploratory Data Analysis

Exploratory data analysis (EDA) was conducted with the following objectives:

- Understand the gold distribution and recognize any systematic spatial variation of gold grade with respect to major structures and rock units.
- Identify distinctive geologic domains that should be evaluated independently in the resource estimation.
- Identify any data and analytical errors not identified in the data verification process.
- Improve the quality of the estimation by understanding the classical statistics of the dataset.

The EDA process involved visual inspection of the raw assay data to establish structural and mineralization trends. Bench composites (7.6 m) were created to match mining selectivity; these composites were reviewed, and those composites within the mineralized envelopes were flagged using the following criteria:

- Domain – Basalt and Antler Pits, Target II, Mackay, Mackay North 1 (TZN), Mackay North 2, 5N/5NE, and Valmy pits
- Formation – Antler, Valmy
- Structural domain – high-angle or low-angle domain

There are 31,971 bench composites flagged within the mineralized envelopes. Table 11-4 provides the basic statistics for gold grades by domain.

Table 11-4: Basic Au g/t Statistics of 7.6 m Bench Composites within the Mineralized Envelopes by Domain

Domain Location	Formation	Structural Domain	Statistic (Au g/t)					
			No. of Samples	Min (g/t).	Max (g/t)	Mean (g/t)	SD[1]	CV[2]
Basalt	Antler	Low Angle	1,867	0	7.87	0.41	0.47	1.15
	Valmy		5,285	0	16.72	0.62	0.96	1.56
Target II	Antler	Low Angle	543	0	3.22	0.27	0.32	1.18
		High Angle	1,061	0	5.72	0.33	0.37	1.12
	Valmy	Low Angle	1,051	0	3.97	0.28	0.32	1.14
		High Angle	1,793	0	4.03	0.30	0.35	1.18
Mackay	Antler	Low Angle	3,899	0	8.85	0.35	0.58	1.63
		High Angle	1,134	0	9.04	0.47	0.66	1.41
	Valmy	Low Angle	15,165	0	21.85	0.40	0.69	1.74
		High Angle	10,116	0	15.80	0.41	0.78	1.90
Mackey North 1 (TZN)	Antler	Low Angle	136	0	0.62	0.18	0.13	0.74
	Valmy		1,605	0	9.74	0.53	0.80	1.52
Mackay North 2 (8S, 8Sx, 8N)	Antler	Low Angle	2,015	0	86.62	1.06	2.60	2.44
	Valmy		284	0	4.96	0.39	0.50	1.27
5N/5NE	Antler	Low Angle	381	0	7.51	0.61	0.94	1.54
	Valmy		25	0	0.91	0.21	0.19	0.93
Valmy	Valmy	Low Angle	2,936	0	7.65	0.45	0.63	1.40

Notes:

1. Standard Deviation
2. Coefficient of Variation

11.2.7 Search Strategy and Grade Interpolation Parameters

A regularized whole block approach was used whereby the block was assigned to the domain where its centroid was located. The Mineral Resource cell model was initially created using MineSight using imperial units in local mine coordinate system, and converted to metric units for reporting. The models fully enclose the modeled resource wireframes and are oriented with an azimuth of 0.0°, dip of 0.0°, and a plunge of 0.0° so as to align with the overall strike of the mineralization with a parent cell size of 6.096 m in the X (across strike) by 7.62 m in the Y (along strike) directions and 7.62 m in the Z (vertical or bench height) direction, honoring modeled geological surfaces. A summary of the block model extents is provided in Table 11-5.

Table 11-5: Block Model Parameters

Item	Min*	Max*	Extent*	Cell Size (m)	Number of Cells
Eastings	-914.4	8,839.2	9,753.6	6.10	487.7
Northings	-2,438.4	10,363.2	12,801.6	7.62	512.1
Elevation	914.4	2,590.8	1,676.4	7.62	67.1

Cell dimensions were selected based on drill hole spacing; approximately one-third of the drill spacing, and cell heights match the future mine bench heights. The model attributes are shown in Table 11-6.

Table 11-6: Model Attributes

Field	Description
TOPO	Percentage of cell below the July 31, 2023, topography
ORE	Ore or waste cells: Ore=1, Waste = 10
ORE%	Percentage of ore within the cell
AUNN	Gold value for NN model
AUKR	Gold value for kriged estimate
AUPAY	Gold value for payable gold grade
CAT	Resource category: Indicated=2, Inferred=3
SDOM1	Low/high-angle structural domain: low angle=2, high angle=5
SDOM2	Low/high-grade domain: low-grade block=2, high-grade block=1
SDOm3	Location: Basalt & Antler =1, Target=2, Mackay =3, Mackay North =4 (8Sx,8S,8N)
RCODE	Formation/rock unit: Alluvium=1, Havallah=2, Antler=3, Valmy=4, Backfill/dump=6
REDOX	Oxidation state: Oxides=1, Transitional=2, Sulfides=3
TCF	Tonnage conversion factor
ROYL	Royalty
REC	Recovery

11.2.7.1 Estimation Domaining

Histograms of the composites within the mineralized envelopes for the various domains were generated. These histograms indicated a skewed distribution, with approximately 20% of the bench composites grades for all the domains with a gold grade below 0.1 g/t, indicating internal dilution. The limits of gold mineralization within the mineralized envelopes are difficult to interpret manually with these lower grade ranges. A probabilistic approach is required to identify the higher grade and lower grade cells to avoid overestimation of tonnages and smearing of higher grades into lower grade cells. The chosen method used indicators that set a value of one to each bench composite that had a gold value greater than or equal to 0.14 g/t Au and a value of zero to composites less than 0.14 g/t Au. The values between zero and one were then estimated into the model cells using ordinary kriging (OK).

The distribution of the indicator estimates (values between zero and one) was compared to the frequency distribution of the NN grade model to determine the probability (percentage) that a cell has a grade of 0.14 g/t or higher (high-grade domain). The percentages vary by domain and show a close continuity to the composites and NN model. The probability thresholds used for each domain are listed as percentages in Table 11-7.

Table 11-7: Probability Percentages for Cells Au>0.14 g/t

Domain	Probability (%)
Basalt	65
Target II	58
Mackay	38
Mackay North 2 (8S, 8Sx, 8N)	64
5N/5NE	60
Mackay North 1 (TZN)	48
Valmy	36

Before the cells were estimated, the cell model was tagged for the following:

- The depleted pre-mining topography as of July 31, 2023, was used to tag the percentage (TOPO) of in-situ material followed by June 30, 2023, surface topography to incorporate all the WRSA and backfill areas. Ore and waste envelopes developed on bench plans were used to tag the ore material /internal waste (ORE) and percentage of ore material (ORE%) in cell.
- The rock type/formation surfaces were used to tag the RCODE variable in the cell model.
- The surface developed for the top of the transitional zone and fresh material was used to tag the REDOX variable in the model.
- The structural domain (SDOM1) was tagged using the high-angle structural envelopes; and
- The grade domain (SDOM2) was tagged using probability percentages.

The composites were backtagged using the cell model for the different domains and attributes described here.

The cells were then estimated for gold using ordinary kriging in 90 separate calculations.

The mineralized areas, HideOut and 8Sx, were identified in 2014 and 2015 and are located below historical waste rock storage areas (WRSA). The material in these WRSA was mined during the late 1990s and early 2000s when cut-off grades were higher than the current cut-off grades. While drilling HideOut and 8Sx, samples from these WRSAs were also assayed for gold. A majority of these samples returned gold values higher than the current cut-off grade. To confirm the grades, a total of 37 sonic drill holes were drilled in 2016. These drill holes confirmed the gold grades in the historical WRSA. A total of 372 holes drilled between 2010 and 2017 in the WRSA was considered for this estimation. This mineralized material in the historical WRSA (the mineralized stockpile) was demarcated using the original and current topography. The samples within these surfaces were selected and bench composited to 7.6 m. The cells were then estimated for gold using inverse distance cubed (ID3) in two separate calculations.

11.2.7.2 Search Neighborhood Design

The search parameters used to estimate the cells within the mineralized stockpile are shown in Table 11-8.

Table 11-8: Search Parameters for Mineralized Stockpile

Domain	Min No. of Composites	Max No. of Composites	Outlier Range (m)	Outlier Au (g/t)	Search Ellipsoid Distance and Orientation						
					X Search (m)	Y Search (m)	Z Search (m)	Max Search (m)	Z Axis	X Axis	Y Axis
Mineralized Stockpile	1	8	12.2	0.342	150	150	15	150	0	0	0
	3	8	12.2	0.342	91	91	15	91	0	0	0

11.2.8 Bulk Density

Bulk density or specific gravity (SG) is used globally to convert volume to tonnage and, in some cases, to weight block grade estimates.

A total of 713 core samples were collected from diamond core drillholes for dry bulk density determinations at the Marigold onsite laboratory. Out of the total of 713 samples, 98 samples represented Antler sequence, 604 samples represented Valmy Formation and 11 samples were from late Cretaceous intrusives.

The following methodology was used to measure the bulk density of the half core samples:

1 A thoroughly dry core sample is weighed in air.

2 The sample is saturated with water; and

3 After saturation, the sample is weighed while suspended in water and then the saturated sample is weighed in air.

The three weights, (dry in air, saturated in water and saturated in air) are then used to calculate the dry bulk density of the sample (Silver Standard, 2014).

The density used in the cell model at depth (from original topographic surface) for different material is summarized in Table 11-9.

Table 11-9: Summary of Density for Different Material

Material	Depth (m)	Density (t/m^3)
Alluvium/Backfill	>0.00	2.10
Havallah	>0.00	2.48
Valmy/Antler	0.0 to 533	y=2.4076+(0.0001*DEPTH)
Valmy	>533	2.64

11.2.9 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. A mineral resource is a reasonable estimate of mineralization, considering relevant factors such as cut-off grade, likely mining dimensions, location, or continuity, that with the assumed and justifiable technical and economic conditions, is likely to, in whole or in part, become economically extractable. It is not merely an inventory of all mineralization drilled or sampled.

Based on this definition of Mineral Resources, the Mineral Resources estimated in this TRS have been classified according to the definitions below based on geology, grade continuity, and drill hole spacing.

Measured Mineral Resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of conclusive geological evidence and sampling. The level of geological certainty associated with a measured mineral resource is sufficient to allow a qualified person to apply modifying factors, as defined in this section, in sufficient detail to support detailed mine planning and final evaluation of the economic viability of the deposit. Because a measured mineral resource has a higher level of confidence than the level of confidence of either an indicated mineral resource or an inferred mineral resource, a measured mineral resource may be converted to a proven mineral reserve or to a probable mineral reserve.

Indicated Mineral Resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of adequate geological evidence and sampling. The level of geological certainty associated with an indicated mineral resource is sufficient to allow a qualified person to apply modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Because an indicated mineral resource has a lower level of confidence than the level of confidence of a measured mineral resource, an indicated mineral resource may only be converted to a probable mineral reserve.

Inferred Mineral Resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. The level of geological uncertainty associated with an inferred mineral resource is too high to apply relevant technical and economic factors likely to influence the prospects of economic extraction in a manner useful for evaluation of economic viability. Because an inferred mineral resource has the lowest level of geological confidence of all mineral resources, which prevents the application of the modifying factors in a manner useful for evaluation of economic viability, an inferred mineral resource may not be considered when assessing the economic viability of a mining project and may not be converted to a mineral reserve.

The factors than can affect the uncertainty associated with each classification of Mineral Resources include but are not limited to:

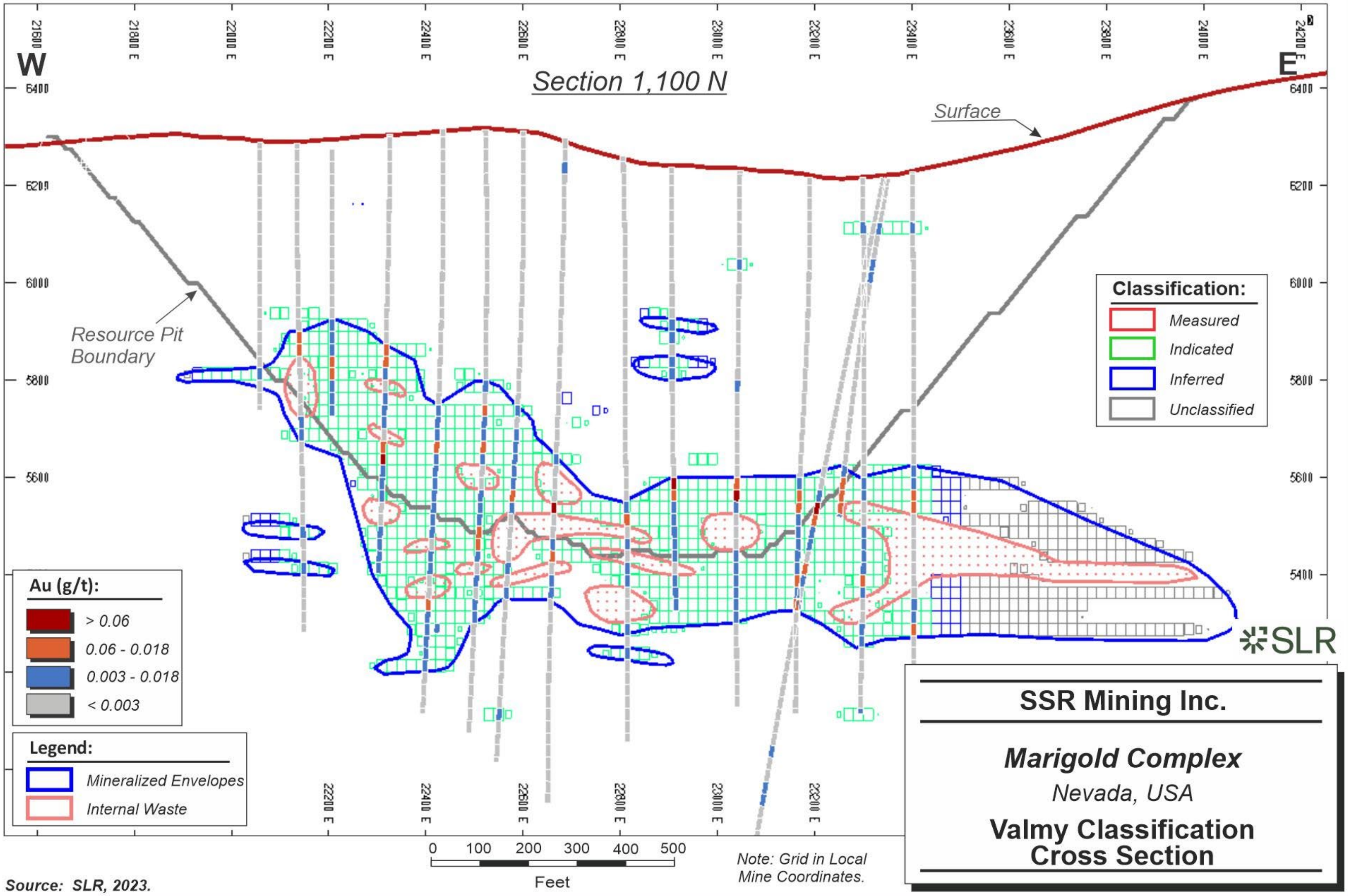
- reliability of sampling data
- confidence in interpretation
- modeling of geological and estimation domains
- confidence in block grade estimates.

Two resource classification envelopes/polygons were used to classify the Mineral Resources within the mineralized stockpiles. One polygon was digitized based on a distance of 30 m from the exterior composite for Indicated resources and at a distance of 50 m for Inferred Mineral Resources (Table 11-10). Figure 11-4 shows the classification within the Valmy Pit. The sample spacing and the nature of the mineralization do not warrant classification of any resources in the Measured category.

Table 11-10: Resource Classification Parameters

Category	Min Composites	Distance to First Composite (m)	Distance to Second Composite (m)
Indicated (CAT=2)	2	36	50
Inferred (CAT=3)	1	78	–

Figure 11-4: Valmy Classification Cross Section (1100 N – Grid is in Local Mine Coordinates)



Source: SLR, 2023.

As described in the 2014 Technical report (Silver Standard, 2014), SSR used geostatistical analysis to determine classification. Geostatistics provides an assortment of tools to establish confidence levels on Mineral Resources estimates. One of these methods, called the Large Sample Normal Theory (B. Davis, 1997), involves the evaluation of the estimation variances for large blocks based on the annual production. This method gives an estimate of global confidence or confidence over large areas.

The process involves calculating the kriging variance using a series of theoretical drillholes at intervals averaging 15.25, 30.5, and 61 m spacing in blocks that represent approximately one month's production. The calculations are conducted over a series of drill hole grids in order to evaluate the variation in the results with respect to the spacing of the drill data. The single block kriging procedure in MineSight has been used to calculate the kriging variances.

The correlogram used to determine the kriging variance in the large block is derived from the actual bench composites. Because the correlogram was used, the normalized block kriging variance (a variable which is output from the ordinary kriging computation) was standardized to the underlying data by multiplying by the square of the coefficient of variation (CV=standard deviation/mean from the original 7.6 m composite data). To determine the 90% confidence limit, the relative standard error is multiplied by 1.645 (95th percentile of a standard normal distribution).

The statistical criteria used for Indicated Mineral Resources is that the annual ore production should be known to at least ±15% with 90% confidence and that at least two drillholes are used to estimate a block. A drill grid spacing of 50 m gives a 90% confidence level of ±11% for an annual production increment. The drill spacing of 50 m is within the suggested limits of ±15%. The drill spacing of 50 m was selected to ensure that the continuity of discontinuous high grade gold zones, along with the extent and shape of the mineralization, is sufficiently delineated to give a reliable estimate of tons and grade. Mineral Resources were classified as Indicated when a block was located within 36 m to the nearest composite and one additional composite from another drill hole was within 50 m. With these criteria, the drillhole spacing for Indicated Mineral Resources broadly corresponds to a 36 m grid.

The drill spacing of 91 m was selected for classification of Inferred Mineral Resources to ensure that there is a high probability of continuity of discontinuous high grade gold zones, along with the extent and shape of the mineralization. Mineral Resources were classified as Inferred when a block was located within 78 m to the nearest composite.

11.2.9.1 QP Comments on Classification

In the SLR QP's opinion, the classification of Mineral Resources is reasonable and appropriate for Mineral Resource disclosure and there is reasonable expectation that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

11.2.10 Estimation Validation

The Marigold block model estimates were validated using industry standard techniques including:

- Local validation using visual inspections on sections and plans, viewing composites versus block estimates
- Global validation by comparison of composite statistics versus block estimates

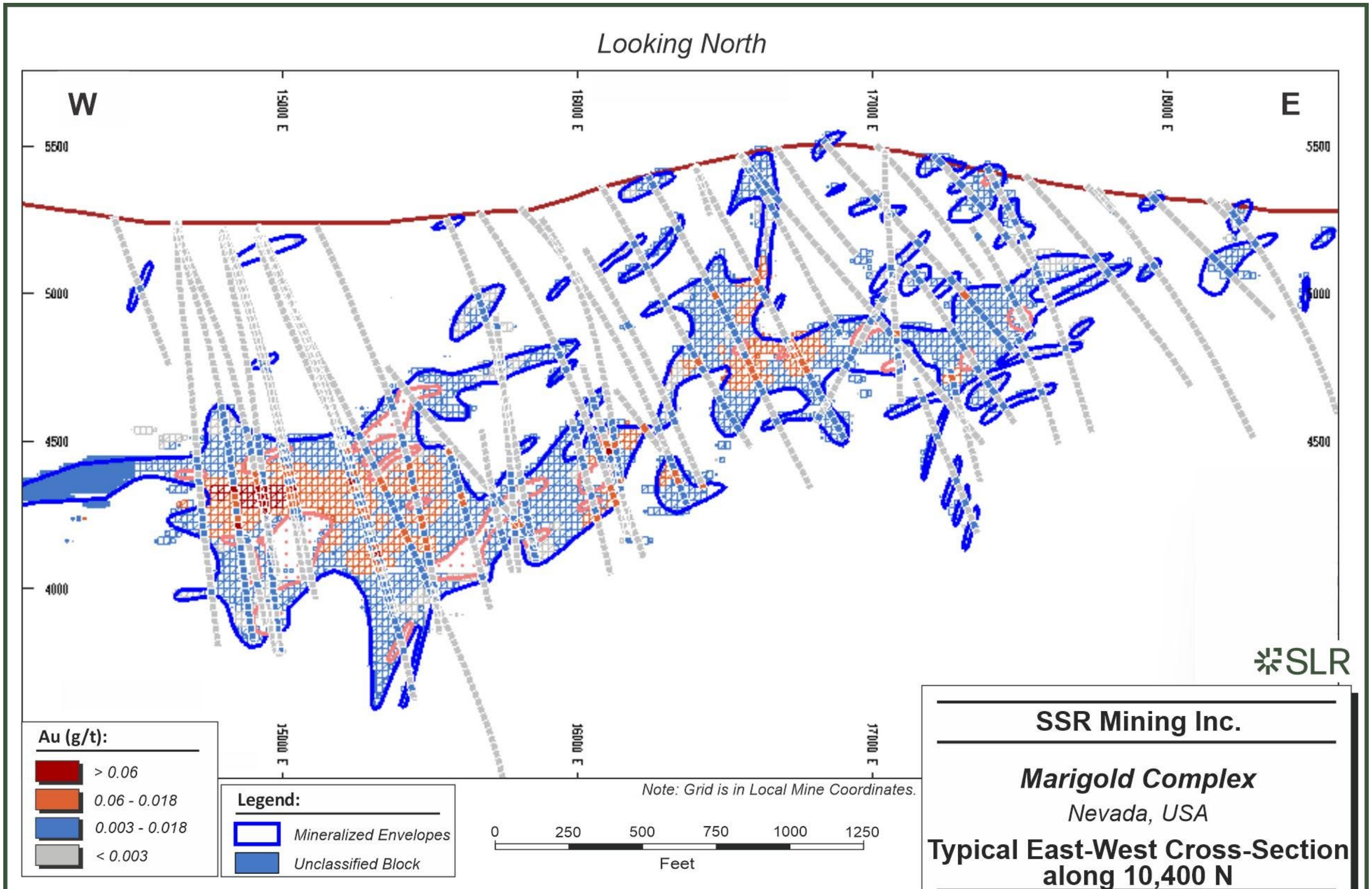
- Local validation by comparison of average assay grades with average block estimates along different directions (swath plots)

SLR reviewed and audited the validation steps performed by SSR resource geologists and found grade continuity to be reasonable and confirmed that the block grades were reasonably consistent with local drill hole composite grades.

11.2.10.1 Visual Inspection

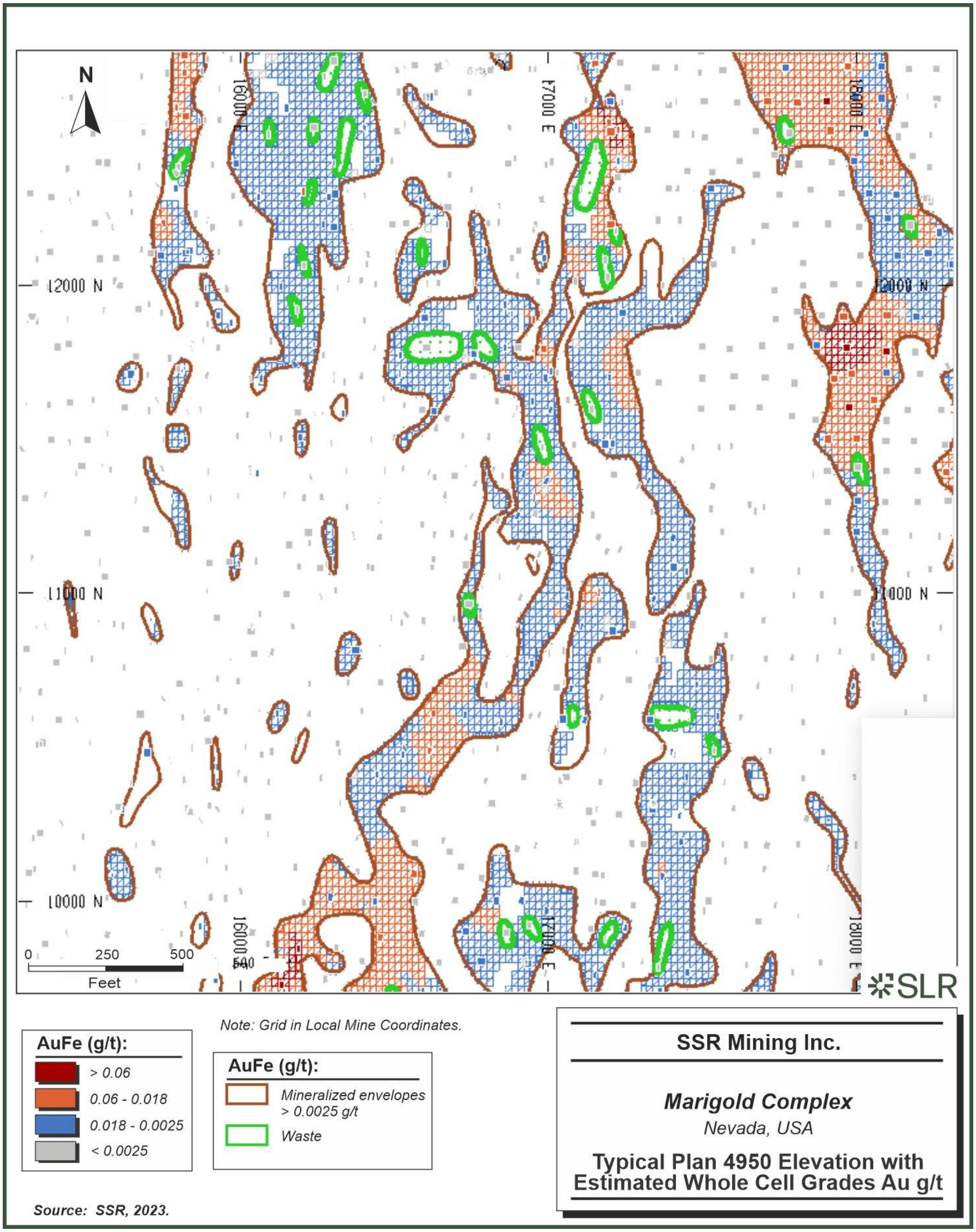
Visual validation included comparing the composites and the estimated model grades in both plan and section. Plans and sections were also checked for smearing of grades across stacked ore/mineralized zones, and no smearing was identified. This validates the kriging parameters used to estimate the cells. A typical cross section and a plan view with estimated grades are shown in Figure 11-5 and Figure 11-6, respectively.

Figure 11-5: Typical East–West Cross Section along 10,400 N with Estimated Cell Grades (Au g/t)



Source: SSR, 2023.

Figure 11-6: Typical Plan 4950 Elevation with Estimated Whole Cell Grades Au g/t



Source: SSR, 2023.

11.2.10.2 Estimation Statistics

Checks for global bias were conducted on a domain basis, and the relative percent differences of the kriged mean gold grades were checked against the Nearest Neighbor (NN) estimates; the difference was less than ±5% (Table 11-11).

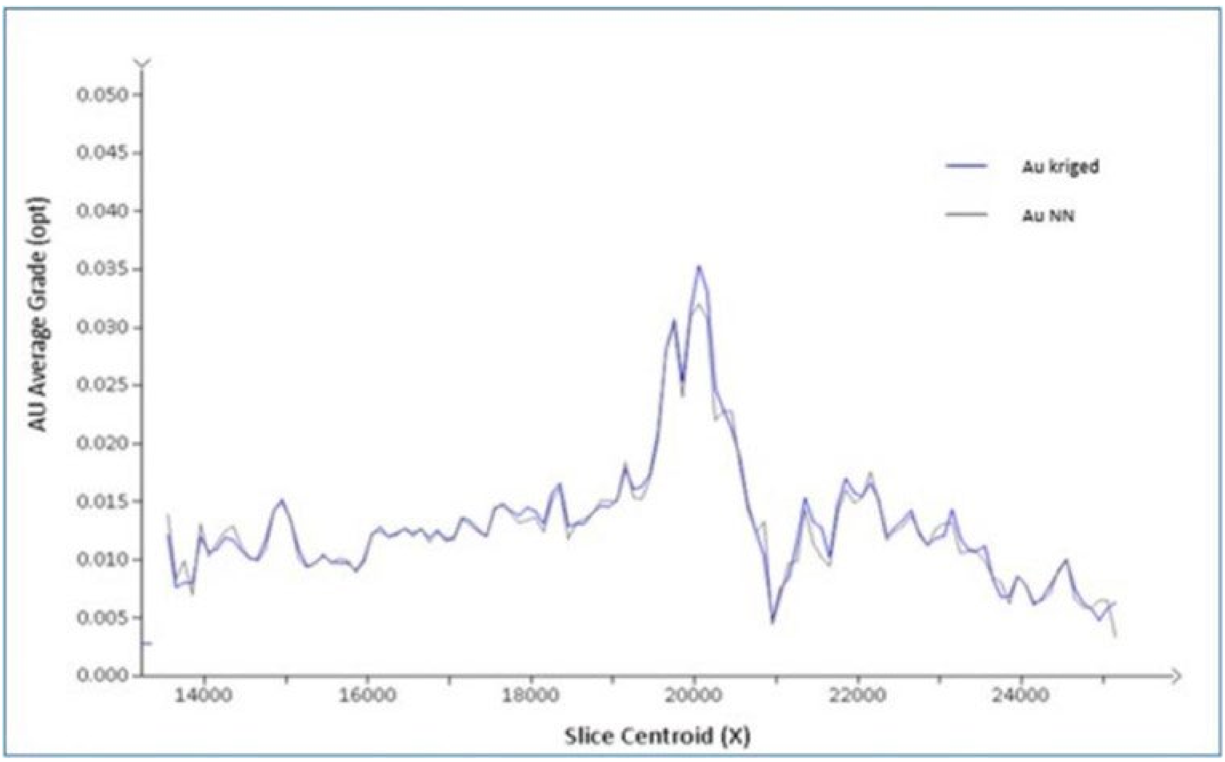
Table 11-11: Estimation Variance Statistics

	Kriging Au (g/t)	NN Au (g/t)	% Variance
Domain =1	0.41	0.43	5%
Domain =3	0.38	0.38	1%
Domain =4	0.55	0.52	4%
Domain =6	0.49	0.5	2%

11.2.10.3 Swath Plots

Swath plots were generated to compare the NN gold grades and the kriged gold grades. These plots, presented as Figure 11-7, Figure 11-8, and Figure 11-9, demonstrate good correlation.

Figure 11-7: Swath Plot Along Eastings

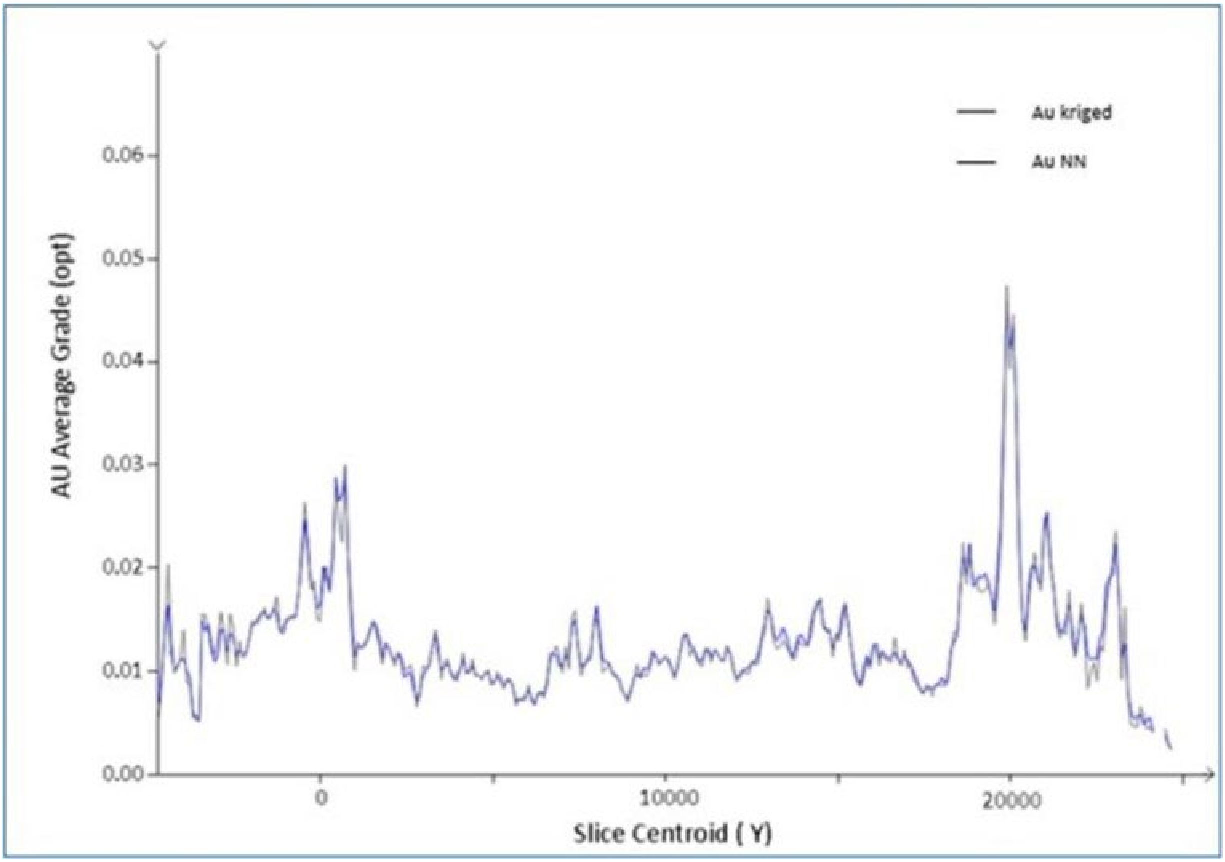


Notes:

1. opt = ounces per short ton
2. Au NN is nearest neighbor estimates; Au Kriged is ordinary kriged estimates

Source: SSR, 2023.

Figure 11-8: Swath Plot Along Northings

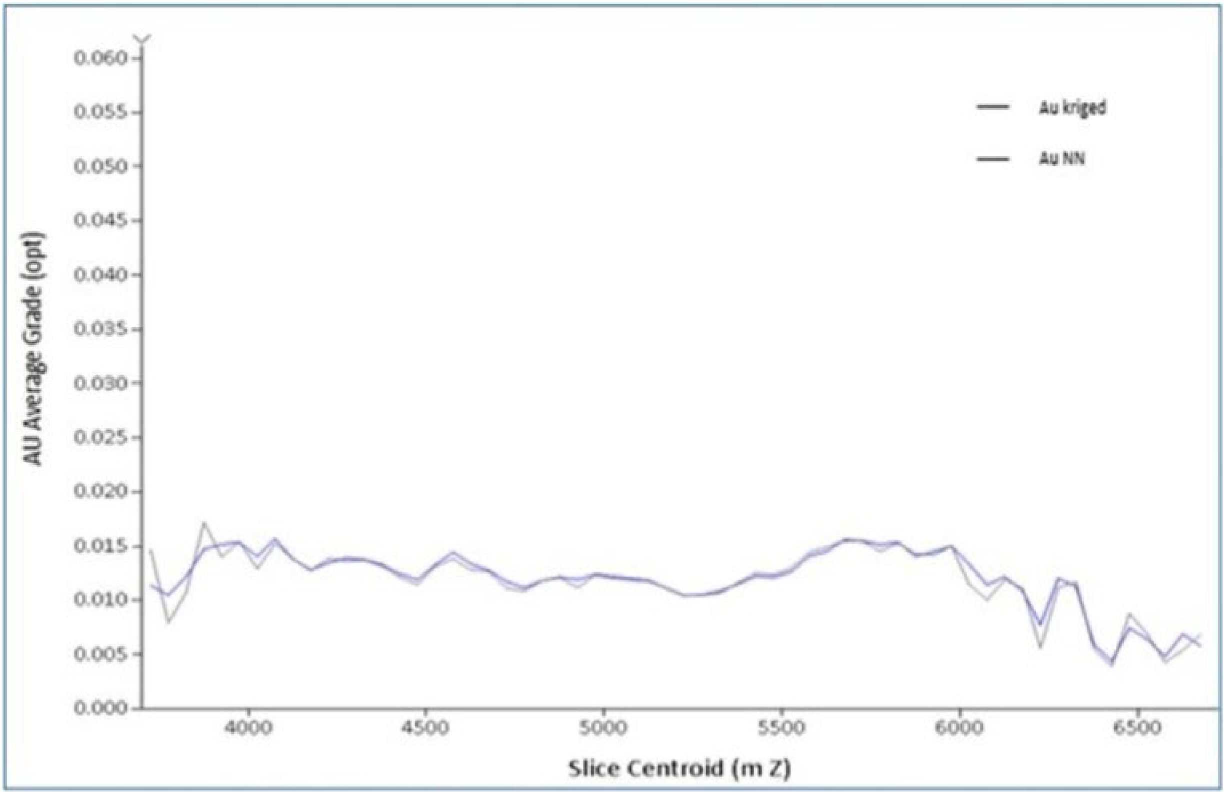


Notes

1. opt = ounces per short ton
2. Au NN is nearest neighbor estimates; Au Kriged is ordinary kriged estimates

Source: SSR, 2023.

Figure 11-9: Swath Plot Along Elevation



Notes:

1. opt = ounces per short ton
2. Au NN is nearest neighbor estimates; Au Kriged is ordinary kriged estimates.

Source: SSR, 2023.

11.2.11 Prospects of Economic Extraction for Mineral Resources

Mineral Resources must demonstrate reasonable prospects for economic extraction (RPEE) which generally implies that the quantity and grade estimates meet certain economic thresholds and that the mineral resources are reported at an appropriate cut-off grade taking into account extraction scenarios.

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

A reporting cut-off grade for the Marigold Mine based on assumed costs for open pit extraction and heap leach processing and commodity prices that provide a reasonable basis for establishing the prospects of economic extraction for Mineral Resources was established and reviewed by the SLR QP.

11.2.11.1 Cut-off Grade Estimation and Whittle Parameters

Mineral Resources for Marigold were calculated based on a Whittle optimized pit at a payable gold grade of 0.069 g/t (Au assay factored for recovery, royalty, and net proceeds per cell) using an assumed gold price of $1,750/oz. Input parameters for the Whittle pit optimization are provided in Table 11-12

Table 11-12: Marigold Resource Pit Parameters and Cut-off Grade

Marigold	ROM Resources – Used Equipment	
	Unit	MAC COG
Cut-off Method		Marginal
Year		2023
Gold Price	US$/oz	1,750
Gold Sales, Insurance, Legal and Social	US$/oz	0.00
Royalties	US$/oz	0.00
Total Selling Cost	US$/oz	0.00
Material Type		Average
Processing Au Recovery	%	100.0%
Payable Au	%	100.0%
Mining Dilution	%	1.00
Processing Cost	US$/t	2.25
Rehandling Cost	US$/t	0.00
Operational Support (G&A)	US$/t	1.23
Total	**US$/t**	**3.48**
Cut-off Grade – Marginal	g/t	0.062
Internal Cut-off Used	g/t	0.069
Mining Cost	US$/t	1.93
Cut-off Grade- Full	**g/t**	**0.0961**

The gold price of $1,750/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 Resource cut-offs. The Marigold Mineral Resource is assumed to be mined by open pit.

By definition, the estimation of Mineral Resources has considered environmental, permitting, legal, title, taxation, mining, metallurgical, infrastructure, socio-economic, marketing, and political factors and other constraints, as discussed in various sections of the TRS.

11.2.12 Mineral Resource Reporting

SLR is unaware of any current environmental, permitting, legal, title, taxation, socio- economic, marketing, political, or other relevant factors that could materially affect the Mineral Resources estimate for Marigold (exclusive of Mineral Reserves) as of September 30, , 2023, presented in Table 11-13 .

Table 11-13: Details of Marigold Mineral Resources Estimate Exclusive of Mineral Reserves as of September 30, 2023

Category	Tonnes (Mt)	Grade (g/t Au)	Contained Metal (Au Moz)	Cut-off Grade (Au g/t)	Metallurgical Recovery (%)
Measured	-	-	-	-	-
Indicated	103.72	0.44	1.47	0.069	75.5%
Total Measured + Indicated	**103.72**	**0.44**	**1.47**	**0.069**	**75.5%**
Inferred	19.09	0.36	0.22	0.069	75.6%

Notes:

1. The Mineral Resource estimate was prepared in accordance with S-K 1300 definitions.
2. The Mineral Resource estimate is based on an optimized pit shell at a cut-off grade of 0.069 g/t payable gold (gold assay factored for recovery, royalty, and net proceeds), with a gold price assumption of $1,750/oz.
3. Bulk densities (in t/m^3) were assigned by lithologies: alluvium = 2.10, Havallah = 2.48, Valmy/Antler = 2.4076+(0.0001*DEPTH), and Valmy = 2.64.
4. The Mineral Resources estimate is reported below the as-mined surface as of September 30, 2023
5. The point of reference for Mineral Resources is the entry to the carbon columns in the processing facility.
6. Mineral Resources are reported exclusive of Mineral Reserves.
7. Inferred Mineral Resources include Inferred material contained within the Marigold Mineral Reserve optimized pit shells.
8. SSR has 100% ownership of the Property.
9. All ounces reported represent troy ounces, and g/t represents grams per metric tonne.
10. Totals may vary due to rounding.

A total reduction of -9% (164,000 ounces) between EOY 2022 and current Resources as of Sept 30,2023 is the result of the following attributes:

- Resource to Reserve conversion -14%
- Drill additions 8%
- Cost changes -3%

11.2.12.1 Ore Reconciliation

Reconciliation between resource model estimates and mined production is the most effective means of validating a cell model estimate.

Production since the acquisition of Marigold by SSR has been mainly in Mackay Phase 1, 2, 3, 4, 5, 6, 8, and North pits, which include 5N1,5N2, and H1. Mining is currently underway in Mackay Phase 4 and Red Dot Phase 1. The reconciliation for mined material between January 1, 2018, and June 30, 2023, to the resource model is presented in Table 11-14.

Table 11-14: Ore Reconciliation for the Period January 1, 2018, and June 30, 2023

Item	Tonnes (Mt)	Gold Grade (g/t)	Contained Gold (Moz)
Actual mined	125.96	0.42	1.70
Resource model	125.57	0.44	1.76
Difference	0.39	-0.02	-0.06
% Difference	0%	-5%	-3%

11.2.13 Comparison with Previous Estimates

The 2023 Mineral Resource exclusive of Mineral Reserves has been compared with the previous December 31, 2022 Mineral Resource estimate as reported in SSR's 2022 Form 10-K filing (SSR, 2023).

There has been a reduction in Indicated contained gold ounces of 137 koz and a reduction in Inferred gold ounces of 28 koz. The change can be attributed due to the following:

- Re-interpretation of the mineralized envelopes using the most updated drill hole and geological mapping information
- Conversion to Reserves

11.2.14 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 modeling, and estimation. There are sources of uncertainty in the MRE at the Marigold Mine 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.

11.2.15 QP Opinion

In the SLR QP's opinion reconciliation between the Mineral Resources model and the grade control model is reasonable. The Mineral Resource model is suitable for Mineral Reserve estimation.

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.

11.3 Buffalo Valley

The Buffalo Valley resource estimation was conducted by Red Pennant Corp. with an effective of July 31, 2023. The Mineral Resource estimate is based on all available data as of April 31, 2023. The SLR QP has reviewed and accepted this information for use in this TRS.

There are no Mineral Reserves in the Buffalo Valley project. Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration.

11.3.1 Resource Database

The digital drill hole database used for this estimate contains a total of 1,446 drill holes; 797 additional holes are located in the surrounding Buffalo Valley model but not used to build the geological model and estimation. SSR uses MX Deposit, a commercially available database management system. The drill campaigns represented in the data were completed over more than 42 years, from 1980 through to April 31, 2023.

11.3.2 Geological Interpretation

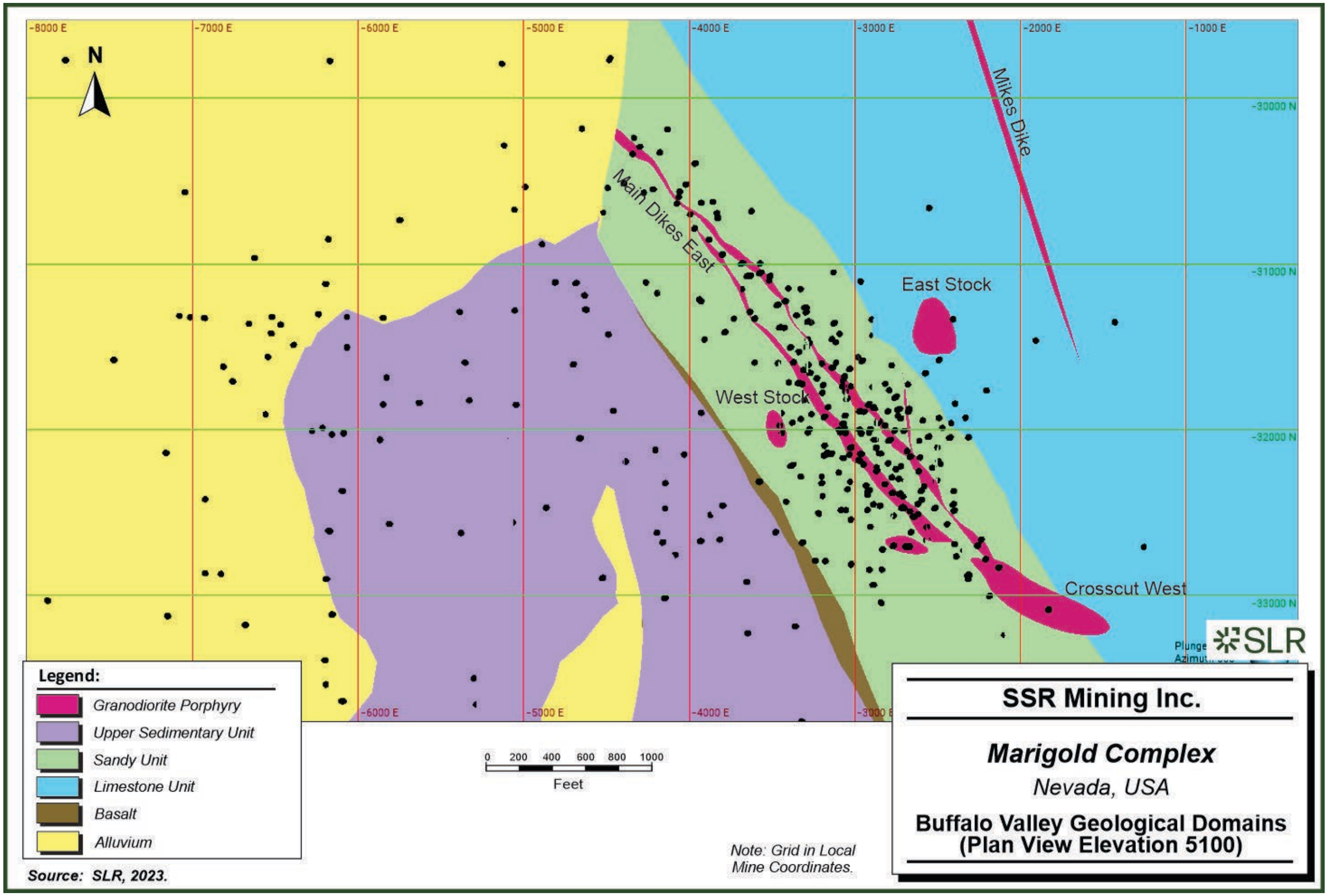
The Buffalo Valley project area is approximately 2.5 miles long north-south, and 1.7 miles wide east-west.

11.3.2.1 Domains and Grade Shells

The majority of gold mineralization at Buffalo Valley is hosted along a northwest trending dikes system and faults. Mineralization occurs both adjacent to dikes as well as bedding-parallel in receptive sedimentary units.

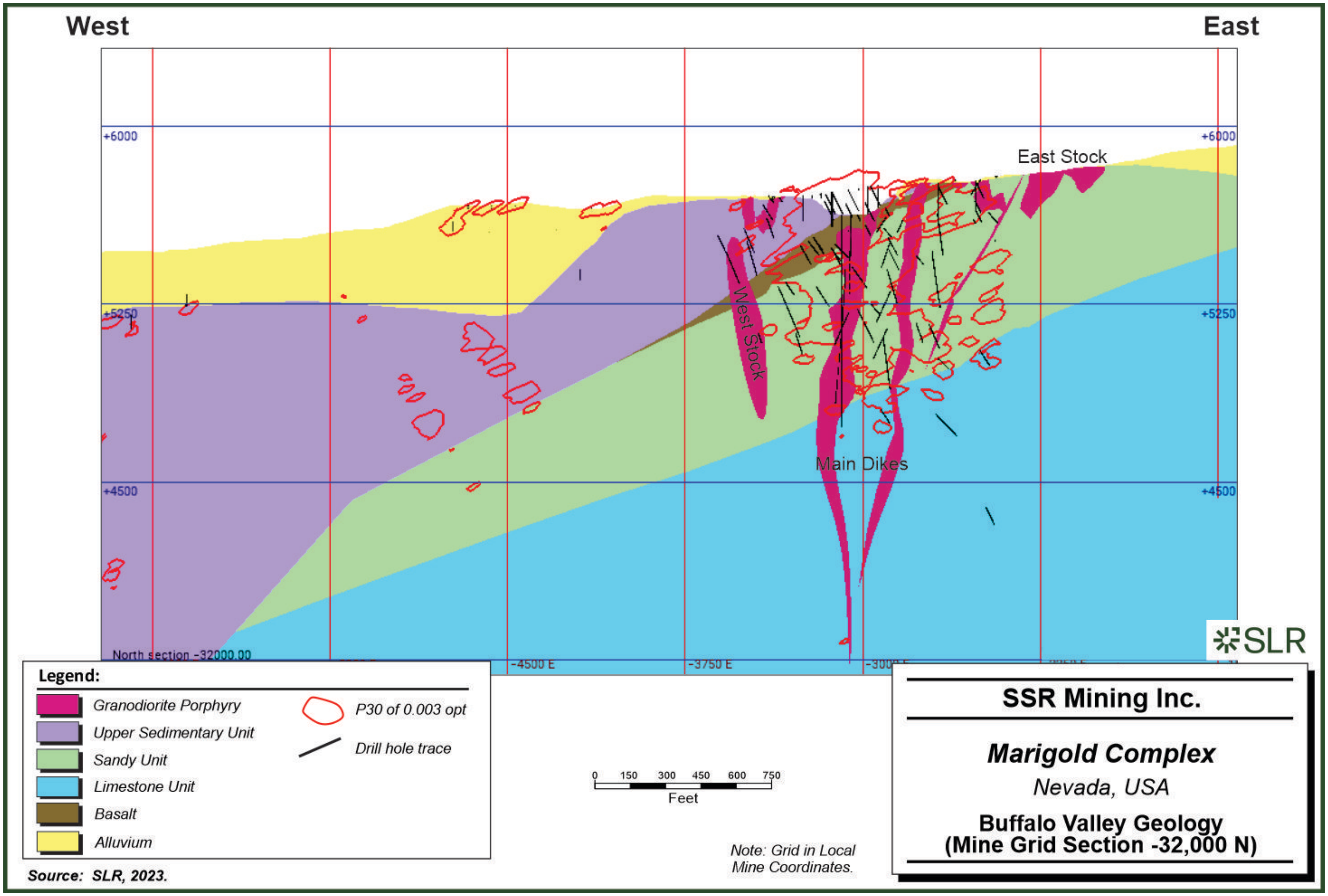
A total of fourteen lithological domains were defined for gold estimations. Figure 11-10 and Figure 11-11 show a plan map and cross-section through the Buffalo Valley pit showing the locations of these domains. Probability envelopes (at least 30% probability of AUFE exceeding 0.003 opt) were developed and are shown in the sections to provide a perspective of the localization of mineralization.

Figure 11-10: Buffalo Valley Geological Domains (Plan View Elevation 5100)



Note: Grid in Local Mine Coordinates.

Figure 11-11: Buffalo Valley Geology (Mine Grid Section -32,000 N)



Note: Grid in Local Mine Coordinates.

The length weighted gold assay (g/t) and interval length statistics for sample intervals are summarized in Table 11-15.

Table 11-15: Length Weighted Gold Assays (g/t) Statistics of Raw Samples by Estimation Domain

Domain	Element	Count	Mean Grade (g/t)	SD	CV	Variance	Min (g/t)	Median (g/t)	Max (g/t)
Base limestone	AUCN	2,319	0.25	0.0505	6.9982	0.0025	0.07	0.07	66.24
	AUFA	2,319	0.20	0.0456	7.9111	0.0021	0.03	0.03	59.90
	AUFE	3,015	0.25	0.0457	6.2794	0.0021	0.00	0.03	61.51
	Interval Length	3,113	1.73	20.3366	3.5928	413.5757	0.02	1.52	283.80
Crosscut west	AUCN	1,019	0.14	0.0079	1.9257	0.0001	0.07	0.07	5.11
	AUFA	1,019	0.10	0.0071	2.4167	0.0001	0.03	0.03	4.59
	AUFE	1,374	0.10	0.0086	3.0499	0.0001	0.00	0.03	5.18
	Interval Length	1,726	1.62	12.6596	2.3848	160.2645	0.04	1.52	160.42
East stock	AUCN	949	0.10	0.0044	1.5178	0.00002	0.07	0.07	2.26
	AUFA	949	0.06	0.0040	2.1211	0.00002	0.03	0.03	2.02
	AUFE	881	0.06	0.0042	2.4399	0.00002	0.02	0.03	2.16
	Interval Length	1,049	1.59	8.0149	1.5329	64.2380	0.05	1.52	73.05
East stock dike 1	AUCN	88	0.23	0.0091	1.3700	0.0001	0.07	0.10	1.70
	AUFA	88	0.18	0.0082	1.5670	0.0001	0.03	0.07	1.51
	AUFE	52	0.12	0.0077	2.2880	0.0001	0.00	0.03	1.75
	Interval Length	92	1.54	0.9828	0.1951	0.9659	0.37	1.52	4.12
East stock dike 3	AUCN	238	0.18	0.0137	2.6623	0.0002	0.07	0.07	8.40
	AUFA	238	0.13	0.0124	3.1736	0.0002	0.03	0.03	7.58
	AUFE	283	0.15	0.0151	3.3770	0.0002	0.02	0.03	9.67
	Interval Length	303	1.28	3.5767	0.8513	12.7927	0.00	1.52	16.19
Hav Basalt	AUCN	4,041	0.25	0.0314	4.3100	0.0010	0.07	0.10	44.94
	AUFA	4,041	0.20	0.0284	4.8653	0.0008	0.03	0.07	40.63
	AUFE	3,760	0.16	0.0222	4.8839	0.0005	0.00	0.04	24.10
	Interval Length	5,482	1.45	2.5460	0.5334	6.4819	0.00	1.52	36.65
Main dike east	AUCN	9,120	0.53	0.0762	4.8930	0.0058	0.03	0.10	131.84
	AUFA	9,120	0.46	0.0689	5.1693	0.0047	0.00	0.07	119.25
	AUFE	10,084	0.51	0.0717	4.8080	0.0051	0.00	0.07	125.11
	Interval Length	12,858	1.55	11.3085	2.2173	127.8818	0.00	1.52	241.40
Mike’s dike	AUCN	5	0.39	0.0069	0.6131	0.00005	0.18	0.26	0.71
	AUFA	5	0.33	0.0063	0.6618	0.00004	0.14	0.21	0.62
	AUFE	22	0.04	0.0005	0.4115	0.00000	0.03	0.03	0.10

Domain	Element	Count	Mean Grade (g/t)	SD	CV	Variance	Min (g/t)	Median (g/t)	Max (g/t)
	Interval Length	27	1.51	0.2935	0.0594	0.0861	1.06	1.52	1.52
Overburden	AUCN	10,288	0.19	0.0313	5.7299	0.0010	0.03	0.07	44.75
	AUFA	10,288	0.14	0.0284	6.7575	0.0008	0.00	0.03	40.46
	AUFE	9,285	0.11	0.0254	8.0870	0.0006	0.00	0.03	46.77
	Interval Length	13,526	1.89	20.6588	3.3327	426.7877	0.00	1.52	234.03
Sandy unit	AUCN	21,127	0.28	0.0291	3.6112	0.0008	0.03	0.07	131.84
	AUFA	21,127	0.22	0.0263	4.0276	0.0007	0.00	0.03	119.25
	AUFE	27,478	0.28	0.0331	4.0742	0.0011	0.00	0.03	125.11
	Interval Length	29,611	1.57	8.6215	1.6786	74.3302	0.00	1.52	170.63
Upper sed unit	AUCN	23,100	0.30	0.0308	3.4949	0.0009	0.03	0.10	44.07
	AUFA	23,100	0.25	0.0278	3.8598	0.0008	0.00	0.07	39.84
	AUFE	25,981	0.24	0.0276	4.0258	0.0008	0.00	0.07	46.77
	Interval Length	34,605	1.56	7.7545	1.5154	60.1319	0.00	1.52	222.20
West dike 1	AUCN	68	0.16	0.0080	1.7120	0.0001	0.07	0.07	1.92
	AUFA	68	0.12	0.0073	2.0804	0.0001	0.03	0.03	1.71
	AUFE	105	0.12	0.0076	2.1341	0.0001	0.00	0.03	1.78
	Interval Length	120	1.36	2.8488	0.6399	8.1159	0.00	1.52	8.54
West dike 2	AUCN	15	0.07	0.0000	0.0000	0.000000	0.07	0.07	0.07
	AUFA	15	0.03	0.0000	0.0000	0.000000	0.03	0.03	0.03
	AUFE	18	0.04	0.0005	0.3941	0.000000	0.02	0.03	0.09
	Interval Length	20	0.97	1.7519	0.5524	3.0693	0.10	1.10	1.52
West Stock	AUCN	444	0.08	0.0011	0.4883	0.000001	0.07	0.07	0.56
	AUFA	444	0.04	0.0010	0.7788	0.000001	0.03	0.03	0.48
	AUFE	708	0.04	0.0012	1.0236	0.000001	0.00	0.03	0.48
	Interval Length	734	1.48	0.9011	0.1861	0.8120	0.03	1.52	6.07

11.3.2.2 Fire Assay Equivalent (AUFE) Grades

The drill hole data included intervals fire assay (AUFA) and cyanide soluble (AUCN) intervals (Table 11-16). Most data consisted of matched pairs (57,538) but 21,508 AUCN values have no corresponding AUFA values.

Table 11-16: AUFA and AUCN Assay Composites

Type	Assay	Count	Average Grade (g/t)
Total	AUCN	79,046	0.2366
	AUFA	123,887	0.2040
Matched Pairs	AUCN	57,538	0.1951
	AUFA	57,538	0.2441
No AUFA	AUCN	21,508	0.3408
No AUCN	AUFA	66,349	0.1725
FA Equivalent	AUFE	145,395	0.2342

The fire assay equivalent (AUFE) value for each of the informed composites is either the AUFA value or the calculated fire assay equivalent value based on the regression, where the AUFA value is absent, but the AUCN value is present. The AUFE data effectively increases the available fire assay-related data by 17%.

11.3.3 Treatment of High Grade Assays

11.3.3.1 Capping Levels

Where the assay distribution is skewed positively or approaches log-normal, erratic high grade assay values can have a disproportionate effect on the average grade of a deposit. One method of treating these outliers to reduce their influence on the average grade is to cut or cap them at a specific grade level.

Grade capping is a technique used to mitigate the potential effect that a small population of high-grade sample outliers can have during grade estimation. These high-grade samples are not considered to be representative of the general sample population and are therefore capped to a level that is more representative of the general data population. Although subjective, grade capping is a common industry practice when performing grade estimation for deposits that have significant grade variability. In the absence of production data to calibrate the capping level, inspection of the assay distribution can be used to estimate a “first pass” cutting level.

Grade capping values were assigned by reviewing log histograms for the metal values for each domain. Capping values were determined to limit the upper range of estimation data to a level where the histogram maintains a reasonable structure.

For example, the capping values for AUFE are summarized by estimation domain in Table 11-17.

Table 11-17: Capping Values for AUFE (g/t)

Domain	AUFE (g/t)
Base_Lst_P2	17.14
Crosscut_W_P2	2.74
EastStock_Dike1_P2	1.37
EastStock_Dike3_P2	1.37
EastStock_P2	27.43
Hav_Basalt_P2	6.86
Main_dike_P2	27.43
MikesDike_P2	27.43
Ovb_1_P2	13.71
Ovb_2_P2	1.37
Sandy_unit_P2	13.71
Ur_Sed_1_P2	21.60
Ur_Sed_2_P2	4.32
W_Dike_1_P2	1.03
W_Dike_2_P2	1.03
WestStock_P2	0.21

11.3.3.2 High Grade Restrictions

In addition to capping thresholds, a secondary approach to reducing the influence of high-grade composites is to restrict the search ellipse dimension (high yield restriction) during the estimation process. The threshold grade levels, chosen from the basic statistics and from visual inspection of the apparent continuity of very high grades within each estimation domain, may indicate the need to further limit their influence by restricting the range of their influence, which is generally set to approximately half the distance of the main search.

No high-grade restriction thresholds were used for the Buffalo Valley resource estimate.

11.3.4 Compositing

The assay table BV_Assay_Nov was reviewed and the vast majority of the interval lengths with assay grades greater than 0.1028 g/t are 1.524 m in length. The first and third quartiles and the median are all 1.524 m. To maintain fine resolution in the model with known subvertical and shallow grade trends and domain orientations, it was decided to use 1.524 m as the standard composite length for gold estimation. Copper, iron, and sulfur data was obtained as 6 m long sampled intervals and the compositing interval applied for these three elements was 6 m intervals.

Compositing was applied on the basis that if residual end intervals for a domain intercept are shorter than 50% of the standard composite length, then the residual lengths are distributed over the entire intercept, resulting in fractionally longer composites than the standard, but reducing the bias risk for last composites in holes.

11.3.5 Trend Analysis

11.3.5.1 Variography

Gold variograms were developed for each of the lithology domains, using normal scores (NS) in Leapfrog EDGE. The NS variograms were back-transformed to real space for estimation purposes. Orientations were rotated into local ‘variable orientation’ to conform to the local environment. Variogram models for AUFE are summarized in Table 11-18. All variogram model structures are spherical model.

Table 11-18: Variogram Models (AUFE)

Variogram Name	Rotation			Nugget	Structure 1				Structure 2			
	Dip	Dip Azi.	Pitch		Sill	Major (m)	Semi-major (m)	Minor (m)	Sill	Major (m)	Semi-major (m)	Minor (m)
AU_Base_Lst_P2: Transformed Variogram Model	84.9	232.3	105.44	0.00115	0.0003	5.31	4.956	2.373	0.0002	12.69	12.61	6.96
AU_Crosscut_W_P2: Transformed Variogram Model	76.3	32.41	129.14	0.000016	0.00003	4.987	4.788	4.045	0.00001	20.03	15.58	7.1
AU_EastStock_Dike1_P2: Transformed Variogram Model	57.8	243.15	1.42	0.000016	0.00004	9.321	4.788	4.045	0.00002	27.52	24.09	11.92
AU_EastStock_Dike3_P2: Transformed Variogram Model	65	256.72	0.76	0.000012	0.00003	9.321	4.788	4.045	0.00001	27.52	24.09	11.92
AU_EastStock_P2: Transformed Variogram Model	88.7	261.51	115.74	0.000011	0.000004	10.247	4.788	4.045	0.000002	27.9	24.09	11.92
AU_Hav_Basalt_P2: Transformed Variogram Model	37.2	244.36	90.8	0.00009	0.0003	11.232	4.956	2.068	0.0001	53.55	29.89	18.68
AU_Main_dike_P2: Transformed Variogram Model	83.2	230.67	90.15	0.00127	0.003	9.321	4.788	4.045	0.0006	27.52	24.09	11.92
AU_MikesDike_P2: Transformed Variogram Model	74.4	251.72	86.53	0.0000026	0.000006	9.321	4.788	4.045	0.000003	27.52	24.09	11.92
AU_Ovb_1_P2: Transformed Variogram Model	3.65	269.62	149.7	0.00159	0.001	7.961	5.45	1.209	0.0004	37.49	25.79	5.07
AU_Ovb_2_P2: Transformed Variogram Model	3.65	269.62	149.7	0.000057	0.00004	7.961	5.45	1.209	0.00001	37.49	25.79	5.07
AU_Sandy_unit_P2: Transformed Variogram Model	38.8	239.34	171.61	0.00103	0.0004	6.544	5.297	2.166	0.0003	30.51	25.79	16.47
AU_Ur_Sed_1_P2: Transformed Variogram Model	22.6	247.81	160.47	0.00069	0.0007	15.712	5.934	4.773	0.0001	41.54	20.25	11.57
AU_Ur_Sed_2_P2: Transformed Variogram Model	30.2	286.57	18.82	0.000035	0.00008	12.439	4.956	2.166	0.00002	38.92	29.89	18.66
AU_W_Dike_1_P2: Transformed Variogram Model	71	225.96627	25.495	0.000012	0.00003	9.321	4.788	4.045	0.00001	27.52	24.09	11.92
AU_W_Dike_2_P2: Transformed Variogram Model	36.5	239.12112	62.452	0.00000003	0.00000006	9.144	4.572	3.962	0.00000003	27.43	27.43	12.19
AU_WestStock_P2: Transformed Variogram Model	88.9	84.41	77.13	0.00000047	0.0000004	10.366	4.788	4.045	0.0000004	27.12	26.99	9.82

11.3.6 Exploratory Data Analysis

Length weighted gold statistics are summarized in Table 11-19

Table 11-19: Length Weighted Gold Assays (g/t) Statistics of Composite Samples by Domain

Domain	Element	Count	Mean Grade (g/t)	SD	CV	Min (g/t)	Median (g/t)	Max (g/t)
Base limestone	AUCN	2,319	0.247	0.050	6.998	0.066	0.066	66.239
	AUFA	2,319	0.198	0.046	7.911	0.034	0.034	59.897
	AUFE	3,015	0.250	0.046	6.279	0.003	0.034	61.509
	Interval Length	3,113	1.725	20.337	3.593	0.023	1.524	283.805
Crosscut west	AUCN	1,019	0.140	0.008	1.926	0.066	0.066	5.107
	AUFA	1,019	0.101	0.007	2.417	0.034	0.034	4.594
	AUFE	1,374	0.097	0.009	3.050	0.003	0.034	5.177
	Interval Length	1,726	1.618	12.660	2.385	0.035	1.524	160.418
East stock	AUCN	949	0.100	0.004	1.518	0.066	0.066	2.265
	AUFA	949	0.065	0.004	2.121	0.034	0.034	2.023
	AUFE	881	0.059	0.004	2.440	0.017	0.034	2.160
	Interval Length	1,049	1.594	8.015	1.533	0.050	1.524	73.052
East stock dike 1	AUCN	88	0.227	0.009	1.370	0.066	0.104	1.696
	AUFA	88	0.179	0.008	1.567	0.034	0.069	1.509
	AUFE	52	0.116	0.008	2.288	0.003	0.034	1.749
	Interval Length	92	1.535	0.983	0.195	0.374	1.524	4.118
East stock dike 3	AUCN	238	0.177	0.014	2.662	0.066	0.066	8.404
	AUFA	238	0.134	0.012	3.174	0.034	0.034	7.577
	AUFE	283	0.154	0.015	3.377	0.017	0.034	9.669
	Interval Length	303	1.281	3.577	0.851	0.001	1.524	16.195
Hav Basalt	AUCN	4,041	0.250	0.031	4.310	0.066	0.104	44.939
	AUFA	4,041	0.200	0.028	4.865	0.034	0.069	40.629
	AUFE	3,760	0.156	0.022	4.884	0.003	0.041	24.103
	Interval Length	5,482	1.455	2.546	0.533	0.003	1.524	36.655
Main dike	AUCN	9,120	0.534	0.076	4.893	0.032	0.104	131.843
	AUFA	9,120	0.457	0.069	5.169	0.003	0.069	119.246
	AUFE	10,084	0.511	0.072	4.808	0.003	0.069	125.109
	Interval Length	12,858	1.554	11.308	2.217	0.002	1.524	241.402
Mike's dike	AUCN	5	0.388	0.007	0.613	0.180	0.256	0.711

Domain	Element	Count	Mean Grade (g/t)	SD	CV	Min (g/t)	Median (g/t)	Max (g/t)
	AUFA	5	0.325	0.006	0.662	0.137	0.206	0.617
	AUFE	22	0.039	0.000	0.411	0.034	0.034	0.103
	Interval Length	27	1.507	0.293	0.059	1.059	1.524	1.524
Overburden	AUCN	10,288	0.188	0.031	5.730	0.032	0.066	44.750
	AUFA	10,288	0.144	0.028	6.757	0.003	0.034	40.457
	AUFE	9,285	0.108	0.025	8.087	0.003	0.034	46.766
	Interval Length	13,526	1.889	20.659	3.333	0.000	1.524	234.028
Sandy unit	AUCN	21,127	0.276	0.029	3.611	0.032	0.066	131.843
	AUFA	21,127	0.224	0.026	4.028	0.003	0.034	119.246
	AUFE	27,478	0.279	0.033	4.074	0.003	0.034	125.109
	Interval Length	29,611	1.566	8.621	1.679	0.001	1.524	170.634
Upper sed unit	AUCN	23,100	0.302	0.031	3.495	0.032	0.104	44.068
	AUFA	23,100	0.247	0.028	3.860	0.003	0.069	39.840
	AUFE	25,981	0.235	0.028	4.026	0.003	0.065	46.766
	Interval Length	34,605	1.560	7.754	1.515	0.001	1.524	222.196
West dike 1	AUCN	68	0.161	0.008	1.712	0.066	0.066	1.923
	AUFA	68	0.120	0.007	2.080	0.034	0.034	1.714
	AUFE	105	0.122	0.008	2.134	0.003	0.034	1.783
	Interval Length	120	1.357	2.849	0.640	0.004	1.524	8.535
West dike 2	AUCN	15	0.066	0.000	0.000	0.066	0.066	0.066
	AUFA	15	0.034	0.000	0.000	0.034	0.034	0.034
	AUFE	18	0.040	0.000	0.394	0.021	0.034	0.086
	Interval Length	20	0.967	1.752	0.552	0.100	1.097	1.524
West Stock	AUCN	444	0.076	0.001	0.488	0.066	0.066	0.559
	AUFA	444	0.043	0.001	0.779	0.034	0.034	0.480
	AUFE	708	0.040	0.001	1.024	0.003	0.034	0.480
	Interval Length	734	1.476	0.901	0.186	0.030	1.524	6.074

Figure 11-12 and Figure 11-13 show the boxplots for fire assay and cyanide soluble gold on fourteen domains and inside probability greater than 0.3 of AUFE grade at least 0.1028 g/t (0.003 opt).

Figure 11-12: Boxplot of AUFA by domain and inside probability greater than 0.3 of AUFE grade at least 0.1028 g/t (0.003 opt)

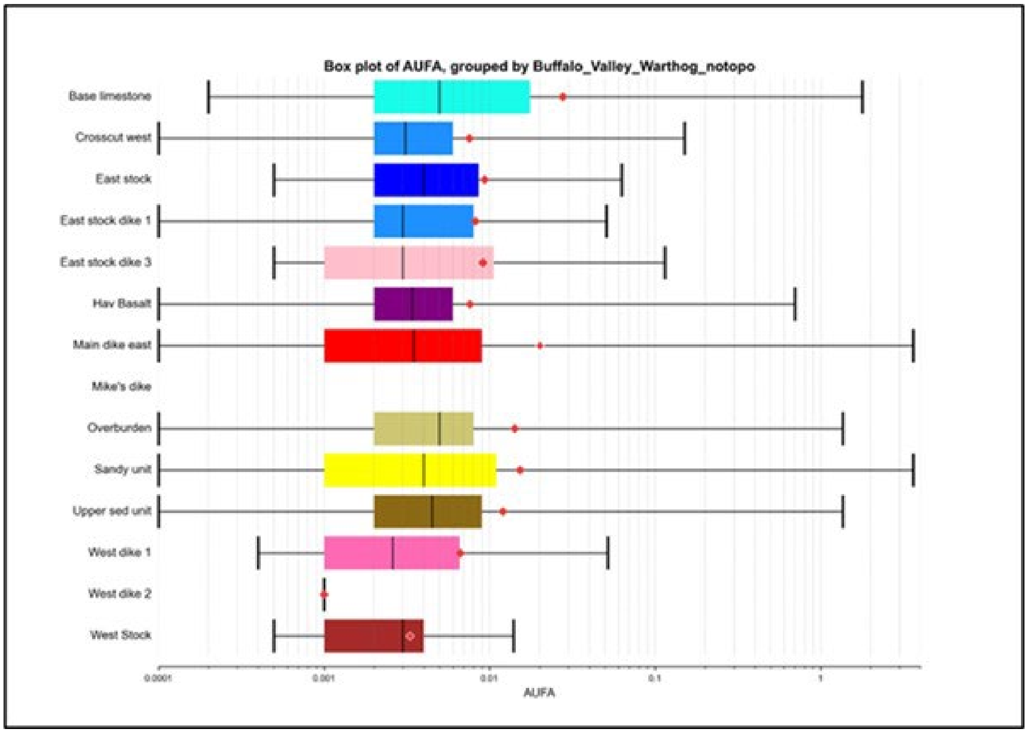
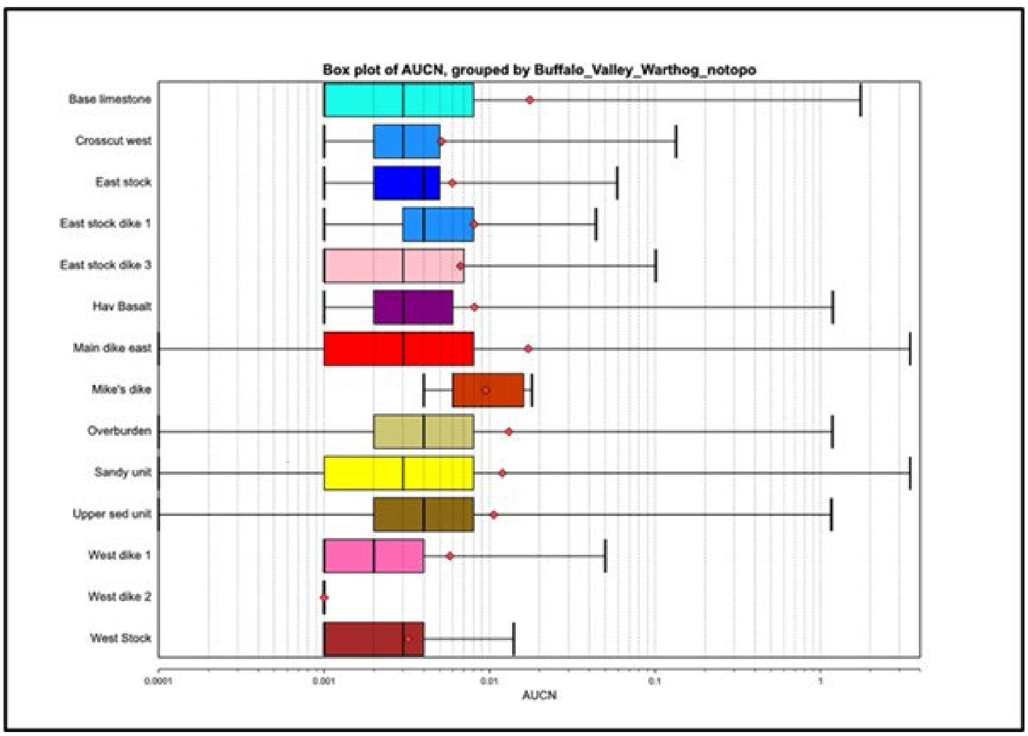


Figure 11-13: Boxplot of AUCN by domain and inside probability greater than 0.3 of AUFE grade at least 0.1028 g/t (0.003 opt)



The naïve histograms for AuFA inside probability greater than 0.3 of AUFE grade at least 0.1028 g/t (0.003 opt) for the four best grade domains, namely Main Dike East, Sandy Unit, Base Limestone, and Upper Sed Unit, are shown in Figure 11-14. The log probability plots for AUFA are shown in Figure 11-15.

Figure 11-14: Histograms of AUFA Inside Probability Greater Than 0.3 of AUFE Grade at Least 0.1028 g/t (0.003 opt). By Main Domains.

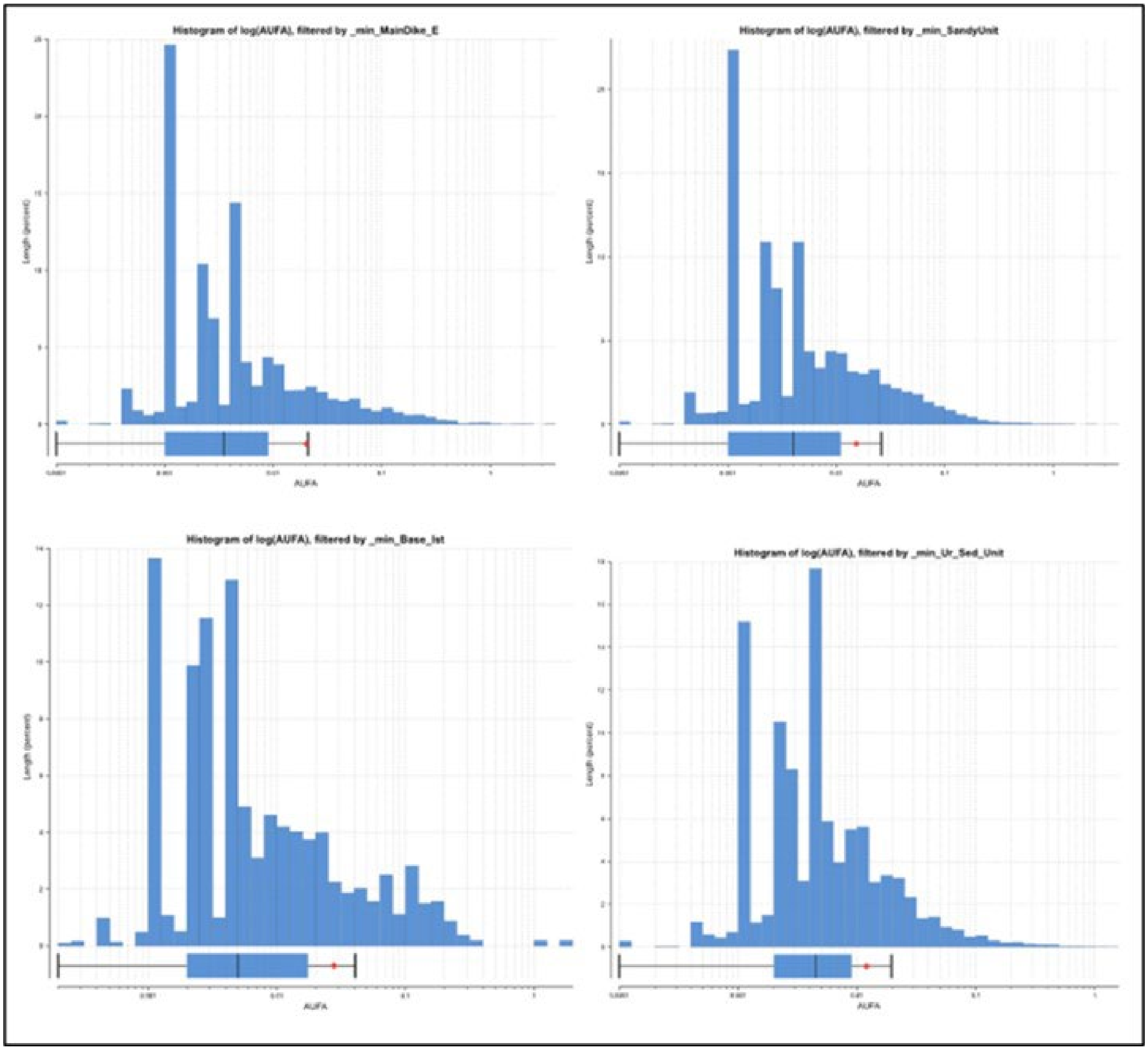
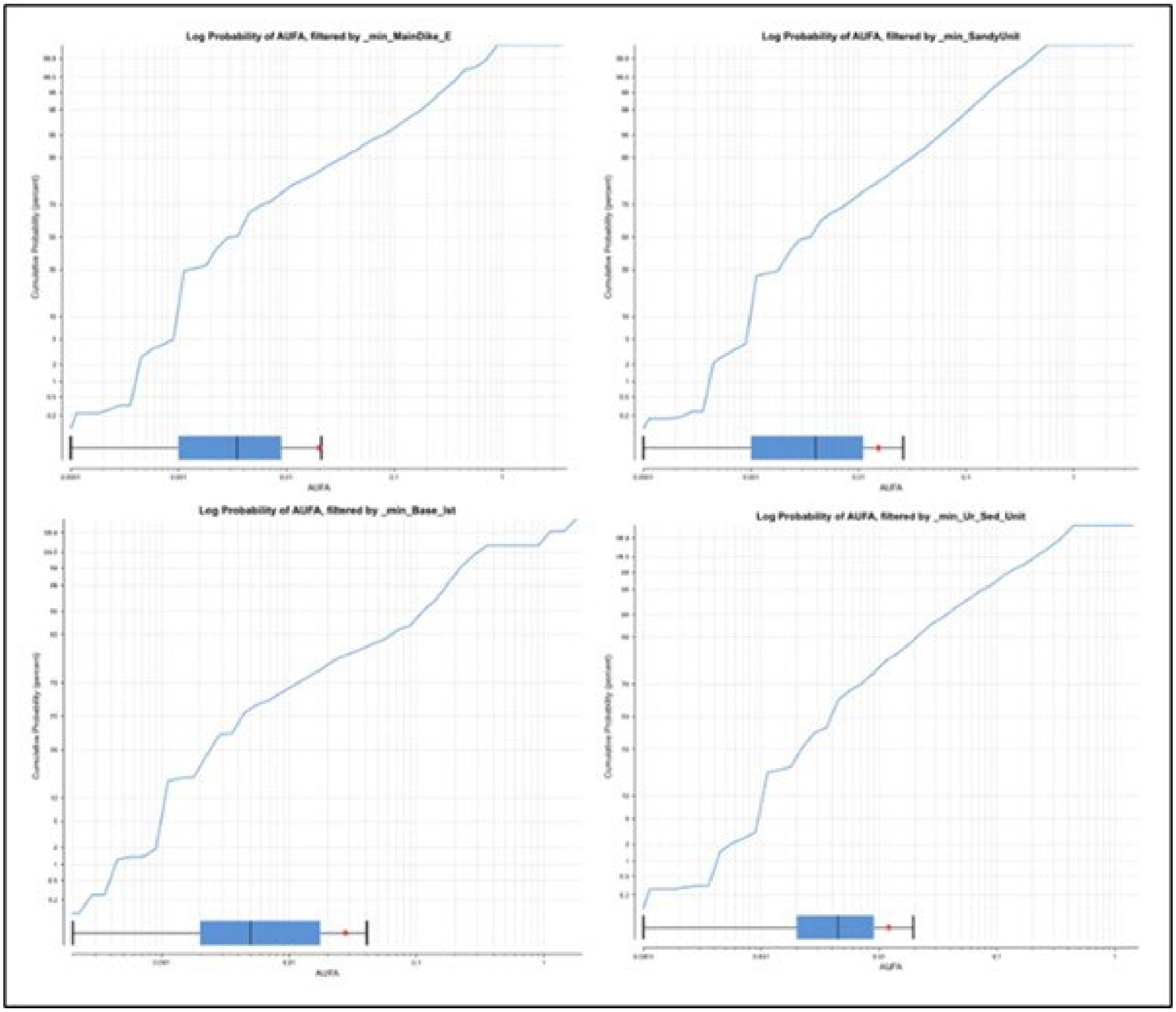


Figure 11-15: Log Probability Plots of AuFA Inside Probability Greater than 0.3 of AUFE grade at least 0.1028 g/t (0.003 opt). By Main Domains.



11.3.7 Search Strategy and Grade Interpolation Parameters

Resource estimation was completed within an area encompassing the deposit with block model geometry and extents as presented in Table 11-20 using Leapfrog Geo software with imperial units. A parent block size of 7.62 m in the X (across strike) by 15.24 m in the Y (along strike) directions by 7.62 m in the Z (vertical) direction, sub-blocked to 1.905 m (6.25 ft) by 3.81 m (12.5 ft) by 1.905 m (6.25), was chosen for the model. The ‘octree’-style of sub-blocked model was employed to preserve volumetric resolution. The orientation of the model with a horizontal rotation (320°), dip of 0.0°, and a plunge of 0.0° was to minimize sub-blocking along the NW-SE primary orientation of the deposit and long axis of the historical open pit.

Table 11-20: Block Model parameters (Mine Grid X, Y, Z in feet)

BV25x25x25_rotated		X (m)	Y (m)	Z (m)
Blocks	Parent block	7.62	15.24	7.62
	Sub-block	1.91	3.81	1.91
Extents	Base point	-1,036.30	-10,576.60	1,828.80
	Boundary size	990.6	1,280.2	365.8
Rotation		Azimuth	Dip	Pitch
		320	0	0

The estimate variables in the cell model are listed in Table 11-21

Table 11-21: Estimated Variables

Element	Variable Name	Description	Domains	Remarks
Au	AUFE	Au Fire Assay Equivalent	Lithology-based	Estimated from composite values of AUFA with missing values replaced with fire assay equivalent values calculated using fire assay – cyanide leachable regressions
	AUCE	Au Cyanide Leachable Equivalent	Lithology-based	Calculated from AUFE estimates, using the inverse of fire assay – cyanide leachable regressions
	AUFA	Au Fire Assay	Lithology-based	Estimated directly from Au fire assay composite data
	AUCN	Au Cyanide Leachable	Lithology-based	Estimated directly from Au cyanide leachable composite data
Cu	CU	Cu grades	Lithology-based	Estimated from ICP composites
Fe	Fe	Fe grades	Fe-grade shell-based	Estimated from ICP composites
S	STOT	S grades	S-grade shell-based	Estimated from LECO composites
TCF	TCF	Bulk density (ft^3 / st)	Lithology-based	Assigned from averages of relevant domain

11.3.7.1 Estimation Domaining

Seven 3D volumetric models were constructed to serve as estimation domains, as listed in Table 11-22

Table 11-22: Volumetric Models Generated for Estimation Domaining and Grade Estimation

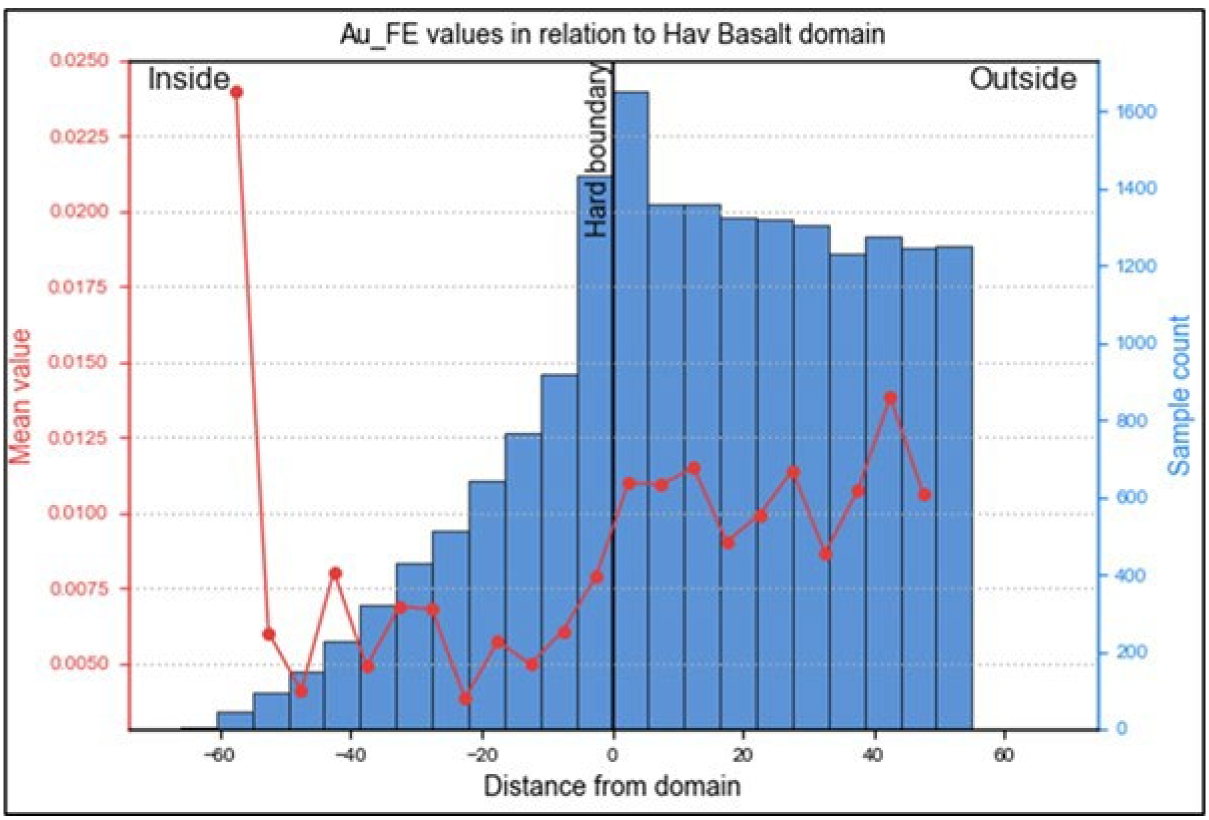
Model Name	Target	Number of Components	Construction Elements
Buffalo Valley-Warthog	AUFA/AUFE/AUCN/AUCE	14	lithologies
Buffalo Valley-Warthog notopo	AUFA/AUFE/AUCN/AUCE	14	lithologies
BV_for_Cu_Domains	Cu ppm	12	lithologies
GM_KM_Clusters	geochemical groups	4	10 K-Means clusters
Solid	topography	2	topography
Volume-for_DH_vg	drill sample data	1	model volume
Grade shells Fe	Fe ppm (ICP)	3	grade isoshells
Grade shells STOT	STOT ppm (LECO)	3	grade isoshells

11.3.7.2 Contact Analysis

Contact analysis for exploration composites was used to investigate the extension of the hard or soft domain boundaries.

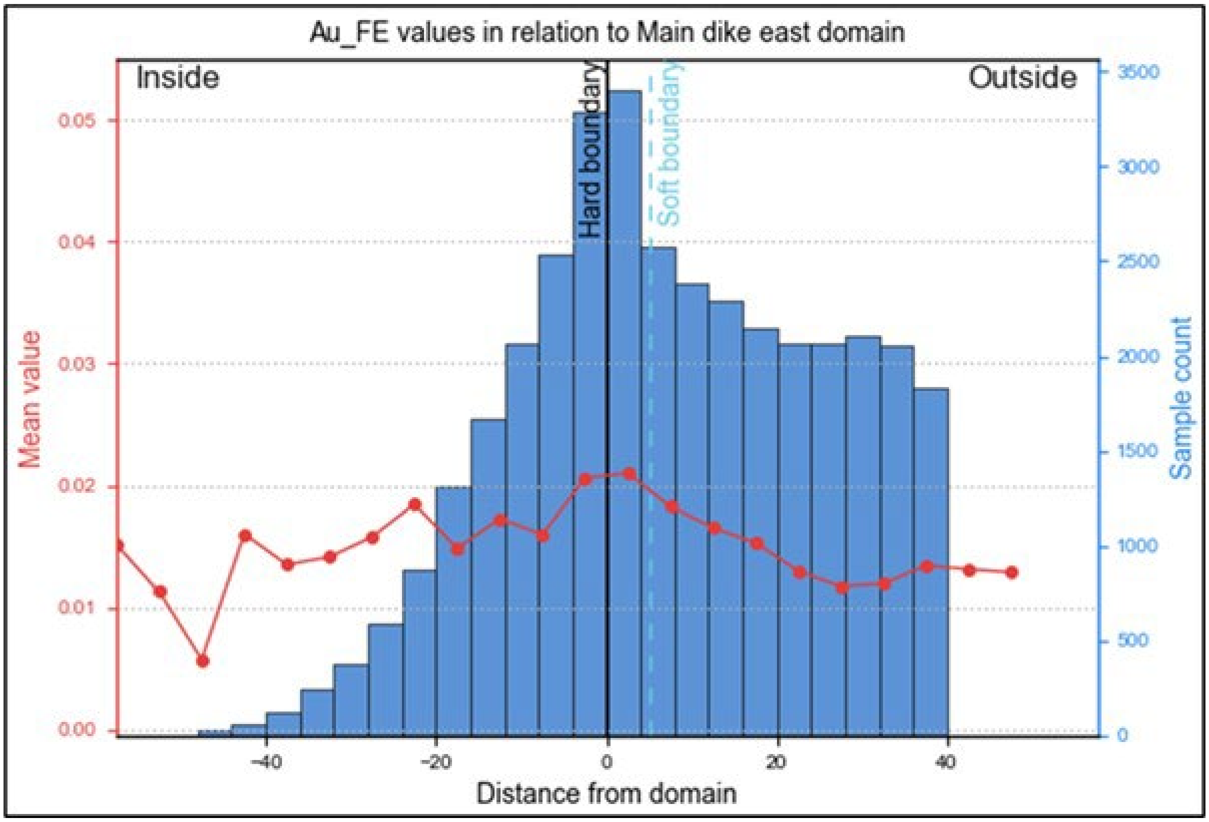
The boundary analysis graph for the Havallah Basalt domain is interpreted as suitable for hard boundary estimation and is shown in Figure 11-16.

Figure 11-16: Havallah Basalt Boundary Conditions (distance in feet, grade in opt)



The boundary analysis graph for the Main Dike domain is interpreted as suitable for soft 1.52 m boundary estimation and is shown in Figure 11-17.

Figure 11-17: Main Dike Boundary Conditions (distance in feet, grade in opt)



Boundary conditions are often ambiguous due to the large size of some of the units with limited sampling and abutment against units with different characters. Consequently, domain boundaries with ambiguous character were assigned hard boundaries.

The types of boundaries used for estimates based on lithology domains are summarized in Table 11-23.

Table 11-23: Estimation Domain Boundary Types

Domain	Boundary Type	Range (m)
West Stock	Hard	0
West dike 2	Hard	0
West dike 1	Hard	0
fault block 2: Upper sed unit	Hard	0
fault block 1: Upper sed unit	Soft	3.05
Sandy unit	Soft	1.52
Fault block 2: Overburden	Hard	0
Fault block 1: Overburden	Hard	0
Mike’s dike	Hard	0
Main dike	Soft	1.52
Fault block 1: Hav Basalt	Hard	0
East stock	Hard	0
Fault block 1: East stock dike 3	Hard	0
Fault block 1: East stock dike 1	Hard	0
Crosscut west	Soft	3.05
Fault block 1: Base limestone	Hard	

11.3.7.3 Search Neighborhood Design

An initial estimation for AUFE was carried out using the relevant variogram range as an estimation range limit. This was found to be too restrictive and subsequently estimates were made to a range limit of twice the variogram range.

Most domains were estimated with variable search and variogram orientations based on the local lithological and grade trends. Some domains with limited or ambiguous data were estimated using fixed orientations.

A minimum of four and maximum of 20 composites, drawn from a maximum of three drill holes, were used for estimation. This ensured at least two holes were used for estimating each block.

Grade interpolation parameters for the kriging estimators for AUFE are summarized in Table 11-24.

Table 11-24: Grade Interpolation Parameters for AUFE

Domain	Ellipsoid Ranges			Ellipsoid Directions			Variable Orientation	Number of Samples		Drill Hole Limit
	Max (m)	Intermediate (m)	Min (m)	Dip	Dip Azi.	Pitch		Min	Max	Max Samples per Hole
Fault block 1: Base limestone	24.99	24.99	14.02				Variable Orientation	4	20	3
Crosscut west	40.23	31.09	14.02	76.32	32.41	129.1422	None	4	20	3
Fault block 1: East stock dike 1	54.86	48.16	23.77				Variable Orientation	4	20	3
Fault block 1: East stock dike 3	54.86	48.16	23.77				Variable Orientation	4	20	3
East stock	56.08	48.16	23.77	88.7	261.51	115.74	None	4	20	3
Fault block 1: Hav Basalt	108.51	59.74	37.19				Variable Orientation	4	20	3
Main dike	54.86	48.16	23.77				Variable Orientation	4	20	3
Mike’s dike	54.86	48.16	23.77				Variable Orientation	4	20	3
Fault block 1: Overburden	74.98	51.82	10.06				Variable Orientation	4	20	3
Fault block 2: Overburden	60.96	59.74	32.92				Variable Orientation	4	20	3
Sandy unit	60.96	51.82	32.92				Variable Orientation	4	20	3
Fault block 1: Upper sed unit	82.91	40.23	23.16				Variable Orientation	4	20	3
Fault block 2: Upper sed unit	78.03	59.74	37.19				Variable Orientation	4	20	3
West dike 1	54.86	48.16	23.77				Variable Orientation	4	20	3
West dike 2	54.86	54.86	24.38				Variable Orientation	4	20	3
West Stock	54.25	54.25	19.51	88.94	84.41	77.13	None	4	20	3

11.3.7.4 Cyanide Soluble Estimation

The AUFE variable was used as the primary estimation variable. To account for un-estimated blocks and dump material (assigned a value of 0.00343 g/t), a final variable AUFE was created that represents the final fire assay equivalent gold. The final cyanide soluble equivalent gold value (AUCN) was generated using the inverse of the regressions shown in Table 11-25 for each of the 14 lithology domains.

Table 11-25: Fire Assay Equivalent Regression Parameters (from AUFA and AUCN)

Lithology	Variable	Count	Length (m)	Mean (g/t)	SD	CV	Variance	Min (g/t)	Median (g/t)	Max (g/t)	Number of Pairs	Valid Pairs	a	c	R2
Base limestone	AUFA	3,015	14,935.14	0.2497	0.0457	6.2794	0.0021	0.0034	0.0343	61.5085	2,450	2,433	1.09374	0.002571	0.91913
	AUCN	2,319	11,388.95	0.1978	0.0456	7.9111	0.0021	0.0343	0.0343	59.8971					
Crosscut west	AUFA	1,374	6,830.928	0.0966	0.0086	3.0499	0.0001	0.0034	0.0343	5.1771	749	726	1.17277	0.000037	0.917686
	AUCN	1,019	5,123.043	0.1012	0.0071	2.4167	0.0001	0.0343	0.0343	4.5943					
East stock	AUCN	949	4,620.179	0.0649	0.0040	2.1211	0.0000	0.0343	0.0343	2.0229	786	784	1.0672	-0.000016	0.982123
	AUFA	881	4,283.836	0.0585	0.0042	2.4399	0.0000	0.0171	0.0343	2.1600					
East stock dike 1	AUCN	88	436.227	0.1794	0.0082	1.5670	0.0001	0.0343	0.0686	1.5086	49	34	1.13495	0.000579	0.961487
	AUFA	52	258.623	0.1157	0.0077	2.2880	0.0001	0.0034	0.0343	1.7486					
East stock dike 3	AUFA	283	1,109.509	0.1537	0.0151	3.3770	0.0002	0.0171	0.0343	9.6686	226	226	1.26656	-0.000325	0.994179
	AUCN	238	904.797	0.1344	0.0124	3.1736	0.0002	0.0343	0.0343	7.5771					
Hav Basalt	AUCN	4,041	19,159.98	0.2003	0.0284	4.8653	0.0008	0.0343	0.0686	40.6286	2,453	2,406	1.0796	0.000537	0.985003
	AUFA	3,760	17,585.86	0.1575	0.0222	4.8336	0.0005	0.0034	0.0514	24.1028					
Main dike east	AUFA	10,082	48,258.04	0.5118	0.0717	4.8008	0.0051	0.0034	0.0686	125.1085	6,826	6,665	1.06287	0.002591	0.906366
	AUCN	9,117	44,821.02	0.4572	0.0689	5.1686	0.0048	0.0034	0.0686	119.2457					
Mike’s dike	AUFA	22	110	0.0389	0.0005	0.4115	0.0000	0.0343	0.0343	0.1029	0	0			
	AUCN	5	23.475	0.3250	0.0063	0.6618	0.0000	0.1371	0.2057	0.6171					
Overburden	AUCN	10,288	51,055.82	0.1439	0.0284	6.7575	0.0008	0.0034	0.0343	40.4571	6,476	6,322	1.08635	0.000098	0.95513
	AUFA	9,285	48,244.34	0.1087	0.0254	8.0106	0.0006	0.0034	0.0343	46.7657					
Sandy unit	AUFA	27,480	133,635.8	0.2794	0.0331	4.0637	0.0011	0.0034	0.0343	125.1085	19,545	19,213	1.1628	0.000289	0.93386
	AUCN	21,128	104,860.1	0.2238	0.0263	4.0278	0.0007	0.0034	0.0343	119.2457					
Upper sed unit	AUFA	25,981	127,305.8	0.2357	0.0276	4.0136	0.0008	0.0034	0.0686	46.7657	15,078	14,483	1.20139	0.000452	0.915477
	AUCN	23,100	11,4481.1	0.2472	0.0278	3.8598	0.0008	0.0034	0.0686	39.8400					
West dike 1	AUFA	105	437.579	0.1229	0.0076	2.1258	0.0001	0.0034	0.0343	1.7829	57	55	1.03556	0.000483	0.93283
	AUCN	68	300.097	0.1199	0.0073	2.0804	0.0001	0.0343	0.0343	1.7143					
West dike 2	AUFA	18	55.066	0.0402	0.0005	0.3941	0.0000	0.0206	0.0343	0.0857	15	15			
	AUCN	15	48.053	0.0343	0	0.0000	0.0000	0.0343	0.0343	0.0343					
West Stock	AUFA	708	3,412.776	0.0402	0.0012	1.0260	0.0000	0.0034	0.0343	0.4800	444	410	1.12977	-0.00004	0.845072
	AUCN	444	2,145.632	0.0434	0.0010	0.7788	0.0000	0.0343	0.0343	0.4800					

11.3.8 Bulk Density

Table 11-26 shows density data stats by geological formation. The average density for each formation has been assigned for blocks. Lithologies with no data have been assigned to be 2.637 tonne/m^3 and in the absence of updates, the density for the dump material was assigned to be 1.779 t/m^3.

Table 11-26: Density Data Statistics

Name	Count	Mean (t/m^3)	SD (t/m^3)	CV (t/m^3)	Min (t/m^3)	Median (t/m^3)	Max (t/m^3)
Base limestone	79	2.722	0.3890	0.0331	3.088	2.724	2.495
Crosscut west	16	2.684	0.4286	0.0359	2.771	2.738	2.490
Hav Basalt	52	2.737	0.6717	0.0574	2.996	2.775	2.387
Main dike east	211	2.612	1.2500	0.1019	2.957	2.641	1.064
Overburden	7	2.426	1.1734	0.0889	2.638	2.443	2.110
Sandy unit	221	2.605	0.4138	0.0336	2.965	2.601	2.095
Upper sed unit	170	2.657	0.7354	0.0610	3.188	2.621	2.038
West dike 1	1	2.655			2.655	2.655	2.655

11.3.9 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. A mineral resource is a reasonable estimate of mineralization, considering relevant factors such as cut-off grade, likely mining dimensions, location, or continuity, that with the assumed and justifiable technical and economic conditions, is likely to, in whole or in part, become economically extractable. It is not merely an inventory of all mineralization drilled or sampled.

Based on this definition of Mineral Resources, the Mineral Resources estimated in this TRS have been classified according to the definitions below based on geology, grade continuity, and drill hole spacing.

Measured Mineral Resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of conclusive geological evidence and sampling. The level of geological certainty associated with a measured mineral resource is sufficient to allow a qualified person to apply modifying factors, as defined in this section, in sufficient detail to support detailed mine planning and final evaluation of the economic viability of the deposit. Because a measured mineral resource has a higher level of confidence than the level of confidence of either an indicated mineral resource or an inferred mineral resource, a measured mineral resource may be converted to a proven mineral reserve or to a probable mineral reserve.

Indicated Mineral Resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of adequate geological evidence and sampling. The level of geological certainty associated with an indicated mineral resource is sufficient to allow a qualified person to apply modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Because an indicated mineral resource has a lower level of confidence than the level of confidence of a measured mineral resource, an indicated mineral resource may only be converted to a probable mineral reserve.

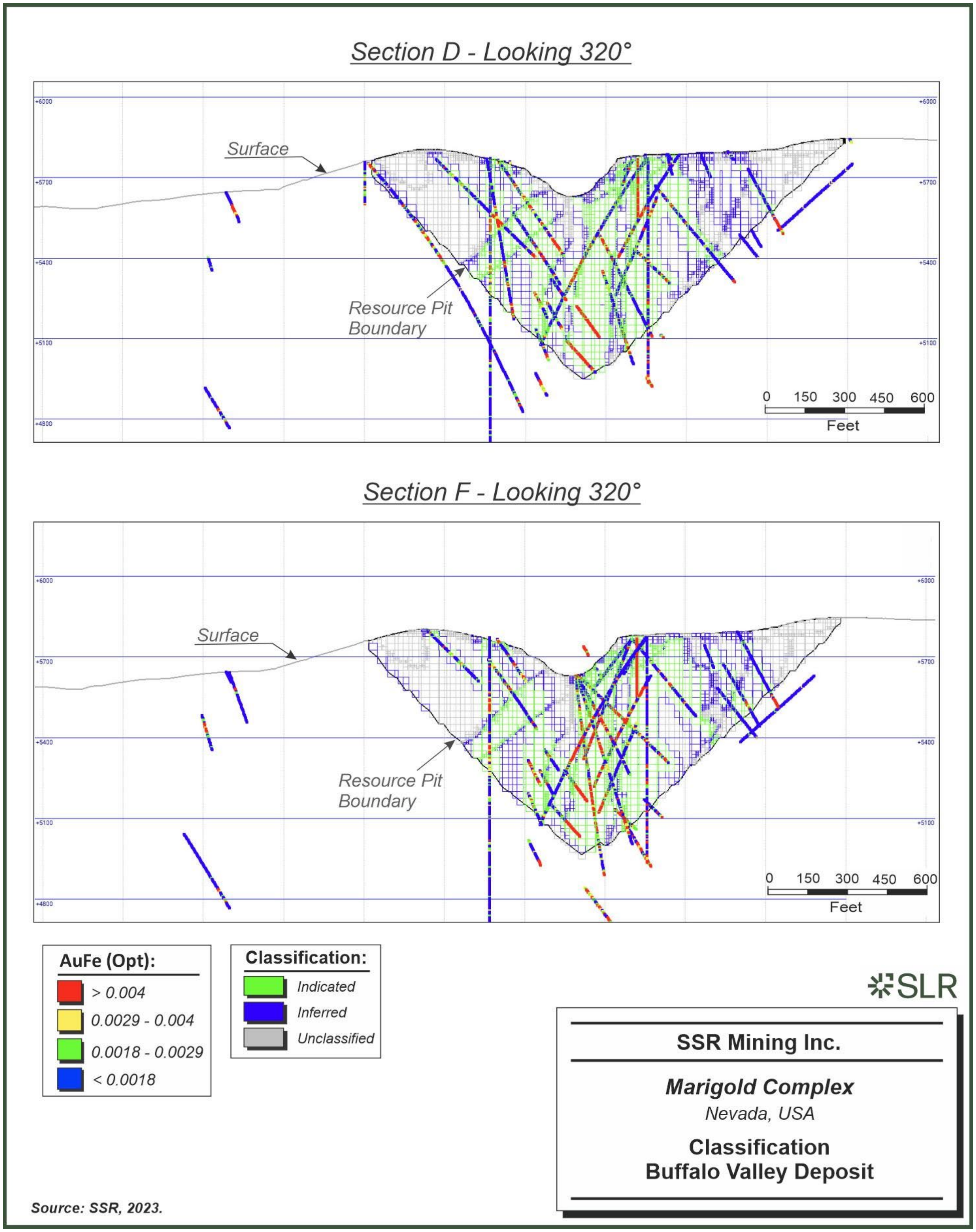
Inferred Mineral Resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. The level of geological uncertainty associated with an inferred mineral resource is too high to apply relevant technical and economic factors likely to influence the prospects of economic extraction in a manner useful for evaluation of economic viability. Because an inferred mineral resource has the lowest level of geological confidence of all mineral resources, which prevents the application of the modifying factors in a manner useful for evaluation of economic viability, an inferred mineral resource may not be considered when assessing the economic viability of a mining project and may not be converted to a mineral reserve.

Mineral Resource material was classified using criteria based on the distance to informing composites and kriging slope of regression (SoR), as summarized in Table 11-27.

Table 11-27: Classification Rules

Material	Measure	Threshold	Outcome
Mineralized Stockpile			Not in Resources
In Situ	Average distance to composites	< 46 m	Indicated
	Slope of regression factor	< (400*SoR -30)	Indicated
	SoR	>= 0.1	Inferred
	SoR	<0.1	Not in Resources

Figure 11-18: Classification – Buffalo Valley Deposit



Source: SSR, 2023.

Note: Grid in Local Mine Coordinates.

11.3.9.1 QP Comments on Classification

In the SLR QP's opinion, the classification of Mineral Resources is reasonable and appropriate for Mineral Resource disclosure and there is reasonable expectation that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

11.3.10 Estimation Validation

The Buffalo Valley block model estimates were validated using industry standard techniques including:

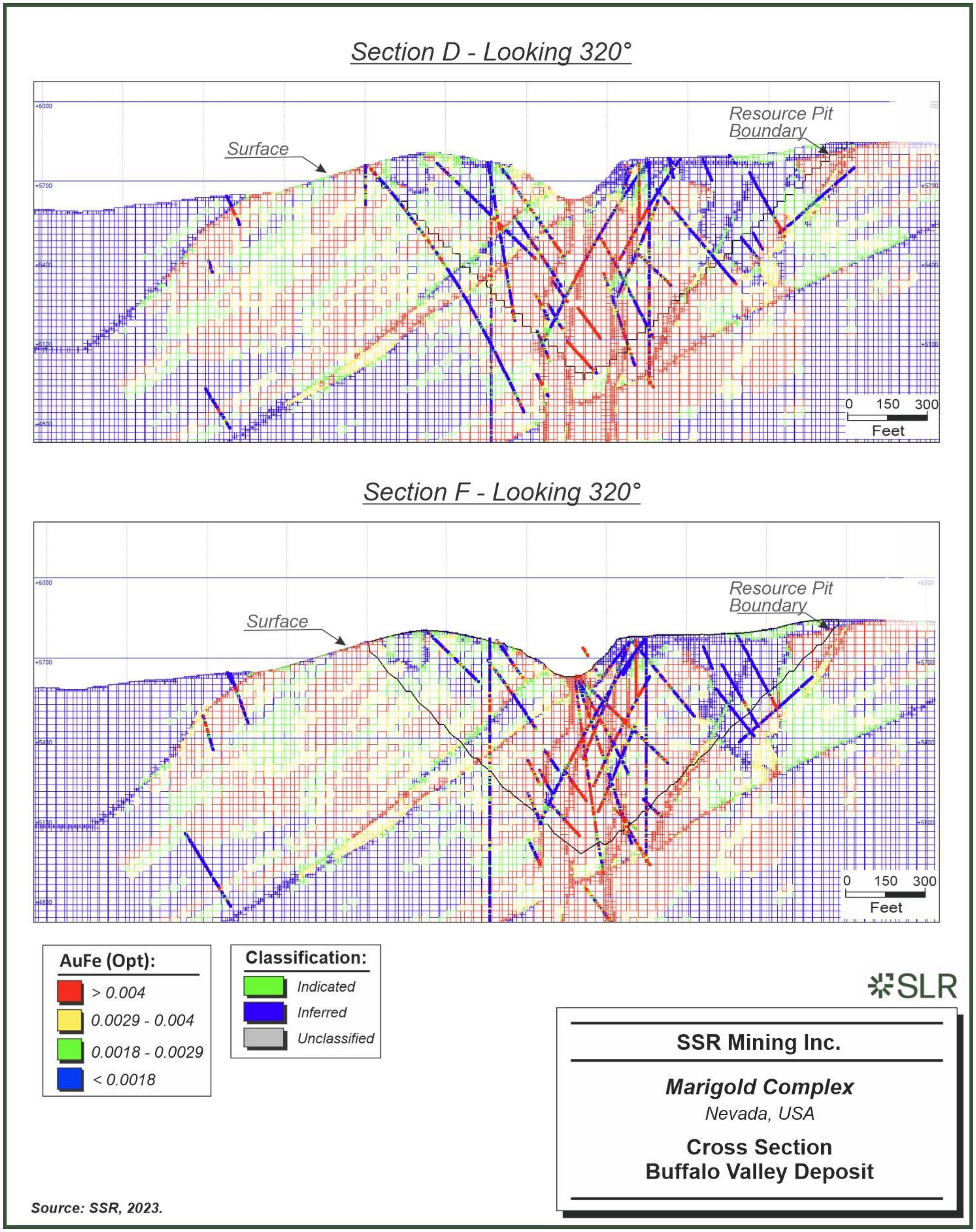
- Local validation using visual inspections on sections and plans, viewing composites versus block estimates.
- Global validation by comparison of composite statistics versus block estimates
- Local validation by comparison of average assay grades with average block estimates along different directions (swath plots)

The SLR QP found grade continuity to be reasonable and confirmed that the block grades were reasonably consistent with local drill hole composite grades.

11.3.10.1Visual Inspection

The block model estimates were reviewed by NW-SE and NE-SW sections and reasonably conform to the composite data. Examples for AUFE, in NE-SW sections, are shown in Figure 11-19.

Figure 11-19: Cross Section Buffalo Valley Deposit



Note: Grid in Local Mine Coordinates.

11.3.10.2 Estimation Statistics

The statistical summary of gold grade estimates is summarized in Table 11-28.

Table 11-28: Statistical Summary of Gold Grade Estimates (g/t)

Domain	AUFE Composites					NN Estimates				ID2 Estimates				OK Estimates			
	Count	Mean (g/t)	Variance	Min (g/t)	Max (g/t)	Mean (g/t)	Variance	Min (g/t)	Max (g/t)	Mean (g/t)	Variance	Min (g/t)	Max (g/t)	Mean (g/t)	Variance	Min (g/t)	Max (g/t)
Base limestone	3,804	0.213	0.002	0.003	60.528	0.098	0.001	0.002	17.143	0.144	0.001	0.003	15.488	0.147	0.001	0.004	8.274
Crosscut west	1,613	0.107	0.000	0.003	5.177	0.089	0.000	0.003	2.743	0.110	0.000	0.008	2.127	0.114	0.000	0.010	0.923
East stock	888	0.058	0.000	0.034	2.153	0.059	0.000	0.002	2.152	0.066	0.000	0.004	0.977	0.060	0.000	0.032	0.531
East stock dike 1	58	0.106	0.000	0.003	1.749	0.102	0.000	0.003	1.371	0.107	0.000	0.005	0.903	0.129	0.000	0.029	0.370
East stock dike 3	225	0.132	0.000	0.017	2.078	0.118	0.000	0.017	1.371	0.138	0.000	0.022	1.058	0.124	0.000	0.030	0.477
Hav Basalt	3,569	0.155	0.001	0.003	22.375	0.127	0.000	0.003	6.857	0.118	0.000	0.014	2.704	0.118	0.000	0.025	1.969
Main dike east	15,211	0.583	0.005	0.003	125.109	0.339	0.000	0.003	27.429	0.388	0.000	0.006	18.197	0.414	0.000	0.018	7.630
Overburden	10,257	0.104	0.001	0.003	39.977	0.086	0.000	0.002	13.714	0.101	0.000	0.003	7.421	0.107	0.000	0.003	4.288
Sandy unit	30,821	0.278	0.002	0.003	125.109	0.129	0.000	0.002	13.714	0.144	0.000	0.003	11.204	0.147	0.000	0.004	4.576
Upper sed unit	29,007	0.250	0.001	0.003	46.766	0.113	0.000	0.002	21.600	0.143	0.000	0.004	14.303	0.146	0.000	0.007	8.243
West dike 1	86	0.124	0.000	0.003	1.783	0.085	0.000	0.003	1.029	0.087	0.000	0.015	0.742	0.080	0.000	0.031	0.339
West dike 2	11	0.041	0.000	0.034	0.069	0.043	0.000	0.033	0.069	0.042	0.000	0.034	0.060	0.042	0.000	0.037	0.048
West Stock	825	0.038	0.000	0.003	0.480	0.030	0.000	0.002	0.206	0.035	0.000	0.005	0.170	0.036	0.000	0.009	0.106

11.3.10.3 Swath Plots

Swath plots were generated for strategic domains and for the global estimates and grade patterns they are reasonable in comparison with the composite data and alternative estimation methods (inverse distance squared and nearest neighbor).

The black line represents composite data, red = Kriged estimates, blue = inverse distance to the second power and green represents nearest neighbor. The pink histogram represents the volume.

Swath plots for AUFE estimates in the complete block model are shown in Figure 11-20 to Figure 11-22, inclusive. The red line represents Kriged estimates, blue = inverse distance to the second power and green represents nearest neighbor. The pink histogram represents the volume.

Figure 11-20: Swath Plot SW-NE for AUFE

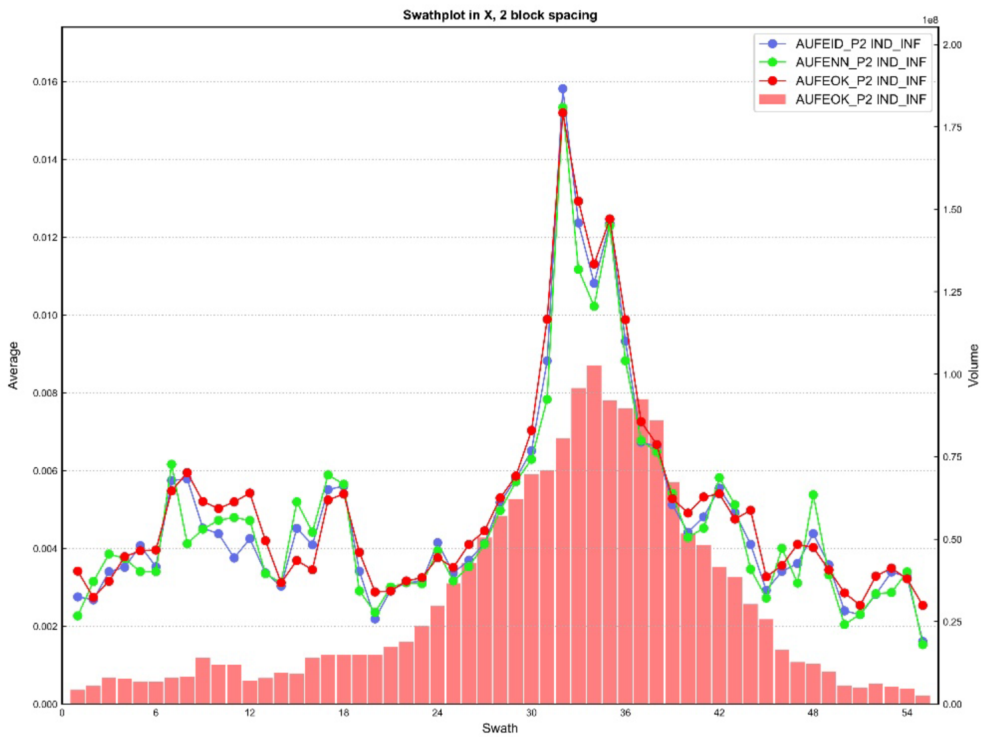


Figure 11-21: Swath Plot NW-SE for AUFE

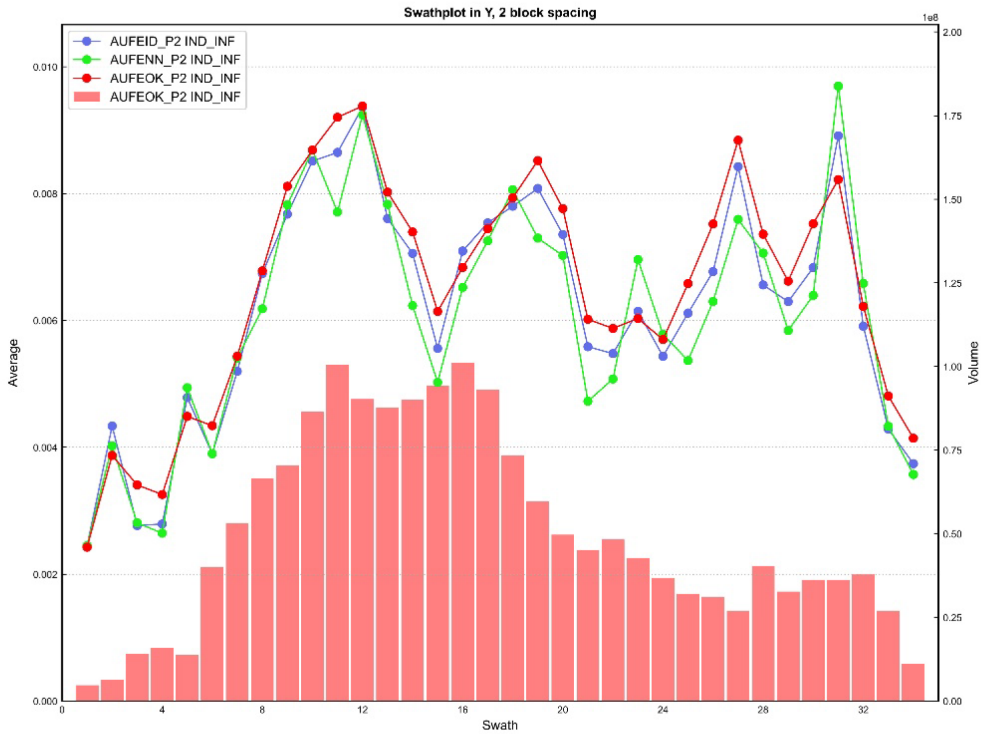
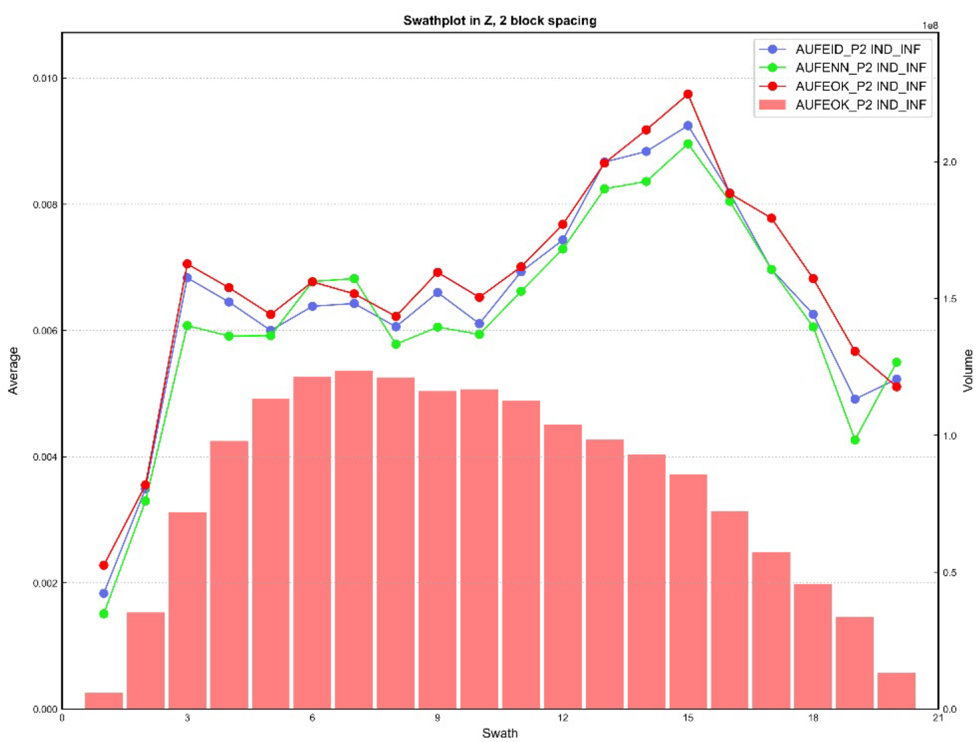


Figure 11-22: Swath Plot Elevation for AUFE



11.3.11 Prospects of Economic Extraction for Mineral Resources

Mineral resources must demonstrate reasonable prospects for economic extraction (RPEE) which generally implies that the quantity and grade estimates meet certain economic thresholds and that the mineral resources are reported at an appropriate cut-off grade taking into account extraction scenarios.

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

A reporting cut-off grade for the Buffalo Valley deposit based on assumed costs for open pit extraction and heap leach processing and commodity prices that provide a reasonable basis for establishing the prospects of economic extraction for Mineral Resources was established and reviewed by the SLR QP.

11.3.11.1Cut-Off Grade Estimation with Whittle Parameters

Mineral Resources for Buffalo Valley were calculated based on a Whittle optimized pit using a regularized block model set to the parent block size of 7.62 m in the X (across strike) by 7.62 m in the Y (along strike) by 7.62 m in the Z (vertical) at cut-off grades based on lithology type (CSHF=0.279 g/t gold, GRNST = 0.184 g/t gold, INT = 0.134 g/t gold, and SHF = 0.158 g/t gold, factored for recovery, royalty, and net proceeds I) using an assumed gold price of $1,750/oz. Input parameters for the Whittle pit optimization are provided in Table 11-29.

Table 11-29: Buffalo Valley Resource Pit Parameters and Cut-off Grades

Parameters(5)	Unit	Material Type(6)			
		CSHF(1)	GRNST(2)	INT(3)	SHF(4)
Gold Price	**US$/oz**	**1,750**	**1,750**	**1,750**	**1,750**
Gold Sales, Insurance, Legal and Social	US$/oz	0.00	0.00	0.00	0.00
Royalties	US$/oz	50.00	50.00	50.00	50.00
Total Selling Cost	**US$/oz**	**50.00**	**50.00**	**50.00**	**50.00**
Processing Au Recovery	%	36.2%	54.9%	75.3%	63.8%
Payable Au	%	100.0%	100.0%	100.0%	100.0%
Mining Dilution	%	1.00	1.00	1.00	1.00
Processing Cost	US$/t ore	4.35	4.35	4.35	4.35
Rehandling Cost	US$/t ore	0.00	0.00	0.00	0.00
Operational Support (G&A)	US$/t ore	1.16	1.16	1.16	1.16
Total	**US$/t ore**	**5.51**	**5.51**	**5.51**	**5.51**
Cut-off Grade – Marginal	g/t	0.279	0.184	0.134	0.158

Parameters[5]	Unit	Material Type[6]			
		CSHF[1]	GRNST[2]	INT[3]	SHF[4]
Mining Cost	US$/t mined	2.92	2.92	2.92	2.92
Cut-off Grade- Full	g/t	0.426	0.281	0.205	0.242

Note:

1. CSHF – Calc-silicate hornfels
2. GRNS – Greenstone
3. INT – Intrusive
4. SHF – Siliceous hornfels
5. Cut-off grade calculated for all material types using 2023 parameters assuming new equipment.
6. All material types are assumed to be crushed.

The gold price of $1,750/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 Resource cut-offs. The Marigold Mineral Resource is assumed to be mined by open pit.

By definition, the estimation of Mineral Resources has considered environmental, permitting, legal, title, taxation, mining, metallurgical, infrastructure, socio-economic, marketing, and political factors and other constraints, as discussed in various sections of the TRS.

11.3.12 Mineral Resource Reporting

Mineral Resources are reported from Vulcan software based on the regularized block model used in the Whittle pit optimization. SLR is unaware of any current environmental, permitting, legal, title, taxation, socio- economic, marketing, political, or other relevant factors that could materially affect the Mineral Resources estimate for Marigold (exclusive of Mineral Reserves) as of July 31, 2023, presented in Table 11-30.

Table 11-30: Details of Buffalo Valley Mineral Resources Estimate Exclusive of Mineral Reserves as of July 31, 2023

Category	Tonnes (Mt)	Grade (g/t Au)	Contained Metal (Moz Au)	Cut-off Grade (g/t Au)	Metallurgical Recovery (%)
Measured	-	-	-	-	-
Indicated	14.89	0.57	0.27	0.134 to 0.279	62.7%
Total Measured + Indicated	**14.89**	**0.57**	**0.27**	0.134 to 0.279	**62.7%**
Inferred	8.77	0.51	0.15	0.134 to 0.279	64.6%

Notes:

1. The Mineral Resource estimate was prepared in accordance with S-K 1300 definitions.
2. The Mineral Resource estimate is based on an optimized pit shell at cut-off grades based on lithology type (CSHF=0.279 g/t gold, GRNST = 0.184 g/t gold, and INT = 0.134 g/t gold, factored for recovery, royalty, and net proceeds), with a gold price assumption of $1,750/oz.

3. Bulk densities (in t/m^3) were assigned by lithology ranging from a low of 2.426 (Overburden) to a high of 2.737 (Basalt) with a weighted average of 2.63.
4. The Mineral Resources estimate is reported below the as-mined surface as of July 31, 2023, and is exclusive of Mineral Reserves.
5. The point of reference for Mineral Resources is the entry to the carbon columns in the processing facility.
6. Mineral Resources are reported exclusive of Mineral Reserves.
7. SSR has 100% ownership of the Property.
8. All ounces reported represent troy ounces, and g/t represents grams per metric tonne.
9. Totals may vary due to rounding.

11.3.13 Comparison with Previous Estimate

There is no comparison to previous resource estimates as this is the initial MRE for the Buffalo Valley deposit.

11.3.14 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 modeling, and estimation. There are sources of uncertainty in the MRE at the Buffalo Valley deposit 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.

11.3.15 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 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.

12.0 Mineral Reserve Estimates

12.1 Summary

The Mineral Reserve estimate (MRE) for Marigold, as of September 30, 2023, was completed by the site technical department, and is presented in Table 12-1.

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 the U.S. Securities and Exchange Commission (US SEC) Regulation S-K subpart 1300 rules for Property Disclosures for Mining Registrants (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 MRE to the level of classification assigned.

The SLR QP considers the resource cut-off grade and Whittle pit shapes guide to identify those portions of the MRE that meet the requirement for the 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 MRE 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.

Table 12-1: Summary of Marigold Mineral Reserves Estimate as of September 30, 2023

	Proven		Probable		Total			Cut-off Grade (g/t)	Metallurgical Recovery (%)
	Tonnage (Mt)	Au Grade (g/t)	Tonnage (Mt)	Au Grade (g/t)	Tonnage (Mt)	Au Grade (g/t)	Contained Gold (Moz)		
In Situ	–	–	154.7	0.51	154.7	0.51	2.54	0.069	74.2
Stockpile			20.1	0.14	20.1	0.14	0.09	0.069	76.8
Leach Pad Inventory							0.35		70.6
Total	**–**	**–**	**174.8**	**0.47**	**174.8**	**0.47**	**2.98**	**0.069**	**73.8**

Notes:

1. The Mineral Reserve estimate was prepared in accordance with S-K 1300 definitions.
2. The Mineral Reserve estimate is based on a metal price assumption of $1,450/oz gold and is reported at a cut-off grade of 0.069 g/t payable Au (Au assay factored for recovery, royalty, and net proceeds).
3. No mining dilution is applied to the grade of the Mineral Reserves. Dilution intrinsic to the Mineral Reserves estimate is considered sufficient to represent the mining selectivity considered.
4. Bulk densities (in t/m^3) were assigned by lithologies: alluvium = 2.10, Havallah = 2.48, Valmy/Antler = 2.4076+(0.0001*DEPTH), and Valmy = 2.64. For Buffalo Valley, bulk densities (in t/m^3) were assigned by lithology ranging from a low of 2.426 (Overburden) to a high of 2.737 (Basalt) with a weighted average of 2.63.
5. The Property is 100% owned by SSR through its subsidiary MMC.
6. Metals shown in this table are the contained metals in ore mined and processed.
7. All ounces reported represent troy ounces, and g/t represents grams per metric tonne.

8. Stockpiles, included in previous disclosures as In situ, have been reported as a separate line item to clearly differentiate the ore source.
9. Totals may vary due to rounding.

The SLR QP is unaware of any current environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Reserves estimate as of September 30, 2023.

This section describes the methodology and parameters used to estimate the Mineral Reserves for Marigold. The Mineral Reserves estimate as of September 30, 2023, considers all information used in the Mineral Resources estimate as of September 30, 2023, as presented in Section 11.

12.2 Conversion to Mineral Reserves

Mineral Reserves have been classified in accordance with the U.S. Securities and Exchange Commission (US SEC) Regulation S-K subpart 1300 rules for Property Disclosures for Mining Registrants (S-K 1300). The Mineral Reserves estimate is summarized in Table 12-1.

Pit optimizations were run on the Mineral Resources cell model using Pseudoflow algorithm to generate optimal pit limits based on block value at a range of gold prices.

The ultimate pits and subsequent phase designs were developed from the $1,450/oz optimization runs. The gold price assumption was based on an internal assessment of recent market prices, long-term forward curve prices, and consensus among analysts regarding price estimates.

Interramp angles (IRAs) for the final pit design are 37° in mined fill and range between 45° and 49° in rock.

Mining costs are based on historical values and budgeted costs that include an incremental haulage component using estimated haul cycle times and pit depths. Processing and general and administrative (G&A) costs were estimated based on historical values and budgeted costs. Estimated sustaining capital costs, royalties, severance taxes, and reclamation costs were also included in the optimization costs.

The Mineral Reserves for Marigold were estimated using the as-mined surface at September 30, 2023, with the following assumptions and parameters:

- There are no Measured Resources in the Mineral Resources model. Indicated Mineral Resources within the final pit design are converted to Probable Mineral Reserves. Inferred Mineral Resources are not considered in the Mineral Reserves estimation.
- The mining recovery is 100% within the pit design.
- The Mineral Resources were not diluted (see Section 11 for reconciliation data). Internal dilution included in the Mineral Resource estimate is considered adequate.
- The Mineral Reserves estimate assumes that mining operations will continue to use the current Marigold mining methods, as described in Section 13.
- The estimated cut-off grade was 0.002 opt payable Au or 0.069 g/t payable Au (Au assay factored for recovery, royalty, and net proceeds).
- The leach pad inventory of 0.346 Moz Au is included in the Mineral Reserves, in addition to the material that is placed on top of the leach pads.

12.2.1 Stockpiles

On the surface of the mining phase areas 8S Extension (8Sx), M7, and M9 are historical WRSA from material mined during the late 1990s and early 2000s when cut-off grades were higher than the current cut-off grades. While drilling the HideOut and 8Sx targets, samples from these WRSA were also assayed for gold, with a majority of these samples returning gold values higher than the current cut-off grade.

To confirm the grades, 37 sonic drill holes were drilled in 2016. These drill holes confirmed the gold grades in the historical WRSA, herein called “mineralized stockpiles” or “stockpiles”. In the previous TRS (OreWin, 2022), this material was included in the Mineral Reserves as “In situ” material.

In this TRS, the “stockpiles” are reported separately from the “In situ” material.

12.3 Cut-Off Grade

The estimated cut-off grade for Mineral Reserves was based on a $1,450/oz gold price. The gold price of $1,450/oz was selected following current industry guidelines and corporate strategy. The metal price is representative of the range of price estimates publicly reported for Mineral Reserve cut-offs. Factors used to estimate the cut-off grade are outlined in Table 12-2, and include refining charges, royalties, and net proceeds tax. Operating costs were based on historical costs and budgeted estimates.

An average recovery rate of 73.8% was used to estimate the cut-off grade based on the average of model recoveries from the 2023 LOM Plan.

Table 12-2: Key Economic Parameters for Mineral Reserves Estimate

Parameters	Unit	Value
Gold Price	US$/oz	1,450
Gold Sales, Insurance, Legal and Social	US$/oz	Included in AUPAY[1]
Royalties	US$/oz	Included in AUPAY[1]
Total Selling Cost	**US$/oz**	**Included in AUPAY[1]**
Processing Au Recovery	%	Included in AUPAY[1]
Payable Au	%	100.0%
Mining Dilution	%	1.00
Processing Cost	US$/t	2.25
Rehandling Cost	US$/t	0.00
Operational Support (G&A)	US$/t	1.23
Total	**US$/t**	**3.48**
Marginal Cut-off Grade	g/t	0.075
Rounded Cut-Off Grade[2]	g/t	0.069

Notes:

1. The cut-off grade is calculated based on the AUPAY variable from the Mineral Resource Block Model. The processing recovery is considered to be 100% since the AUPAY variable has already accounted for the Process Recovery, Refining Charges, Royalties and Net Proceeds Tax.

2. The currently used Assay Equipment (Agilent 240FS AA) has a three decimal precision, rounding the last number where relevant. This results in the cut-off being rounded down to 0.002 opt (0.069 g/t).
3. The Processing Cost includes sustaining capital and full site reclamation costs.
4. The Mining Costs are based on historical values, coded into a script using a Python library to calculate costs

12.4 Royalties, Net Proceeds and Excise Tax

NSR royalty payments vary between 0% and 10% of the value of production net of off-site refining costs, which is equal to an annual average range of 3.7% to 10% and a weighted average of 7.8% over the LOM.

The State of Nevada imposes a yearly tax on the net proceeds of all mining operations conducted within the state, plus a yearly property tax on all fixed and mobile equipment used by the mining operation. The net proceeds tax is based on the income from the sale of all products from the mine minus: the royalties; mine, plant, and administration expenses sourced in the State of Nevada; development expenses paid during the year; prescribed depreciation of tangible assets according to set, pre-defined classifications contained in state regulations; and reclamation expenditures incurred during the year of the tax. A net proceeds tax of 5% was applied to the Mineral Reserves estimation.

In 2021, the State of Nevada enacted Assembly Bill 495, effective July 1, 2021, which is an annual excise tax on gold and silver revenue. Under the bill, the tax rates vary based on the taxpayer's Nevada gross revenue. A 0.75% rate is imposed on Nevada gross revenue of more than $20 million, however, not more than $150 million in a taxable year (defined as the calendar year). A rate of 1.10% applies to Nevada gross revenue exceeding $150 million in any tax year. The LOM average rate for Marigold is approximately 0.9%.

12.5 Dilution

No mining dilution was applied to the grade of the cells. Dilution intrinsic to the Mineral Resources model is considered sufficient to represent the stated mining selectivity.

12.6 Mining Recovery

Mining recovery was assumed to be 100% of the Indicated Mineral Resources. Inferred Mineral Resources were assigned as waste.

12.7 Comparison with Previous Estimates

The Mineral Reserve estimate has been compared to the previous December 31, 2022 Mineral Reserve estimate as reported in SSR's 2022 Form 10-K filing (SSR, 2023), which was based on the EOY 2022 pit surface. Comparison of the current Mineral Reserve with the 2022 Mineral Reserve shows a net decrease in contained gold of 0.176 Moz (-6%) in the Proven and Probable categories. Changes have occurred from mine depletion, infill drilling results, Resource model updates, and design changes.

12.8 QP Opinion

The SLR QP reviewed the assumptions, parameters, and methods used to prepare the Mineral Reserves Statement and is of the opinion that the Mineral Reserves are estimated and prepared in accordance with the U.S. Securities and Exchange Commission (US SEC) Regulation S-K subpart 1300 rules for Property Disclosures for Mining Registrants (S-K 1300).

The total Probable Mineral Reserves at the Marigold mine are estimated to be 174.8 million tonnes grading 0.47 g/t Au containing 2.98 Moz Au. The Marigold Mine Mineral Reserves support a LOM over 16 years of operational life, including ten years of active mining followed by an additional six years of processing the heap leach pad inventory which contains 346 koz of gold.

13.0 Mining Methods

Marigold uses standard open pit mining methods with a LOM sustained mining rate of approximately 260,000 tpd.

Loading operations are currently performed using one electric shovel and three hydraulic shovels. Waste and ore haulage is performed with a fleet of 280 t payload primary haul trucks.

The mine conducts conventional drilling and blasting activities with a free face trim row blast to ensure stable wall rock conditions. Electronic detonators are used to control the timing of the blasthole detonation.

Drilling and blasting occur on benches with a height of 15.2 m. One grade control sample is taken from each blasthole with the sub-drilling excluded. Mining occurs on the full bench height (15.2 m) when pre-stripping waste or mining ore areas with the electric shovel. When using the smaller hydraulic shovels, mining is done on a bench height of 7.6 m to minimise the dilution that would otherwise occur from dozing a 15.2 m high face to these smaller shovels. Blasting is done with an ammonium nitrate and fuel oil (ANFO) blend and a sensitized ANFO emulsion. The ore control mark-out procedure includes blast movement analysis for 90% of ore production blasts.

The Marigold geotechnical management plan (GMP) includes highwall monitoring using three radar systems which provide full coverage for the Mackay pit, which is the largest pit, or which can be deployed in the smaller pits, if required. Routine monitoring of WRSA, leach pads, and inactive pits using INSAR (interferometric synthetic-aperture radar) data is performed by a third party on a monthly basis.

Equipment maintenance is performed on site for all equipment. There are no contract mining operations on site, other than for blasting as detailed in Section 13.7.

13.1 Geotechnical, Hydrological, Pit, and Other Design Parameters

Historically, Marigold pits have been designed with IRAs at 48° to 50°. The primary rock, a quartzite in the Valmy Formation, dips in a westerly direction at 40° to 70°. The east highwall, which has rock dipping out of the face, is designed at 45° to 47°. The west highwall, which has rock dipping favorably into the face, is designed at 50°. Achieved IRAs range between 48° and 50°. Because many of the interim and final pit walls are within the Valmy Formation, the steeper 50° angle is thought to be achievable for pit designs within the same rock unit (Knight Piésold, 2014). Call & Nicholas, Inc. (CNI) consultants perform an annual audit of activities and provide guidance if any issues arise with slope stability. A 2019 CNI Slope Stability Study of the Red Dot design based on the results of a 2018 geotechnical core drilling program recommended flattening the slope of the west wall of Red Dot to 47° to 49° and the east wall to 45°. The results of this study were used to inform the ultimate pit design for the Mackay / Red Dot pit.

The Marigold GMP was implemented in 2011. The GMP is continually updated with information as mining progresses.

In 2012, a robotic highwall monitoring station was installed at a primary mining location to survey prisms placed strategically on highwall catch benches. The survey instrument was replaced with a highwall radar monitoring system in 2015, a second system was added in 2017, and a third system in 2019. These allow for 360° monitoring of highwalls in the Mackay pit or multiple areas within other pits. These three radar systems provide coverage 24 hours per day. Threshold values with respect to movement are programmed into the system. If these values are exceeded, notifications are sent across the wireless network to the dispatch control center and to the geotechnical team. If the movement is significant, the notifications are sent to senior management.

Mining below the regional water table commenced in 2020 using a combination of in-pit sumps and emulsion blasting as short-term solutions, pending the completion of permitting and construction of primary dewatering facilities. The Plan of Operations Amendment approved in 2019 permitted dewatering to allow mining below the water table. The mine dewatering plan is discussed in Section 13.10.

Haul road and ramp widths are designed for two-way traffic that accommodates 280 t class haul trucks. The total road width, including berms and ditches, is 36.4 m. The roads follow topography external to the pit and do not exceed a 10% grade. Ramps inside the pits are also designed at a 10% maximum grade.

Waste rock is placed in lifts of 15.2 m to 45.5 m high, with benches left on the outside edges to accommodate the final WRSA 3:1 slope design. There have been no WRSA stability issues on the Property. Sufficient storage capacity for waste rock material have been identified to support the mining production and LOM.

The leach pad is built with lifts of 6.1 m to 12.2 m high, with benches left on the outside edges for a final 3:1 slope pushdown. The leach pad is permitted to a 121.2 m height above the plastic liner at the base. As each new leach pad cell is designed and permitted, a geotechnical analysis is completed. There have been no leach pad stability issues on the Property.

13.1.1 Open Pit Geotechnical Reports Review

A review of previous geotechnical studies was conducted in 2021 to confirm that studies completed to that point were appropriate and to identify any gaps or areas of residual concern, (PSM, 2021).

The following reports for Marigold were provided and form the basis of the review:

- 2018 – NI 43-101 Technical Report on the Marigold Mine (July 31, 2018)
- 2019 – CNI Slope Stability Study of the Red Dot design
- 2021 – CNI site visit recommendations
- 2021 – CNI analysis of soil slopes
- 2021 – Piteau Associates (Piteau) Mackay pit dewatering system design

The reports listed above do not represent all the data that may be available, particularly in view that mining has been ongoing since 1988. Moreover, the 2018 NI 43-101 Technical Report on the Marigold Mine indicates Knight Piésold involvement in 2014 and with CNI involvement since 2015.

13.1.1.1 Overview of Geotechnical Report Review

PSM (2021) offered the following comments regarding perceived gaps in the geotechnical reporting for the Marigold open pit:

- The CNI stability analyses of the overall slopes are considered to have an element of conservatism owing to the approach in assigning rock mass strengths and utilizing a linear Mohr-Coulomb strength envelope. With use of Hoek & Brown strengths, higher factors of safety (FOS) for overall slopes could be anticipated in some areas.

- Further consideration of the potential impact of faults on large scale pit wall stability was recommended. The stability assessments did not address the potential impact of the following:
    - Thrust faults dipping moderately to the east on western pit walls
    - Potential wedges between faults parallel to the primary bedding fabric
    - Faults dipping steeply to the east which can form shallow wedges plunging to the south and which may impact the north wall once below the water table, where pore pressures may influence wedge stability.
- The CNI batter face angle and berm width designs, without appropriate consideration of blasting, were not considered sound. Such designs, with proposed batter face angles (BFA) nominally 10° steeper than typically achieved, would potentially allow loose material to fall whilst faces are being dug and also result in berms being filled with rill. It may be more effective to either dig batters to nominally 63° and have berm widths closer to design or presplitting to achieve BFA above 70° where steeper IRA can be considered (south and west walls) and which could also consider double benching.
- There were limited concerns regarding WRSA and leach pads as these are developed with 3H:1V (approximately 18°) overall angles and neither have presented stability issues on the property.

The current operations at Marigold Mine mostly focus on the interim pit phases. Little final highwall has been created in the Mackay Pit area over the last few years with notable exception of the east wall, which has a lower IRA due to expected west dipping bedding conditions. The vast majority of the west interim walls are designed shallower than the 47 to 48 degree overall slope angle (OSA), and blasting typically uses a production presplit pattern. However, in mining the first few benches, trim shots are used to protect the integrity of the ramp.

The batter compliance data is skewed by delay in the compliance measurements, which occur later after mining has advanced through the area. However, in practice much of the rill is mined out by shovel mining with dozer support as required. Also, trim blasting is reserved for final highwalls.

13.1.2 Pit Optimizations and Designs

Pit optimizations and subsequent pit designs were completed by Marigold personnel in September 2023 using the current Mineral Resources estimate.

Optimizations used the Pseudoflow algorithm. Marigold personnel developed operating mining costs for the existing mining fleet during the pit optimization process. Ore and waste haulage costs were incorporated into the cell model. The mining cost for the pit shells was based on the total mining cost net of haulage mining costs, which are presented in Table 12-2.

The ROM leach recovery model, as developed by SSR, was also incorporated into the Mineral Resources cell model. To facilitate the calculations and the Mineral Resources tabulations, variables were incorporated into the model for recovered gold [gold x recovery] and payable gold [gold x recovery x (1–royalty)]. Payable gold cut-off grades were established at 0.069 g/t Au and 0.104 g/t Au, respectively, for incremental cut-off and breakeven cut-off. Incremental cut-off is based on pit rim routing, so the only mining cost change is the increment between the ore and waste mining costs. Breakeven cut-off includes the ore mining cost.

The mining costs for the evaluation include sustaining capital costs as well as costs associated with the Marigold analytical laboratory as most of the on-site laboratory work involves assaying production blastholes for ore control. The processing costs also include sustaining capital and the full site reclamation costs.

Overall slope angles used in the optimization are presented in Table 13-1.

Table 13-1: Overall Slope Angles by Azimuth

Pit	Slope Angle (Degrees)
Area 1: Red Dot / Mackay / Terry Zone (TZ) / 8Sx	
Area 1 – All Pits in Reserves	47.0–49.0
East Wall Mackay	45
Fill Material	35
Area 2: Valmy N / Valmy S / Mud	
Area 2 – All Pits in Reserves	47.0–49.0
West Wall	45.0
Fill Material	35.0
Area 3: East Basalt / Battle Cry	
Area 3 – All Pits in Reserves	47.0–49.0
East Wall	45.0
Fill Material	35.0–38.0

Notes:

1. Area 1: Created a 90 degree envelope at 45 degree IRA to account for the shear zone
2. Area 2: Created a 30-degree envelope North and South at 45 degree IRA for the shear zone running through Valmy North and Valmy South
3. Area 3: Exploration encountered Tuff in the region, leading to a flatter 38 degree slope in certain areas.

Several pit optimizations were run at different gold prices. The $1,450/oz gold price pit shell was selected as a guide to develop the ultimate pit and subsequent pit phase designs.

Geotechnical review recommendations provided by Knight Piésold (2014) and confirmed by CNI on pit slope geometry were incorporated into the pit designs. Berm/catch bench widths range from 7.2 m to 8.2 m in rock and from 7.2 m to 15.4 m in fill and are designed for every 15.2 m bench height.

13.2 Pit Phases and Timing

The pit optimization for the LOM plan used a Pseudoflow algorithm with an internal recoverable gold value of 0.069 g/t. The optimized pit was built into an ultimate pit design that includes access and takes into account geotechnical considerations for designed highwall angles.

The overall design has three distinct areas: the main Mackay pit (includes the Red Dot area), the North Mackay pits, and the Valmy area pits. Figure 13-1 shows the end of mine life reserve pits.

The Mackay ultimate pit is an expansion, consolidation, and deepening below the water table of four existing pits into a single pit of approximately 4.6 km long, 1.8 km wide, and 430 m deep. It contains more than 60% of the mineral reserve tonnage. For sequencing purposes, the ultimate pits are designed into 15 logical development stages.

Tonnages for each mining phase are shown in Table 13-2.

Table 13-2: Mining Phase Design Summary

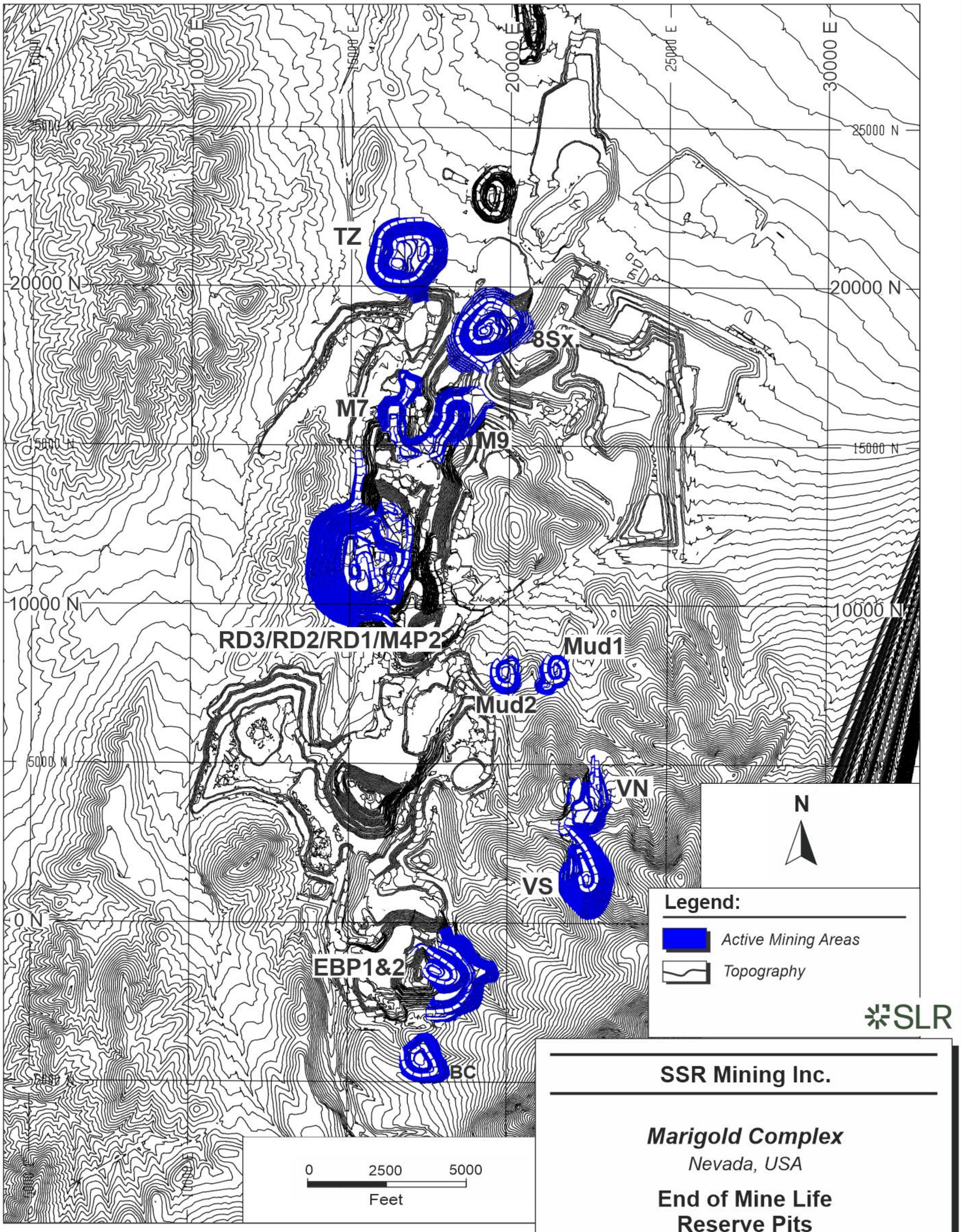
Phase Name	Ore (kt)	Waste (kt)	Strip Ratio
8Sx[1]	16,813	61,890	3.7
TZ	18,026	99,901	5.5
M4P2a	3,041	5,437	1.8
M4P2b	760	1,000	1.3
M7[1]	6,288	12,687	2.0
M9[1]	11,552	28,114	2.4
RDP1a	8,547	60,497	7.1
RDP1b	8,625	20,223	2.3
RDP2a	2,197	39,922	18.2
RDP2b	14,165	23,989	1.7
RDP3a	-	15,128	-
RDP3b	-	12,383	-
RDP3c	32	15,571	485.1
RDP3d	47	15,556	334.4
RDP3e	597	16,293	27.3
RDP3f	1,420	11,826	8.3
RDP3g	5,749	6,427	1.1
RDP3h	4,008	4,714	1.2
RDP3i	8,428	2,540	0.3
RDP3j	10,253	5,011	0.5
RDP4c	7,052	7,497	1.1
RDP4f	2,737	794	0.3
RDP4e	3,905	977	0.3
RDP4d	5,987	1,506	0.3
RDP4a	403	44,308	110.0
RDP4b	1,932	19,872	10.3
EB1	4,471	52,205	11.7
EBP2	6,286	14,553	2.3
Battle Cry (BC)	3,569	20,971	5.9

Phase Name	Ore (kt)	Waste (kt)	Strip Ratio
Mud1	1,311	6,403	4.9
Mud2	958	4,856	5.1
VN	5,138	11,395	2.2
VS	10,502	54,806	5.2
Total	**174,798**	**699,269**	**4.0**

Notes:

4. Includes Stockpile Ore Material mined from the different Pit Phases

Figure 13-1: End of Mine Life Reserve Pits



Source: SLR, 2023.

Note: Grid in Local Mine Coordinates.

13.3 Production Rates, Mine Life, Dimensions and Dilution Factors

Mining is scheduled 24 hours per day, 363 days per year on a rotation of two 12-hour shifts. The current mine plan provides 16 years of operational life, including ten years of active mining followed by an additional six years of processing the heap leach pad.

In order to meet near-term LOM production rates, the existing shovel fleet of four units will be maintained by deferring retirement of the smaller EX5500 hydraulic shovel to 2028. The haul fleet averages 25 x 280 t class units and will peak at 28 trucks. Short term variations in mine fleet requirements are managed by delaying retirement of older units when they are scheduled to be replaced. The average sustained total material mining rate is 103.5 Mtpa over the first eight years of the remaining ten year mining life while ore delivery to the ROM leach pad is at an average annual rate of 19.6 Mt. Average payable gold production over the nine years of full production is approximately 212,000 ounces per year. In general, ore will be mined on 15.2 m benches.

The mineralized zones are structurally controlled and strike in a generally northern direction. They vary in width throughout the Property from one meter or less up to 40 m long and 49 m wide. In the LOM model, there is no dilution or mining loss added to the Mineral Reserves for planning and scheduling. Based on the chosen mining method and size of equipment used, dilution intrinsic to the Mineral Resource model is considered sufficient and mining recovery of 100% is considered achievable in this kind of deposit.

13.4 Stripping Requirements

The LOM strip ratio is 4.0:1. Stripping requirements are consistent over the life of the main Mackay pit area at an average strip ratio of 3.5:1. The stripping ratio for Valmy is 4.3:1, while the stripping requirements for the other two areas, Mackay North and New Millennium, are planned to be above the LOM average at 4.6:1 and 6.1:1, respectively. Table 13-3 and Figure 13-2 show the annual production schedule for the LOM, including ore tonnes mined, waste tonnes mined, and strip ratio.

The pit areas mentioned above comprise of the following pits:

- Mackay Area: Red Dot phases (RD4/RD3/RD2/RD1), Mackay M4P2, M7 and M9
- Valmy Area: Valmy North (VN), Valmy South (VS), Mud1 and Mud 2
- Mackay North Area: 8S Extension (8Sx) and Terry Zone (TZ)
- New Millennium Area: Battle Cry (BC) and East Basalt (EB1 & EB2)

Table 13-3: Annual Production Schedule Tonnes Mined

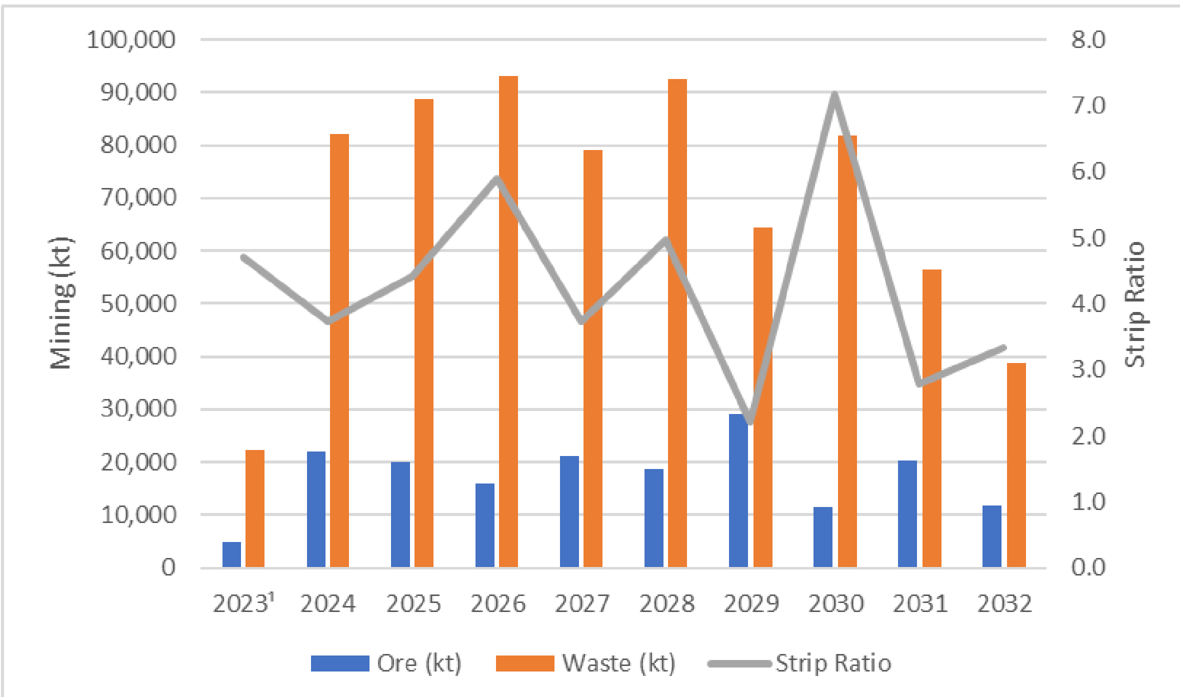
Year	Ore (kt)	Waste (kt)	Strip Ratio
2023[1]	4,730	22,297	4.7
2024	21,955	81,996	3.7
2025	20,081	88,860	4.4
2026	15,807	93,282	5.9
2027	21,113	78,970	3.7
2028	18,623	92,494	5.0

Year	Ore (kt)	Waste (kt)	Strip Ratio
2029	29,197	64,327	2.2
2030	11,369	81,720	7.2
2031	20,216	56,390	2.8
2032	11,706	38,933	3.3
Total	**174,798**	**699,269**	**4.0**

Notes:

1. 2023 totals are for the period between October and December 2023.
2. Ore mined from Stockpiles is included in the above table, resulting in a strip ratio of 4.0:1
3. Excluding the ore from stockpiles, the strip ratio will be 4.5:1
4. Totals may not match due to rounding

Figure 13-2: Mine Annual Production Schedule



Source: SSR, 2023

Notes:

1. 2023 totals are for the period between October and December 2023.

13.5 Required Mining Fleet and Machinery

The equipment list for the Marigold mining fleet is presented in Table 13-4. Capital replacement of mining equipment is scheduled throughout the LOM plan as sustaining capital when a piece of equipment reaches the end of its useful life and cannot be repaired or rebuilt economically. Sustaining capital is not planned within the last five years of the LOM plan because it is assumed that equipment life can be stretched out and replacements are difficult to justify near the end of the Property life. The sustaining capital replacement costs are included in the reserve optimization calculation costs. Capital costs are discussed in Section 18. As of the date of this TRS, MMC does not employ contract mining services, except with respect to blasting, as discussed in Section 13.7.

Table 13-4: Marigold Mining Fleet Equipment List

Number of Items	Equipment Name and Class
1	P&H 4100 XPC electric shovel
2	Komatsu PC7000 hydraulic shovels
1	Hitachi EX5500 hydraulic shovel
1	Caterpillar 992-wheel loader
7	Hitachi EH5000 300 st haul trucks
21	Komatsu 930E 300 st haul trucks
1	Caterpillar 789B haul truck
3	Caterpillar 789B water trucks
2	Ingersoll Rand DML drills
3	Atlas Copco PV271 drills
4	Caterpillar 834- and 854-wheel dozers
6	Caterpillar D10 and D11 track dozers
3	Caterpillar 16H and 18M motor graders
3	Lube / fuel trucks
1	Caterpillar 637 scraper
1	Caterpillar 789 Lowboy heavy hauler

13.6 Ore Control Drilling and Method

Blasthole sampling is used to define ore zones. A grade control sample is taken every 15.2 m of drilling. The sample is manually collected from a cross-section of the cone of drill cuttings. The procedure includes removal of the sub drill material. Ore Control personnel periodically audit the performance of the blast hole samplers and provide feedback on compliance to standard.

Benches are mined at a height of 15.2 m with an electric or hydraulic shovel in stripping and bulk ore mining areas. If ore is encountered in the stripping areas on the 15.2 m benches, it is mined at that bench height to maintain pit productivity.

Each blasthole sample is analysed for gold at the on-site laboratory facility. A cyanide digestion is performed on each sample to determine the quantity of cyanide soluble gold contained in the sample. The cyanide digestion only provides a measure of cyanide soluble gold within a sample, not total gold. At Marigold, about one in every five blasthole samples containing 0.10 g/t (historically, 0.003 opt) cyanide soluble gold is assayed for total gold content using fire assay (FA) with an AA finish. Samples from each ore polygon delineated by ore control are selected for fire assay based on the grade distribution for the polygon tonnage and targeting one sample per every 2,000 st of ore. The FA results (Au g/t) from the blastholes in the pit area, and cyanide soluble assay results (Au g/t) are used to determine a fire-assay-to-cyanide-soluble regression for the pit area. This regression is applied to all remaining cyanide soluble assays in the blast to calculate a total gold value contained in each blasthole.

Fire assay grades associated with each blasthole are entered into the grade control (blasthole) model. The blast pattern is then converted to a blasthole cell model with cell sizes of 3.05 m x 3.05 m x 7.6 m. The blasthole data is kriged using ordinary kriging (OK) in two dimensions on the bench. If there is sufficient volume above the cut-off grade to make a mineable shape of ore, this shape is blocked out and surveyed in the pit (indicated by ore flags for mining) to be sent to the leach pad for processing.

13.7 Drilling and Blasting

Blasthole drilling is performed with three Atlas Copco PV271 rigs that drill with both rotary and hammer drill bits as well as two Ingersoll Rand DML rigs that drill with hammer bits. The rigs drill 22.2 cm diameter blastholes. The PV271 rigs can drill to 16.8 m in a single pass. The DML rigs can drill to 10.4 m in a single pass.

The normal explosive is a heavy ANFO (blend of ANFO and emulsion) which is placed by a combination of both contractor and Marigold employees. An emulsion product is also used for wet holes to manage groundwater in the winter and fall and help break up the rock in areas of the pit that are more difficult to dig.

The blast patterns are adjusted for rock conditions. Typically, the patterns are 6.7 m x 7.8 m for the 15.2 m benches. To help break the toe of the bench, 1.5 m of sub drilling is added to each hole. The ore host rock generally breaks easily with blasting, and this provides a good ROM leach feed to the pad. Electronic detonators are used to control the timing of the blasthole detonation. The typical fragmentation is P_{80} 20.3 cm.

A trim blast is performed around the limits of the mining on final highwall configurations. This configuration is a four-row pattern that is shot to a free face to minimise blast damage and vibration into the highwalls. Historically, a presplit blasting pattern had been used on final highwalls to ensure good wall conditions and minimise the potential for a wall failure. A new crest and catch bench, ranging in width from 6.7 m to 9.1 m depending on the highwall angle, are formed every 15.2 vertical metres of mining.

13.8 Loading Operations

Loading operations are performed with one electric P&H 4100 XPC rope shovel with a 52.8 m^3 dipper, two diesel hydraulic Komatsu PC7000 hydraulic shovels, and one diesel hydraulic Hitachi EX5500 shovel. Double-sided loading is typically used where there is adequate working room. Digging faces are defined by ore control and are marked in the field with flags and on maps that are provided to the operators. All loading units are equipped with a high-precision digging screen that is a component of the Modular Dispatch system. The screen, located in the operator’s cab, updates in real time to show the location and grade of the ore material being mined. Dig boundaries are typically adjusted to allow for movement associated with blasting.

13.9 Hauling Operations

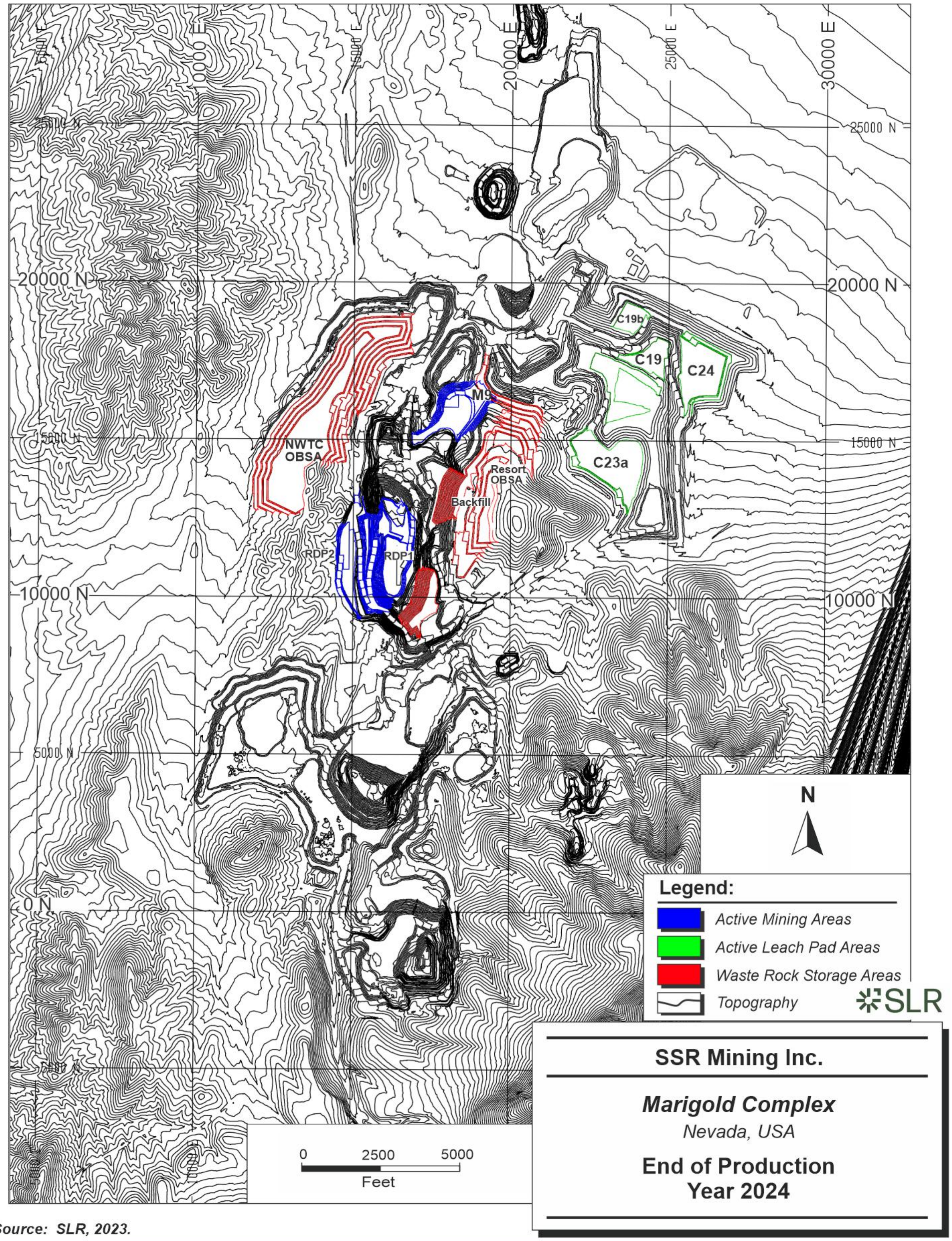
Excavated rock is loaded into haul trucks and sent to either a WRSA or a leach heap, based on the average gold grade of the material. Waste rock is hauled to the multiple waste stockpile locations or to previously mined-out areas for backfilling pits. Pit backfilling, where not mandated by permit to eliminate pit lakes in certain satellite pits, has positive impacts at Marigold: it reduces costs associated with haulage distance and helps address the lack of areas for waste rock storage space due to permitting restrictions and current land position. Backfilling plans are reviewed and adjusted to minimise the potential for sterilizing future mineralization. Minimizing the waste haulage distance to the nearest facility improves mining productivity and minimises haulage costs. Ore is hauled to the leach pad facility and stacked in lifts for processing. The year-end positions for mining and WRSA for each year of the LOM plan are presented in Figure 13-3 to Figure 13-11.

Marigold has a mixed fleet of Hitachi and Komatsu 280 t class haulage trucks for ore and waste haulage.

A Modular Dispatch system is used to optimise fleet management. Trucks are sent haulage assignments according to priorities set for the loading units and which loading unit requires a truck at that time.

Annually, from December to February, there is snow, fog, and freezing temperatures at the Property. However, there is a minimal amount of haulage downtime due to the weather in most years.

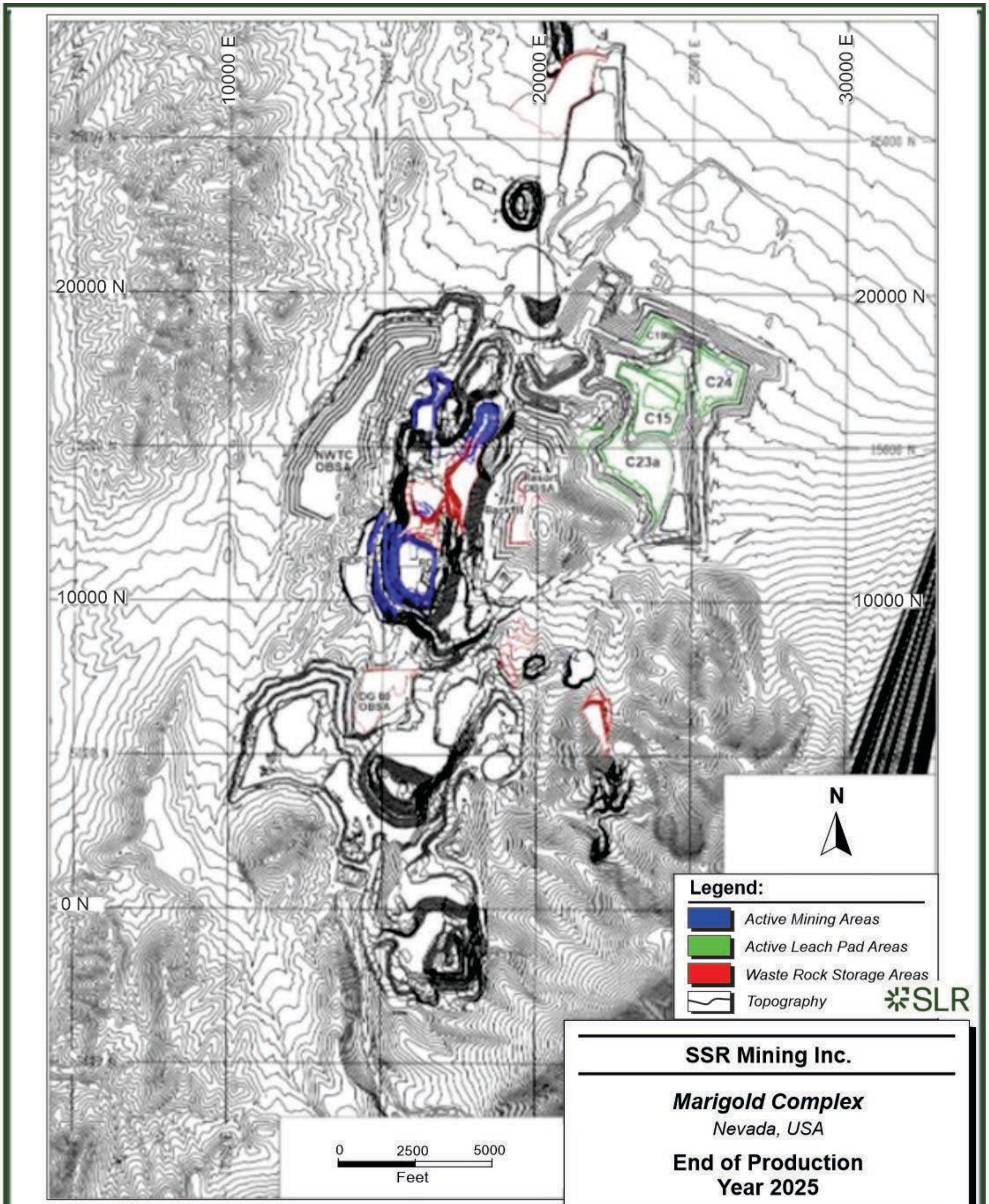
Figure 13-3: End of Production Year 2024



Source: SLR, 2023.

Note: Grid in Local Mine Coordinates.

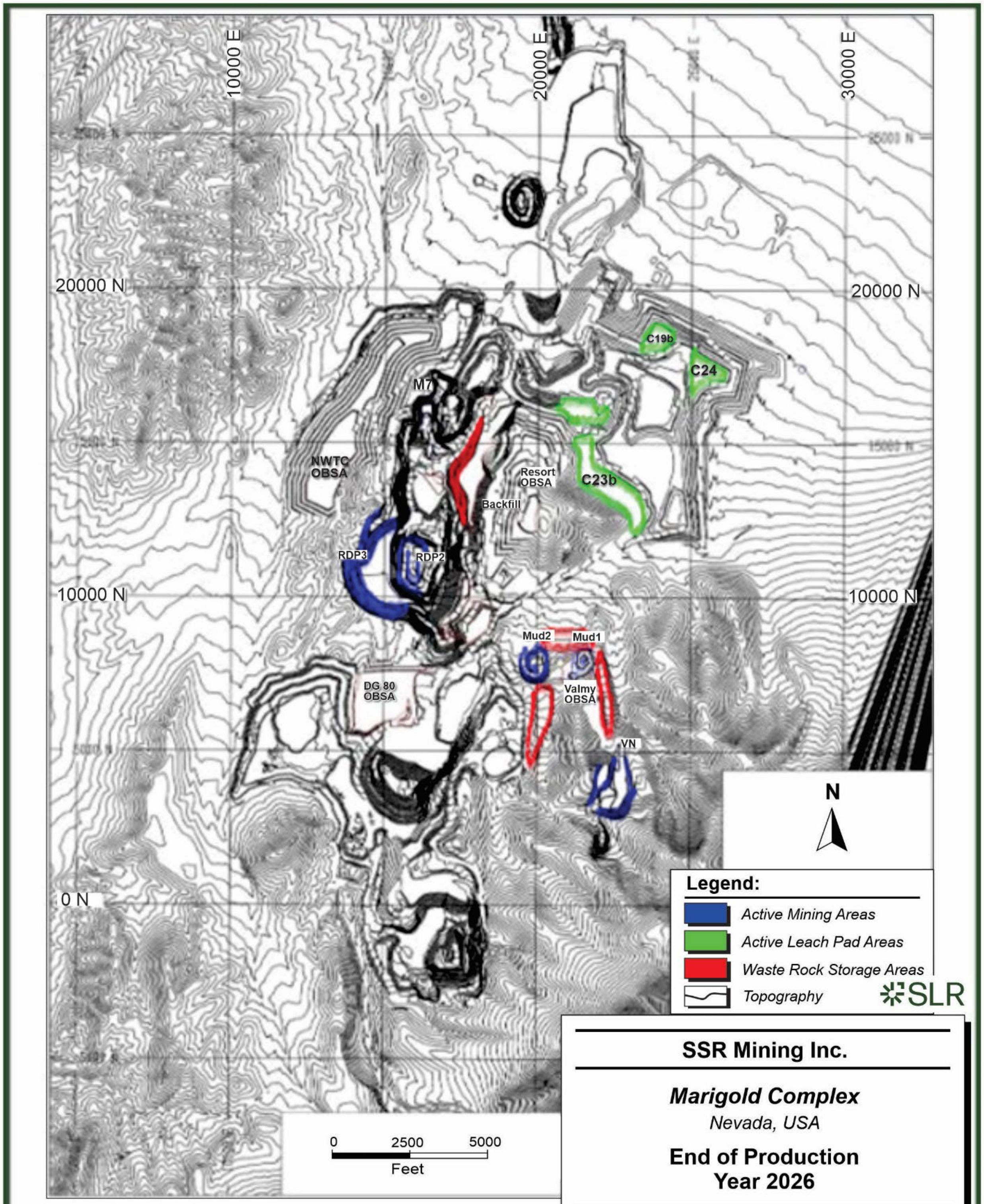
Figure 13-4: End of Production Year 2025



Source: SLR, 2023.

Note: Grid in Local Mine Coordinates.

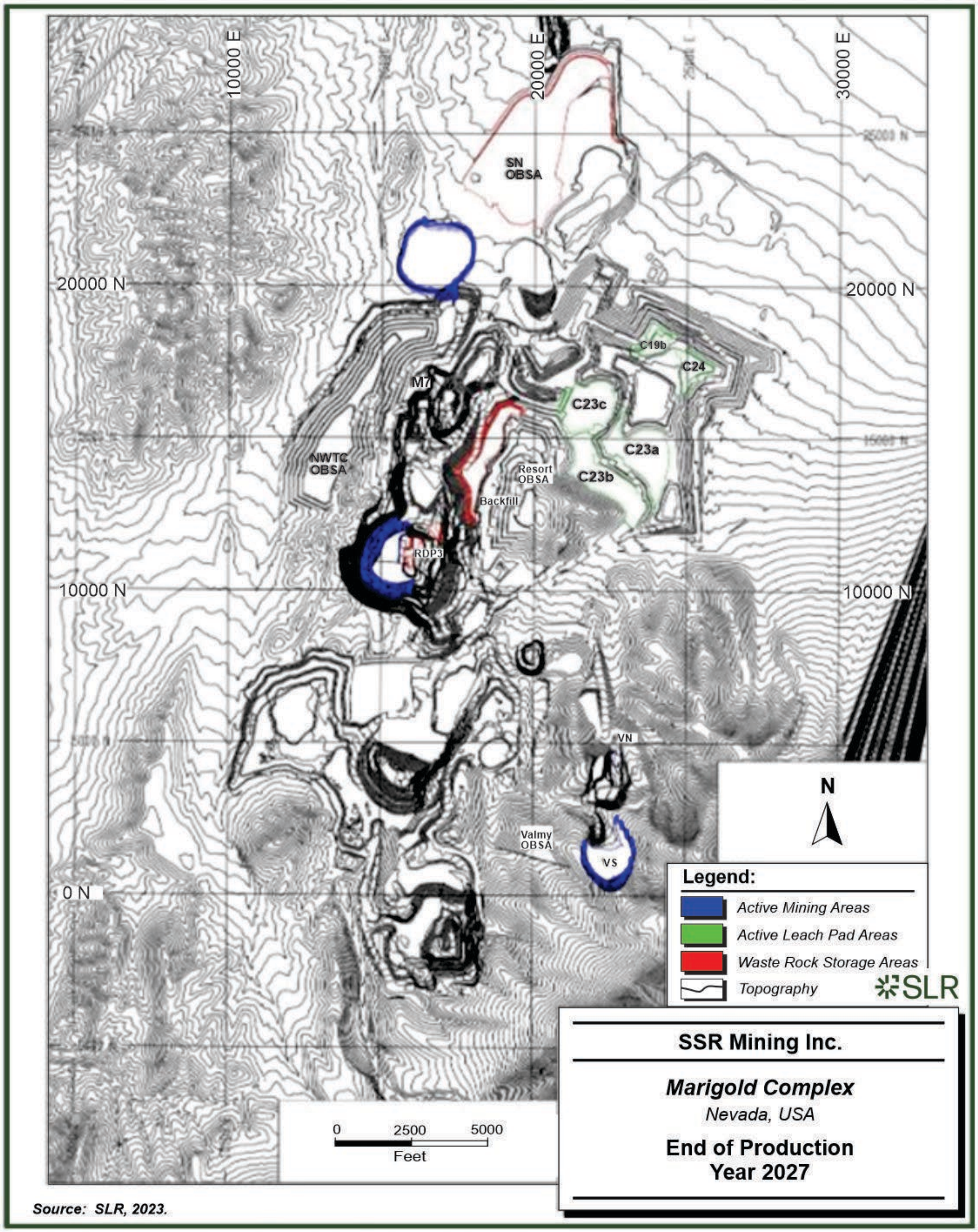
Figure 13-5: End of Production Year 2026



Source: SLR, 2023.

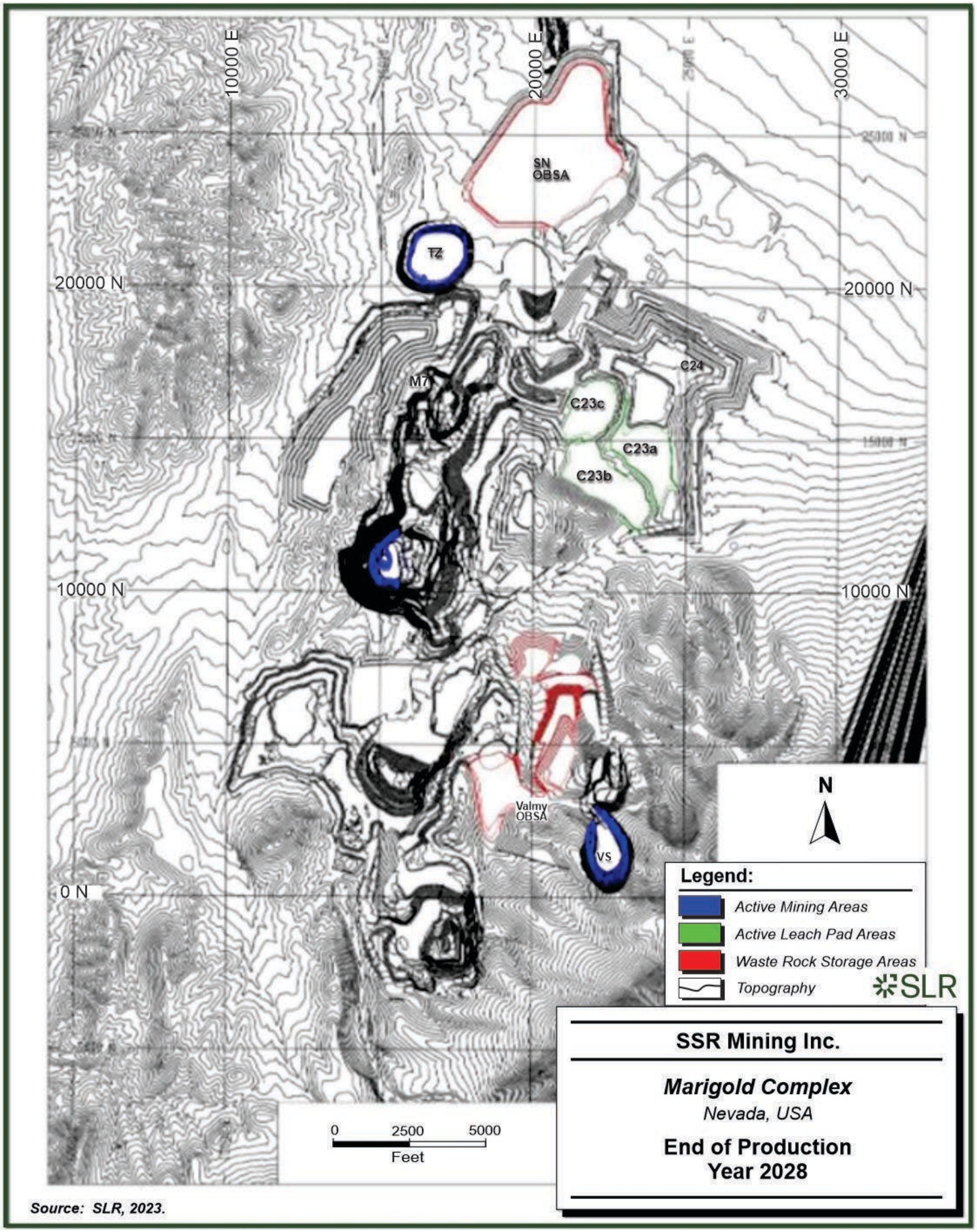
Note: Grid in Local Mine Coordinates.

Figure 13-6: End of Production Year 2027



Note: Grid in Local Mine Coordinates.

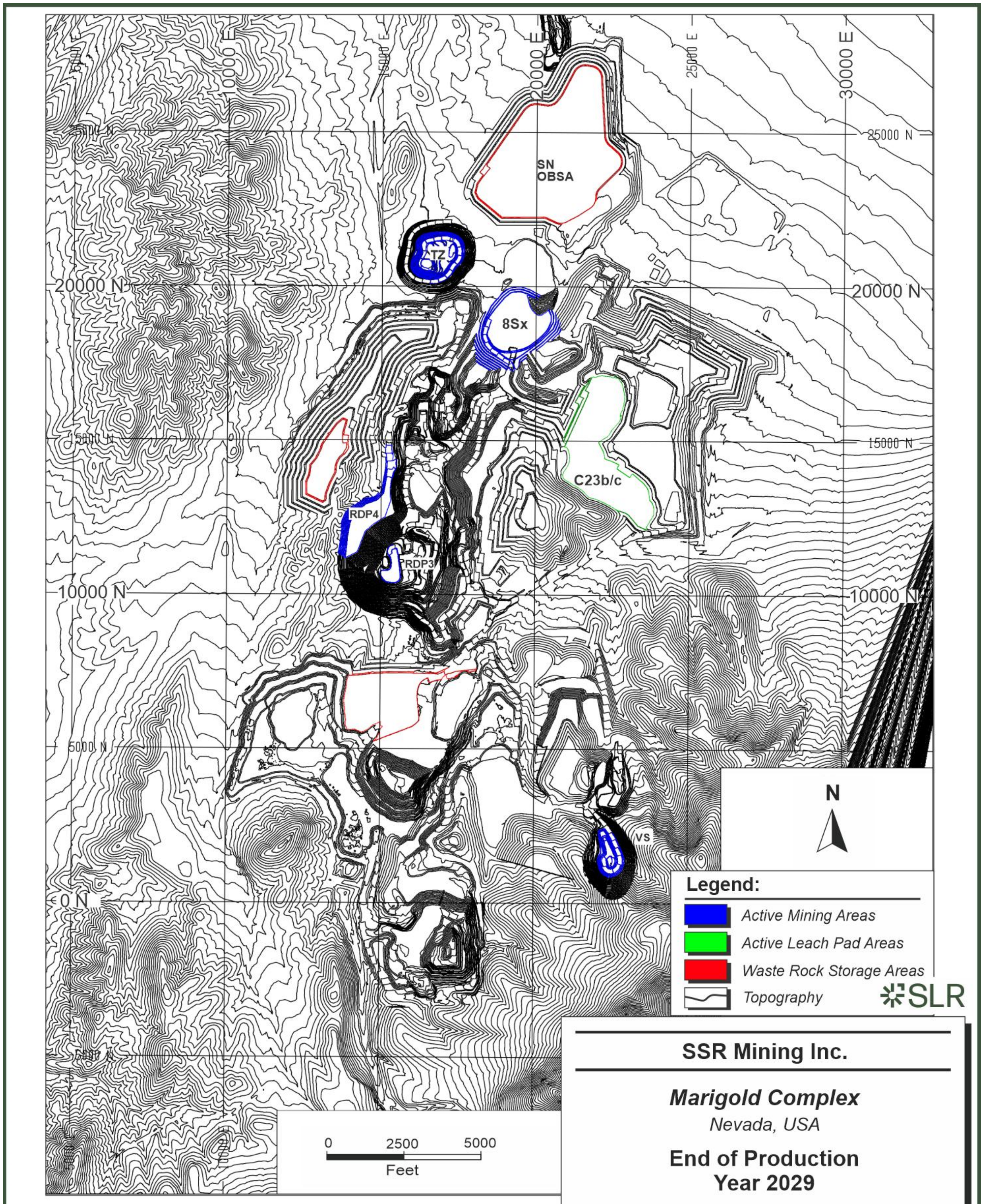
Figure 13-7: End of Production Year 2028



Source: SLR, 2023.

Note: Grid in Local Mine Coordinates.

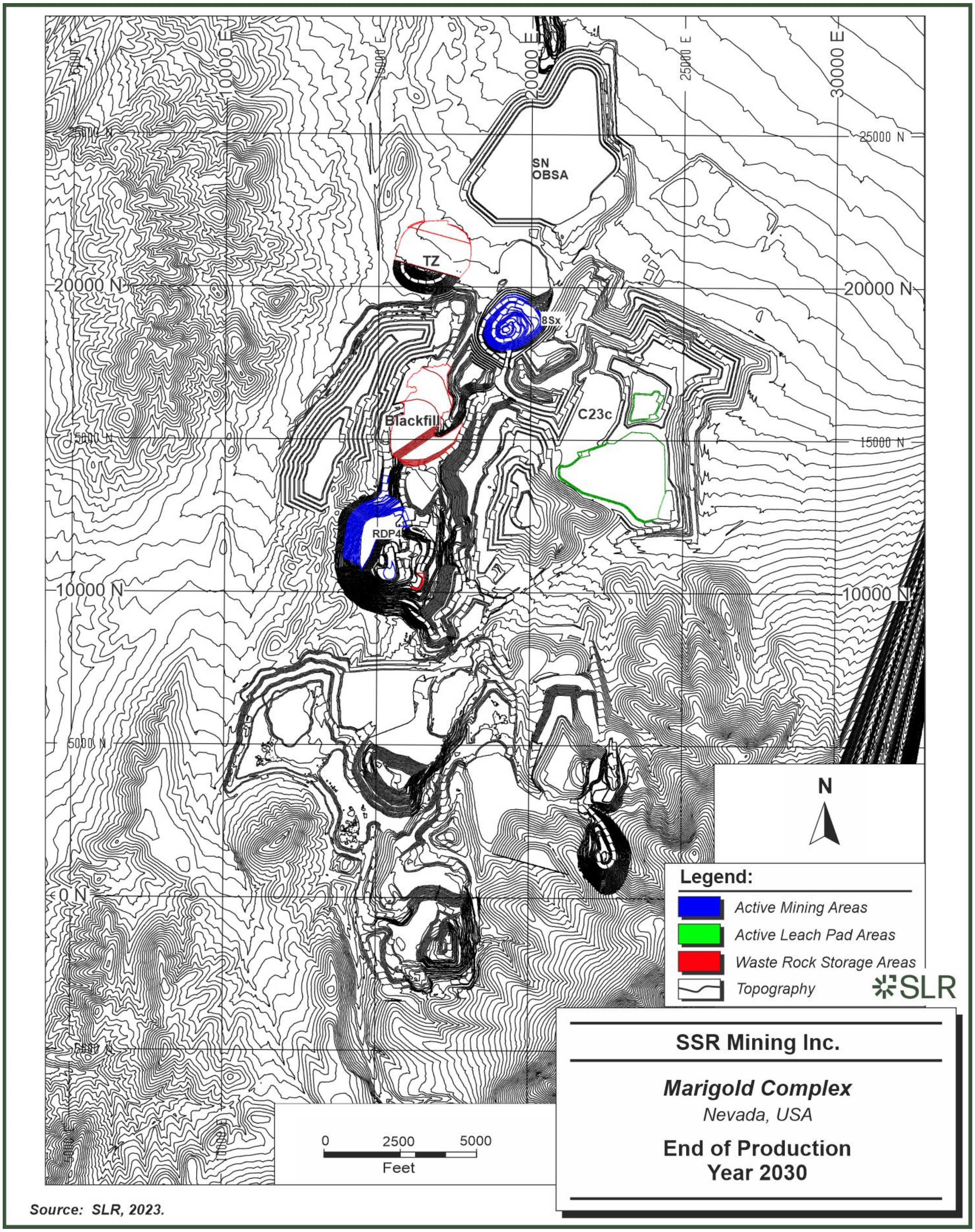
Figure 13-8: End of Production Year 2029



Source: SLR, 2023.

Note: Grid in Local Mine Coordinates.

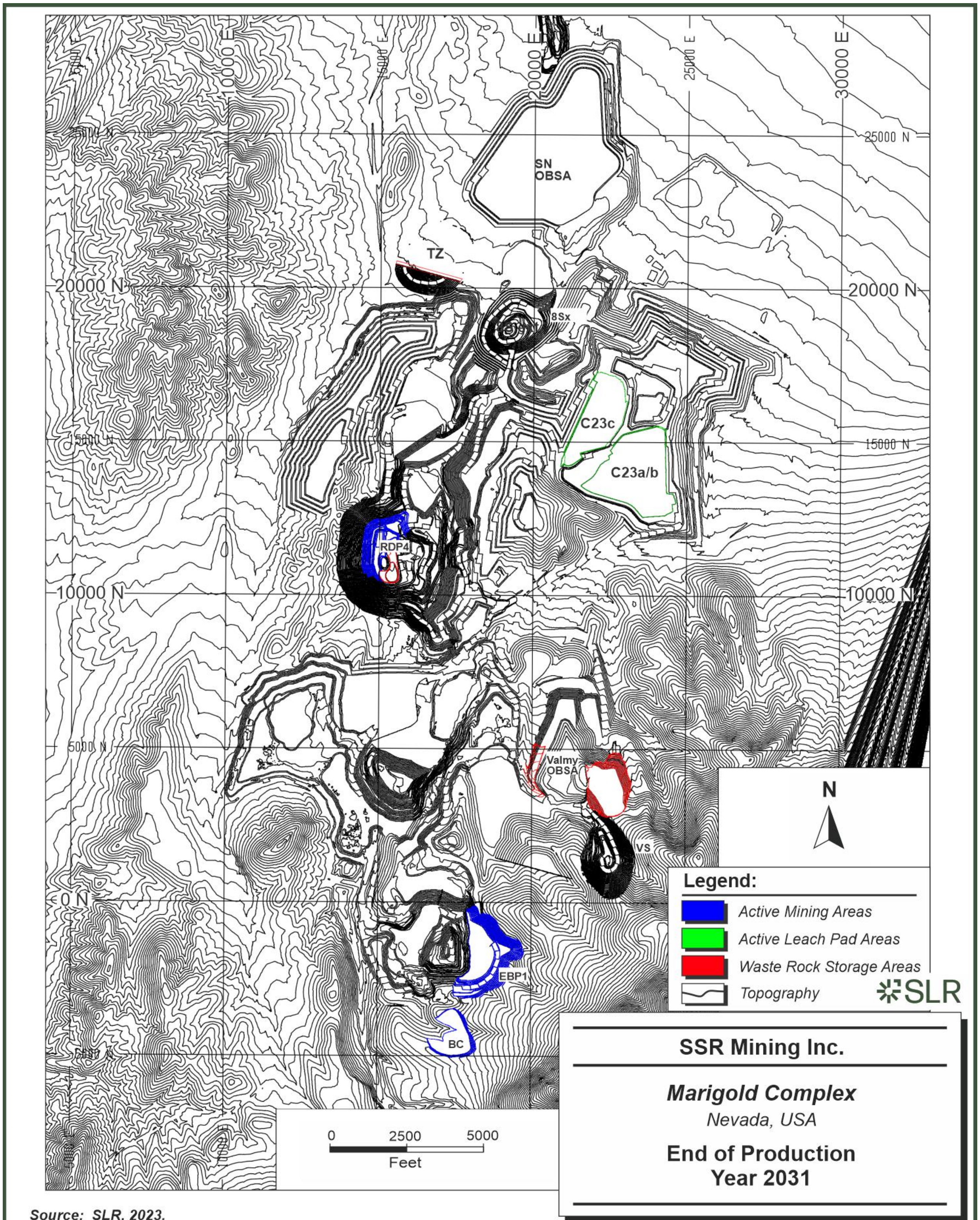
Figure 13-9: End of Production Year 2030



Source: SLR, 2023.

Note: Grid in Local Mine Coordinates.

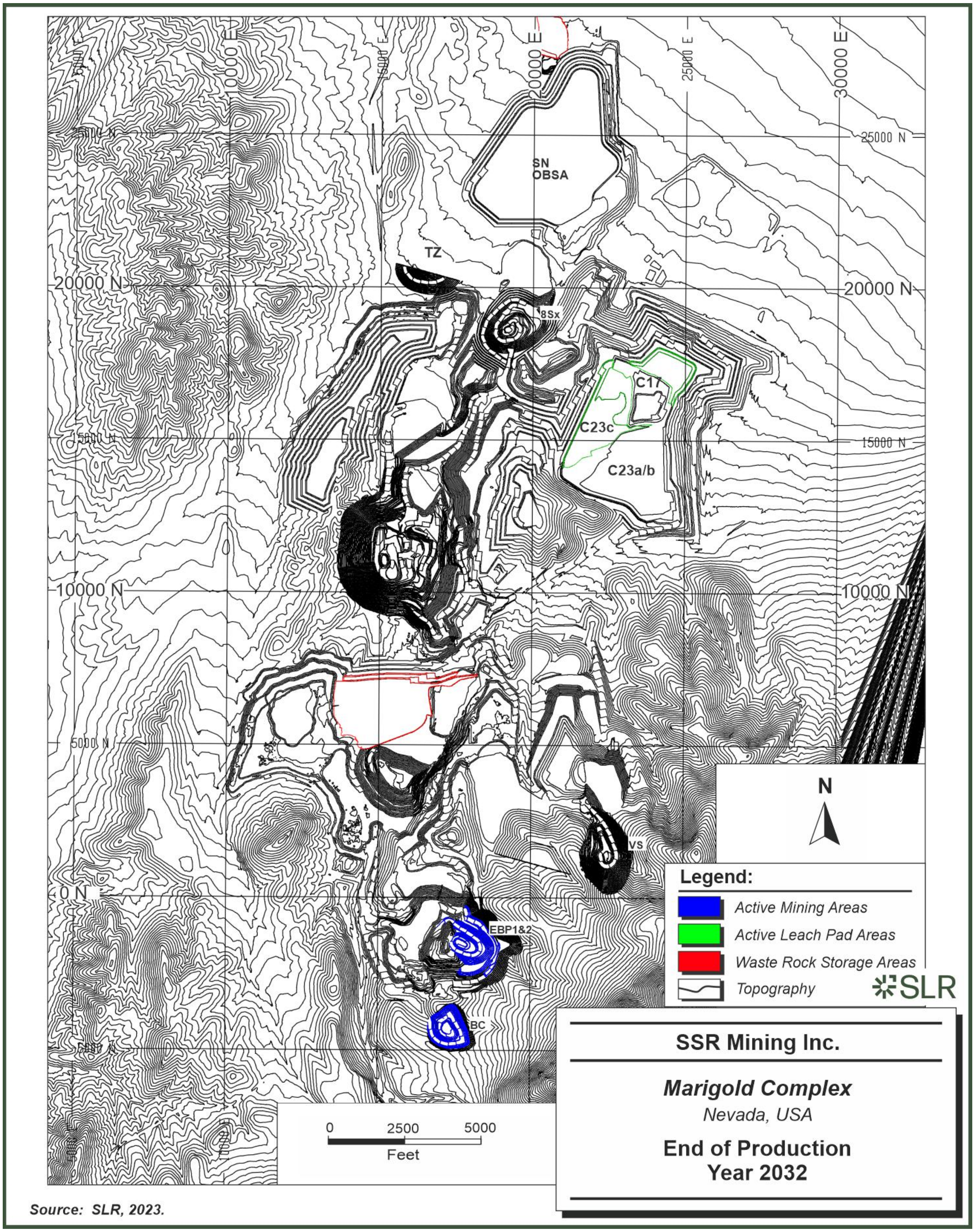
Figure 13-10: End of Production Year 2031



Source: SLR, 2023.

Note: Grid in Local Mine Coordinates.

Figure 13-11: End of Production Year 2032



Source: SLR, 2023.

Note: Grid in Local Mine Coordinates.

13.10 Mine Support

Mine support functions are performed using different quantities and types of equipment. These include water trucks, dozers, and graders as well as other non-operated ancillary equipment such as the radar highwall monitoring units. Mine support functions include ripping leach pads after a panel is completed, monitoring slope stability, maintaining roads and access points, and developing exploration drill pads. This work is completed with a fleet of Caterpillar D8, D10, and D11 class track dozers and Caterpillar 18, 16H, and 18M motor graders.

Current mine support fleet numbers are included in Table 13-4.

13.11 Mine Maintenance

Mine maintenance is an integral function of the mining operations and relates to the day-to-day upkeep of the mining equipment. Activities such as preventive maintenance, equipment rebuilds and fixing equipment on breakdowns are all included in the mine maintenance function. The objective is to provide efficient maintenance of the mining fleet, thereby increasing reliability and availability of the equipment through effective strategies, planning, and continuous improvement. High levels of equipment availability and reliability facilitate operational and delivery performance, resulting in asset intensity reduction, and reduced direct operational and maintenance costs.

Equipment maintenance is performed onsite for all mining equipment. The Marigold mine has all the infrastructure required for maintaining the fleet described in Table 13-4 and has an adequate maintenance workforce to ensure the equipment are able to meet the requirements of the operations.

Table 13-5 shows the life of mine (LOM) Average key performance indicators (KPI) of the fleet used at Marigold Mine.

Table 13-5: LOM Average Maintenance KPI of the Marigold Mine Equipment Fleet

Mine Equipment	Availability (%)	Use of Availability (%)
Drills	81.84%	69.63%
Loading Equipment		
Hitachi 5500	76.47%	77.70%
Komatsu PC7000	76.77%	87.34%
Electric Shovel	85.75%	88.74%
Hauling Equipment		
EH5000 ACI	74.25%	62.37%
EH5000 ACII	73.25%	56.56%
930E	85.87%	81.55%
CAT 789	68.60%	25.08%

Mine Equipment	Availability (%)	Use of Availability (%)
Support Equipment		
Dozers	79.63%	74.67%
Graders	79.48%	75.49%
RTD	83.50%	76.31%
Water Truck	84.33%	55.63%
Loader (992)	72.30%	40.94%
Scraper	72.76%	3.35%

The current fleet is to be maintained with replacement units (930E Haul Trucks and Drills being the major equipment to be replaced) as the current equipment reaches its maximum operating hours. In general, the major mining equipment requirement scales down with production, towards the end of the LOM plan.

SSR is also considering using the balance useful life of the equipment, beyond 2032, in some of their projects nearby which might come into production by that time.

13.12 Mine General and Administration

Mine G&A refers to all day-to-day supervision and engineering support of mining operation activity. Expenses included in the mine G&A are mine salary labor charges and fringe benefits, mine office supplies, safety supplies, equipment rentals and leases, light-vehicle tires, miscellaneous contract services, travel expenses, training, and tax and freight charges.

13.13 Mine Safety

Marigold has one mine rescue and emergency response team which is trained to competently assess accident conditions and fight fires. There is one ambulance and one small fire truck available on site and a rescue trailer that is used in emergencies. The Property is set up with hydrants and appropriate connectors, hoses, and wrenches at strategic locations. For mobile equipment fires, the Property is set up with large water trucks equipped with water cannons.

Marigold also has access to and can call either the Valmy Fire Department (5 km away) or Battle Mountain Fire Department (24 km away), when required. There is a monthly training session for the Marigold rescue team to ensure effective participation in any recovery operations in the event of a mine incident.

13.14 Mine Dewatering

The Marigold Mine Plan of Operations (PoO) – Mackay Optimization Project Amendment Record of Decision (RoD) in October 2019 allowed mining to be carried out below the water table in the expanded Mackay pit. The approved dewatering system incorporated a pit dewatering design by Piteau Associates that consisted of a series of dewatering wells to be located around the periphery of the ultimate pit to extract water for mine operations use and infiltration. Infiltration is by means of a series of rapid infiltration basins (RIBs) located in an area of deep alluvium cover approximately five kilometres north of the operations area. The dewatering system and RIBs are authorized under Water Pollution Control Permit (WPCP)

NEV2022118. A total of 14 RIBs have been authorized and eight have been constructed. More RIBs may be constructed based on dewatering needs.

The dewatering system will continue to be developed in stages with the initial design incorporating 14 dewatering wells, each with a nominal sustainable pumping rate of 1.89 m^3/min.

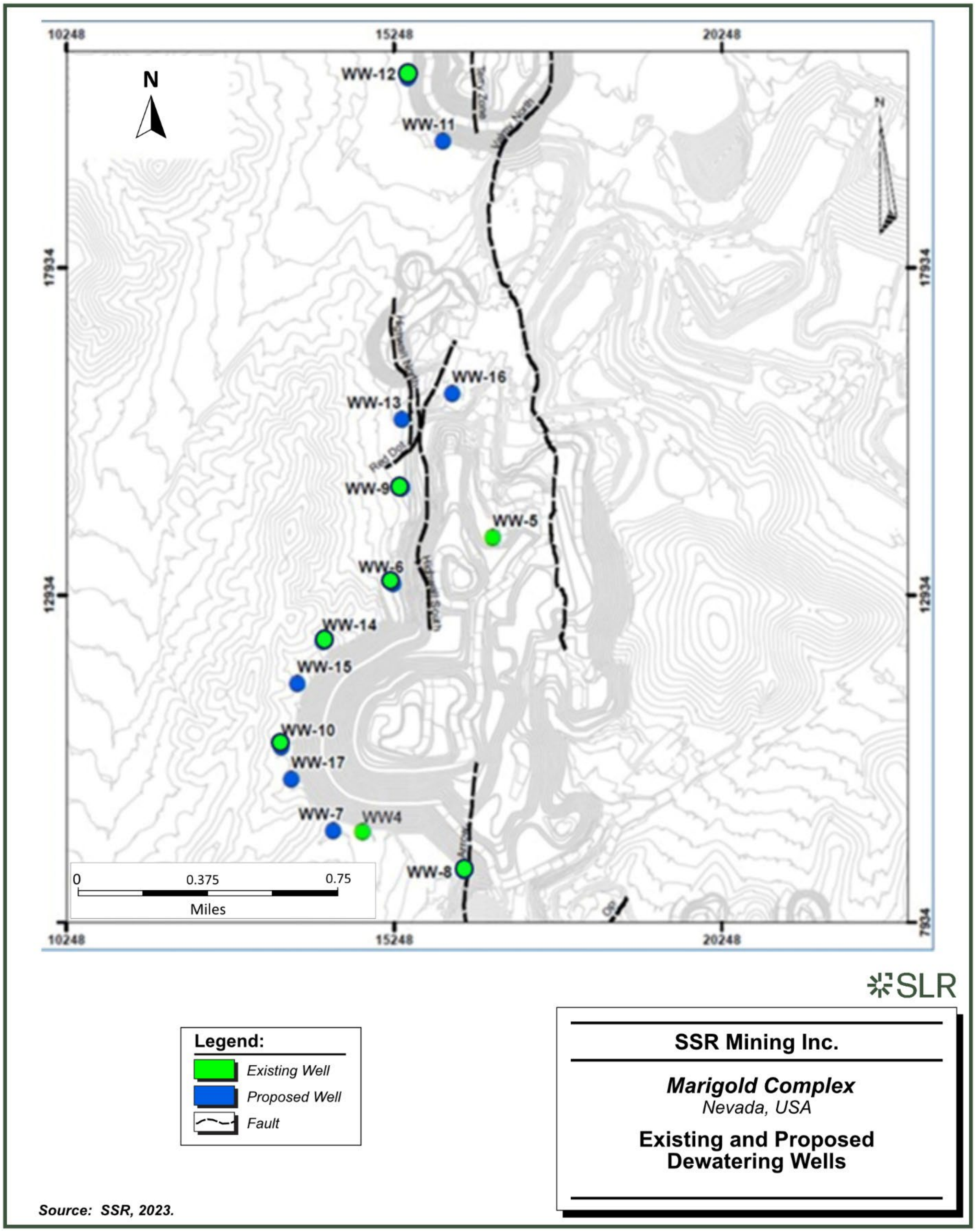
Figure 13-12 shows existing and planned well sites. New wells are developed in advance of the mining elevations required to support the LOM plan. Recent monitoring and modeling of pumping and drawdown rates indicate that the current number of wells included in the design is conservative and potentially not all will be required to achieve the required drawdown.

Some dewatering water is diverted for mine use with the majority delivered by pipeline to the RIB field north of the mine for infiltration. The RIBs are located in areas of thick alluvium which facilitates rapid infiltration back into the aquifer and also provides the benefit of attenuation of naturally occurring arsenic in the groundwater before it reaches the existing water table. An attenuation study was conducted and approved showing that water treatment will not be necessary prior to infiltration.

Trial RIBs permitted and constructed in mid-2022 allowed infiltration performance to be verified and the RIB cell design and configuration to be finalized. Initial RIB design criteria are summarized in Table 13-6.

Figure 13-13 shows the conceptual layout of the RIBs and spoil piles with the majority located on (BLM) Section 30.

Figure 13-12: Existing and Proposed Dewatering Wells

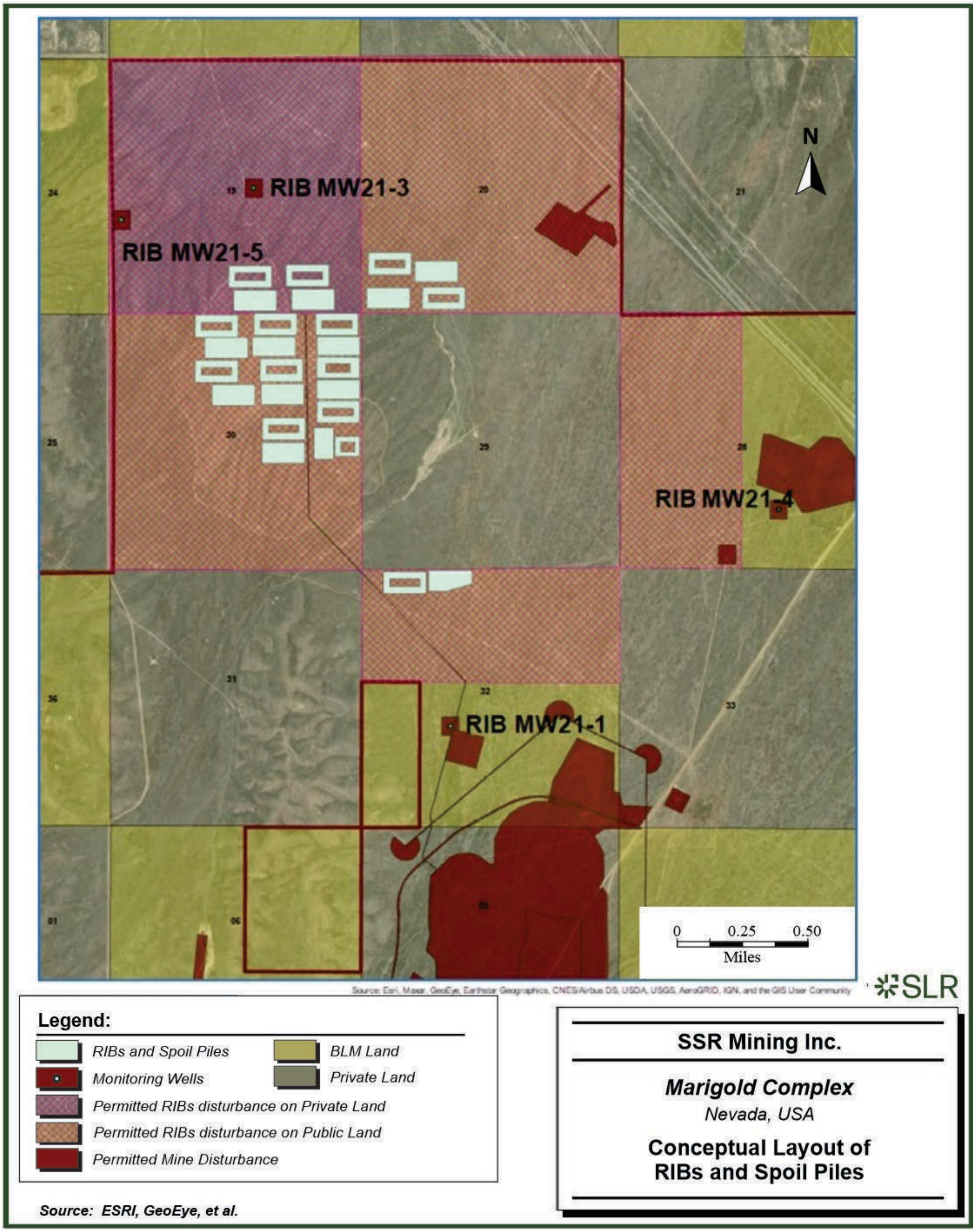


Note: Grid in Local Mine Coordinates.

Table 13-6: RIB Design Criteria

RIB Cell Design Attribute	Unit	Dimensions
Basin floor length	m	210
Basin floor width	m	59
Basin crest length	m	247
Basin crest width	m	106
Minimum basin depth	m	6.1
Excavation/dump slope	H:V	3:1
Minimum spacing between cells	m	122
Access road width	m	7.3
Infiltration capacity	m/day	0.43
Infiltration capacity per cell	m^3/min	3.8
Cell availability	%	50

Figure 13-13: Conceptual Layout of RIBs and Spoil Piles



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13.15 Mine Workforce

The current mining workforce totals 478, and is summarized as follows:

- Mine Operations – 247
- Mine Maintenance – 109
- Process & Laboratory – 52
- Technical Services – 23
- General & Administration – 47

14.0 Processing and Recovery Methods

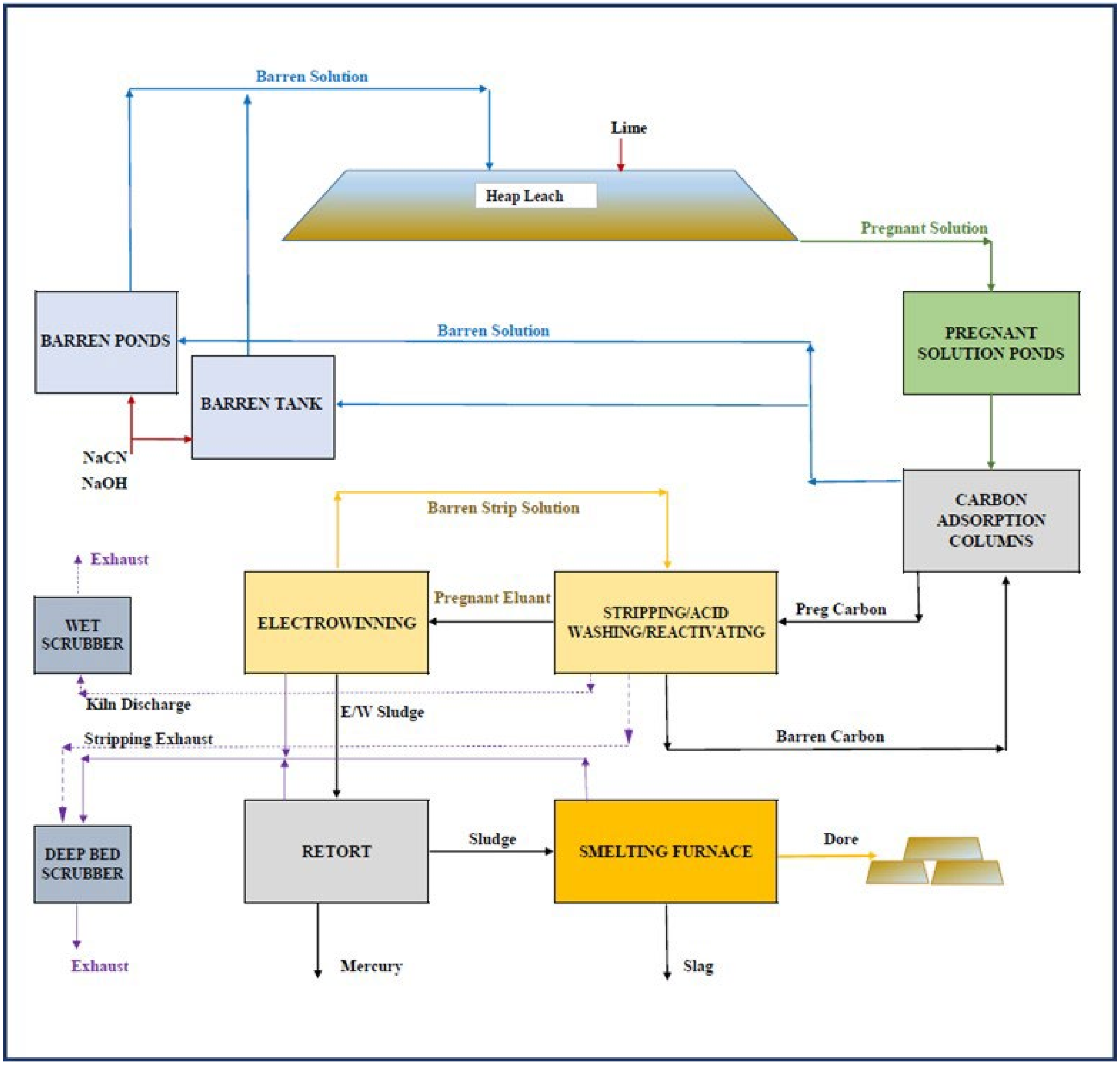
This section has been modified from OreWin (2022).

14.1 Introduction

The Marigold processing facilities combine industry standard run-of-mine (ROM) cyanide heap leaching and recovery of gold from the leach solution using carbon adsorption, desorption, electrowinning, and refining to produce a final precious metal (doré) product.

A simplified process flow diagram of the Marigold heap leaching facilities is provided in Figure 14-1.

Figure 14-1: Simplified Marigold Processing Flowsheet



Source: SSR, 2023.

14.2 Heap Leach Pad Description

The heap leach pad was originally constructed in 1990 and has since expanded as required, with ongoing expansion of solution processing facilities to match production rate and leach area. The leach pad area is divided into cells of specific sizes for inventory and irrigation control. Approximately 427 ha of heap leach pads, divided into 25 cells, six pregnant solution holding ponds, one storm water event pond, and two barren solution ponds have been constructed at Marigold. There are 15 cells currently active. Permitted stacking heights for heap leach cells 3 to 10 are 106 m and cells 11 to 25 are 122 m high.

The existing and authorized heap leach cells and ancillary facilities include Cells 1 through 25.

Associated process ponds, stormwater ponds, conveyance ditches, carbon column trains, storage tanks, and plant facilities.

14.2.1 Ore Stacking on Leach Pad

ROM ore is delivered from the mine at a rate of approximately 20 Mt per year to the leach pad by mine haul trucks and stacked in lifts of approximately 6 m to 12 m in height. Dry quicklime (CaO) is added to the ore in the haul trucks from a lime storage silo and delivery chute located on the side of the haul road to the heap leach pad to control pH prior to dumping. Mixing is accomplished by end dumping and spreading of the material with a dozer. The fresh ore is ripped and cross-ripped to a depth of at least 1.3 m using a dozer with a long shank to break up compacted pad surface material to enhance percolation prior to placement of leach solution distribution piping.

14.2.2 Leaching

The available leach pad area is divided into cells of specific sizes for inventory and irrigation control. The heap leach operating parameters include quantity and lift height of ore placed, barren solution (a very low gold grade cyanide leach solution) irrigation rate per unit area, duration of irrigation (leach cycle), and time between lifts to manage future ore placement. Barren solution is applied selectively to each cell. At any given time, approximately 0.5 Mm^2 of pad area is being leached, with other areas draining or being made ready to accept ore for the next lift.

Barren leach solution is pumped to the leach pad by two independent barren solution distribution systems. Combined barren solution flow capacity from the two pumping systems is 3,400 m^3/h. A series of header and sub-header pipelines suppling irrigation drip tubing are used to distribute the barren solution from the main barren solution pipelines to each cell. Solution is applied to the ore at a rate of 4.6 $L/h/m^2$ to 8.6 $L/h/m^2$ using drip emitters. Impact sprinklers, wobblers, or drip emitters are used to irrigate the side slopes of the heap.

The barren solution percolates through the ore, collecting precious metals, and exits the heap material at one of several collection areas as pregnant solution.

Upon exiting the heap, the pregnant solution can be routed to either the recirculation system or the pregnant solution ponds depending on the gold grade of the solution. If the precious metal content is low, the solution is routed through the leach solution recirculation system to the top of the heap for extraction of additional precious metals. If the pregnant solution precious metal content is high enough, the solution is routed to the pregnant ponds.

Leaching is conducted concurrently with ore stacking to allow progressive lifts to be constructed and operated in a similar manner. The pH and cyanide concentrations are adjusted in either the barren solution pond or by injection into the barren solution line at the toe of the heap.

14.3 Description of Ponds

Solution management consists of six authorized pregnant solution ponds (Pregnant Ponds No. 1 to 6) and one storm water event pond, which are interconnected with synthetic-lined channels. Pregnant Pond No. 1 is only used during significant events. There are also two barren solution ponds (Barren Pond No. 1 and 2), which are interconnected with a synthetic-lined channel. The process solution ponds have been designed to hold the working volume of solution while maintaining a two-foot freeboard after a 100-year storm event and 24-hour power outage.

Ancillary facilities include solution pumps and piping, two separate sodium cyanide addition facilities, two sodium hydroxide addition systems (barren solution pH adjustment), and four locations for antiscalant addition.

14.4 Carbon Adsorption

Pregnant solution from the leach pad is collected in the pregnant solution ponds and pumped to the carbon-in-column (CIC) adsorption plant located on the north side of Barren Pond No. 1 to recover the gold. The carbon adsorption plant consists of seven parallel trains of carbon columns, each with five columns. Each train is designed to process 450 m^3/h of pregnant solution. Column discharge solution reports to the barren ponds, where fresh and reclaim water is added to maintain the appropriate water balance, before the solution is recycled back to the leach pad. The plant also contains carbon storage tanks, a liquid cyanide storage tank, and a liquid caustic soda storage tank.

14.5 Carbon Elution and Electrowinning

Loaded carbon from carbon adsorption is transported by a dedicated truck to the carbon processing facility where gold is eluted (re-dissolved) from the carbon in two 2.7 t capacity carbon elution vessels. Gold is eluted from the carbon using the Pressure Zadra process, where a hot caustic solution at approximately 140°C and with a pH of 13 or greater is circulated through the elution column, from bottom to top, under pressure. The resulting rich gold eluant flows from the top of the column to a rich electrolyte tank, from which it is pumped through two parallel 2.8 m^3 electrowinning cells to recover the gold. The barren eluant discharging the electrowinning cells is recirculated through heat exchangers to the bottom of the elution vessel to strip more gold. The process continues until most of the gold is recovered from the carbon.

14.6 Carbon Regeneration

The stripped carbon is acid washed in an acid wash column with hydrochloric acid to remove carbonate scale and inorganics. The acidified carbon is then neutralized with water in the same column. The carbon is discharged from the column and transferred to the reactivation kiln. The carbon is reactivated by heating in a rotary kiln at 750°C. The reactivated carbon is quenched and screened before being returned to the carbon adsorption circuit to be reloaded with gold.

14.7 Refining

The plated material (sludge) resulting from electrowinning is collected in a filter press and then retorted for drying and mercury removal. After retorting, the sludge is mixed with flux and smelted in a propane fired furnace for final precious metal doré recovery.

14.8 Ventilation

Ventilation from the strip circuit pregnant and barren solution tanks, electrowinning cells, retort, and smelting furnace is directed to a deep bed scrubber (sulfur-impregnated activated carbon) where any vaporized mercury is recovered prior to exhaust.

The kiln discharge is vented to a wet scrubber that uses water mist to condense mercury and recover it as elemental mercury. After demisting, the air is also passed through sulfur-impregnated carbon to recover any remaining vaporized mercury prior to exhaust.

14.9 Planned Processing Upgrade Projects

A number of ongoing improvement projects are planned, including:

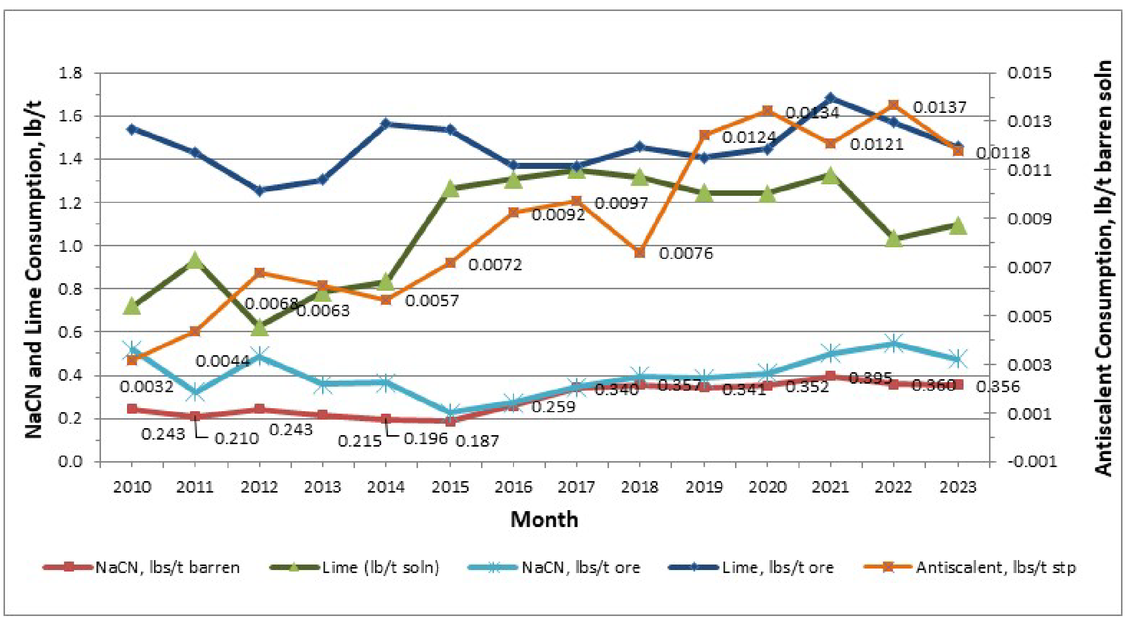
- With the increasing height of the heap leach pads and distance from the primary pump locations, barren booster pumps are planned to be installed to maintain solution flow rates at 3,180 m^3/hr.
- Installation of mobile telemetry and instrumentation to be able to remotely monitor individual area barren application rates. In addition, telemetry on primary pregnant and barren flowmeters.
- Modification of CIC bubble plates to assist with equalizing solution distribution across the column and increasing flow rate of solution through the CICs while maintaining the carbon inventory in the columns and adsorption efficiencies.

14.10 Reagents

Reagent consumption rates are within industry norms for the types of ores processed.

Average annual unit consumption rates of the reagents for the period 2010 to June 2023 are shown in Figure 14-2.

Figure 14-2: Average Annual Reagent Consumption



Source: SSR, 2023

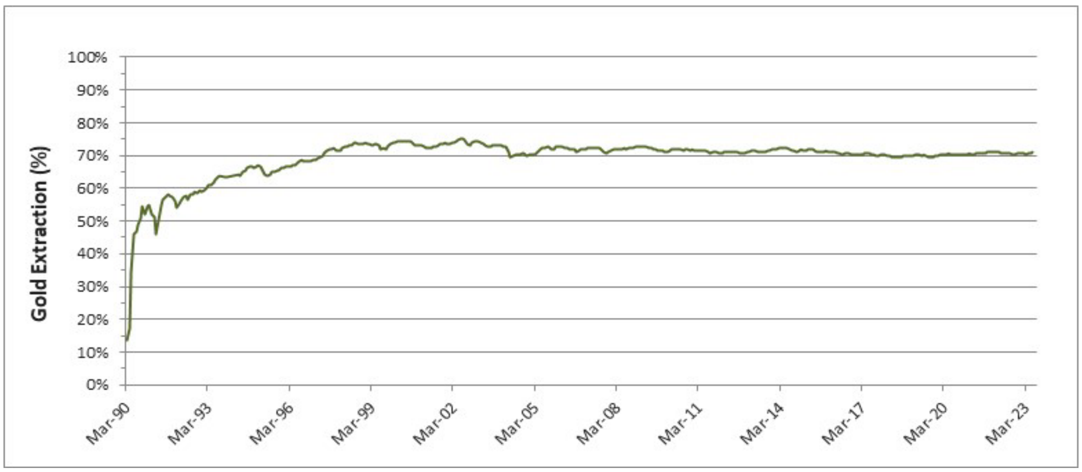
14.11 Gold Recovery

14.11.1 Recovery from Heap Leaching

From March 1990 through September 2023, gold recovery from the heap leach pad is 70.6%. This recovery was achieved with 90 to 120-day primary leach cycles and an overall mass-of-solution to mass-of-ore ratio of 1.29:1.

The Marigold heap leach gold recovery trend from March 1990 through June 2023 from the Marigold heap leach is shown in Figure 14-3.

Figure 14-3: Marigold Heap Leach Pad Gold Recovery Curve from March 1990 through June 2023



Source: SSR, 2023

15.0 Infrastructure

15.1 Site Access, Power, and Water

15.1.1 Site Access

Marigold is accessible via Interstate Highway 80 in northern Nevada and is approximately five kilometres south–southwest of Valmy in Humboldt County. The site access road supports two lanes of traffic and consists of hard-packed clay and gravel.

15.1.2 Power

The power supply for Marigold is provided by NV Energy Inc. via a 120 kV transmission line to site. Site power draw is 5 MW. After exiting the main substation, power is distributed through a 25 kV distribution grid. The main electrical substation is shown in Figure 15-1.

15.1.3 Operations Water Supply

Water for Marigold is supplied from three existing groundwater wells located near the access road to the Property. Marigold owns groundwater rights and collectively allows up to 3.134 million m^3 of water consumption annually, the majority of which is used as makeup water for process operations. Dewatering water is used for process make-up water and dust suppression, however, the majority is sent to the rapid infiltration basins (RIBs) for infiltration back into the aquifer. A pipeline has been constructed to connect the dewatering circuit to the process circuit so the dewatering water can be used as make-up supply water to the process. This connection minimizes the need for the three production wells and they will only be used for back-up as needed.

On average, total freshwater makeup is 2.4 m^3/min. The well pump parameters are listed in Table 15-1, and the locations of the pumps are shown in Figure 15-2.

Table 15-1: Pump Assets

Pump Asset	Pump Capacity (hp)	Power Consumption (kW)
793-PMP-001	75	56
793-PMP-002	150	112
793-PMP-003	150	112

Discussion of the extraction and infiltration of pit water is included in Section 13.14.

15.2 Buildings and Facilities

15.2.1 Buildings and Facilities in Main Plant and Offices Area

The buildings and facilities described below are located in the main plant and offices area as shown in Figure 15-1:

- Truck shop and mobile maintenance warehouse: The Marigold truck shop complex is located near the mine entrance. It is a four-bay shop sized for 300 t class haul trucks. The shop contains a tool crib, oil and lubricant bulk storage, ten offices, locker rooms, training room, and warehouse. A covered warehouse storage yard is located adjacent to the admin building complex.
- Mill building: The mill building consists of facilities supporting the metal recovery operations, including the refinery and metallurgical laboratory. Adjacent to the mill building is the thickener water storage tank and remaining CIL tanks from the 1989 flowsheet.
- Crushing plant: The crushing plant is used to produce stemming for blastholes, road material and over liner for heap leach pad. The crusher is a remnant from the 1989 flowsheet.
- Heap leach carbon columns: The heap leach carbon columns are an integral part of the gold recovery process, which is detailed in Section 14.
- Wash bay: The wash bay is located next to the truck shop and consists of one covered bay. The wash bay building also contains a settling pond for water recycling.
- Administration building and light vehicle (old) shop: The main administration building encompasses most site-support departments and includes a small warehouse facility, core shed, the shovel and drill shop (former truck shop), light-vehicle maintenance bay and the assay laboratory. Adjacent to this building are trailers which provide additional office space.
- Assay laboratory: The assay laboratory supports ongoing mine operations, including grade control and gold solution analysis.
- Motor control center (MCC): The MCC houses controls for the pumps and boosters for the barren and pregnant solution ponds.

15.2.2 Additional Buildings and Facilities on Site

Additional buildings and facilities on site include:

- Site access building
- Potable water treatment building
- Process line-out building
- Radio shop
- Safety building
- Hose shop and storage
- Tire pad
- Fuel stations

15.2.3 Additional Facilities on Section 20

Additional facilities are located on Section 20, which is identified in Figure 15-3 as the Mine Ops area. These facilities include:

- Welding and fabrication shop
- Dispatch/MineCare office and mine operations line-out building
- GPS dispatch receiver
- Diesel tanks and fueling station

15.3 Explosives Magazine

The explosives magazine is located a safe distance from the plant and offices area.

15.4 Tailings Storage Facility and Water Diversion

The TSF was decommissioned and reclaimed. The only remaining activity concerning the TSF is ongoing monitoring.

The Trout Creek water diversion structure and flood control dam is located west of the former Basalt Pit. It is designed for a 100-year storm event.

15.5 Leach Pads and Solution Ponds

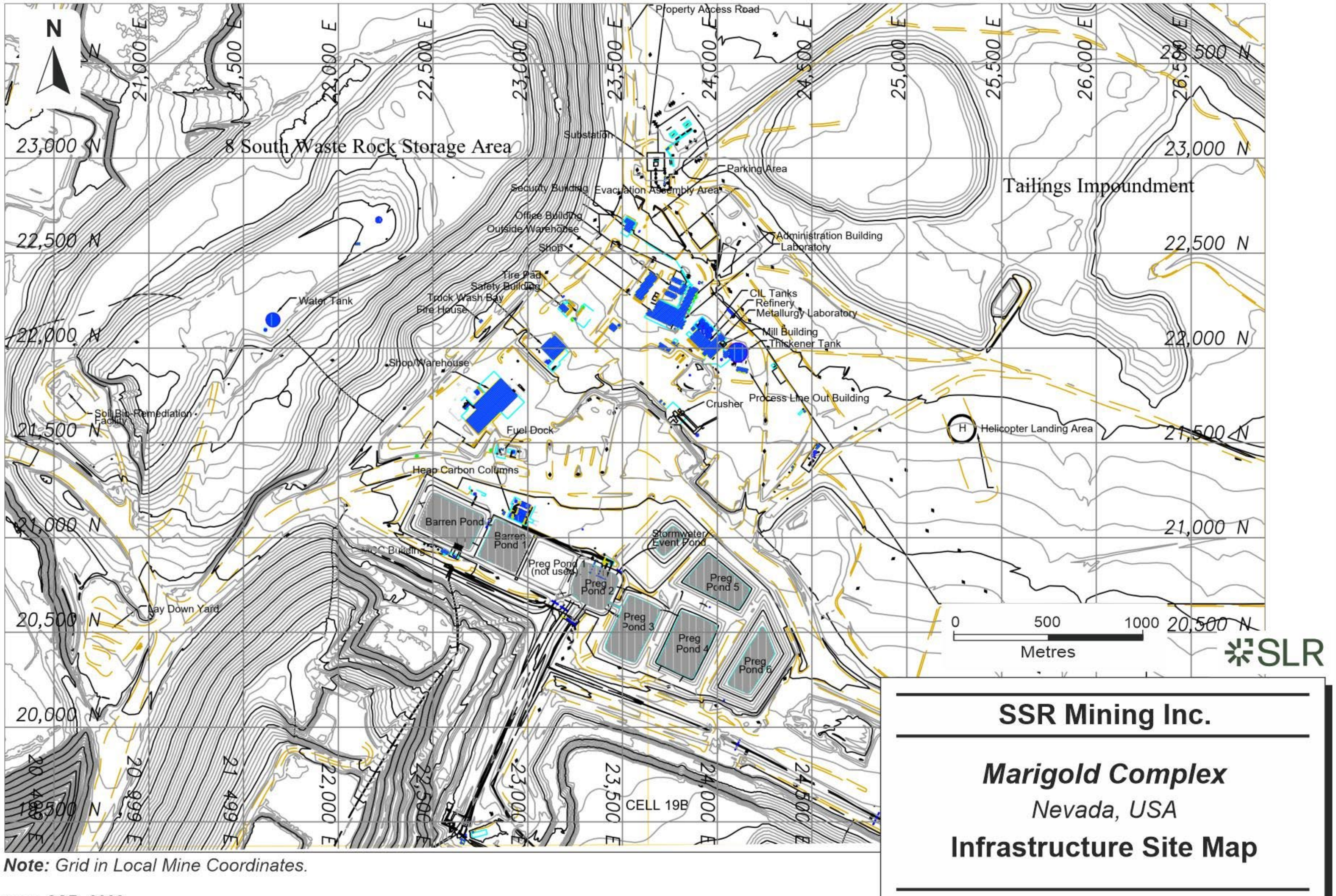
The leach pad is discussed in detail in Sections 14 and its location is shown in Figure 15-3.

Details on the barren and pregnant solution ponds can be found in Section 14.

15.6 Waste Rock Storage Areas

Details on completed, in progress, and future WRSA can be found in Section 13. The general location of planned and current WRSA is shown in Figure 15-3.

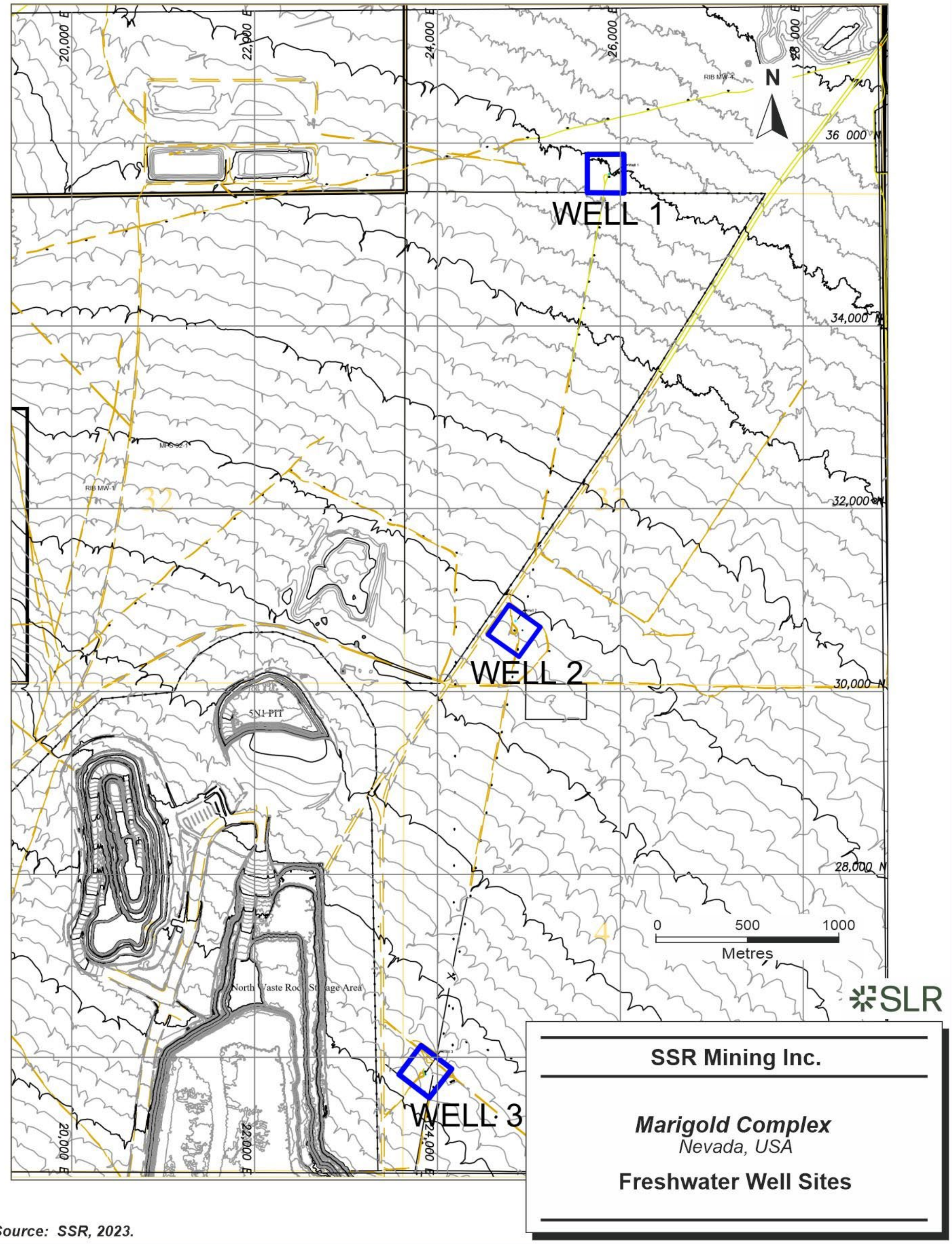
Figure 15-1: Infrastructure Site Map



Note: *Grid in Local Mine Coordinates.*

Source: SSR, 2023.

Figure 15-2: Freshwater Well Sites



Source: SSR, 2023.

Figure 15-3: LOM Site Schematic Showing Final Pit Limits, WRSA, and Leach Pad

SSR Mining Inc.

Marigold Complex

Nevada, USA

LOM Site Schematic Showing Final Pit Limits, WRSA, and Leach Pad

Source: SSR, 2023.

16.0 Market Studies

The Marigold Mine produces gold and silver contained in doré. Marigold is an active producer and has been for over three decades years.

16.1 Marketing and Metal Prices

Gold is the principal commodity at the Marigold Mine and is freely traded at prices that are widely known, so that prospects for sale of any production are virtually assured. Metal prices for the economic analysis were estimated after analysis of consensus industry metal price forecasts and compared to those used in other published studies. The metal prices selected have taken into account the current Project life. The metal prices used for the economic analysis, shown in Table 16-1, are considered to be representative of industry forecasts.

Table 16-1: Economic Analysis Metal Price Assumptions

Metal Price	Units	2023	2024	2025	2026	2027	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

The doré is securely transported by road freight to a refinery where it is refined into gold bullion. The bullion is sold by SSR to banks that specialise 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 TRS.

16.2 Contracts

There are a number of acceptable refineries with the capacity to refine doré. Currently, SSR has entered into a non-exclusive refining agreement with Asahi Refining USA, Inc., and the terms and conditions of this contract are within industry norms. The transportation and refining costs for the doré and other operating costs are also in accordance with industry standards.

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

17.1 Summary

Specific federal, state, and local (Humboldt County, Nevada) regulatory and permitting requirements apply to MMC. MMC currently holds active, valid permits for all current facets of the mining operation. MMC is currently in compliance with all permits. At present, there are no known environmental issues that impact the ability to extract Mineral Resources at the Property. All activities associated with MMC require an approved reclamation plan that includes a Reclamation Cost Estimate (RCE) for all permitted facilities and activities. This was updated and approved by federal and state agencies in 2022. MMC is actively engaged with the local communities and stakeholders and there are no outstanding negotiations or social commitments for the operation of the mine.

17.2 Environmental Studies

Significant portions of MMC exist on public lands administered by the BLM. As a result, the majority of environmental studies related to mining activities were conducted under the BLM authority as part of the National Environmental Policy Act (NEPA) regulations, which require various degrees of environmental impact analyses dictated by the scope of the proposed action. Marigold has undergone several significant NEPA actions in the normal course of operational planning; the most recent was the PoO – Valmy Development Project (the PoO Amendment), approved in 2023, to permit the future mining in the Valmy and New Millennium pits.

The environmental baseline studies to support the Environmental Assessment (EA) process for the PoO Amendment were initiated in 2021. These baseline studies included, but were not limited to, socioeconomics, air quality impacts, cultural and archaeological resources, groundwater model, waste rock/material characterization, water characterization, sage grouse habitat evaluation, evaluations for flora and fauna. A list of the baseline studies and reports is shown in Table 17-1.

Table 17-1: Baseline Studies Supporting the EA

Study Media	Documents/Reports Included Baseline Studies and Data Compiled for Marigold Mine Valmy Development EA
Hydrology/Water Quality/Geochemistry	Hydrogeologic Assessment, Geochemical Testing Workplan
Air Quality	Air Quality Assessment
Flora/Fauna	Golden Eagles Surveys, Sage Grouse Surveys
Socio-Economic	Social Baseline Assessment
Cultural Resources	Cultural Resource Survey

Following the approval of the PoO, MMC has submitted modifications for State permits to incorporate the Valmy Development Project. The Environmental Assessment conducted resulted in a Finding of No Significant Impact (FONSI).

17.3 Project Permitting

Specific federal, state, and local (Humboldt County, Nevada) regulatory and permitting requirements apply to MMC. The primary permits for MMC operations include the Plan of Operations (PoO) permitted via the BLM; the Water Pollution Control Permits (WPCP) issued by the Nevada Division of Environmental Protection-Bureau of Mining Regulation & Reclamation (NDEP-BMRR); and the reclamation permit issued by the NDEP-BMRR. MMC currently holds active, valid permits for all current facets of the mining operation, including, but not limited to, those permits listed in Table 17-2.

Table 17-2: Marigold Mine Environmental Permits for Operation

Agency	Permit Name	Permit Number	Status
Bureau of Land Management (BLM)	Plan of Operations	NVN065034	Active
Nevada Division of Environmental Protection – Bureau of Mining Regulation and Reclamation (NDEP-BMRR)	Water Pollution Control Permit (including Petroleum Contaminated Soils Permit)	NEV0088040 NEV2022118	Active
NDEP-BMRR	Reclamation Permit	#0108	Active
Nevada Division of Environmental Protection – Bureau of Water Pollution Control (NDEP-BWPC)	Stormwater General Discharge Permit	NVR300000	Active
Nevada Division of Environmental Protection – Bureau of Air Pollution Control (NDEP-BAPC)	Title V Air Quality Operating Permit	AP1041-2967.01	Active
NDEP-BAPC	Class II Air Quality Operating Permit	AP1041-3666	In Renewal Process (Application Administratively complete as of January 18, 2023)
NDEP-BAPC	Mercury Operating Permit to Construct: Phase II air)	AP1041-2254	Active
Nevada Department of Wildlife (NDOW)	Industrial Artificial Pond Permit	39502	In Renewal Process (Received by NDOW on July 27, 2023)
United States Environmental Protection Agency (EPA)	EPA/RCRA ID	NVD986766954	Active
United States Army Corps of Engineers	Not Required	No jurisdictional waters delineated (August 2019)	NA

Agency	Permit Name	Permit Number	Status
Nevada Division of Environmental Protection – Bureau of Sustainable Materials Management (NDEP-BSMM)	Class III Landfill Waiver	SW1764	Active
		SW1824	Active
Nevada State Fire Marshal	Hazardous Materials Permit (State of Nevada)	109791	Active
Nevada Division of Environmental Protection – Bureau of Safe Drinking Water (NDEP-BSDW)	Potable Water Permit	HU-1103-NTNC	Active
NDEP-BWPC	Septic Permit	GNEVOSDS09-0016	Active
		GNEVOSDS09-0252	Active
United States Department of Transportation	Hazardous Materials Storage and Transportation Registration	061521550469DF	Active
Nevada Board of Regulation of Liquefied Petroleum Gas	Liquefied Petroleum Gas – Class 5 License	5-3482-01	Active
Nevada Division of Water Resources (NDWR)	Trout Creek Dam Permit	J-666	Active
NDWR	Water Rights	83256 (Certificate 583)	Active
		2324 (Certificate 584)	Active
		86582	Active
		86583	Active
		86584	Active
		86585	Active
		87235-87242	Active
		76425S01	Active
		76425S02	Active
		76425S03	Active
		88986	Active
		90787	Active
		91141 – Central Permit	Active
		90788	Active
		80849	Active
Humbolt County Board of Commissioners	County Conditional Use Permit	UH-15-07	Active

Given the number of active permits at Marigold, some degree of permit modification or renewal effort is typically underway at all times. As an example, the Class II Air Quality permit is currently in the renewal process.

17.4 Environmental Impacts

MCC is currently in compliance with all permits presented in Table 17-2. At present, there are no known environmental issues that impact the ability to extract Mineral Resources at the Property. Specifically, no threatened or endangered species are known to exist at the site; there are no year-round watercourses on the Property; groundwater impact of mining has been addressed and all environmental regulations and permit conditions are continuously being met. Cultural resource surveys have been conducted across the Property, and an approved program of avoidance, distance buffer and mitigation measures are in place as part of the existing PoO.

Waste rock is managed in several designated surface storage areas within the Property boundary, which are concurrently reclaimed to 3:1 slopes, when the sequence of mining operations allows, and then re-vegetated with native seed mixes. When possible, older pits are backfilled with waste rock. To date, all waste rock encountered at Marigold has been oxide in nature and is typically non-acid-generating, as confirmed by quarterly sampling. There are no waste rock areas with observed runoff or stability concerns.

The only tailings area at Marigold operated during a limited period from 1989 to 1999; this area has been reclaimed and revegetated, the State Engineer's office no longer lists it as a permitted dam, and the bond has been released by the BLM with the exception of a small bond related to vegetation. MMC anticipates a full release of the bond in the near future.

17.5 Environmental Monitoring and Reporting

Environmental monitoring and reporting are conducted in accordance with various permits listed in Table 17-2. This monitoring includes groundwater quantity and quality, surface water quality and presence, stormwater quality, air quality such as fugitive dust, geochemistry, vegetation, and wildlife. Data collected is routinely reported to federal and state agencies to demonstrate compliance. Agency representatives from the BLM, NDEP, and the Nevada Department of Wildlife (NDOW) also conduct routine compliance inspections.

17.5.1 Cyanide Management

The use of cyanide is a critical part of the gold mining process. However, if not handled correctly, cyanide can have significant impacts on both environmental and human health. The use of cyanide at the Project is governed both by the requirements of Turkish national laws and regulations and aligned with industrial best practice. SSR became a signatory to the International Cyanide Management Code on January 23, 2023, which will require certification within three years of signing. All employees and contractors who handle, transport, or dispose of cyanide are required to undertake specialized training in cyanide handling.

17.6 Community Relations and Social Responsibilities

There are currently no outstanding negotiations or social requirements regarding operations at MMC. The nature of NEPA and large-scale state permits involve public comment periods as well as public meetings. Recently held meetings generated minimal concern from the community, and local county government has been consistently supportive of continued mine operations at MMC. There are no formal discussions required with local stakeholders or Native American tribal representatives, but mine management does meet informally to provide general updates and to discuss proposed requests from the community and local stakeholders for donations and support.

Community support and engagement is well established between MCC and local communities including but not limited to Battle Mountain, Elko, and Winnemucca. Community engagement includes education programs on and off site and frequent communication and mine operations updates with the local communities.

17.7 Mine Closure Requirements

All activities associated with MMC require an approved reclamation plan that includes a Reclamation Cost Estimate (RCE) for all permitted facilities and activities. MMC engages in concurrent reclamation practices during operations in an effort to reduce bonding requirements.

State regulatory requirements mandate a formal closure plan be filed two years before the facility initiates closure. Both the BLM and State require a tentative closure plan as part of normal NEPA and operating permit requirements. Marigold has filed and maintained these closure plans, which, in conjunction with standard reclamation and re-vegetation of all disturbed areas, include discussions on removal of most infrastructure, monitoring, and notably long-term heap leach drain down solution management. The currently approved closure plan describes a series of evaporation cells to manage long-term solution drain down following an approximate two-year period of active solution volume reduction through evaporation for the MMC.

The reclamation plan and associated RCE for MMC were updated in 2022 to include the RIBs and was approved by all permitting agencies. Current bonding requirements are based on third-party cost estimates to reclaim all permitted features at the Property. The BLM, NDEP, and Nevada Bureau of Mining Regulation and Reclamation (BMRR) review and approve the bond estimate, and the BLM holds the financial instruments providing the bond backing. The reclamation bond was updated in 2022 and approved by all parties resulting in a total bond amount of US$81,300,000. Current bonds are presented in Table 17-3.

Table 17-3: Marigold Mine Reclamation Cost Estimate/Bond

Agency	Bond Reference	Financial Assurance Mechanism	Amount (US$)
BLM	NVB001804	Surety Bond	$47,900,000
BLM	NVB001805	Surety Bond	$28,400,000
BLM	NVB002261	Surety Bond	$5,000,000
		Total	**$81,300,000**

18.0 Capital and Operating Costs

SSR's forecasted capital and operating costs estimates related to the development of Mineral Reserves are derived from annual budgets and historical actuals over the long life of the current operation. According to the American Association of Cost Engineers (AACE) classifications, these estimates would be Class 1 with an accuracy range of -3% to -10% to +3% to +15%.

18.1 Capital Costs

LOM project capital costs, which considers all costs incurred before October 1, 2023, as sunk, are summarized in Table 18-1 and covers related activities from mining to placing ore on the heap pad at an average LOM mining rate of approximately 260,000 tpd moved over the ten year mining phase and final reclamation.

Table 18-1: Capital Costs Summary

Capital Costs	Total ($ million)
Mining Equipment Replacement	32.1
Equipment/Building Maintenance	151.9
Administration	1.0
Processing/Pads/Ponds	33.6
Permitting	27.9
Exploration/Mine Development	11.0
Subtotal Sustaining Capital	**257.6**
Reclamation	69.2
Total Capital Costs	**326.8**

18.1.1 Sustaining Capital

Sustaining capital costs include the following:

- Replacement of mining equipment as it reaches its economic life during the remaining nine years of mining. The majority of the mining equipment replacement costs relates to replacing haul trucks and excavators, but it also covers drills and mine support equipment.
- Major equipment rebuilds and component replacement. In order to maintain equipment availability for the extended equipment lives, major equipment is programmed for rebuilds at set points during its economic life.
- Administration costs such as light vehicle purchases and various site infrastructure improvements.
- Ongoing expansion of the leach pad and associated process infrastructure.
- Permitting costs mainly associated with dewatering infrastructure (wells, pipelines, rapid infiltration basins) that are required to lower the water table in advance of planned mine development.

- Exploration/Mine Development costs are mainly capitalized drilling to better refine the grade estimates in the ore body that will be mined during the LOM.

18.1.2 Reclamation

The costs associated with reclamation and closure activities at Marigold were estimated to be $69.2 million (real Q4 2023 dollars) with the majority of the costs incurred from 2030 through to 2046.

18.2 Operating Costs

As the Property 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 project definition, no contingency was included in the cost estimate. The QP considers the operating cost estimate to be in the accuracy range of +/-15%.

The LOM operating costs estimate is $11.60/t of stacked ore, as shown in Table 18-2.

Table 18-2: Operating Costs Summary

Description	Total LOM ($ million)*	$/t stacked*
Mining	974	5.57 (1.11/t moved)
Maintenance	432	2.47 (0.49/t moved)
Processing	415	2.37
Site Support	205	1.14
Total	**2,027**	**11.56**

*From October 1, 2023

18.2.1 Mining

The LOM mine operating cost estimate is shown in Table 18-3 and covers activities from mining to placing ore on the heap pad at an average LOM mining rate of approximately 260,000 tpd moved over the ten year mining phase.

Table 18-3: Mine Operating Cost Summary

Description	$/t moved
Labor	0.36
Fuel	0.28
GET(1)	0.06
Tires	0.09
Explosives	0.13
All Others	0.19
Total	**1.11**

Notes: 1Ground engaging tools

18.2.2 Maintenance

The LOM maintenance operating cost estimate is shown in Table 18-4.

Table 18-4: Maintenance Operating Cost Summary

Description	$/t moved
Labour	0.18
Supplies	0.11
Parts & Services	0.21
Total	**0.49**

18.2.3 Processing

Processing costs over the LOM include all costs required to recover the gold from the rock after it is mined and placed on the leach pad. This includes the cost of chemicals to process the ore, pumping costs to get the barren solution to the leach pad, pumping costs to get the pregnant solution to the carbon columns for gold recovery after it returns from the leach pad, and the costs associated with the extraction of the gold from the carbon to produce the final doré product shipped from Marigold. The processing cost estimate is shown in Table 18-5 for an average stacking rate of 52,000 tpd and includes costs for the LOM, including the ten year mine life and the final six year rinsing phase of the heap leach pad which starts in 2032 after mining operations has ceased.

Table 18-5: Process Operating Cost Summary

Description	$/t ore stacked
Labor	0.47
Operating Supplies	1.58
Maintenance Expense	0.13
Total Services & Misc	0.19
Total	**2.37**

18.2.4 G&A

G&A costs for the LOM include accounting and site administration, warehousing, safety, human resources, and environmental. These costs, presented in Table 18-6, are related to supporting the operations groups in the mine, maintenance, and processing departments.

Table 18-6: G&A Operating Cost Summary

Description	$/t stacked
Labor	0.43
Supplies/Services	0.71
Total	**1.14**

18.2.5 Workforce Summary

The current Marigold workforce totals 478 persons, consisting of 70 salaried and 408 hourly employees (who are not unionized) as of the effective date of this report. The breakdown by department is shown in Table 18-7.

Table 18-7: Current Workforce

	Hourly FTE	Salary FTE	Total
Mine	234	13	247
Plant	41	11	52
Maintenance	95	14	109
G&A	30	17	47
Tech Services	8	15	23
Total	**408**	**70**	**478**

The LOM workforce is expected to be similar throughout the remaining nine years of mine life with a reduction of workforce during the six year pad drain down.

The Marigold full time equivalent (FTE) workforce for the years 2020 to 2023 (actuals) and the LOM plan (projected) is summarized in Table 18-8.

Table 18-8: LOM Workforce Levels

	Hourly FTE	Salary FTE	Total
2020 Actual	367	73	440
2021 Actual	358	79	437
2022 Actual	375	86	461
2023 Actual	395	83	478
2024 to 2035 Projected	405	90	495

19.0 Economic Analysis

An after-tax Cash Flow Projection has been generated from the Life of Mine production schedule and capital and operating cost estimates and is summarized in Table 19-1. A summary of the key criteria is provided below. The complete cash flow is presented in Section 27.0 Appendix.

19.1 Economic Criteria

19.1.1 Revenue

- 52,000 tonnes ore per day stacked (approximately 20 Mt per year) average stacked grade of 0.47 g/t Au (ROM and stockpile mine plan)
- LOM average 212,000 ounces per year gold recovered from mine plan with LOM stacked ore recovery averaging 74.3%. Total 1.96 Moz recovered over LOM operation (including Q4 2023 through 2032)
- Estimated 12% additional ounces (243,000 ounces produced) included in work in progress: 25,000 additional ounces produced during the ten year heap pad operations and 218,000 additional ounces produced during six year rinsing operations after mining ceases.
- Metal price: US$1,790 per ounce gold (LOM realized), US$1,755 per ounce gold long term price (2028+), US$23.00 per ounce silver (LOM realized), US$22.75 per ounce silver long term price (2028+).
- Gold at refinery 99.95% payable, 100% silver payable.
- Net Smelter Return includes doré refining, transport, and insurance costs.
- Revenue is recognized at the time of gold production.

19.1.2 Costs

- Mine life: 15 years, excluding Q4 2023 (nine years of mining and six years of heap pad rinsing).
- Life of Mine production plan as summarized in Table 13-3.
- Mine life sustaining capital totals $257.6 million
- Final reclamation costs total $69.2 million.
- Average operating cost over the mine life is $11.56 per tonne stacked.

19.1.3 Taxation and Royalties

Marigold is subject to Nevada Net Proceeds of Minerals Tax, Nevada property and sales taxes, and U.S. federal income tax. The economic analysis calculates these taxes in accordance with legislation enacted as of January 1, 2022. Property and sales taxes are accounted for in the operating costs of the mine.

19.1.3.1 Nevada Gross Proceeds Tax

In 2021, the State of Nevada enacted Assembly Bill 495, effective July 1, 2021, which is an annual excise tax on gold and silver revenue. Under the bill, the tax rates vary based on the taxpayer's Nevada gross revenue. A 0.75% rate is imposed on Nevada gross revenue of more than $20 million but not more than $150 million in a taxable year (defined as the calendar year). A rate of 1.10% applies to Nevada gross revenue exceeding $150 million in any tax year. The LOM average rate for Marigold is approximately 0.9% and average $3.5 million per year during the remaining nine year mine operations.

19.1.3.2 Nevada Net Proceeds Tax

The State of Nevada imposes a 5% net proceeds tax on the value of all minerals extracted in the State. This tax is calculated and paid based on a prescribed net income formula applied only to income and expenses from mining, disallowing deductions for exploration and related-party financing costs. This tax is normally assessed at 5% of net income for major mine operations like Marigold. It is a deductible expense for U.S. federal income tax and averages $6.3 million per year over the remaining nine year mine operations.

19.1.3.3 US Federal Income Tax

Federal income tax is determined under regulations that came into effect on January 1, 2022. Under these regulations, which removed alternative minimum tax, the mine is subject to a federal income tax rate of 21%. SLR utilized Unit of Production depreciation, depletion allowances, and Net Operating Losses (NOL) as deductions. Total U.S. federal tax payable averages $11.6 million per year over the remaining nine year mine operations.

19.1.3.4 Royalties

Marigold is subject to a variety of NSR royalty payments, payable to various parties under the terms of the leases, as described in Section 3. The annual average NSR royalty payments range from 3.7% to 10.0% and averages $27.4 million per year over the remaining nine year mine operations.

19.2 Cash Flow Analysis

Considering the Property on a stand-alone basis, the undiscounted pre-tax cash flow totals $1,274 million over the mine life. The after-tax Net Present Value (NPV) at a 5% discount rate (midpoint with November 1, 2023, as time zero) is $800 million, as shown in Table 19-1.

Table 19-1: After-Tax Cash Flow Summary

Description	LOM
Realized Market Prices	
Au ($/oz) – Average	$1,790
Ag ($/oz) – Average	$23.00
Payable Metal	
Au (koz)	2,198
Ag (koz)	46
Cash Flow Summary	**US$ million**
Total Gross Revenue	**3,942**
Mining Cost	(974)
Maintenance Cost	(432)
Process Cost	(415)
G & A Cost	(199)
Exploration	(6)
Refining/Freight	(4)
Mining Royalties	(277)
NGPT[1]	(34)
Total Operating Costs	(2,342)
Operating Margin (EBITDA)	1,600
Cash Taxes Payable	(202)
Working Capital[2]	0
Operating Cash Flow	1,399
Sustaining Capital	(258)
Total Closure/Reclamation Capital	(69)
Pre-tax Free Cash Flow	**1,274**
Pre-tax NPV @ 5%	953
After-tax Free Cash Flow	**1,072**
After-tax NPV @ 5%	800

Notes:

2. Nevada Gross Proceeds Tax
3. All working capital adjustments net to zero at end of mine life

The World Gold Council Adjusted Operating Cost (AOC) is $1,065/oz Au. The mine life capital unit cost, including sustaining and closure/reclamation, is $148/oz, for an All in Sustaining Cost (AISC) of $1,213/oz Au. The average annual gold production during operation, excluding rinsing phase, is 212,000 ounces per year over the ten year mine life and 36,000 ounces per year during the six year rinsing phase.

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:

- Head grade
- Metallurgical recovery
- Gold price
- Operating costs
- Capital costs

After-tax IRR sensitivity over the base case has been calculated for -20% to +20% variations for head grade, recovery, and gold price and -15% to +15% for variations for operating and capital costs. The sensitivities are shown in Figure 19-1 and Table 19-2. The Project is most sensitive to changes in head grade, metallurgical recovery, and metal price (usually with same magnitude of impact) followed by operating cost and finally capital costs.

Figure 19-1: After-Tax Sensitivity Analysis

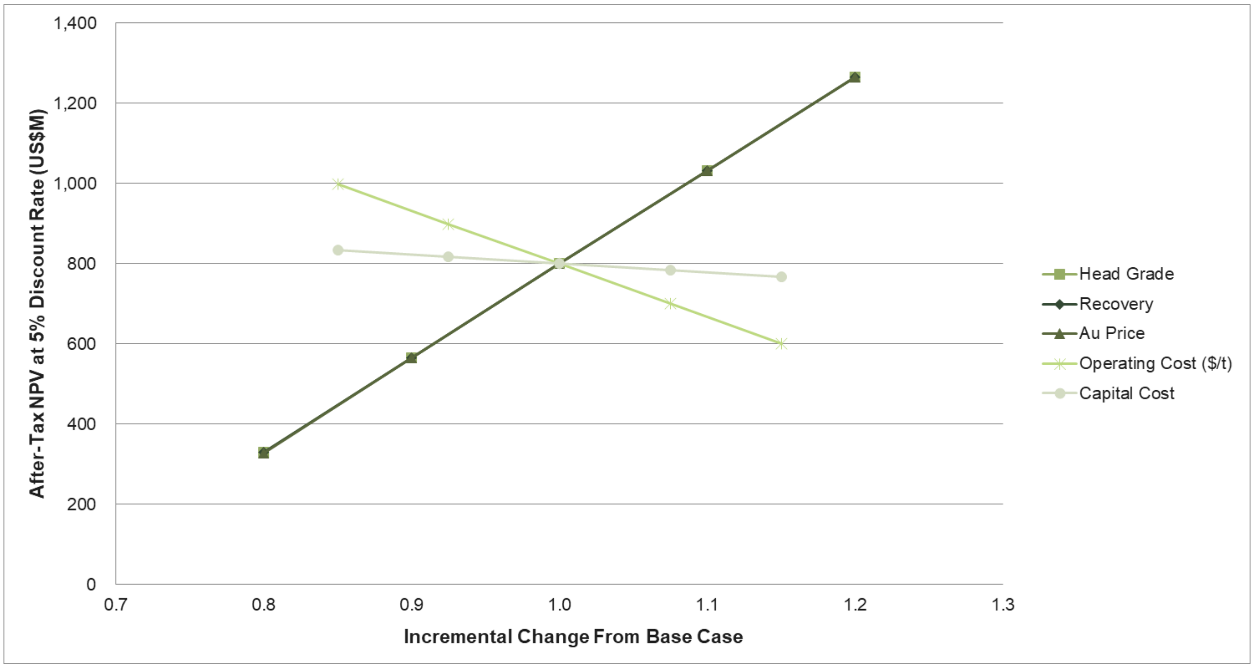


Table 19-2: After-Tax Sensitivity Analyses

Variance	Head Grade (g/t Au)	NPV at 5% ($ millions)
-20%	0.37	329
-10%	0.42	566
0%	0.47	800
+10%	0.52	1,033
+20%	0.56	1,266
Variance	**Gold Recovery (%)**	**NPV at 5% ($ millions)**
-20%	59.4	329
-10%	66.8	566
0%	74.3	800
+10%	81.7	1,033
+20%	89.1	1,266
Variance	**Long Term Metal Prices ($/oz Au)**	**NPV at 5% ($ millions)**
-20%	1,404	329
-10%	1,580	566
0%	1,755	800
+10%	1,931	1,033
+20%	2,106	1,266
Variance	**Operating Costs ($/t)**	**NPV at 5% ($ millions)**
-15%	9.86	998
-7.5%	10.73	899
0%	11.60	800
+7.5%	12.47	701
+15%	13.34	601
Variance	**Capital Costs ($ millions)**	**NPV at 5% ($ millions)**
-15%	288	833
-7.5%	307	817
0%	327	800
+7.5%	346	784
+15%	365	767

20.0 Adjacent Properties

The SLR QP has not independently verified this information and this information is not necessarily indicative of the mineralization at the Marigold Complex.

Marigold is located near the northern limits of a regional belt of ore deposits commonly referred to as the Battle Mountain-Eureka trend. This north–northwest striking alignment of mines and prospects. It is the second most prolific gold belt in Nevada after the Carlin trend, and it includes variants of Carlin-Type Gold Deposits (CTGD), distal type sediment hosted deposits as well as skarn and copper–gold porphyry systems.

Three major gold deposits lie adjacent to the SSR property. Nevada Gold Mines' Phoenix mine is approximately 22 km south of the Buffalo Valley deposit, i-80 Gold Corp's Lone Tree mine is approximately 7 km northwest of Marigold, and Waterton Global Resource Management's Converse project is approximately 6 km west of Marigold. There are also several inactive mines and exploration and/or development projects that can be found within a 19 km radius of the property.

Reported production and Mineral Resources for these adjacent properties are presented in Table 20-1.

Table 20-1: Past Production and Mineral Resources for Adjacent Properties

Property	Owner	Years of Production	Gold Produced (Moz)	Stated Mineral Resources and Mineral Reserves		
				Mineral Reserves	Measured and Indicated Mineral Resources	Inferred Mineral Resources
Phoenix[1]	Nevada Gold Mines	2006–Present	unknown	2.9 Moz gold (0.58 g/t) 840 Mlb copper (0.18%)	5.28 Moz	0.34 Moz
Lone Tree Complex[2]	i-80 Gold Corp.	1991–2012	4.53	n/a	610 koz @ 1.51g/t	2.76 Moz @ 1.6 g/t
Converse[3]	Waterton	–	–	n/a	6.12 Moz	0.59 Moz

Notes:

1. Nevada Gold Mines, May 2021; Investor Day Presentation
2. i-80 Gold Corp., 2021; Technical Report, filed October 21, 2021
3. Chaparral Gold, October 21, 2014; website, deposit sold to Waterton Global Resource Management in 2014

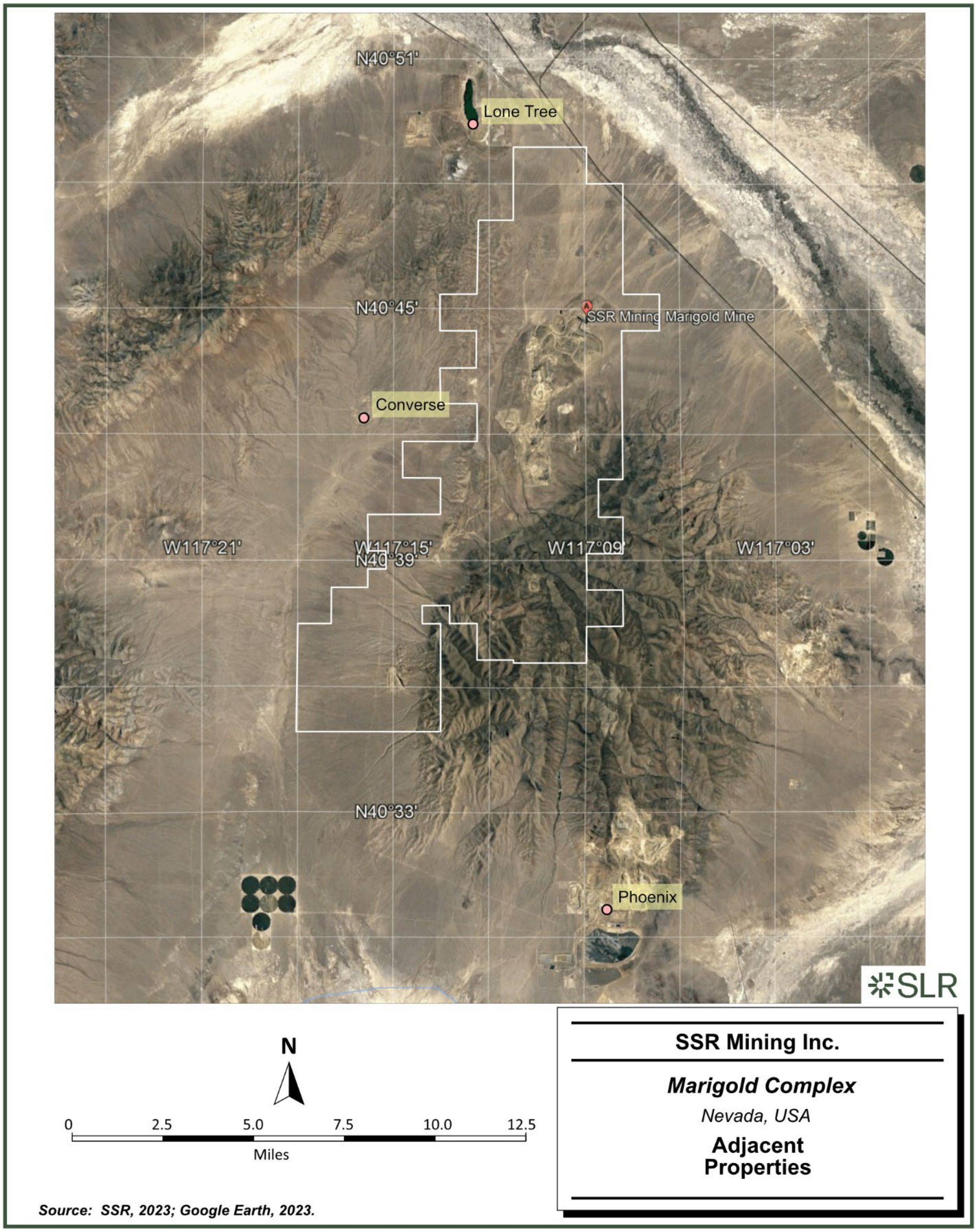
Phoenix mine is currently operated by Nevada Gold Mines and is a polymetallic Au-Cu-Ag porphyry system that has been in production since 2006. The mine includes various deposit types, all structurally controlled by northwest trending faults.

Lone Tree is considered a distal-disseminated deposit that may be genetically related to a porphyry-type system; mineralization was structurally controlled by north–northwest trending faults.

At Converse, gold mineralization is hosted within a skarn that developed within the Havallah Formation. No production has occurred at Converse to date.

A plan map of mine properties adjacent to Marigold is presented in Figure 20-1.

Figure 20-1: Plan Map Showing Marigold Property Outline and Mineralization Relative to Adjacent or Nearby Mines or Published Deposits



Source: SSR, 2023; Google Earth, 2023.

21.0 Other Relevant Data and Information

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

- The gold deposits at Marigold and Trenton Canyon are best classified as Carlin-type gold deposits. Gold mineralizing fluids were primarily controlled by fault structure and lithology, with tertiary influence by fold geometry. Buffalo Valley is considered a distal disseminated silver-gold deposit with strong controls along the margins of felsic porphyry dikes and by favorable lithologies.
- The Property has been the site of considerable mining and exploration, including the drilling and logging of 12,636 drill holes totaling over 2.4 million meters drilled.
- The estimates of Mineral Resources were prepared using a domain-controlled, ordinary kriging technique with verified drill hole sample data derived from exploration activities conducted by various companies from 1968 to 2023.
- The SLR QP is of the opinion that the drilling and sampling procedures adopted at Marigold are consistent with generally recognized industry best practices. The resultant drilling pattern is sufficiently dense to interpret the geometry and the boundaries of gold mineralization with confidence. The reverse circulation (RC) samples were collected by competent personnel using procedures meeting generally accepted industry best practices. The process was conducted or supervised by qualified geologists.
- The SLR QP is of the opinion that the samples are representative of the source materials, and there is no evidence that the sampling process introduced a bias. Accordingly, there are no known sampling or recovery factors that could materially impact the accuracy and reliability of drilling results.
- In the SLR QP's opinion, the sample preparation, security, and analytical procedures meet industry standards, and the QA/QC program, as designed and implemented at Marigold are adequate; consequently, the assay results within the drill hole database are suitable for mineral resource estimation purposes. Neither the SSR in-house quality control nor SSR predecessor's quality control yielded any indication of quality concerns.
- The SLR QP was provided unlimited access for data verification purposes by SSR during this Mineral Resource estimate audit. The SLR QP is of the opinion that database verification procedures for Marigold comply with industry standards and are adequate for the purposes of Mineral Resource estimation.
- Based on the data validation and the results of the standard, blank, and duplicate analyses, the SLR QP is of the opinion that the sampling methods, chain of custody procedures, and analytical techniques are appropriate and meet acceptable industry standards. The assay and bulk density databases are of sufficient quality for Mineral Resource estimation at the Marigold Complex deposits (Marigold Mine and Buffalo Valley).
- 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 the U.S. Securities and Exchange Commission (US SEC) Regulation S-K subpart 1300 rules for Property Disclosures for Mining Registrants (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 MRE to the level of classification assigned.
- The estimate of Mineral Resources presented were prepared for Marigold, with an effective date of September 30, 2023, and for Buffalo Valley with an effective date of July 31, 2023.
- The conversion of Mineral Resources to Mineral Reserves used industry best practices to determine operating costs, capital costs, and recovery performance. Therefore, the estimates are considered to be representative of actual and future operational conditions.
- The SLR QP considers the resource cut-off grade and Whittle pit shapes guide to identify those portions of the MRE that meet the requirement for the prospects for economic extraction to be appropriate for this style of gold deposit and mineralization.
- The Mineral Resources estimates at the Property include the following by deposit area:
    - Marigold: 103.72 million tonnes (Mt) Indicated Resources at an average gold (Au) grade of 0.44 g/t containing 1.47 million ounces (Moz) Au and an additional 19.09 Mt at an average grade of 0.36 g/t Au containing 0.22 Moz of Inferred Resources.
    - Buffalo Valley: 14.89 Mt Indicated Resources at an average grade of 0.57 g/t Au containing 0.27 Moz Au and 8.77 Mt at an average grade of 0.51 g/t Au containing 0.15 Moz in the Inferred category.
- There are no Measured Resources at the Property.
- The level of uncertainty has been adequately reflected in the classification of Mineral Resources for the Property. The MRE 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.
- 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.

22.2 Mining and Mineral Reserves

- SSR Mining has extensive experience with open pit mining at Marigold and a strong understanding of the work requirements and costs based on its current operations.
- Open Pit operations at Marigold are carried out using standard open pit mining methods including drilling, blasting, loading, hauling, and dumping to the designated leach pads or waste rock storage areas (WRSA) at the mine.
- Mineral Reserves estimation practices follow industry standards.
- Total Probable Mineral Reserves at the Marigold mine are estimated to be 174.8 Mt grading 0.47 g/t Au containing 2.98 Moz Au, including the 0.346 Moz Au contained within the leach pad inventory.
- The Marigold Mine Mineral Reserves support a LOM over 16 years of operational life, including ten years of active mining followed by six years of processing the heap leach pad inventory.

- The LOM production schedule is reasonable, but will require robust short-term planning and sequencing to be successful.
- The geotechnical parameters used for pit designs are reasonable and supported by previous operations.
- An appropriate mining equipment fleet, maintenance facilities, and workforce are in place, with various options for additions and replacements estimated, to meet the LOM production schedule requirements.
- Sufficient storage capacity for waste rock and leach pads have been identified to support the production of the Mineral Reserve.
- The SLR QP reviewed the assumptions, parameters, and methods used to prepare the Mineral Reserves Statement and is of the opinion that the Mineral Reserves are estimated and prepared in accordance with S-K 1300.

22.3 Mineral Processing

- The Marigold processing facilities comprise conventional run-of-mine (ROM) cyanide heap leaching, carbon adsorption, electrowinning, and refining circuits (ADR) to produce a final precious metal product. The heap leach pad was originally constructed in 1990 and with ongoing expansions has operated very consistently throughout the years providing an excellent library of operating data.
- The mineralogy of the ore and deportment of the gold along fracture surfaces of the rock rather than in the rock matrix, provides rapid access of leach solutions to the gold particles and relatively fast gold extraction independent of rock size. The SLR QP agrees that the ore is uniquely favorable to run of mine heap leaching, which has been employed for the life of mine.
- Gold recovery is determined from both historical operating performance and from laboratory column and bottle roll leach testing. Gold recovery is consistent and is predicted using a relationship between fire assay and cyanide soluble gold analyses. It is the SLR QP's opinion that the Marigold operating practices are consistent with industry standards, and the ROM method of operation and the methods of determining gold recovery and reagent consumptions are appropriate for this deposit.
- Cumulative gold production from the Marigold leach pad (through September 2023) is equivalent to 70.6% recovery, and total gold recovery, including recoverable gold inventory in the pad, is estimated at 74%.
- Gold production data from the leach pad provide the best indicator for future processing recoveries because the ore from 1999 to present has been very consistent metallurgically and mineralogically. Gold recovery from future ore is estimated to be 74% based on a review of historical assay and recovery data as well as metallurgical test work on future ore.
- Test work has been conducted on a variety of Marigold ore samples, including representative pit samples taken by ore-control geologists, leach pad grab samples from mine production, and various pit blasthole drill cuttings. Bottle roll test work has also been conducted on exploration reverse circulation (RC) drill samples to determine expected gold recovery from deposits that will be mined in the future.
- A large number of column leach tests and bottle roll tests have been performed on the same samples to determine the relationship between their results. Column leach test work

continues; however, bottle roll tests can be performed to generate metallurgical data in days rather than months that are required for column leach tests.

- Permeability testing has been performed on ore samples with varying fines content. The testing simulated compaction under multiple lifts of ore stacked up to 200 m, the current maximum height of the heap leach pads above the liner elevation is 122 m. Overall, the tested blends demonstrated relatively consistent permeability on increasing loads after 50 m and acceptable permeabilities with material blended to a 40% fines to 60% durable ratio. Flow rates for the blends ranged from 178 L/h/m^2 to 284 L/h/m^2 under no load. Under 122 m effective height loading, flow rates ranged from 34 L/h/m^2 up to 188 L/h/m^2. All tests resulted in low, but acceptable permeabilities.
- Gold recovery at Marigold is predicted using a relationship developed between the fire assay, which determines total gold in a sample, and the cyanide soluble gold assay, which determines the amount of cyanide soluble gold in a sample.
- Average LOM Au recovery at Marigold is 74% based on production records. The ratio of cyanide soluble gold to total gold (AuCN/AuFA) using the 2017 database of assay pairs was approximately 0.8 (80%). Using the ratio to determine the actual LOM recovery of 74% results in a factor of 0.92.
- The Current Model to predict Marigold heap leach recovery is *Heap Leach Recovery = (AuCN/AuFA) x 0.92*.
- Gold recovery in each of the four lithologies at Buffalo Valley are dependent on particle size. Gold recovery by particle size distribution was compiled using the current and historical Buffalo Valley metallurgical test results. The results were used to determine the gold recovery for each material type for resource calculations.

22.4 Infrastructure

- Marigold is readily accessible via Interstate Highway 80 in northern Nevada and is approximately 5 km south–south-west of Valmy in Humboldt County. The site access road supports two lanes of traffic and consists of hard packed clay and gravel.
- The infrastructure facilities at Marigold include ancillary buildings, offices and support buildings, access roads into the plant site, power distribution, source of fresh water and water distribution, fuel supply, storage and distribution, waste management and communications. The infrastructure facilities are sufficient for supporting the current Marigold operations.
- The power supply for Marigold is provided by NV Energy Inc. via a 120 kV transmission line to site. Site power draw is 5 MW. After exiting the main substation, power is distributed through a 25 kV distribution grid. Power supply is consistent and dependable and is not a limiting factor for current operations.
- Marigold has sufficient groundwater rights and water well capacity to support the ongoing process operations. The water is primarily consumed by retention in the heap leach pad, evaporation, processing operations and dust suppression.
- It is the SLR QP's opinion that it is reasonable to rely on the information provided by SSR as outlined above for use in the TRS because the Property has been in operation for a number of years, and SSR employs professionals and other personnel with responsibility in these areas that have a good understanding of the operating requirements for the Property.

22.5 Environment

- Specific federal, state, and local (Humboldt County, Nevada) regulatory and permitting requirements apply to MMC, including the following:
    - The Plan of Operations (PoO) permitted via the United States (U.S.) Bureau of Land Management (BLM)
    - The Water Pollution Control Permit (WPCP) issued by the Nevada Department of Environmental Protection (NDEP)
    - The temporary discharge permit allowing for the discharge of dewatering water to rapid infiltration basins (RIBs) issued by NDEP
    - The reclamation permit issued by the Nevada Bureau of Mining Regulation and Reclamation (BMRR)
- MMC currently holds and is in compliance with active, valid permits for all current facets of the mining operation.
- At present, there are no known environmental issues that impact the ability to extract Mineral Resources at the Property.
- All activities associated with MMC require an approved reclamation plan that includes a Reclamation Cost Estimate (RCE) for all permitted facilities and activities. This was updated and approved by federal and state agencies in 2022.
- MMC is actively engaged with the local communities and stakeholders and there are no outstanding negotiations or social commitments for the operation of the mine.
- The SLR QP's opinion is that it is reasonable to rely on the information provided by SSR as outlined above for use in the TRS because significant environmental and social analyses have been conducted for the Property over an extended period, the Property has been in operation for a number of years, and SSR employs professionals and other personnel with responsibility in these areas that have a good understanding of the permitting, regulatory, and environmental requirements for the Property.

22.6 Capital and Operating Costs

SSR's forecasted capital and operating costs estimates related to the development of Mineral Reserves are derived from annual budgets and historical actuals over the long life of the current operation. According to the American Association of Cost Engineers (AACE) classifications, these estimates would be Class 1 with an accuracy range of -3% to -10% to +3% to +15%.

23.0 Recommendations

SLR offers the following recommendations by area.

23.1 Geology and Mineral Resources

The SLR QP offers the following recommendations regarding advancement of the Property.

1. SSR has proposed a two-year exploration drilling (2024 and 2025) program with a total budget of US$10,000,000 to advance development of the Buffalo Valley deposit and exploration target areas. The objective of the exploration program will be to target potential gold-bearing structures to expand the mineralization footprint and as well as to convert the current Resource to Reserve. The SLR QP agrees with the objectives and overall scope of this exploration program.
2. Conduct an additional 30,000 m drilling at Marigold mine where there are opportunities to increase orebody knowledge and confidence of mineral estimates.

23.2 Mining and Mineral Reserves

1. Continue optimizing haulage profiles over the LOM including exploring opportunities for ore material from the New Millennium area to be sent to alternate destinations.
2. Maintain and improve the grade control procedures on site as situation demands, including infill drilling in areas as required and resourcing workforce to execute the same on time, enabling improved quality of ore delivered to leach pads.
3. With existing stockpiles currently being mined, closely monitor grade control procedures in these areas for accurate ore reconciliation.
4. Focus on equipment maintenance and reliability given the age of existing assets and extended lifetime planned for excavators to achieve planned utilization.
5. Ensure dewatering is done on time and does not hamper progress of mine operations. Code projections of dewatering progress to the mining model.
6. Ensure the planned laboratory audit is completed and that the transition from Atomic Absorption (AA) assays to Inductively Coupled Plasma (ICP) assays occurs in early 2024, which will assist mining operations to better control the grade of ore delivered to the leach pads.

23.3 Mineral Processing

1. Conduct regular assessments of the AuCN/AuFA ratio using updated exploration and blast hole data.
2. Continue to conduct column and bottle roll metallurgical testing on heap leach feed composites to determine maximum possible gold recovery.
3. Conduct metallurgical test work on any future ore sources to develop geometallurgical properties and parameters.
4. Complete further studies and assessment of heap leach recoverable gold inventory.

23.4 Infrastructure

1. Continue to maintain the infrastructure facilities in good working order to ensure that critical services such as power and water management, pumping and storage facilities are fully available for potential upset conditions.

23.5 Environment

There are no recommendations related to the environment.

23.6 Capital and Operating Costs

SLR has no recommendations related to capital and operating costs.

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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 relied on ownership information provided by SSR Mining, Inc.'s Land Manager and Permit Compliance Advisor in a report entitled *Mining Claim & Land Tenure Status Report* dated December 15, 2023. SLR has not researched property title or mineral rights for the Property as we consider it reasonable to rely on SSR's legal counsel who is responsible for maintaining this information.

SLR has relied on SSR for guidance on applicable taxes, royalties, and other government levies or interests, applicable to revenue or income from the Property in the Executive Summary and Section 19. As the Property has been in operation for over ten years, SSR has considerable experience in this area.

The Qualified Persons have taken all appropriate steps, in their professional opinion, to ensure that the above information from SSR is sound.

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 Marigold Complex, Nevada, USA" with an effective date of September 30, 2023 was prepared and signed by:

(Signed) ***SLR International Corporation***

Dated at Lakewood, CO
February 12, 2024

SLR International Corporation

27.0 Appendix 1

27.1 Economic Model Annual Summary

Economic Model Annual Summary

SLR

Company **SSR Mining Corp.**
Project Name **Marigold Mine**
Scenario Nam **$1450 Au Reserve Price**
Analysis Type **S-K 1300 TRS Update**

Calendar Year				Oct 2023	2024	2025	2026	2027	2028	2029	2030
Discounting Timeline By Date				Dec-23	Jun-24	Jun-25	Jun-26	Jun-27	Jun-28	Jun-29	Jun-30
Discounting Timeline By Number				0.12	0.75	1.75	2.75	3.75	4.75	5.75	6.75
Project Timeline in Years				0	1	2	3	4	5	6	7
Project Stage				Ops	Ops	Ops	Ops	Ops	Ops	Ops	Ops
Time Until Closure In Years		US$ & Metric Units	LoM Avg / Total	16	15	14	13	12	11	10	9
Market Prices											
Gold, Forecast		US$/oz	**$1,790**	1,925	1,930	1,890	1,810	1,780	1,755	1,755	1,755
Silver, Forecast		US$/oz	**23.00**	23.50	24.00	23.95	23.70	23.35	22.75	22.75	22.75
Physicals											
Total Ore Mined		kt	154,658	3,880	15,537	19,846	15,807	21,113	18,623	19,205	8,725
Total Waste Mined		kt	699,269	22,297	81,996	88,860	93,282	78,970	92,494	64,327	81,720
Total Material Mined		kt	853,928	26,177	97,534	108,706	109,089	100,083	111,117	83,531	90,444
Stripping Ratio		W:O	4.52	5.75	5.28	4.48	5.90	3.74	4.97	3.35	9.37
Total Ore Rehandled		kt	20,140	850	6,418	235	-	-	-	9,992	2,645
Total Material Moved		kt	874,067	27,027	103,951	108,941	109,089	100,083	111,117	93,524	93,089
Total Ore Processed		kt	174,798	4,730	21,955	20,081	15,807	21,113	18,623	29,197	11,369
Gold Grade, Stacked		g/t	0.47	0.32	0.32	0.39	0.44	0.63	0.48	0.46	0.53
Contained Gold, Stacked		koz	2,634	49	227	253	223	425	290	434	193
Average Recovery, Gold		%	74.3%	76.8%	77.2%	75.0%	74.9%	74.0%	71.2%	72.4%	77.4%
Recovered Gold, Stacked		koz	1,956	38	176	190	167	315	207	314	150
Produced Gold, Total		koz	2,199	69	164	170	230	270	234	305	140
Produced Silver, Total		koz	46	1	3	4	5	6	5	6	3
Payable Gold, Total		koz	2,198	69	164	170	230	270	234	305	140
Payable Silver, Total		koz	46	1	3	4	5	6	5	6	3
Cash Flow											
Gold Gross Revenue	99.97%	$000s	3,940,755	133,043	316,351	321,116	416,387	481,043	410,088	535,603	245,371
Silver Gross Revenue	0.03%	$000s	1,070	34	83	86	115	133	112	146	67
Gross Revenue Before By-Product Credits	**100.0%**	**$000s**	**3,941,825**	**133,077**	**316,434**	**321,201**	**416,502**	**481,175**	**410,200**	**535,749**	**245,438**
Gold Gross Revenue		$000s	3,940,755	133,043	316,351	321,116	416,387	481,043	410,088	535,603	245,371
Silver Gross Revenue		$000s	-	-	-	-	-	-	-	-	-
Gross Revenue After By-Product Credits		**$000s**	**3,940,755**	**133,043**	**316,351**	**321,116**	**416,387**	**481,043**	**410,088**	**535,603**	**245,371**
Mining Cost		$000s	(974,268)	(30,860)	(121,192)	(130,302)	(122,095)	(109,779)	(111,533)	(94,972)	(101,039)
Maintenance Cost		$000s	(432,072)	(14,289)	(49,576)	(53,485)	(52,024)	(48,937)	(51,548)	(47,975)	(47,621)
Process Cost		$000s	(415,084)	(7,433)	(38,234)	(38,441)	(36,928)	(38,798)	(38,086)	(40,982)	(36,129)
G&A Cost		$000s	(199,165)	(5,348)	(21,575)	(21,390)	(20,654)	(20,952)	(21,134)	(20,446)	(16,972)
Exploration Costs		$000s	(5,531)	(1,318)	(1,200)	(2,066)	(947)	-	-	-	-
Refining and Freight Cost		$000s	(3,673)	(204)	(240)	(242)	(265)	(280)	(266)	(293)	(230)
NSR Royalty		$000s	(277,297)	(13,253)	(31,519)	(30,874)	(16,563)	(45,220)	(28,968)	(28,092)	(15,111)
NV Gross Proceeds Tax		$000s	(34,426)	(847)	(2,806)	(2,858)	(3,907)	(4,618)	(3,837)	(5,218)	(2,025)
Subtotal Cash Costs Before By-Product Credits		$000s	(2,341,515)	(73,551)	(266,342)	(279,657)	(253,382)	(268,585)	(255,372)	(237,978)	(219,128)
By-Product Credits		$000s	1,070	34	83	86	115	133	112	146	67
Total Cash Costs After By-Product Credits		**$000s**	**(2,340,445)**	**(73,517)**	**(266,259)**	**(279,571)**	**(253,267)**	**(268,452)**	**(255,260)**	**(237,832)**	**(219,061)**
Operating Margin	**41%**	**$000s**	**1,600,310**	**59,526**	**50,092**	**41,544**	**163,120**	**212,591**	**154,828**	**297,771**	**26,310**
EBITDA		**$000s**	**1,600,310**	**59,526**	**50,092**	**41,544**	**163,120**	**212,591**	**154,828**	**297,771**	**26,310**
Depreciation Allowance		$000s	(282,512)	(3,535)	(9,351)	(16,552)	(24,060)	(29,059)	(31,649)	(32,457)	(31,859)
Depletion Allowance		$000s	(489,813)	(19,962)	(20,371)	(12,496)	(62,475)	(72,176)	(61,530)	(80,362)	-
Earnings Before Taxes		**$000s**	**827,985**	**36,030**	**20,371**	**12,496**	**76,585**	**111,355**	**61,649**	**184,952**	**(5,549)**
NV Net Proceeds Tax		$000s	(69,439)	(2,616)	(1,869)	(1,528)	(7,566)	(9,986)	(7,071)	(14,231)	(490)
Federal Income Tax		$000s	(132,206)	(5,543)	(3,069)	(1,820)	(12,718)	(18,680)	(10,057)	(31,459)	-
Net Income		**$000s**	**626,340**	**27,870**	**15,432**	**9,148**	**56,300**	**82,689**	**44,521**	**139,262**	**(6,039)**
Non-Cash Add Back - Depreciation		$000s	282,512	3,535	9,351	16,552	24,060	29,059	31,649	32,457	31,859
Non-Cash Add Back - Depletion		$000s	489,813	19,962	20,371	12,496	62,475	72,176	61,530	80,362	-
Working Capital		$000s	(0)	2,501	8,321	(1,189)	(4,576)	(451)	(860)	(3,055)	1,847
Operating Cash Flow		**$000s**	**1,398,665**	**53,868**	**53,474**	**37,007**	**138,259**	**183,474**	**136,839**	**249,026**	**27,667**
Sustaining Capital		$000s	(257,602)	(9,956)	(29,754)	(60,484)	(46,160)	(43,196)	(24,464)	(17,280)	(20,382)
Closure/Reclamation Costs		$000s	(69,188)	-	-	-	-	-	-	(5)	(429)
Total Capital		**$000s**	**(326,789)**	**(9,956)**	**(29,754)**	**(60,484)**	**(46,160)**	**(43,196)**	**(24,464)**	**(17,285)**	**(20,811)**
Cash Flow Adj./Reimbursements		**$000s**	-	-	-	-	-	-	-	-	-

Calendar Year	2031	2032	2033	2034	2035	2036	2037	2038
Discounting Timeline By Date	Jun-31	Jun-32	Jun-33	Jun-34	Jun-35	Jun-36	Jun-37	Jun-38
Discounting Timeline By Number	7.75	8.75	9.75	10.75	11.75	12.75	13.75	14.75
Project Timeline in Years	8	9	10	11	12	13	14	15
Project Stage	Ops	Ops	Rinse	Rinse	Rinse	Rinse	Rinse	Rinse
Time Until Closure In Years	8	7	6	5	4	3	2	1
Market Prices								
Gold, Forecast	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755
Silver, Forecast	22.75	22.75	22.75	22.75	22.75	22.75	22.75	22.75
Physicals								
Total Ore Mined	20,216	11,706	-	-	-	-	-	-
Total Waste Mined	56,390	38,933	-	-	-	-	-	-
Total Material Mined	76,606	50,639	-	-	-	-	-	-
Stripping Ratio	2.79	3.33	-	-	-	-	-	-
Total Ore Rehandled	-	-	-	-	-	-	-	-
Total Material Moved	76,606	50,639	-	-	-	-	-	-
Total Ore Processed	20,216	11,706	-	-	-	-	-	-
Gold Grade, Stacked	0.46	0.63	-	-	-	-	-	-
Contained Gold, Stacked	300	238	-	-	-	-	-	-
Average Recovery, Gold	73.3%	75.9%	--	--	--	--	--	--
Recovered Gold, Stacked	220	181	-	-	-	-	-	-
Produced Gold, Total	236	162	72	66	33	22	15	11
Produced Silver, Total	5	3	2	1	1	0	0	0
Payable Gold, Total	236	162	72	65	33	22	15	11
Payable Silver, Total	5	3	2	1	1	0	0	0
Cash Flow								
Gold Gross Revenue	414,788	283,924	126,403	114,912	57,456	38,304	26,813	19,152
Silver Gross Revenue	113	77	34	31	16	10	7	5
Gross Revenue Before By-Product Credits	**414,901**	**284,002**	**126,438**	**114,944**	**57,472**	**38,315**	**26,820**	**19,157**
Gold Gross Revenue	414,788	283,924	126,403	114,912	57,456	38,304	26,813	19,152
Silver Gross Revenue	-	-	-	-	-	-	-	-
Gross Revenue After By-Product Credits	**414,788**	**283,924**	**126,403**	**114,912**	**57,456**	**38,304**	**26,813**	**19,152**
Mining Cost	(89,555)	(62,940)	-	-	-	-	-	-
Maintenance Cost	(39,340)	(27,278)	-	-	-	-	-	-
Process Cost	(38,379)	(31,073)	(25,042)	(21,454)	(12,693)	(3,934)	(3,801)	(3,678)
G&A Cost	(13,739)	(11,254)	(7,824)	(4,996)	(4,739)	(3,472)	(3,110)	(1,562)
Exploration Costs	-	-	-	-	-	-	-	-
Refining and Freight Cost	(267)	(239)	(205)	(202)	(190)	(186)	(183)	(181)
NSR Royalty	(37,105)	(13,039)	(5,800)	(5,272)	(2,632)	(1,752)	(1,224)	(872)
NV Gross Proceeds Tax	(3,889)	(2,449)	(797)	(711)	(280)	(136)	(50)	-
Subtotal Cash Costs Before By-Product Credits	(222,273)	(148,271)	(39,667)	(32,635)	(20,533)	(9,479)	(8,368)	(6,293)
By-Product Credits	113	77	34	31	16	10	7	5
Total Cash Costs After By-Product Credits	**(222,160)**	**(148,194)**	**(39,633)**	**(32,604)**	**(20,518)**	**(9,469)**	**(8,361)**	**(6,288)**
Operating Margin	**192,628**	**135,730**	**86,770**	**82,309**	**36,938**	**28,835**	**18,452**	**12,864**
EBITDA	**192,628**	**135,730**	**86,770**	**82,309**	**36,938**	**28,835**	**18,452**	**12,864**
Depreciation Allowance	(29,161)	(23,381)	(16,706)	(11,591)	(7,836)	(5,523)	(3,446)	(6,346)
Depletion Allowance	(62,235)	(42,600)	(18,966)	(17,242)	(8,621)	(5,747)	(4,023)	(1,007)
Earnings Before Taxes	**101,232**	**69,749**	**51,099**	**53,476**	**20,481**	**17,565**	**10,983**	**5,512**
NV Net Proceeds Tax	(8,834)	(5,765)	(2,922)	(2,674)	(1,464)	(1,020)	(495)	(905)
Federal Income Tax	(15,590)	(11,766)	(8,798)	(7,890)	(2,099)	(1,853)	(864)	-
Net Income	**76,807**	**52,218**	**39,379**	**42,913**	**16,918**	**14,691**	**9,623**	**4,606**
Non-Cash Add Back - Depreciation	29,161	23,381	16,706	11,591	7,836	5,523	3,446	6,346
Non-Cash Add Back - Depletion	62,235	42,600	18,966	17,242	8,621	5,747	4,023	1,007
Working Capital	(1,891)	(3,028)	(3,849)	207	(202)	(728)	17	(168)
Operating Cash Flow	**166,313**	**115,171**	**71,202**	**71,952**	**33,173**	**25,234**	**17,109**	**11,791**
Sustaining Capital	(5,925)	-	-	-	-	-	-	-
Closure/Reclamation Costs	(425)	(136)	(433)	(7,987)	(7,626)	(6,489)	(5,799)	(4,505)
Total Capital	**(6,350)**	**(136)**	**(433)**	**(7,987)**	**(7,626)**	**(6,489)**	**(5,799)**	**(4,505)**
Cash Flow Adj./Reimbursements	-	-	-	-	-	-	-	-

Economic Model Annual Summary

Company: **SSR Mining Corp.**
Project Name: **Marigold Mine**
Scenario Nam: **$1450 Au Reserve Price**
Analysis Type: **S-K 1300 TRS Update**

Calendar Year	US$ & Metric Units	LoM Avg / Total	Oct 2023	2024	2025	2026	2027	2028	2029	2030
Discounting Timeline By Date			Dec-23	Jun-24	Jun-25	Jun-26	Jun-27	Jun-28	Jun-29	Jun-30
Discounting Timeline By Number			0.12	0.75	1.75	2.75	3.75	4.75	5.75	6.75
Project Timeline in Years			0	1	2	3	4	5	6	7
Project Stage			Ops	Ops	Ops	Ops	Ops	Ops	Ops	Ops
Time Until Closure In Years			16	15	14	13	12	11	10	9
LoM Metrics										
Economic Metrics										
Discount Rate	**MidPoint** **5%**		0.9939	0.9641	0.9182	0.8745	0.8328	0.7932	0.7554	0.7194
a) Pre-Tax										
Free Cash Flow	$000s	**1,273,521**	52,072	28,659	(20,129)	112,384	168,944	129,503	277,431	7,346
Cumulative Free Cash Flow	$000s		52,072	80,731	60,602	172,986	341,930	471,433	748,864	756,210
NPV @ 5%	$000s	**952,565**	51,756	27,630	(18,482)	98,276	140,701	102,718	209,571	5,285
Cumulative NPV @ 5%	$000s		51,756	27,630	33,274	131,550	272,251	374,969	584,540	589,825
b) After-Tax										
Free Cash Flow	$000s	**1,071,876**	43,912	23,720	(23,477)	92,099	140,278	112,375	231,741	6,856
Cumulative Free Cash Flow	$000s		43,912	67,633	44,156	136,255	276,533	388,908	620,648	627,504
NPV @ 5%	$000s	**800,158**	43,646	22,869	(21,556)	80,538	116,827	89,132	175,057	4,932
Cumulative NPV @ 5%	$000s		43,646	66,515	44,959	125,497	242,324	331,456	506,512	511,445
Operating Metrics										
Mine Life	Years	**16**								
Average Daily Mining Rate	t/d moved	**262,000**	296,191	284,799	298,468	298,875	274,200	304,431	256,229	255,038
Average Daily Stacking Rate	t/d placed	**52,000**	51,837	60,151	55,016	43,307	57,844	51,022	79,991	31,149
Mining Cost	$ / t moved	**$1.11**	1.14	1.17	1.20	1.12	1.10	1.00	1.02	1.09
Maintenance Cost	$ / t moved	**$0.49**	0.53	0.48	0.49	0.48	0.49	0.46	0.51	0.51
Mining Cost	t/d stacked	**$5.57**	6.52	5.52	6.49	7.72	5.20	5.99	3.25	8.89
Maintenance Cost	t/d stacked	**$2.47**	3.02	2.26	2.66	3.29	2.32	2.77	1.64	4.19
Processing Cost	t/d stacked	**$2.37**	3.02	2.26	2.66	3.29	2.32	2.77	1.64	4.19
G&A Cost	t/d stacked	**$1.14**	1.13	0.98	1.07	1.31	0.99	1.13	0.70	1.49
Subtotal Direct Operating Costs	**t/d stacked**	**$11.56**	**12.25**	**10.50**	**12.13**	**14.66**	**10.35**	**11.94**	**7.00**	**17.75**
Refining and Freight Cost	t/d stacked	$0.02	0.04	0.01	0.01	0.02	0.01	0.01	0.01	0.02
NSR Royalty	t/d stacked	$1.59	2.80	1.44	1.54	1.05	2.14	1.56	0.96	1.33
NNPT	t/d stacked	$0.20	0.18	0.13	0.14	0.25	0.22	0.21	0.18	0.18
Total Operating Cost	**t/d stacked**	**$13.40**	**15.55**	**12.13**	**13.93**	**16.03**	**12.72**	**13.71**	**8.15**	**19.27**
Sales Metrics										
Au Sales	koz	**2,198**								
Total Cash Cost	$ / oz Au	**1,065**								
Total AISC	$ / oz Au	**1,213**								
Avg. LOM Annual Au Sales (excl. rinsing phase)	koz/yr	**212**								

Calendar Year	2031	2032	2033	2034	2035	2036	2037	2038
Discounting Timeline By Date	Jun-31	Jun-32	Jun-33	Jun-34	Jun-35	Jun-36	Jun-37	Jun-38
Discounting Timeline By Number	7.75	8.75	9.75	10.75	11.75	12.75	13.75	14.75
Project Timeline in Years	8	9	10	11	12	13	14	15
Project Stage	Ops	Ops	Rinse	Rinse	Rinse	Rinse	Rinse	Rinse
Time Until Closure In Years	8	7	6	5	4	3	2	1
Discount Rate	0.6852	0.6525	0.6215	0.5919	0.5637	0.5368	0.5113	0.4869
a) Pre-Tax Free Cash Flow	184,388	132,567	82,488	74,529	29,111	21,619	12,669	8,192
Cumulative Free Cash Flow	940,597	1,073,164	1,155,652	1,230,181	1,259,292	1,280,911	1,293,580	1,301,771
NPV @ 5%	126,337	86,505	51,264	44,112	16,410	11,606	6,477	3,989
Cumulative NPV @ 5%	716,161	802,667	853,930	898,042	914,452	926,058	932,535	936,524
b) After-Tax Free Cash Flow	159,963	115,036	70,769	63,965	25,548	18,745	11,310	7,286
Cumulative Free Cash Flow	787,468	902,503	973,272	1,037,237	1,062,785	1,081,530	1,092,840	1,100,127
NPV @ 5%	109,602	75,066	43,981	37,859	14,401	10,063	5,783	3,548
Cumulative NPV @ 5%	621,046	696,112	740,093	777,952	792,353	802,416	808,199	811,747
Average Daily Mining Rate	209,880	138,737	-	-	-	-	-	-
Average Daily Stacking Rate	55,388	32,072	-	-	-	-	-	-
Mining Cost ($ / t moved)	1.17	1.24	-	-	-	-	-	-
Maintenance Cost ($ / t moved)	0.51	0.54	-	-	-	-	-	-
Mining Cost (t/d stacked)	4.43	5.38	-	-	-	-	-	-
Maintenance Cost (t/d stacked)	1.95	2.33	-	-	-	-	-	-
Processing Cost	1.95	2.33	-	-	-	-	-	-
G&A Cost	0.68	0.96	-	-	-	-	-	-
Subtotal Direct Operating Costs	**8.95**	**11.32**	-	-	-	-	-	-
Refining and Freight Cost	0.01	0.02	-	-	-	-	-	-
NSR Royalty	1.84	1.11	-	-	-	-	-	-
NNPT	0.19	0.21	-	-	-	-	-	-
Total Operating Cost	**10.99**	**12.67**	-	-	-	-	-	-

Economic Model Annual Summary

SLR	Company	SSR Mining Corp									
	Project Name	Marigold Mine									
	Scenario Nam	$1450 Au Reserv									
	Analysis Type	S-K 1300 TRS Up									
Calendar Year			2039	2040	2041	2042	2043	2044	2045	2046	2047
Discounting Timeline By Date			Jun-39	Jun-40	Jun-41	Jun-42	Jun-43	Jun-44	Jun-45	Jun-46	Jun-47
Discounting Timeline By Number			15.75	16.75	17.75	18.75	19.75	20.75	21.75	22.75	23.75
Project Timeline in Years			16	17	18	19	20	21	22	23	24
Project Stage			Final Closure	Final Closure	Final Closure	Final Closure	Final Closure	Final Closure	Final Closure	Final Closure	Final Closure
Time Until Closure In Years		US$ & Metric Units	-1	-2	-3	-4	-5	-6	-7	-8	-9
Market Prices											
Gold, Forecast		US$/oz	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755
Silver, Forecast		US$/oz	22.75	22.75	22.75	22.75	22.75	22.75	22.75	22.75	22.75
Physicals											
Total Ore Mined		kt	-	-	-	-	-	-	-	-	-
Total Waste Mined		kt	-	-	-	-	-	-	-	-	-
Total Material Mined		kt	-	-	-	-	-	-	-	-	-
Stripping Ratio		W:O	-	-	-	-	-	-	-	-	-
Total Ore Rehandled		kt	-	-	-	-	-	-	-	-	-
Total Material Moved		kt	-	-	-	-	-	-	-	-	-
Total Ore Processed		kt	-	-	-	-	-	-	-	-	-
Gold Grade, Stacked		g/t	-	-	-	-	-	-	-	-	-
Contained Gold, Stacked		koz	-	-	-	-	-	-	-	-	-
Average Recovery, Gold		%	--	--	--	--	--	--	--	--	--
Recovered Gold, Stacked		koz	-	-	-	-	-	-	-	-	-
Produced Gold, Total		koz	-	-	-	-	-	-	-	-	-
Produced Silver, Total		koz	-	-	-	-	-	-	-	-	-
Payable Gold, Total		koz	-	-	-	-	-	-	-	-	-
Payable Silver, Total		koz	-	-	-	-	-	-	-	-	-
Cash Flow											
Gold Gross Revenue	99.97%	$000s	-	-	-	-	-	-	-	-	-
Silver Gross Revenue	0.03%	$000s	-	-	-	-	-	-	-	-	-
Gross Revenue Before By-Product Credits	**100.0%**	**$000s**	-	-	-	-	-	-	-	-	-
Gold Gross Revenue		$000s	-	-	-	-	-	-	-	-	-
Silver Gross Revenue		$000s	-	-	-	-	-	-	-	-	-
Gross Revenue After By-Product Credits		**$000s**	-	-	-	-	-	-	-	-	-
Mining Cost		$000s	-	-	-	-	-	-	-	-	-
Maintenance Cost		$000s	-	-	-	-	-	-	-	-	-
Process Cost		$000s	-	-	-	-	-	-	-	-	-
G&A Cost		$000s	-	-	-	-	-	-	-	-	-
Exploration Costs		$000s	-	-	-	-	-	-	-	-	-
Refining and Freight Cost		$000s	-	-	-	-	-	-	-	-	-
NSR Royalty		$000s	-	-	-	-	-	-	-	-	-
NV Gross Proceeds Tax		$000s	-	-	-	-	-	-	-	-	-
Subtotal Cash Costs Before By-Product Credits		$000s	-	-	-	-	-	-	-	-	-
By-Product Credits		$000s	-	-	-	-	-	-	-	-	-
Total Cash Costs After By-Product Credits		**$000s**	-	-	-	-	-	-	-	-	-
Operating Margin	**41%**	**$000s**	-	-	-	-	-	-	-	-	-
EBITDA		**$000s**	-	-	-	-	-	-	-	-	-
Depreciation Allowance		$000s	-	-	-	-	-	-	-	-	-
Depletion Allowance		$000s	-	-	-	-	-	-	-	-	-
Earnings Before Taxes		**$000s**	-	-	-	-	-	-	-	-	-
NV Net Proceeds Tax		$000s	-	-	-	-	-	-	-	-	-
Federal Income Tax		$000s	-	-	-	-	-	-	-	-	-
Net Income		**$000s**	-	-	-	-	-	-	-	-	-
Non-Cash Add Back - Depreciation		$000s	-	-	-	-	-	-	-	-	-
Non-Cash Add Back - Depletion		$000s	-	-	-	-	-	-	-	-	-
Working Capital		$000s	7,767	131	(307)	(160)	12	(174)	(99)	(10)	(57)
Operating Cash Flow		**$000s**	**7,767**	**131**	**(307)**	**(160)**	**12**	**(174)**	**(99)**	**(10)**	**(57)**
Sustaining Capital		$000s	-	-	-	-	-	-	-	-	-
Closure/Reclamation Costs		$000s	(8,081)	(9,679)	(5,941)	(3,989)	(4,131)	(2,020)	(817)	(697)	-
Total Capital		**$000s**	**(8,081)**	**(9,679)**	**(5,941)**	**(3,989)**	**(4,131)**	**(2,020)**	**(817)**	**(697)**	-
Cash Flow Adj./Reimbursements		**$000s**	-	-	-	-	-	-	-	-	-

Economic Model Annual Summary

Company	SSR Mining Corp									
Project Name	Marigold Mine									
Scenario Nam	$1450 Au Reserv									
Analysis Type	S-K 1300 TRS Up									
Calendar Year		2039	2040	2041	2042	2043	2044	2045	2046	2047
Discounting Timeline By Date		Jun-39	Jun-40	Jun-41	Jun-42	Jun-43	Jun-44	Jun-45	Jun-46	Jun-47
Discounting Timeline By Number		15.75	16.75	17.75	18.75	19.75	20.75	21.75	22.75	23.75
Project Timeline in Years		16	17	18	19	20	21	22	23	24
Project Stage		Final Closure	Final Closure	Final Closure	Final Closure	Final Closure	Final Closure	Final Closure	Final Closure	Final Closure
Time Until Closure In Years	US$ & Metric Units	-1	-2	-3	-4	-5	-6	-7	-8	-9
LoM Metrics										
Economic Metrics										
Discount Rate **MidPoint**	**5%**	0.4637	0.4417	0.4206	0.4006	0.3815	0.3634	0.3461	0.3296	0.3139
a) Pre-Tax										
Free Cash Flow	$000s	(314)	(9,548)	(6,248)	(4,149)	(4,119)	(2,193)	(916)	(707)	(57)
Cumulative Free Cash Flow	$000s	1,301,458	1,291,910	1,285,662	1,281,513	1,277,393	1,275,200	1,274,285	1,273,578	1,273,521
NPV @ 5%	$000s	(146)	(4,217)	(2,628)	(1,662)	(1,572)	(797)	(317)	(233)	(18)
Cumulative NPV @ 5%	$000s	936,378	932,161	929,533	927,871	926,300	925,503	925,186	924,953	924,935
b) After-Tax										
Free Cash Flow	$000s	(314)	(9,548)	(6,248)	(4,149)	(4,119)	(2,193)	(916)	(707)	(57)
Cumulative Free Cash Flow	$000s	1,099,813	1,090,265	1,084,017	1,079,868	1,075,748	1,073,555	1,072,640	1,071,933	1,071,876
NPV @ 5%	$000s	(146)	(4,217)	(2,628)	(1,662)	(1,572)	(797)	(317)	(233)	(18)
Cumulative NPV @ 5%	$000s	811,601	807,384	804,756	803,094	801,522	800,726	800,409	800,176	800,158
Operating Metrics										
Mine Life	Years									
Average Daily Mining Rate	t/d moved	-	-	-	-	-	-	-	-	-
Average Daily Stacking Rate	t/d placed	-	-	-	-	-	-	-	-	-
Mining Cost	$ / t moved	-	-	-	-	-	-	-	-	-
Maintenance Cost	$ / t moved	-	-	-	-	-	-	-	-	-
Mining Cost	t/d stacked	-	-	-	-	-	-	-	-	-
Maintenance Cost	t/d stacked	-	-	-	-	-	-	-	-	-
Processing Cost	t/d stacked	-	-	-	-	-	-	-	-	-
G&A Cost	t/d stacked	-	-	-	-	-	-	-	-	-
Subtotal Direct Operating Costs	**t/d stacked**	-	-	-	-	-	-	-	-	-
Refining and Freight Cost	t/d stacked	-	-	-	-	-	-	-	-	-
NSR Royalty	t/d stacked	-	-	-	-	-	-	-	-	-
NNPT	t/d stacked	-	-	-	-	-	-	-	-	-
Total Operating Cost	**t/d stacked**	-	-	-	-	-	-	-	-	-
Sales Metrics										
Au Sales	koz									
Total Cash Cost	$ / oz Au									
Total AISC	$ / oz Au									
Avg. LOM Annual Au Sales (excl. rinsing phase)	koz/yr									
				-	-	-	-	-	-	

Making Sustainability Happen