NI 43-101 TECHNICAL REPORT
ON THE MARIGOLD MINE
Humboldt County, Nevada, USA

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Date and Signature Page

The effective date of this Technical Report, titled "*NI 43-101 Technical Report on the Marigold Mine, Humboldt County, Nevada, USA*", is December 31, 2017.

Dated this 31st day of July 2018

"original signed and sealed"

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Cautionary Note Regarding Forward-Looking Statements

This Technical Report contains “forward-looking information” and “forward-looking statements” (collectively, “forward-looking statements”) within the meaning of applicable Canadian and United States securities legislation. These forward-looking statements relate to, among other things: SSR Mining’s objectives, strategies, intentions, guidance, expectations, projections and estimations with respect to, among other things, revenues, production, costs, capital and exploration expenditures, and the estimated economics of the Marigold mine, including as such has been used to support the Mineral Reserves estimate; future financial and operating performance and prospects; anticipated production at the Marigold mine and processing facilities, including a total production of 2,373,651 payable ounces of gold being produced; events that may affect the Marigold mine’s operations; anticipated cash flows from the Marigold mine; the anticipated effects and timing of the purchase and implementation of additional 300-tonne class haul trucks and the planned processing expansion projects; the anticipated effects of external factors, such as commodity prices, estimation of Mineral Reserves and Mineral Resources, mine life projections, recovery rate and concentrate grade projections, reclamation costs, economic outlook and government regulation of mining operations; expectations regarding the timing and ability to obtain the necessary permits for the Marigold mine; and the anticipated Marigold life of mine plan, including projected life of mine. All statements in this Technical Report that address events or developments that SSR Mining expects to occur in the future are forward-looking statements. Forward looking statements are statements that are not historical facts and are generally, although not always, identified by the use of words or phrases such as “expects,” “anticipates,” “plans,” “projects,” “estimates,” “assumes,” “intends,” “strategy,” “goals,” “objectives,” “potential,” or variations thereof, or stating that certain actions, events or results “may,” “could,” “would,” “might” or “will” be taken, occur or be achieved, or the negative of any of these terms or similar expressions. All such forward-looking statements are based on the opinions and estimates of SSR Mining as of the date such statements are made. All of the forward-looking statements in this Technical Report are qualified by this cautionary note.

Forward-looking statements are not, and cannot be, a guarantee of future results or events. Forward-looking statements are based on, among other things, opinions, assumptions, estimates and analyses that, while considered reasonable at the date the forward-looking statements are provided, inherently are subject to significant risks, uncertainties, contingencies and other factors that may cause actual results and events to be materially different from those expressed or implied by the forward-looking statements. The material factors or assumptions that SSR Mining identified and were applied in drawing the conclusions or making forecasts or projections set in the forward-looking statements include but are not limited to: the factors identified at Sections 1.6.1, 1.7.1, 1.15, 4.6, 13.1, 14.11, 15, 15.2, 15.8, and 25 of this Technical Report; the assumptions identified at Sections 1.6, 1.14, 9.1.4, 11, 14.11, 15, 15.6, 15.8, 16.5, 22.1, 21.3.2, and 22.4, and Tables 1.1, 1.2, 6.3, 14.11 and 15.1 of this Technical Report; assumptions regarding stockpiles; the success of mining, processing, exploration and development activities; the accuracy of geological, mining and metallurgical estimates; anticipated metal prices and the costs of production; no significant unanticipated operational or technical difficulties; the availability of personnel for exploration, development and operation of the Marigold mine; maintaining good relations with the communities surrounding the Marigold mine; no significant events or changes relating to regulatory, environmental, health and safety matters; certain tax matters and no significant and continuing adverse changes in general economic conditions or conditions in the financial markets (including commodity prices, foreign exchange rates and inflation rates).

The risks, uncertainties, contingencies and other factors that may cause actual results to differ materially from those expressed or implied by the forward-looking statements may include, but are not limited to, risks generally associated with the mining industry, such as economic factors (including future commodity prices, currency fluctuations, inflation rates, energy prices and general cost escalation); uncertainties relating to the development of the Marigold mine, including obtaining the necessary permits, the purchase and integration of additional 300-tonne class haul trucks and the commissioning of the planned processing expansion projects; dependence on key personnel and employee relations; risks relating to political and social unrest or change, operational risk and hazards, including unanticipated environmental, industrial and geological events and developments and the inability to insure against all risks; failure of plant, equipment, processes, transportation and other infrastructure to operate as anticipated; compliance with government and environmental regulations, including permitting requirements and anti-bribery legislation; depletion of Mineral Reserves; the failure to obtain required approvals or clearances from government authorities on a timely basis; uncertainties related to the geology, continuity, grade and estimates of Mineral Reserves and Mineral Resources and the potential for variations in grade and recovery rates; uncertainties relating to reclamation activities; tax refunds; hedging contracts; as well as other factors identified and as described in more detail under the heading "Risk Factors" in SSR Mining's most recent Annual Information Form, which may be viewed at www.sedar.com. The list is not exhaustive of the factors that may affect the forward-looking statements. There can be no assurance that such statements will prove to be accurate, and actual results, performance or achievements could differ materially from those expressed in, or implied by, these forward-looking statements. Accordingly, no assurance can be given that any events anticipated by the forward-looking statements will transpire or occur, or if any of them do, what benefits or liabilities SSR Mining will derive therefrom. The forward-looking statements reflect the current expectations regarding future events and operating performance and speak only as of the date hereof and SSR Mining does not assume any obligation to update the forward-looking statements if circumstances or management's beliefs, expectations or opinions should change other than as required by applicable law. For the reasons set forth above, undue reliance should not be placed on forward-looking statements.

Cautionary Note Regarding Non-GAAP Measures

This Technical Report includes certain terms or performance measures commonly used in the mining industry that are not defined under International Financial Reporting Standards ("IFRS"), including cash costs and AISC per payable ounce of gold sold. Non-GAAP measures do not have any standardized meaning prescribed under IFRS and, therefore, they may not be comparable to similar measures employed by other companies. The data presented is intended to provide additional information and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS. Readers should also refer to SSR Mining's management's discussion and analysis, available under its corporate profile at www.sedar.com or on its website at www.ssrmining.com, under the heading "Non-GAAP and Additional GAAP Financial Measures" for a more detailed discussion of how SSR Mining calculates such measures.

1 SUMMARY

1.1 Introduction

The purpose of this technical report (the Technical Report) for the Marigold mine located in Humboldt County, Nevada, U.S. (Marigold or the Property) is to support the SSR Mining Inc. (SSR Mining) news release 18-09 dated June 18, 2018 titled “Updated Marigold Life of Mine Plan Confirms Near-Term Production Growth and Robust Economics”.

This Technical Report follows the Definition Standards on Mineral Resources and Reserves (the CIM Standards) set forth by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) adopted by the CIM Council on May 10, 2014, and it was prepared for SSR Mining in accordance with the requirements of National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* (NI 43-101) and Form 43-101F1.

SSR Mining is a Canadian-based resource company focused on the acquisition, exploration, development and operation of precious-metal projects in the Americas. SSR Mining is listed on the TSX in Canada and the NASDAQ Global Market in the U.S. under the trading symbol “SSRM”.

Marigold mine is owned directly by SSR Mining’s wholly-owned subsidiary, Marigold Mining Company (MMC). This Technical Report was prepared by qualified persons (QPs) employed by SSR Mining or MMC.

Units of measurement used in this report conform to the metric system or the International System of Units (SI). All currency is expressed in U.S. dollars unless stated otherwise.

1.2 Property Description and 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 degrees, 45 minutes north latitude and 117 degrees, 8 minutes west longitude.

The Property is situated approximately 5 km 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 Land Tenure and Ownership

The authorized plan of operations (PoO) area for Marigold currently encompasses approximately 10,571 ha with approximately 2,290 ha within the PoO permitted for mining-related disturbance. Land and mineral ownership within the PoO 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 Bureau of Land Management (BLM).

SSR Mining 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, millsite claims and certain surface lands.

Each lease requires 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 2.125% 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 7.9% over the life of mine (LOM).

1.4 Geology and Mineralization

The Property is located on the northern margin of the Battle Mountain-Eureka trend of mineralization, in the Battle Mountain Mining district, in north central Nevada, U.S.

1.4.1 Regional Geology

The western part of the North American continent has undergone a complex history of extensional and compressional tectonics from the Proterozoic through to the Quaternary. Predominantly Paleozoic rifting and basin subsidence led to the formation of thick (hundreds of metres) passive margin sedimentary sequences, and repeated inter-plate collisions caused accretion of arc related volcanics and ocean floor rocks which were pushed together with the basin sediments to form fold and thrust belts. Later extension related to subduction and back arc basin rifting resulted in the development of basin and range topography. Crustal thinning caused by the extension allowed the rise of magma close to the surface which produced extensive and voluminous magmatism from the mid Eocene to late Miocene. Crustal extension with bi-modal volcanism occurred in the region from the late Miocene to the present day. The Marigold mine is located in north-central Nevada within the Basin and Range physiographic province, bounded by the Sierra Nevada to the west and the Colorado Plateau to the east.

1.4.2 Local and Property Geology

Three packages of Paleozoic sedimentary and metasedimentary rocks are present at Marigold. In ascending tectonostratigraphic order, they include: 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.

Valmy Formation. The oldest rocks in the Marigold area belong to the Ordovician Valmy Formation. The Valmy Formation consists of quartzite, argillite, chert, and lesser metabasalt, all of which are complexly folded and faulted in the Marigold mine area. The top of the Valmy Formation is unconformable with overlying rocks. Silurian and Devonian rocks are not present either due to nondeposition or erosion. Unconformably overlying the Valmy Formation is the Pennsylvanian-Permian Antler overlap sequence.

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; and the Edna Mountain Formation. These formations represent a transgressive sequence of shallow marine rocks that include conglomerate, sandstone, limestone, and siltstone. There is evidence the Antler sequence was locally deposited into sub-basins developed by normal offset on growth faults of likely early Permian age. Antler sequence rocks are relatively undeformed, except for offset and rotation along Basin and Range normal faults. 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 deeper water marine sediments were deposited in a fault-bounded deep-water trough (Ketner, 2008) and subsequently obducted over the Antler sequence along the Golconda thrust (Roberts, 1964).

A series of late Cretaceous (Fithian, 2015) porphyritic quartz monzonite dikes crosscut the Paleozoic rock package at Marigold. The intrusions are typically several metres wide, and several can be traced along strike for tens to hundreds of metres. The dikes strike west-northwest to north and are typically steeply dipping.

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.

1.4.3 Mineralization

The gold deposits at Marigold cumulatively define a north-trending alignment of gold mineralized rock more than 8 km long.

Gold mineralizing fluids were primarily controlled by fault structure and lithology, with tertiary influence by fold geometry. The deposition of gold was restricted to fault zones and quartzite-chert dominant horizons within the Valmy Formation and high permeability units within the Antler sequence. Gold mineralization was also influenced by fold geometry in the Valmy Formation.

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.

1.4.4 Alteration

Alteration of rocks includes silicification along high-angle mineralizing structures and decalcification of carbonate horizons. Argillic alteration of quartz monzonite intrusive bodies occurs in fault zones and areas of high hydrothermal fluid flow. The intensity of alteration decreases towards the core of the intrusions.

1.5 Exploration

Currently, exploration work is performed with a staff that reports to site management. MMC funds all work to develop Mineral Resource and Mineral Reserve targets.

1.5.1 Historical Work

The first recorded gold production from the Property was from an underground mine in 1938. Approximately 9,000 tonnes of ore averaging about 6.85 g/t Au was processed before World War II halted production. Several unsuccessful attempts were made to open and operate the mine before exploration activities re-commenced in 1968.

From 1968 to 1985, several companies conducted exploration programs in the Marigold area and completed a total of 126 exploratory drill holes.

From 1983 to 1984, the Marigold Development Company excavated a small open pit over the historical Marigold underground workings, producing 2,812 tonnes containing 271 oz Au (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 Exploration Co. (Cordex) an exploration syndicate composed of Dome Exploration (U.S.) Ltd., Lacana Gold Inc. (Lacana) and Rayrock Mines Inc. (Rayrock Mines), to view the drilling results, and Wallace was encouraged by the deep level of oxidation, presence of favourable rock units, anomalous indicator elements, and anomalous gold values. The operating partner Cordex 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 square kilometres 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 Corporation (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, 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, 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 Ltd., 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, as operator, and Homestake, which had been acquired by Barrick Gold Corporation 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.

1.5.2 Exploration and Drilling Activities Since 2014

After the purchase of Marigold was completed in 2014, SSR Mining reviewed the exploration activities of previous owners. Based on this review, SSR Mining completed a gravity survey. The main objective of this work was to delineate possible fluid conduits or feeder structures for the Marigold mineralization.

The gravity measurements were collected from 1,358 stations using two LaCoste & Romberg Model-G gravity metres at a grid spacing of 150 m (500 ft.) by 150 m (500 ft.).

In October 2015, the three millionth ounce was poured at Marigold.

In 2016, a total of 1,806 new gravity stations were acquired by Magee Geophysical Services, LLC at variable station spacing on a 150 m square grid and a 150 m by 300 m staggered grid. Relative gravity measurements were made with LaCoste & Romberg Model-G gravity metres. Topographic surveying was performed with Trimble Real-Time Kinematic (RTK) and Fast-Static GPS methods.

SSR Mining initiated a Mineral Resources exploration program in June 2014. The program targeted the discovery of near-surface gold mineralization proximal to Marigold's open pits and upgraded the Inferred Mineral Resources to Indicated Mineral Resources.

The 2014 to 2017 drilling production included:

- 706 reverse circulation (RC) drill holes for 170,684 m;
- 37 sonic drill holes in rock stockpiles (included in RC totals); and
- 7 HQ diamond core holes for 7,588 m.

SSR Mining drilled a total of 713 drill holes for 178,272 m from 2014 to 2017.

1.6 Mineral Resources

The Mineral Resources for Marigold were calculated based on an optimized pit shell at a payable gold grade of 0.065 g/t (gold assay factored for recovery, royalty and net proceeds per block) using an assumed gold price of $1,400 per ounce.

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

The Mineral Resources estimate is based on all available data for Marigold as of December 31, 2017. The Mineral Resources are inclusive of the Mineral Reserves and are presented in Table 1.1.

Table 1.1: Mineral Resources estimate inclusive of Mineral Reserves (as at December 31, 2017)

Category	Tonnes (Mt)	Gold Grade (g/t)	Contained Gold (Moz)
Measured	–	–	–
Indicated	370.2	0.46	5.47
Leach Pad Inventory	–	–	0.19
Total	**370.2**	**0.46**	**5.66**
Inferred	49.7	0.41	0.63

Notes:

1. Mineral Resources estimate was prepared in accordance with the CIM Standards and NI 43-101 under the supervision of James Carver, SME Registered Member, the Chief Geologist at Marigold, and Karthik Rathnam, MAusIMM (CP), the Chief Engineer at Marigold, each a QP.
2. Mineral Resources estimate is reported below the as-mined surface as at December 31, 2017 and is inclusive of Mineral Reserves.
3. 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 the Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration.
4. Mineral Resources estimate is reported based on an optimized pit shell at a cut-off grade of 0.065 g/t payable gold (gold assay factored for recovery, royalty and net proceeds per mineral resource block), with a gold price assumption of $1,400 per ounce of gold.
5. Gold values have been estimated using ordinary kriging for in situ material and Inverse Distance cubed for stockpile material.
6. Domain-based outlier restriction on gold values ranging between 1.37 g/t and 8.57 g/t has been used for the Mineral Resources estimate.
7. Densities for different lithological units have been calculated based on detailed test work carried out by SSR Mining and corresponds to historical mine production.
8. Mineral Resources estimate includes all mineralized material that has the potential for economic recovery of gold from an open pit supply to a ROM heap leach operation.
9. The Marigold drill hole database, including collar survey, assay, lithology, oxidation and densities, used for the Mineral Resources estimate has been verified by James N. Carver, SME Registered Member, and Karthik Rathnam, MAusIMM (CP),

by conducting detailed verification checks, including quality assurance/quality control (QA/QC) of location, geological, density and assay data.

10. The cost, recovery and design parameters considered by optimization calculations for the Mineral Resources estimate are considered appropriate based on the current mine production.
11. Indicated Mineral Resources estimate that forms a portion of the Probable Mineral Reserves is regarded as appropriate for medium- to long-term production open pit planning and mine scheduling on a quarterly basis.
12. There are no known legal, political or environmental risks that could materially affect the potential development of the Mineral Resources estimate.
13. Although Measured Resources, Indicated Resources and Inferred Resources are Mineral Resources confidence classification categories defined by CIM and are recognized and required to be disclosed by NI 43-101, the U.S. Securities and Exchange Commission (SEC) does not recognize them.
14. Tonnage and grade measurements are in metric units. Contained gold ounces are reported as millions of troy ounces (Moz).
15. Figures may not total exactly due to rounding.

1.6.1 Discussion of Risk Factors for Mineral Resources

SSR Mining 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 as at December 31, 2017 presented in Table 1.1.

1.7 Mineral Reserves

The Mineral Reserves estimate presented herein is reported in accordance with NI 43-101 and the CIM Standards. Indicated Mineral Resources within the designed pits are considered *Probable Mineral Reserves* according to the CIM Standards and are presented in Table 1.2.

Thomas Rice, SME Registered Member, is the QP responsible for the mining parameters and the Mineral Reserves estimate. Trevor J. Yeomans, ACSM, P. Eng., is the QP who provided the metallurgical parameters incorporated in the Mineral Reserves estimate. The Mineral Reserves estimate for Marigold was calculated using the as-mined surface as at December 31, 2017.

The Mineral Reserves estimate herein is based on all available data for Marigold.

Table 1.2: Mineral Reserves estimate (as at December 31, 2017)

Category	Tonnes (Mt)	Gold Grade (g/t)	Contained Gold (Moz)
Proven	--	--	--
Probable	205.1	0.46	3.00
Leach Pad Inventory	--	--	0.19
Total	205.1	0.46	3.19

Notes:

1. Mineral Reserves estimate was prepared in accordance with the CIM Standards and NI 43-101 under the supervision of Thomas Rice, SME Registered Member, the Technical Services Manager at Marigold, a QP. Trevor J. Yeomans, ACSM, P. Eng., SSR Mining's Director, Metallurgy, is the QP who provided metallurgical parameters that were incorporated in the Mineral Reserves estimate.
2. Mineral Reserves estimate is reported below the as-mined surface as at December 31, 2017.

3. Mineral Reserves estimate is contained within pit designs generated using Indicated Mineral Resources only and a gold price assumption of $1,250 per ounce.
4. Mineral Reserves estimate is reported at a cut-off grade of 0.065 g/t payable gold.
5. Mineral Reserves estimate is reported within a pit design that uses geotechnical parameters proven from actual performance and reviewed by Call & Nicholas, Inc., Geotechnical Consultants. The design is created using a geometry guideline from a Lerchs-Grossman algorithm.
6. 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.
7. Mining costs are based on historical values and budgeted costs with an incremental haulage component based on estimated haul cycle times and pit depths. Processing and general and administrative (G&A) costs are estimated based on historical values and budgeted costs.
8. Average LOM strip ratio is 3.2:1 waste to ore.
9. Metallurgical recovery is calculated using a formula derived through historical information and laboratory test work. The formula is cyanide soluble gold grade divided by total gold grade multiplied by 0.92 (discussed in Section 13 of this Technical Report).
10. There are no known legal, political or environmental risks that could materially affect the potential development of the Mineral Reserves estimate.
11. The Mineral Reserves estimate assumes that all required permits have been or will be obtained prior to mining, as discussed in Section 20 of this Technical Report.
12. Tonnage and grade measurements are in metric units. Contained gold ounces are reported as millions of troy ounces (Moz).

1.7.1 Discussion of Risk Factors for Mineral Reserves

Mineral Resources are not Mineral Reserves until they have demonstrated economic viability. All previous Mineral Reserves estimates for the Property are considered to be historical in nature.

SSR Mining 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 at December 31, 2017 presented in Table 1.2.

1.8 Mining Operations

Marigold uses standard open pit mining methods at a current mining rate of 200,000 metric tonnes per day (mtpd). 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.

Mining occurs on 15.2 m (50 ft) benches for pre-stripping waste and 7.6 m (25 ft) benches for ore.

Loading operations are performed using three primary loading shovels. Backup loading is done with a front-end loader. Waste and ore haulage is performed with a fleet of 300-tonne primary haulers. In February 2018, SSR Mining approved the purchase of four additional 300-tonne class haul trucks for expected service in the third quarter of 2018, which will expand the truck fleet at Marigold to 25 300-tonne class haul trucks.

Equipment maintenance is performed on site for all equipment. There are no contract-mining operations on site, except with respect to blasting.

1.9 Mineral Processing

The Marigold processing plant and processing facilities combine industry standard ROM heap leaching, carbon adsorption, carbon desorption and electro-winning circuits to produce a final precious metal (doré) product.

All processing of ore, which is oxide in nature, is completed via ROM heap leach pad, and is a cost-effective method to recover gold. ROM ore is delivered to the leach pad by haulage truck and stacked in 6.1 m (20 ft) to 12.2 m (40 ft) lifts. At any given time, approximately 0.5 million square metres of pad area is being leached.

Barren leach solution (cyanide-bearing solution, very low in gold grade) is applied selectively to different areas of the pad.

The leach solution is pumped to the leach pad and the pregnant solution (gold bearing) from the leach pad is then collected in a pregnant solution pond(s) before it is pumped to carbon column trains where gold is adsorbed from solution onto activated carbon. Carbon loaded with gold is taken from the carbon columns and transported to the process facility where gold is stripped from the carbon by solution. The precious-metal-bearing solution is passed through electro-winning cells where metals are plated out. The plated material is retorted for mercury removal and drying prior to smelting for final precious metal recovery.

From March 1990 through December 2017, gold recovery from the heap leach pad was 70.3%. Historical production figures for the Marigold heap leach pad are shown in Table 1.3. This recovery was achieved with 90- to 120-day primary leach cycles and an overall mass-of-solution to mass-of-ore ratio of 1.4:1. The current total gold recovery of more than 70% from ROM ore compares favourably to similar mining operations, and, given current and past gold prices, suggests that a crushing circuit is not required.

Table 1.3: Heap leach production and recovery

Ore (tonne)	Gold Loaded (oz)	Gold Grade (g/t)	Gold Recovered (oz)	Gold Recovery (%)
227,183,122	4,278,846	0.59	3,009,245	70.3

Marigold, like many gold heap leach mines, uses an assay method known as “cyanide soluble gold”. This 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. The gold content of the final solution is measured using atomic absorption (AA).

All Marigold blasthole samples are assayed for cyanide soluble gold. Every fifth sample containing 0.10 g/t (historically, 0.003 oz/st) cyanide soluble gold, and any samples with a higher value are fire assayed (FA) for total contained gold. Therefore, some samples have two assay values: an AuCN (cyanide soluble) value; and an AuFA (fire assayed) value. The ratio of AuCN/AuFA provides the theoretical maximum gold recovery that can be achieved. It is theoretical because the sample is pulverized.

The exploration database contains approximately 155,000 pairs of fire and cyanide soluble assays. 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.

A best-fit linear regression shows the AuCN/AuFA ratio is 0.8037:1 (~80% recovery).

The LOM actual leach pad recovery is 73.63% (including in-process gold inventory through December 2017).

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

Actual: 73.63% / Chemical: 80.37% = 0.916

Therefore, the estimated recovery from the ROM heap leach pad, for any modelled ore block, can be expressed as:

Pad Recovery = AuCN/AuFA × 0.92

1.10 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, source of electrical power and 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 litres of water consumption annually, the majority of which is used as makeup water for process operations. On average, total freshwater makeup is 40 L/s. 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.

1.11 Environmental, Permitting and Social Responsibility

Significant portions of the Property exist on public lands administered by the BLM. Therefore, the majority of environmental studies related to mining activities are conducted under 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 prepared a proposed amendment to the existing PoO to permit the future mining of all pits to their planned maximum depths. The environmental baseline studies to support the Environmental Impact Statement (EIS) process were initiated in 2013. These baseline studies completed in preparation for the Plan of Operations – Mackay Optimization Project Amendment include, but are not limited to, socioeconomics, air quality impacts, cultural and archaeological resources, groundwater model, pit lake model, screen-level ecological risk assessment (SLERA), waste rock/material characterization, water characterization, sage grouse habitat evaluation, evaluations for flora and fauna, and feasibility evaluation and pilot testing for rapid infiltration basins.

SSR Mining has reasonable expectations that all necessary operating permits will be granted within required timeframes to implement the LOM plan.

Specific federal, state and local (Humboldt County, Nevada) regulatory and permitting requirements apply to Marigold activities. Marigold currently holds 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.

Marigold has an extensive monitoring program in place for both groundwater quantity and quality and seasonal surface water quantity and quality. Results from this program, as well as long-term trend data, are reported to both state and federal agencies. Air, geochemical, vegetation, wildlife, and industrial health monitoring are also conducted regularly according to permit requirements. Agency representatives from the Nevada Department of Environmental Protection, Nevada Department of Wildlife, and BLM also conduct routine compliance inspections on a quarterly basis.

MMC engages in concurrent reclamation practices and is bonded for all permitted features, as part of the Nevada permitting process. Current bonding requirements are based on third-party cost estimates to reclaim all permitted features at the Property. Both the BLM and State of Nevada review and approve the bond estimate, and the BLM holds the financial instruments providing the bond backing. At present, Marigold has an approved $44.7 million reclamation bond requirement. The current asset retirement obligation (ARO) for facilities constructed and currently existing at Marigold at the end of 2017 is $30.6 million.

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.

There are currently no outstanding negotiations or social requirements regarding operations at the Property.

Community support and engagement is well-established at Marigold, and mine management provides regular updates with respect to the Property to local stakeholders and regulators. In 2017, nearly $250,000 in donations, corporate social responsibility (CSR) investments, scholarships, and in-kind support was provided to local communities and charities.

1.12 Market Considerations

The metal prices used in this Technical Report are based on an internal assessment of recent market prices, long-term forward curve prices, and consensus among analysts regarding price estimates. For the “base case” economic analysis in this Technical Report, a gold price of $1,300 per ounce was used.

Marigold currently produces gold/silver doré bars. The doré refining terms are typical and consistent with standard industry practices and reflect similar contract conditions for doré refining worldwide.

The doré is securely transported by road freight to a refinery where it is refined into gold bullion. The bullion is sold by SSR Mining to banks that specialize in the purchase and sale of gold bullion.

No external consultants or market studies were directly relied on to assist with the sales terms and commodity price projections used in this Technical Report. The QP agrees with the assumptions and projections presented in Section 19 of the Technical Report.

1.13 Capital and Operating Cost Estimates

The capital costs (Table 1.4) and operating costs (Table 1.5) estimates calculated for Marigold are based on a combination of historical data and budgetary estimates.

Capital costs, which include the addition of the four 300-tonne class haul trucks, are estimated to be $284 million over the LOM. This total does not include capitalized stripping.

Table 1.4: Summary of sustaining capital costs

Capital Costs	Total ($ Millions)
Mining Equipment	104.9
Capitalized Equipment Maintenance	130.3
Processing	36.7
Administration, Permitting & Development Drilling	12.1
Total Capital Costs	**284.0**

Notes: Excludes capitalized stripping. Figures may not total exactly due to rounding.

The LOM operating costs estimate is $8.20 per tonne of processed ore. Labour is the most significant operating cost, representing 37.9% over the LOM, followed by fuel at 14.1%. Consumables (chemicals, reagents and ground engaging tools) represent 13.0% and other costs (including miscellaneous costs to run and support the mine) are 8.3%.

Table 1.5: Summary of operating costs

Operating Costs	$/tonne processed
Mine Operations	6.32
Processing	1.22
G&A	0.67
Total Operating Costs	**8.20**

Note: Figures may not total exactly due to rounding.

1.14 Economic Analysis

This economic analysis presents the key economic performance indicators for Marigold, including cash costs, all-in sustaining costs (AISC) and net present value (NPV), based on a 5% discount rate and mid-year cash flows approach. Cash costs and AISC per payable ounce of gold sold are non-GAAP financial measures. Please see "Cautionary Note Regarding Non-GAAP Measures" in this Technical Report.

Cash flow projections commenced on January 1, 2018 and are estimated over the remaining LOM based on estimates of sales revenue, site production costs, capital expenditures, and other cash flows, including taxes and reclamation expenditures, all presented on a real cash flow basis.

Cash inflows from sales assume all production within a period is sold, with minimal working capital movements, using a gold price of $1,300 per ounce.

The estimates for site production costs, sustaining capital and reclamation expenditures have been developed specifically for Marigold and are presented in the relevant sections of this Technical Report. The impact of capitalized stripping has also been included in the economic analysis, and, although capitalized stripping has no impact on overall cash flows, it will impact the presentation of cash costs and AISC per payable ounce of gold sold.

Based on SSR Mining's projections as set forth in this Technical Report, Marigold will incur cash costs of $730 per payable ounce of gold sold and AISC of $966 per payable ounce of gold sold over the LOM to 2032. The after-tax NPV using a 5% discount rate and mid-year cash flows approach is $552 million over the LOM.

1.14.1 Mine Production Statistics

Mined material is either placed on the waste dumps or directly onto the leach pad over the course of eleven years of active mining.

A summary of projected mine production and gold production over the LOM is shown in Table 1.6, resulting in total production of 2,373,651 payable ounces of gold.

Table 1.6: Operating and production statistics

Year	Ore Mined (Mt)	Waste Removed (Mt)	Strip Ratio (waste:ore)	Gold Grade (g/t)	Gold Recovery (%)	Recoverable Gold Stacked on Pads (oz)	Gold Produced (oz)
2018	28.6	41.7	1.5	0.33	72%	222,987	196,052
2019	21.9	56.3	2.6	0.39	74%	205,947	210,424
2020	20.6	67.0	3.3	0.42	75%	207,767	225,307
2021	23.6	58.1	2.5	0.52	76%	300,024	266,101
2022	21.7	63.1	2.9	0.53	77%	281,831	266,102
2023	24.2	63.3	2.6	0.36	75%	209,683	252,455
2024	11.7	71.3	6.1	0.40	74%	112,050	146,198
2025	7.4	85.0	11.5	0.89	77%	161,894	145,487
2026	18.0	46.6	2.6	0.53	72%	221,105	201,614
2027	20.5	69.4	3.4	0.41	72%	195,903	204,198
2028	6.7	35.5	5.3	0.68	77%	113,748	136,637
2029	-	-	-	-	-	-	61,966
2030	-	-	-	-	-	-	20,370
2031	-	-	-	-	-	-	20,370
2032	-	-	-	-	-	-	20,370
Total	**205.1**	**657.5**	**3.2**	**0.46**	**74%**	**2,232,938**	**2,373,651**

Notes:

1. Gold produced from 2029 onwards is derived from the residual recoverable gold remaining in the leach pad when mining is completed and is recovered through continued leaching from 2029 to 2032.
2. "Recoverable Gold Stacked on Pads" refers to gold content of ore stacked on the pads in that period that is recoverable by the leaching process. "Gold Produced" refers to the amount of gold recovered from the heap in that period and processed to product for sale. The difference between the values in these columns is due to the lag effect of the leach cycle on gold dissolution in the heap and ounces already in the pads as of January 1, 2018.
3. Figures may not total exactly due to rounding.

1.14.2 Cost Statistics

Over the LOM, from 2018 to 2032, cash costs are estimated to average $730 per payable ounce of gold sold, and AISC is estimated to average $966 per payable ounce of gold sold (Table 1.7).

Table 1.7: Operating costs per payable ounce of gold sold

Operating Costs	Value ($/payable ounce of gold sold)
Mine Operations	544
Processing	105
General Administration	58
Inventory Adjustment	36
Royalties & Refining (net of silver credits)	104
Capitalized Stripping	(117)
Subtotal Cash Costs	**730**
Capitalized Stripping	117
Sustaining Capital	110
Exploration, Accretion, ARO Depletion	9
Total AISC	**966**

Notes:

1. Inventory adjustment represents carrying values of starting leach pad and doré inventory at January 1, 2018, which are released into cash costs over the LOM through to 2032 as the associated gold ounces are sold.
2. Capitalized stripping is in accordance with IFRIC 20, Stripping Costs in the Production Phase of a Surface Mine.
3. Payable ounces of gold sold over the LOM total 2,373,651 ounces.
4. Figures may not total exactly due to rounding.
5. Cash costs and AISC per payable ounce of gold sold are non-GAAP financial measures. Please see "Cautionary Note Regarding Non-GAAP Measures" in this Technical Report.

1.14.3 Sensitivity Analysis

The after-tax NPV calculation is based on the cash flows for the Property from and after January 1, 2018. Marigold is expected to generate $823 million in pre-tax cash flow and $741 million in after-tax cash flow over the LOM. The after-tax NPV using a 5% discount rate is $552 million over the LOM.

Table 1.8 includes a summary of the sensitivity analysis showing how the NPV is impacted by a 10% increase or a 10% decrease in the metal price, the operating costs, the capital expenditures, the oil price and the discount rate assumptions.

Table 1.8: Sensitivity analysis results

	Units	-10%	Base Case	10%
Gold Price	$/oz	1,170	**1,300**	1,430
NPV (5%)	$M	392	**552**	737
Operating Costs	$/tonne	7.38	**8.20**	9.02
NPV (5%)	$M	664	**552**	437
Capital Expenditures	$M	256	**284**	312
NPV (5%)	$M	573	**552**	530
Oil Price	$/bbl	58.50	**65.00**	71.50
NPV (5%)	$M	567	**552**	536
Discount Rate	%	0%	**5%**	10%
NPV	$M	741	**552**	426

Note: Operating costs per tonne of ore processed.

1.15 Interpretation and Conclusions

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.

Possible areas of uncertainty that could materially impact the estimate of Mineral Reserves at Marigold include the commodity price assumptions, capital and operating cost estimates, estimation methodology, and the geotechnical slope designs for the pit walls. These reasonably foreseeable impacts of the uncertainties in the cost, operations and estimation assumptions are discussed in Section 25 of this Technical Report.

Several optimization studies were initiated in 2017 to investigate opportunities to further increase Marigold's operating efficiency. These studies include haulage profile optimization, expansion equipment studies and equipment productivity improvements. Indications from the operational excellence program over the past four years show improvements that have translated into improved per unit operating costs.

SSR Mining has initiated exploration and Mineral Resources and Mineral Reserves development activities to enhance Marigold's operating margins and extend the mine life. Further studies will examine the deep sulphide-hosted gold and could include further drilling evaluation and metallurgical testwork.

1.16 Recommendations

A continuing commitment to safe gold production and continuous progress within the guidelines of its environmental and social license to operate drive the following recommendations for work at Marigold:

1.16.1 Processing

Consider single-pass processing to reduce/eliminate the lean circuit. With increased pad height, there is a tendency to increase inventory as low-grade solution is applied higher up on the leach pad. In response to this, Basin and Range Mining Consultants was engaged in 2017 to identify potential optimization projects for the leach pad. One of its recommendations was to reduce inventory by using single-pass processing. This project is in the design phase, and commissioning is expected in 2018. The estimated cost for this project is between $1.8M and $2.3M.

1.16.2 Metallurgy/Analytical

Continue to evaluate sampling and analytical options to decrease both the detection limit and the measurable assaying increment for the cyanide soluble gold assay method. This evaluation could include all components, including the blasthole cutting sampling, sample preparation and sub-sampling, the cyanide leaching process, and, finally, the type of analytical instrument used to measure the product solution. The estimated cost for a new type of analytical instrument is $100,000.

Continue to study the deeper sulphide ore types. The metallurgical response of this sulphide to standard process testing routes will help evaluate how this sulphide can contribute to Marigold in the future. The estimated cost for the initial phase of testing is $40,000.

1.16.3 Mineral Resources

Incorporate geological data (from pit mapping) and hard boundaries (from faults that offset mineralization) into the resource model. There is no cost associated with this project.

Re-assay all samples that report the cyanide soluble gold assay values as zero and have not been assayed by the FA method outside of the current LOM pit designs. This should be conducted in a phased-in manner and will help convert Mineral Resources to Mineral Reserves and increase the volume of Mineral Resources and Mineral Reserves. The estimated cost for this exercise is $450,000.

Collect additional density samples from core holes and in pit, where required, to obtain a better spatial distribution of density values. Attempt to obtain additional samples from the upper levels of the deposit at between 0 and 152.4 m deep. It is recommended that one sample be collected for every 9.1 m downhole from surface. The density testwork could be completed at Marigold's on-site laboratory. The cost for this work is estimated to be $12,000 for an additional 300 samples, and 5% of these samples should be sent to a commercial lab for duplication of testwork.

1.16.4 Mine Planning

Implement a rolling, quarterly-forecast mine planning process that improves the understanding of the actuals compared to the annual budget plans and LOM plans. There is no cost associated with this project.

1.16.5 Mine Development Drilling

Upgrade the Mineral Resources classifications and infill drilling program. The estimated cost for this project is between $9M and $15M spent over a period of 1 to 3 years.

Conduct a program to twin selected RC holes drilled to below the water table, with diamond core to facilitate a standard QA/QC assessment. The estimated cost of this project is $750,000.

1.16.6 Exploration Drilling

Conduct RC exploration drilling to target the lateral extensions of structures known to contain mineralization. This drilling will target near-surface, higher grade oxide mineralization. The estimated cost for this project is between $3M and $5M spent over a period of 3 to 5 years.

Conduct diamond core drilling to target deep high-grade sulphide mineralization within defined and interpreted structures. The estimated cost for this project is between $2M and $4M spent over a period of 2 to 3 years.

1.16.7 Mine Operations

Evaluate staggered breaks for mine personnel, leading to increased equipment utilization. This will be accomplished by hiring additional personnel to fill in for personnel who need to take a break on their 12-hour scheduled shift. Currently, two scheduled breaks are taken during the shift. When loading units start back up after the break, the truck fleet generally gets bunched for the first few loads until they get into their normal haulage spread. This proposal would allow operators to take over trucks and loading units when personnel need breaks and keep the equipment running throughout the shift. Some delays would still be seen for blasting, equipment maintenance and regulatory mandated pre-operational inspection by each operator, but improvements in initial analysis show a 5% to 10% improvement in equipment utilization hours. The cost associated with this initiative is related to hiring additional personnel for each of the four crews at approximately $1.6M to $2M per year.

Automation increases equipment productivity and reduces operating costs. Purchase two fully autonomous drilling packages for installation on the two Pit Viper drills. The primary benefits are higher penetration rates, reduced operating delays, reduced downtime, reduction in overall labour, lower consumable usage due to better drilling practices, fuel savings, increasing the drill fleet capacity to ensure that drills are not the constraint in the system, and optimizing the usage of consumables including bits, hammers, etc. through optimization in the automation algorithms. The estimated cost for this project is $2.2M.

1.16.8 Maintenance Operations

Increase equipment availabilities through improved maintenance practices through training and utilizing the best people for jobs performed. Work will include inspections, proper planning and holding personnel accountable. Setting up standard jobs for each piece of major equipment for each Preventative Maintenance (PM) task will reduce the time necessary to complete the PM and improve the quality of the work. On-site oil analysis will be established to shorten the time that it takes for a sample to be returned. The estimated cost for this improvement is minimal.

2 INTRODUCTION

The purpose of this technical report (the Technical Report) for the Marigold mine located in Humboldt County, Nevada, U.S. (Marigold or the Property) is to support the SSR Mining Inc. (SSR Mining) news release 18-09 dated June 18, 2018 titled “Updated Marigold Life of Mine Plan Confirms Near-Term Production Growth and Robust Economics”.

This Technical Report follows the *Definition Standards on Mineral Resources and Reserves* (the CIM Standards) set forth by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) adopted by the CIM Council on May 10, 2014, and it was prepared for SSR Mining in accordance with the requirements of National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* (NI 43-101) and Form 43-101F1.

SSR Mining is a Canadian-based resource company focused on the acquisition, exploration, development and operation of precious-metal projects in the Americas. SSR Mining is listed on the TSX in Canada and the NASDAQ Global Market in the U.S. under the trading symbol “SSRM”.

Marigold mine is owned directly by SSR Mining’s wholly-owned subsidiary, Marigold Mining Company (MMC). This Technical Report was prepared by qualified persons (QPs) employed by SSR Mining or MMC.

2.1 Sources of Information

This Technical Report is based on data, professional opinions, and published/unpublished material available to SSR Mining and/or information prepared by its employees. The samples and related information used to develop the estimates of Mineral Resources and Mineral Reserves and the metallurgical testwork were collected by various companies dating back to 1968 and include results that used different sampling and assay methodologies and detection limits, as discussed in Section 11 of this Technical Report.

The authors of this Technical Report believe that the drilling, geological, and geochemical data reported and collected by these companies regarding the Property and its environment are accurate and reliable and were created by competent professionals operating to industry standards applicable at the time.

Units of measurement used in this report conform to the metric system or the International System of Units (SI). All currency is expressed in U.S. dollars unless stated otherwise.

A list of the references used to prepare this Technical Report is provided in Section 27. Additional reports, opinions and statements by advisors, legal counsel and other experts are discussed in Section 3.

2.2 Qualified Persons and Property Inspection

This Technical Report was prepared by QPs employed by SSR Mining or MMC. Table 2.1 lists the QPs and their responsibilities with respect to this Technical Report.

James N. Carver, SME Registered Member, and Karthik Rathnam MAusIMM (CP) have been involved in planning and execution of the exploration program. Mr. Carver is the Chief Geologist at Marigold, and Mr. Rathnam is the Chief Engineer at Marigold. They have made regular site visits and have carried out numerous inspections to verify drilling, sample collection and collection of other information used in this Mineral Resources estimates.

Tom Rice is an SME Registered Member and is the Technical Services Manager at Marigold. He is on site four to five days a week and oversees the Engineering and Exploration Departments at site. He makes regular visits to all areas of the Property for operational reviews.

Trevor J. Yeomans, ACSM, P. Eng., is SSR Mining's Director, Metallurgy, based in Vancouver. He regularly visits the Property, and his visits typically focus on operational inspections and technical reviews in the Processing area.

Table 2.1: Summary of qualified persons and responsibilities

Technical Report Section		Qualified Person Responsible
1:	Summary	Thomas Rice
2:	Introduction	
3:	Reliance on Other Experts	
4:	Property Description and Location	
5:	Accessibility, Climate, Local Resources, Infrastructure and Physiography	
6:	History	James N. Carver
7:	Geological Setting and Mineralization	
8:	Deposit Types	
9:	Exploration	
10:	Drilling	
11:	Sample Preparation, Analyses and Security	
12:	Data Verification	
13:	Mineral Processing and Metallurgical Testing	Trevor J. Yeomans
14:	Mineral Resources Estimate	James N. Carver and Karthik Rathnam
15:	Mineral Reserves Estimate	Thomas Rice
16:	Mining Methods	
17:	Recovery Methods	Trevor J. Yeomans
18:	Project Infrastructure	Thomas Rice
19:	Market Studies and Contracts	
20:	Environmental Studies, Permitting and Social or Community Impact	
21:	Capital and Operating Costs	
22:	Economic Analysis	
23:	Adjacent Properties	James N. Carver
24:	Other Relevant Data and Information	Thomas Rice
25:	Interpretation and Conclusions	
26:	Recommendations	
27:	References	
28:	Appendix	Karthik Rathnam

The Mineral Resources estimate was prepared by Mr. James N. Carver, SME Registered Member and Mr. Karthik Rathnam, MAusIMM (CP), and the Mineral Reserves estimate was prepared by Mr. Thomas Rice, SME Registered Member. Mr. Carver, Mr. Rathnam and Mr. Rice are employed by MMC and work at the Marigold mine, and, by extension, these individuals have conducted numerous property inspections.

Sections pertaining to metallurgical processing and testwork and recovery methods were prepared under the supervision of Mr. Trevor J. Yeomans, ACSM, P. Eng., who is employed by SSR Mining and works in the Vancouver office in British Columbia, Canada. Mr. Yeomans visited the Property on several occasions, most recently in May 2018.

Sections pertaining to project infrastructure, market studies, and environmental studies, permitting and social/community impacts were prepared under the supervision of Mr. Rice.

Sections on history, geological setting, deposit types, exploration and drilling were prepared by Mr. Carver.

Each contributing QP has made a reasonable effort to verify the accuracy of the data used to develop this Technical Report and takes full responsibility for the information contained herein.

This report is based on information known to the QPs as of December 31, 2017.

2.3 Abbreviations and Acronyms

A list of abbreviations and acronyms used in this Technical Report is shown in Table 2.2. The units of measurement used are shown in Table 2.3.

Table 2.2: Abbreviations and acronyms

5 North	5N
8 Deep	8D
8 North	8N
8 South	8S
8 South Extension	8Sx
above mean sea level	amsl
absolute relative difference	ARD
acidity	pH
adsorption/desorption/recovery	ADR
all-in sustaining costs	AISC
American Assay Laboratories	AAL
ammonium nitrate and fuel oil	ANFO
antimony	Sb
arsenic	As
Asahi Refining USA, Inc.	Asahi
asset retirement obligation	ARO
atomic absorption	AA
Australasian Institute of Mining and Metallurgy	AusIMM
Barrick Gold Corporation	Barrick
British thermal unit	BTU
Bureau of Land Management	BLM
Call & Nicholas, Inc.	CNI
Canadian Institute of Mining, Metallurgy and Petroleum	CIM
carbon-in-leach	CIL
carbonate-replacement deposit	CRD
Carlin-type gold deposit	CTGD
centimetre	cm
CIM Definition Standards on Mineral Resources and Reserves	CIM Standards
corporate social responsibility	CSR
copper	Cu
Cordex Exploration Co.	Cordex
cubic centimetre	cc
cyanide	CN
d	day
degrees Celsius	°C
digital elevation model	DEM
east	E
end of year	EOY
Environmental Assessment	EA
Environmental Impact Statement	EIS
exploratory data analysis	EDA
fire assay	FA
General and Administration	G&A
Generally Accepted Accounting Principles	GAAP
Geotechnical Management Plan	GMP
Glamis Gold Ltd.	Glamis Gold
Global Positioning System	GPS
gold	Au
gold equivalent	AuEq
Goldcorp Inc.	Goldcorp
gram	g
grams per tonne	g/t
ground engaging tools	GET
Hecla Mining Company	Hecla

hectare	ha
Homestake Mining Company	Homestake
internal rate of return	IRR
International Financial Reporting Standards	IFRS
International Organization for Standardization	ISO
International System of Units	SI
inter-ramp angle	IRA
inverse distance cubed	ID^3
Joules per minute	J/min
kilogram	kg
kilometre	km
kilovolt	kV
kilowatt	kW
Lacana Gold Inc.	Lacana
lead	Pb
length x width x height	L x W x H
life of mine	LOM
lime	CaO
litres per second	L/s
London Bullion Market Association	LBMA
lower detection limit	LDL
Magee Geophysical Services, LLC	Magee Geophysical Services
Marigold mine located in Humboldt County, Nevada, U.S.	Marigold
Marigold Development Company	MDC
Marigold Mining Company	MMC
Member Australasian Institute of Mining and Metallurgy	MAusIMM
mercury	Hg
metre	m

metric tonnes per day	mtpd
micron	µ
millilitre	mL
millimetre	mm
million	M
million ounces	Moz
million tonnes	Mt
million years	Ma
million years ago	Mya
millivolts per volt	mV/V
minute	min
motor control centre	MCC
National Environmental Policy Act	NEPA
National Instrument 43-101 – Standards of Disclosure for Mineral Projects	NI 43-101
nearest neighbour	NN
net present value	NPV
net smelter return	NSR
Newmont Mining Corporation	Newmont
north	N
ounce	oz
parts per million	ppm
percent	%
plan of operations	PoO
Preventative Maintenance	PM
Marigold mine located in Humboldt County, Nevada, U.S.	Property
qualified person	QP
quality assurance/quality control	QA/QC
Rayrock Mines, Inc.	Rayrock Mines
Real-Time Kinematic	RTK

reduced major axis	RMA
reverse circulation	RC
run of mine	ROM
screen-level ecological risk assessment	SLERA
SFP Minerals Corporation	SFP Minerals
short ton	st
shuttle radar topography mission	SRTM
silver	Ag
Society for Mining, Metallurgy and Engineering	SME
sodium cyanide	NaCN
south	S
specific gravity	SG
square metres	m^2
SRK Consulting (Canada) Inc.	SRK
SSR Mining Inc.	SSR Mining
tailings storage facility	TSF
Terry Zone North	TZN
three dimensional	3D
tonne	t
tonnes per cubic metre	t/m^3
Toronto Stock Exchange	TSX
U.S. Securities and Exchange Commission	SEC
United States Geological Survey	USGS
Universal Transverse Mercator	UTM
very-low-frequency electromagnetic	VLF-EM
week	wk
west	W
zinc	Zn
Zonge International Inc.	Zonge

Table 2.3: Units of measurement

Type	Unit	Unit Abbreviation	Si Conversion
area	hectare	ha	10,000 m^2
area	square mile	mi^2	259.00 ha
concentration	grams per metric tonne	g/t	1 part per million
concentration	troy ounces per short ton	oz/ton	34.28552 g/t
length	foot	ft	0.3048 m
length	mile	mi	1,609.34 km
mass	pound	lb	0.453592 kg
mass	troy ounce	oz	31.10348 g
mass	metric ton	t, tonne	1,000 kg
mass	short ton	T ton	2,000 lbs
temperature	degrees Fahrenheit	°F	°F=°C x 9/5 +32
temperature	degrees Celsius	°C	°C=(°F - 32) x 5/9

3 RELIANCE ON OTHER EXPERTS

In preparing this Technical Report, SSR Mining has relied in part on the opinions and reports of consultants as well as certain reports, opinions and statements of legal counsel and other experts. These reports, opinions and statements, and the authors of each such report, opinion or statement and the extent of reliance are described here. SSR Mining considers its reliance on other experts, as described in this section, to be reasonable based on their documented knowledge, experience and qualifications.

3.1 Legal Matters

For matters related to the Property title, SSR Mining has relied on the Property title report dated July 31, 2015 to prepare Section 4 of this Technical Report. The Property title report, "Title Report Update for Marigold Mine, Humboldt County, Nevada" dated July 31, 2015, was prepared by Holland & Hart LLP, a law firm retained by SSR Mining.

The authors of this Technical Report are not qualified to express any legal opinion with respect to the Property title or current ownership of the Property.

3.2 Political, Environmental and Tax Matters

SSR Mining has not relied on any external reports, opinions or statements relating to political, environmental or tax matters for this Technical Report.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Property 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 degrees, 45 minutes north latitude and 117 degrees, 8 minutes west longitude.

The Property is situated approximately 5 km 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 4-1 shows the Property outline relative to these towns and Interstate Highway 80.

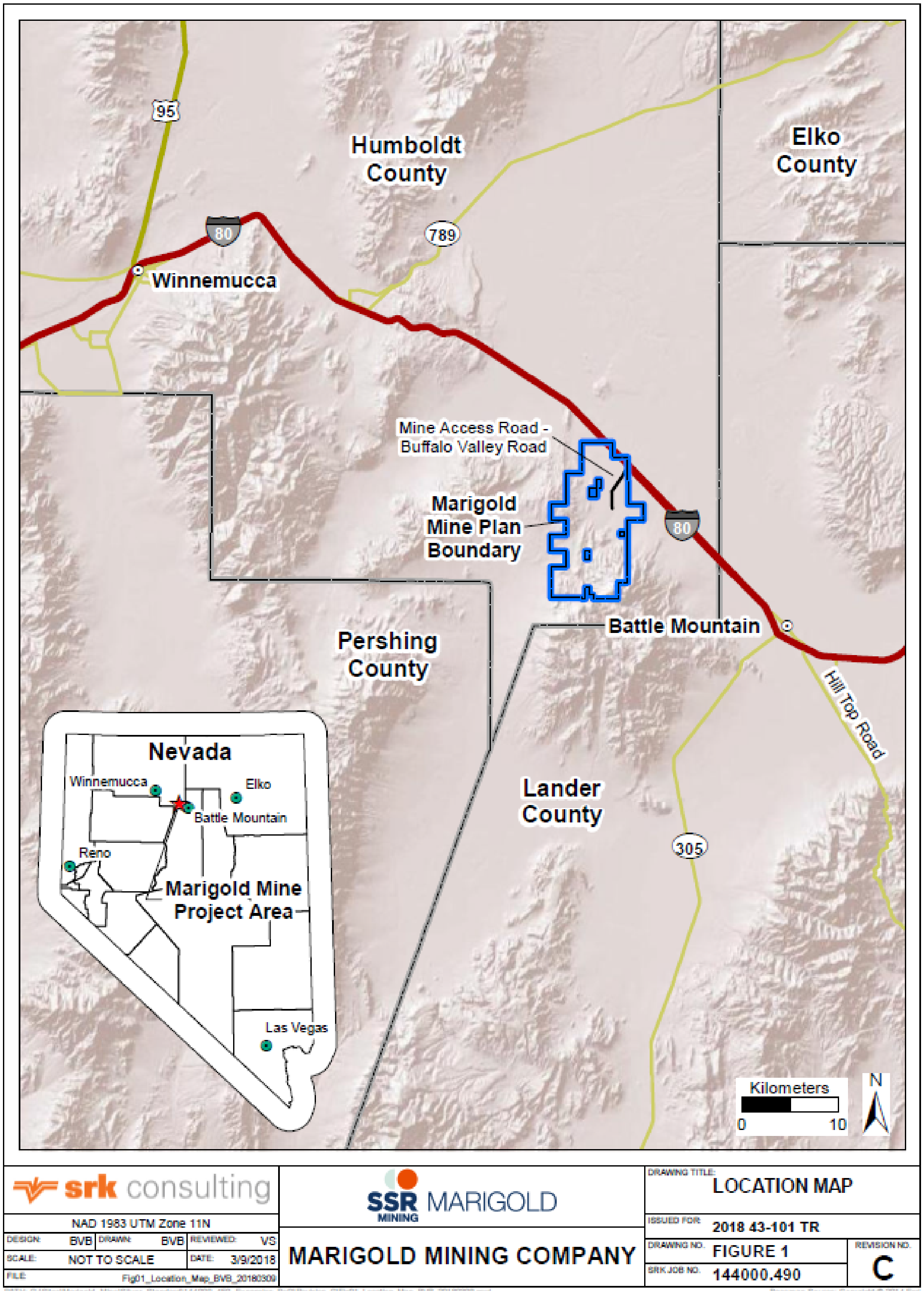

Figure 4-1: Marigold mine location

Source: SSR Mining, March 2018

4.2 Land Tenure and Ownership

The authorized plan of operations (PoO) area for Marigold currently encompasses approximately 10,571 ha with approximately 2,290 ha within the PoO permitted for mining-related disturbance. Land and mineral ownership within the PoO 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 Bureau of Land Management (BLM).

SSR Mining 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, millsite claims and certain surface lands.

4.2.1 Owned Real Property

MMC owns the following surface lands at Marigold shown in Table 4.1.

Table 4.1: Marigold surface lands

Parcel Number	Hectares	Location
007-0401-25	65.28	SE1/4 Section 22, T.34N., R.43E.
007-0461-09	259.00	Section 9, T.33N., R.43E.
007-0461-14	259.00	Section 17, T.33N., R.43E.
007-0404-10, 007-0404-11, 007-0404-12, 007-0404-13 (Lot 8, Parcel 1-4), 007-0404-05 (Lot 11), 007-0404-06 (Lot 12), 007-0404-09 (Lot 15)	65.68	Section 33, T.34N., R.43E.
007-0461-42 (Parcel A) and 007-0461-43 (Parcel B)	259.00	Section 21, T.33N., R.43E.
007-0461-44 (Parcel C) and 007-0461-45 (Parcel D)	259.00	Section 29, T.33N., R.43E.
007-0481-06	254.40	Section 1, T.32N., R.42E.
007-0491-03	277.90	Section 5, T.32N., R.43E.

Subsequent to December 31, 2017, MMC acquired the following surface lands: 16.19 ha within the SW1/4SE1/4 Section 16, T.33N., R.43. and identified as parcel number 007-0461-39; and 32.37 acres within the E1/2NW1/4 Section 30, T.33N., R.43. and identified as parcel number 007-0461-41.

4.2.2 Owned Unpatented Mining Claims

MMC owns a total of 323 unpatented mining claims at Marigold, as shown in Table 4.2.

Table 4.2: Marigold unpatented mining claims

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
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
	Total Number of Claims	**323**

Notes: Claims require annual maintenance fee/renewal notification by September 1st each year. All claims expire on September 1, 2019 at 11:59:59 A.M.

4.2.3 Leasehold Rights

MMC holds leasehold rights in each of the following leases (collectively, the Leases):

- Lease Agreement, made and entered into as of September 15, 1985, by and between Vek/Andrus Associates, as lessor, and Rayrock Mines, Inc. (Rayrock Mines) doing business as Cordex Exploration Co. (Cordex), as lessee (as amended, the Vek & Andrus Lease).
- Minerals Lease, dated and effective as of February 19, 1986, by and between Southern Pacific Land Company, as lessor, and SFP Minerals Corporation (SFP Minerals), as lessee (the Southern Pacific Land Company Lease).
- Minerals Sublease, dated and effective April 30, 1986, by and between SFP Minerals, as sublessor, and Santa Fe Pacific Mining, Inc., as sublessee (as amended, the Southern Pacific Land Company Sublease).
- 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).
- Mining Lease and Agreement, made and entered into as of June 5, 1987, between Donald J. Decker and Suzanne R. Decker, as lessors, and Nevada North Resources (U.S.A.) Inc. and Welcome North Mines (U.S.) Inc., as lessees (the Franco-Nevada Lease).
- Minerals Lease, dated and effective June 17, 1988, by and between SFP Minerals, as lessor, and Santa Fe Pacific Mining, Inc., as lessee (the SFP Minerals 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, 1988, by and between the Board of Regents of the University of Nevada System, as lessor, and Donald J. Decker, Suzanne Decker, Nevada North Resources (USA) Inc., and Rayrock Mines, doing business as Cordex, as lessee (the University of Nevada Lease).
- Mining Lease made effective as of December 20, 1994, by and between Nevada North Resources (U.S.A.), Inc., as lessor, and Santa Fe Pacific Gold Corporation, as lessee (as amended, the Nevada North Lease).
- Mining Lease made effective October 16, 2012 by and between New Nevada Lands, LLC and New Nevada Resources, LLC, as successors-in-interest of Nevada Land and Resource Company, LLC, as lessor, and Newmont USA Limited, doing business as Newmont Mining Corporation (Newmont), as lessee (the New Nevada 2012 Lease).
- Mining Lease made effective as of December 3, 2014 by and between New Nevada Lands, LLC and New Nevada Resources, LLC, as successors-in-interest of Nevada Land and Resource Company, LLC, as lessor, and Newmont, as lessee (the New Nevada 2014 Lease).

DECKER LEASE

Pursuant to the Decker Lease, MMC has leasehold rights to 170 unpatented mining claims, as shown in Table 4.3. The initial term for the Decker Lease was through May 25, 1991 and, thereafter, as long as operations continue.

Table 4.3: Decker Lease unpatented mining claims

BLM Serial Numbers	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: Claims require annual maintenance fee/renewal notification by September 1st each year. All claims expire on September 1, 2019 at 11:59:59 A.M.

Vek & Andrus Lease

Pursuant to the Vek & Andrus Lease, MMC has leasehold rights to 205 unpatented mining and millsite claims, as shown in Table 4.4. The initial term of 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.

Table 4.4: Vek & Andrus Lease unpatented mining and millsite claims

BLM Serial Numbers	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
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	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*	GMMCMS 1 to GMMCMS 54	54
	Total Number of Claims	205

Notes: Claims require annual maintenance fee/renewal notification by September 1st each year. All claims expire on September 1, 2019 at 11:59:59 A.M.

* Millsite Claims

Euro-Nevada Lease

Pursuant to the Euro-Nevada Lease, MMC has leasehold rights to 36 unpatented mining claims, as shown in Table 4.5. 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 ten 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 August 1, 2013.

Table 4.5: Euro-Nevada Lease unpatented mining claims

BLM Serial Numbers	Claims	Total Number of Claims
NMC373649 to NMC373684	SAR# 37 to SAR# 72	36
	Total Number of Claims	**36**

Notes: Claims require annual maintenance fee/renewal notification by September 1st each year. All claims expire on September 1, 2019 at 11:59:59 A.M.

Franco-Nevada Lease

Pursuant to the Franco-Nevada Lease, MMC has leasehold rights to 82 unpatented mining claims, as set out in Table 4.6. 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 4.6: Franco-Nevada Lease unpatented mining claims

BLM Serial Numbers	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: Claims require annual maintenance fee/renewal notification by September 1st each year. All claims expire on September 1, 2019 at 11:59:59 A.M.

NEVADA NORTH LEASE

Pursuant to the Nevada North Lease, MMC has leasehold rights to 12 unpatented mining claims, as set out in Table 4.7. 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 the lessee exercises any rights granted by such lease.

Table 4.7: Nevada North Lease unpatented mining claims

BLM Serial Numbers	Claims	Total Number of Claims
NMC409224 to NMC409235	BC-1 to BC-12	12
	Total Number of Claims	12

Notes: Claims require annual maintenance fee/renewal notification by September 1st each year. All claims expire on September 1, 2019 at 11:59:59 A.M.

UNIVERSITY OF NEVADA LEASE

Pursuant to the University of Nevada Lease, MMC has leasehold rights to property in Section 19, T.33N., R.43E., Humboldt County, Nevada. 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. On June 4, 2008, MMC provided notice to the lessor to extend the lease through August 1, 2018.

SFP MINERALS LEASE

Pursuant to the SFP Minerals 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 Minerals Lease was for 20 years or for so long, thereafter, as mining is conducted on a continuous basis.

SOUTHERN PACIFIC LAND COMPANY LEASE

Pursuant to the Southern Pacific Land Company Lease, MMC has leasehold rights to property in Sections 13 and 25, T.34N., R.42E.; Sections 19, 29, 31, and 33, T.34N., R.43E.; and Section 7, T.33N., R.43E., Humboldt County, Nevada. The initial term of the Southern Pacific Land Company Lease was for 25 years and for so long, thereafter, as the lessee continues to exercise its rights on any portion of the property.

SOUTHERN PACIFIC LAND COMPANY SUBLEASE

Pursuant to the Southern Pacific Land Company Sublease, MMC has leasehold rights to certain property in Sections 19, 29, 31, and 33, 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 and for so long, thereafter, as the lessee exercises any rights granted by such sublease.

NEW NEVADA 2012 LEASE

Pursuant to the New Nevada 2012 Lease, MMC has leasehold rights to property in Section 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 the lessee exercises any rights granted by such lease.

NEW NEVADA 2014 LEASE

Pursuant to the New Nevada 2014 Lease, MMC has leasehold rights to property in 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 the lessee exercises any rights granted by such lease.

4.3 Royalties and Encumbrances

Each Lease requires 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 2.125% 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 7.9% over the life of mine (LOM).

4.4 Environmental Liabilities

At present, there are no known environmental liabilities to which the Property is subject. Further discussion on environmental matters with respect to the Property is provided in Section 20 of this Technical Report.

4.5 Operating Permits

Marigold 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. MMC engages in concurrent reclamation practices and is bonded for all permitted features, as part of the Nevada permitting process.

Further discussion on permitting requirements with respect to the Property is provided in Section 20 of this Technical Report.

4.6 Other Significant Factors and Risks

There are no other known significant risks that may affect access, title or the right or ability to perform mining-related work on the Property.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Access

Access to the Property is via a 4.8 km public road (hard-packed clay and gravel) off the Valmy exit (Exit 216) on Interstate Highway 80.

5.2 Climate and Physiography

Elevations at Marigold range from approximately 1,372 m to 1,890 m amsl. 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 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. 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 are 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.

5.3 Infrastructure

Marigold has been in continuous operation since 1989. There is significant infrastructure existing 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 favourable area for natural resource development with significant resources in place to support the mining industry. The nearby towns of Winnemucca and Battle Mountain host the majority of the local workforce. Contractor support, transportation, 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.

Three existing groundwater wells located on the Property supply water to Marigold. MMC currently controls groundwater rights and collectively allows up to 3.137 million m^3 of annual water consumption from groundwater, the majority of which is used as makeup water for process operations. 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 0.961 m^3 annually of surface water storage rights associated with the Trout Creek Dam (J-666). In addition, in late 2016, Marigold filed applications to obtain future water rights associated with the proposed activities described in the Plan of Operations – Mackay Optimization Project Amendment, including applications for the secondary use of the 0.961 m^3 annually of surface water storage rights. These applications are pending with the State of Nevada as of the date of this publication.

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 well monitoring.

Details regarding completed, in progress, and future waste dumps at Marigold can be found in Section 16 of this Technical Report. The leach pad is discussed in detail in Sections 16 and 17. Further discussion on the Property's infrastructure is provided in Section 18.

5.4 Permits, Mineral and Surface Rights

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 Marigold's mineral and surface rights, including leasehold rights under the Leases, is provided in Section 4 of this Technical Report. Further discussion regarding permitting requirements with respect to the Property is provided in Section 20.

6 HISTORY

6.1 Historical Exploration Work

The first recorded gold production from the Property near Valmy, Nevada occurred in 1938 when the Marigold Mining Company, owned by Frank Horton, developed and operated an underground mine which came to be known as Marigold. Figure 6-1 shows the Marigold mine prior to World War II.

The Horton family processed approximately 9,000 tonnes 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.

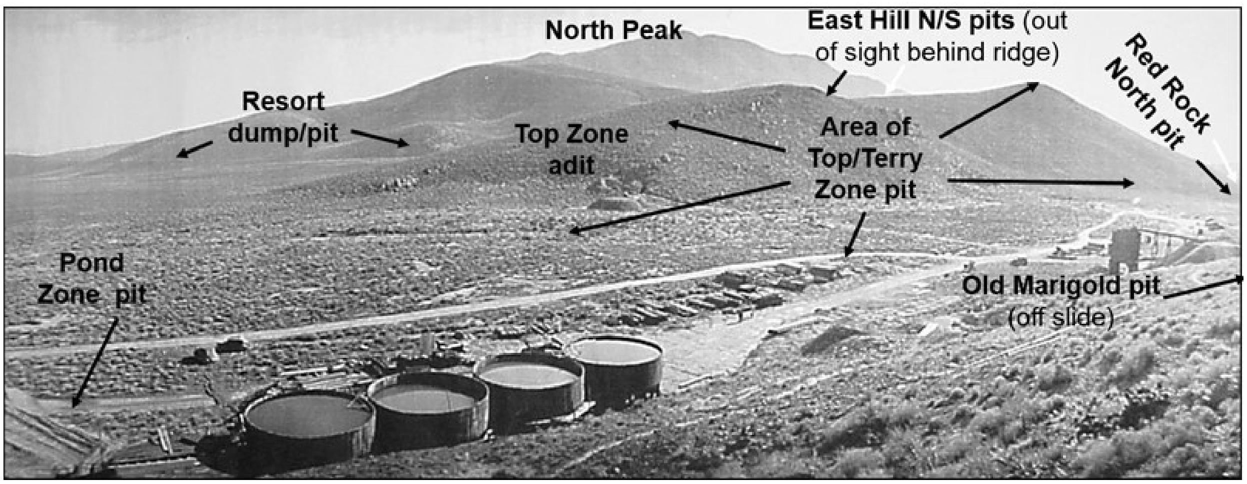

Figure 6-1: View to the east-southeast over the cyanide leach tanks from the Marigold mine prior to World War II

Source: SSR Mining, 2017

From 1968 to 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). Further discussion on historical drilling programs with respect to the Property is provided in Section 10 of this Technical Report.

From 1983 to 1984, MDC excavated a small open pit over the historical Marigold underground workings, producing 2,812 tonnes containing 271 oz Au (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 favourable 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 square kilometres 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, Top Zone, East Hill, and Red Rock area from various claim holders (Figure 6-2).

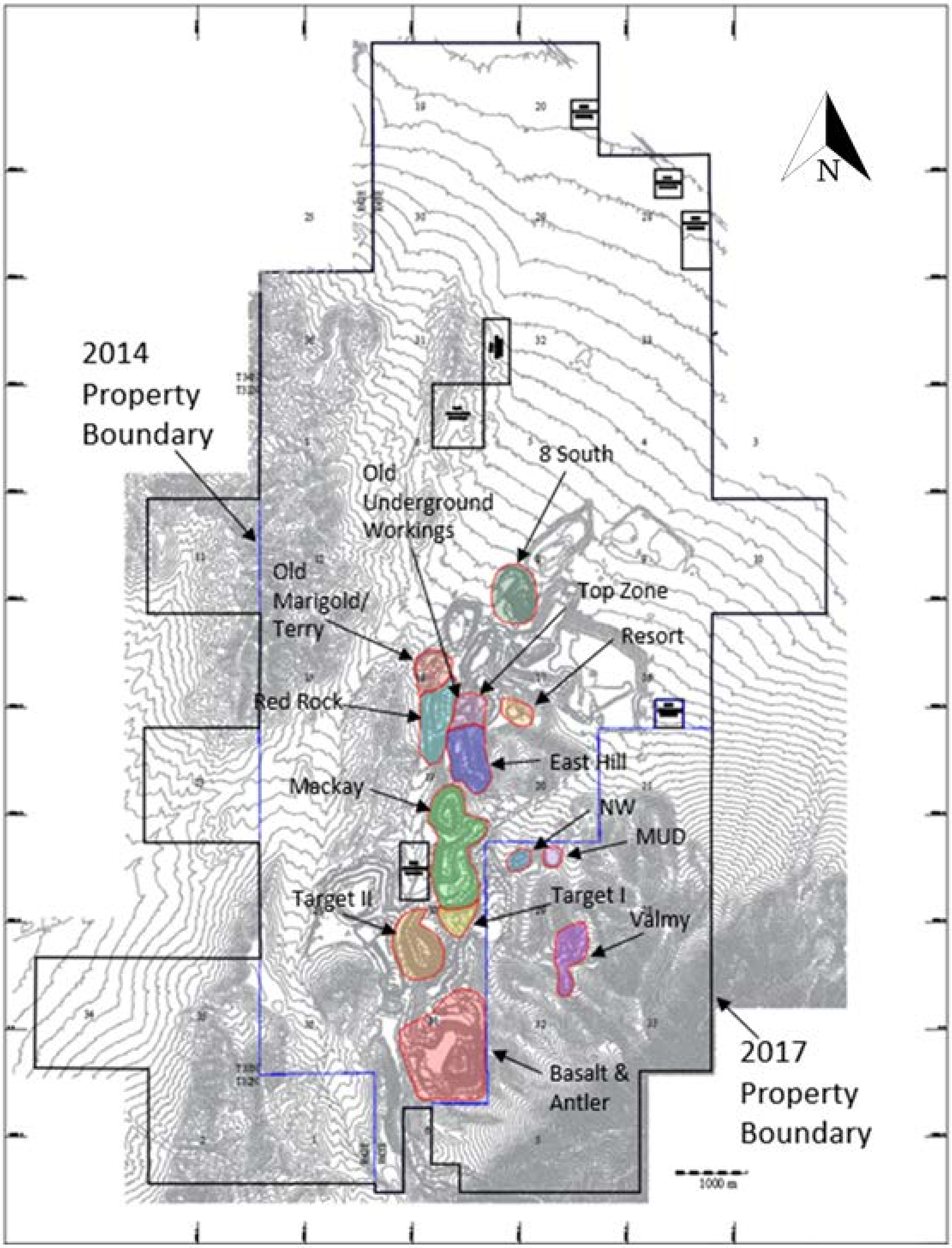

Figure 6-2: Location of Marigold areas

Source: SSR Mining, 2017

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 Ltd., 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, as operator, and 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 Mining (formerly Silver Standard Resources Inc.) completed the acquisition of Marigold from subsidiaries of Goldcorp and Barrick. Subsequently, SSR Mining filed an updated NI 43-101 Technical Report in November 2014 to support the October 2014 press release that announced the estimates of Mineral Resources and Mineral Reserves, and the LOM at Marigold.

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 October 2015, the three millionth ounce was poured at Marigold.

As of December 31, 2017, a total of 8,440 drill holes for 1,645,048 m of drilling have been completed on the Property.

A summary of the exploration work carried out on the Property is shown in Table 6.1.

Table 6.1: Summary of exploration work carried out as at December 31, 2016

Year	Company	Exploration Type	Details
1968–1985	Various exploration and mining groups	Drilling	7,037.2 m in 126 drill holes.
1985–1999	Cordex and Rayrock Mines	Drilling	335,500.7 m in 2,358 drill holes.
		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, 1 line N20W. A total of 3.0 km covered.
1999–2006	Glamis Gold	Drilling	486,648.9 m in 2,506 drill holes.
		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	Goldcorp	Drilling	528,225.7 m in 1,870 drill holes.
		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.

Year	Company	Exploration Type	Details
			2009–2010 – Review of all geophysical survey data and compilation of Marigold geophysical data by James L. Wright of J L Wright Geophysics, Spring Creek, Nevada.
		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 analyzed 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	Newmont (including Hecla and SFP Minerals)	Drilling	109,363 m in 867 drill holes. Data was acquired from Newmont with the acquisition of the 2,844 ha Valmy property in 2015.
2014	SSR Mining	Geophysics	James L. Wright of J L Wright Geophysics, Spring Creek, Nevada conducted a gravity survey. Magee Geophysical Services, LLC (Magee Geophysical Services) of Reno, Nevada conducted the field data collection. The gravity measurements were collected from 1,358 stations using two LaCoste and Romberg Model-G gravity metres at a grid spacing of 150 m by 150 m.
2014–2017	SSR Mining	Drilling	178,272 m in 713 drill holes.
2016	SSR Mining	Geophysics	Gravity survey conducted by Magee Geophysical Services based in Reno, Nevada. A total of 1,806 stations were acquired on a 150 m square grid and 150 m × 300 m staggered grid. Relative gravity measurements were made with LaCoste and Romberg Model-G gravity metres. Topographic surveys were performed with Trimble Real-Time Kinematic (RTK) and Fast-Static GPS.

6.2 Historical Production Work

Historically, gold recovery at Marigold was initially a milling circuit with a carbon-in-leach (CIL) process and then a ROM heap leach process where the ore is dumped on a lined leach pad and irrigated with a dilute cyanide solution. The tonnes, grade, and contained and recovered ounces from the start of commercial production in August 1989 to December 31, 2017 is provided in Table 6.2.

An overall average recovery for the milling circuit was 92%, and it is calculated to be at 73% with the ROM heap leach process.

Table 6.2: Marigold historical production: tonnes, grade, contained and recovered ounces as of December 31, 2017

Process Type	Tonne	Au g/t	Contained Ounces	Recovered Ounces
Leach Pad	227,010,977	0.58	4,278,168	3,106,394
Milled	4,561,953	3.29	482,777	446,086
Total	**231,572,930**	**0.64**	**4,760,945**	**3,552,480**

The Marigold mine production for 2014 to 2017 is shown in Table 6.3.

Table 6.3: Marigold mine production 2014–2017

Mine Production	Tonnes (Mt)	Au (g/t)	Contained Ounces (M Oz)
April 2014—End of Year 2017	81.0	0.44	1.14

7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geological Setting

Marigold is located in north-central Nevada within the Basin and Range physiographic province, bounded by the Sierra Nevada to the west and the Colorado Plateau to the east (Figure 7-1).

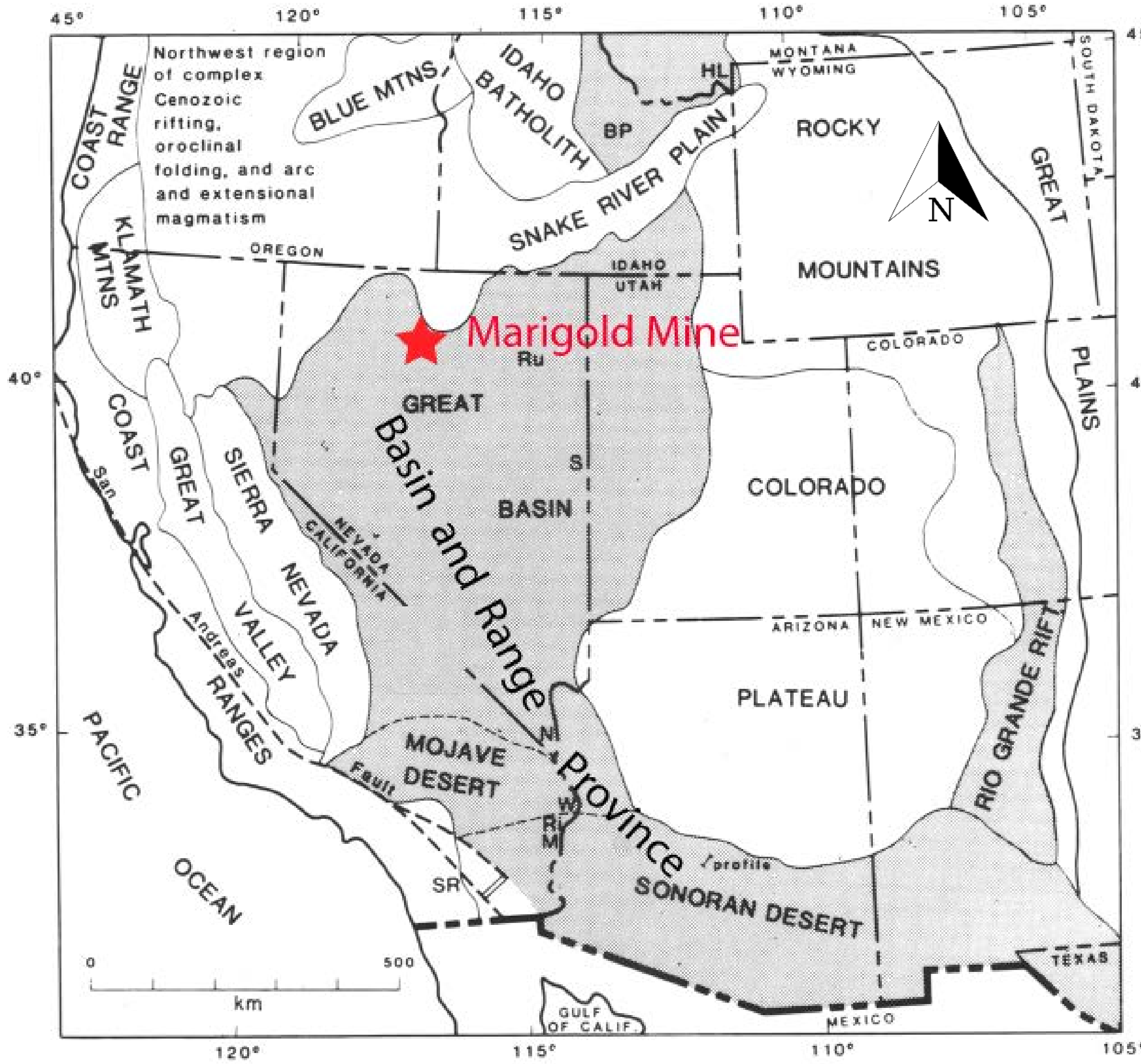

Figure 7-1: Location of the Marigold mine in north-central Nevada within the Basin and Range physiographic province

Source: Modified after Hamilton, 1987

Paleozoic basement rocks of north-central to northeastern 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 affecting the western margin of North America from the early Paleozoic through present.

Late Proterozoic rifting associated with the breakup of Rodinia resulted in passive margin sedimentation on the miogeocline of the proto-Pacific margin of western North America (Cook, 1977; Wallace et al., 2004; Cook, 2015). Subsidence and sedimentation continued along the passive margin from the late Proterozoic through Devonian, a period of approximately 240 million years (Cook, 1977; Cook, 2015). Carbonate platform rocks (eastern assemblage) 4,800 to 7,000 m thick developed on the eastern margin of the miogeocline. Debris flow, turbidite, and lime mudstone of the transitional assemblage accumulated on the slope further west, and siliceous and volcanic rocks belonging to the western assemblage were deposited in the basin plain (Figure 7-2) (Roberts, 1964; Cook and Corboy, 2004; Cook, 2015).

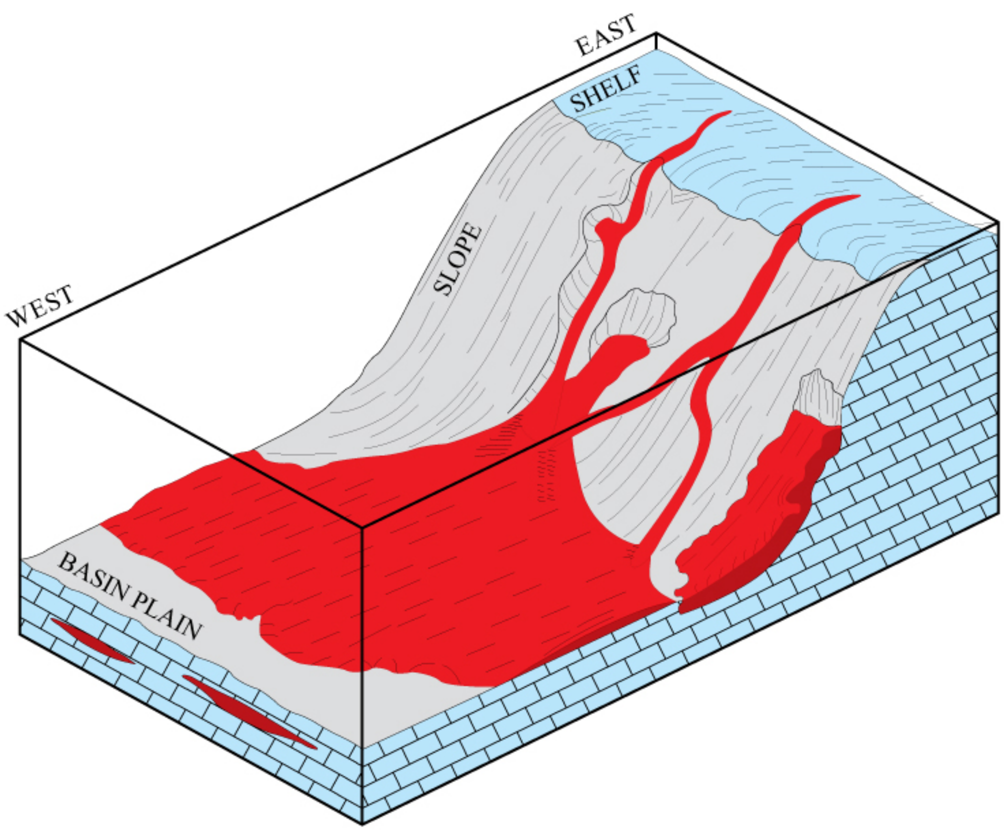

Figure 7-2: Model of shelf-slope to basin in late Cambrian-early Ordovician of Nevada, with carbonate rocks to east and siliciclastic and volcanic rocks to west

Source: Cook and Corboy, 2004

Evidence for an enigmatic late Devonian to early Mississippian tectonic event, known as the Antler orogeny, is recorded by folding and thrusting of Ordovician western assemblage rocks and formation of the Antler highland (Roberts, 1964). In north-central Nevada, western assemblage rocks are tectonically emplaced over 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 (Figure 7-3).

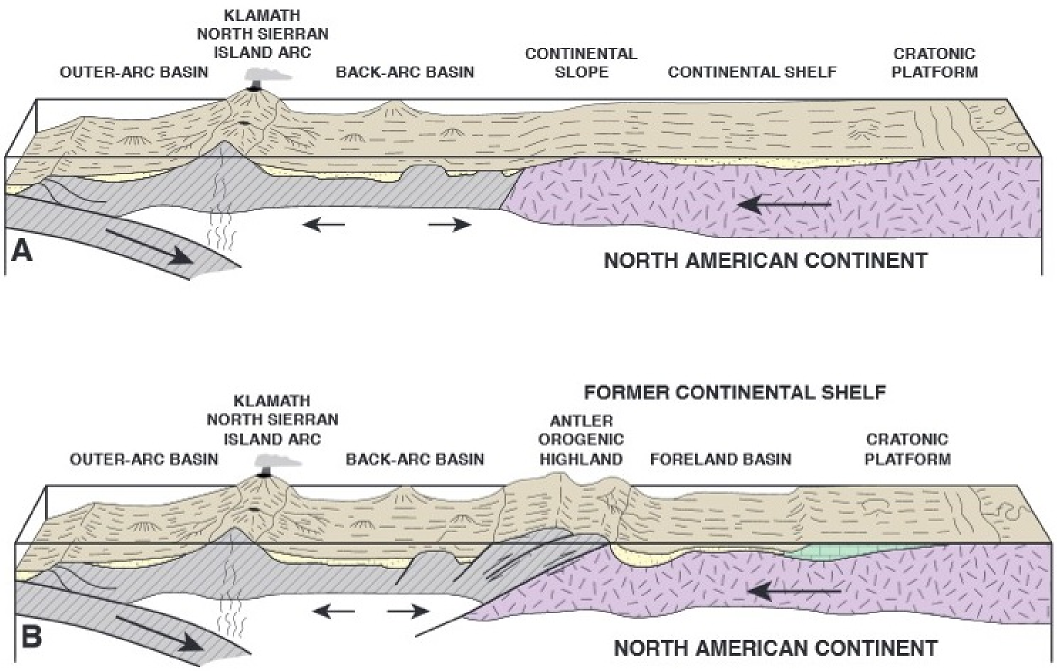

Figure 7-3: Schematic model of Devonian-Mississippian compression on the western margin of North America

Source: Cook and Corboy, 2004

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, evidenced by block faulting and titling, have dominated Nevada from the late Eocene to the present. Three temporally distinct orientations of post-Cretaceous crustal extension have been identified: northwest-southeast in the late Eocene to middle Miocene; west-southwest-east-northeast in the middle Miocene; and northwest-southeast in the late Miocene to present (Zoback et al., 1994). These extension events 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-northeast-oriented ranges separated by flat bottomed valleys. Extension and resultant crustal thinning is 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 flow sheets, 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. A summary of significant geologic events of northern Nevada is presented in Figure 7-4.

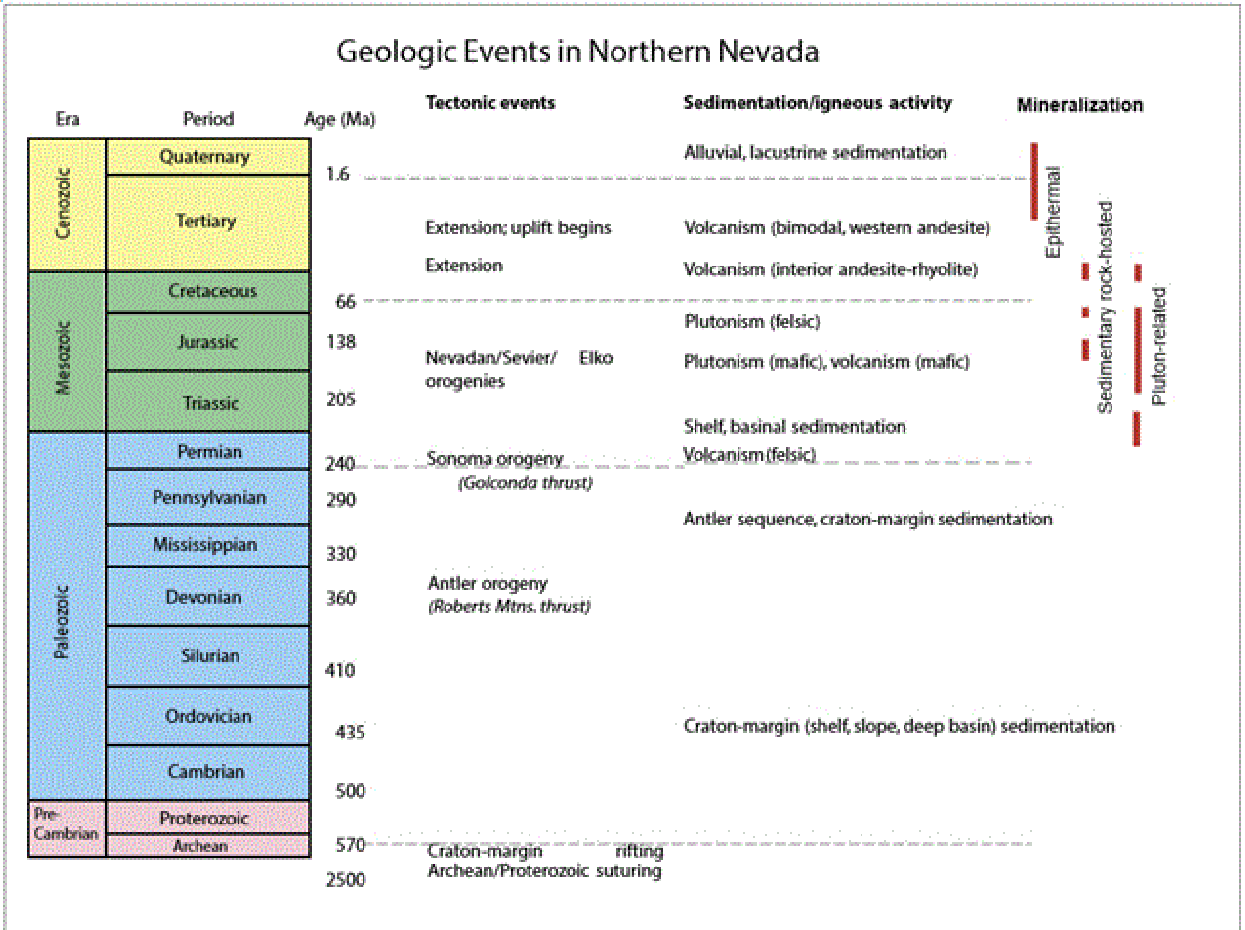

Figure 7-4: Major igneous, tectonic, and mineralizing events in Northern Nevada

Source: Wallace et al., 2004

7.2 Local Geology

The Property is located in the Battle Mountain mining district on the northern end of the Battle Mountain-Eureka trend, a conspicuous lineament of sedimentary rock-hosted gold deposits (Figure 7-5). 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.

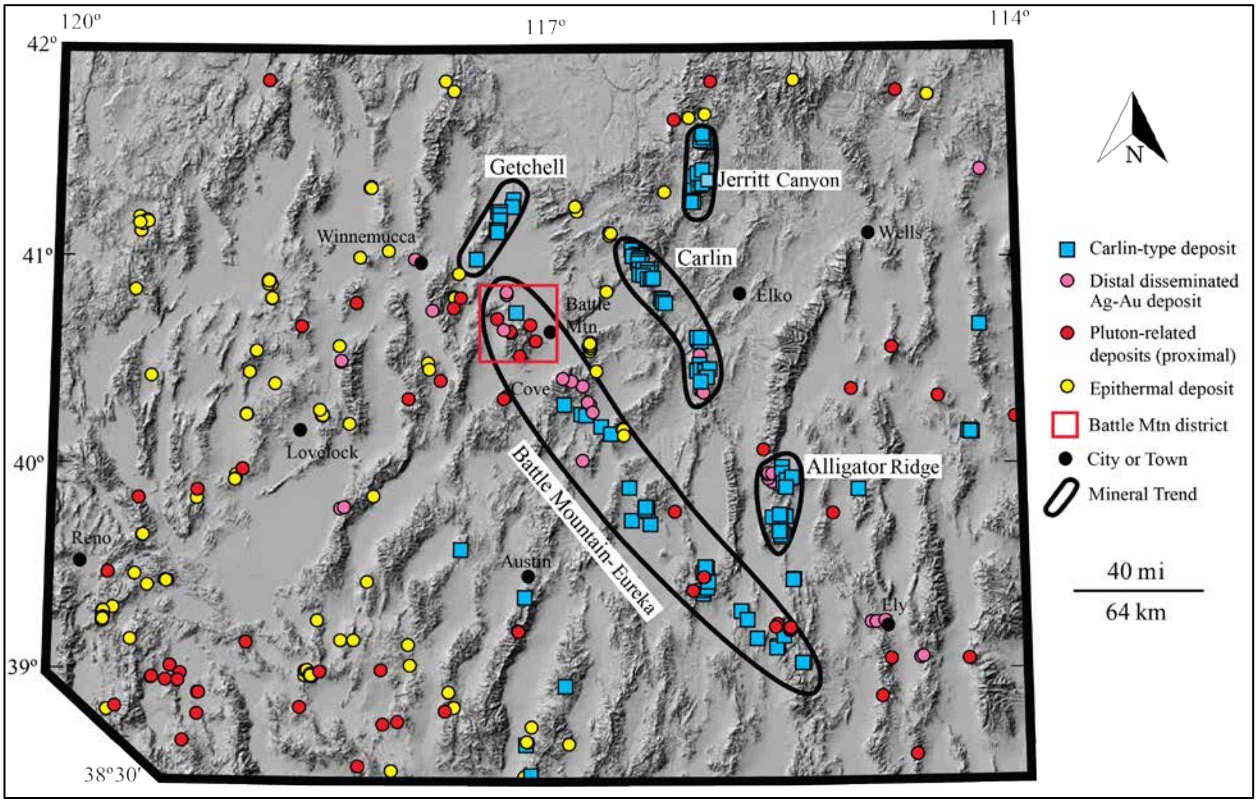

Figure 7-5: Location of Marigold and the Battle Mountain mining district on the Battle Mountain-Eureka mineral trend

Source: Modified after Wallace et al., 2004

7.2.1 Stratigraphy

The Battle Mountain mining district is underlain by Paleozoic metasedimentary and metavolcanic rocks which are cut by Jurassic, Cretaceous, and Eocene ultrapotassic mafic to felsic intrusions. Post-mineralization tuff, volcanic rock, and detritus were deposited and preserved in structural and paleotopographic low areas.

The oldest rocks in the Battle Mountain mining district are Ordovician clastic assemblage rocks of the Roberts Mountain allochthon. These rocks 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 clastic assemblage in the Battle Mountain district were previously separated into the Cambrian Scott Canyon Formation, Cambrian Harmony Formation, and 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, and siltstone. 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. Disconformably overlying the Battle Formation is the Antler Peak Limestone Formation, a package of shallow marine carbonate rocks approximately 190 m thick at its type locality (Roberts, 1964). The Permian Edna Mountain Formation disconformably overlies the Antler Peak Formation and consists of locally present basal debris flow and brown weathering phosphatic siltstone at least 120 m thick (McGibbon, 2005).

Allochthonous rocks of the Mississippian-Permian Havallah sequence (upper plate of the Golconda thrust) were tectonically emplaced over rocks of the autochthonous Antler sequence 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 2,900 m (Roberts, 1964).

7.2.2 Igneous Rocks

The oldest igneous rocks in the district are submarine pillow basalts within the Ordovician Valmy Formation. These rocks are typically highly altered, likely because of their age and submarine emplacement and are locally variolitic. 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 (King, pers. comm.).

Mesozoic igneous rocks include a relatively unaltered Jurassic lamprophyric dike (Fithian, 2015) and an abundance of northwest-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 development of north-striking normal 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. Tertiary volcanic rocks in the district are generally post-mineral. 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 southeast of Copper Canyon (Doebrich and Theodore, 1996).

7.2.3 Regional 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 northwest, north, and northeast 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. While the Roberts Mountain thrust is not exposed in the district, at least two generations of folding are recorded in Ordovician rocks of the allochthon, including D1 folds with east-west fold axes, and D2 folds with north-south fold axes. The Permo-Triassic Golconda thrust fault is traceable throughout the entire Battle Mountain range.

Onset of 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-mineral northeast-striking Miocene Oyarbide fault (Doebrich and Theodore, 1996). Concealed Paleozoic growth faults with a north strike are rotated to shallower angles, likely because of Basin and Range extension.

7.3 Property Geology

7.3.1 Property Stratigraphy

The Property stratigraphy is summarized in Figure 7-6.

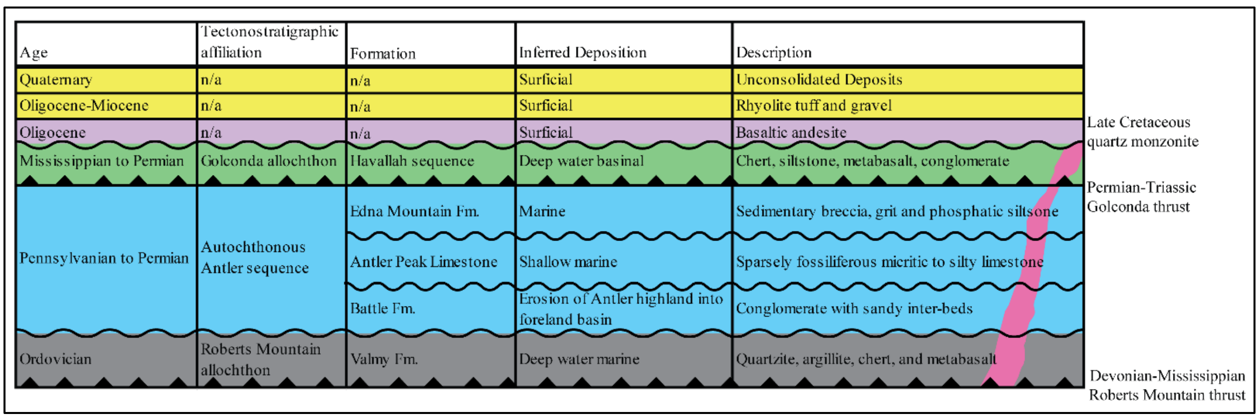

Figure 7-6: Schematic tectonostratigraphic section of the rock units at Marigold

Source: SSR Mining, 2018

SEDIMENTARY ROCKS

Three packages of Paleozoic sedimentary and metasedimentary rocks are present at Marigold. In ascending tectonostratigraphic order, they include: 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 7-7.

Valmy Formation. The oldest rocks in the Marigold area belong to the Ordovician Valmy Formation. The Valmy Formation consists of quartzite, argillite, chert, and lesser metabasalt, all of which are complexly folded and faulted in the Marigold mine area. The top of the Valmy Formation is unconformable with overlying rocks. Silurian and Devonian rocks are not present either due to nondeposition or erosion. Unconformably overlying the Valmy Formation is the Pennsylvanian-Permian Antler overlap sequence.

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; and the Edna Mountain Formation. These formations represent a transgressive sequence of shallow marine rocks that include conglomerate, sandstone, limestone, and siltstone. There is evidence the Antler sequence was locally deposited into sub-basins developed by normal offset on growth faults of likely early Permian age. Antler sequence rocks are relatively undeformed, except for offset and rotation along Basin and Range normal faults. 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 deeper water marine sediments were deposited in a fault-bounded deep-water trough (Ketner, 2008) and subsequently obducted over the Antler sequence along the Golconda thrust (Roberts, 1964).

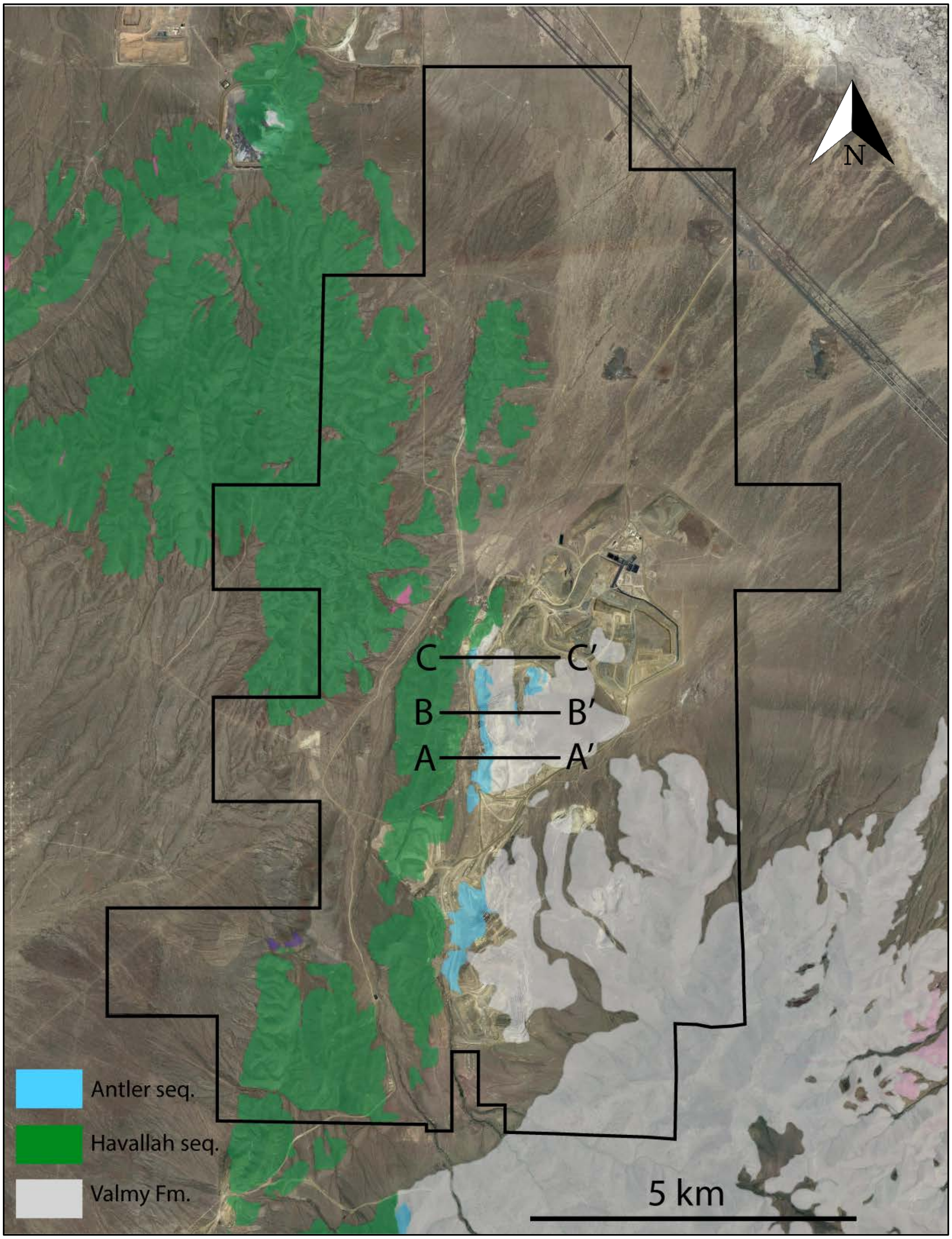

Figure 7-7: Plan view map showing distribution of Paleozoic units in outcrop at Marigold. The outer property boundary is shown as black outline.

Source: SSR Mining, 2018

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.

IGNEOUS ROCKS

An extremely biotite-rich intrusive rock, interpreted to be lamprophyre, was intersected in a single drill hole. Even though the rock is relatively fresh, the lamprophyre is inferred to be Jurassic in age based on known ages of lamprophyre in northern Nevada.

A series of late Cretaceous (~92-98 Ma) (Fithian, 2015) porphyritic quartz monzonite dikes crosscut the Paleozoic rock package at Marigold. The intrusions are typically several metres wide, and several can be traced along strike for tens to hundreds of metres. The dikes strike WNW to N 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-mineral 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).

7.3.2 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 more than 8 km long half graben bound by east dipping early Permian growth faults and younger (post-Triassic) east dipping normal faults. This half graben structure is cut by northwest- to northeast-striking pre-mineral structures with relatively minor offset and a series of northeast striking post-mineral extensional normal faults parallel to the Oyarbide fault (Figure 7-8).

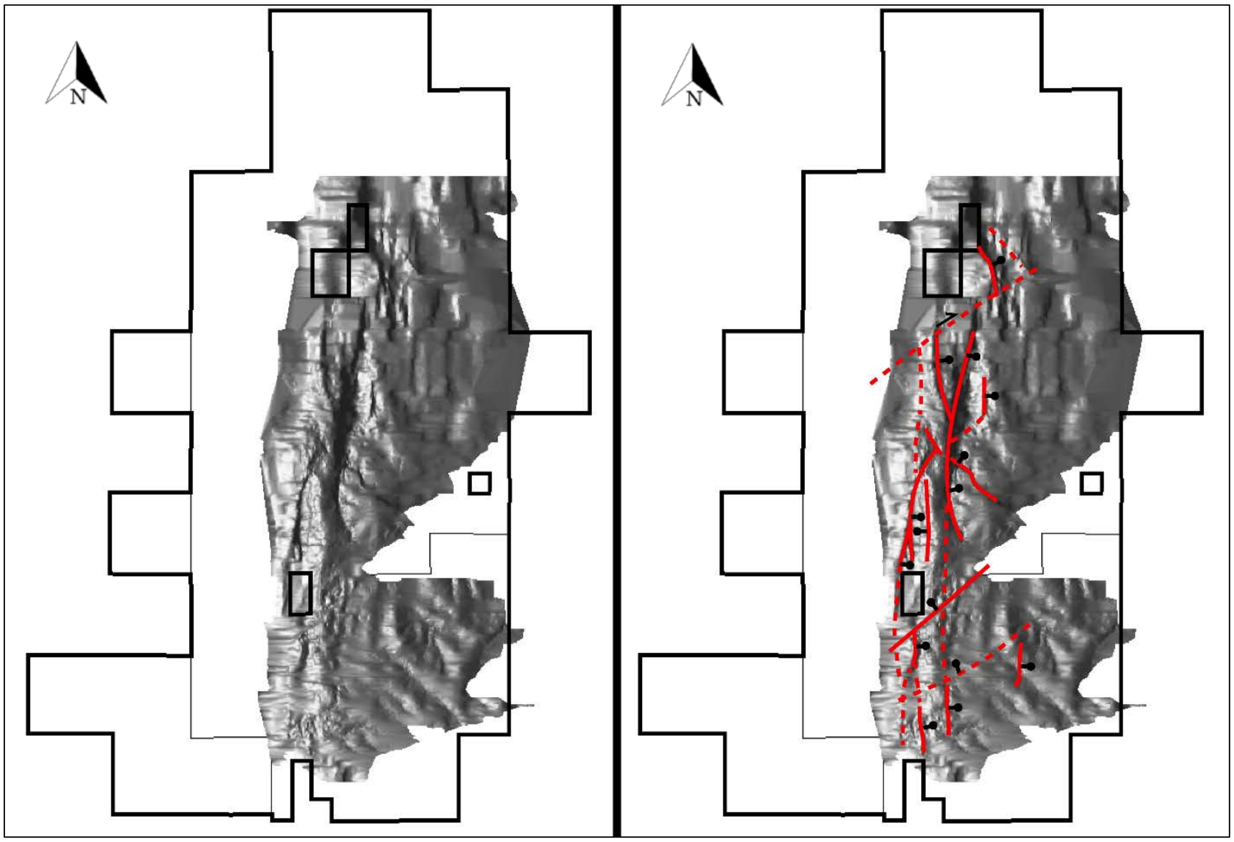

Figure 7-8: The top surface of the Valmy Formation with the current property boundary (thick black line) and previous property boundary (thin black line). Red lines indicate the position of major structures in the Valmy Formation (dashed where inferred)

Source: SSR Mining, 2018

Valmy Formation rocks are highly deformed, with inferred 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 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. The second deformation event, D2, is characterized by tight, east verging folds with approximately north-south striking fold axes. 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 sulphides.

Antler sequence rocks are cut by, and rotated along, early Permian and Cenozoic normal faults. The timing of the inferred 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 7-9). Antler sequence rocks are unfolded, despite their position between two inferred major allochthonous packages.

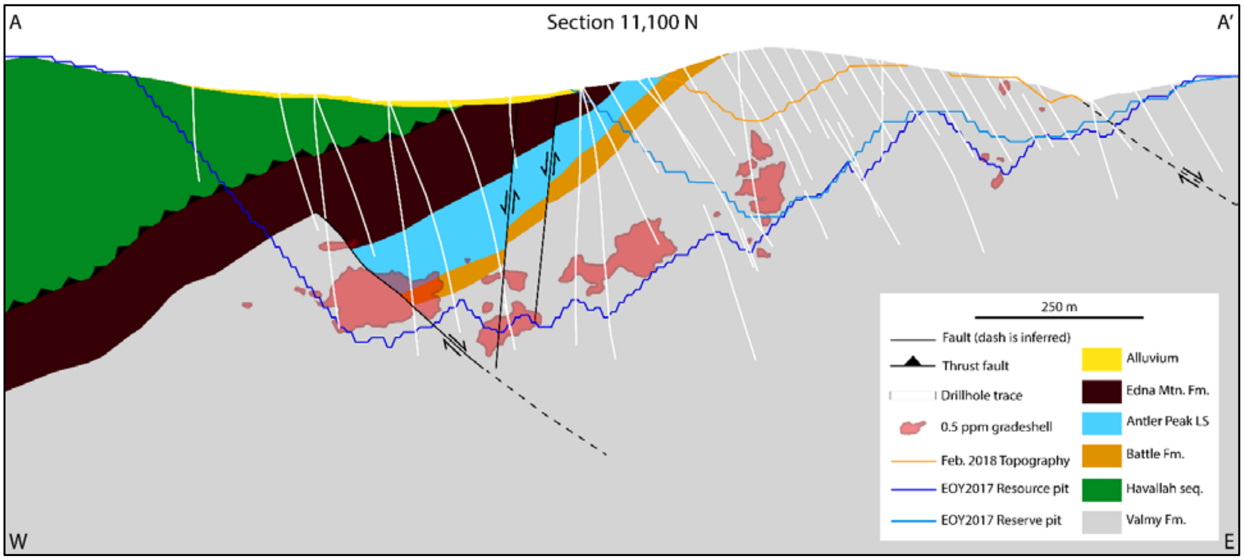

Figure 7-9: Cross section 11,100N highlighting inferred Permian growth fault and associated antithetic normal faults with a steep west dip. The estimated dip-slip displacement of the growth fault is approximately 200 m on this section. Mineralized Valmy Formation in the footwall and hanging wall of this fault constitutes the majority of the Red Dot deposit. The reserve pit outline defines the current (EOY2017) Mackay pit limit.

Source: SSR Mining, 2018

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 older normal faults during the Cenozoic affected the entire stratigraphic section at Marigold, including displacement of post-mineral Oligocene tuff and Quaternary gravel (Figure 7-10).

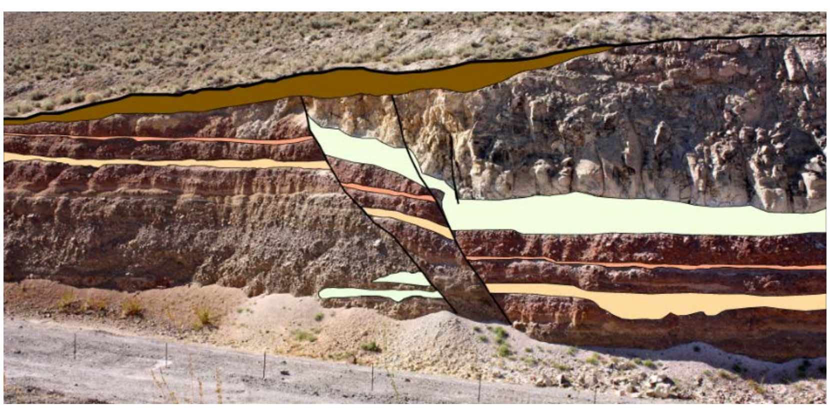

Figure 7-10: Normal displacement of alluvium and tuff immediately south of the Basalt pit. View is to the south.

Source: Fithian, 2015

7.3.3 Mineralization

The gold deposits at Marigold cumulatively define a north-trending alignment of gold mineralized rock more than 8 km long (Figure 7-11).

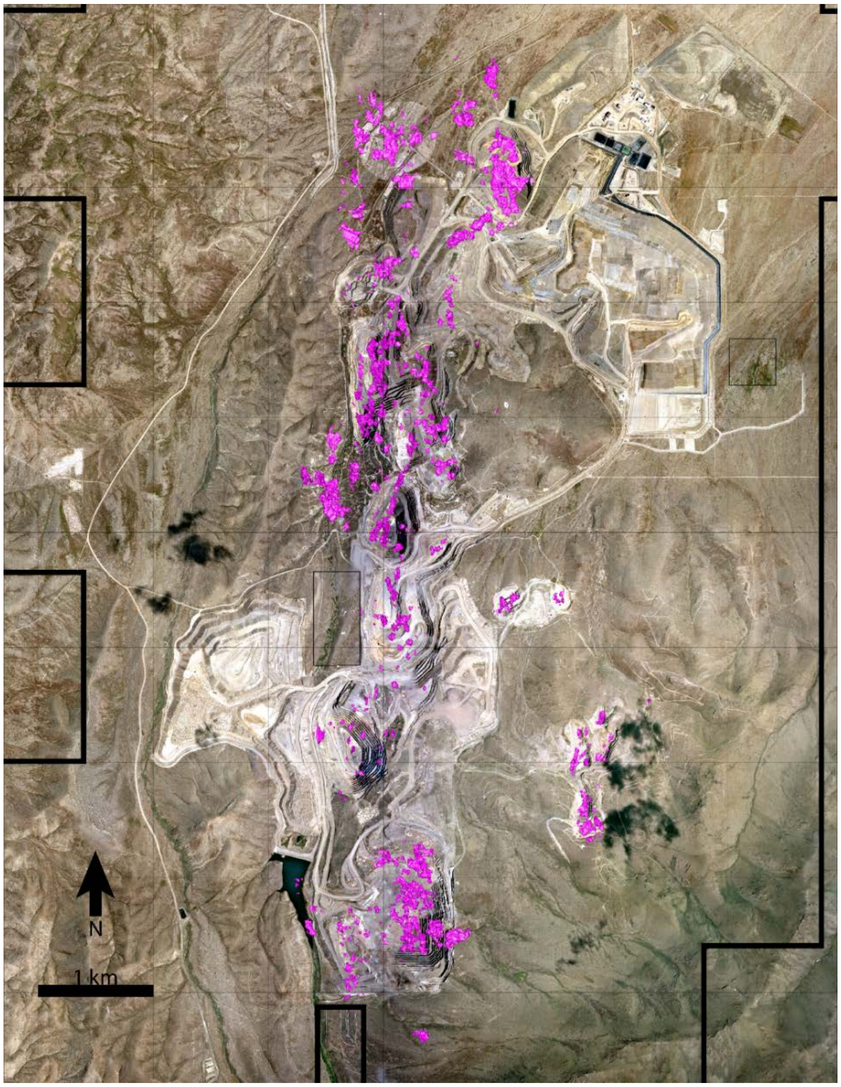

Figure 7-11: Plan view of the Marigold mine area showing the spatial distribution of 1 ppm gold grade shells over an 8+ km long northerly trend. Thick black line is the current (March 2018) property boundary.

Source: SSR Mining, 2018

Gold mineralizing fluids were primarily controlled by fault structure and lithology, with tertiary influence by fold geometry. The deposition of gold was restricted to fault zones and quartzite-chert dominant horizons within the Valmy Formation and high permeability units within the Antler sequence. Gold mineralization was also influenced by fold geometry in the Valmy Formation.

In unoxidized rocks, gold occurs in arsenic-enriched overgrowths on pre-ore pyrite (Figure 7-12). Arsenopyrite is also present on pre-ore pyrite grains but is not auriferous. Geochemically, the gold mineralization event is characterized by elevated arsenic, barium, and antimony, among others. The hypogene sulphide minerals do not occur in ore as these gold-bearing phases are not amenable to heap leaching.

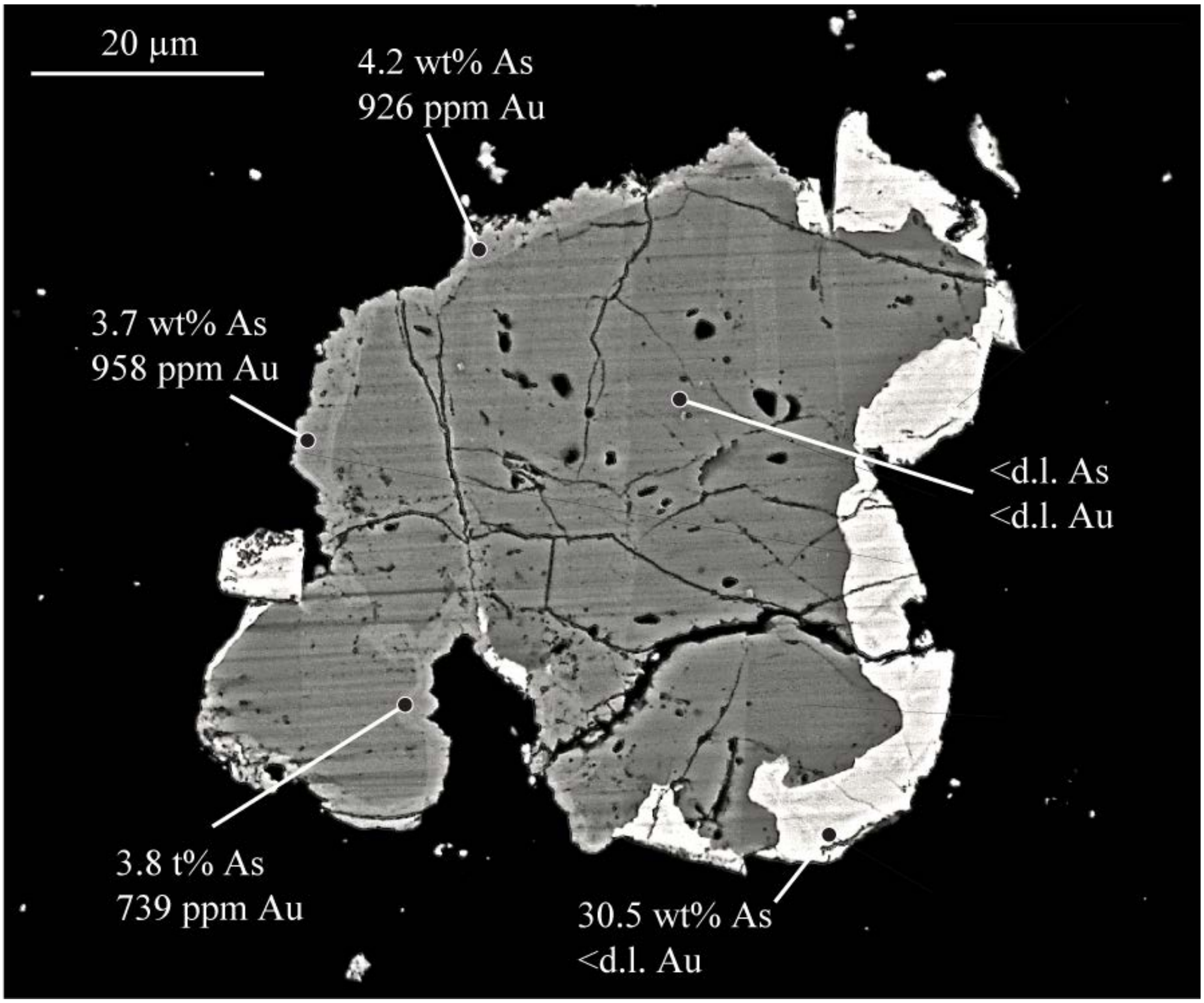

Figure 7-12: Gold occurs in arsenian pyrite overgrowths on pyrite grains in unoxidized rock. Note arsenopyrite (white) does not contain gold.

Source: Modified from Fithian, 2015

In oxidized rocks, gold occurs natively in fractures associated with iron oxide (Figure 7-13). 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.

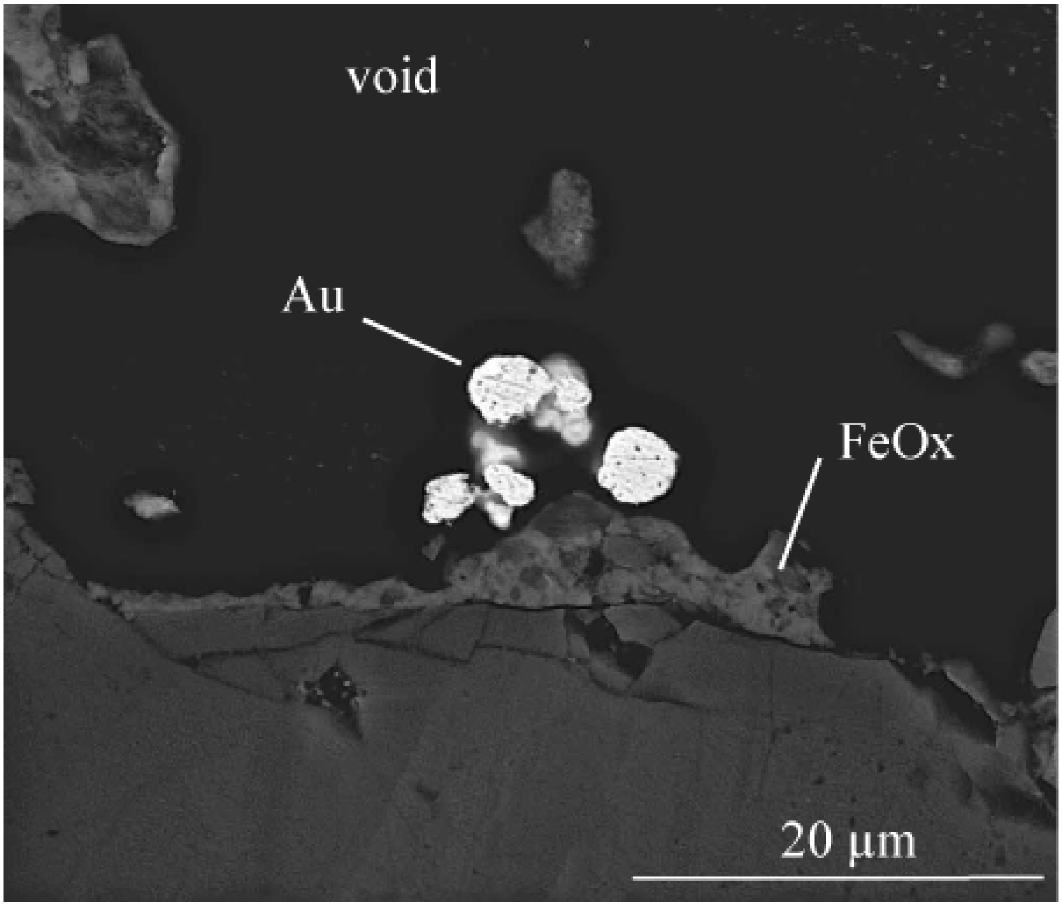

Figure 7-13: Native gold occurs with iron oxide in weathered rocks

Source: Modified from Fithian, 2015

A paragenetically earlier 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.

7.3.4 Alteration

Alteration of rocks includes silicification along high-angle 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; Marigold mine, 2015 internal report).

7.4 Deposit Geology

Gold at Marigold is currently mined in multiple deposits located on an 8 km by 1.5 km area. From north to south, historical and future mineral deposits at Marigold include 5 North (5N), 8 North (8N), 8 Deep (8D), Terry Zone North (TZN), 8S, 8 South Extension (8Sx), Terry Zone (Old

Marigold), Top Zone, HideOut, Terry Complex (Battle, Red Rock, East Hill), Red Dot, Mackay, Mud, Target, Valmy, Basalt-Antler, East Basalt, and Battle Cry. The majority of these individual mineral centres have coalesced into the Mackay pit.

7.4.1 Mackay Pit

The Mackay pit contains the majority of Marigold's current Mineral Resources. Gold is predominantly associated with iron oxide minerals on fracture surfaces of Valmy Formation quartzite, with lesser amounts of gold in Antler sequence rocks (Figure 7-14). Gold is concentrated within narrow structures with a steep west dip, and the intersection of these structures with favourable quartzite horizons within the Valmy Formation.

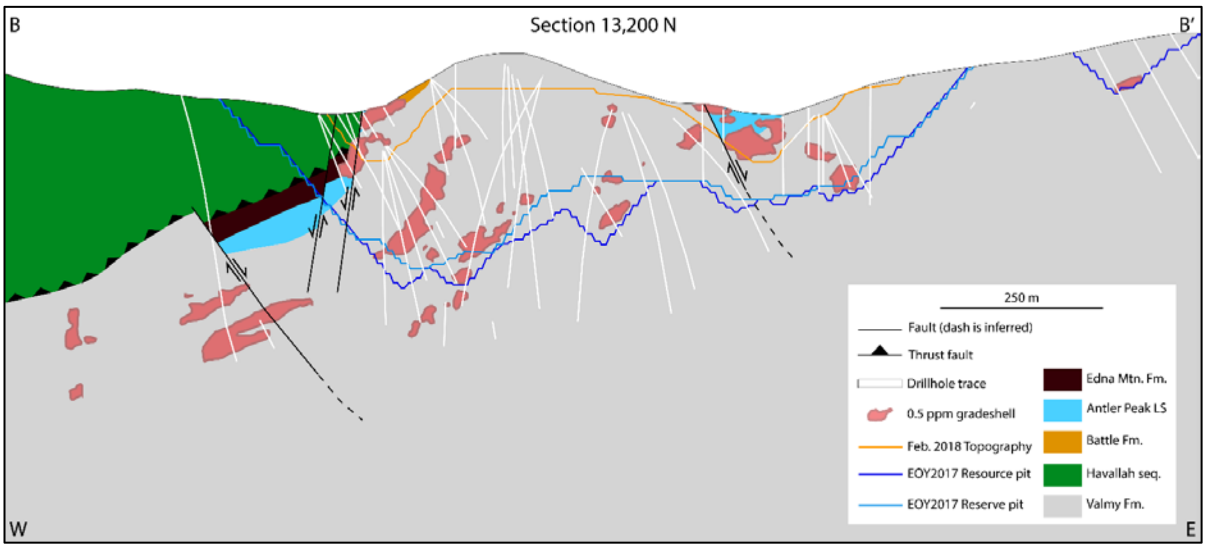

Figure 7-14: Cross section 13,200N highlighting distribution of gold in Antler sequence and Valmy Formation rocks. Note west dip of mineralized zones in Valmy Formation.

Source: SSR Mining, 2018

On the northern end of the planned Mackay pit, a greater percentage of the ore is hosted in Antler sequence rocks. These deposit centres include HideOut (Figure 7-15), 8Sx, and 8N, which are all proximal to 8S pit (the first large-scale open pit mined at Marigold). Where mineralized, Antler sequence rocks tend to host higher concentrations of gold, likely due to increased chemical reactivity with mineralizing fluids.

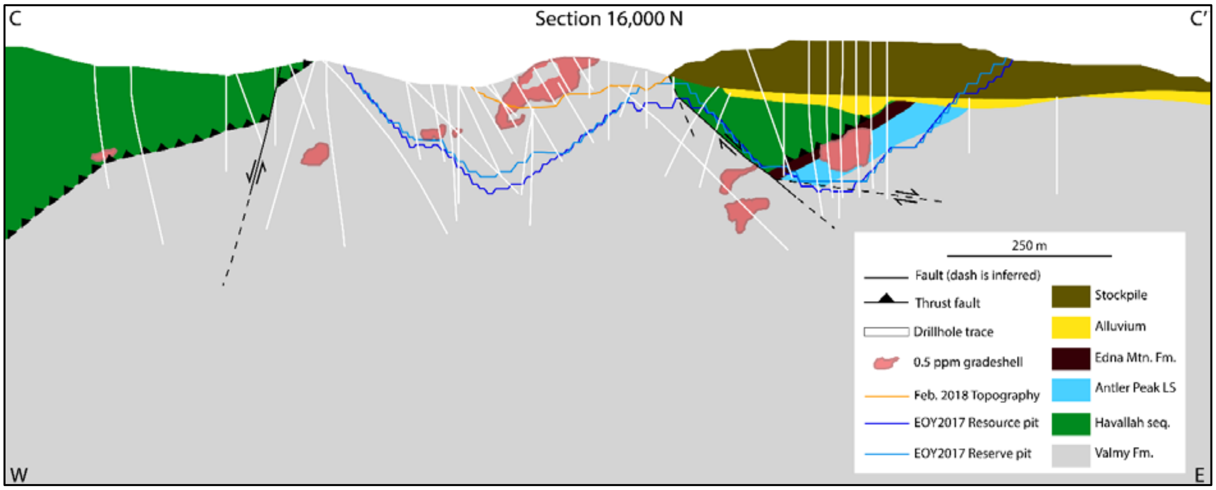

Figure 7-15: Cross section 16,000N highlighting the HideOut deposit hosted by Antler sequence rocks. The HideOut orebody plunges gently to the north, following the Antler sequence as it is displaced deeper into the half-graben to the north. The deposit has a narrow E-W footprint.

Source: SSR Mining, 2018

8 DEPOSIT TYPE

Doebrich and Theodore (1996), Theodore (1998), and Theodore (2000) have historically described the deposits at Marigold as distal disseminated silver-gold (Ag-Au) 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 Ag-Au deposits are proximal to Jurassic, Cretaceous, and mid-Tertiary granitoid intrusions (Hofstra and Cline, 2000). A fundamental requirement of the distal disseminated Ag-Au model necessitates a genetic link between Ag-Au mineralization and causative intrusions (Figure 8-1) (Hofstra and Cline, 2000); however, no such relationship has been conclusively demonstrated at Marigold (Fithian, 2015).

A 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 mineral trends, including the Carlin trend and Battle Mountain-Eureka trend, and are primarily hosted by silty carbonate rocks. Gold occurs in arsenian pyrite rims on pyrite grains and is associated with arsenic, sulphur, 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-rock 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 general consensus that all CTGDs in Nevada formed during the Eocene period (42 to 36 Ma) (Cline et al., 2005).

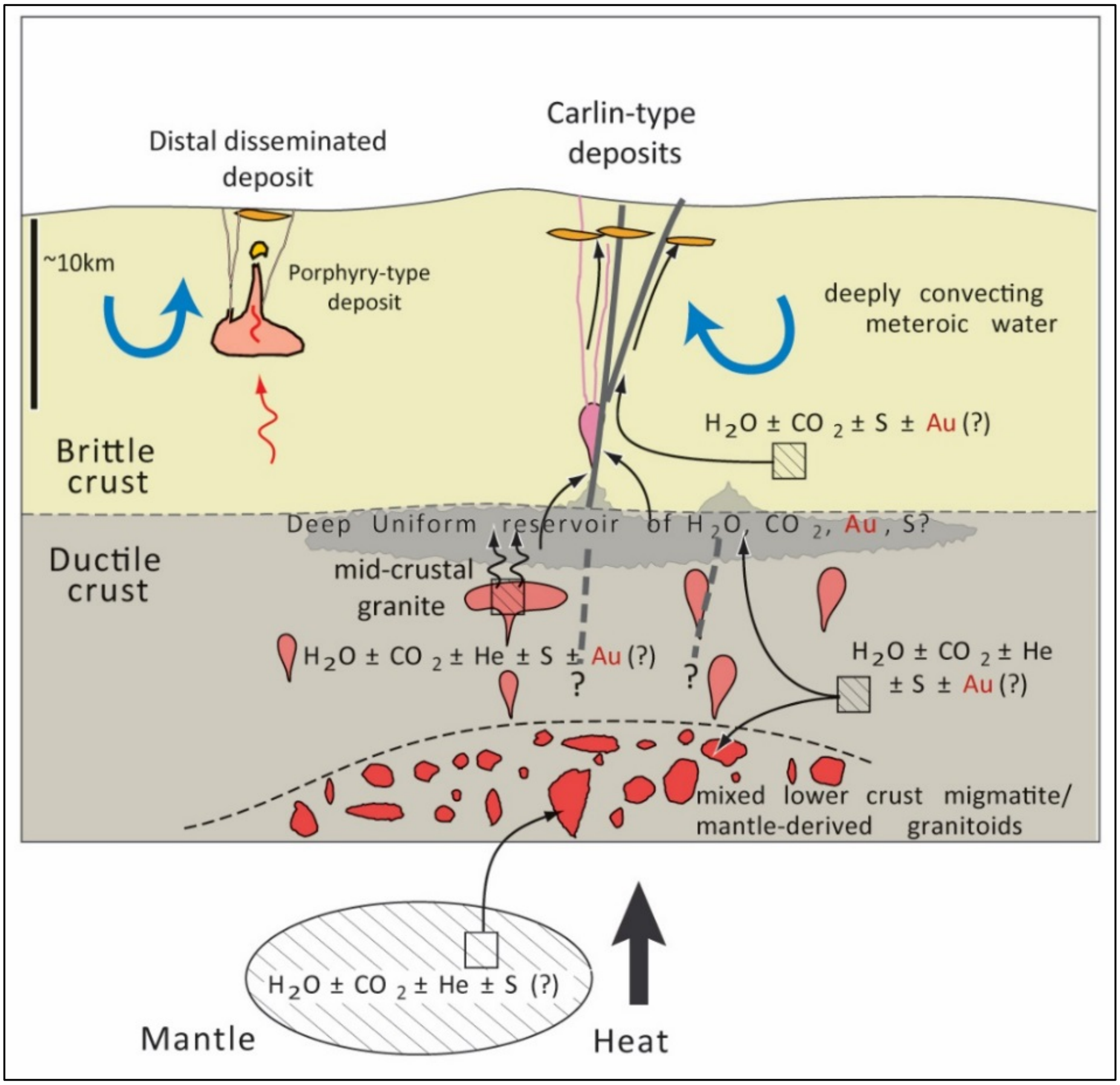

Figure 8-1: Model illustrating inferred processes related to formation of CTGDs and distal disseminated Ag-Au deposits.

Source: Modified from Cline et al., 2005

Distal disseminated Ag-Au deposits may share similarities with CTGDs, including ore body morphology, structural setting, and alteration styles, but drastically differ with respect to alteration zonation, geochemical signature, hypogene mineralogy, and endowment. Distal disseminated Ag-Au 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. Recent work by Fithian (2015) suggests that the gold deposits at Marigold are best classified as CTGDs, based on many similarities with the CTGD model and a lack of evidence for causative hypabyssal intrusions.

9 EXPLORATION

For a discussion regarding exploration programs completed before SSR Mining acquired the Property in April 2014, refer to Section 6 of this Technical Report.

9.1 Gravity Surveys

9.1.1 Gravity Survey Pre-Valmy Purchase

After the purchase of Marigold was completed in 2014, SSR Mining reviewed the exploration activities of previous owners. Based on this review, SSR Mining completed a gravity survey at a grid spacing of 150 m by 150 m in areas that had not been previously covered. The main objective of this work was to delineate possible fluid conduits or feeder structures for the Marigold mineralization.

The gravity survey was planned and designed by James L. Wright of J L Wright Geophysics, Spring Creek, Nevada. The gravity survey and field data collection were conducted by Magee Geophysical Services of Reno, Nevada.

The gravity measurements were collected from 1,358 stations using two LaCoste & Romberg Model-G gravity metres. Forty planned stations were skipped due to active mining and/or unsafe ground conditions.

Figure 9-1 shows the actual station locations from the gravity survey.

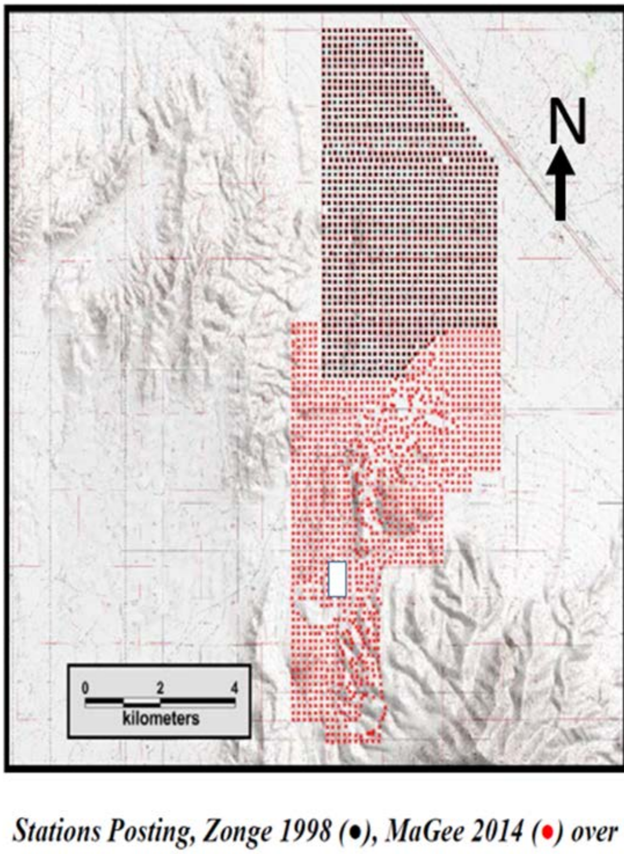

Figure 9-1: Marigold mine gravity survey stations in 2014 are shown in red over as-mined topography

Source: Magee Geophysical Services, 2014

Topographic measurements were also collected at each station using the RTK GPS method. Where it was not possible to receive GPS-based information via a radio modem, the Fast-Static (post-processing) GPS method was used.

9.1.2 Gravity Survey Post-Valmy Purchase

After finalizing the purchase of Valmy in 2015 (additional Newmont-owned land to the east and west of the previous land boundary), SSR Mining expanded the geophysical gravity survey to include this new ground.

The gravity survey was conducted by Magee Geophysical Services in August and September of 2016. The main objective of this work was to extend the detailed coverage of three previous gravity surveys in the vicinity of the Marigold mine.

Relative gravity measurements were made with LaCoste & Romberg Model-G gravity metres. Topographic surveying was performed with Trimble RTK and Fast-Static GPS methods.

Gravity measurements were processed to complete Bouguer gravity, merged with existing data, and forwarded to consulting geophysicist, James L. Wright of J L Wright Geophysics, for further processing and interpretation.

9.1.3 Gravity Stations

In 2016, a total of 1,806 new gravity stations were acquired by Magee Geophysical Services at variable station spacing on a 150 m square grid and a 150 m by 300 m staggered grid. Existing gravity data included 1,358 stations collected in 2014 by Magee Geophysical Services, 1,250 stations collected in 1998 by Zonge International Inc. (Zonge), and 122 stations collected on various dates by Newmont. Additional stations, including repeats, totalled 4,853 stations. Figure 9-2 shows a complete station posting, colour-coded by survey date.

9.1.4 Terrain Corrections

Terrain corrections were calculated to a distance of 167 km for each gravity station. The terrain correction for the distance of 0 to 5 m around each station used a sloped triangle method with the average slopes measured in the field. The terrain correction for the distance of 5 m to 2,000 m around each station used a prism method and a sectional ring method with digital terrain from a 5 m digital elevation model (DEM). The 5 m DEM was prepared by merging a 2016 proprietary Marigold DEM with surrounding United States Geological Survey (USGS) 10 m DEMs. The Marigold proprietary elevation data were assumed to be in NGVD 29; some minor edits were made to remove artificial terrain prior to merging with USGS data.

The terrain correction for the distance of 2 to 167 km around each station used the sectional ring method with digital terrain from shuttle radar topography mission (SRTM) DEM and/or a 90 m DEM.

Terrain corrections for existing data were performed using the same procedures, but with local terrain derived from a 2014 proprietary 5 m Marigold DEM.

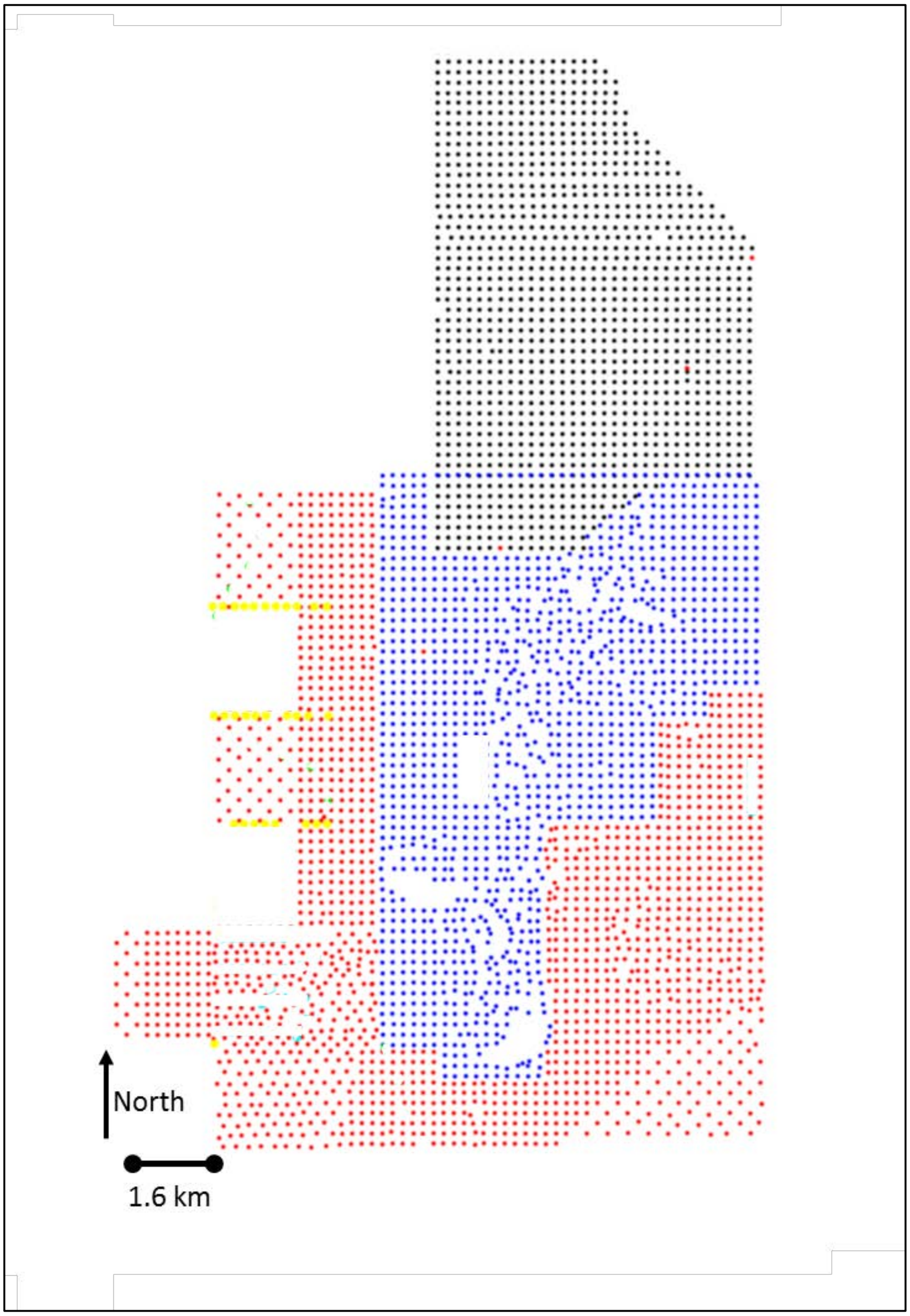

Figure 9-2: Stations: Zonge 1998 (●), Magee 2014 (●), Magee 2016 (●), and USGS (●)

Source: James L. Wright, 2016

9.1.5 Interpretation

The complete Bouguer anomaly at 2.55 grams per cubic centimetre (g/cc) shows a clear northeast-southwest-trending feature that corresponds to the Oyarbide fault cutting the survey's southeast corner. Dense rocks lie to the southeast of the fault relative to those in the northwest. However, both rock units are mapped as Valmy Formation. A gravity high to the northeast is attributed to carbonate rocks beneath the valley fill. North–south structures extend directly along the middle of the gravity coverage, and gravity lows along the southwest edge are produced by basin fill in the head of Buffalo Valley (Figure 9-3).

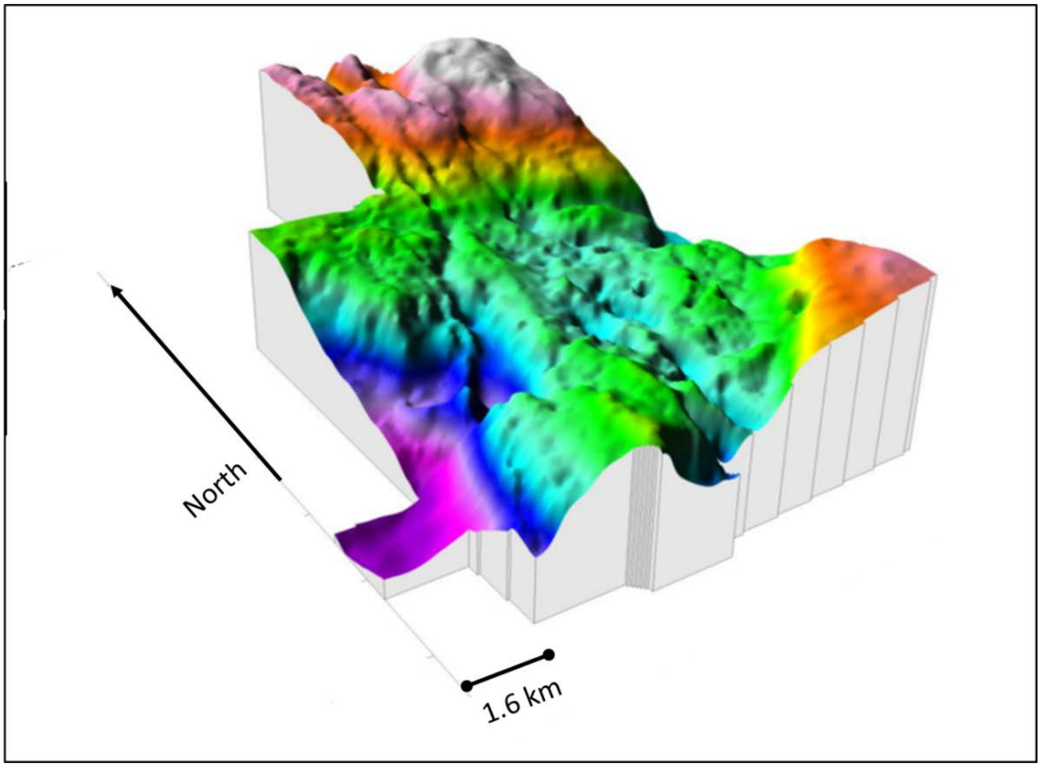

Figure 9-3: Marigold mine gravity survey compilation, complete bouguer anomaly oblique image

Source: James L. Wright, 2016

9.2 Core Drilling Program

Following the acquisition of Marigold, SSR Mining initiated a deeper core drilling program at Marigold which, to date, includes seven additional diamond drill holes to test for sulfide mineralization.

This drilling has been completed across the Property to help understand the overall geology of the Property and to target higher gold grades beyond the oxidation boundary that is currently mined at Marigold.

10 DRILLING

James N. Carver, SME Registered Member, and Karthik Rathnam, MAusIMM (CP), are 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 suitably qualified geologists. The QPs are 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.

As at December 31, 2017, 8,440 drill holes for 1,645,048 m of drilling comprise the current resource database for the Property.

The first hole was drilled in 1968, and drilling continued sporadically with a variety of groups until 1985, when Cordex began the systematic exploration of the 8S area.

Table 10.1 summarizes the drilling on the Property from 1968 through 2017.

Table 10.1: Summary of drilling history

Drilling Program	Company	No. of RC Holes	RC Drilling (m)[1]	No. of Diamond Holes	Diamond Drilling (m)[1]	Total Holes	Total Drilling (m)[1]
1968-1985	Various exploration and mining groups	126[2]	7,037[2]	[2]	[2]	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 Mining	116	21,653	1[3]	1,235[3]	117	22,888
2015	SSR Mining	171[5]	39,070	4	4,270[4]	175[5]	43,340[5]
2016	SSR Mining	231	55,147	1	955	232	56,102
2017	SSR Mining	188	54,814	1	1,128	189	55,942
Total Drilling		**8,388**	**1,624,154**	**52**	**20,894**	**8,440**	**1,645,048**

Notes:

1. Drill lengths converted from feet to metres. Figures have been rounded. Exact totals prior to 2014 (in feet) can be found in the previous *NI 43-101 Technical Report on the Marigold Mine* (November 19, 2014).
2. No documentation of drilling method at Marigold is available for these drill holes. However, before RC drilling became widely adopted in the mid-1980s, conventional single-tube drilling was often relied on as the exploration drilling technique. It is suspected that single-tube drilling was used during this time period; only occasional diamond drill holes were used. These drill holes are located in areas that have been mined or are outside of the current Mineral Resource area of Marigold.
3. Only one diamond core drill hole was completed at the end of 2014, for a total of 1,235 m. Two diamond core drill holes were in progress, and the total diamond core drilled during 2014, including the completed diamond core drill hole, was approximately 2,829 m.
4. Four HQ core drill holes, including the two HQ core drill holes in progress in 2014, were completed in 2015, totalling 4,270 m of HQ core.
5. Includes an additional 2,360 m of drilling in 37 sonic drill holes in mineralized stockpiles.

10.1 Drilling at Marigold (Pre-2014)

For details on drilling activities conducted at Marigold prior to 2014, refer to SSR Mining's *NI 43-101 Technical Report on the Marigold Mine* (November 19, 2014).

10.2 Drilling at Valmy (1968 to 2006)

In 2015, SSR Mining purchased the Valmy property from Newmont, and all previous drilling information for Valmy was incorporated into the Marigold drilling database.

Numerous companies explored the Valmy property from 1968 until Newmont put the Valmy and Mud pits into operation in 2002. These companies included Hecla, Santa Fe Pacific Minerals Limited, and Newmont. As mentioned, this drilling data has been reviewed closely by SSR Mining.

Figure 10-1 shows a plan view of the area and extent of this work, which is also noted in Table 10.1.

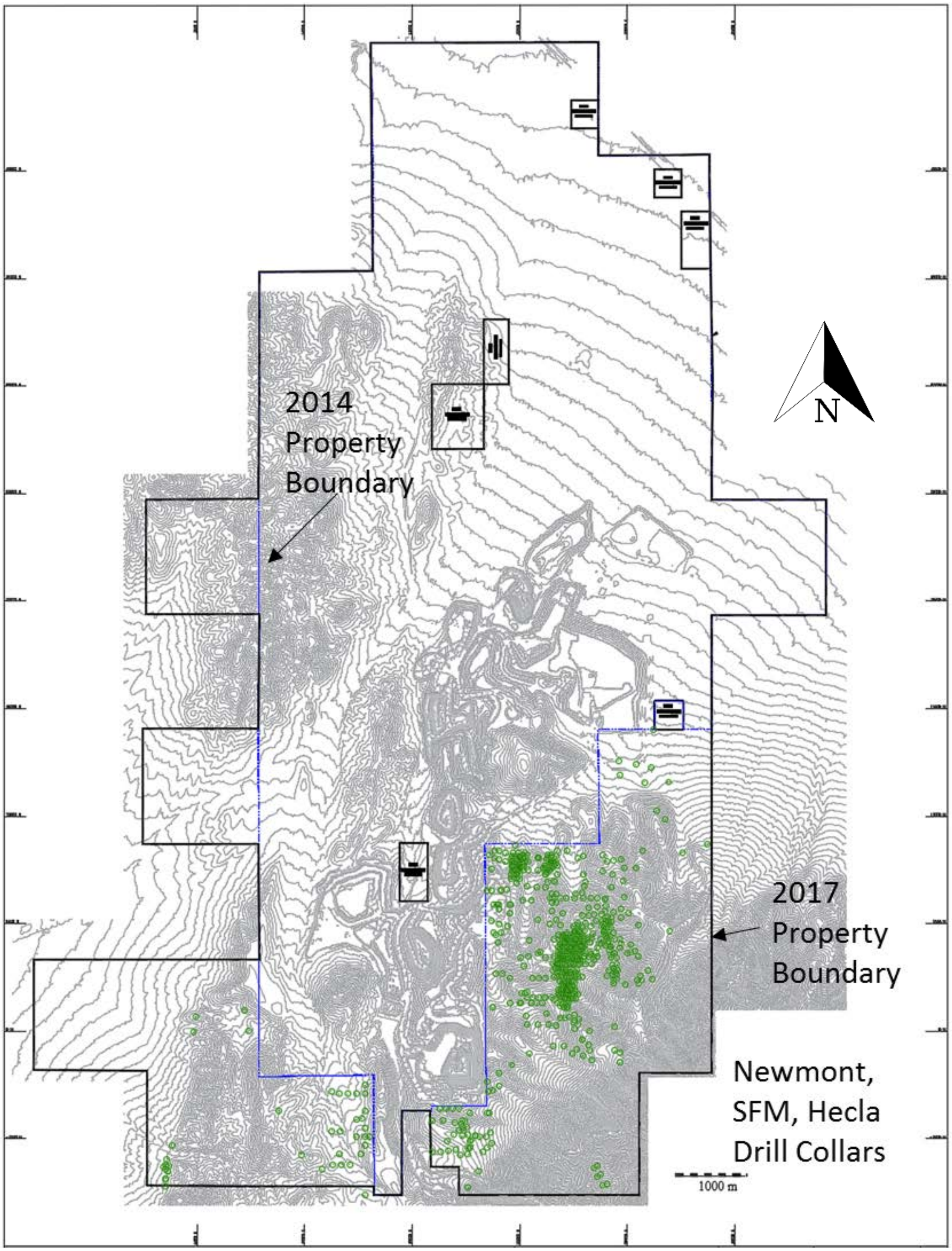

Figure 10-1: Plan view of drilling carried out on Valmy property, prior to SSR Mining

Source: SSR Mining, 2017

10.3 SSR Mining Drilling (2014 to 2017)

SSR Mining initiated a Mineral Resources exploration program in June 2014. It targeted the discovery of near-surface gold mineralization proximal to Marigold's open pits and upgraded the Inferred Mineral Resources to Indicated Mineral Resources. Figure 10-2 illustrates this drilling activity from 2014 to 2017, and Figure 10-3 shows where these holes were completed.

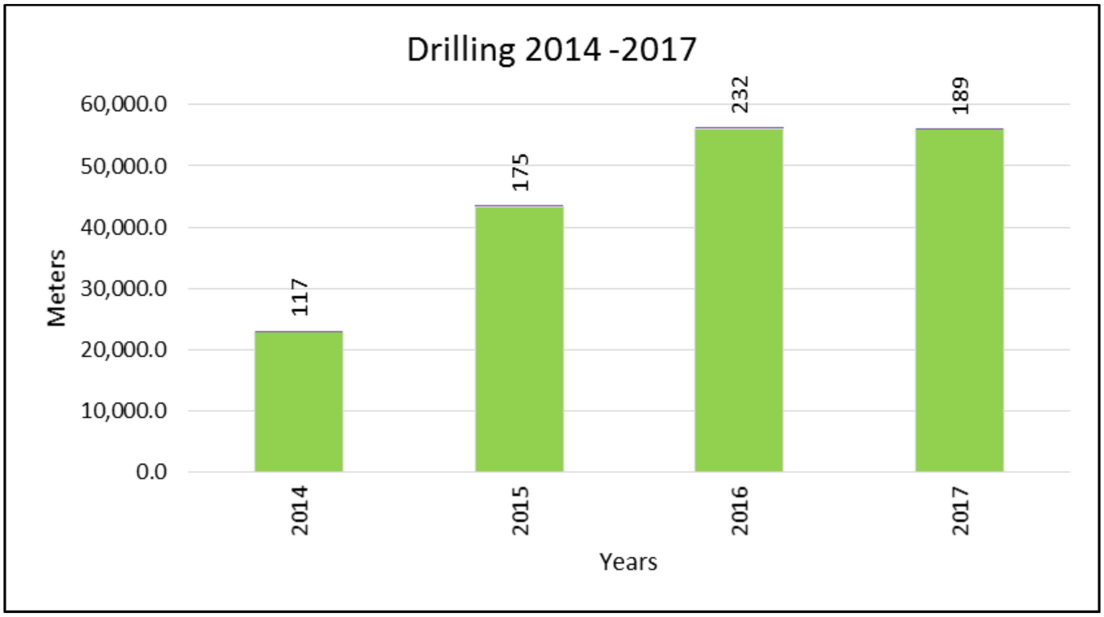

Figure 10-2: SSR Mining year-by-year drilling and number of holes drilled

Source: SSR Mining, 2017

The 2014 to 2017 drilling production included:

- 706 RC drill holes for 170,684 m;
- 37 sonic drill holes in rock stockpiles (included in RC totals); and
- 7 HQ diamond core holes for 7,588 m.

SSR Mining drilled a total of 713 drill holes for 178,272 m from 2014 to 2017.

SSR Mining has drilled on targets and resource areas, including East Basalt, Battle Cry, Showdown, Valmy SE, Mud & NW, Crossfire, HideOut, 8Sx, TZN, 8D, 5N, Red Dot, North Red Dot, Mackay pit extensions, and the Mackay Herco Keel structure; these areas are shown on Figure 10-4.

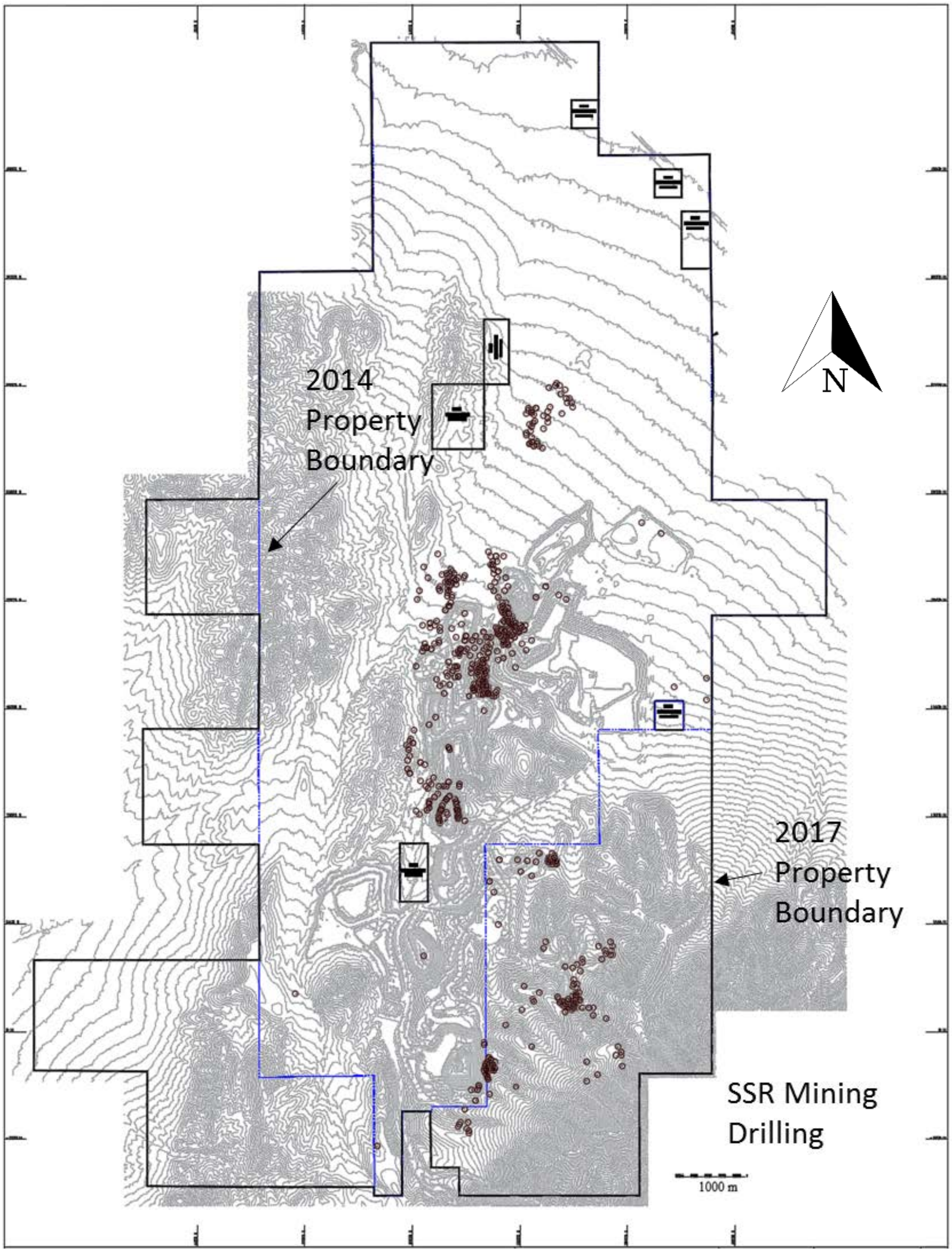

Figure 10-3: Plan view of the drilling by SSR Mining (2014 to 2017)

Source: SSR Mining, 2017

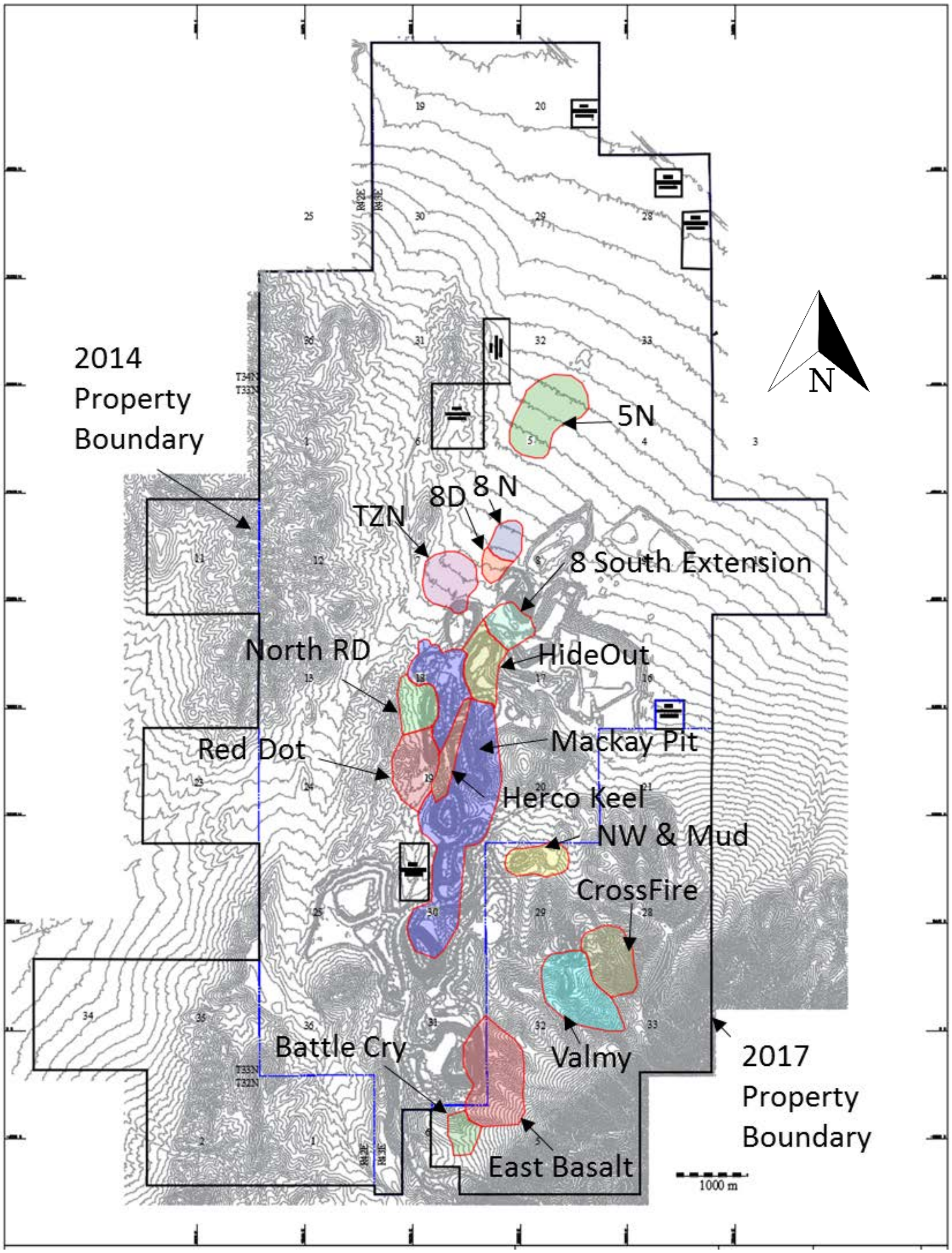

Figure 10-4: Plan view of target areas and resource advancement by SSR Mining (2014 to 2017)

Source: SSR Mining, 2017

Figure 10-5 shows the drill hole collars used to define the resources described in this Technical Report.

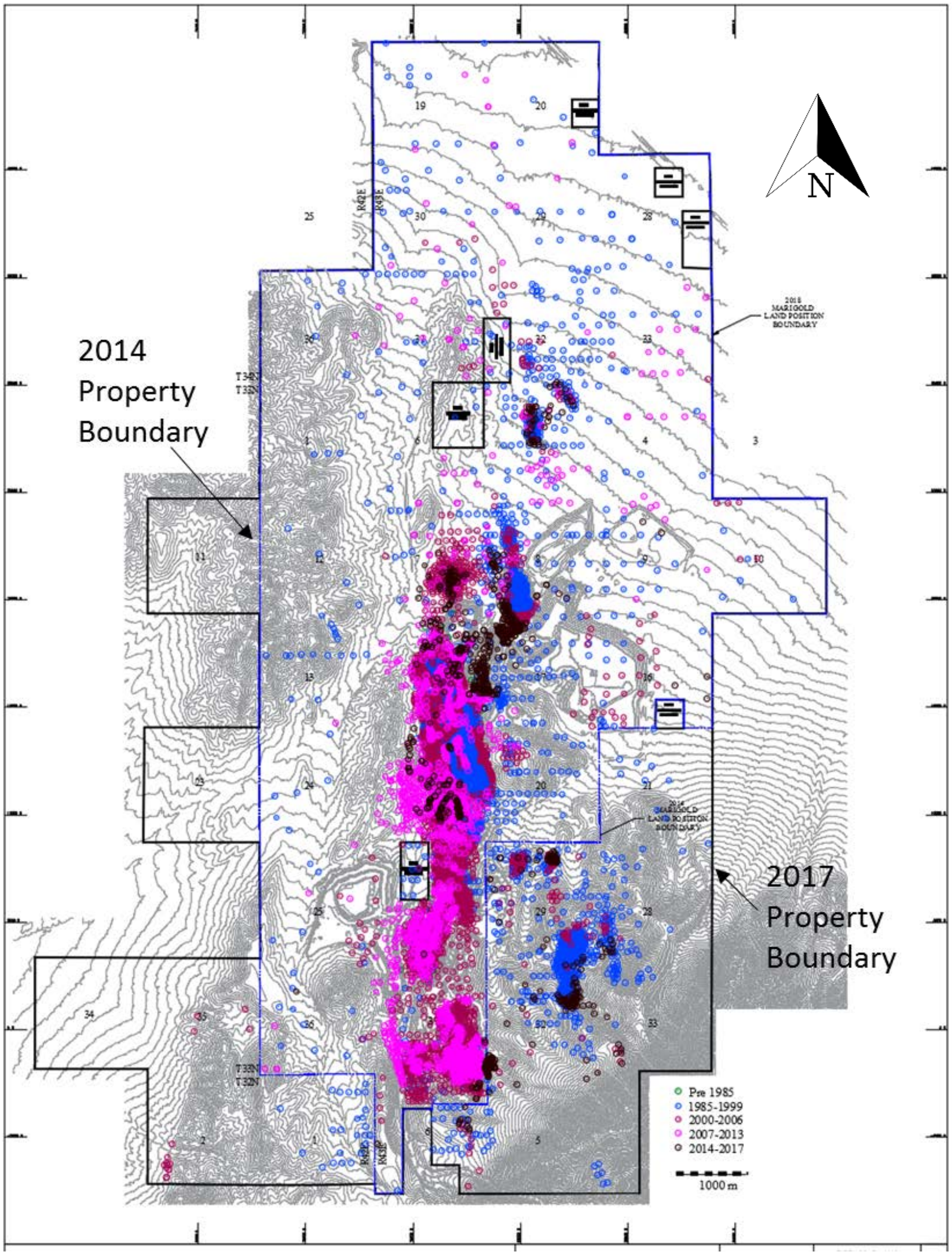

Figure 10-5: Plan view of all the drilling (1968 to 2017)

Source: SSR Mining, 2017

Table 10.2 provides drill hole highlights from SSR Mining's exploration drill program.

Table 10.2: Selected drill hole highlights from SSR Mining exploration drill program

Marigold Area	Drill Hole Number	Drilling (m)	Gold Grade (g/t)
8Sx	MR6034	91.4	2.48
8D	MR6045	164.6	1.67
HideOut	MR6170	76.2	2.47
TZN	MR6185	39.6	1.56
Valmy	MR6283	59.4	1.65
East Basalt	MR6374	59.4	1.10
East Basalt	MR6374	59.4	0.84
North Red Dot	MR6640	33.5	0.95

Note: Selected results for downhole intercepts; width values refer to length of downhole intercept.

11 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 the *NI 43-101 Technical Report on the Marigold Mine* (November 19, 2014). This section briefly describes historical procedures and reviews the current procedures and results that support the QC of data collected since such last technical report.

11.1 Sample Preparation and Analysis

A summary of historical analytical methods and assay results that comprise the Marigold and Valmy database is presented in Table 11.1. Except for the Marigold, Pinson and Dee Mine site laboratories, all laboratories listed in Table 11.1 are commercial laboratories that were independent from SSR Mining.

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 assay, and, if results were greater than 0.17 g/t Au, samples were also subjected to 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.

Table 11.1: Analytical methods for gold for the Marigold assay resource database

Period	Laboratory	Preparation	Analytical Method	Reported DL (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
1987–1998 (Newmont property)	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 (Newmont property)	Chemex Labs Ltd.	Dry, crush and riffle split for pulverizing; pulverize to 100 µ	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 to 12 hrs @ 310° F; crush >95% minus 2 mm; riffle split to collect 250 to 400 g for pulverizing; pulverize to >90% minus 75µ	All samples 10 g CN assay, AA finish If CN assay >0.17 g/t, the 2nd pulp split @ 30 g FA, gravimetric finish	0.03
	American Assay or Inspectorate Labs	Dry – 6 to 12 hrs @ 310° F; crush (using jaw and roll) >90% minus 2 mm; riffle split	All samples 15 g CN assay, AA finish If CN assay >0.17 g/t, the 2nd	0.03

Period	Laboratory	Preparation	Analytical Method	Reported DL (g/t)
		to collect 500 to 1,000 g for pulverizing; pulverize to >90% minus 100µ	pulp split @ 30 g FA, AA finish Over-limits by 30 g FA, gravimetric finish	
2006–2013	Marigold Mine laboratory	Dry – 6 to 12 hrs @ 310° F; crush >95% minus 2 mm; riffle split to collect 250 to 400 g for pulverizing; pulverize to >90% minus 75µ	All samples 10 g CN assay, AA finish If CN assay >0.17 g/t, the 2nd pulp split @ 30 g FA, gravimetric finish	0.03
	American Assay or Inspectorate Labs	Dry – 6 to 12 hrs @ 310° F; crush (using jaw and roll) >90% minus 2 mm; riffle split to collect 500 to 1,000 g for pulverizing; pulverize to >90% minus 100µ	All samples 15 g CN assay, AA finish If CN assay >0.17 g/t the 2nd pulp split @ 30 g FA, AA finish Over-limits by 30 g FA, gravimetric finish	0.03
2014–2017	American Assay Laboratories	Dry – 6 to 12 hrs @ 310° F; crush (using jaw and roll) >90% minus 2 mm; riffle split to collect 500 to 1,000 g for pulverizing; pulverize to >90% minus 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 @ 15 g CN assay, AA finish	FA, 0.003 CN assay, 0.03

All exploration samples from Marigold and the Valmy property are analyzed at American Assay Laboratories (AAL), an ISO 17025 certified facility in Sparks, Nevada. AAL is independent from SSR Mining. 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.

11.2 Sample Security

11.2.1 Sample Security until 2013

The bulk of the data in the Marigold resource assay database was for samples analyzed 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.

11.2.2 Sample Security Valmy Property

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 property. Based on the documented evidence, the chances of tampering with the samples either on site or in transit were negligible.

11.2.3 Sample Security 2014–2017

All exploration samples were collected from the mine site by an employee of AAL. All sample dispatches included a manifest listing the sample identifiers and number of samples included in the shipment. AAL electronically acknowledged the receipt of the samples within 24 hours after physically reconciling the samples with the manifest. MMC exploration personnel were unaware of any instances of tampering with samples either on site or in transit to a laboratory.

11.3 Quality Assurance/Quality Control (QA/QC) Procedures

11.3.1 QA/QC Procedures Pre-2014

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

Because the historical QA/QC procedures at Marigold did not meet current-day best practices, SSR Mining 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. SSR Mining sent these to a commercial laboratory for analyses. The results of this re-assay program were discussed in the *NI 43-101 Technical Report on the Marigold Mine* (November 19, 2014), and it was concluded that there was no systematic error or bias in the accuracy and precision of analytical assays from the period between 1987 and 2013.

11.3.2 QA/QC Procedures Valmy Property

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

As a part of the QA/QC program, a total of 1,974 samples were assayed for FA with AA finish and gravimetric finish between 1987 and 2003. Of these 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. The assay results for both the finishes were compared, and results are presented in Figures 11-1 and 11-2.

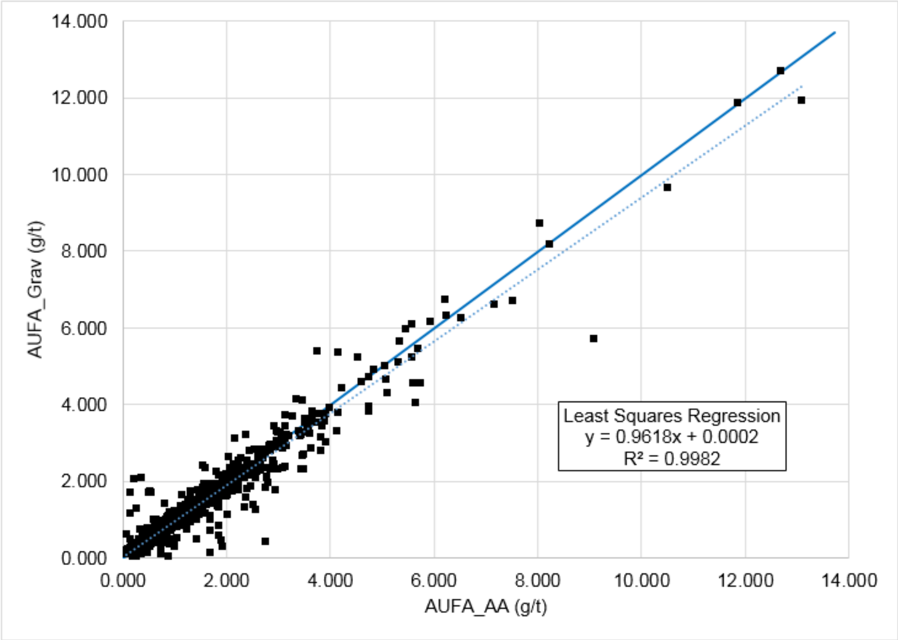

Figure 11-1: Scatter plot between FA gold values with AA finish and gravimetric finish

Source: SSR Mining, 2018

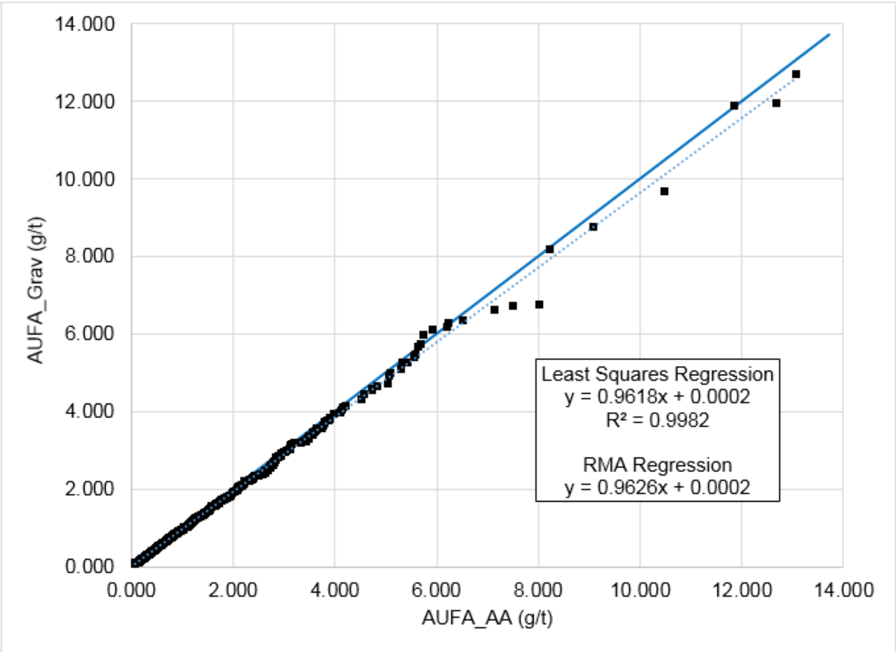

Figure 11-2: Q-Q plot between FA gold values with AA finish and gravimetric finish

Source: SSR Mining, 2018

The scatter shown in the data presented in Figures 11-1 and 11-2 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. These indicate that the assays form similar distributions and can be interchanged, but they do not validate the accuracy or precision of the assay value.

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

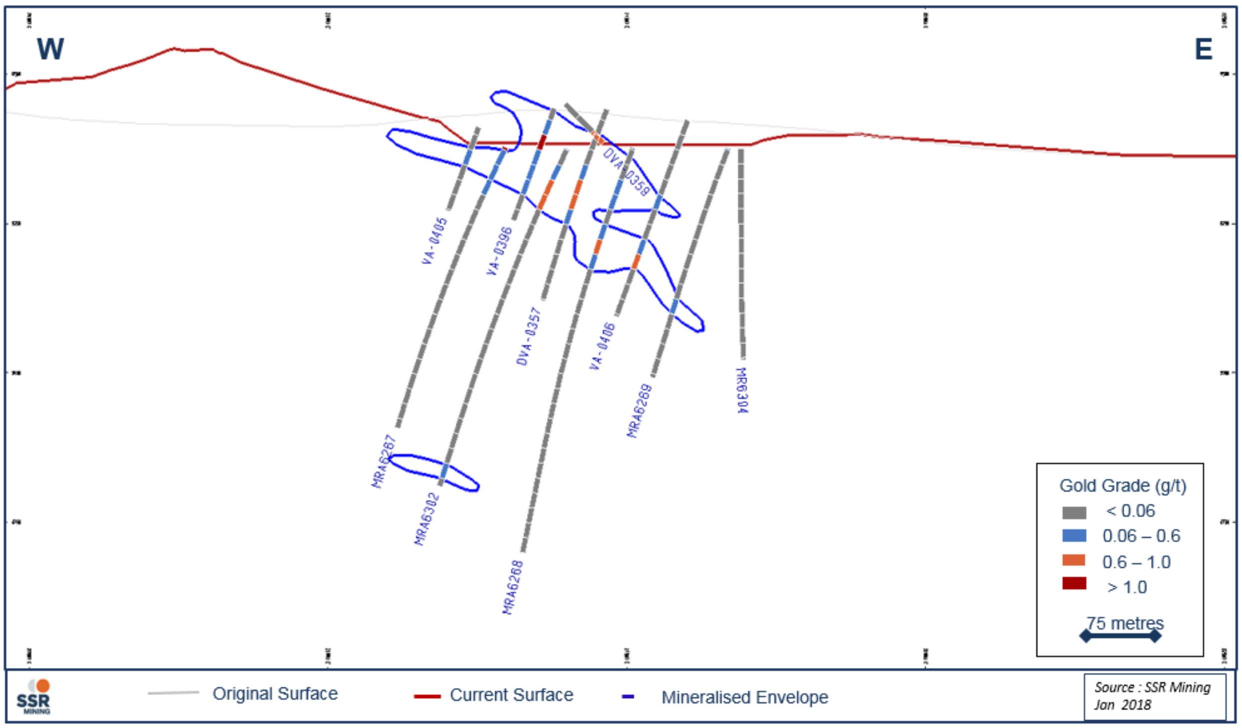

Figure 11-3: Cross section with SSR Mining drill holes (drill hole number prefix MRA) and historical drill holes along section 8000N

Source: SSR Mining, 2018

The cumulative normal distribution comparing the SSR Mining drill composites to the composite from the historical drill holes is provided in Figure 11-4.

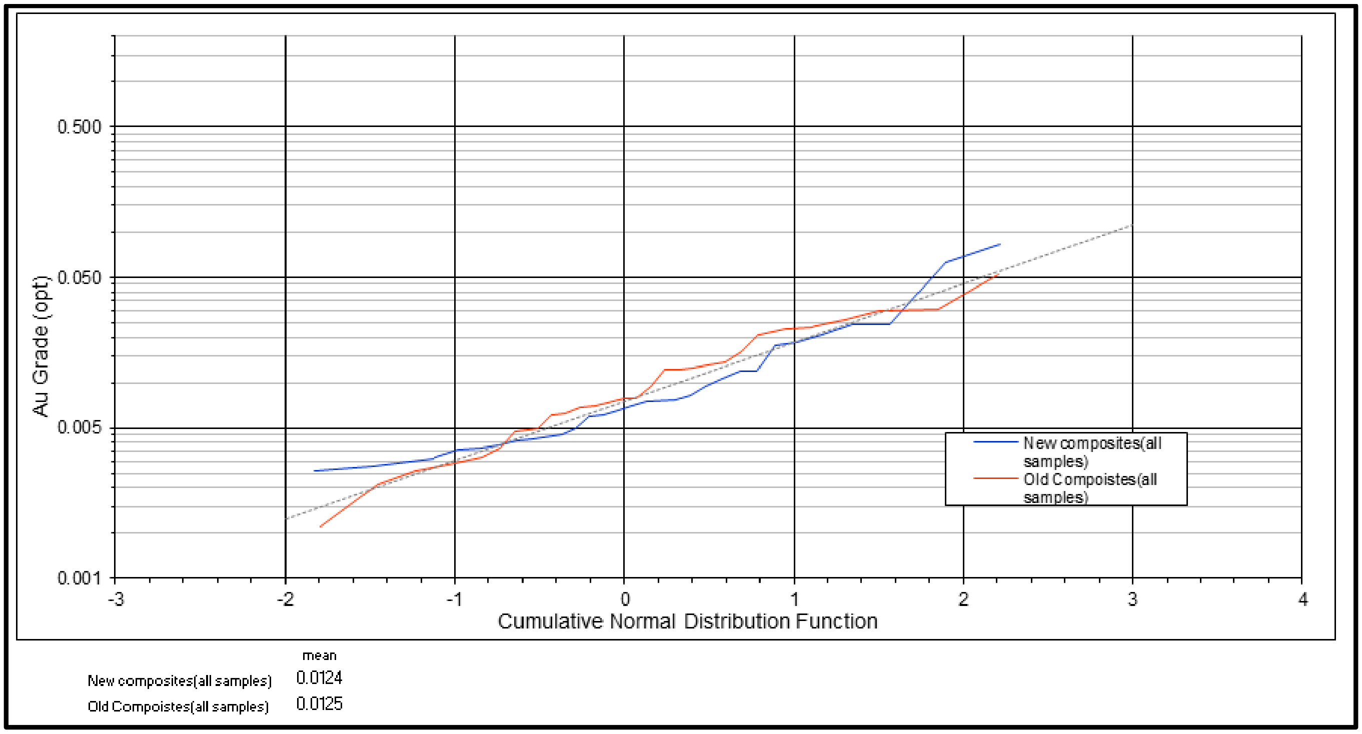

Figure 11-4: Cumulative normal distribution comparing composites from SSR Mining drilling and historical drilling

Source: SSR Mining, 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 Mining 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 Mining drill holes within the same mineralized envelope. The percent difference between historical and SSR Mining results was -4%. The results of the NN estimates are presented in Table 11.2.

Table 11.2: Comparison of the NN mean gold grades

NN Estimate	Mean Gold Grade (g/t)
NN with Historical Composites	0.624
NN with SSR Mining Composites	0.600

Note: % Difference (SSR Mining-Historical) is -4%.

The infill drill comparison indicates that there is no systematic error in the historical sampling and assaying methodology when compared to current practices, and, therefore, the historical data can be used to develop the Mineral Resources for the Valmy property.

11.3.3 QA/QC Procedures 2014–2017

SSR Mining's QA/QC protocol involves the insertion of a certified standards every 20th sample and the insertion of a blank sample every 50th sample. Eleven different certified standards purchased from ROCKLABS® and Geo Chem Laboratories were used. In addition to the certified standards and blank material, every 50th sample is sampled in duplicate at the drill site and analyzed as a field duplicate.

BLANKS

Coarse blanks are samples of barren material that are used to detect possible contamination, which is most common during the sample preparation stage. 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 10 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 0.003 g/t, so blank samples assaying in excess of 0.03 g/t were considered to be failures.

Between 2014 and 2017, a total of 1,107 blanks were inserted into the sample stream. The results are shown in the Figure 11-5. An assay value greater than five times the LDL is recorded as a warning, and ten times the LDL is deemed a failure limit. Four samples failed (0.36%), but only two samples were significant enough with assay values of 0.068 g/t.

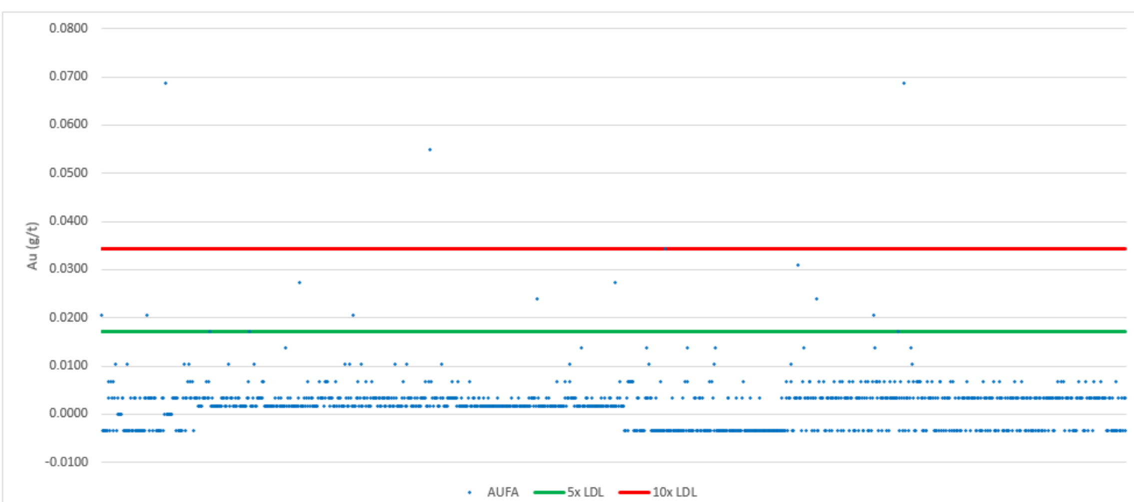

Figure 11-5: Blank results

Source: SSR Mining, 2018

CERTIFIED STANDARDS

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

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

Most of the certified standards used were purchased from ROCKLABS®, and Ore Research & Exploration Pty Ltd. standards were only used in 2014 for a short period of time. The certified standards were assigned sample numbers in sequence with their accompanying drill samples and inserted into the drill-sample stream. The list of certified standards used between 2014 and 2017 is shown in Table 11.3.

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 11.3: List of certified standards used between 2014 and 2017

Certified Standard	Expected Gold Value (g/t)	Standard Deviation (g/t)	No. of Samples Assayed
OxD108	0.414	0.012	480
OxJ95	2.337	0.057	361
OxB130	0.125	0.006	1137
OxJ111	2.166	0.058	131
OxJ120	2.365	0.063	627
OxD128	0.424	0.011	758
OREAS 50P	0.727	0.041	37
OREAS 50Pb	0.841	0.031	89
OREAS 6Pb	1.425	0.077	66
OREAS 7Pb	2.770	0.055	13
G312-7	0.220	0.010	111

Field Duplicates

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. The duplicate sample inserted into the sample stream monitors the precision of the sample collection, crushing, and pulverizing stages of sample preparation as well as the analytical stage.

Between 2014 and 2017, 1,650 duplicate samples were collected. Absolute relative difference (ARD) was used to estimate precision, as shown in Figure 11-6. Precision was estimated for all the samples to be at ±31%. Because most samples were below the 0.1 g/t grade used to construct mineralized envelopes, precision was also estimated for samples greater than 30 times the LDL. It was 25%. The estimated precision is considered to be reasonable for coarse field duplicates in gold deposits.

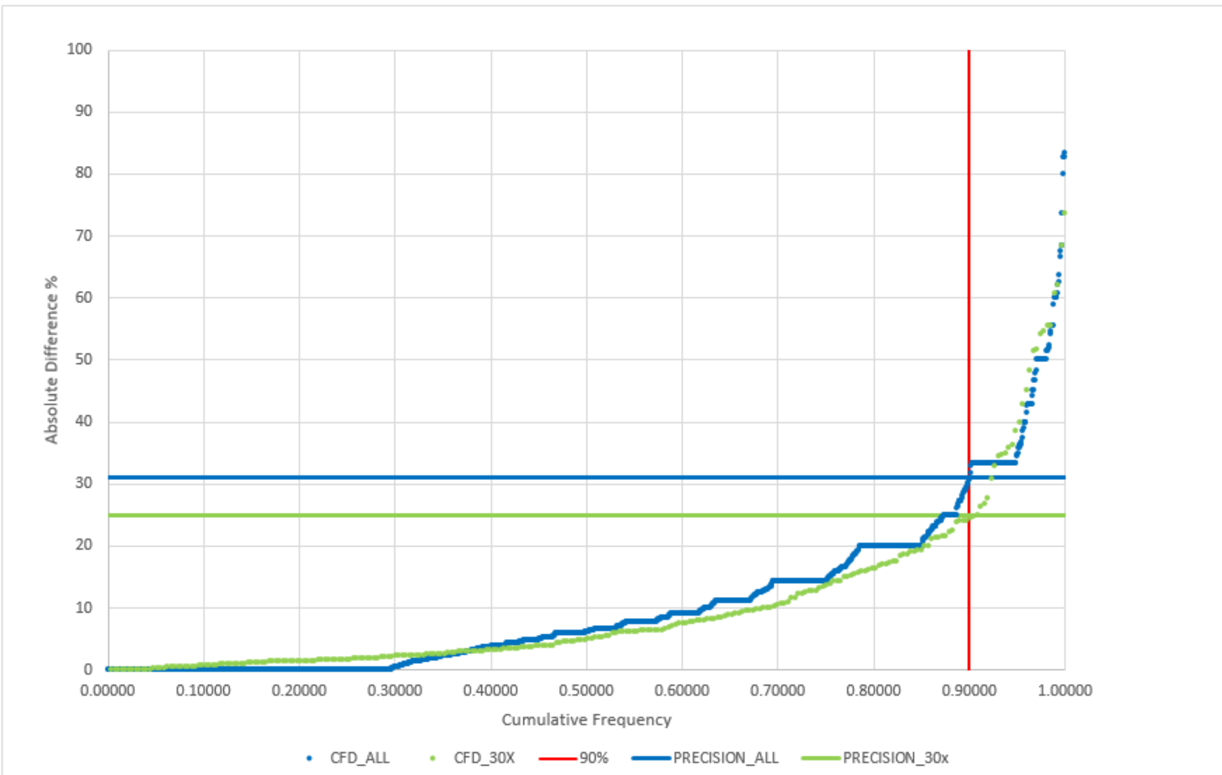

Figure 11-6: Cumulative frequency distribution comparing original and duplicate (field) assay results

Source: SSR Mining, 2018

11.4 Opinion on Adequacy of Sample Preparation, Security and Analytical Procedures

Marigold's Chief Geologist, James N. Carver, SME Registered Member, and Marigold's Chief Engineer, Karthik Rathnam, MAusIMM (CP), have reviewed the sample preparation, analytical and security procedures for the various drilling programs conducted on the Marigold deposit and have determined that they were carried out in accordance with accepted industry standards.

The processes discussed in Section 11 of this Technical Report are considered adequate for the generation of a quality dataset suitable for the estimation of Mineral Resources and Mineral Reserves.

12 DATA VERIFICATION

The verification for the exploration data collected before SSR Mining acquired Marigold is described in the *NI 43-101 Technical Report on the Marigold Mine* (November 19, 2014). It 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 resources.

SSR Mining subsequently acquired the adjacent Valmy property, 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 Mining acquired the chip trays for 687 drill holes, pulps from 57 drill holes, and sample rejects from 66 drill holes. Five percent of the available drill chips 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. The results showed a maximum variance of 4 m in the x-y plane (easting and northing) and less than one metre in the z dimension (elevation). This error-shift is less than half the size of a resource block and is not material to any resulting estimate. The Valmy 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 as part of the generation of the Mineral Resources estimate presented in this Technical Report:

- 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.
- 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 co-ordinates 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 dumps were cross checked, updated annually, and incorporated into the current topography.

- All data, including collars, downhole survey, assays and lithology, were imported directly into the Geological database without any keyboard input. Data validation was conducted before the records were uploaded to the main database.

Three technical issues were identified in the Marigold Mineral Resources database (these issues have since been resolved):

- Drill holes were missing downhole surveys.
- Some samples were only assayed by cyanide soluble analysis and not by FA.
- Assay results for a high percentage of lower grade samples were recorded as 0.0 oz/t gold.

The first two items were described and resolved in the *NI 43-101 Technical Report on the Marigold Mine* (November 19, 2014).

The third item is described and resolved in Section 12.1 of this Technical Report.

12.1 Marigold Assay Database

12.1.1 Assay Program

As described in the *NI 43-101 Technical Report on the Marigold Mine* (November 19, 2014), 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.

The issue of below-detection-limit analyses in the database was addressed through a systematic assay program implemented in 2015 and 2016 (the Assay Program). A total of 153,023 pulp samples from pre-2009 drill holes reporting a 0.0 oz/t gold cyanide soluble result and located within the reserve pits were recovered from storage and analyzed 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 analyzed using a 1 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.

The Assay Program identified additional mineralized areas, and the incorporation of this lower grade material, that had been previously estimated as 0.0 oz/t or deemed as waste, increased the ore tonnage as shown in Figure 12-1.

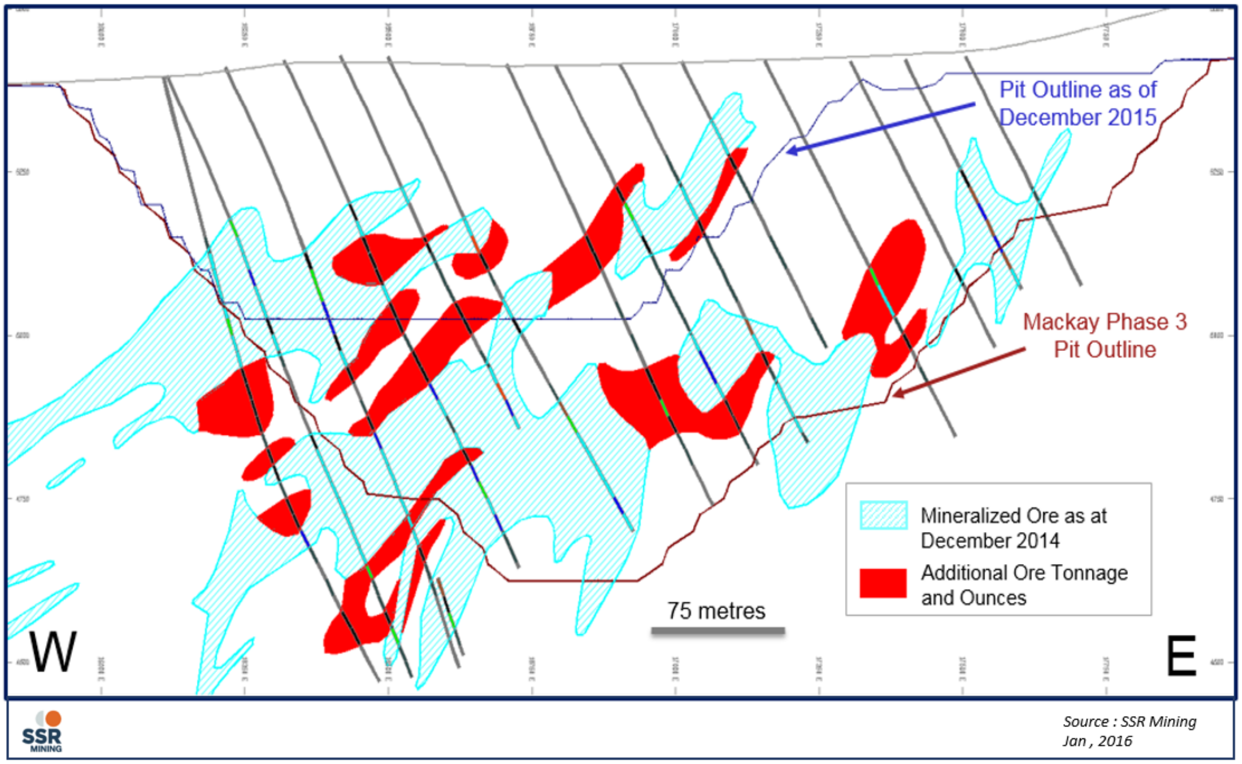

Figure 12-1: Cross section showing the increase in tonnage estimated as mineralized

Source: SSR Mining, 2018

12.2 Data Verification Conclusions

Based on the verification steps and adjustments outlined above, Marigold's Chief Geologist, James N. Carver, SME Registered Member, and Marigold's Chief Engineer, Karthik Rathnam, MAusIMM (CP), consider the Marigold exploration data (including collar, survey, lithology and assay data) to be suitable for use in the generation of classified Mineral Resources and Mineral Reserves, which can form the basis for mine planning studies.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

When production began at Marigold in 1989, ore was processed primarily with a rod-and-ball-mill grinding circuit and CIL and carbon-in-column gold recovery circuits.

In March 1990, heap leaching was introduced at the Property. Since April 1999, all Marigold ore deposits have been processed via truck dump ROM heap leaching. Gold production data from the leach pad provide the best possible indicator for future processing recoveries because all future-placed ore is similar to ore that has been processed since 1999.

Cumulative gold production from the Marigold leach pad (through December 2017) is equivalent to 70.34% recovery, and total gold recovery, including recoverable gold inventory in the pad, is estimated at 73.63%.

Gold recovery from future ore is estimated to be 73.95%; this is based on a review of historical assay and recovery data as well as metallurgical testwork on future ore.

13.1 Metallurgical Testwork

Laboratory activities include testing methods to improve gold recovery, testing ore to guide short- and long-range gold production planning and optimizing reagent addition to minimize processing costs.

Many metallurgical studies have been completed on all Marigold ore types with respect to heap leach recovery. These studies have been based primarily on both small column (25.4 cm diametre by 1.2 m high, with minus 51 mm ore) and standard bottle roll leach testwork. Testwork has been conducted 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 testwork has also been conducted on exploration RC drill samples to determine expected gold recovery from deposits that will be mined in the future.

Historically, gold recoveries achieved in the 255 laboratory column tests have ranged from 67.3% for samples from the Basalt deposit to 84.8% for samples from East Hill. The average overall recovery was 77.4%. A summary of column test gold recoveries by pit location and by grade is shown in Table 13.1 and Table 13.2, respectively. Results of gold recovery versus gold grade for all tests are shown in Figure 13-1.

For the estimate of Mineral Reserves, Marigold included material from deposits that represent the metallurgical testwork for all types of mineralization.

SSR Mining is not aware of any processing factors or deleterious elements that could impact potential economic extraction.

Table 13.1: Column test results by pit location

Ore Sample Location	No. of Tests	Average Gold Grade (g/t)	Average Gold Recovery (%)
Basalt	61	1.63	67.3
TZN	42	1.43	79.6
Target	40	0.71	81.2
Mackay	24	0.37	78.0
Antler	40	0.88	80.5
East Hill	21	1.20	84.8
Millennium	10	1.81	80.1
8S	17	3.07	80.7
Summary	**255**	**1.34**	**77.4**

Table 13.2: Column test results by grade

Grade Range (g/t)	No. of Tests	Average Gold Grade (g/t)	Average Gold Recovery (%)
Less than 0.86	143	0.41	75.0
0.86 to 1.71	58	1.19	81.9
1.71 to 3.43	29	2.33	78.4
Greater than 3.43	25	6.07	76.4

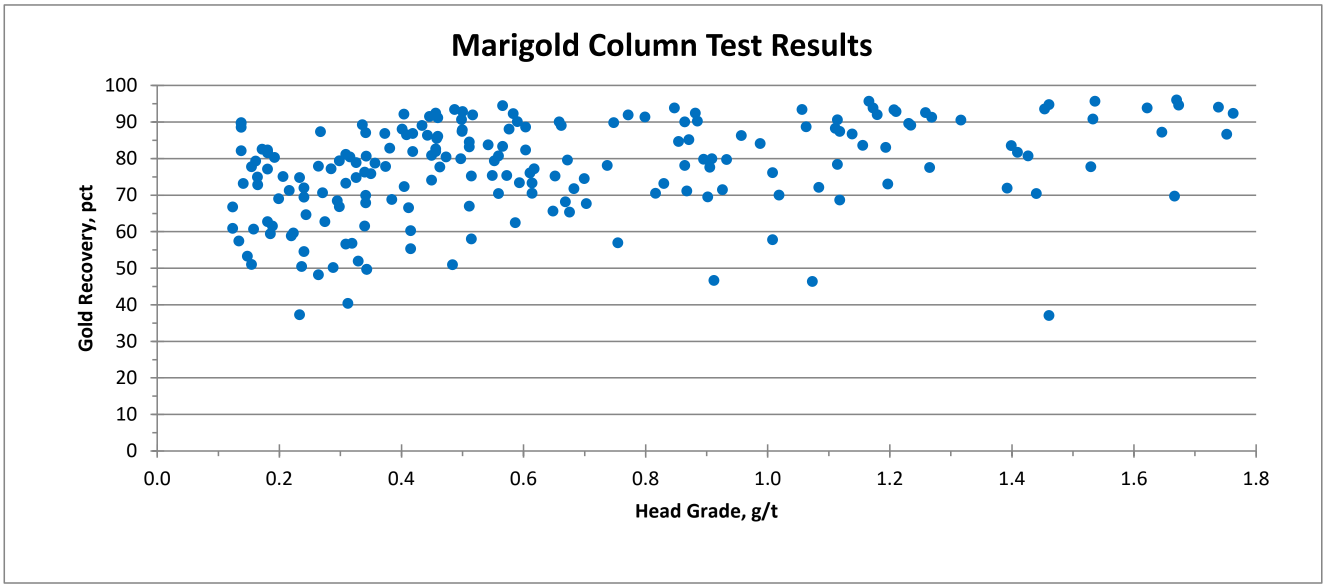

Figure 13-1: Column test results, Mackay pit ores compared to all other testwork

Source: SSR Mining, 2018

13.2 Process Optimization Metallurgical Testwork

Additional testwork has been carried out as required to optimize the processing variables that are controllable on a large heap leach pad and plant. These variables include ore particle size, reagent dosage, solution application rate and carbon activity. Typical results from certain studies are shown in Table 13.3, Table 13.4, Table 13.5, Figure 13-2 and Figure 13-3.

The data shown in Table 13.3 indicate that there is an increase in gold recovery with finer particle sizes. However, at typical ore grades and current gold prices, this increase in gold recovery is not sufficient to justify the capital and operating expenses of a large crushing circuit.

Testwork was competed on ore from the Mackay deposit to determine the optimum sodium cyanide concentration in the leaching solution. The test results are summarized in Table 13.4. Past results have shown that maximum gold recovery can be achieved with a concentration of 125 to 175 ppm. More recent testing shows the effect that lift height has on cyanide concentration. Column test results, especially with clay-type ores, have shown that cyanide concentration can become very low after passing through 8 m of ore. Based on these results, the cyanide concentration in the barren leaching solution was increased to 200 ppm. To confirm the column testwork in the field, in-pad samplers were installed at select locations. Field results confirmed that cyanide levels can initially decrease dramatically in a 12-m ore lift. However, the cyanide concentration increases after the gold concentration decreases to lower levels, and this available cyanide is important to achieve secondary leaching on the ore below.

Lime addition to the ore is based on the pH of the leach pad's pregnant solution. A pH greater than 9.5 is desired. Testwork has been conducted to ensure that the lime addition is optimized to minimize lime and sodium cyanide usage, while maintaining pH and gold recovery levels. Table 13.5 shows the summary of these test results. Based on the test results and actual effluent pH levels, a lime addition of 0.8 kg/t is currently used on the Marigold leach pad.

Testwork has been conducted to determine the optimum blending of clay-rich and rocky ore types. If clay-rich ores are not blended with rockier material, the ore must be leached at a lower solution application rate, typically less than 0.08 L/min/m^2, to avoid solution ponding on the leach pad surface. A lower application rate results in a longer primary leach cycle time; therefore, additional leach time is required to ensure adequate solution is passed through the ore lift so gold recovery is maximized. Testwork indicates that to maintain optimum application rates, clay-rich ore types must be blended with a minimum of 40% rocky material.

Activated carbon used in the carbon column trains is tested regularly to maintain its capacity for loading gold. At Marigold, a portion of the stripped carbon batches are acid washed to remove inorganic scale and thermally reactivated to remove organic contaminants. This carbon activity testwork ensures the proper amount of carbon is treated.

A barren carbon activity of 75% is targeted. This activity results in +95% soluble gold recovery from pregnant solution in the five carbon column absorption stages. Figure 13-3 shows the results for carbon activity testwork conducted in 2017.

Table 13.3: Gold recovery by particle size

Sample Location	Grade (g/t)	P_{80} (microns)	Gold Recovery (%)	Type of Test
Mackay Conglomerate	0.24	12,000	76.8	Column
		26,000	70.0	
Mackay Quartzite/Argillite	0.14	11,000	89.9	Column
		25,000	82.6	
Target II	0.89	154	91.1	Bottle Roll
		183	91.3	

Table 13.4: Gold recovery by sodium cyanide concentration

Sample Location and Rock Type	Gold Grade (g/t)	Sodium Cyanide Concentration (ppm)	Gold Recovery (%)
Mackay Conglomerate	0.27	75	49.8
		125	72.0
		175	69.5
		350	62.8
Mackay Quartzite/Argillite	0.14	75	89.7
		125	82.2
		175	82.6
		350	88.6

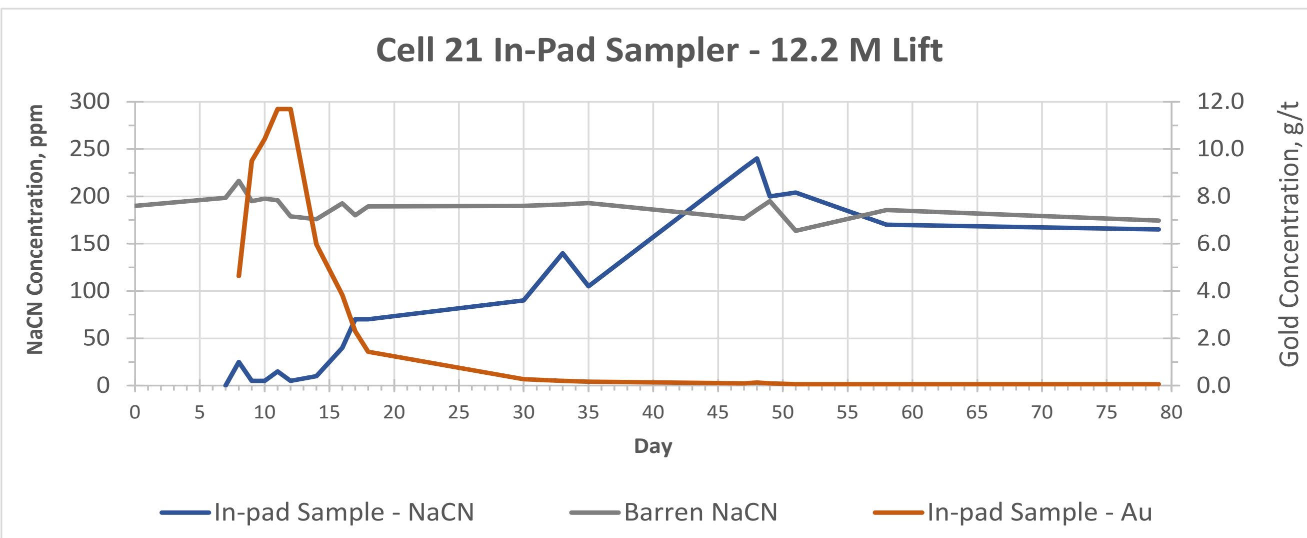

Figure 13-2: Cyanide concentration by lift height

Source: SSR Mining, 2018

Table 13.5: pH by lime dose and rock type

Sample Location	Lime Dose (kg/t)	End of Test (pH)
Target II - Rocky	0.3	9.0
	0.5	9.3
	0.8	9.6
	1.0	9.5
Target II - Clay	1.0	10.5
	1.3	10.7
	1.5	10.9
	1.8	11.0
Target II - Interbedded	0.5	10.6
	0.8	9.7
	1.0	10.6
	1.3	10.7

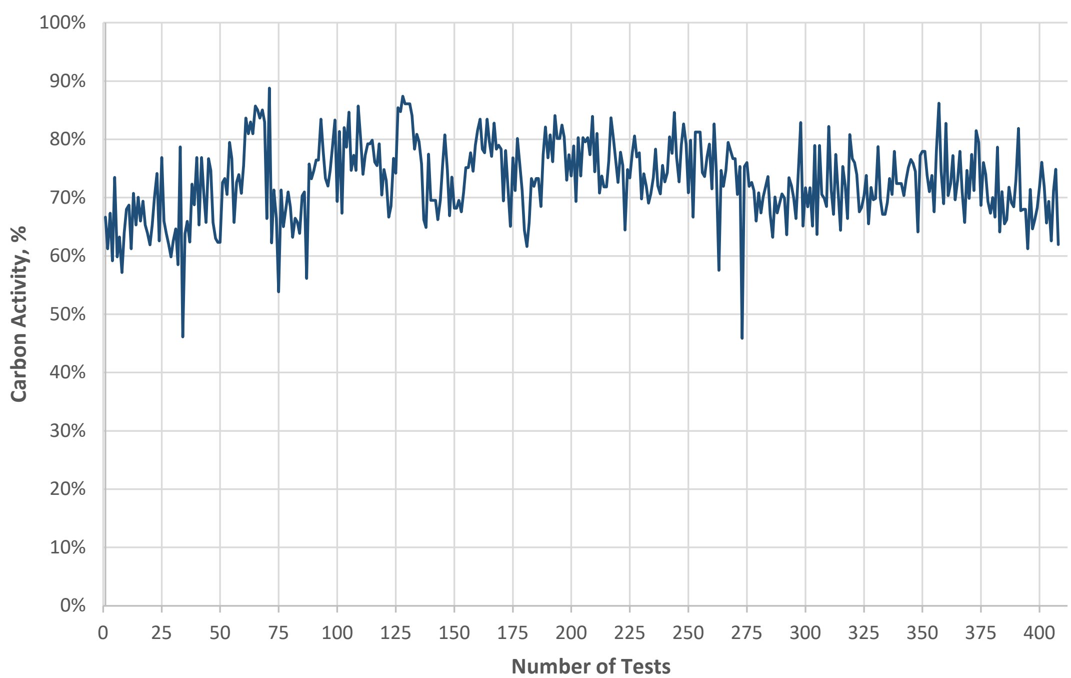

Figure 13-3: Carbon activity

Source: SSR Mining, 2018

13.3 Gold Recovery Modelling

Marigold, like many gold heap leach mines, uses an assay method known as "cyanide soluble gold". This 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. The gold content of the final solution is measured using AA.

All Marigold blasthole samples are assayed for cyanide soluble gold. Every fifth sample containing 0.10 g/t (historically, 0.003 oz/st) cyanide soluble gold, and any samples with a higher value, are fire assayed for total contained gold. Therefore, some samples have two assay values: an AuCN (cyanide soluble) value; and an AuFA (fire assayed) value. The ratio of AuCN/AuFA provides the theoretical maximum gold recovery that can be achieved. It is theoretical because the sample is pulverized.

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 from this ore sample is 80%. A ratio greater than 1.0 (100%) is impossible.

The previously discussed testwork has demonstrated that, generally, all ore at Marigold behaves similarly. The ratio of AuCN/AuFA is an important characteristic of each ore block.

The exploration database contains approximately 155,000 pairs of fire and cyanide soluble assays. 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 13-4 displays AuFA plotted against AuCN for all data pairs, and Figure 13-5 displays AuFA plotted against AuCN for head grades below 5 g/t.

A best-fit linear regression shows the AuCN/AuFA ratio is 0.8037:1 (~80% recovery).

The LOM actual leach pad recovery is 73.63% (including in-process gold inventory through December 2017).

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

Actual: 73.63% / Chemical: 80.37% = 0.916

Therefore, the estimated recovery from the ROM heap leach pad, for any modelled ore block, can be expressed as:

Pad Recovery = AuCN/AuFA × 0.92

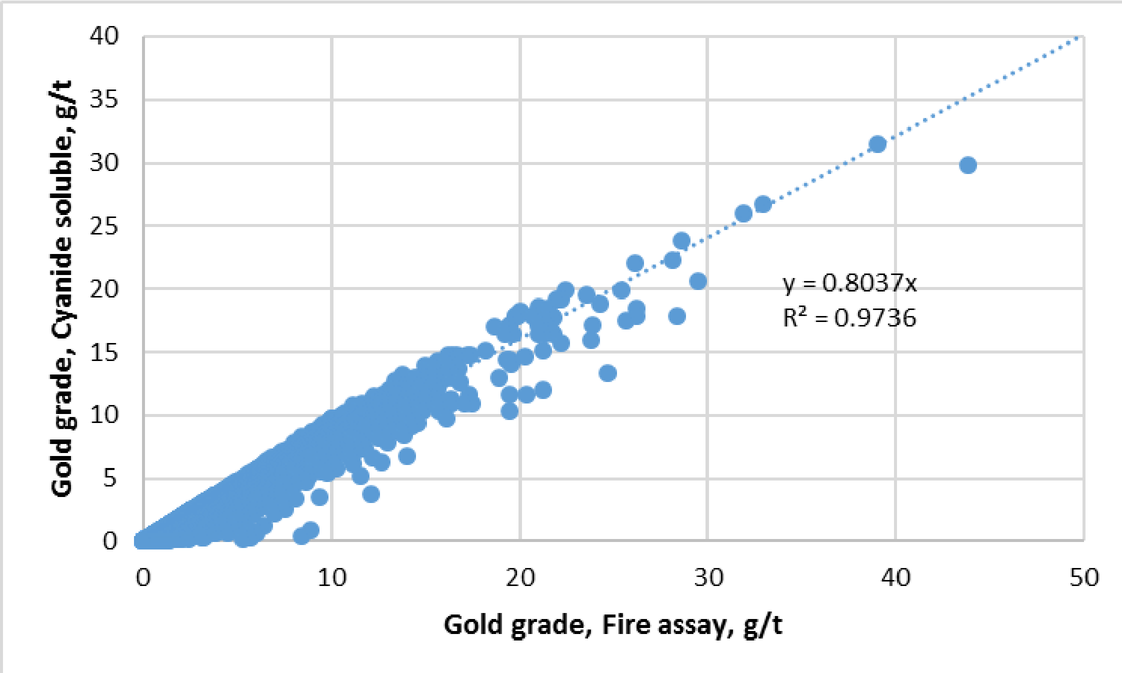

Figure 13-4: Exploration database AuCN versus AuFA, all data

Source: SSR Mining, 2018

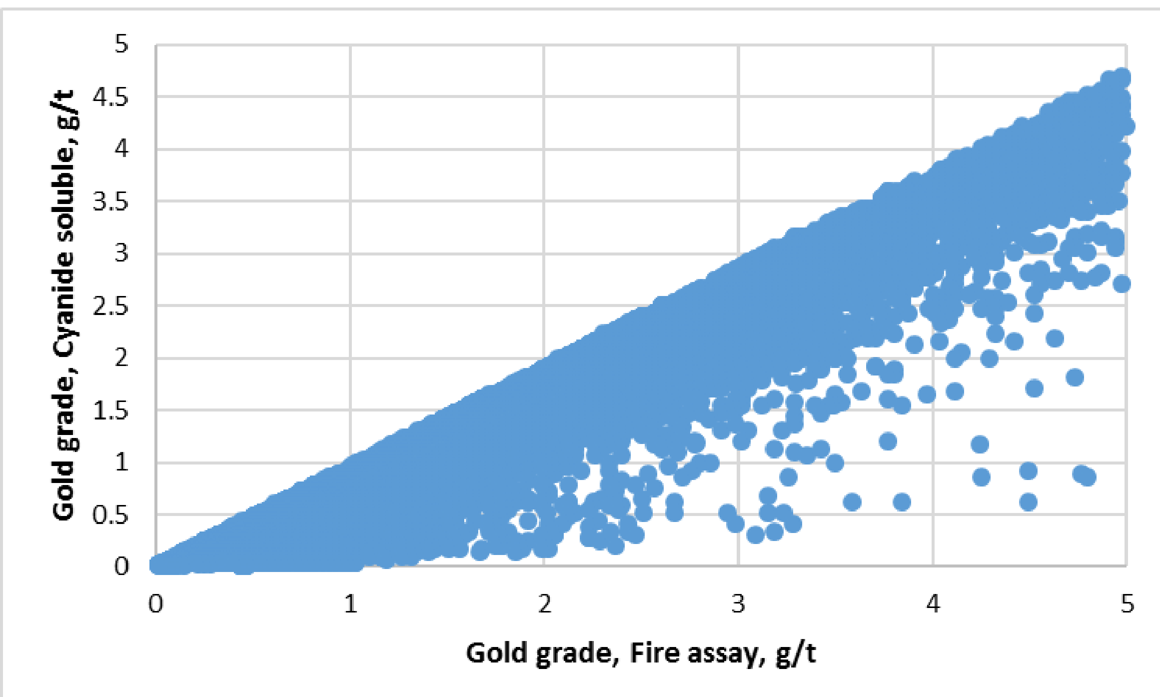

Figure 13-5: Exploration database AuCN versus AuFA, grades < 5 g/t

Source: SSR Mining, 2018

13.4 Summary

The Marigold ROM dump leach has been in operation for approximately 28 years. During that time, several hundred column tests, countless bottle roll tests, and continuous pad/solution and carbon sampling campaigns have been conducted to determine expected gold recovery.

These tests were conducted on ore and exploration samples from several different pits and areas covering many rock lithologies. Testing indicates that all ores behave in a similar manner, and, as such, gold recoveries are also similar and, therefore, predictable. The many years of operation and testing at the Property have provided a wealth of metallurgical information that serves as an indicator of current and future heap leach performance.

14 MINERAL RESOURCE ESTIMATE

14.1 Introduction

SSR Mining has prepared the Mineral Resources estimate for Marigold effective as at December 31, 2017. The Mineral Resources estimate is based on all available data for Marigold as of December 31, 2017.

Mineral Resources are reported inclusive 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.

The data verification was conducted by SSR Mining as described in Section 12 of this Technical Report. The validation checks and detailed exploratory data analysis were conducted prior to constructing the Mineral Resources model. The Mineral Resources estimate was prepared by Karthik Rathnam, MAusIMM (CP), and James N. Carver, SME Registered Member, using Hexagon's MineSight v12.6 software, and the estimate of Mineral Resources is presented in this Section 14 of this Technical Report.

14.2 Drill Hole Database

The digital drill hole database used for this estimate contains a total of 8,401 drill holes with a total length of 1,633,434 m. (SSR Mining uses geoXpedite, a commercially available geology database management system.)

The drill hole database includes collar coordinates, downhole surveys, assays, rock types and oxidation details in separate tables. The database included all the gold assays from the Assay Program and all the data from the Valmy property purchased from Newmont. All relevant validation checks were conducted while importing the data into the database. Fire-assay equivalent and cyanide-assay equivalent gold values were calculated, as explained in Section 12 of this Technical Report, after importing the comma delimited format files into MineSight. Once imported, the database was checked for errors using the validation tools available in MineSight.

14.3 Domains

The gold mineralization at Marigold is closely associated with the intersection of high-angle fault structures and favourable horizons that intersect these structures. Favourable 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. Favourable 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 14-1 shows the following seven broad domain areas, which include the following:

- DOMAIN 1 Basalt and Antler pit areas
- DOMAIN 2 Target
- DOMAIN 3 Mackay (HideOut, East Hill, Herco North)
- DOMAIN 4 Mackay North (8Sx, 8S, 8N)
- DOMAIN 5 5N/5NE
- DOMAIN 6 TZN
- DOMAIN 7 Valmy pit

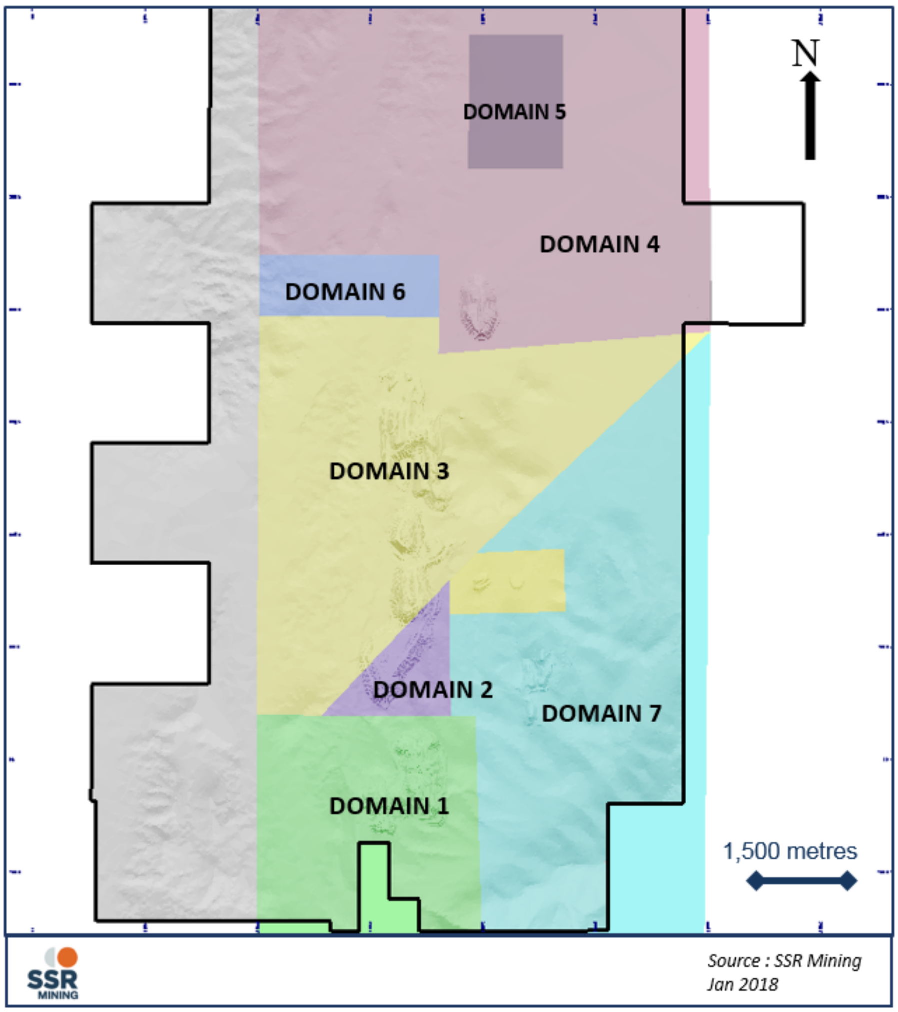

Figure 14-1: Location of the seven major domains over depleted topography as of December 31, 2017.

Source: SSR Mining, 2018

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 14-2.

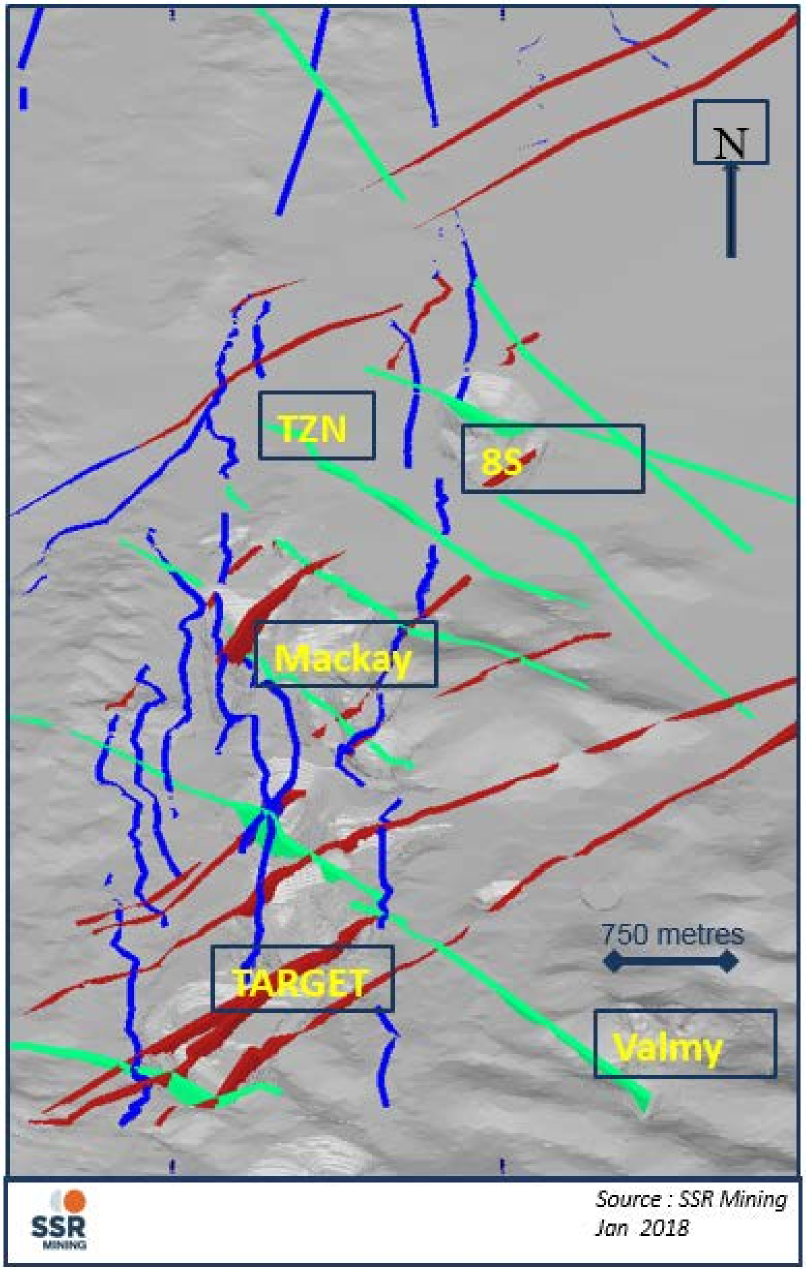

Figure 14-2: Oblique plan view showing the major structures NS (blue), NE (green) and NW (red) with respect to pit locations.

Source: SSR Mining, 2018

An envelope of 30 m around the high-angle structures was developed around the interpreted structures to represent the high-angle domains. Figure 14-3 shows a typical cross section with interpreted structures and high-angle domain envelopes.

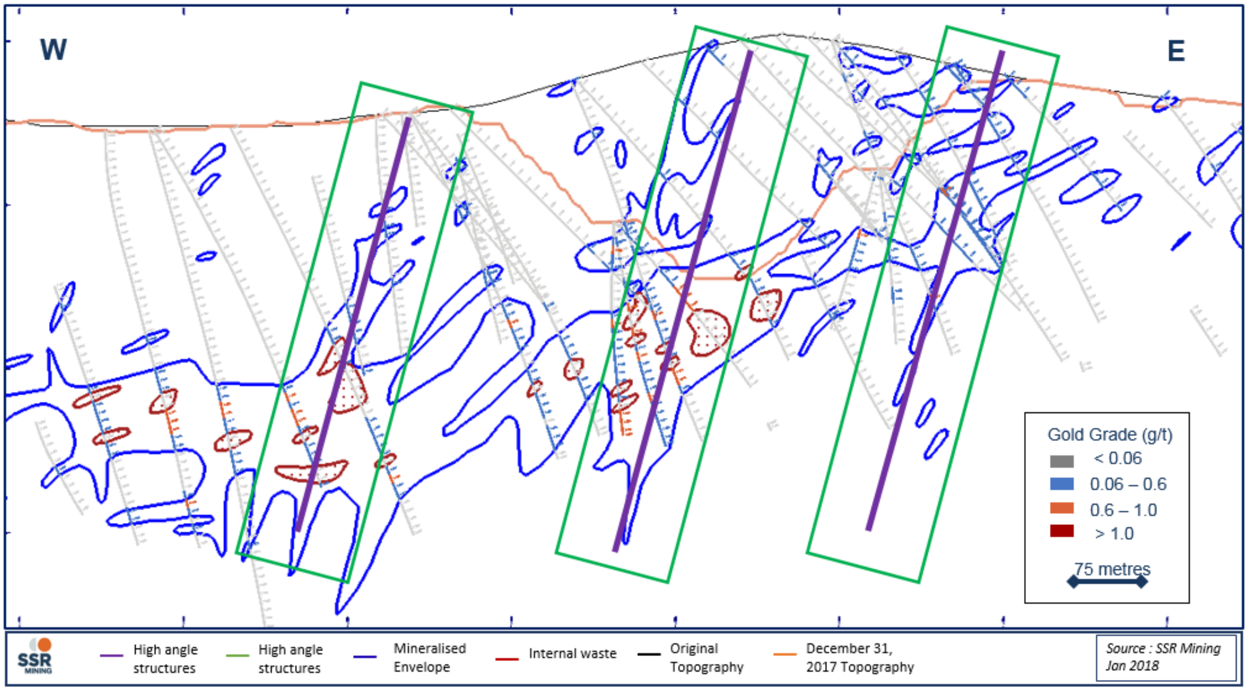

Figure 14-3: Typical EW cross section along 10,300N

Source: SSR Mining, 2018

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.

14.4 Geological Interpretation

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. These interpretations were conducted in MineSight.

Mineralized envelopes were delineated using a 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 15 m on either side (as further discussed in Section 15 of this Technical Report). 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 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.

The 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 3- to 4-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. A typical cross section is shown in Figure 14-3.

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 14-4.

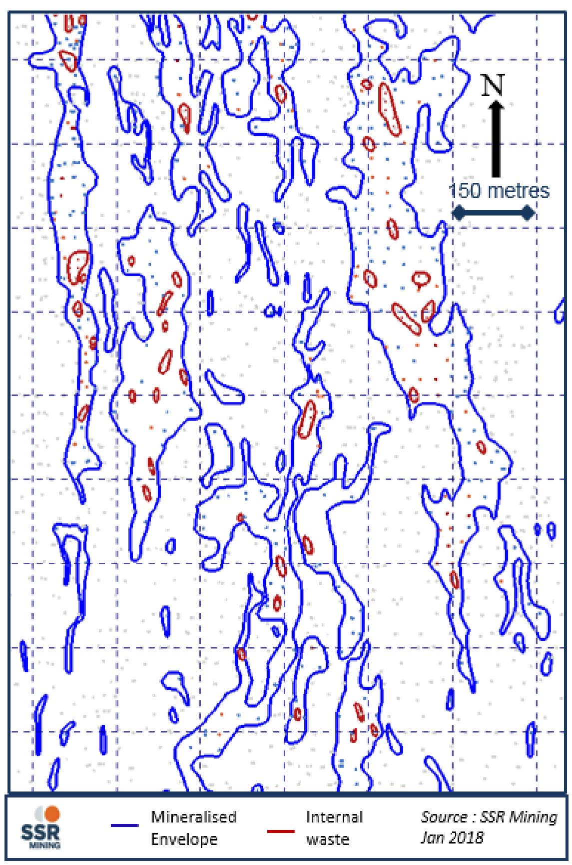

Figure 14-4: Typical bench plan (level=5000)

Source: SSR Mining, 2018

14.5 Exploratory Data Analysis

Exploratory data analysis (EDA) was conducted to:

- 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; and
- 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 by domain using the following criteria:

- Location – Basalt and Antler Pits, Target II, Mackay, Mackay North 1, Mackay North 2, 5N/5NE and Valmy pits;
- Formation – Antler, Valmy; and
- Structural domain – high-angle or low-angle domain.

There are 31,971 bench composites flagged within the mineralized envelopes. Table 14.1 provides the basic statistics for gold grades by domain.

Table 14.1: Basic Au g/t statistics of 7.6 m bench composites within the mineralized envelopes by domain.

Domain Location	Formation	Structural Domain	No. of Samples	Min	Max	Mean	Standard Deviation	Coefficient of Variance
Basalt	Antler	Low Angle	1,263	0.00	5.64	0.40	0.44	1.1097
	Valmy		4,553	0.00	13.03	0.65	0.94	1.4623
Target II	Antler	Low Angle	521	0.00	3.22	0.27	0.29	1.1086
		High Angle	1,013	0.00	5.72	0.37	0.38	1.0401
	Valmy	Low Angle	1,028	0.00	3.97	0.29	0.33	1.1221
		High Angle	1,667	0.00	4.03	0.33	0.35	1.0481
Mackay	Antler	Low Angle	2,763	0.00	8.85	0.41	0.62	1.5314
		High Angle	1,431	0.00	9.04	0.45	0.62	1.3767
	Valmy	Low Angle	11,923	0.00	18.05	0.41	0.60	1.4578
		High Angle	7,815	0.00	15.80	0.45	0.02	1.8162
TZN	Antler	Low Angle	157	0.08	0.62	0.19	0.11	0.6074
	Valmy		1,747	0.00	9.74	0.51	0.78	1.5160
Mackay North (8S, 8Sx, 8N)	Antler	Low Angle	2,124	0.00	86.62	1.04	2.53	2.4347
	Valmy		365	0.00	4.96	0.35	0.47	1.3332
5N/5NE	Antler	Low Angle	387	0.00	7.51	0.67	0.96	1.4253
	Valmy		26	0.09	0.91	0.22	0.18	0.8180
Valmy	Valmy	Low Angle	2,316	0.00	7.65	0.49	0.66	1.3417

14.5.1 Outlier Restriction

Bench composites were examined for the presence of local high-grade outliers, which are closely associated with the high-angle structures and favourable 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 (see Table 14.2).

Table 14.2: Outlier restriction values and distance for various domains

Domain Location	Formation	Structural Domain	Outlier Range (m)	Outlier Au (g/t)
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
Mackay	Antler	Low Angle	15.2	1.71
		High Angle	15.2	3.09
	Valmy	Low Angle	22.9	3.09
		High Angle	22.9	3.60
Mackay North (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
TZN	Antler	Low Angle	15.2	3.43
	Valmy		15.2	3.43
Valmy	Valmy	Low Angle	15.2	2.74

14.6 Material Density

There has been no change to the methodology used to assign density to different formations described in the *NI 43-101 Technical Report on the Marigold Mine* (November 19, 2014).

The density used in the block model at depth (from original topographic surface) for different material is summarized in Table 14.3.

Table 14.3: Summary of density for different material

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

14.7 Variograms

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 14.4.

Table 14.4: Correlogram parameters used to estimate different domains

Domain Location	Structural Domain	First Structure X	First Structure Y	First Structure Z	Second Structure X	Second Structure Y	Second Structure Z	Direction/Dip X	Direction/Dip Y	Direction/Dip Z	Nugget C0	Nugget C1	Nugget 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 (8S, 8Sx, 8N) and 5N/5NE	Low Angle	27	26	7	169	180	30	70/20	355/15	285/15	0.15	0.55	0.3
TZN	Low Angle	172	78.9	19	120	550	15.3	87/-56	12/10	108/32	0.22	0.33	0.45
Valmy	Low Angle	60	94.5	17	12.5	208	585	112/36	72/-47	6/21	0.527	0.25	0.22

14.8 Block Model and Grade Estimation

The Mineral Resource block model was created using MineSight v12.6. The block model extents and the block sizes are summarized in Table 14.5.

Table 14.5: Block model limits

	Minimum	Maximum	Extent	Block Size* (ft)	Number of Blocks
Eastings	-3000	29000	32000	20	1,600
Northings	-8000	34000	32000	25	1,680
Elevation	3000	8500	32000	25	220

* Expressed in Imperial units.

The block dimension was selected based on drill hole spacing; approximately one-third of the drill spacing and block heights match the future mine bench heights. The block model attributes are shown in Table 14.6.

Table 14.6: Block model attributes

TOPO	Percentage of block below the December 31, 2017 topography
ORE3	Ore or waste blocks: Ore=1, Waste = 0
ORE3%	Percentage of ore within the block
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=1, Target=2, Mackay=3, Hercules=4, 5N/5NE=5
RCODE	Formation/rock unit: Alluvium=1, Havallah=2, Antler=3, Valmy=4, Backfill/dump=6
REDOX	Oxidation state: Oxides=1, Transitional=2, Sulphides=3
TCF	Tonnage conversion factor
ROYL	Royalty
REC	Recovery

The 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 blocks to avoid overestimation of tonnages and smearing of higher grades into lower grade blocks. 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 blocks using ordinary kriging.

The distribution of the indicator estimates (values between zero and one) were compared to the frequency distribution of the nearest neighbour grade model to determine the probability (percentage) that a block has a grade of 0.14 g/t or higher (high-grade domain). The percentages are different in different domains and show a close continuity to the composites and NN model. The probability thresholds as percentages used in different domains are shown in Table 14.7.

Table 14.7: Probability percentages for blocks 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 blocks were estimated, the block model was tagged for the following:

- The depleted pre-mining topography as of December 31, 2017 was used to tag the percentage (TOPO) of in-situ material followed by December 31, 2017 surface topography to incorporate all the dumps and backfills;
- The ore and waste envelopes developed on bench plans were used to tag the ore material /internal waste (ORE3) and percentage of ore material (ORE3%) in each block;
- The rock type/formation surfaces were used to tag the RCODE variable in the block 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 back-tagged using the block model for the different domains and attributes described here.

The blocks were then estimated for gold using ordinary kriging in 90 separate calculations. The search parameters used to estimate the blocks can be found in the Appendix at the end of this Technical Report.

HideOut and 8Sx mineral centres identified in 2014 and 2015 are located below the historical waste dumps. The material in these dumps was mined during the late 1990s and early 2000s when cut-off grades were higher than the current cut-off grades. While drilling these mineral centres, the samples from these waste dumps were also assayed for gold. A majority of these samples returned gold values higher than our 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 dumps or mineralized stockpiles. A total of 372 holes drilled between 2010 and 2017 in the waste dumps was considered for this estimation. This stockpile was demarcated using the original and current topography. The samples within these surfaces were selected and bench composited to 7.6 m. The blocks were then estimated for gold using inverse distance cubed (ID^3) in two separate calculations. The search parameters used to estimate the blocks within the stockpile are shown in Table 14.8.

Table 14.8: Estimation parameters for mineralized stockpiles

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

14.9 Model Validation

The block model was validated both visually and statistically. Visual validation compares 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 blocks. A typical cross section and plan with estimated grades are shown in Figures 14-5 and 14-6, respectively.

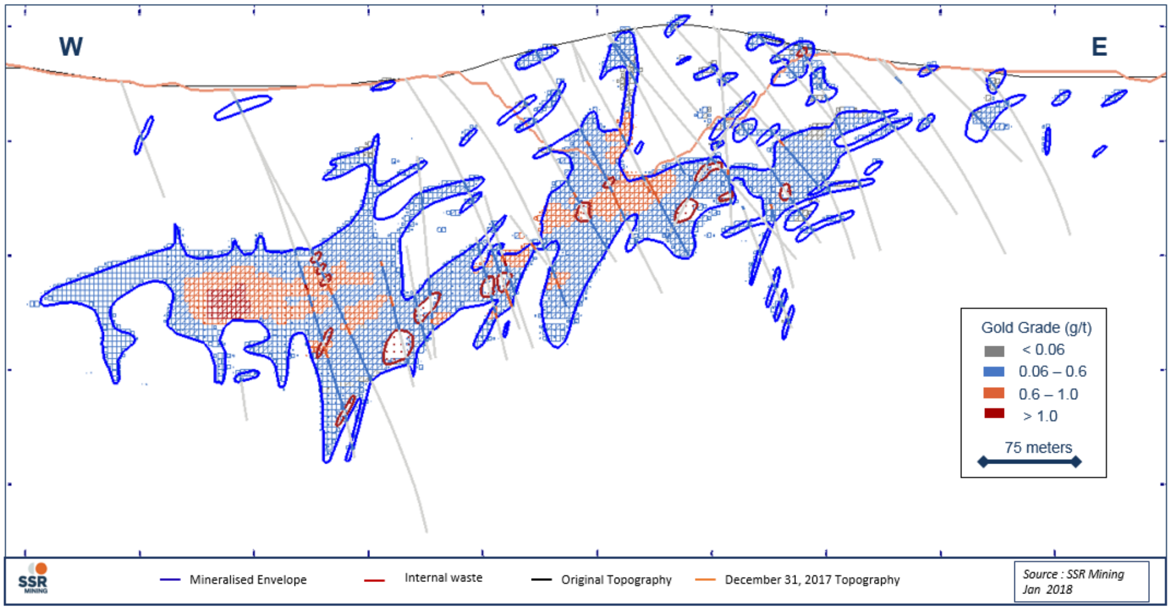

Figure 14-5: Typical east-west cross section along 10,400N looking north, with estimated whole block grades Au g/t.

Source: SSR Mining, 2018

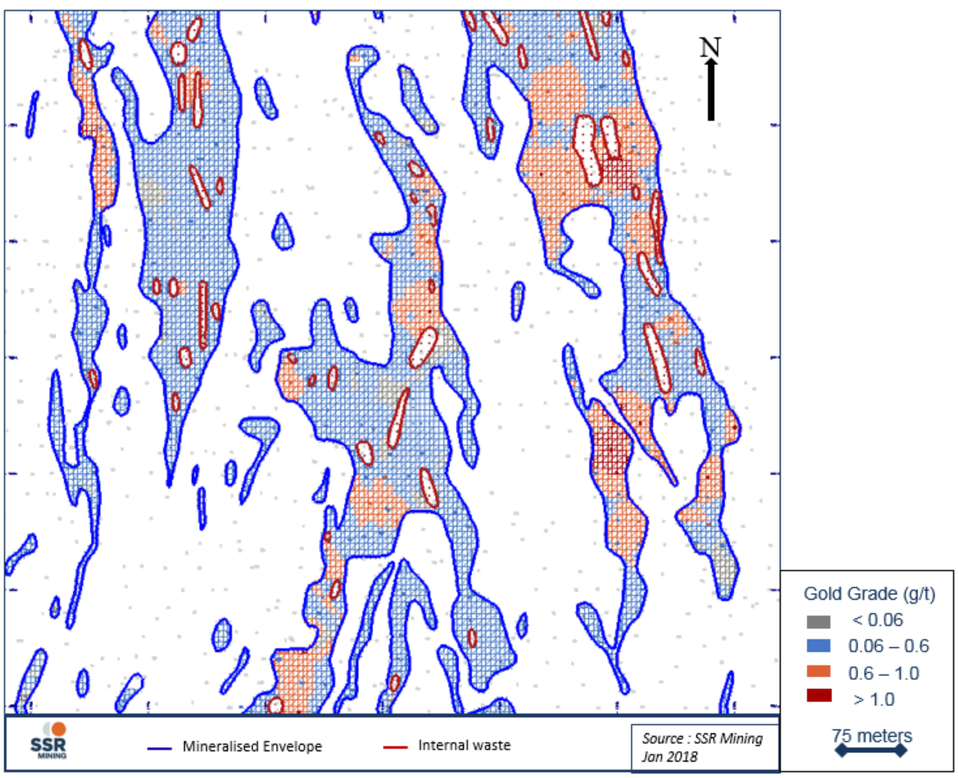

Figure 14-6: Typical plan 4950 elevation, with estimated whole block grades Au g/t

Source: SSR Mining, 2018

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 neighbour estimates; the difference was less than ±5%.

Swath plots were generated to compare the nearest neighbour gold grades and the kriged gold grades. These plots shown on Figures 14-7, 14-8, 14-9 demonstrate good correlation.

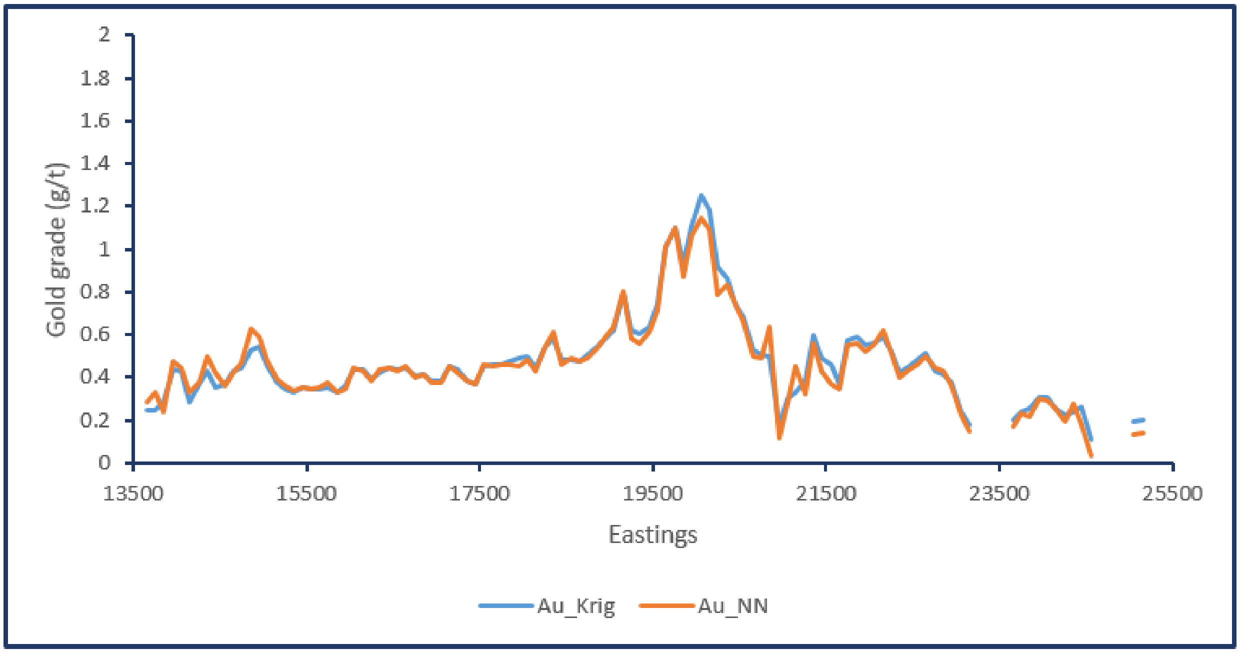

Figure 14-7: Swath plot along eastings (NN is nearest neighbour; Krig is kriged)

Source: SSR Mining, 2018

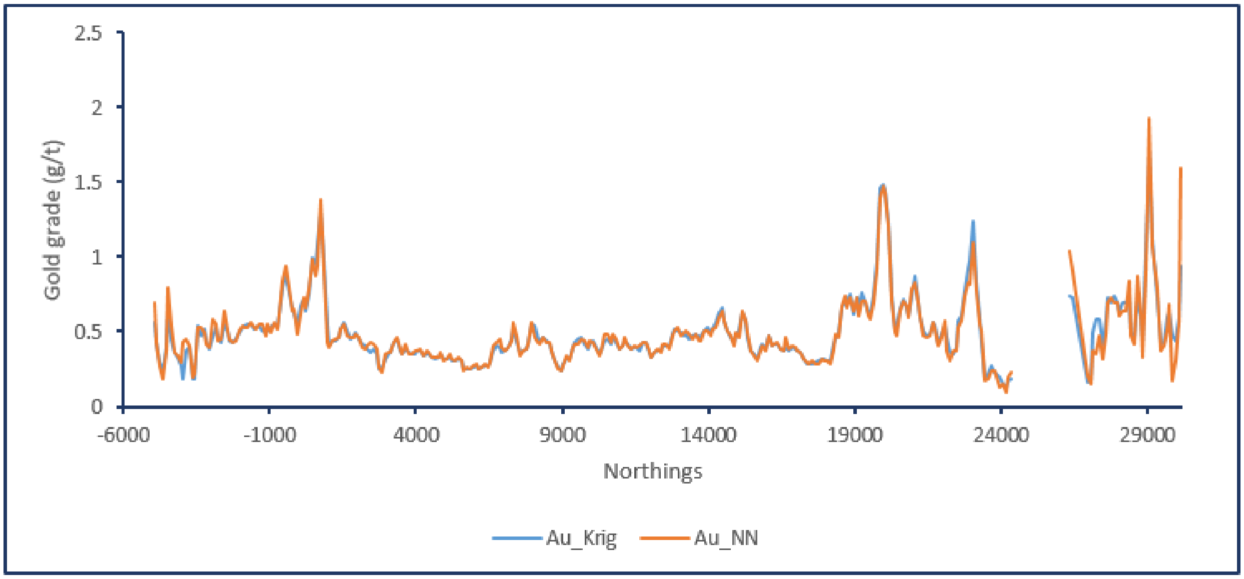

Figure 14-8: Swath plot along northings (NN is nearest neighbour; Krig is kriged)

Source: SSR Mining, 2018

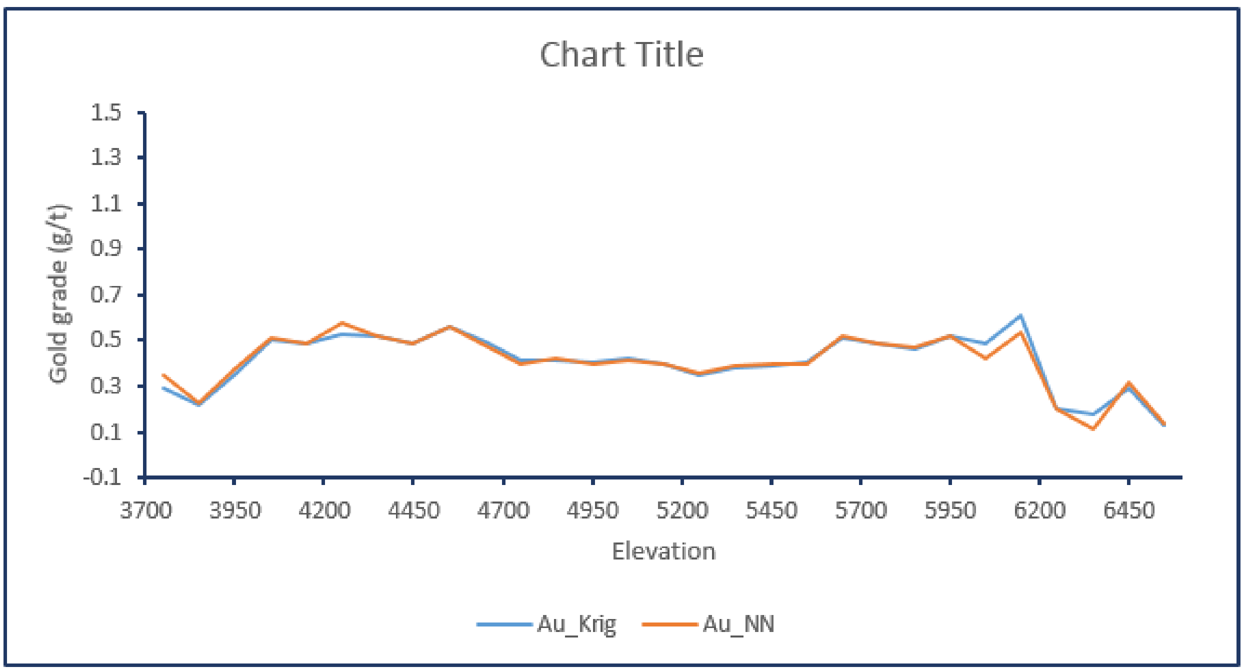

Figure 14-9: Swath plot along elevation (NN is nearest neighbour; Krig is kriged)

Source: SSR Mining, 2018

14.10 Resource Classification

This Technical Report uses Mineral Resources classification terms that comply with the CIM Standards adopted by the CIM Council on May 10, 2014, and NI 43-101. The following definitions are reproduced from the CIM Standards:

A **Mineral Resource** is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

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

An **Indicated Mineral Resource** is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve. "Modifying Factors" are considerations used to convert Mineral Resources to Mineral Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors.

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

There has been no change to the Mineral Resource classification methodology that was described in the *NI 43-101 Technical Report on the Marigold Mine* (November 19, 2014).

The resource blocks were classified as Inferred or Indicated based on the parameters in Table 14.9. The sample spacing and the nature of the mineralization do not warrant classification of any resources in the Measured category.

Table 14.9: Resource classification parameters

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

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.

14.10.1 Ore Reconciliation

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

Production since the acquisition of Marigold by SSR Mining has been mainly in Mackay Phase 1 and Mackay Phase 3. Mining is currently underway in Mackay Phase 2 and Mackay Phase 5. The reconciliation for these phases are presented in Table 14.10.

Table 14.10: Ore reconciliation for the period between May 2014 and December 2017

	Tonnes	Gold Grade (g/t)	Contained Ounces
Actual mined	81,009,484	0.44	1,139,291
Resource model	71,908,921	0.43	990,825
Difference	9,100,563	0	148,466
% Difference	13%	2%	15%

Reconciliation between the Mineral Resources model and the grade-control model is reasonable. This demonstrates that the Mineral Resources model is able to adequately predict the tonnages and grades for the previous 4-year period and can be used to estimate Mineral Reserves.

14.11 Mineral Resources

Mineral Resources for Marigold were calculated based on an optimized pit at a payable gold grade of 0.065 g/t (gold assay factored for recovery, royalty and net proceeds per block) using an assumed gold price of $1,400 per ounce.

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

SSR Mining 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 (inclusive of Mineral Reserves) as at December 31, 2017 presented in Table 14.11.

Table 14.11: Mineral Resources estimate inclusive of Mineral Reserves (as at December 31, 2017)

Category	Tonnes (Mt)	Gold Grade (g/t)	Contained Gold (Moz)
Measured	–	–	–
Indicated	370.2	0.46	5.47
Leach Pad Inventory	–	–	0.19
Total	**370.2**	**0.46**	**5.66**
Inferred	49.7	0.41	0.63

Notes:

1. Mineral Resources estimate was prepared in accordance with the CIM Standards and NI 43-101 under the supervision of James Carver, SME Registered Member, the Chief Geologist at Marigold, and Karthik Rathnam, MAusIMM (CP), the Chief Engineer at Marigold, each a QP.
2. Mineral Resources estimate is reported below the as-mined surface as at December 31, 2017 and is inclusive of Mineral Reserves.
3. 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 the Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration.
4. Mineral Resources estimate is reported based on an optimized pit shell at a cut-off grade of 0.065 g/t payable gold (gold assay factored for recovery, royalty and net proceeds per mineral resource block), with a gold price assumption of $1,400 per ounce of gold.
5. Gold values have been estimated using ordinary kriging for in situ material and Inverse Distance cubed for stockpile material.
6. Domain-based outlier restriction on gold values ranging between 1.37 g/t and 8.57 g/t has been used for the Mineral Resources estimate.
7. Densities for different lithological units have been calculated based on detailed test work carried out by SSR Mining and corresponds to historical mine production.
8. Mineral Resources estimate includes all mineralized material that has the potential for economic recovery of gold from an open pit supply to a ROM heap leach operation.
9. The Marigold drill hole database, including collar survey, assay, lithology, oxidation and densities, used for the Mineral Resources estimate has been verified by James N. Carver, SME Registered Member, and Karthik Rathnam, MAusIMM (CP), by conducting detailed verification checks, including quality assurance/quality control of location, geological, density and assay data.
10. The cost, recovery and design parameters considered by optimization calculations for the Mineral Resources estimate are considered appropriate based on the current mine production.
11. Indicated Mineral Resources estimate that forms a portion of the Probable Mineral Reserves is regarded as appropriate for medium-to long-term production open pit planning and mine scheduling on a quarterly basis.
12. There are no known legal, political or environmental risks that could materially affect the potential development of the Mineral Resources estimate.
13. Although Measured Resources, Indicated Resources and Inferred Resources are Mineral Resources confidence classification categories defined by CIM and are recognized and required to be disclosed by NI 43-101, the U.S. Securities and Exchange Commission (SEC) does not recognize them.
14. Tonnage and grade measurements are in metric units. Contained gold ounces are reported as millions of troy ounces (Moz).
15. Figures may not total exactly due to rounding.

15 MINERAL RESERVES ESTIMATE

This section describes the methodology and parameters used to estimate the Mineral Reserves for Marigold. The Mineral Reserves estimate as of December 31, 2017 considers all information used in the Mineral Resources estimate as at December 31, 2017 presented in Section 14 of this Technical Report.

This Mineral Reserves estimate is the fourth publicly released estimate prepared by SSR Mining for Marigold following the completion of the *NI 43-101 Technical Report on the Marigold Mine* (November 19, 2014) that followed the purchase of the Property from subsidiaries of Goldcorp and Barrick in April 2014. The Mineral Reserves estimate presented herein is reported in accordance with the CIM Standards adopted by the CIM Council on May 10, 2014 and NI 43-101. Indicated Mineral Resources within the designed pits are considered *Probable Mineral Reserves* according to these definition standards.

Twelve Lerchs-Grossman pit optimizations were run on the Mineral Resources block model at gold prices ranging from $800/oz to $1,500/oz: $100/oz increments from $800 to $1,000; $50/oz increments from $1,000/oz to $1,400/oz; and $100/oz increment from $1,400/oz to $1,500/oz.

The ultimate pits and subsequent phase designs were developed from the $1,250/oz optimization runs. Inter-ramp angles are 37 degrees in mined fill and range between 48 degrees and 50 degrees in rock. The price assumption was based on an internal assessment of recent market prices, long-term forward curve prices, and consensus among analysts regarding price estimates.

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 previously reported Mineral Reserves estimate for Marigold was as at December 31, 2016.

Since the Mineral Reserves estimate included in the *NI 43-101 Technical Report on the Marigold Mine* (November 19, 2014), the following activities have occurred:

- Mining and processing activities have resulted in 73.6 Mt at 0.434 g/t from September 30, 2014 to December 31, 2017. This material is not included in the Mineral Reserves estimate as of December 31, 2017;
- A new Mineral Resources model was developed, as described in Section 14 of this Technical Report, and it has been updated annually with new infill and exploration drilling and mining depletion;
- A new pit design (and sub-phasing) was completed on the updated Mineral Resources estimate using current cost and pricing knowledge; and
- Land adjacent to the Property was purchased from Newmont. This property, referred to as the Valmy property, was originally mined by Newmont in the 1990s. SSR Mining purchased 2,844 ha and the deal closed on September 24, 2015. Estimates of Mineral Reserves were first published on December 31, 2016 following the completion of a detailed QA/QC program on the data obtained from Newmont.

The Mineral Reserves estimate for Marigold was calculated using the as-mined surface as at December 31, 2017 and the following assumptions and parameters:

- The reserve classification converts Indicated Mineral Resources to Probable Mineral Reserves within the pit design. There is no Measured Resources category in the Mineral Resources model, and Inferred Mineral Resources are not considered ore when calculating the Mineral Reserves;
- The mining recovery is 100% within the pit design;
- The Mineral Resources were not diluted (see Section 14.10.1 of this Technical Report 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 16 of this Technical Report; and
- The estimated cut-off grade was 0.0019 oz/t payable Au or 0.065 g/t payable Au (gold assay factored for recovery, royalty and net proceeds).

SSR Mining 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 at December 31, 2017 presented in Table 15.1.

15.1 Mineral Reserves Estimate

The Mineral Reserves estimate (Table 15.1) is based on all available data for Marigold as at December 31, 2017.

Table 15.1: Mineral Reserves estimate (as at December 31, 2017)

Category	Tonnes (Mt)	Gold Grade (g/t)	Contained Gold (Moz)
Proven	--	--	--
Probable	205.1	0.46	3.00
Leach Pad Inventory	--	--	0.19
Total	205.1	0.46	3.19

Notes:

1. Mineral Reserves estimate was prepared in accordance with the CIM Standards and NI 43-101 under the supervision of Thomas Rice, SME Registered Member, the Technical Services Manager at Marigold, a QP. Trevor J. Yeomans, ACSM, P. Eng., SSR Mining's Director, Metallurgy, is the QP who provided metallurgical parameters that were incorporated in the Mineral Reserves estimate.
2. Mineral Reserves estimate is reported below the as-mined surface as at December 31, 2017.
3. Mineral Reserves estimate is contained within pit designs generated using Indicated Mineral Resources only and a gold price assumption of $1,250 per ounce.
4. Mineral Reserves estimate is reported at a cut-off grade of 0.065 g/t payable gold.
5. Mineral Reserves estimate is reported within a pit design that uses geotechnical parameters proven from actual performance and reviewed by Call & Nicholas, Inc., Geotechnical Consultants. The design is created using a geometry guideline from a Lerchs-Grossman algorithm.
6. 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.
7. Mining costs are based on historical values and budgeted costs with an incremental haulage component based on estimated haul cycle times and pit depths. Processing and G&A costs are estimated based on historical values and budgeted costs.
8. Average LOM strip ratio is 3.2:1 waste to ore.
9. Metallurgical recovery is calculated using a formula derived through historical information and laboratory test work. The formula is cyanide soluble gold grade divided by total gold grade multiplied by 0.92 (discussed in Section 13 of this Technical Report).
10. There are no known legal, political or environmental risks that could materially affect the potential development of the Mineral Reserves estimate.
11. The Mineral Reserves estimate assumes that all required permits have been or will be obtained prior to mining, as discussed in Section 20 of this Technical Report.
12. Tonnage and grade measurements are in metric units. Contained gold ounces are reported as millions of troy ounces (Moz).

15.2 Cut-off Grade

The estimated cut-off grade for Mineral Reserves was based on the selected metal price and current operating costs and metallurgical performance. Factors used to estimate the cut-off grade are outlined in Table 15.2, and they include refining charges, royalties, and net proceeds.

An average recovery rate of 74.6% was used to estimate the cut-off grade because it represents historically achieved recoveries for the ROM heap leach.

Table 15.2: Economic parameters for Mineral Reserves estimate cut-off as at December 31, 2017

Material Type	Unit	Ore	Rock Waste	Alluvium/Dump
Gold Price Per Ounce	($/oz)	1,250	--	--
Oil Price Per Barrel	($/bbl)	55	--	--
Mining Cost Per Tonne	($/tonne)	2.134	1.865	1.681
Processing Cost Per Ore Tonne	($/tonne)	1.459	--	--
G&A Per Ore Tonne	($/tonne)	0.765	--	--
Average Process Recovery (formula)	(%)	74.6%	--	--
Royalty/Net Proceeds:				
Royalty	(%)	7.9%		
Net Proceeds	(%)	5% of estimated profit per ounce		
Refining Charge Per Ounce	($/oz)	0.52	--	--
Cut-off Grade (Payable oz/t Gold):				
Internal Cut-off	(g/tonne)	0.065	--	--

Note: Weighted average royalty rate of 7.9% over the LOM to 2028. Annual average royalty rate varies from 3.7% to 10.0%. For a further discussion of royalties, see Section 4 of this Technical Report.

15.3 Metal Price

The metal price used to calculate the Mineral Reserves estimate is $1,250/oz gold.

15.4 Royalties and Net Proceeds

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%, as further described in Section 4 of this Technical Report.

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.

15.5 Dilution

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

15.6 Mining Recovery

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

15.7 Mineral Reserves Classification

This Technical Report uses Mineral Reserves classification terms that comply with the CIM Definition Standards adopted by the CIM Council on May 10, 2014, and NI 43-101. The following definitions are reproduced from the CIM Standards:

A ***Mineral Reserve*** is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. The reference point at which Mineral Reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported. Mineral Reserves are sub-divided in order of increasing confidence into Probable Mineral Reserves and Proven Mineral Reserves. The public disclosure of a Mineral Reserve must be demonstrated by a Pre-Feasibility Study or Feasibility Study.

A ***Proven Mineral Reserve*** is the economically mineable part of a Measured Mineral Resource. A Proven Mineral Reserve implies a high degree of confidence in the Modifying Factors.

A ***Probable Mineral Reserve*** is the economically mineable part of an Indicated and, in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Mineral Reserve is lower than that applying to a Proven Mineral Reserve.

There are no Proven Mineral Reserves within the pit designs.

The current Mineral Reserves are 100% Probable Mineral Reserves.

15.8 Comment on Mineral Reserves

The current Mineral Reserves block model was estimated using the surveyed mine surface as of December 31, 2017 and the ultimate pit design.

Marigold is an operating mine and, as such, all infrastructure is in place. The QP for this section of the Technical Report is of the opinion that the Mineral Reserves estimate for Marigold was prepared to industry best practices and conforms to the requirements of the CIM Standards. The Mineral Reserves are adequate to support mine planning.

By definition, the Mineral Reserves estimate has taken into account environmental, permitting, legal, title, taxation, mining, metallurgical, infrastructure, socio-economic, marketing and political factors, and other constraints, as discussed in various sections of this Technical Report. A general discussion on the extent to which the Mineral Reserves estimate could be materially affected by such factors and constraints can be found in Section 4 (property description and location), Section

13 (metallurgical testing), Section 14 (mineral resources), Section 16 (mining methods), Section 17 (recovery methods), Section 18 (project infrastructure), Section 20 (environmental studies, permitting and social or community impact), Section 22 (economic analysis), and Section 25 (interpretation and conclusions), among others.

The results of the economic analysis used to support the Mineral Reserves estimate, as described in Section 22 of this Technical Report, represent forward-looking information that is subject to a number of known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those presented here. Areas of uncertainty that may materially impact a Mineral Reserves estimation include: commodity price assumptions; capital and operating cost estimates; Mineral Reserves estimation methodology; and, geotechnical slope designs for pit walls. Each item is further discussed in Section 25. Please see also “Cautionary Note Regarding Non-GAAP Measures” in this Technical Report.

16 MINING METHODS

Marigold uses standard open pit mining methods at a current mining rate of 200,000 metric tonnes per day (mtpd). 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.

Mining occurs on 15.2 m benches for pre-stripping waste and, secondarily, for ore depending on production requirements. When the pit design is mined to a level in the deposit where ore is sustainable on a bench, 7.6 m benches are mined to minimize dilution. A single grade-control sample for each blasthole is taken for each 7.6 m that are drilled, and two grade-control samples are taken for each 15.2 m. Sub drilling is not included in the sample. Blasting is done with an ammonium nitrate and fuel oil (ANFO) blend and a sensitized ANFO emulsion.

Loading operations are performed using three primary loading shovels. Backup loading is done with a front-end loader. Waste and ore haulage is performed with a fleet of 300-tonne primary haulers. In February 2018, SSR Mining approved the purchase of four additional 300-tonne class haul trucks for expected service in the third quarter of 2018, which will expand the truck fleet at Marigold to 25 300-tonne class haul trucks.

Equipment maintenance is performed on site for all equipment. There are no contract-mining operations on site, except with respect to blasting, as discussed below in Section 16.7.

16.1 Geotechnical, Hydrological, Pit and Other Design Parameters

Historically, Marigold pits have been designed with inter-ramp angles (IRAs) at 48 degrees to 50 degrees. The primary rock, a quartzite in the Valmy Formation, dips in a westerly direction at 40 degrees to 70 degrees. The east highwall, which has rock dipping out of the face, is designed at 48 degrees to 50 degrees. The west highwall, which has rock dipping favourably into the face, is designed at 50 degrees. Achieved IRAs range between 48 degrees and 50 degrees. Because many of the interim and final pit walls are within the Valmy Formation, the steeper 50-degree angle is thought to be achievable for pit designs within the same rock unit (Knight Piésold, 2014). Call & Nicholas, Inc. (CNI) has been contracted over the past three years for geotechnical services. CNI consultants perform an annual audit of activities and provide guidance if any issues arise with slope stability.

A Geotechnical Management Plan (GMP) for Marigold 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, and a second system was added in 2017. This allows for 360-degree monitoring of highwalls in a single pit or multiple areas within two pits. These two radars provide coverage 24 hours a 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 centre and to the Geotechnical Department. If the movement is significant, the notifications are sent to senior management at Mine Operations and Technical Services.

All mining to date has been completed above the regional water table. The Mineral Resources extend below the water table, but mining in the area below the water table is not currently permitted. A hydrological study was initiated in 2012. The study will be submitted with the current National Environmental Policy Act (NEPA) permit application to request permission to dewater the pit areas and lower the water table by pumping.

Haul road and ramp widths are designed for two-way traffic that accommodates 300-tonne trucks. The total 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 designed at a 10% grade.

Waste dumps are placed in lifts of 15.2 m to 45.5 m high, with benches left on outside edges for a final 3:1 slope pushdown. There have been no waste dump stability issues on the Property.

The leach pad is similarly built with lifts of 12.1 m high, with benches left on 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.

16.1.1 Pit Optimizations and Designs

Pit optimizations and subsequent pit designs were completed by Marigold personnel. Pit optimizations and designs were performed from August to October 2017 on the current Mineral Resources estimate.

Optimizations used the Lerchs-Grossman algorithm. SSR Mining developed operating mining costs for the existing mining fleet during the pit optimization process. The mining cost for the cones was based on the “total mining net of haulage” mining costs, which are presented in Table 16.1, in addition to ore and waste haulage costs that were incorporated into the block model on a block-by-block basis.

The ROM leach recovery model, as developed by SSR Mining, was also incorporated into the Mineral Resources block model on a block-by-block basis. To facilitate the calculations and the Mineral Resources tabulations, variables for recovered gold (gold x recovery) and payable gold [gold x recovery x (1 – royalty)] were incorporated into the model. Payable gold cut-off grades were established at 0.065 g/t and 0.102 g/t, respectively, for internal cut-off and breakeven cut-off. Internal 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 and processing costs for the evaluation include sustaining capital costs. The mining costs also include certain reclamation charges and the Marigold analytical laboratory because most of the on-site lab work involves assaying production blastholes for ore control. The processing costs also include sustaining capital and reclamation charges to close the leach pad.

Overall slope angles used in the optimization are presented in Table 16.2.

Twelve Lerchs-Grossman pit optimizations were run at gold prices from $800/oz to $1,500/oz: $100/oz increments from $800/oz to $1,000/oz; $50/oz increments from $1,000/oz to $1,400/oz; and $100/oz increments from $1,400/oz to $1,500/oz.

The $1,250/oz gold price cone 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 15.1 m bench height.

Table 16.1: Economic parameters for pit optimization

Material Type	Units	Ore	Rock Waste	Alluvium/Dump
Gold Price	($/oz)	1,250	--	--
Oil Price	($/bbl)	55	--	--
Mining Cost	($/tonne)	2.134	1.865	1.681
Processing Cost	($/tonne)	1.459	--	--
G&A	($/tonne)	0.765	--	--
Average Process Recovery (formula)	(%)	74.6%	--	--
Royalty/Net Proceeds Tax:				
Royalty	(%)	7.9%		
Net Proceeds Tax	(%)	5% of estimated profit per ounce		
Refining Charge	($/oz)	0.52	--	--
Cut-off Grade (Payable oz/t Gold):				
Internal Cut-off	(g/tonne)	0.065	--	--

Note: Weighted average royalty rate of 7.9% over the LOM to 2028. Annual average royalty rate varies from 3.7% to 10.0%. For a further discussion of royalties, see Section 4 of this Technical Report.

Table 16.2: Overall slope angles by Azimuth

Pit	Slope Angle (Degrees)
All Pits in Reserves	50.0
East Wall Mackay 2	48.0
Fill Material	35.0

16.2 Pit Phases and Timing

The pit optimization for the LOM plan used a Lerchs-Grossman algorithm with an internal recoverable gold value of 0.065 g/t. The optimized pit was built into an overall 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, which contains just over 60% of the total contained ounces in the LOM plan; the North Mackay pits, which account for 25%; and the remaining 15% is contained in the Valmy area. The Mackay ultimate pit is approximately 4.7 km long, 1.2 km wide and has a planned maximum depth of 305 m. The current ultimate pit is designed into 17 pits or pit phases. A graphical presentation of the 17 pit phases is outlined in Figure 16-1.

The Mackay pit was designed into phases in an attempt to provide a consistent flow of ore to the leach pad over the LOM. The ultimate Mackay pit design was divided into seven phases (Mackay 2 and Mackay 4 through 9), and each phase provides haul road access. The Mackay North area consists of five individual pits: H1, two phases in 5N (5 North 1 and 5 North 2), TZN, and 8S. In the Valmy area, there are five pits: Mud 1, Mud 2, Valmy, Basalt East, and Battle Cry.

Detailed tonnage for each mining phase is shown in Table 16.3.

Table 16.3: Mining phase design summary

Phase Name	Ore (kTonnes)	Waste (kTonnes)	Strip Ratio
Mackay 2	19,084	12,752	0.67
Mackay 4	40,973	85,255	2.08
Mackay 5	29,140	73,526	2.52
Mackay 6	2,810	6,953	2.47
Mackay 7	12,715	41,119	3.23
Mackay 8	23,103	76,890	3.33
Mackay 9	15,012	38,972	2.60
TZN	19,176	106,024	5.53
H1	2,858	22,599	7.91
5 North 1	1,148	9,145	7.97
5 North 2	3,010	16,690	5.54
8S	14,294	51,390	3.60
Mud 1	1,319	6,569	4.98
Mud 2	1,076	4,985	4.63
Valmy	9,312	43,666	4.69
Basalt East	8,872	52,213	5.89
Battle Cry	1,196	8,711	7.28
Total	**205,098**	**657,459**	**3.21***

* Average strip ratio

16.3 Production Rates, Mine Life, Dimensions and Dilution Factors

Mining is scheduled 24 hours per day, 362 days per year on a rotation of two 12-hour shifts. The mine production rate was increased at the beginning of 2014 with the addition of an electric rope shovel. Production increased from 54.4 million tonnes per year to a planned rate of 65 million to 81 million tonnes per year. The current mine plan provides 15 years of operational life, including 11 years of active mining followed by four years of processing the heap leach pad.

In February 2018, SSR Mining approved the purchase of four additional 300-tonne class haul trucks. The trucks are expected to be placed into production in the third quarter of 2018. Mining with the additional trucks will increase the planned rate to an average of 78.4 million tonnes per year over an 11-year active mining life with an additional 4-year processing extension to recover all the ounces from the leach pad for a total of 15 operational years. Ore delivery to the ROM leach pad is planned at an average annual production of 18.6 million tonnes. This would yield an average of 203,000 ounces of recoverable gold each year for the eleven years, followed by the tail of approximately 20,000 ounces per year. The reserve base for the additional truck scenario is the same as the current mine plan, but it will be mined quicker. This shortens the mine life and increases the average gold production per year.

Average gold production including the four-year tail is 158,400 per year. If the four-year tail is not included, average gold production is 204,600 ounces per year.

In general, ore will be mined on 7.6 m benches, but, when required, it 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 metre 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.

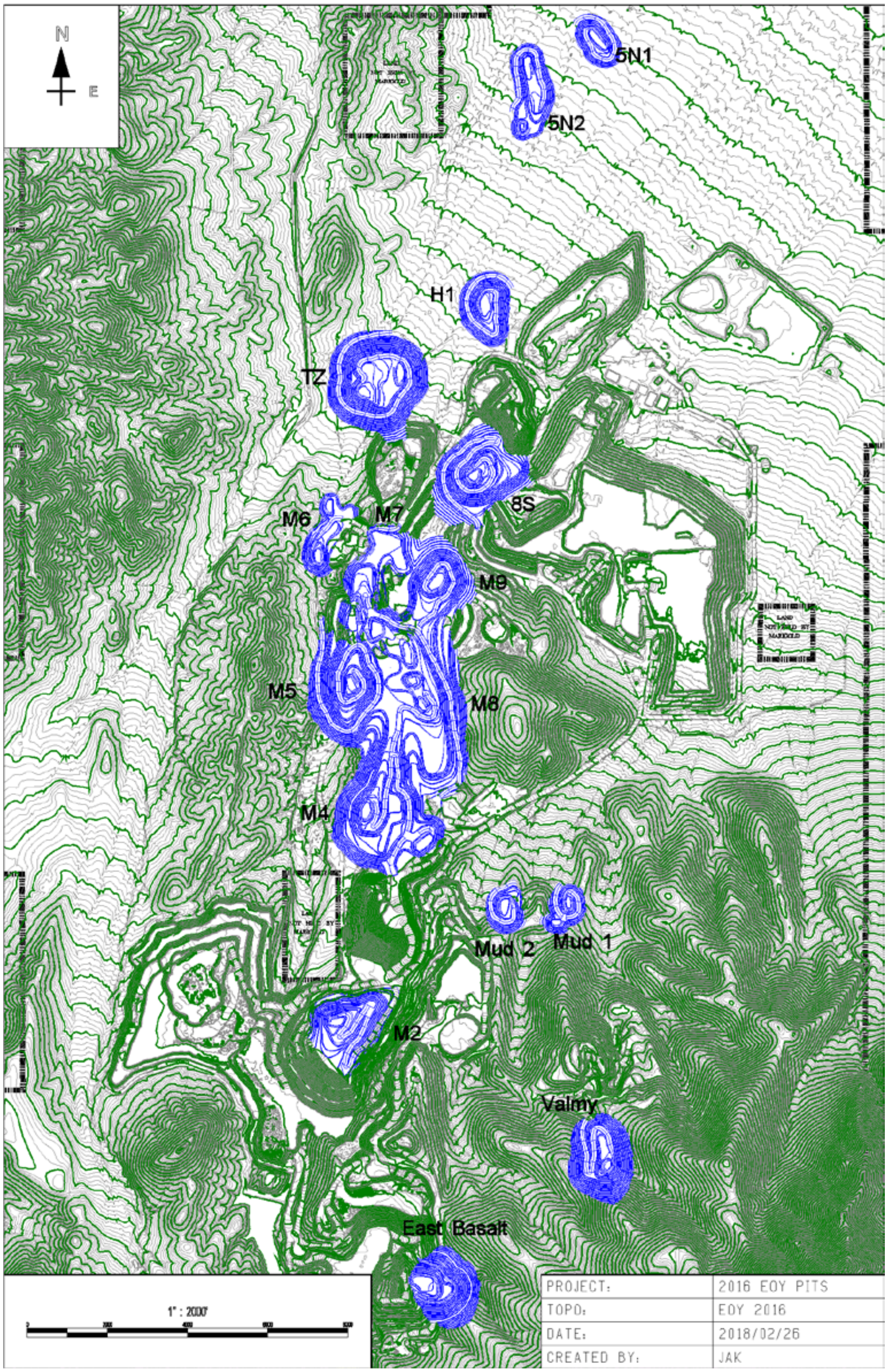

Figure 16-1: Marigold ultimate pit (end of year 2028)

Source: SSR Mining, 2018

16.4 Stripping Requirements

The LOM strip ratio is 3.21:1. Stripping requirements are fairly consistent over the life of the main Mackay pit area at an average strip ratio of 2.35:1. The stripping requirements for the other two areas, Mackay North and Valmy, are planned to be above the LOM average at 4.95:1 and 5.37:1, respectively. The current fleet of 21 300-tonne trucks, expanding to 25 300-tonne trucks, is planned throughout the life of the Property at the current mining rates. Table 16.4 and Figure 16-2 show the annual production schedule for the LOM, including ore tonnes mined, waste tonnes mined, and strip ratio.

Table 16.4: Annual production schedule tonnes mined

Year	Ore (Tonnes)	Waste (Tonnes)	Strip Ratio
2018	28,623,035	41,703,348	1.46
2019	21,908,400	56,284,351	2.57
2020	20,624,869	67,030,832	3.25
2021	23,617,514	58,144,248	2.46
2022	21,746,678	63,137,285	2.90
2023	24,242,491	63,341,973	2.61
2024	11,708,430	71,283,386	6.09
2025	7,387,677	85,045,993	11.51
2026	18,039,518	46,603,451	2.58
2027	20,483,654	69,389,058	3.39
2028	6,717,736	35,498,034	5.28
Total	**205,100,001**	**657,461,958**	**3.21**

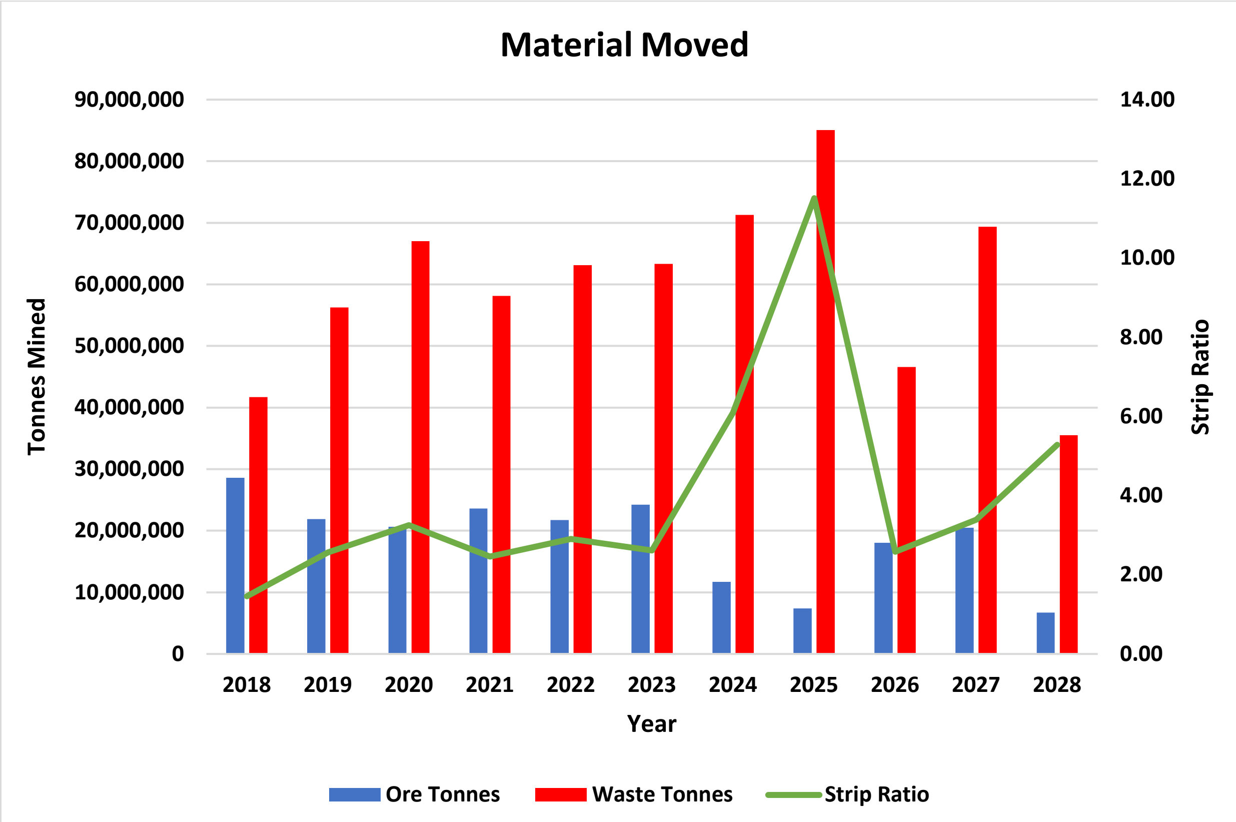

Figure 16-2: Mine annual production schedule

Source: SSR Mining, 2018

16.5 Required Mining Fleet and Machinery

The equipment list for the Marigold mining fleet is presented in Table 16.5. 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 21 of this Technical Report. As of the date of this Technical Report, MMC does not employ contract-mining services, except with respect to blasting, as discussed in Section 16.7.

Table 16.5: Marigold mining fleet equipment list

Number of Pieces	Equipment Name and Class
12	Hitachi EH5000 300-tonne capacity Haul Trucks
13	Komatsu 930E 300-tonne capacity Haul Trucks (4 to be added in Q3-2018)
1	Komatsu 4100 XPC 52.8 m^3 capacity Electric Rope Shovel
2	Hitachi EX5500 28.7 m^3 capacity Diesel Hydraulic Shovels
1	Komatsu WA1200 20.6 m^3 capacity Wheel Loader
2	Ingersoll Rand DML Blasthole Drills
2	Atlas Copco PV271 Blasthole Drills
2	Caterpillar 834 Wheel Dozers
1	Caterpillar 854 Wheel Dozer
5	Caterpillar D10N Track Dozers
1	Caterpillar D11N Track Dozer
3	Caterpillar 789B Water Trucks
3	Caterpillar 16H and 16M Motor Graders
3	Lube/Fuel Trucks
1	Caterpillar 789B Haul Truck
1	Caterpillar 637 Scraper
1	Caterpillar 992 Loader
1	Caterpillar 789 Lowboy Heavy Hauler

16.6 Ore Control Drilling and Method

Blasthole sampling is used to define ore zones. A grade-control sample is taken every 7.6 m of drilling. A sampling device resembling an upside-down hollowed-out rocket is placed through the deck of the drill with a sample bag inserted into the sampling device to catch the drill cuttings. There is a top and a bottom sample for each hole for the 15.2 m benches. Benches are mined at either 7.6 m in ore or 15.2 m in stripping 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. A dilution factor is added to the monthly survey using a 1.0 m rind around ore shapes at the calculated grade for the shape. This is added to the surveyed tonnage for the bench and reported as ore mined during the month.

If ore is encountered in both the top and bottom, and the zone is large enough to mine at the 15.2 m bench without adding significant dilution, the ore is mined at that full depth.

If the ore is not vertical throughout the entire bench, an economic and pit productivity analysis is conducted on the mineralization, and a decision is made to either split the bench and mine the ore at 7.6 m or send the full block to the waste dump.

Each blasthole sample is analyzed for gold at the on-site laboratory facility. A cold cyanide digestion is performed on each sample to determine the quantity of cyanide soluble gold contained in the sample. Due to the non-destructive analysis method of the cold cyanide leach, it generally does not measure the total amount of gold in a sample. At Marigold, about one in every five blasthole samples containing 0.10 g/t (historically, 0.003 oz/st) cyanide soluble gold is assayed for total gold content using FA with a gravimetric finish. The FA results (Au g/t) from the blastholes and exploration drill holes in the pit area, and cyanide soluble assay results (Au g/t) are used to determine a fire-assay-to-cyanide-soluble ratio for the pit area. This ratio is applied to all remaining cyanide soluble assays in the blast to calculate a total gold value contained in each blasthole.

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

16.7 Drilling and Blasting

Blasthole drilling is performed with two 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 the two bench heights and for rock conditions. Typically, the patterns are 7.3 m by 6.4 m for the 15.2 m benches, and 7.6 m by 6.7 m for the 7.6 m bench heights. 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} of 20.3 cm.

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

The average powder factor for the year 2017 was 0.24 kg of ANFO/emulsion per tonne.

The drilling and blasting operations workforce consists of 28 Marigold personnel per annum and two contractors.

16.8 Loading Operations

Loading operations are performed with one electric Komatsu 4100 XPC rope shovel with a 52.8 m^3 dipper, two diesel-hydraulic Hitachi EX5500 shovels with 28.7 m^3 dippers, and one Komatsu WA1200 wheel loader with a 20.6 m^3 bucket. Both shovel types use double-sided loading, and the loader uses single-sided loading. 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 block being mined.

The loading operations workforce consists of 24 personnel per annum.

16.9 Hauling Operations

Excavated rock is loaded into haul trucks and sent to either a waste dump 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, while not mandated by permit, has positive impacts at Marigold: it reduces costs associated with haulage distance and helps address the lack of dump space due to permitting restrictions and current land position. Backfilling plans are reviewed and adjusted to minimize the potential for sterilizing future mineralization. Minimizing the waste haulage distance to the nearest facility improves mining productivity and minimizes haulage costs. Ore is hauled to the leach pad facility and stacked in lifts for processing. Pit and dump progression stages at the end of each of Year 2018, 2020, 2022, 2024, 2026 and 2028 are presented in Figure 16-3 to Figure 16-8.

Marigold has a mixed fleet of haulage trucks. The fleet comprises 21 300-tonne haulage trucks from Hitachi (12) and Komatsu (9) with four more Komatsu trucks planned in Q3-2018. A 172-tonne Caterpillar 789B haul truck is used as a utility hauler, but its use is limited because not all loading units can safely load the small truck. All 300-tonne class trucks are used for waste and ore haulage. The waste haul distance averages 4.8 km, and the ore haul distance averages 12.1 km over the life of the mine.

The hauling operations workforce requires an average of 84 personnel per annum, increasing to 100 when the new trucks are implemented.

A Modular Dispatch system is used to optimize 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.

16.10 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 16H and 16M motor graders.

The mine support workforce consists of approximately 46 personnel per annum.

16.11 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 this 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.

The mine maintenance workforce consists of 128 personnel per annum.

16.12 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 labour 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.

The mine G&A workforce consists of an average of 29 personnel per annum.

16.13 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 rescue vehicle 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 monitors.

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.

The mine rescue and emergency response team consists of 40 responders from all areas of the mine site.

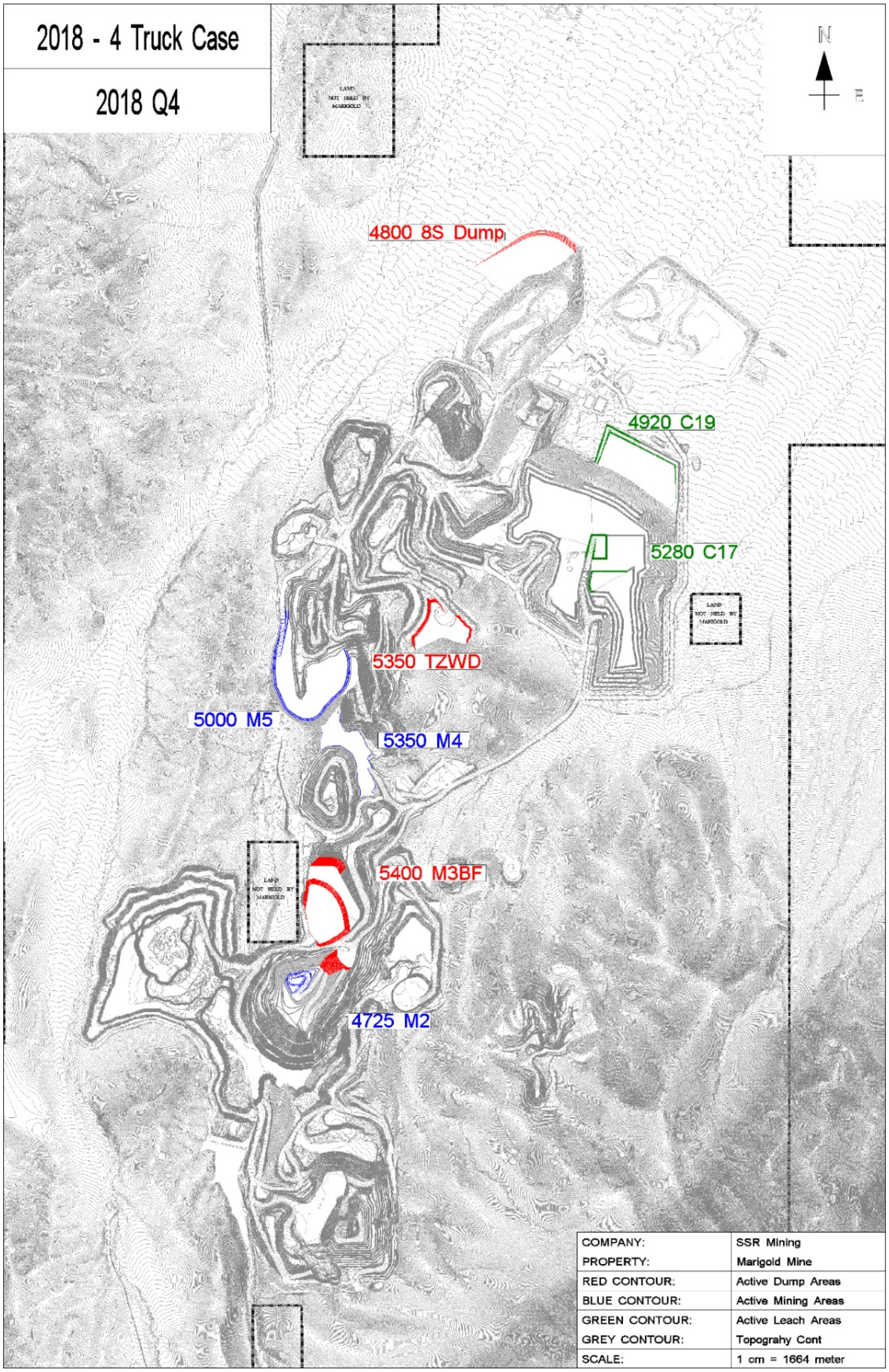

Figure 16-3: End of production year 2018

Source: SSR Mining, 2018

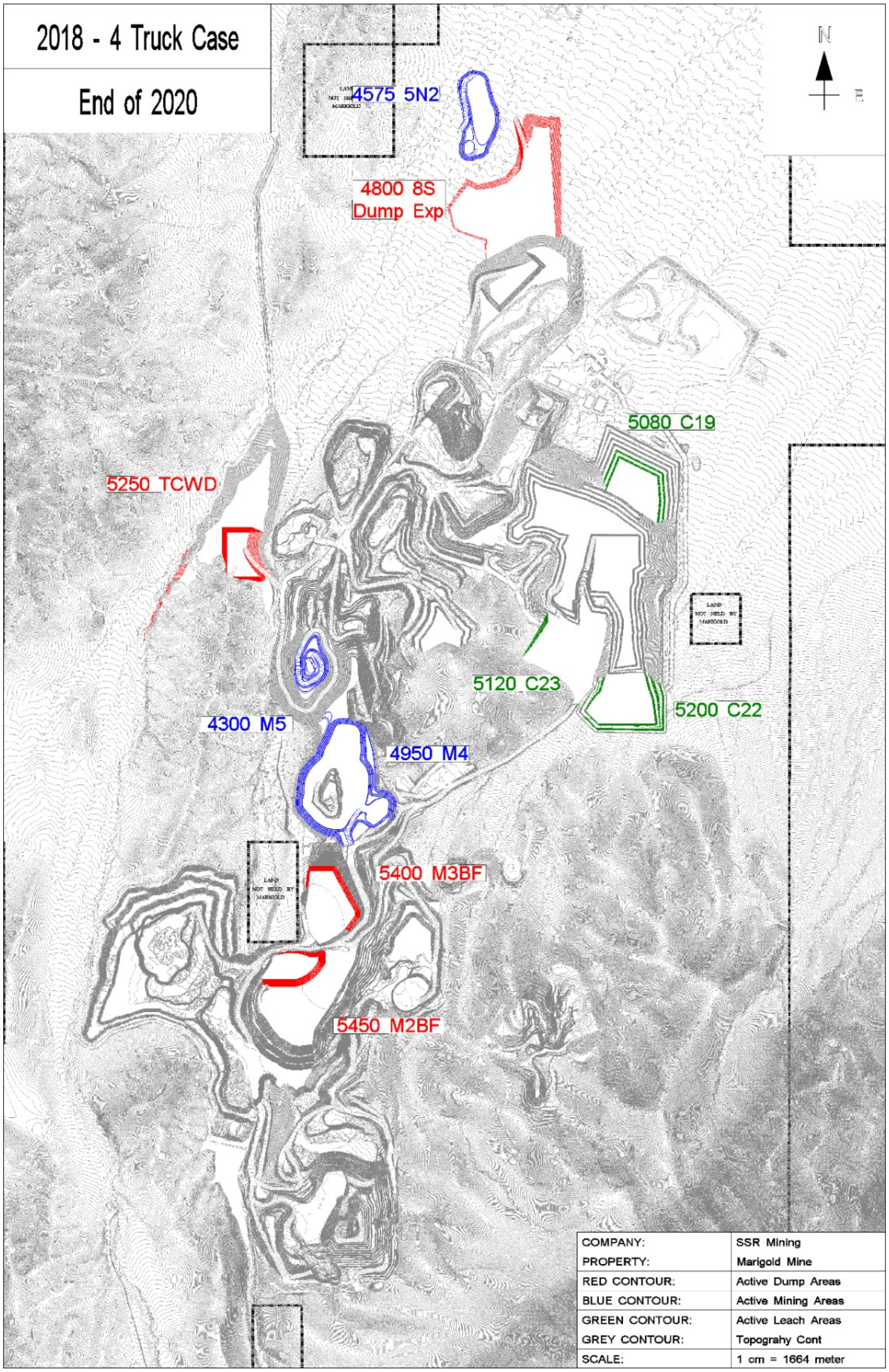

Figure 16-4: End of production year 2020

Source: SSR Mining, 2018

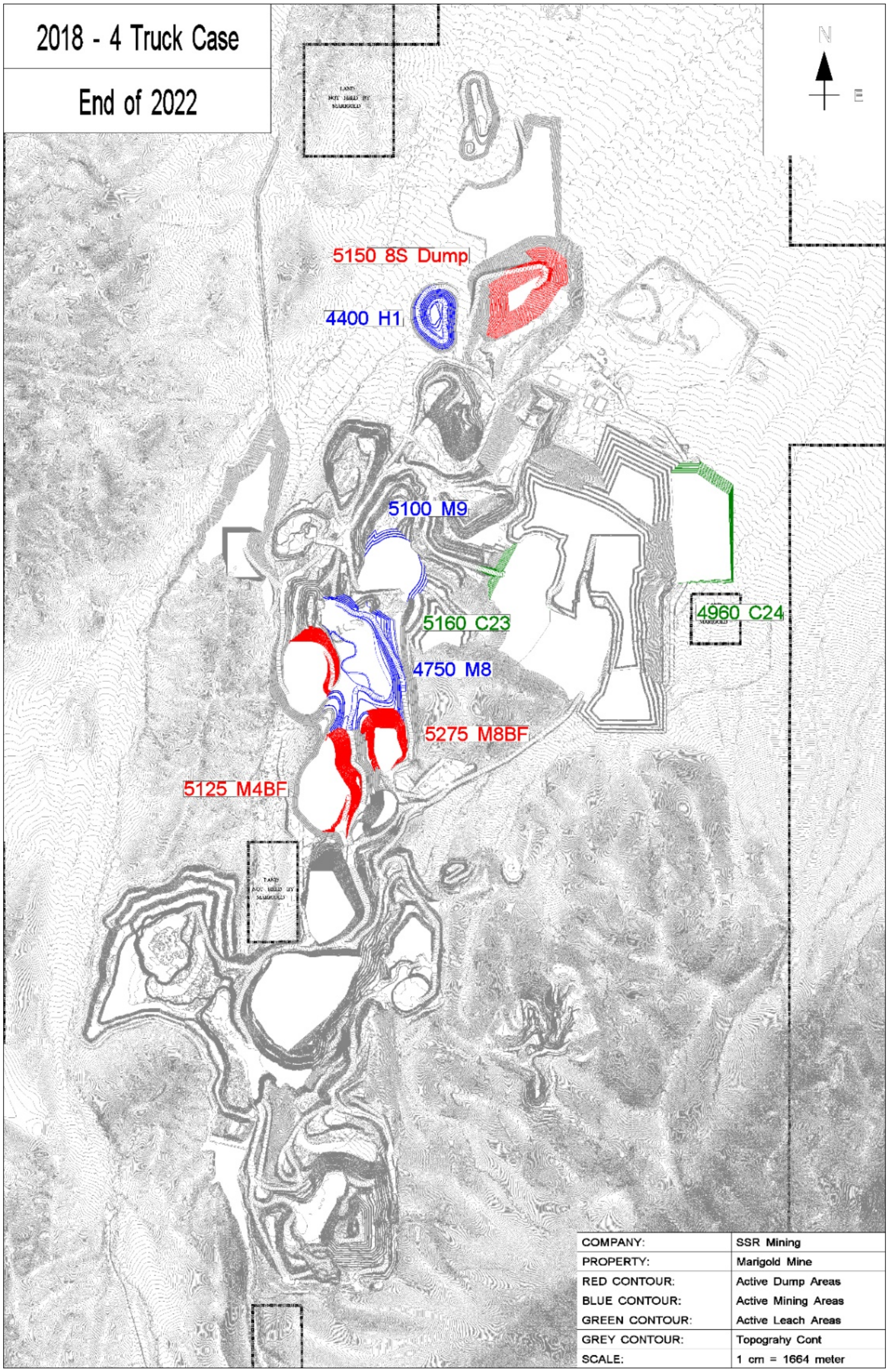

Figure 16-5: End of production year 2022

Source: SSR Mining, 2018

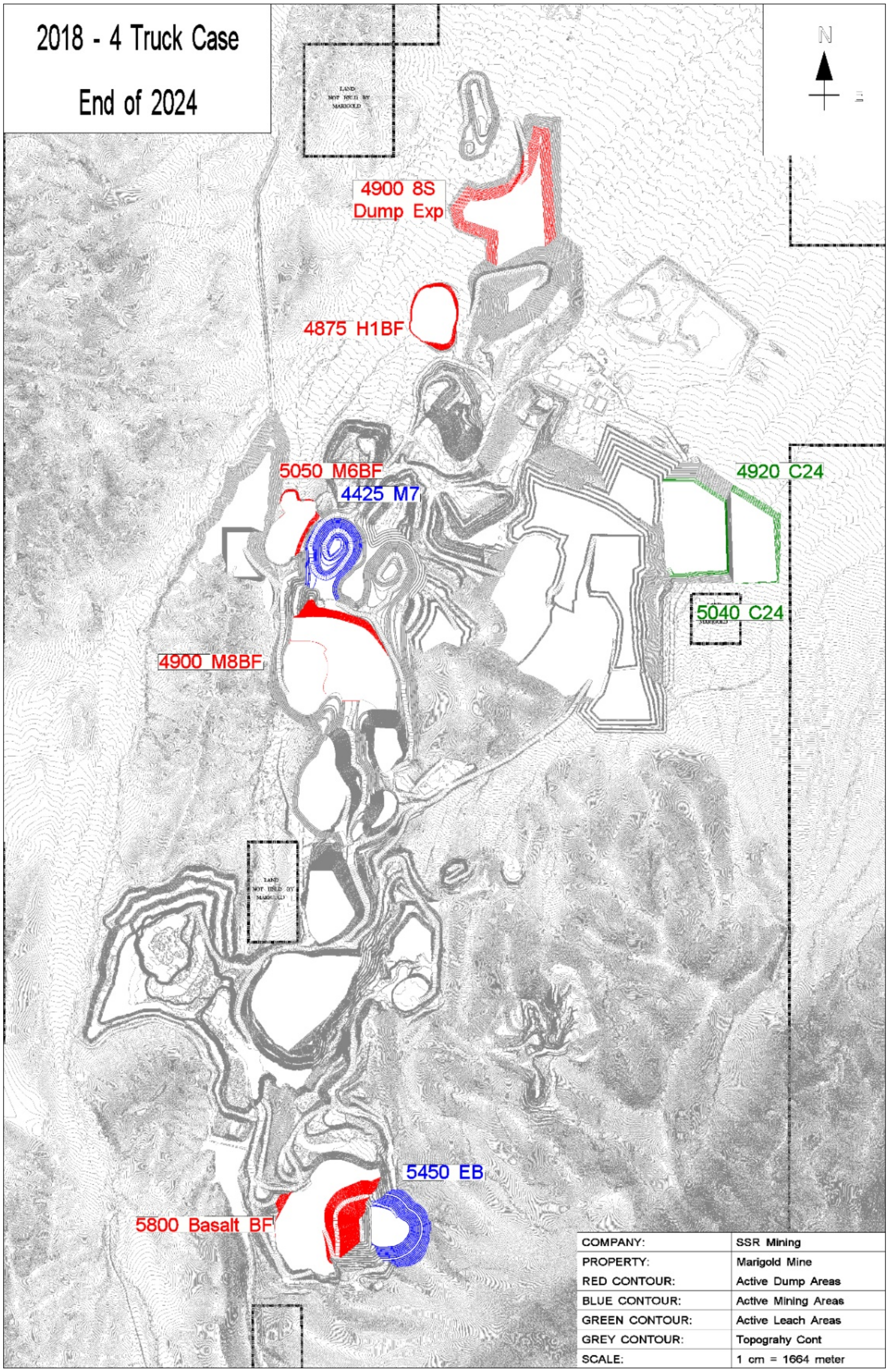

Figure 16-6: End of production year 2024

Source: SSR Mining, 2018

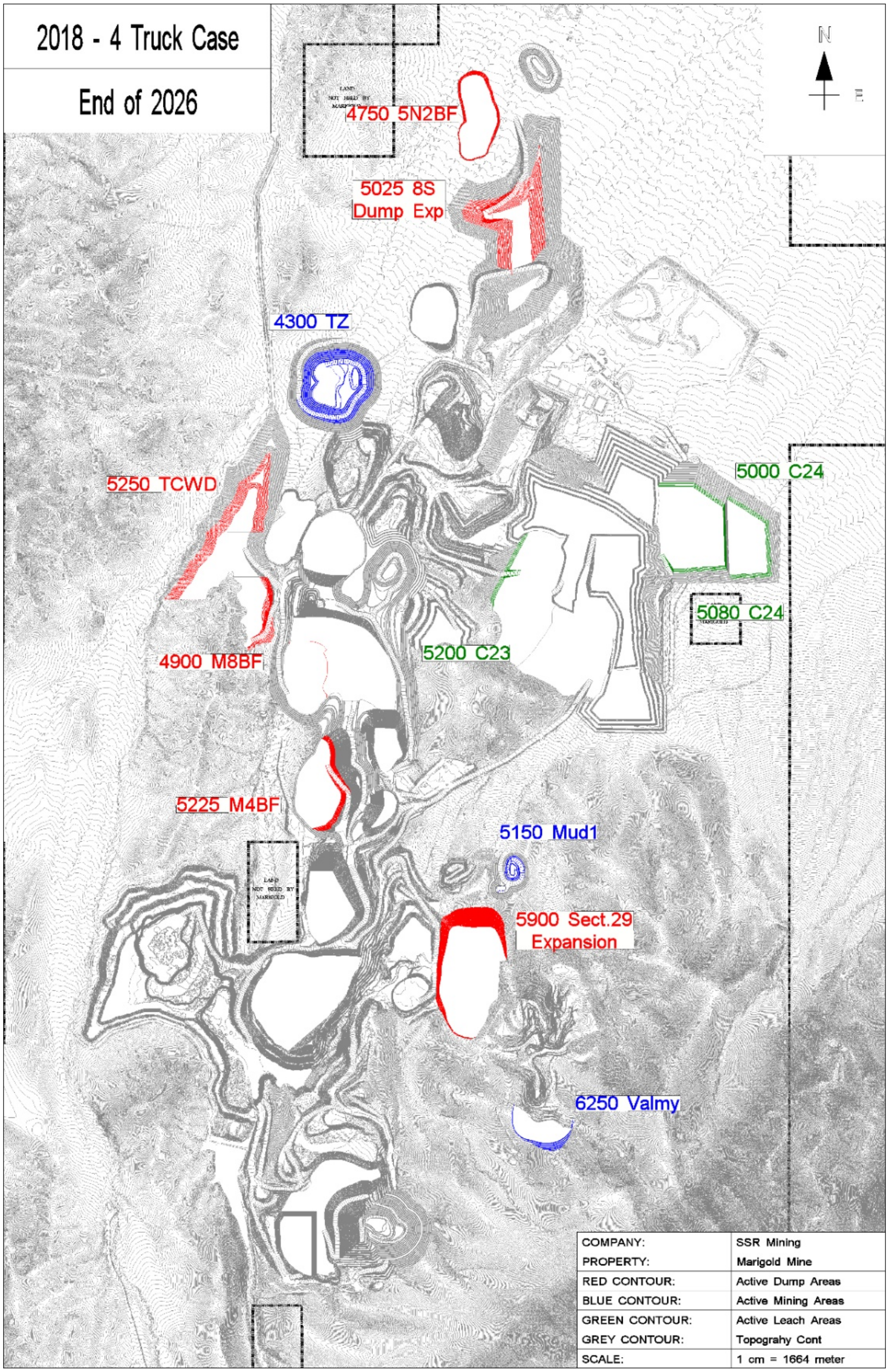

Figure 16-7: End of production year 2026

Source: SSR Mining, 2018

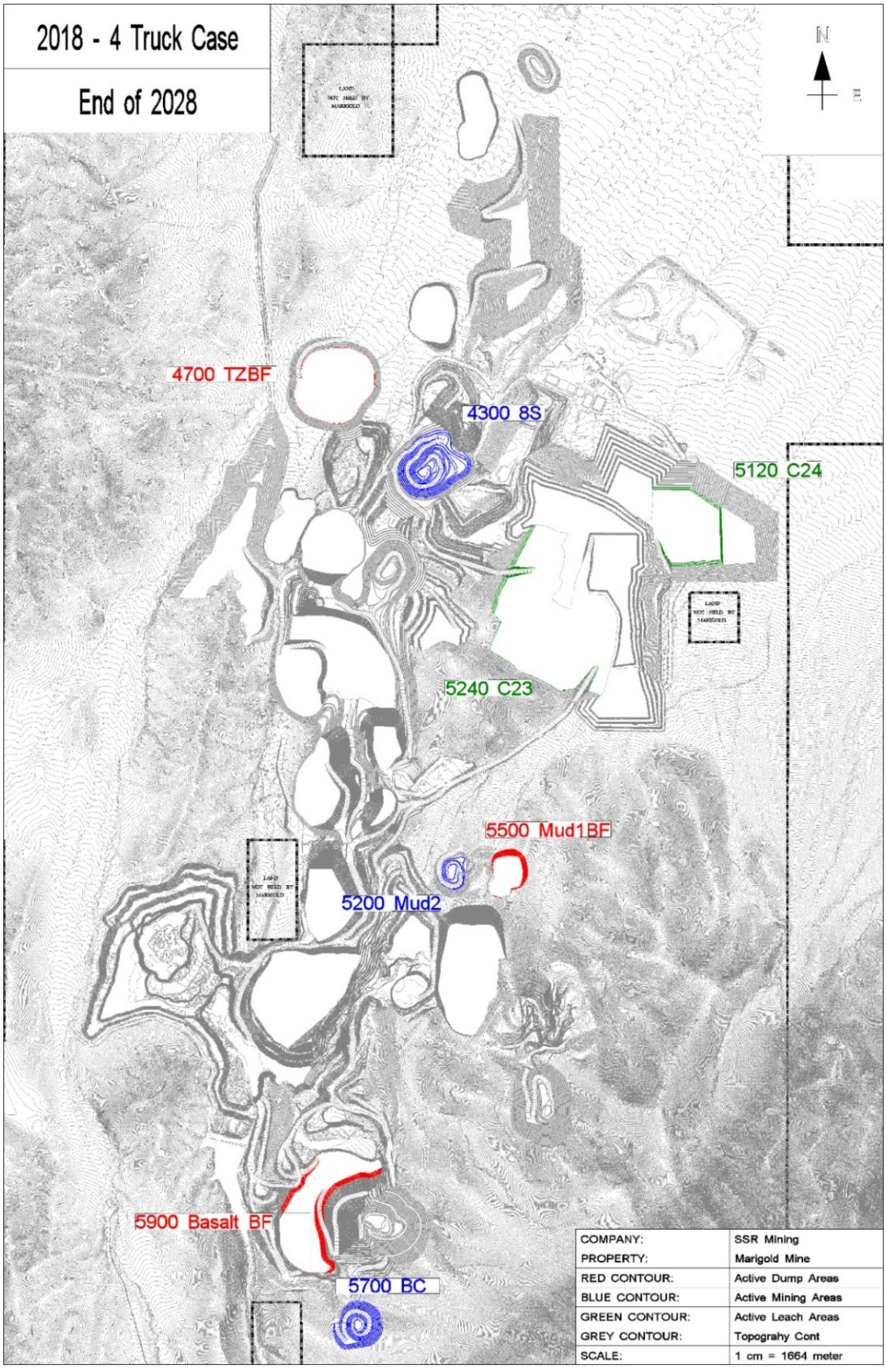

Figure 16-8: End of production year 2028

Source: SSR Mining, 2018

17 RECOVERY METHODS

17.1 Introduction

The Marigold processing plant and processing facilities combine industry standard ROM heap leaching, carbon adsorption, carbon desorption and electro-winning circuits to produce a final precious metal (doré) product.

17.2 Carbon Adsorption/Desorption/Recovery (ADR) Process

The entire ADR process described in this section is typical in the industry for treating solutions containing gold cyanide. A simplified flowsheet for the ADR process is shown in Figure 17-1.

17.2.1 Ore Stacking on Leach Pad

All processing of ore, which is oxide in nature, is completed via ROM heap leach pad, and is a cost-effective method to recover gold. ROM ore is delivered to the leach pad by haulage truck and stacked in 6.1 m to 12.2 m lifts. Pebble lime is added to the haulage trucks from a storage silo to control pH prior to dumping. Fresh and spent ore are both ripped and cross-ripped. A series of header and sub-header lines distribute the final solution to the pad, followed by drip-tubing on the surface and impact sprinklers on fresh-ore side slopes. The overall barren solution application rate to the leach pad is 0.122 to 0.143 L/min/m^2.

17.2.2 Leaching Solution to the Pad

The Marigold heap leach solution processing facilities consist of two barren ponds, four pregnant ponds, and one stormwater/overflow pond. Ancillary facilities include solution pumps and piping, two separate sodium cyanide addition facilities, one sodium hydroxide addition system (barren solution pH adjustment) and three locations for antiscalant addition.

The heap leach pad was originally constructed in 1990 and has since expanded into 20 separate cells (with permitting in place for an additional cell). Barren leach solution (cyanide-bearing solution, very low in gold grade) is applied selectively to different areas of the pad. At any given time, approximately 0.5 million m^2 of pad area is being leached. Currently, Cells 1, 2, 7, and 8 of the pad are inactive and in drain-down phase. The remaining cells are active, except for Cell 19 which will be built in 2018.

The barren leach solution is pumped to the leach pad by two independent barren solution distribution systems and one lean solution pumping system. The lean solution is collected separately from heap outlet pipes carrying a low-gold grade pregnant solution from older or spent areas of the pad. The lean (low-grade) solution is then recycled back to the heap leach pad by three vertical turbine pumps, via one of two barren solution pipes (instead of processing through the carbon columns). Combined barren solution flow capacity from the two pumping systems is 43.5 m^3/min, and the maximum lean solution flow rate is 5.7 m^3/min, for a total solution flow rate to the leach pad of 49.2 m^3/min. Sodium cyanide is added to the barren solution streams in two separate locations, and sodium hydroxide is added to the carbon column barren solution.

17.2.3 Pregnant Solution

Pregnant solution (gold bearing) from the leach pad is collected into the pregnant solution pond(s) and pumped to five parallel carbon column trains, each with five columns, to recover gold from solution. Total pregnant solution flow rate through the columns is 37.9 m^3/min accomplished with six vertical turbine column feed pumps. Column discharge solution reports to the barren ponds where sodium hydroxide and sodium cyanide are added before the solution is recycled back to the leach pad.

17.2.4 Planned Processing Expansion Projects for 2018

In 2018, two separate, but linked, projects are planned.

The first project will upgrade the motors for both barren solution booster pumps to 597 kW and include slightly larger diameter impellers. The electrical supply for the heap leach motor control centre will also be upgraded to 24.9 kV, as well as corresponding transformers, switch gear equipment and variable frequency drives. These improvements will increase the barren solution pumping rate from 43.5 m^3/min to 53.0 m^3/min.

The second project will expand the carbon adsorption circuit with the addition of two more column trains (five, separate 11.3 m^3 columns per train) with two additional pregnant solution pumps to feed them. These additional carbon columns will increase the total flow rate from 37.9 m^3/min to 53.0 m^3/min. This flow rate will match the flow rate of the barren solution going to the leach pad, eliminating the need for the lean solution pumps and, therefore, reducing the in-pad gold-in-solution inventory.

17.2.5 Carbon Processing

Loaded carbon from the carbon columns is transported by a dedicated truck to the processing facility where gold is eluted (re-dissolved) from the carbon in one of two strip vessels (one 2-ton and one 3-ton capacity carbon vessel). The stripping solution is adjusted to pH 13 with sodium hydroxide, then heated to 141°C by a boiler and series of heat exchangers. Solution flow rate through the carbon bed is 114 to 151 L/min. Stripping continues until the pregnant-solution-grade assays below 17.1 g/t. The precious-metal-bearing solution is passed through two 2.1 m^3 electro-winning cells in parallel where the metals are plated out of the solution. A third electro-winning cell is used as a re-plating cell to further clean the cathodes used in the two primary cells, as required. The electro-winning barren solution is recycled back through the strip vessel until the batch process is complete.

17.2.6 Refining

The plated material (sludge) resulting from electro-winning is 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. Before it is returned to service at the carbon columns, stripped carbon is screened to remove the fine carbon, acid washed to remove carbonate scale, and thermally reactivated to remove any organic contamination, as required.

17.2.7 Ventilation

Ventilation from the strip circuit pregnant and barren solution tanks, electro-winning cells, retort and smelting furnace is directed to a deep bed scrubber (sulfur-impregnated activated carbon) where any vapourized mercury is recovered prior to exhaust.

The kiln discharge is vented to a wet scrubber that uses water mist to condense mercury out of the air and recover it as elemental mercury. After demisting, the air is also passed through sulfur-impregnated carbon to recover any remaining vapourized mercury prior to exhaust.

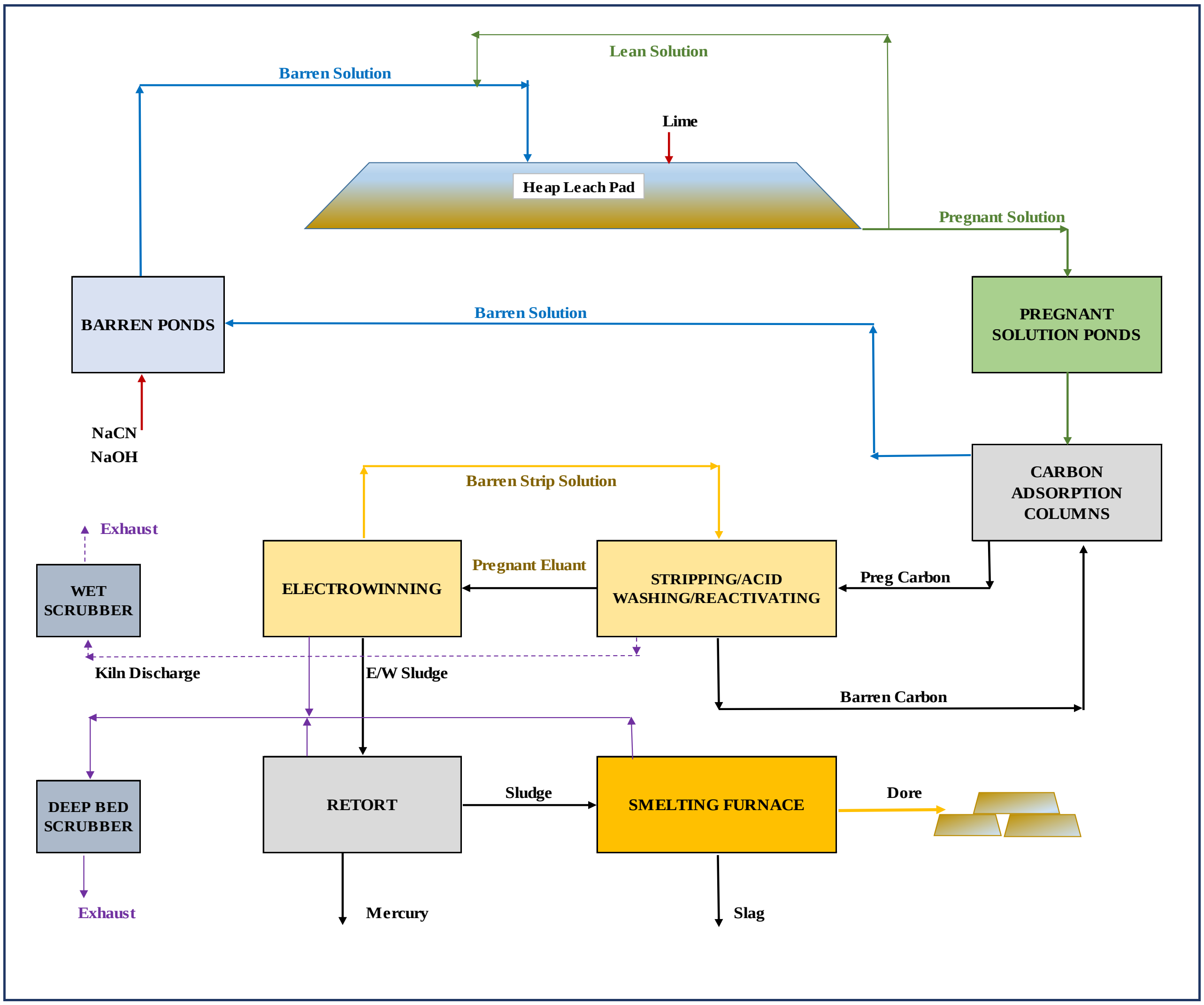

Figure 17-1: Simplified Marigold processing flowsheet

Source: SSR Mining, 2018

17.3 Primary Process Equipment and Ponds Capacities

Table 17.1 shows the primary equipment used at Marigold, along with its power rating or relative size and consolidated pond volume capacities. Equipment for the planned barren solution pumping and carbon adsorption expansions mentioned in Section 17.2.4 are also shown. All equipment is typical for the industry, commercially available, and chosen for its particular beneficial properties that make it suitable for its required use.

Table 17.1: Primary processing equipment

	Existing Equipment			After 2018 Upgrade		
Equipment	Quantity	Power	Capacity / Size	Quantity	Power	Capacity / Size
#1 Barren Solution Pumping System			18.9 m^3/min			26.5 m^3/min
Vertical Turbine	4	112 kw each		4	112 kw each	
Booster	1	448 kw		1	597 kw	
#2 Barren Solution Pumping System			22.7 m^3/min			26.5 m^3/min
Vertical Turbine	3	149 kw each		3	149 kw each	
Booster	1	522 kw		1	597 kw	
Lean Solution Pumping System			3.78 m^3/min			11.35 m^3/min
Vertical Turbine	3	93 kw each		3	93 kw each	
Carbon Columns	20		11.33 m^3	30		11.33 m^3
	5		14.16 m^3	5		14.16 m^3
Carbon Column Feed			38.6 m^3/min			53 m^3/min
Carbon Column Feed Pumps	6	37 kw each		8	37 kw each	
Carbon Elution Vessel	1		1.8 tonne			1.8 tonne
	1		2.7 tonne			2.7 tonne
Electro-Winning Cells	3	1,000 Amp each	2.12 m^3	3	1,000 Amp each	2.12 m^3
Refining Furnace	1	249 KwHr	150 kg brass melt	1	249 KwHr	150 kg brass melt
Pregnant Solution Ponds	4		96,315 m^3 total	5		137,059 m^3 total
Barren Solution Ponds	2		40,648 m^3 total			40,648 m^3 total
Stormwater Pond	1		23,385 m^3 total			23,385 m^3 total

17.4 Consumables and Reagents

17.4.1 Power

Power is supplied to Marigold from the local power grid. In the processing areas, power consumption averaged 2.3 million kWh per month in 2017 which is typical of power usage for the previous months.

Propane, which is used for the carbon reactivation kiln, the refining furnace and to heat the buildings, is trucked to site as required. In winter 2017, the peak monthly propane demand averaged 45,000 kg.

17.4.2 Water

Water used for processing is supplied by three water wells and is stored in several tanks. Approximately 5,300 L/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.

17.4.3 Reagents

Reagent consumption rates are within industry norms, and, generally, the current consumption rates shown for 2017 are in line with or less than the historical Marigold averages due to continuing optimization efforts.

Consumption rates for the two most expensive reagents, sodium cyanide (NaCN) and lime (CaO), vary depending on ore type and gold grade. In the previous four years (2013 to 2016), the average consumption rates for NaCN and CaO were 0.15 kg/tonne and 0.72 kg/tonne, respectively, and the 2017 year-to-date usage rates were normal and as expected.

Average reagent unit consumption rates for 2017 are shown in Table 17.2.

Table 17.2: Average 2017 reagent consumption

Reagent	Consumption (kg/t ore)
Sodium Cyanide (NaCN)	0.17
Lime (CaO)	0.68
Caustic (NaOH)	0.01
Activated Carbon	0.01

17.5 Gold Recovery

17.5.1 Recovery from Heap Leaching

From March 1990 through December 2017, gold recovery from the heap leach pad was 70.3%. Historical production figures for the Marigold heap leach pad are shown in Table 17.3. This recovery was achieved with 90- to 120-day primary leach cycles and an overall mass-of-solution to mass-of-ore ratio of 1.4:1. The current total gold recovery of more than 70% from ROM ore compares favourably to similar mining operations, and, given current and past gold prices, suggests that a crushing circuit is not required.

Table 17.3: Heap leach production and recovery

Ore (tonnes)	Gold Loaded (oz)	Gold Grade (g/t)	Gold Recovered (oz)	Gold Recovery (%)
227,183,122	4,278,846	0.59	3,009,245	70.3

The gold recovery trend achieved between March 1990 and December 2017 from the Marigold heap leach pad is shown in Figure 17-2.

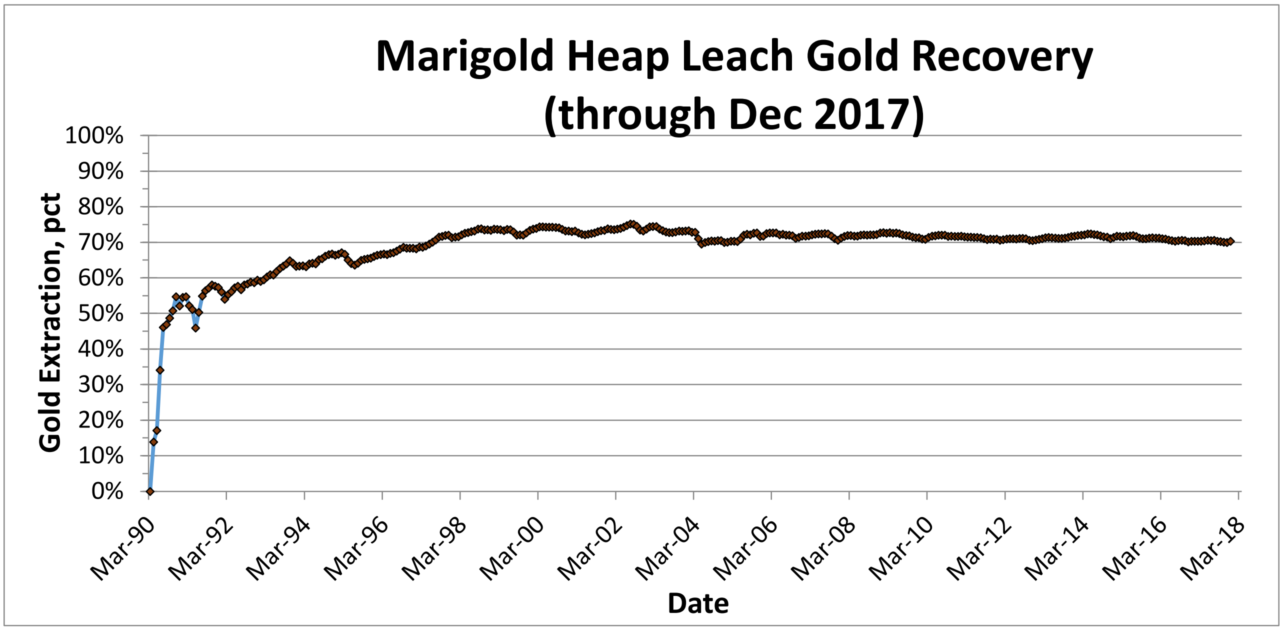

Figure 17-2: Marigold heap leach pad gold recovery curve from March 1990 to December 2017

Source: SSR Mining, 2018

17.5.2 Recovery from Carbon

In 2017, gold recovery from the strip circuit was 95.6%, and gold recovery from the carbon columns was 95.4%.

Consolidated 2017 gold recovery data from the ADR sections of the plant are shown in Table 17.4.

Table 17.4: Strip circuit and carbon column performance (2017)

Strip Circuit			Carbon Columns		
Pregnant Assay (g/t)	Barren Assay (g/t)	Gold Recovery (%)	Feed (kg)	Barren (kg)	Gold Recovery (%)
3,569	158	95.6	6,410	297	95.4

17.6 Summary

Marigold has operated for approximately 28 years as a ROM heap leach operation. Operational knowledge and experience gained during this period has allowed for the streamlined process operations that exist today. As future ore types are expected to be similar to those leached in the past, it can be expected that the processing efficiencies reported in this section will continue.

18 PROJECT INFRASTRUCTURE

The overall site layout of the Property is shown in Figure 18-1, which overlays the final LOM design onto 2012 satellite imagery. Additional details on the LOM plan can be found in Section 16 of this Technical Report.

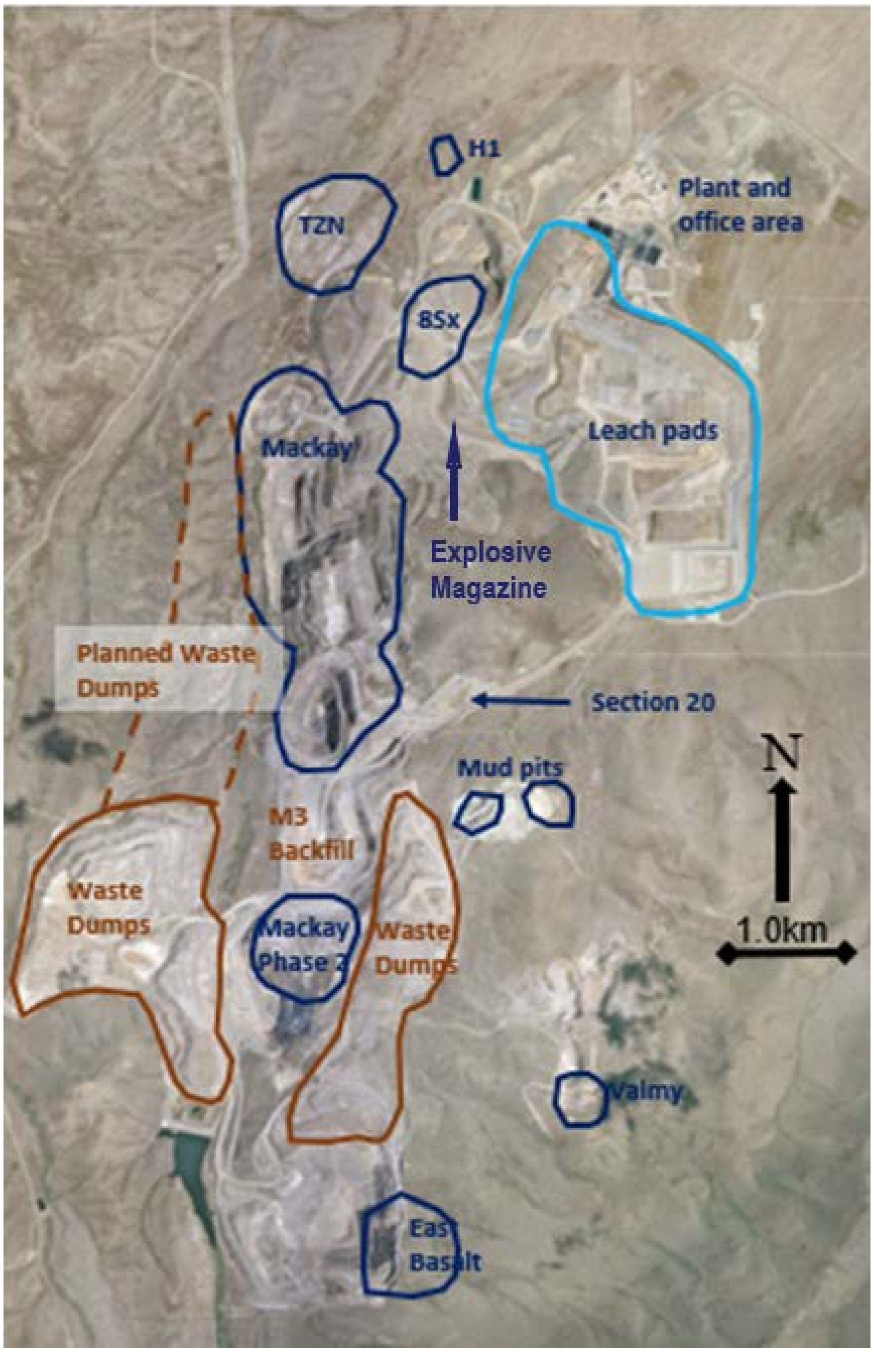

Figure 18-1: LOM site map showing final pit limits, waste dumps and leach pad

Source: SSR Mining, 2018

18.1 Site Access, Power and Water

18.1.1 Site Access

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.

18.1.2 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 18-3 and Figure 18-4.

18.1.3 Water

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 litres of water consumption annually, the majority of which is used as makeup water for process operations. On average, total freshwater makeup is 40 L/s. The well pump parameters are listed in Table 18.1, and the locations of the pumps are shown in Figure 18-2.

Table 18.1: 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

18.2 Buildings and Facilities

18.2.1 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 18-3 and Figure 18-4:

- **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-tonne class haul trucks. The shop contains a tool crib, oil and lubricant bulk storage, ten offices, locker rooms, training room and warehouse. Adjacent to this complex is the warehouse storage yard which is a covered laydown area.
- **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 overliner 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 17 of this Technical Report.
- **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, the shovel and drill shop (former truck shop), a 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 centre (MCC):** The motor control centre houses controls for the pumps and boosters for the barren and pregnant solution ponds.

18.2.2 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

18.2.3 Additional Facilities at Section 20

Additional facilities are located at Section 20, which is identified in Figure 18-1. These facilities include:

- Welding and fabrication shop
- Dispatch/MineCare office and mine operations line-out building
- GPS dispatch receiver
- Diesel tanks and fueling station

18.3 Explosives Magazine

The explosives magazine is located a safe distance from the plant and offices area as identified in Figure 18-1.

18.4 Tailings Storage Facility and Water Diversion

The TSF was decommissioned and reclaimed. The only remaining activity concerning the TSF is ongoing well monitoring.

The Trout Creek water diversion structure and flood control dam is located east of the former Basalt Pit. It is designed for a 100-year storm event.

18.5 Leach Pads and Solution Ponds

The leach pad is discussed in detail in Sections 16 and 17 of this Technical Report and are indicated in Figure 18-1.

Details on the barren and pregnant solution ponds can be found in Section 17 of this Technical Report.

18.6 Waste Dumps

Details on completed, in progress, and future waste dumps can be found in Section 16 of this Technical Report. The general location of planned and current waste dumps is shown in Figure 18-1.

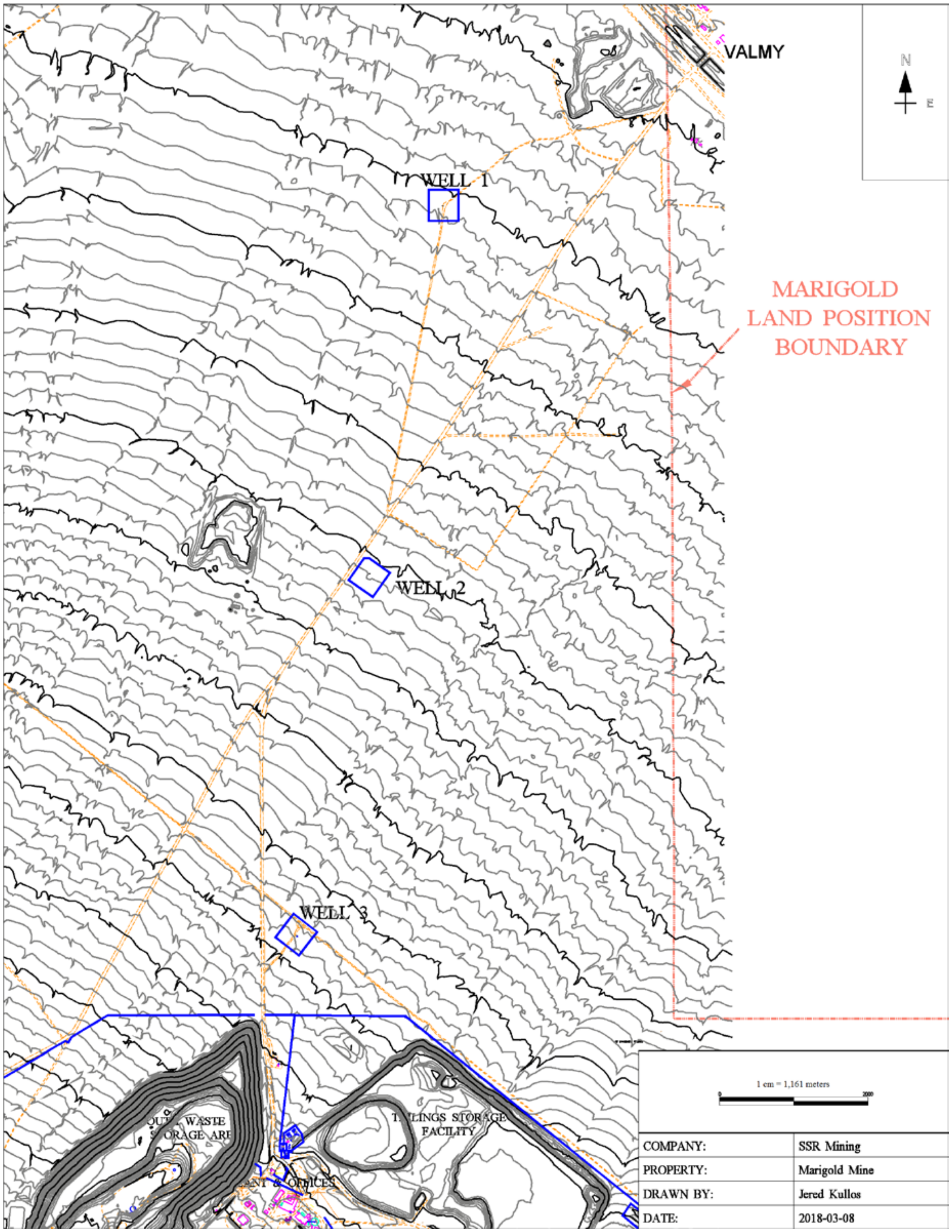

Figure 18-2: Well sites

Source: SSR Mining, 2018

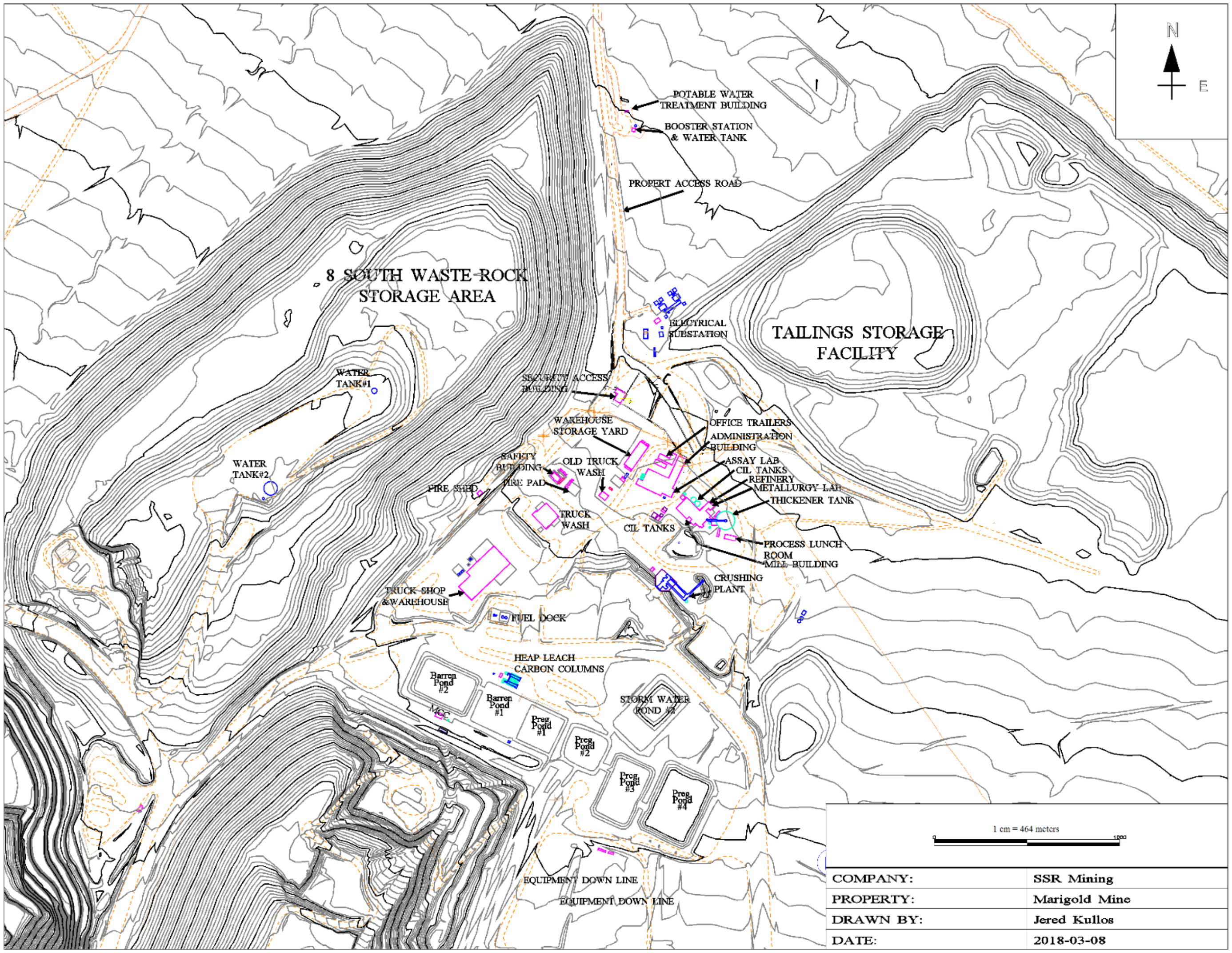

Figure 18-3: Main infrastructure area

Source: SSR Mining, 2018

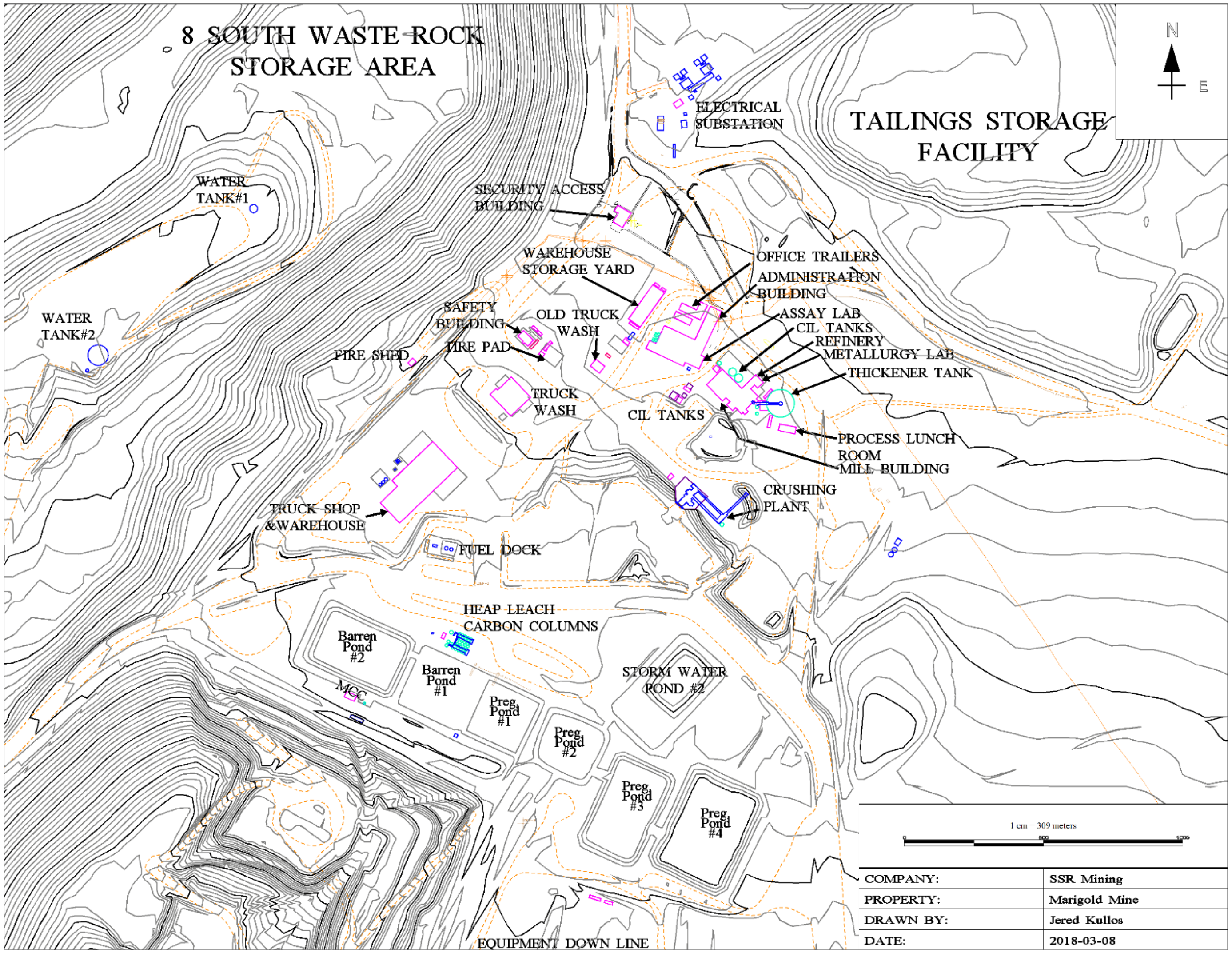

Figure 18-4: Plant, shops and offices

Source: SSR Mining, 2018

19 MARKET STUDIES AND CONTRACTS

19.1 Marketing and Metal Prices

The metal prices used in this Technical Report are based on an internal assessment of recent market prices, long-term forward curve prices, and consensus among analysts regarding price estimates. For the “base case” economic analysis in this Technical Report, a gold price of $1,300 per ounce was used.

Marigold currently produces gold/silver doré bars. The doré refining terms are typical and consistent with standard industry practices and reflect similar contract conditions for doré refining worldwide.

The doré is securely transported by road freight to a refinery where it is refined into gold bullion. The bullion is sold by SSR Mining to banks that specialize in the purchase and sale of gold bullion.

No external consultants or market studies were directly relied on to assist with the sales terms and commodity price projections used in this Technical Report. The relevant QP agrees with the assumptions and projections presented in this section of the Technical Report.

19.2 Contracts

There are a number of acceptable refineries with the capacity to refine doré. Currently, SSR Mining 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.

20 ENVIRONMENTAL STUDIES, PERMITTING & SOCIAL OR COMMUNITY IMPACT

20.1 Environmental Studies

Significant portions of the Property exist on public lands administered by the BLM. Therefore, the majority of environmental studies related to mining activities are conducted under BLM authority as part of the 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 a 2013 Environmental Assessment (EA) conducted for the Target 3 Plan of Operations Amendment. The Decision Record for the EA was signed on October 31, 2013; it noted a “Finding of No Significant Impact” for the proposed action with implementation of recommended mitigation related to altering a waste rock facility footprint to avoid an adjacent cultural resource site. This mitigation was completed in November 2013.

Marigold has prepared a proposed amendment to the existing PoO to permit the future mining of all pits to their planned maximum depths. The environmental baseline studies to support the Environmental Impact Statement (EIS) process were initiated in 2013. These baseline studies completed in preparation for the Plan of Operations – Mackay Optimization Project Amendment include, but are not limited to, socioeconomics, air quality impacts, cultural and archaeological resources, groundwater model, pit lake model, screen-level ecological risk assessment (SLERA), waste rock/material characterization, water characterization, sage grouse habitat evaluation, evaluations for flora and fauna, and feasibility evaluation and pilot testing for rapid infiltration basins. A list of the completed baseline studies and reports is shown in Table 20.1.

Table 20.1: Baseline studies

Study Media	Documents/Reports Included Baseline Studies and Data Compiled for Marigold Mine Mackay Optimization EIS
Hydrology/Water Quality/Geochemistry	Groundwater Model Report, Wasterock Management Plan, Water Characterization Report, Water Management Plan, Pit Lake Model Report, Screening Level Ecological Risk Assessment Report
Air Quality	Air Quality Assessment
Flora/Fauna	Habitat Evaluations (including sensitive special surveys), Migratory Bird Surveys, Plant Surveys, Weed Management Plan, Raptor Nest Survey, Bat Survey, Sage Grouse Habitat Survey
Socio-Economic	Economic Impact Report

Study Media	Documents/Reports Included Baseline Studies and Data Compiled for Marigold Mine Mackay Optimization EIS
Cultural Resources	Cultural Resource Survey

All baseline studies have been reviewed and approved by the BLM, and the Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Marigold Mine Plan of Operations - Mackay Optimization Project Amendment was published in the Federal Register on March 4, 2016 (Vol. 81, No. 43) and is currently expected to receive a Record of Decision in Q1-2019.

SSR Mining has a reasonable expectation that all necessary operating permits will be granted within required timeframes to implement the LOM plan.

20.2 Environmental Permits

Specific federal, state and local (Humboldt County, Nevada) regulatory and permitting requirements apply to Marigold activities. Marigold currently holds active, valid permits for all current facets of the mining operation, including, but not limited to, those permits listed in Table 20.2.

Table 20.2: Marigold mine permits

Permit Name	Permit Number
Plan of Operations	N26-88-005P
Reclamation Permit and Bond	0108
Water Pollution Control Permit	NEV0088040
Stormwater Permit	NVR300000
Class II Air Quality Permit	AP1041-3666
Title V Air Quality Operating Permit	AP1041-2967
Mercury Operating Permit to Construct: Phase II (air)	AP1041-2254
EPA/RCRA ID	NVD986766954
Industrial Artificial Pond Permit	S-36663
Jurisdictional Water of the U.S. Determination	N/A (no jurisdictional waters)
Class III Landfill Waiver	SW337 SW1764
Hazardous Materials Permit (State of Nevada)	65194
Dam/Impoundment Permit	J-666 (NV10798)
U.S. BATF License	9-NV-013-20-70-00359

Permit Name	Permit Number
Potable Water Permit	HU-1103-NTNC
Septic Permit	GNEVOSDS09-0016 GNEVOSDS09-S0341
Petroleum Contaminated Soils Permit	NEV0088040
Radio Licenses	WNPA726 WNUV910 WPMF419 WQVA510 WQVA548 WQVA551
DOT HazMat Registration	061515552 078XZ
Liquefied Petroleum Gas – Class 5 License	5-3482-01
County Conditional Use Permit	UH-15-07
Water Rights	3691 (Certificate 583) Permanent Change Application 832562 76425 76455-76462 Applications 86582, 86583, 86584, 86585 Secondary Rights Applications 86583-S01, 86583-S02, 86583-S03 86907T
MSHA ID	26-02081

Notes: Certain permits listed here are renewed annually and may be issued under a different permit number.

Given the number of active permits at Marigold, some degree of permit modification or renewal effort is typically underway. With the exception of minor modifications for operational support, approved permits are in place for all planned mining activities through the end of 2019, except for any potential mining conducted below the water table. The currently proposed Plan of Operations - Mackay Optimization Project Amendment incorporates future expansions to exploration, waste rock storage facilities, heap leach pad, process rates and dewatering activities, as well as ancillary support activities and facilities. These proposed expansions will require local, state and federal approvals in addition to the aforementioned Plan of Operations – Mackay Optimization Project Amendment.

20.3 Environmental Impacts

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 is very deep and not impacted by mining operations; 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 is in place as part of the existing PoO.

Waste rock is managed in several designated surface storage areas within the Property boundary, 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 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, and the State Engineer's office no longer lists it as a permitted dam. While in operation, the Marigold tailings dam did exhibit a leak through its clay liner to the alluvial substrate below. This issue was reported to applicable environmental agencies at the time, and modelling was completed to confirm there was no threat to groundwater approximately 450 feet deep at that location. This pulse of tailings leakage has been monitored since tailings closure, and records confirm the pulse is naturally attenuating and does not pose a threat to impact groundwater. These monitoring results have been previously reported in an annual model update report; however, in 2016, the Nevada Division of Environmental Protection – Bureau of Mining Regulation and Reclamation discontinued the requirement for a separate annual model update report specific to the tailings impoundment. Results are now routinely reported quarterly and annually as part of Marigold's Water Pollution Control Permit.

Marigold's Water Pollution Control Permit is due for renewal on or before November 2019. This process is expected to be complete in late 2018, in advance of the regulatory deadline and in conjunction with the major modification that will be required to support the proposed Plan of Operations – Mackay Optimization Project Amendment. Approval is expected by Q2-2019.

20.4 Environmental Monitoring Program

Marigold has an extensive monitoring program in place for both groundwater quantity and quality and seasonal surface water quantity and quality. Results from this program as well as long-term trend data are reported to both state and federal agencies. Air, geochemical, vegetation, wildlife, and industrial health monitoring are also conducted regularly according to permit requirements. Agency representatives from the Nevada Department of Environmental Protection, Nevada Department of Wildlife, and Bureau of Land Management also conduct routine compliance inspections on a quarterly basis.

20.5 Reclamation and Closure

MMC engages in concurrent reclamation practices and is bonded for all permitted features, as part of the Nevada permitting process. Current bonding requirements are based on third-party cost estimates to reclaim all permitted features at the Property. Both the BLM and State of Nevada review and approve the bond estimate, and the BLM holds the financial instruments providing the bond backing. At present, Marigold has an approved $44.7 million reclamation bond requirement. The current asset retirement obligation (ARO) for facilities constructed and currently existing at Marigold at the end of 2017 is $30.6 million.

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. Marigold's currently approved closure plan describes a series of evapotranspiration cells to manage long-term solution drain down following an approximate two-year period of active solution volume reduction through evaporation.

Costs associated with all reclamation and closure activities are discussed in Section 22 of this Technical Report and are reflected in the agency-approved bond amount.

20.6 Community Relations and Social Responsibilities

There are currently no outstanding negotiations or social requirements regarding operations at the Property. The nature of NEPA and large-scale state permits involves 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 Marigold. 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 donation/support requests.

Community support and engagement is well-established at Marigold, and mine management provides regular updates with respect to the Property to local stakeholders and regulators. In 2017, nearly $250,000 in donations, corporate social responsibility (CSR) investments, scholarships, and in-kind support was provided to local communities and charities.

21 CAPITAL AND OPERATING COSTS

21.1 Introduction

The capital and operating cost estimates calculated for Marigold are based on a combination of historical data and budgetary estimates. Capital costs, which include the addition of the four 300-tonne class haul trucks approved in February 2018, are estimated to be $284 million over the LOM. This total does not include capitalized stripping, which is discussed in Section 22 of this Technical Report. The LOM capital costs estimate is shown in Table 21.1.

Costs related to the development of reserves are based on a combination of historic site costs for fixed costs and a zero-base cost method for calculating variable costs. The variable costs are based on tonnage mined, tonnage processed, or hours worked for Mining, Maintenance, Process and Administration costs. A LOM plan is developed in the third quarter of each year to serve as a one-year budget and LOM mine plan. A financial model is developed for the LOM plan. The mining costs include haulage costs for each bench to either a waste dump or leach pad location on site. All departments are responsible for their respective costs and are built from first principles. The total planned spend is divided by tonnes mined for mining and maintenance unit costs, and ore tons stacked for process and administration unit costs. Royalty charges for the site and sustaining capital for each department are included in the cost estimate to develop pit optimizations.

Table 21.1: Summary of sustaining capital costs

Capital Costs	Total ($ Millions)
Mining Equipment	104.9
Capitalized Equipment Maintenance	130.3
Processing	36.7
Administration, Permitting & Development Drilling	12.1
Total Capital Costs	**284.0**

Notes: Excludes capitalized stripping. Figures may not total exactly due to rounding.

The LOM operating costs estimate is $8.20 per tonne of processed ore. Operating costs per tonne are shown in Table 21.2.

Table 21.2: Summary of operating costs

Operating Costs	$/tonne processed
Mine Operations	6.32
Processing	1.22
G&A	0.67
Total Operating Costs	**8.20**

Note: Figures may not total exactly due to rounding.

21.2 Capital Costs by Category

Capital costs, which include the addition of the four 300-tonne class haul trucks approved in February 2018, are estimated to be $284 million over the LOM. This does not include capitalized stripping. A review of capital costs is shown in Table 21.3 and described in this section.

Table 21.3: Capital costs by category

Capital Costs	Item	Number of Units	Price per Unit ($M)	Total Cost ($M)
Mining Equipment	Hydraulic Shovel Replacement	2	12.92	25.8
	Haul Truck Replacement/Addition	9	5.36	48.24
	Blasthole Drill Replacement	2	2.5	5.0
	Track Dozer Replacement	5	1.5	8.0[4]
	Motor Grader Replacement	3	varies	4.8
	Truck Tray Replacement	~33	.33	10.8
Equipment Maintenance[1]	Truck Fleet	n/a	n/a	70.6
	Loading Fleet	n/a	n/a	36.8
	Support Equipment (dozers, graders, utility loaders)	n/a	n/a	13.7
	Blasthole Drill Fleet	n/a	n/a	4.2
Processing	Additions to Leaching Infrastructure[2]	n/a	n/a	36.7
Permitting	Mackay Optimization Project	n/a	n/a	4.1
	Valmy Lands	n/a	n/a	2.5
G&A	Light Vehicle Replacement[3]	n/a	n/a	4.8

Notes:
1. Costs primarily cover component replacement.
2. Processing costs primarily cover additions to leaching infrastructure.
3. G&A costs primarily cover light vehicle replacement.
4. Includes final payment for dozer received in early 2018.

21.2.1 Mining Equipment

Capital costs for mining equipment over the LOM totals $104.9 million, and this expenditure will primarily cover the replacement of aging mine equipment when it reaches the end of its useful life.

There are two planned Hitachi EX5500 shovel purchases in 2021 for $12.92 million each. There is $48.24 million allocated to replace five haul trucks, four in 2020 and one in 2021, and to add four trucks to the fleet in 2018. There is $5.0 million to replace two production drills in 2019 and 2022. Five track dozers are replaced at $1.5 million each, four in 2019 and one in 2022. Three graders are replaced at $4.8 million, two in 2019 and one in 2021. Truck trays are replaced as required with a three- to four-year useful life at $0.33 million each. The total for truck trays over the remaining mine life is $10.8 million. The remaining costs include smaller items such as dispatch and survey equipment, powerline realignment and extension, and light plants.

21.2.2 Equipment Maintenance

Capital costs for equipment maintenance over the LOM totals $130.3 million, and this expenditure will primarily cover component replacements. This includes any component that is replaced with a life of greater than one year and a cost that exceeds $50,000. The breakdown of the total is as follows: $70.6 million for truck fleet; $36.8 million for loading fleet; $13.7 million for support equipment (dozers, graders, utility loaders); and $4.2 million for drills. The remaining capital is for service truck replacements and shop tooling.

21.2.3 Processing

Capital costs for processing over the LOM totals $36.7 million, and this expenditure will primarily cover leach pad and pond construction additions to the current leaching infrastructure. Other processing capital costs are split between rebuilds and upgrades to the current crushing, carbon column and pumping systems.

21.2.4 G&A and Permitting

The majority of the capital costs for G&A and permitting is for permitting at Marigold for the remainder of the LOM. A total of $4.1 million of the permitting costs is related to the Mackay Optimization Project that is currently underway, and $2.5 million is related to permitting the Valmy lands. G&A capital costs are $4.8 million over the LOM, which is primarily for replacement of light vehicles.

21.3 Operating Costs by Category

The top ten categories of direct operating costs over the LOM are shown in Figure 21-1. Labour is the most significant operating cost, representing 37.9% over the LOM, followed by fuel at 14.1%. Consumables (chemicals, reagents and ground engaging tools) represent 13.0% and other costs (including miscellaneous costs to run and support the mine) are 8.3%.

The total operating costs shown in Figure 21-1 are inclusive of capitalized stripping costs and total approximately $1,682 million for the LOM.

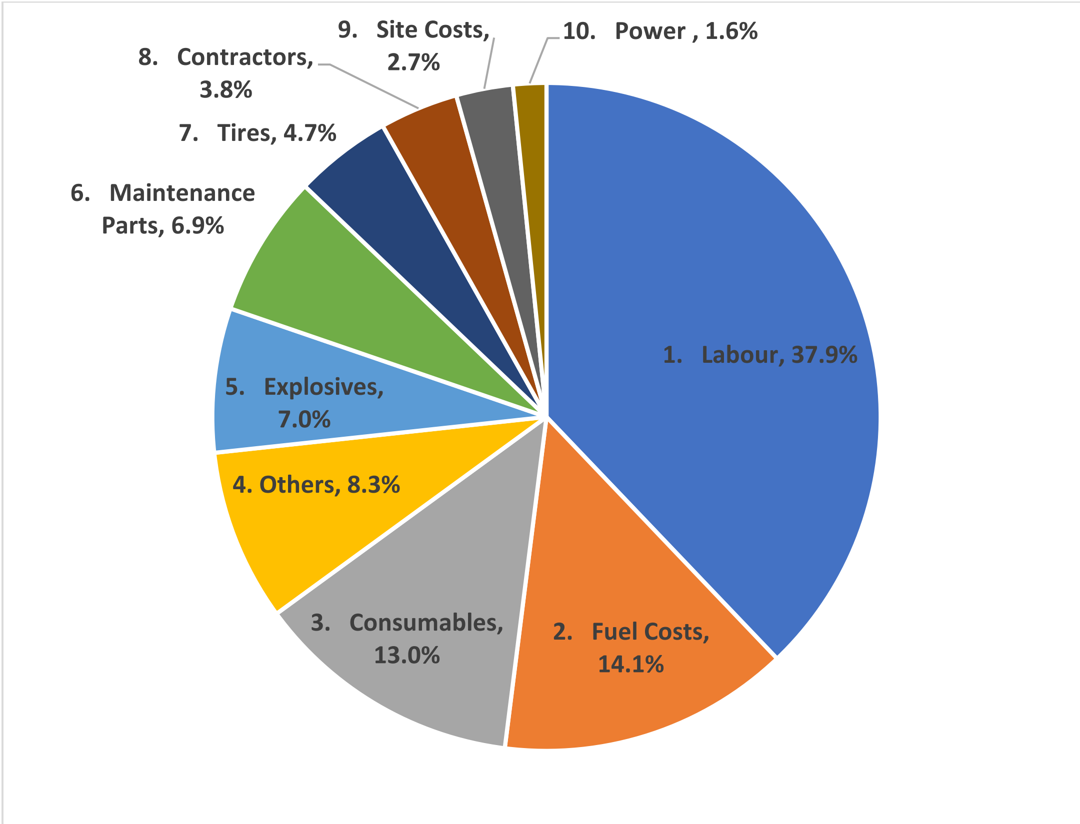

Figure 21-1: Top 10 operating cost categories

Source: SSR Mining, 2018

21.3.1 Labour Requirement

Labour is the largest portion of direct operating costs for Marigold, and workforce by department is shown over the LOM in Table 21.4. Active mining concludes in 2028, and leaching will continue for four additional years to recover the residual ounces remaining on the leach pad. There are also some administrative and environmental positions that will be maintained until 2032.

Table 21.4: Workforce headcount by area

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Hauling	108	108	108	108	108	108	108	108	108	108	25				
Roads and Dumps	46	46	46	46	46	46	46	46	46	46	12				
Loading	24	24	24	24	24	24	24	24	24	24	5				
Drilling	20	20	20	20	20	20	20	20	20	20	5				
Blasting	8	8	8	8	8	8	8	8	8	8	4				
Mine General	13	13	13	13	13	13	13	13	13	13	8				
Mine Operations	219	219	219	219	219	219	219	219	219	219	59				
Leach	26	26	26	26	26	26	26	26	26	26	26	20	7	7	7
Lab	12	12	12	12	12	12	12	12	12	12	12	6	2	2	2
Process	38	38	38	38	38	38	38	38	38	38	38	26	9	9	9
Accounting	7	7	7	7	7	7	7	7	7	7	7	2			
Purchasing	7	7	7	7	7	7	7	7	7	7	5	1			
IT	2	2	2	2	2	2	2	2	2	2	2	1			
Safety	7	7	7	7	7	7	7	7	7	7	7	2	1	1	1
Human Resources	4	4	4	4	4	4	4	4	4	4	4	1			
Environmental	4	4	4	4	4	4	4	4	4	4	4	2	2	2	2
Total Administration	31	31	31	31	31	31	31	31	31	31	29	9	3	3	3
Engineering	16	16	16	16	16	16	16	16	16	16	11	0			
Geology	6	6	5												
Maintenance	128	128	128	128	128	128	128	128	128	128	32	4			
Total HeadCount	438	438	437	432	432	432	432	432	432	432	169	39	12	12	12

21.3.2 Diesel Consumption

Fuel is the second largest component of direct operating costs for Marigold. Fuel consumption by area is listed in Table 21.5 and is based on historical consumption patterns. The LOM price of fuel delivered to the Property is assumed to be $0.58 per litre. The fuel supply is from California refineries and is delivered daily via transport from Reno, NV in fuel tankers on the highway.

Table 21.5: Fuel litres consumed ('000 litres)

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Drilling	1,632	1,916	2,202	2,055	1,779	1,785	2,114	2,257	1,613	1,754	1,245
Loading	3,266	3,617	4,636	4,006	4,331	5,312	4,145	5,250	1,995	5,305	3,114
Hauling	26,117	29,156	27,326	28,178	28,611	24,261	29,418	30,021	30,119	25,403	18,137
Support Equipment	3,718	3,698	3,763	3,754	3,857	3,857	3,868	3,857	3,857	3,930	1,875
Maintenance	289	490	490	490	490	490	490	490	490	490	230
Total	**35,022**	**38,877**	**38,417**	**38,483**	**39,068**	**35,707**	**40,035**	**41,875**	**38,075**	**36,883**	**24,602**

Note: Figures may not total exactly due to rounding.

21.4 Capital and Operating Costs by Department

21.4.1 Mine Operating Costs

The LOM operating cost estimates ($/tonne) by department are shown in Table 21.6.

Table 21.6: Mine operating costs by department

Mine Operating Costs	Total Mine Operating Costs ($M)	$/Tonne Mined
Maintenance	409.78	0.48
Hauling	409.26	0.47
Blasting	142.56	0.17
Loading	94.27	0.11
Roads & Dumps	98.22	0.11
Drilling	65.04	0.08
Mine Administration	39.18	0.05
Engineering	37.40	0.04
Total Mine Operating Costs	**$1,295.71**	**$1.50**

Note: Figures may not total exactly due to rounding.

PRODUCTION DRILLING

Depending on rock conditions, a combination of hammer drilling and rotary drilling are used at the Property. Hammer drilling comprises more than 80% of the planned LOM drilling. There are two drilling models at Marigold: Atlas Copco PV271, with a single-pass capability of a 16.8 m hole; and Ingersoll-Rand DML drills, with a single-pass capability of a 10.4 m hole. Blasthole diameter is planned at 22.2 cm for production drilling.

The major operating cost categories for drilling in the LOM plan are labour, fuel and consumable supplies, including drill hammers, drill bits and drill steel. These categories account for more than 90% of the total drilling costs.

BLASTING

The major operating cost categories for blasting in the LOM are labour, ammonium nitrate, emulsion, contract blasting labour and support, and blasting accessories. These categories comprise more than 95% of the total blasting costs. Ammonium nitrate is the primary blasting agent, and, in areas of hard rock or when meteoric water exists from rain or snow, an emulsion product is used as a supplementary blasting agent. Emulsion is used about 20% of the time.

A contractor provides the blasting agent to the blast pattern and places it in the blastholes. Marigold personnel perform the blasthole priming, tying-in of the delays, and stemming the holes.

Electronic downhole delays are used on all blastholes.

LOADING

There are three primary loading units and one backup unit in the LOM plan. A Komatsu 4100 XPC shovel is the primary stripping unit for Marigold, and it is used on 15.2 m benches. Two Hitachi EX5500 shovels are used for a combination of stripping and ore mining on both 15.2 m and 7.6 m bench mining for ore and waste. A Komatsu WA1200 loader is used as a backup loading unit when one of the primary units is out of service.

The two Hitachi EX5500 shovels are planned to be replaced in 2021 when they reach the end of their service life. Historically, the Komatsu 4100 shovel has shown to have a service life of more than 125,000 hours in the industry. This shovel is expected to accumulate 90,000 hours over the LOM.

The major operating cost categories for loading are labour, fuel for the EX5500 shovels, power for the Komatsu 4100 shovel, and ground engaging tools (GET), which include bucket teeth and other steel parts for all loading equipment.

HAULING

There are 25 300-tonne class haulage units planned for the LOM for Marigold; this includes 12 Hitachi EH5000 and 13 Komatsu 930E trucks in the fleet. Currently, the hours vary from just over 20,000 hours for the newer Komatsu trucks to 70,000 hours for the older Hitachi trucks. The current average is 45,000 hours over the entire fleet. Four new Komatsu 930E haul trucks will be added in Q3-2018, which will reduce the average number of hours when they are placed into service. There are also five replacement trucks in the LOM plan, four in 2020 and one in 2021. When the replacement trucks are brought into service, this will further reduce the average number of hours for the total fleet.

The major operating cost categories for hauling are labour, fuel, tires and wear parts. A tire program was introduced at Marigold eight years ago, and this has improved tire life.

ROADS AND DUMPS

Mine roads and dumps require support equipment, which includes road, dump, and bench maintenance equipment such as track dozers, wheel dozers, motor graders, track hoes and water trucks. This equipment helps keep benches on grade, clears dumps and roads of rock spillage, and controls fugitive dust around all working areas, including the haul road and ramps during construction.

For this equipment fleet, the major operating cost categories are labour, fuel, tires, dust suppression and GET.

MINE ADMINISTRATION

The major operating costs for mine administration are labour for the management and supervisors of the mine department, including small contract services (approximately 3% of the direct costs in the mine department).

ENGINEERING

Engineering is a support group in the mine department. It includes all long- and short-range mine planning; surveying; dispatch support; ore control; geotechnical support; and pit, waste dump, and leach pad design work. The major operating costs are for labour and include a small portion for operating supplies and computer licenses to support planning software packages.

MAINTENANCE

More than 90% of mine maintenance is performed by Marigold personnel with the exception of special projects that are contracted out.

Mine maintenance costs associated with the LOM plan are for preventative and repair maintenance on the mine operations mobile production equipment and mobile support equipment for the Property. Maintenance costs are developed from historical data and planned work that is based on hours that the equipment accumulates during normal mining activities.

The major operating costs for mine maintenance are labour, maintenance repair parts, on-site contract labour, lube oils and greases, filters, hydraulic hoses, maintenance supplies, small tools and welding supplies. These items account for more than 90% of total maintenance costs.

21.4.2 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.

A total of 85% of the operating costs for processing are labour, cyanide, lime, power, maintenance supplies and leach supplies. The remaining 15% of the costs are for other supplies, reagents and final off-site refining costs required to produce doré to a standard that meets the criteria defined by the London Bullion Market Association (LBMA).

The Marigold laboratory is under the direction of the Processing Department and operating costs include expenses associated with sampling, assaying and supplies related to leaching and refining.

21.4.3 G&A

G&A costs for the LOM include accounting and site administration, warehousing, safety, human resources, and environmental. These costs are related to supporting the operations groups in the mine, maintenance and processing departments.

The major operating cost for this group is labour, taxes, insurance, transportation expenses, and legal and audit expenses make up a large portion of the remaining costs. These combined categories account for more than 73% of the G&A costs, with the remainder allocated to operating supplies, training and employee relations to support the site.

21.4.4 Indirect Costs – Royalties

For the LOM design, NSR royalty payments vary between no royalties on some parcels to 10% of the value of production net of off-site refining costs, which equates to an annual average royalty rate ranging from 3.7% to 10.0%. The NSR royalty payments are discussed in Section 4 of this Technical Report.

22 ECONOMIC ANALYSIS

22.1 Introduction

This economic analysis presents the key economic performance indicators for Marigold, including cash costs, all-in sustaining costs (AISC) and net present value (NPV), based on a 5% discount rate and mid-year cash flows approach, which are non-GAAP measures discussed in Section 22.10 of this Technical Report. Please see “Cautionary Note Regarding Non-GAAP Measures” in this Technical Report. Cash flow projections commenced on January 1, 2018 and are estimated over the remaining LOM based on estimates of sales revenue, site production costs, capital expenditures, and other cash flows, including taxes and reclamation expenditures, all presented on a real cash flow basis.

Marigold produces gold doré which is refined into gold bullion and, in turn, sold to bullion banks. The financial model includes recoverable gold on the leach pad and gold doré on hand as at January 1, 2018, all of which is sold over the remaining LOM. There is expected to be approximately 2,232,938 recoverable ounces of gold stacked over an active mining period of eleven years. LOM production includes an additional 140,713 payable ounces of gold that are on the leach pad as at January 1, 2018, for a total production of 2,373,651 payable ounces of gold. Reclamation is expected to continue for eleven years after the last mining is completed. Gold production continues through 2032. The final reclamation occurs in 2039.

Cash inflows from sales assume all production within a period is sold, with minimal working capital movements, using a gold price of $1,300 per ounce.

The estimates for site production costs, sustaining capital and reclamation expenditures have been developed specifically for Marigold and are presented in earlier sections of this Technical Report. The impact of capitalized stripping has also been included in the economic analysis, and, although capitalized stripping has no impact on overall cash flows, it will impact the presentation of cash costs and AISC per payable ounce of gold sold, as discussed below.

Based on SSR Mining’s projections as set forth in this Technical Report, Marigold will incur cash costs of $730 per payable ounce of gold sold and AISC of $966 per payable ounce of gold sold over the LOM to 2032. The after-tax NPV using a 5% discount rate and mid-year cash flows approach is $552 million over the LOM.

22.2 Mine Production Statistics

Mined material is either placed on the waste dumps or directly onto the leach pad over the course of eleven years of active mining. SSR Mining has estimated its gold grades and recovery rates for each period to determine the recoverable ounces stacked. The annual production figures were obtained from the LOM plan. Total LOM production includes 140,713 recoverable ounces that are on the leach pad as at January 1, 2018.

A summary of estimated mine production and gold production over the LOM is shown in Table 22.1, resulting in total production of 2,373,651 payable ounces of gold.

Table 22.1: Operating and production statistics

Year	Ore Mined (Mt)	Waste Removed (Mt)	Strip Ratio (waste:ore)	Gold Grade (g/t)	Gold Recovery (%)	Recoverable Gold Stacked on Pads (oz)	Gold Produced (oz)
2018	28.6	41.7	1.5	0.33	72%	222,987	196,052
2019	21.9	56.3	2.6	0.39	74%	205,947	210,424
2020	20.6	67.0	3.3	0.42	75%	207,767	225,307
2021	23.6	58.1	2.5	0.52	76%	300,024	266,101
2022	21.7	63.1	2.9	0.53	77%	281,831	266,102
2023	24.2	63.3	2.6	0.36	75%	209,683	252,455
2024	11.7	71.3	6.1	0.40	74%	112,050	146,198
2025	7.4	85.0	11.5	0.89	77%	161,894	145,487
2026	18.0	46.6	2.6	0.53	72%	221,105	201,614
2027	20.5	69.4	3.4	0.41	72%	195,903	204,198
2028	6.7	35.5	5.3	0.68	77%	113,748	136,637
2029	-	-	-	-	-	-	61,966
2030	-	-	-	-	-	-	20,370
2031	-	-	-	-	-	-	20,370
2032	-	-	-	-	-	-	20,370
Total	**205.1**	**657.5**	**3.2**	**0.46**	**74%**	**2,232,938**	**2,373,651**

Notes:

1. Gold produced from 2029 onwards is derived from the residual recoverable gold remaining in the leach pad when mining is completed and is recovered through continued leaching from 2029 to 2032.
2. “Recoverable Gold Stacked on Pads” refers to gold content of ore stacked on the pads in that period that is recoverable by the leaching process. “Gold Produced” refers to the amount of gold recovered from the heap in that period and processed to product for sale. The difference between the values in these columns is due to the lag effect of the leach cycle on gold dissolution in the heap and ounces already in the pads as of January 1, 2018.
3. Figures may not total exactly due to rounding.

22.3 Sales and Refinery Process

The gold doré is poured at site and is transported by road via a secure vehicle to Asahi Refining USA, Inc. (Asahi) in Salt Lake City, Utah, which is approximately five hours away. SSR Mining has entered into a non-exclusive refining agreement with Asahi, and the terms and conditions of this contract are within industry norms. The transportation and refining costs for the doré are also in accordance with industry standards.

Marigold or its agent sells all the gold (doré or refined bullion) to bullion banks.

22.4 Revenue

Annual revenue is determined by applying forecast metal prices to the estimated annual payable metal for each operating year. Sales prices have been applied to all LOM production without escalation.

To determine the metal price assumptions used to calculate revenue, SSR Mining reviewed consensus forecasts. Consistent with the financial modelling approach, these consensus forecasts and metal price assumptions are expressed in constant 2018 dollars.

22.5 Operating Costs

Operating costs for Marigold, which include mine operations, maintenance, processing and site G&A, have all been estimated. For a full discussion of these costs, refer to Section 21 of this Technical Report.

22.6 Working Capital

Opening working capital is recaptured at the end of the LOM, and the final value of these accounts is reduced to zero. Opening working capital comprises the following components:

- Current assets of $13.9 million, including prepaid royalties, accounts receivable and supplies inventory; and
- Current liabilities of $27.9 million, including accounts payable and accrued liabilities.

22.7 Capital Expenditures

22.7.1 Sustaining Capital Costs

Sustaining capital cost expenditures incurred over the eleven-year mine life were estimated and included in the economic analysis. Sustaining capital costs include mining equipment, capitalized equipment maintenance, processing, administration, and permitting. The total LOM sustaining capital is estimated to be $284 million as shown in Table 22.2. See Section 21 of this Technical Report for a more detailed description of these costs.

Table 22.2: Summary of sustaining capital costs

Sustaining Capital Costs	Total ($ Millions)
Mining Equipment	104.9
Capitalized Equipment Maintenance	130.3
Processing	36.7
Administration & Permitting	12.1
Total Sustaining Capital Costs	**284.0**

Note: Excludes capitalized stripping.

22.7.2 Salvage Value

An allowance of $8 million for salvage was included in the cash flow model shown in Table 22.6.

22.7.3 Capitalized Stripping

A calculation of capitalized stripping has been included in the economic analysis in accordance with International Financial Reporting Standards (IFRS). Where mining activity is considered to provide a future benefit, the associated cost is capitalized until the period that benefit is received; this is achieved by applying an average strip-ratio approach over each discrete mine phase.

Over the LOM, approximately $277 million of mining costs are capitalized. This has no impact on projected cash flows within a period. The portion of mining costs which are capitalized as stripping costs in a period are considered capital expenditure and, therefore, excluded from cash costs when incurred but included in AISC.

22.8 Reclamation Expenditure

The costs associated with reclamation and closure activities at Marigold were estimated, and those costs are described in Section 20 of this Technical Report. Based on this calculation, a reclamation and closure cost totalling $48 million has been estimated with expenditures incurred from 2018 through to 2039. The timing of cash expenditures related to reclamation and closure costs are shown in the cash flow section of Table 22.6.

22.9 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 4 of this Technical Report. The annual average NSR royalty payments range from 3.7% to 10.0%.

22.10 Cash Costs and AISC

Over the eleven operating years, from 2018 to 2028, cash costs are estimated to average $730 per payable ounce of gold sold, and AISC is estimated to average $966 per payable ounce of gold sold.

Table 22.3 summarizes the estimated components of the cash costs and AISC per payable ounce of gold sold over the LOM. The $22 million of capital for the purchase of four haul trucks in 2018 is considered expansionary capital and is, therefore, not included in Table 22.3.

Table 22.3: Operating costs per payable ounce of gold sold

Operating Costs	Value ($/payable ounce of gold sold)
Mine Operations	544
Processing	105
General Administration	58
Inventory Adjustment	36
Royalties & Refining (net of silver credits)	104
Capitalized Stripping	(117)
Subtotal Cash Costs	**730**
Capitalized Stripping	117
Sustaining Capital	110
Exploration, Accretion, ARO Depletion	9
Total AISC	**966**

Notes:

1. Inventory adjustment represents carrying values of starting leach pad and doré inventory at January 1, 2018, which are released into cash costs over the LOM through to 2032 as the associated gold ounces are sold.
2. Capitalized stripping is in accordance with IFRIC 20, Stripping Costs in the Production Phase of a Surface Mine.
3. Payable ounces of gold sold over the LOM total 2,373,651 ounces.
4. Figures may not total exactly due to rounding.
5. Cash costs and AISC per payable ounce of gold sold are non-GAAP financial measures. Please see “Cautionary Note Regarding Non-GAAP Measures” in this Technical Report.

Average annual cash costs per payable ounce of gold sold range from $603 to $924 during the eleven years of active mining. Table 22.4 summarizes the cash costs and AISC over the LOM.

Table 22.4: Cost statistics

Year	Cash Costs ($/payable ounce of gold sold)	AISC ($/payable ounce of gold sold)
2018	726	936
2019	847	1,062
2020	744	1,125
2021	603	940
2022	623	796
2023	712	844
2024	924	1,305
2025	674	1,426
2026	679	807
2027	771	835
2028	712	787
2029	823	839
2030	920	956
2031	1,013	1,046
2032	1,193	1,219
Total	**$730**	**$966**

Notes:

1. Cash costs include mine operations, processing, G&A, inventory adjustment, royalties and refining charges (net of silver credits). Cash costs exclude capitalized stripping. AISC includes cash costs plus capitalized stripping, sustaining capital and reclamation.
2. Figures may not total exactly due to rounding.
3. Cash costs and AISC per payable ounce of gold sold are non-GAAP financial measures. Please see "Cautionary Note Regarding Non-GAAP Measures" in this Technical Report.

22.10.1 Taxation

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 at January 1, 2018. Property and sales taxes are accounted for in the operating costs of the mine.

NEVADA NET PROCEEDS OF MINERALS 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 a deductible expense for U.S. federal income tax.

NEVADA PROPERTY TAX

Humboldt County assesses property tax on 35% of the total appraised value of Marigold's real and personal property. The 2017–2018 current property tax rate of 2.23% has been used in the cash flow model. This property tax is a deductible expense for U.S. federal income tax.

HUMBOLDT COUNTY SALES TAX

The Nevada sales tax rate for Humboldt County is 6.85%. Supplies and materials used in mining operations are taxed by the vendor at this rate. This sales tax is not recoverable but is a deductible expense for U.S. federal income tax.

U.S. FEDERAL INCOME TAX

Federal income tax is determined under regulations that came into effect on January 1, 2018. Under these regulations, which removed alternative minimum tax, the mine is subject to a federal income tax rate of 21%.

22.11 Excluded Costs

Exploration costs unrelated to the delineation of existing Mineral Reserves have been excluded.

22.12 Net Present Value and Sensitivity Analysis

The after-tax NPV calculation is based on the cash flows for the Property from and after January 1, 2018. Marigold is expected to generate $823 million in pre-tax cash flow and $741 million in after-tax cash flow over the LOM. The after-tax NPV using a 5% discount rate is $552 million over the LOM.

Table 22.5 includes a summary of the sensitivity analysis showing how the NPV is impacted by a 10% increase or a 10% decrease in the metal price, the operating costs, the capital expenditures, the oil price and the discount rate assumptions.

Table 22.5: Sensitivity analysis results

	Units	-10%	Base Case	10%
Gold Price	$/oz	1,170	**1,300**	1,430
NPV (5%)	$M	392	**552**	737
Operating Costs	$/tonne	7.38	**8.20**	9.02
NPV (5%)	$M	664	**552**	437
Capital Expenditures	$M	256	**284**	312
NPV (5%)	$M	573	**552**	530
Oil Price	$/bbl	58.50	**65.00**	71.50
NPV (5%)	$M	567	**552**	536
Discount Rate	%	0%	**5%**	10%
NPV	$M	741	**552**	426

Note: Operating costs per tonne of ore processed.

The detailed financial model used to evaluate Marigold is presented in Table 22.6.

Table 22.6: Financial model

		Total	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Mining and production																								
Open Pit Ore Mined	kt	**205,100**	28,623	21,908	20,625	23,618	21,747	24,242	11,708	7,388	18,040	20,484	6,718	-	-	-	-	-	-	-	-	-	-	-
Waste Mined	kt	**657,462**	41,703	56,284	67,031	58,144	63,137	63,342	71,283	85,046	46,603	69,389	35,498	-	-	-	-	-	-	-	-	-	-	-
Total Material Mined		**862,562**	70,326	78,193	87,656	81,762	84,884	87,584	82,992	92,434	64,643	89,873	42,216	-	-	-	-	-						
Strip Ratio	Ratio	**3.2**	*1.5*	*2.6*	*3.3*	*2.5*	*2.9*	*2.6*	*6.1*	*11.5*	*2.6*	*3.4*	*5.3*	-	-	-	-	-	-	-	-	-	-	-
Ore stacked (kt)	kt	**205,100**	28,623	21,908	20,625	23,618	21,747	24,242	11,708	7,388	18,040	20,484	6,718	-	-	-	-	-	-	-	-	-	-	-
Stacked Grade	g/t Au	**0.45**	0.33	0.39	0.42	0.52	0.53	0.36	0.40	0.89	0.53	0.41	0.68						-	-	-	-	-	-
Gold Recovery	%	**74.6%**	72.4%	74.0%	75.3%	76.0%	76.8%	74.7%	74.0%	77.0%	71.9%	71.9%	77.3%											
Recoverable gold placed on leach pad (koz)	koz	**2,233**	223	206	208	300	282	210	112	162	221	196	114	-	-	-	-	-	-	-	-	-	-	-
Gold produced (koz)	**koz**	**2,374**	**196**	**210**	**225**	**266**	**266**	**252**	**146**	**145**	**202**	**204**	**137**	**62**	**20**	**20**	**20**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Silver produced (koz)	koz	**64**	5	6	6	7	7	7	4	4	5	5	4	2	1	1	1	-	-	-	-	-	-	-
Sales and revenue																								
Gold ounces sold (payable)	koz	**2,376**	200	210	225	266	266	252	146	145	202	204	137	62	20	20	20	-	-	-	-	-	-	-
Silver ounces sold (payable)	koz	**64**	5	6	6	7	7	7	4	4	5	5	4	2	1	1	1	-	-	-	-	-	-	-
Gold price	$/oz	**1,300**	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300							
Silver price	$/oz	**17.50**	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50							
Gold revenue	$'000	**3,089,138**	259,675	273,415	292,753	345,758	345,760	328,027	189,962	189,039	261,967	265,325	177,539	80,516	26,468	26,468	26,468	-	-	-	-	-	-	-
Silver revenue	$'000	**1,113**	92	99	106	125	125	118	69	68	95	96	64	29	10	10	10	-	-	-	-	-	-	-
Total revenue	**$'000**	**3,090,252**	**259,767**	**273,513**	**292,858**	**345,883**	**345,884**	**328,146**	**190,031**	**189,107**	**262,062**	**265,420**	**177,603**	**80,545**	**26,477**	**26,477**	**26,477**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Direct costs																								
Mining cost (incl deferred stripping)	$'000	**885,934**	79,689	84,943	86,535	85,387	84,109	81,109	87,053	89,229	81,582	81,504	44,779	13	-	-	-	-	-	-	-	-	-	-
Maintenance cost	$'000	**409,773**	38,561	38,666	39,127	40,610	37,890	37,353	41,155	41,236	40,060	39,855	15,261	-	-	-	-	-	-	-	-	-	-	-
Processing cost	$'000	**249,744**	26,840	24,229	23,453	25,692	24,245	25,760	16,299	13,374	20,118	21,935	9,142	10,299	4,276	2,352	1,731	-	-	-	-	-	-	-
Admin cost	$'000	**136,657**	12,744	12,814	12,650	12,701	12,158	12,244	11,963	11,947	11,563	10,845	8,682	1,851	1,664	1,462	1,370	-	-	-	-	-	-	-
Total direct costs (adjusted)	**$'000**	**1,682,108**	157,834	160,652	161,766	164,389	158,402	156,466	156,470	155,786	153,323	154,138	77,865	12,163	5,940	3,814	3,101	-	-	-	-	-	-	-
Key Cost Metrics																								
Cash costs per payable ounce of gold sold	$/oz	730	726	848	745	603	623	712	925	674	679	771	712	823	920	1,014	1,193	-	-	-	-	-	-	-
All in sustaining cash cost per payable ounce of gold sold	$/oz	966	936	1,062	1,125	940	796	844	1,305	1,426	807	835	787	839	956	1,046	1,219	-	-	-	-	-	-	-
Summary Valuation																								
Gold Revenue	$'000	**3,090,252**	259,767	273,513	292,858	345,883	345,884	328,146	190,031	189,107	262,062	265,420	177,603	80,545	26,477	26,477	26,477	-	-	-	-	-	-	-
Gold refining charges	$'000	**(1,964)**	(191)	(199)	(193)	(189)	(178)	(171)	(115)	(114)	(144)	(145)	(110)	(70)	(48)	(48)	(48)	-	-	-	-	-	-	-
NSR royalty	$'000	**(245,483)**	(25,487)	(27,355)	(29,290)	(33,888)	(31,863)	(26,554)	(18,089)	(14,646)	(11,537)	(12,801)	(6,528)	(3,749)	(1,232)	(1,232)	(1,232)	-	-	-	-	-	-	-
Direct operating costs	$'000	**(1,682,108)**	(157,834)	(160,652)	(161,766)	(164,389)	(158,402)	(156,466)	(156,470)	(155,786)	(153,323)	(154,138)	(77,865)	(12,163)	(5,940)	(3,814)	(3,101)	-						
Cash operating margin		**1,160,696**	76,255	85,308	101,610	147,417	155,442	144,955	15,357	18,560	97,058	98,336	93,101	64,562	19,257	21,383	22,096	-	-	-	-	-	-	-
Change in net working capital	$'000	**(13,995)**											(13,995)											
Capex (excl capitalized exploration)	$'000	**(284,009)**	(50,396)	(30,494)	(46,758)	(47,628)	(27,114)	(22,676)	(17,129)	(17,593)	(14,770)	(9,451)	-	-	-	-	-	-	-	-	-	-	-	-
Exploration (capitalized)	$'000	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exploration (expensed)	$'000	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reclamation	$'000	**(47,996)**	(459)	(459)	(459)	(459)	(459)	(459)	(469)	(1,432)	(2,895)	(2,133)	(2,185)	(4,260)	(3,838)	(5,630)	(6,026)	(5,373)	(4,075)	(2,842)	(1,243)	(1,048)	(907)	(887)
Salvage	$'000	**8,000**	-	-	-	-	-	-	-	-	-	-	8,000	-	-	-	-	-	-	-	-	-	-	-
Free cash flow before tax	**$'000**	**822,696**	**25,400**	**54,355**	**54,393**	**99,330**	**127,869**	**121,820**	**(2,241)**	**(464)**	**79,392**	**86,752**	**84,921**	**60,302**	**15,419**	**15,753**	**16,070**	**(5,373)**	**(4,075)**	**(2,842)**	**(1,243)**	**(1,048)**	**(907)**	**(887)**
Cash taxes	$'000	**(81,229)**	(3,097)	(3,334)	(3,918)	(10,954)	(11,067)	(12,228)	(1,663)	(2,941)	(2,849)	(7,492)	(9,748)	(6,104)	(1,161)	(907)	(3,661)	(105)						
Free cash flow after tax		**741,467**	**22,303**	**51,021**	**50,475**	**88,376**	**116,802**	**109,592**	**(3,904)**	**(3,406)**	**76,544**	**79,260**	**75,174**	**54,198**	**14,257**	**14,846**	**12,409**	**(5,478)**	**(4,075)**	**(2,842)**	**(1,243)**	**(1,048)**	**(907)**	**(887)**
NPV ($'000, 5%)	**$551,512**																							

Note: Figures may not total exactly due to rounding.

23 ADJACENT PROPERTIES

Marigold is located near the northern limits of a regional belt of ore deposits commonly referred to as the Battle Mountain-Eureka trend. This NNW-striking alignment of mines and prospects is the second-most prolific gold belt in Nevada after the Carlin trend, and it includes variants of CTGD and distal-type sediment-hosted deposits as well as skarn and copper-gold porphyry systems.

Most of the mineral rights surrounding Marigold are owned or controlled by Newmont, and there are several inactive mines and exploration or development projects within a 19 km radius.

Reported production and mineral resources for these adjacent properties are presented in Table 23.1.

Table 23.1: Past production and mineral resources for adjacent properties

Property	Owner	Years of Production	Produced (Au Oz)	Stated Mineral Reserves (Au Oz)	Stated Measured and Indicated Mineral Resources (Au Oz)	Stated Inferred Mineral Resources (Au Oz)
Lone Tree Complex[1]	Newmont	1991–2012	4,532,499	n/a	60,000	130,000
Buffalo Valley Complex[1]	Newmont	1988–1990	39,688	n/a	470,000	unknown
Lone Tree Complex - Trenton Canyon & North Peak[2]	Newmont	2001–2007	n/a	n/a	n/a	n/a
Converse[3]	Waterton	--	--	n/a	6,120,000	592,000

Notes:

1 Newmont, 2014; Newmont's 2013 Annual Report filed February 20, 2014.

2 The Nevada Mineral Industry, 2012; Nevada Bureau of Mines and Geology Special Publication MI-2012 less Valmy which was purchased by SSR Mining in 2015.

3 Chaparral Gold, October 21, 2014; website, deposit sold to Waterton Global Resource Management in 2014.

The only reported mining activities adjacent to Marigold were conducted by Newmont. Prior to 2006, Newmont operated two small gold pits (Valmy and Mud Pits), which are located within the ground that SSR Mining purchased from Newmont in 2015. Six kilometres to the south of the southern claim limit is Newmont's Trenton Canyon mine, and its North Peak mine is located 1 km to the southwest of Marigold's southwestern corner. Newmont's Lone Tree mine is located less than 2 km northwest from the Property's northwestern corner.

Ore from the Valmy, Mud and Trenton Canyon pits was hauled by truck to either the North Peak leach facilities or to the Lone Tree mine site for processing. Mining operations on the Valmy property finished in 2005. The Buffalo Valley mine is approximately 9 km to the south-southwest of Marigold, and Newmont reportedly has 70% ownership interest.

Approximately 5 km to the west of Marigold is Waterton's Converse project. At Converse, the gold mineralization is hosted within a skarn that developed in the Havallah Formation.

A plan map of mine properties adjacent to Marigold is presented in Figure 23-1.

James N. Carver, SME Registered Member, the QP for Section 23 of this Technical Report, is unable to verify the information on production, mineral resources and mineral reserves included for the adjacent properties. This type of adjacent property information is not necessarily indicative of the mineralization at Marigold.

In addition, the QP is not aware of any declared mineral resource that might have an impact on Marigold's Mineral Resources, Mineral Reserves or mining operations, or any existing technical reports for adjacent properties.

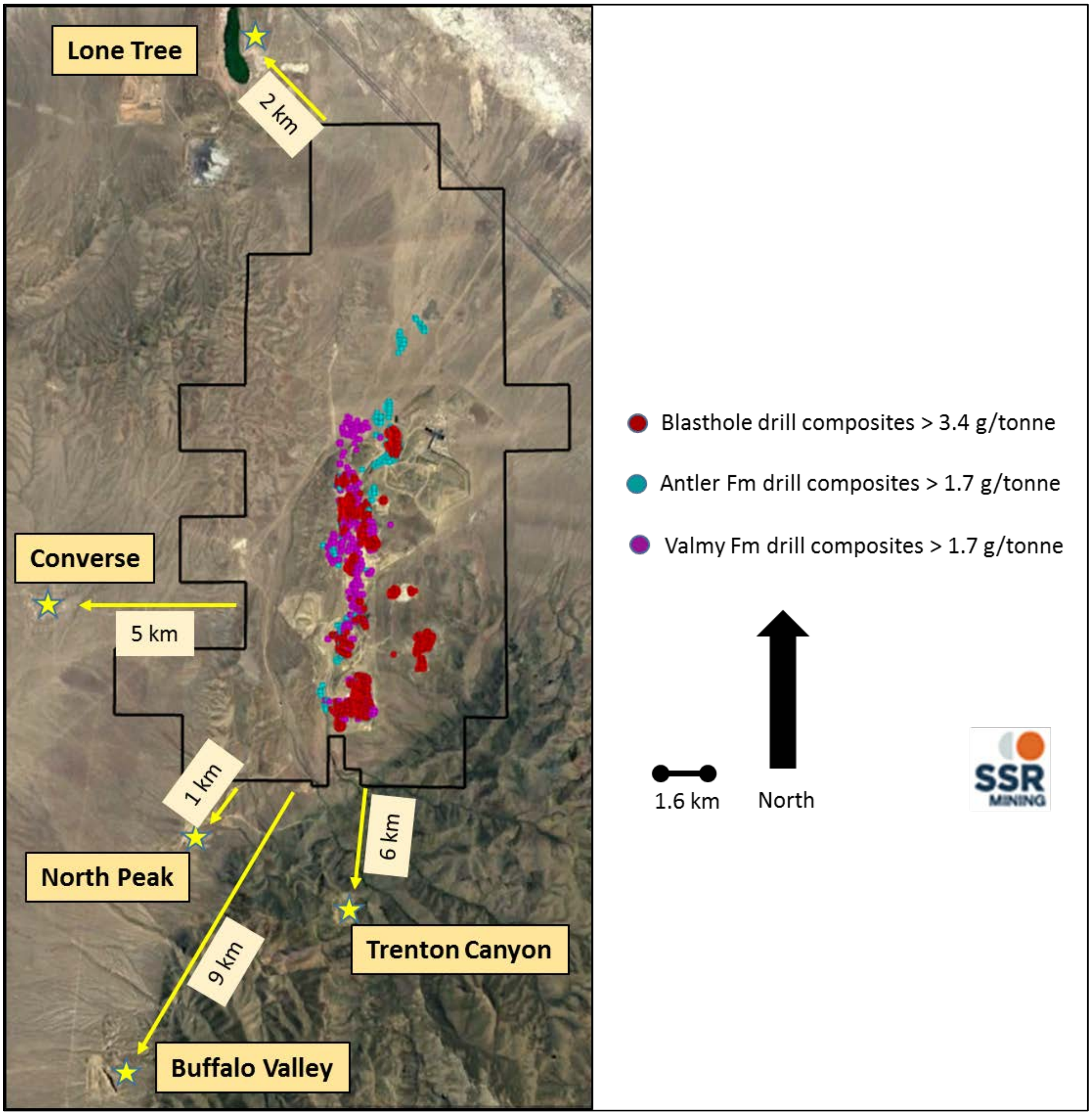

Figure 23-1: Plan map showing Marigold property outline and mineralization relative to adjacent or nearby mines or published deposits

Source: SSR Mining, 2017

24 OTHER RELEVANT DATA AND INFORMATION

There is no other relevant data or information.

25 INTERPRETATION AND CONCLUSIONS

The estimate of Mineral Resources presented in Table 14.11 and the estimate of Mineral Reserves presented in Table 15.1 were prepared for Marigold with an effective date of December 31, 2017.

The estimate of Mineral Resources was 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 2017.

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.

Based on an evaluation of the available data from the Marigold mine, the authors of this report have drawn the following conclusions.

Possible areas of uncertainty that could materially impact the estimate of Mineral Reserves at Marigold include the commodity price assumptions, capital and operating cost estimates, estimation methodology, and the geotechnical slope designs for the pit walls. These reasonably foreseeable impacts of the uncertainties in the cost, operations and estimation assumptions are discussed here:

- **Commodity price assumptions:** If the price of gold drops significantly below the cost of production for a significant period of time, it becomes uneconomic to extract the gold.
- **Capital/operating cost estimates:** If the operating cost of a major contributor to the operation, such as explosives, labour or fuel, increases more than has been reasonably estimated, the profit generated from the sale of gold ounces will decrease. And similarly, if the estimated capital cost to expand a heap leach pad or rebuild equipment, for example, is significantly more than anticipated, the additional capital input required may impact the profitability of the operation.
- **Mineral Resource estimation methodology:** The impact of the estimation methodology on the economic viability will be minimal because the applied methodology meets industry standards and has been verified by independent/external consultants.
- **Mineral Reserves estimation methodology:** The impact of the estimation methodology on the economic viability will be minimal because the applied methodology meets industry standards and has been verified by independent/external consultants.
- **Geotechnical slope designs for pit walls:** Marigold has operated for approximately 30 years, and the mining conditions and stable wall angles for the different rock types are well understood. There may be a risk that unidentified fault plane(s) require the angle of a pit slope wall to be lowered to overcome potential multi-bench failure. Lowering the slope angle of the wall would mean that more waste material would need to be mined to reach the ore zone. Mining more waste than anticipated will increase the cost of production per ounce of gold and will negatively impact the project

economics. Alternatively, ore defined as Mineral Reserves could be left in the ground un-mined if the cost to remove overlying waste rock exceeds the value of the recoverable metal.

There are a number of active environmental permits at Marigold, and some degree of permit modification or renewal effort is typically always underway. This Technical Report was prepared with the latest information regarding environmental and closure cost requirements and has indicated that work is in progress with regard to the renewal or extension of additional environmental permits.

This Technical Report presents the LOM plan for Marigold as of December 31, 2017. Mining commenced on the Marigold deposit in 1988 with an expected mine life of eight years; now, approximately 30 years of continuous gold production later, the latest LOM plan still foresees an eleven-year mine life. The future development for Marigold is planned as a large open pit ROM heap leach operation, which exploits Mineral Resources exceeding 5 million contained ounces of gold.

In total, the LOM plan states that Marigold will produce 2,232,938 ounces of gold over an active mining period of eleven years. LOM production includes an additional approximately 140,713 payable ounces of gold sold that are on the leach pad as at January 1, 2018, for total production of 2,373,651 payable ounces of gold sold over the LOM.

Marigold will operate at an average total material movement rate of 225,000 tonnes per day, or 80 to 85 million tonnes per year. Reclamation is expected to continue for an additional eleven years following the last gold production. Going forward, operational efficiency and cost control measures remain key areas of focus for optimum margins, increasing Marigold's medium- to long-term potential and enabling the conversion of additional Mineral Resources into Mineral Reserves.

Based on SSR Mining's projections as set forth in this Technical Report, Marigold will incur average annual cash costs of $730 per payable ounce of gold sold and AISC of $966 per payable ounce of gold sold over the LOM to 2028. The after-tax NPV using a 5% discount rate is $552 million over the LOM.

Several optimization studies were initiated in 2017 to investigate opportunities to further increase Marigold's operating efficiency. These studies include haulage profile optimization, expansion equipment studies and equipment productivity improvements. Indications from the operational excellence program over the past four years show improvements that have translated into improved per unit operating costs.

SSR Mining has initiated exploration and Mineral Resources and Mineral Reserves development activities to enhance Marigold's operating margins and extend the mine life. Further studies will examine the deep sulphide-hosted gold and could include further drilling evaluation and metallurgical testwork.

All site QPs have reviewed the conclusions and agree with the findings of this technical report.

26 RECOMMENDATIONS

A continuing commitment to safe gold production and continuous progress within the guidelines of its environmental and social license to operate drive the following recommendations for work at Marigold:

26.1 Processing

Consider single-pass processing to reduce/eliminate the lean circuit. With increased pad height, there is a tendency to increase inventory as low-grade solution is applied higher up on the leach pad. In response to this, Basin and Range Mining Consultants was engaged in 2017 to identify potential optimization projects for the leach pad. One of its recommendations was to reduce inventory by using single-pass processing. This project is in the design phase, and commissioning is expected in 2018. The estimated cost for this project is between $1.8M and $2.3M.

26.2 Metallurgy/Analytical

Continue to evaluate sampling and analytical options to decrease both the detection limit and the measurable assaying increment for the cyanide soluble gold assay method. This evaluation could include all components, including the blasthole cutting sampling, sample preparation and sub-sampling, the cyanide leaching process, and, finally, the type of analytical instrument used to measure the product solution. The estimated cost for a new type of analytical instrument is $100,000.

Continue to study the deeper sulphide ore types. The metallurgical response of this sulphide to standard process testing routes will help evaluate how this sulphide can contribute to Marigold in the future. The estimated cost for the initial phase of testing is $40,000.

26.3 Mineral Resources

Incorporate geological data (from pit mapping) and hard boundaries (from faults that offset mineralization) into the resource model. There is no cost associated with this project.

Re-assay all samples that report the cyanide soluble gold assay values as zero and have not been assayed by the FA method outside of the current LOM pit designs. This should be conducted in a phased-in manner and will help convert Mineral Resources to Mineral Reserves and increase the volume of Mineral Resources and Mineral Reserves. The estimated cost for this exercise is $450,000.

Collect additional density samples from core holes and in pit, where required, to obtain a better spatial distribution of density values. Attempt to obtain additional samples from the upper levels of the deposit at between 0 and 152.4 m deep. It is recommended that one sample be collected for every 9.1 m downhole from surface. The density testwork could be completed at Marigold’s on-site laboratory. The cost for this work is estimated to be $12,000 for an additional 300 samples, and 5% of these samples should be sent to a commercial lab for duplication of testwork.

26.4 Mine Planning

Implement a rolling, quarterly-forecast mine planning process that improves the understanding of the actuals compared to the annual budget plans and LOM plans. There is no cost associated with this project.

26.5 Mine Development Drilling

Upgrade the Mineral Resources classifications and infill drilling program. The estimated cost for this project is between $9M and $15M spent over a period of 1 to 3 years.

Conduct a program to twin selected RC holes drilled to below the water table, with diamond core to facilitate a standard QA/QC assessment. The estimated cost of this project is $750,000.

26.6 Exploration Drilling

Conduct RC exploration drilling to target the lateral extensions of structures known to contain mineralization. This drilling will target near-surface, higher grade oxide mineralization. The estimated cost for this project is between $3M and $5M spent over a period of 3 to 5 years.

Conduct diamond core drilling to target deep high-grade sulphide mineralization within defined and interpreted structures. The estimated cost for this project is between $2M and $4M spent over a period of 2 to 3 years.

26.7 Mine Operations

Evaluate staggered breaks for mine personnel, leading to increased equipment utilization. This will be accomplished by hiring additional personnel to fill in for personnel who need to take a break on their 12-hour scheduled shift. Currently, two scheduled breaks are taken during the shift. When loading units start back up after the break, the truck fleet generally gets bunched for the first few loads until they get into their normal haulage spread. This proposal would allow operators to take over trucks and loading units when personnel need breaks and keep the equipment running throughout the shift. Some delays would still be seen for blasting, equipment maintenance and regulatory mandated pre-operational inspection by each operator, but improvements in initial analysis show a 5% to 10% improvement in equipment utilization hours. The cost associated with this initiative is related to hiring additional personnel for each of the four crews at approximately $1.6M to $2M per year.

Automation increases equipment productivity and reduces operating costs. Purchase two fully autonomous drilling packages for installation on the two Pit Viper drills. The primary benefits are: higher penetration rates, reduced operating delays, reduced downtime, reduction in overall labour, lower consumable usage due to better drilling practices, fuel savings, increasing the drill fleet capacity to ensure that drills are not the constraint in the system, and optimizing the usage of consumables including bits, hammers, etc. through optimization in the automation algorithms. The estimated cost of this project is $2.2M.

26.8 Maintenance Operations

Increase equipment availabilities through improved maintenance practices through training and utilizing the best people for jobs performed. Work will include inspections, proper planning and holding personnel accountable. Setting up standard jobs for each piece of major equipment for each Preventative Maintenance (PM) task will reduce the time necessary to complete the PM and improve the quality of the work. On-site oil analysis will be established to shorten the time that it takes for a sample to be returned. The estimated cost for this improvement is minimal.

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28 APPENDIX

Table 28.1: Search parameters used to estimate blocks

Domain	Formation Domain	Structural Domain	Grade Domain	Min No. of Composites	Max No. of Composites	Outlier range (m)	Outlier Au (g/t)	Search Distance (m)			
								X-Search	Y-Search	Z-Search	Max Search
Basalt	Antler		High grade	1	8	15.2	2.23	458	458	458	458
				1	8	15.2	2.23	152	152	152	152
				3	6	15.2	2.23	61	61	61	61
			Low grade	1	8	6.1	0.17	458	458	458	458
				1	8	6.1	0.17	152	152	152	152
				3	6	6.1	0.17	61	61	61	61
	Valmy		High grade	1	8	22.9	4.11	458	458	458	458
				1	8	22.9	4.11	152	152	152	152
				3	6	22.9	4.11	61	61	61	61
			Low grade	1	8	6.1	0.17	458	458	458	458
				1	8	6.1	0.17	152	152	152	152
				3	6	6.1	0.17	61	61	61	61
Target	Antler	Low Angle	High grade	1	8	15.2	1.71	458	458	458	458
				1	8	15.2	1.71	152	152	152	152
				3	6	15.2	1.71	61	61	61	61
			Low grade	1	8	6.1	0.17	458	458	458	458
				1	8	6.1	0.17	152	152	152	152
				3	6	6.1	0.17	61	61	61	61
		High Angle	High grade	1	8	15.2	1.37	458	458	458	458
				1	8	15.2	1.37	152	152	152	152
				3	6	15.2	1.37	61	61	61	61
			Low grade	1	8	6.1	0.17	458	458	458	458

Domain	Formation Domain	Structural Domain	Grade Domain	Min No. of Composites	Max No. of Composites	Outlier range (m)	Outlier Au (g/t)	Search Distance (m)			
								X-Search	Y-Search	Z-Search	Max Search
				1	8	6.1	0.17	152	152	152	152
				3	6	6.1	0.17	61	61	61	61
	Valmy	Low Angle	High grade	1	8	22.9	2.06	458	458	458	458
				1	8	22.9	2.06	152	152	152	152
				3	6	22.9	2.06	61	61	61	61
			Low grade	1	8	6.1	0.17	458	458	458	458
				1	8	6.1	0.17	152	152	152	152
				3	6	6.1	0.17	61	61	61	61
		High Angle	High grade	1	8	22.9	2.40	458	458	458	458
				1	8	22.9	2.40	152	152	152	152
				3	6	22.9	2.40	61	61	61	61
			Low grade	1	8	6.1	0.17	458	458	458	458
				1	8	6.1	0.17	152	152	152	152
				3	6	6.1	0.17	61	61	61	61
Mackay	Antler	Low Angle	High grade	1	8	15.2	1.71	458	458	458	458
				1	8	15.2	1.71	152	152	152	152
				3	6	15.2	1.71	61	61	61	61
			Low grade	1	8	6.1	0.17	458	458	458	458
				1	8	6.1	0.17	152	152	152	152
				3	6	6.1	0.17	61	61	61	61
		High Angle	High grade	1	8	15.2	3.09	458	458	458	458
				1	8	15.2	3.09	152	152	152	152
				3	6	15.2	3.09	61	61	61	61
			Low grade	1	8	6.1	0.17	458	458	458	458

Domain	Formation Domain	Structural Domain	Grade Domain	Min No. of Composites	Max No. of Composites	Outlier range (m)	Outlier Au (g/t)	Search Distance (m)			
								X-Search	Y-Search	Z-Search	Max Search
				1	8	6.1	0.17	152	152	152	152
				3	6	6.1	0.17	61	61	61	61
	Valmy	Low Angle	High grade	1	8	22.9	3.09	458	458	458	458
				1	8	22.9	3.09	152	152	152	152
				3	6	22.9	3.09	61	61	61	61
			Low grade	1	8	6.1	0.17	458	458	458	458
				1	8	6.1	0.17	152	152	152	152
				3	6	6.1	0.17	61	61	61	61
		High Angle	High grade	1	8	22.9	3.60	458	458	458	458
				1	8	22.9	3.60	152	152	152	152
				3	6	22.9	3.60	61	61	61	61
			Low grade	1	8	6.1	0.17	458	458	458	458
				1	8	6.1	0.17	152	152	152	152
				3	6	6.1	0.17	61	61	61	61
Mackay North	Antler		High grade	1	8	15.2	8.57	458	458	458	458
				1	8	15.2	8.57	152	152	152	152
				3	6	15.2	8.57	61	61	61	61
			Low grade	1	8	6.1	0.17	458	458	458	458
				1	8	6.1	0.17	152	152	152	152
				3	6	6.1	0.17	61	61	61	61
	Valmy		High grade	1	8	15.2	2.06	458	458	458	458
				1	8	15.2	2.06	152	152	152	152
				3	6	15.2	2.06	61	61	61	61
			Low grade	1	8	6.1	0.17	458	458	458	458

Domain	Formation Domain	Structural Domain	Grade Domain	Min No. of Composites	Max No. of Composites	Outlier range (m)	Outlier Au (g/t)	Search Distance (m)			
								X-Search	Y-Search	Z-Search	Max Search
				1	8	6.1	0.17	152	152	152	152
				3	6	6.1	0.17	61	61	61	61
5N	Antler		High grade	1	8	15.2	3.60	458	458	458	458
				1	8	15.2	3.60	152	152	152	152
				3	6	15.2	3.60	61	61	61	61
			Low grade	1	8	6.1	0.17	458	458	458	458
				1	8	6.1	0.17	152	152	152	152
				3	6	6.1	0.17	61	61	61	61
	Valmy		High grade	1	8	15.2	3.60	458	458	458	458
				1	8	15.2	3.60	152	152	152	152
				3	6	15.2	3.60	61	61	61	61
			Low grade	1	8	6.1	0.17	458	458	458	458
				1	8	6.1	0.17	152	152	152	152
				3	6	6.1	0.17	61	61	61	61
TZN	Antler		High grade	1	8	15.2	3.43	458	458	458	458
				1	8	15.2	3.60	152	152	152	152
				3	6	15.2	3.60	61	61	61	61
			Low grade	1	8	6.1	0.17	458	458	458	458
				1	8	6.1	0.17	152	152	152	152
				3	6	6.1	0.17	61	61	61	61
	Valmy		High grade	1	8	15.2	3.43	458	458	458	458
				1	8	15.2	3.43	152	152	152	152
				3	6	15.2	3.43	61	61	61	61
			Low grade	1	8	6.1	0.17	458	458	458	458

Domain	Formation Domain	Structural Domain	Grade Domain	Min No. of Composites	Max No. of Composites	Outlier range (m)	Outlier Au (g/t)	Search Distance (m)			
								X-Search	Y-Search	Z-Search	Max Search
				1	8	6.1	0.17	152	152	152	152
				3	6	6.1	0.17	61	61	61	61
Valmy Area	Valmy		High grade	1	8	15.2	2.74	458	458	458	458
				1	8	15.2	2.74	152	152	152	152
				3	6	15.2	2.74	61	61	61	61
			Low grade	1	8	6.1	0.17	458	458	458	458
				1	8	6.1	0.17	152	152	152	152
				3	6	6.1	0.17	61	61	61	61