# TECHNICAL REPORT ON THE SAN IGNACIO PROPERTY, GUANAJUATO, MEXICO



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# 1 Summary

# 1.1 Introduction

This Technical Report (the "Report") on the San Ignacio Property ("San Ignacio", "San Ignacio Mine", or the "Property") was prepared by APEX Geoscience Ltd. ("APEX") at the request of the Issuer, Guanajuato Silver Company Ltd. ("GSilver" or the "Company"). GSilver is a Vancouver, British Columbia based mining company listed on the TSX Venture Exchange (TSX-V) under the stock symbol "GSVR".

San Ignacio is a silver-gold (Ag-Au) exploration and mining project located within the Guanajuato Mining District in Guanajuato State. The Guanajuato Mining District represents a polymetallic mineralized belt that runs from south-central Mexico, through Guanajuato, and onwards to north-central Mexico (Carrillo-Chávez et al., 2003). Globally, the Guanajuato Mining District represents one of the largest silver producing districts in the world with continuous mining activity occurring for nearly 500 years (Moncada and Bodnar, 2012).

This Report summarizes a National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") mineral resource estimation ("MRE") for the Property and provides a technical summary of the relevant location, tenure, historical and geological information, a summary of the recent exploration work conducted by the Company and recommendations for future exploration programs. This Technical Report summarizes the technical information available up to the Effective Date of September 21, 2023.

This Report was prepared by Qualified Persons ("QPs") in accordance with disclosure and reporting requirements set forth in the NI 43-101 Standards of Disclosure for Mineral Projects (effective May 9, 2016), Companion Policy 43-101CP Standards of Disclosure for Mineral Projects (effective February 25, 2016), Form 43-101F1 (effective June 30, 2011) of the British Columbia Securities Administrators, the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Mineral Exploration Best Practice Guidelines (November 23, 2018), the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (November 29, 2019) and the CIM Definition Standards (May 10, 2014).

# 1.2 Authors and Site Inspection

The authors of this Technical Report (the "Authors") are Mr. Christopher Livingstone, B.Sc., P.Geo., Mr. Michael B. Dufresne, M.Sc., P. Geol., P. Geo., and Ms. Fallon T. Clarke, B.Sc., P.Geo., of APEX. The Authors are independent of the Company and are QPs as defined in NI 43-101.

Contributors to this Report include Mr. Warren Black, M.Sc., P.Geo., Mr. Tyler Acorn, M.Sc., and Mr. Kevin Hon, B.Sc., P.Geo., all of APEX. Under the direct supervision of Mr. Dufresne, Mr. Black, Mr. Acorn, and Mr. Hon prepared the MRE statistical analyses,



three-dimensional domain models, block models, classifications, and resource estimation tabulations presented in Section 14 of this Report.

Mr. Livingstone conducted site inspections of the Property for verification purposes from August 13 to 14, 2023, and April 7 to 8, 2022. The August 2023 site inspection comprised an inspection of recent diamond drill core at the Cata core logging facility, the collection of two quarter drill core samples and a review of the San Ignacio 3D data compilation. Mr. Livingstone was unable to visit the underground workings at San Ignacio due to a serious accident, resulting in a temporary closure of the mine site. The April 2022 site inspection comprised a tour of the Property, including entering several underground workings at the San Ignacio operation, collar verification from recent drilling on surface at San Ignacio, and a review of recent drill core to verify reported geology and mineralization. Mr. Livingstone toured the Cata offices, core shack, processing plant, and analytical laboratory. Mr. Dufresne and Ms. Clarke did not visit the Property, as Mr. Livingstone's visits were deemed sufficient by the QPs.

### **1.3** Property Location and Description

The San Ignacio Property is located approximately 8 km northwest of the city of Guanajuato in Guanajuato State, Mexico, within the historical Guanajuato Mining District. It is approximately 35 km east-southeast of the city of León and 290 km northwest of Mexico City. The Property comprises 7 contiguous and 2 non-contiguous mining concessions that cover approximately 398.18 hectares (ha). The concessions are held 100% by Minera Mexicana el Rosario, S.A. de C.V. ("MMR"), a wholly owned subsidiary of GSilver.

On June 29, 2022, GSilver signed a binding definitive agreement with Great Panther Mining Ltd. ("Great Panther") to acquire MMR and its assets, including the San Ignacio Mine; in addition to the Guanajuato mine and Cata processing plant (collectively known as the Valenciana Mine Complex or VMC), the Topia mine and production facility (collectively known as the Topia Property), and the El Horcón and Santa Rosa exploration projects. Under the terms of the agreement, GSilver agreed to pay to Great Panther an aggregate base purchase price of USD\$14.7M, subject to certain closing adjustments, as follows: (a) USD\$6.7M by issuance of 25,787,200 common shares in GSilver; and (b) USD\$8.0M in cash, subject to adjustments. GSilver also agreed to pay up to an additional USD\$2.0M in contingent bonus payments based on production performance and published silver prices (Comex).

The San Ignacio Property was previously included as part of the VMC (formerly known as the Guanajuato Mine Complex, or "GMC") by Great Panther in Brown (2015; 2016; 2017), Wunder (2018), and Brown and Nourpour (2020c; 2022), and by GSilver in Livingstone et al. (2022). In this Technical Report and moving forward, the Company considers San Ignacio to be a separate mineral project with distinct geological characteristics, mineral deposits, exploration and development work, databases, and underground mining infrastructure. The San Ignacio Mine is located approximately 7 km west of the VMC Guanajuato operation, within a separate mineralizing system. San



Ignacio and Guanajuato mineralized material are both processed at the Company-owned Cata facility, located in the city of Guanajuato. In addition to the processing plant, the Cata facility includes an analytical laboratory, core storage and logging facilities, and geological and administrative offices, which are used to support activities at San Ignacio, the VMC, and the Company's other exploration projects in the Guanajuato region.

### 1.4 Geology

The Property lies within a favourable geological setting. The Guanajuato Mining District is underlain by Mesozoic marine sediments and predominantly mafic submarine lava flows of the Luz and Esperanza Formations, which are weakly metamorphosed and intensely deformed. This basal sequence is cut by a variety of intrusive bodies ranging in composition from pyroxenite to granite, with tonalitic and dioritic intrusive being the most volumetrically significant. The three main north-west trending precious metal-bearing vein systems in the region include the Veta Madre, La Luz and Sierra systems.

San Ignacio is underlain by a monotonous package of basalt and andesite volcanic rocks belonging to the lower Cretaceous La Luz andesite. The basalt generally has subtle to well-developed pillow structures that are locally flattened. In a few localities, inter-pillow hyaloclastite is present and is characterized by a fine breccia composed of devitrified glass shards in a fine groundmass. Andesite is generally massive to locally feldsparphyric and was likely formed by the accumulation of a series of extrusive flows and ash falls.

### 1.5 Mineralization

The primary commodities of San Ignacio are silver and gold with approximately equal contributions, by value, of each. The primary deposit type of interest at San Ignacio is low sulphidation epithermal silver-gold mineralization. Mineralization consists of fine-grained disseminations of acanthite and pyrargyrite (silver minerals), electrum (gold-silver mineral), with accessory pyrite, as well as very minor sphalerite and chalcopyrite. Mineral textures in this zone are typically fracture filling, drusy and coliform masses.

Mineralization is associated with the La Luz structure which consists of numerous mineralized fractures in a north-westerly trending orientation, extending for a known strike length of approximately 8 km. A total of 18 veins have been identified during historical exploration at San Ignacio, with mineralization contained within tabular veins, vein stockwork and breccias. Veins identified at San Ignacio include the Melladito, Melladito Bo, Melladito South, Melladito S3, Intermediate, Intermediate 2, Nombre de Dios (NDD), Nombre de Dios 1.5, Nombre de Dios 2N, Nombre de Dios 2S, Nombre de Dios 3, Purisima, Purisima W5, Purisima HW, Purisima FW, Purisima Int., Purisima Bo, Purisima Bo 2, and Santo Niño veins. Average grades of the veins range from 58 to 237 grams per tonne (g/t) Ag and 1.65 to 3.84 g/t Au.



### 1.6 Historical Exploration

The Guanajuato Mining District has a lengthy history of mining and exploration dating back to 1548, when silver mineralization was discovered in the La Luz area by Spanish colonists. Since then, greater than 1 billion ounces of silver have been mined in the district (Brown and Nourpour, 2022).

The Sociedad Cooperativa Minera Metalurgica Santa Fe de Guanajuato ("the Cooperative") operated several mines in the district throughout the latter half of the 20th century into the 2000s. During this time the Cooperative amassed the San Ignacio property located within the La Luz mining camp. The Cooperative initiated diamond drilling at San Ignacio in 1979 with drilling from underground workings at the San Ignacio shaft. Holes from surface were drilled sporadically during the period from 1982 until 1990 and focused on a vein system parallel to, and to the east, of the current target are of interest at San Ignacio.

Exploration at San Ignacio by Great Panther from 2010 to 2021 consisted of surface and underground geological and structure mapping, channel and rock chip sampling, and diamond drilling, as well as underground development including geological mapping, sampling, and mining. From 2010 to 2021, Great Panther completed 604 drillholes, totalling 115,581.70 m, at San Ignacio. The Great Panther drill programs led to the delineation of nine veins in the northern portion of San Ignacio, between grid line 100N and 1150N, and nine veins in the southern part of the property (San Pedro area) between 100N and 1100S and led to the calculation of several historical MREs. Historical exploration results are reported as silver (Ag), gold (Au), and/or silver equivalent (AgEq). Historical AgEq values for exploration are calculated using metal prices set at US\$1,800/oz Au and US\$22.50/oz Ag, with 87% recovery for both, yielding a Ag to Au ratio of 80:1. This ratio is in keeping with GSilver's current exploration practices and is maintained herein.

### 1.7 Production History

Twelve known historical workings exist at San Ignacio, including major shafts at San Ignacio, Purisima, Pili and San Jose de Gracia. No production figures for these workings are available to the Authors, except for those relating to the mining by the Cooperative from the San Ignacio shaft. Cooperative records from 1977 to 2001 indicate that 617,455 tonnes at an average grade of 113 g/t Ag and 1.01 g/t Au were extracted from the San Ignacio shaft along the Purisima vein structure, at an average rate of 85 tpd.

Great Panther commenced production at San Ignacio in 2013. San Ignacio is an underground operation, and the production process consists of conventional mining incorporating cut and fill and resue methods. Most of the mineralized material from the San Ignacio is treated at the Cata processing plant. The Cata processing plant utilizes five stages, including: crushing, milling, flotation, thickening and filtering, as well as concentrate dewatering circuits to generate sulphide concentrates containing silver and gold, which are sent offsite for smelting and refining.



A summary of Great Panther's production from San Ignacio and the VMC from 2013 to 2021 is presented in Table 1.1. The blending of mineralized material from San Ignacio and the VMC commenced in 2016; therefore, the 2016-2021 reported figures in Table 1.1 reflect total production from both operations. The reader is cautioned that the Company's VMC Guanajuato operation is situated off-Property.

The increase in production shown in the years 2014 to 2017 reflects the increase in production from San Ignacio. In 2018, production declined at Guanajuato and was increasingly dominated by San Ignacio. In 2019 and 2020, production was almost entirely from San Ignacio, with Guanajuato placed on care and maintenance from January to July 2019, with limited production once operations resumed. On the account of the directive of the Mexican Federal Government, both mining operations were suspended from April 2 to June 3, 2020, to mitigate the spread of the COVID-19 virus. Guanajuato and the Cata processing plant were placed on care and maintenance effective late November 2021 and San Ignacio was placed on care and maintenance effective early January 2022 while awaiting permits to extend the tailings facility (Great Panther Mining Ltd., 2022b).

Year <sup>1</sup>	Tonnes Mill/Mine Guanajuato	Tonnes Mill/Mine San Ignacio	Tonnes (milled)	Production Ag (oz)	Production Au (oz)
2013	220,463	1,082	221,545	1,079,980	15,063
2014	213,658	54,154	267,812	1,239,009	15,906
2015	180,691	129,253	309,944	1,708,061	21,126
2016	136,349	183,694	320,043	1,473,229	21,626
2017	131,335	185,475	316,810	1,386,964	21,501
2018	88,364	212,650	301,014	1,096,757	19,073
2019	7,610	179,886	187,610	590,781	11,588
2020	33,248	119,560	151,001	520,903	6,779
2021	37,975	111,354	149,329	485,315	6,659
Totals	1,049,693	1,177,108	2,225,108	9,580,999	132,662

#### Table 1.1 Production Summary and Metal Produced, San Ignacio and Guanajuato (Off-Property) Operations

1. 2013-2015 reported figures reflect tonnes milled; 2016-2021 reported figures reflect tonnes mined which has a small discrepancy to tonnes milled.

From August 2022 to September 2023, a total of 122,137 dry metric tonnes (DMT) of material extracted from San Ignacio were processed at Cata and Villalpando mills, producing 250,726 silver ounces and 4,696.5 gold ounces. Head grades and recoveries over this period averaged 76.29 g/t Ag with an 83.7% recovery for silver and 1.40 g/t Au with an 85.2% recovery for gold. Mineralized material from the San Ignacio operation was blended with mineralized material from GSilver's VMC Guanajuato operation prior to processing at the Cata plant, and with mineralized material from GSilver's El Cubo operation prior to processing at the Villalpando plant. The total tonnage values for each operation were determined using haul truck tonnage weights compared against a control file. The silver and gold grades were estimated using monthly mine grade control data as the primary reference, with grades refined based on monthly plant production grades.



Recoveries are based on total plant production from all operations. Metal production values are pro-rated for each operation using the tonnage and grade data.

### 1.8 GSilver Exploration

Recent exploration completed by GSilver from November 2022 to the Effective Date of this report included underground channel sampling, diamond drilling, surface and underground development, and mining.

From August 2022 to May 2023, GSilver collected a total of 5,681 underground channel samples from 2,498 sample locations at San Ignacio. Channel sampling, of variable lengths ranging from 0.15 to 4 m and averaging 0.62 m in length, was completed in accessible stopes and development headings. Most of the samples were collected from the NDD veins (n=3,402) and the Melladito veins (n=1,584), with additional samples collected from the Purisima and Intermedia veins. Over half of the samples (51.2%; n=2,910) returned greater than 100 g/t silver equivalent (AgEq\*) up to a maximum value of 89,439 g/t AgEq\*, 15.7 per cent (%) of the samples (n=892) returned greater than 500 g/t AgEq\* to 89,439 g/t AgEq\*, and 4.9% of the samples (n=282) returned greater than 1,000 g/t AgEq\* to 89,439 g/t AgEq\*. Maximum values include 89,439 g/t AgEq\*, over a sample length of 0.7 m, collected from NND on mine level 2283 and 13,628 g/t AgEq\*, over a sample length of 1 m, collected from NND 3 on mine level 2215.

The underground sampling completed by GSilver provided high-resolution geochemical data along significant strike lengths of the primary vein structures at San Ignacio, aiding in the delineation of unmined resources and confidence in the continuity of mineralization. This data led directly to increases in both scale and confidence in the San Ignacio mineral resources in the current mineral resource estimate (MRE).

From November 2022 to June 2023, GSilver has completed 36 diamond drillholes (DDH), totalling 5,092.7 m, at San Ignacio. Initially, the primary focus of the drilling at San Ignacio was to target the Melladito vein system and extend mineralization in the southern and northern areas of the mine. The latter half of the drill program focused on the extension of mineralization from the Melladito, Purisima and the Nombre de Dios vein systems. The drilling confirmed the continuity of the mineralization at depth within the Melladito vein and confirmed the mineralization extension at depth of the Purisima vein. Select significant results from GSilver's drilling program includes:

- 4.92 m (true width) of 1,219 g/t AgEq\* from 93.75 m depth in drillhole UGSI22-006
  Including 0.42 m (true width) of 6,981 g/t AgEq\* from 93.75 m
- 4.89 m (true width) of 359 AgEq\* from 124.00 m depth in drillhole UGSI23-010
  Including 0.37 m (true width) of 2,047 g/t AgEq\* from 128.55 m



<sup>\*</sup> AgEq values are calculated using metal prices set at US\$1,800/oz Au and US\$22.50/oz Ag, with 87% recovery for both, yielding a Ag to Au ratio of 80:1

GSilver's recent drilling at San Ignacio was used in the MRE detailed in Section 14 of this Report.

### **1.9 Mineral Resource Estimate**

This Report details a mineral resource estimate (MRE) prepared in accordance with NI 43-101 and CIM guidance. The 2023 San Ignacio MRE for San Ignacio was completed by Mr. Warren Black, M.Sc., P.Geo., Mr. Tyler Acorn, M.Sc., and Mr. Kevin Hon, B.Sc., P.Geo., all of APEX, under the direct supervision of Mr. Dufresne, M.Sc., P.Geo., who takes responsibility for the MRE contained herein.

The 2023 San Ignacio MRE used samples collected from surface and underground drillholes and underground channels. It utilized a drillhole database with 640 unique drillholes totalling 120,674 m, drilled between 2010 and 2023. This database included collar locations, surveys, assays, and geological details. Additionally, the MRE used an underground channel sample database with 86,083 samples collected from 2016 to 2023, containing channel locations, surveys, and assays. Both databases were considered during domain interpretation and metal estimation. The 2023 MRE was based on newly constructed domain models and used drilling and underground channel sampling databases updated to July 11, 2023.

Mineral Resource modelling was conducted in the San Ignacio local mine grid. The Mineral Resource block model utilized a selective mining unit (SMU) parent block size of 2.5 m (X) by 2.5 m (Y) by 2.5 m (Z) with a minimum subblock size of 0.5 m (X) by 0.5 m (Y) by 0.5 m (Z). The gold and silver grades were estimated for each block using Ordinary Kriging with locally varying anisotropy (LVA) to ensure grade continuity in various directions is reproduced in the block model. Sub-blocks retained the grade of the parent block. The MRE was reported as undiluted within a series of underground mining shapes. The 2023 San Ignacio MRE used a silver equivalent grade (AgEq) based on metal prices of \$1,850/oz for gold (Au) and \$22/oz for silver (Ag). Both metals assume an 87% recovery rate. Therefore, all AgEq calculations in the current MRE employ a Ag to Au ratio of 84.1:1. This ratio was determined based on current Reasonable Prospects for Eventual Economic Extraction (RPEEE) parameters.

Three types of material were identified during the calculation of the MRE: In Situ (unaffected by mining), Modern Remnant, and Historical Remnant. A three-dimensional wireframe of modern workings, current to May 31, 2023, was used to exclude alreadymined areas from the block model. Volumes within the estimation domains that lie in between and immediately next to modern stopes were categorized as Modern Remnant material. Historical Remnant material was classified as material within a 60 by 45 by 30 m search ellipsoid of modern logging data logged as either backfill or stope. These logged intervals were interpreted to be historical workings intercepted during drilling. Modern Remnant and Historical Remnant material were not included in the current MRE. The 2023 San Ignacio MRE was based solely on In Situ material, unaffected by current or historical mining activities.



The 2023 MRE is based on newly constructed domain models and used drilling and underground channel sampling databases updated to July 11, 2023. The 2023 MRE comprises Measured and Indicated Mineral Resources of 7.621 million troy ounces (oz) AgEq<sup>8</sup> at 300 g/t AgEq<sup>8</sup> within 0.79 million tonnes, and Inferred Resources of 22.167 million oz AgEq<sup>8</sup> at 318 g/t AgEq<sup>8</sup> within 2.166 million tonnes. The 2023 MRE is presented in Table 1.2.

Olassaifi astism	Tonnes	Average Grade (g/t)		Contained Metal (troy ounces)			
Classification		Ag	Au	AgEq <sup>8</sup>	Ag	Au	AgEq <sup>8</sup>
Measured	171,000	105	2.16	287	578,000	12,000	1,575,000
Indicated	619,000	128	2.08	304	2,557,000	41,000	6,046,000
Measured & Indicated	790,000	123	2.10	300	3,136,000	53,000	7,621,000
Inferred	2,166,000	127	2.27	318	8,877,000	158,000	22,167,000

Table 1.2 2023 San Ignacio Mineral Resource Estimate-	Effective Date September 21, 2023
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Notes:

1. The 2023 San Ignacio Mineral Resources were estimated and classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines" dated November 29, 2019, and the CIM "Definition Standards for Mineral Resources and Mineral Reserves" dated May 10, 2014.

2. The 2023 MRE was prepared by Warren Black, M.Sc., P.Geo., Tyler Acom, M.Sc., and Kevin Hon, B.Sc., P.Geo of APEX Geoscience Ltd under the supervision of the Qualified Person ("QP"), Michael Dufresne, M.Sc., P.Geo., President of APEX Geoscience Ltd.

3. Mineral resources which are not mineral reserves do not have demonstrated economic viability. No mineral reserves have been calculated for San Ignacio. There is no guarantee that any part of mineral resources discussed herein will be converted to a mineral reserve in the future.

4. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, market, or other relevant factors discussed in Section 14.12.

5. The quantity and grade of the reported Inferred Resources are uncertain in nature and there has not been sufficient work to define these Inferred Resources as Indicated or Measured Resources. It is reasonably expected that most of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

6. All figures are rounded to reflect the relative accuracy of the estimates. Totals may not sum due to rounding.

7. Specific gravity of 2.64 is used for 2023 MRE.

8. Metal prices are set at US\$1,850/oz Au and US\$22/oz Ag, with 87% recovery for both. This yields an Au:Ag ratio of 84.1:1 for the calculation of AgEq.

9. Costs are US\$40.0/t for mining, US\$16.0/t for processing, and US\$18/t for G&A, leading to a 120 g/t AgEQ reporting cutoff grade.

10. Underground resources are confined to potentially minable shapes defined by a stope optimizer. The resulting stopes have a minimum horizontal width of 1 m and length and height dimensions of 20 m by 20 m, which can be sub-stoped to 10 m by 10 m. They must also contain a minimum grade of 120 g/t AgEQ.

#### **1.10** Conclusions and Recommendations

Based upon a review of available information, historical and current exploration and production data, Mr. Livingstone's recent site inspection and the 2023 MRE, the Authors outline San Ignacio as a property of merit prospective for the discovery of additional silvergold low sulphidation epithermal vein zones and deposits. This contention is supported by knowledge of:

- The favourable geological setting of the Property and its central position within the Guanajuato Mining District. Key north-west trending precious metal-bearing vein systems in the district include the Veta Madre, La Luz and Sierra systems.
- Historical surface and drilling by Great Panther that intersected significant precious metal mineralization at San Ignacio, including eighteen mineralized veins at San



Ignacio. The primary mineralized veins at San Ignacio include Melladito, Intermedia, Nombre de Dios and Purisima.

- Significant results of silver and gold mineralization returned from recent channel sampling and drilling programs conducted by GSilver and the calculation of the 2023 San Ignacio MRE.
- San Ignacio historical and recent production, head grade and metal recovery records from the Cata processing plant from 2006 to 2021 and 2022 to 2023.

Further evaluation of Modern Remnant material presents an opportunity to potentially build significant additional near-mine resources at San Ignacio. Areas of Modern Remnant that are identified as potentially mineable by the GSilver San Ignacio mining team should be included in subsequent mineral resource estimates. Furthermore, lower confidence mineralized domains classified as Inferred Resources or designated as exploration targets in the 2023 San Ignacio MRE represent compelling targets for additional exploration drilling.

As a property of merit, a 2-phase work program is recommended to delineate additional precious metal mineralization at San Ignacio to support future mineral resource expansion and ongoing production.

Phase 1 should include drilling at the Melladito, Purisima, Nombre de Dios, and Santo Nino vein systems, with an initial focus on deep drilling at Purisima and Santo Nino. The Authors recommend a diamond drill program of approximately 12,000 metres intended to expand mineralized veins, delineate additional mineral resources, and upgrade existing Inferred Resources. Oriented core instruments should be utilized and measurements captured as part of the logging. Additional underground exploration development should also be completed to aid in accessing target areas at depth with limited exploration data. This should include ongoing ramp development between the Melladito and Purisima/Santo Nino areas. The estimated cost of the Phase 1 work program for the San Ignacio Property totals USD\$1,548,000, not including contingency funds or taxes.

Phase 2 exploration is dependent on budget availability and the results of Phase 1. It should comprise additional drilling at the Melladito, NDD, Purisima, and Santo Nino areas, as well as testing new mineralized domains included in the current MRE to increase confidence in the resources. Additional underground exploration development should be undertaken as needed to access new and underexplored areas. Phase 2 should also include an updated MRE and technical report. The estimated cost of the Phase 2 work program for the San Ignacio Property totals USD\$2,230,000, not including contingency funds or taxes.

Collectively, the estimated cost of the recommended work programs for San Ignacio totals USD\$3,778,000, not including contingency funds or taxes.



# 2 Introduction

### 2.1 Issuer and Purpose

This Technical Report (the "Report") on the San Ignacio Property ("San Ignacio", "San Ignacio Mine", "San Ignacio operation", or the "Property") was prepared by APEX Geoscience Ltd. ("APEX") at the request of the Issuer, Guanajuato Silver Company Ltd. ("GSilver" or the "Company"). GSilver is a Vancouver, British Columbia based mining company listed on the TSX Venture Exchange (TSX-V) under the stock symbol "GSVR".

The San Ignacio Property is situated within the central portion of the Guanajuato Mining District in Guanajuato State, Mexico; an area that represents one of the largest silver producing districts in the world, with continuous mining activity occurring for nearly 500 years (Moncada and Bodnar, 2012). The Property is located approximately 8 km northwest of the city of Guanajuato and approximately 290 km to the northwest of Mexico City (Figure 2.1). The Property comprises 7 contiguous and 2 non-contiguous mining concessions that cover approximately 398.18 hectares (ha). The concessions are held 100% by Minera Mexicana el Rosario, S.A. de C.V. ("MMR"), a wholly owned Mexican subsidiary of GSilver.

On June 29, 2022, GSilver signed a binding definitive agreement with Great Panther Mining Ltd. ("Great Panther") to acquire MMR and its assets, including the San Ignacio Mine; in addition to the Guanajuato mine (or "Guanajuato operation") and Cata processing plant (collectively known as the Valenciana Mine Complex or "VMC"), the Topia mine and production facility (collectively known as the Topia Property), and the El Horcón and Santa Rosa exploration projects. Under the terms of the agreement, GSilver agreed to pay to Great Panther an aggregate base purchase price of USD\$14.7M, subject to certain closing adjustments, as follows: (a) USD\$6.7M by issuance of 25,787,200 common shares in GSilver; and (b) USD\$8.0M in cash, subject to adjustments. GSilver also agreed to pay up to an additional USD\$2.0M in contingent bonus payments based on production performance and published silver prices (Comex).

The San Ignacio Property was previously included as part of the VMC (formerly known as the Guanajuato Mine Complex, or "GMC"), together with the Guanajuato mine, by Great Panther in Brown (2015; 2016; 2017), Wunder (2018), and Brown and Nourpour (2020c; 2022), and by GSilver in Livingstone et al. (2022). Prior to 2015, San Ignacio was reported separately from the VMC Guanajuato operation, by Smith (2011), Waldegger (2012), and Waldegger and Brown (2014). In this Technical Report and moving forward, the Company considers San Ignacio to be a separate mineral project with distinct geological characteristics, mineral deposits, exploration and development work, databases, and underground mining infrastructure. The San Ignacio Mine is located approximately 7 km west of the VMC Guanajuato operation, within a separate mineralizing system. San Ignacio and Guanajuato mineralized material are both processed at the Company-owned Cata facility, located in the city of Guanajuato. In addition to the processing plant, the Cata facility includes an analytical laboratory, core storage and logging facilities, and geological and administrative offices, which are used



to support activities at San Ignacio, the VMC, and the Company's other exploration projects in the Guanajuato region.



Figure 2.1. Property Location

This Report summarizes a National Instrument 43-101 ("NI 43-101") Standards of Disclosure for Mineral Projects mineral resource estimation ("MRE") for the Property and provides a technical summary of the relevant location, tenure, historical, and geological information, a summary of the recent work conducted by the Company, and recommendations for future exploration programs. This Report summarizes the technical information available up to the Effective Date of September 21, 2023.

This Report was prepared by Qualified Persons ("QPs") in accordance with disclosure and reporting requirements set forth in the NI 43-101 Standards of Disclosure for Mineral Projects (effective May 9, 2016), Companion Policy 43-101CP Standards of Disclosure for Mineral Projects (effective February 25, 2016), Form 43-101F1 (effective June 30, 2011) of the British Columbia Securities Administrators, the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Mineral Exploration Best Practice Guidelines (November 23, 2018), the CIM Estimation of Mineral Resources, and Mineral Reserves



Best Practice Guidelines (November 29, 2019) and the CIM Definition Standards (May 10, 2014).

### 2.2 Authors and Site Inspection

The authors of this Technical Report (the "Authors") are Mr. Christopher Livingstone, B.Sc., P.Geo., Mr. Michael B. Dufresne, M.Sc., P. Geol., P. Geo., and Ms. Fallon T. Clarke, B.Sc., P.Geo., of APEX. The Authors are independent of the Issuer and are QPs as defined in the NI 43-101. The CIM defines a QP as "an individual who is a geoscientist with at least five years of experience in mineral exploration, mine development or operation, or mineral project assessment, or any combination of these; has experience relevant to the subject matter of the mineral project and the technical report; and is a member or licensee in good standing of a professional association."

Mr. Livingstone is a Professional Geologist with the Association of Professional Engineers and Geoscientists of British Columbia ("EGBC"; Member #: 44970) and has worked as a geologist for more than twelve years since his graduation from university. Mr. Livingstone has experience with exploration for precious and base metal mineralization of various deposit types in North America, including epithermal silver-gold mineralization, polymetallic veins, and sediment-hosted precious and base metals. Mr. Livingstone takes responsibility for Sections 1 to 5, 7 to 8, 12, and 24 to 26 of the Report.

Mr. Dufresne is a Professional Geologist with the Association of Professional Engineers and Geoscientists of Alberta ("APEGA"; Member #: 48439), a Professional Geoscientist with the EGBC (Member #: 37074), a Professional Geoscientist with the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists ("NAPEG"; Member #: L3378), and a Professional Geoscientist with Association of Professional Engineers & Geoscientists of New Brunswick ("APEGNB"; Member #: F6534) and has worked as a mineral exploration geologist for more than 36 years since his graduation from university. Mr. Dufresne has been involved in all aspects of mineral exploration and mineral resource estimations for precious and base metal mineral projects and deposits in Canada and globally. Mr. Dufresne takes responsibility for Sections 6.3, 6.4, 13 and 14 of the Report. Mr. Dufresne also made contributions to Sections 1, 25 and 26.

Ms. Clarke is a Professional Geologist with the Association of Professional Engineers and Geoscientists of Saskatchewan ("APEGS"; Member #: 27238) and has worked as a geologist for more than eleven years since her graduation from the University of Saskatchewan. Ms. Clarke has experience with exploration for precious and base metal deposits of various deposit types in North America, including epithermal silver-gold mineralization. Ms. Clarke takes responsibility for Sections 6.1, 6.2, 9-11, 23 and 27 of the Report. Ms. Clarke also made contributions to Sections 1, 25 and 26.

Contributors to this Report include Mr. Warren Black, M.Sc., P.Geo., Mr. Tyler Acorn, M.Sc., and Mr. Kevin Hon, B.Sc., P.Geo., all of APEX. Under the direct supervision of Mr. Dufresne, Mr. Black, Mr. Acorn, and Mr. Hon prepared the MRE statistical analyses,



three-dimensional domain models, block models, classifications, and resource estimation tabulations presented in Section 14 of this Report.

The Authors would also like to acknowledge the contributions made by GSilver's geological staff in Mexico, particularly Mr. Victor David Ávila Herrera, Mineral Resource Estimation Manager, who coordinated delivery of all the required data and information for the MRE and Technical Report, and organized and oversaw the staff assisting with the QP site inspection. Mr. Ávila and his team also provided valuable feedback and insight on APEX's resource modelling throughout the MRE process, based on their comprehensive knowledge of the San Ignacio deposit.

Mr. Livingstone conducted site inspections of the Property for verification purposes from August 13 to 14, 2023, and April 7 to 8, 2022. The August 2023 site inspection comprised an inspection of recent diamond drill core at the Cata core logging facility, the collection of two quarter drill core samples and a review of the San Ignacio 3D data compilation. Mr. Livingstone was unable to visit the underground workings at San Ignacio due to a serious accident, resulting in a temporary closure of the mine site. The April 2022 site inspection comprised a tour of the Property, including entering several underground workings at the San Ignacio operation, collar verification from recent drilling on surface at San Ignacio, and a review of recent drill core to verify reported geology and mineralization. Mr. Livingstone toured the Cata offices, core facility, processing plant, and analytical laboratory. Mr. Dufresne and Ms. Clarke did not visit the Property, as Mr. Livingstone's visits were deemed sufficient by the QPs.

# 2.3 Sources of Information

This Report is a compilation of proprietary and publicly available information. It is largely based on sections derived from the technical report titled, "Technical Report on the Valenciana Mine Complex, Guanajuato, Mexico", prepared for GSilver by Livingstone et al. (2022), as well as an earlier technical report titled, "NI 43-101 Mineral Resource Update Technical Report on the Guanajuato Mine Complex, Guanajuato and San Ignacio Operations, Guanajuato State, Mexico", prepared for Great Panther by Brown and Nourpour (2022), and previous reports on the Property by Rennie and Bergen (2011), Smith (2011), Brown (2012), Waldegger (2012), Brown and Sprigg (2013), Brown (2014), Waldegger and Brown (2014), Brown (2015; 2016; 2017), Wunder (2018), and Brown and Nourpour (2020; 2020b; 2020c). Additional information regarding historical exploration conducted by Great Panther and recent exploration completed by GSilver is sourced from publicly available company listings, including Great Panther Mining Ltd. (2013; 2021; 2022; 2022b; 2022c) and Guanajuato Silver Company Ltd. (2022; 2023b; 2023b; 2023c).

In support of the technical sections of this Report, the Authors have independently reviewed reports, data, and information derived from work completed by GSilver, Great Panther, and their consultants. Journal publications listed in Section 27 "References" were used to verify background geological information regarding the regional and local



geological setting and mineral deposits of San Ignacio. The Authors have deemed these reports, data, and information as valid contributions to the best of their knowledge.

Based on the Property visit and review of the available literature and data, the Authors take responsibility for the information herein.

### 2.4 Units of Measure

With respect to units of measure, unless otherwise stated, this Report uses:

- Abbreviated shorthand consistent with the International System of Units (International Bureau of Weights and Measures, 2006).
- 'Bulk' weight presented in both United States short tons ("tons"; 2,000 lbs or 907.2 kg) and metric tonnes ("tonnes"; 1,000 kg or 2,204.6 lbs.).
- Geographic coordinates are projected in the Universal Transverse Mercator ("UTM") system relative to Zone 14 of the North American Datum ("NAD") 1983.
- Elevations reported as metres above sea level (masl).
- Block models and wireframes referenced to local grid coordinates.
- Currency in United States dollars (USD\$), unless otherwise specified (e.g., Canadian dollars, CAD\$, Mexican pesos, MXN\$).



# 3 Reliance on Other Experts

This Report incorporates and relies on contributions of other experts who are not Qualified Persons, or information provided by the Company, with respect to the details of legal, political, environmental, or tax matters relevant to the Property, as detailed below. In each case, the Authors disclaim responsibility for such information to the extent of their reliance on such reports, opinions or statements.

#### 3.1 Legal Status & Mineral Tenure

The Authors relied on GSilver to provide all pertinent information concerning the legal status of the Company, as well as current legal title, material terms of all agreements, and tax matters that relate to the Property. Copies of documents and information related to legal status, property agreements, and mineral tenure were reviewed and relevant information was included elsewhere in the Report; however, the Report does not represent a legal, or any other, opinion as to the validity of the agreements or mineral titles. The following documents and information, provided by GSilver Management, were relied upon to summarize the legal status and mineral tenure status of the Property:

- Section 4.1: "Title Opinion, Minera Mexicana El Rosario, S.A. de C.V." prepared for Guanajuato Silver Company Ltd. by Alberto Mauricio Vázquez Sánchez of the firm Tête À Tête Consultores, S.C., located in Mexico City, Mexico, and dated August 10, 2023 (provided to the Authors by Susana del Rio, Director of Administration for GSilver, via Microsoft SharePoint, on September 7, 2023).
- Section 4.2.1: "Great Panther Mining Limited and 1352168 B.C. Ltd. and Guanajuato Silver Company Ltd. Share Purchase Agreement" dated June 29, 2022 (provided to the Authors by Richard Silas, Director of Guanajuato Silver on October 5, 2023).
- Section 4.2.3: Details regarding surface rights were provided to the Authors by Richard Silas, Director of GSilver, via email on October 4, 2023.
- Section 4.3.2: Details regarding mining and environmental royalties were provided to the Authors by Richard Silas, Director of GSilver, via email on October 31, 2023.



### 3.2 Environmental Matters

The Authors relied on GSilver to provide all pertinent information concerning permitting and environmental matters that relate to the Property. Copies of relevant environmental permits listed in Table 4.2 were reviewed, along with other documents and information related to various environmental audits and reviews, and relevant information was included elsewhere in the Report; however, the Report does not represent a legal, or any other, opinion as to the validity of the permits or environmental status of the Property. These documents and information, provided to the Authors by María del Rosario Torres Aldana, Environmental Manager for GSilver, via Microsoft SharePoint, on September 11, 2023, were relied upon to summarize the permit and environmental status of the Property in Section 4.4.1 and 4.4.2. Select examples of documents reviewed by the Authors include:

- Section 4.4.1: SEMARNAT document: "Modificaciones de Impacto Ambiental Segunda Ampliación de la Presa de Jales No. 9" (Modification of Environmental Impact Assessment Second Extension of Tailings Dam No. 9); Authorization No. GTO.131.1/123/2022; issued to MMR on February 24, 2022.
- Section 4.4.1: SEMARNAT document: "Manifestación de Impacto Ambiental Modalidad Particular para el Proyecto San Ignacio" (Environmental Impact Assessment for the San Ignacio Project); Authorization No. GTO.131.1.1/0566/2013; issued to MMR on October 1, 2013.
- Section 4.4.1: CONAGUA document: "Permiso Descarga de Aguas Residuales" (Wastewater Discharge Permit for San Ignacio); Authorization No. 811815 (GUA-L-1316-03-06-16); issued to MMR on June 2, 2019, for a period of 10 years.
- Section 4.4.1: Municipality of Guanajuato document: "Constancia de Verificación de Condiciones y Uso" (Land Use License for San Ignacio); Authorization No. EXP.DPUPA/3154/2016; issued to MMR on October 11, 2022.
- Section 4.4.2: GSilver document: "San Ignacio Mine Closure Cost Estimate, Asset Retirement Obligation", dated December 2022.



# 4 **Property Description and Location**

### 4.1 Description and Location

The San Ignacio Property is located approximately 8 km northwest of the city of Guanajuato in Guanajuato State, Mexico, within the historical Guanajuato Mining District. It is approximately 35 km east-southeast of the city of León and 290 km northwest of Mexico City. San Ignacio is situated within the Instituto Nacional de Estadística y Geografía ("INEGI") 1:50,000 scale map sheets F14C42 and F14C43.

The Property comprises 7 contiguous and 2 non-contiguous mining concessions that cover approximately 398.18 hectares (ha) (Table 4.1; Figure 4.1). The mining concessions are held 100% by MMR, a wholly owned Mexican subsidiary of GSilver. The boundaries of the mining concessions have been legally surveyed. The main mining concession block is centred at approximately 21° 02' N latitude and 101° 19' W longitude NAD 1983 UTM 258,494 m Easting and 2,327,883 m Northing.

Mining concessions	Title No.	Area (ha)	Date of Record	Expiration Date
San Francisco de Pili	168161	97.2871	02/03/1981	01/03/2031
Purísima Conception	168166	66.0000	02/03/1981	01/03/2031
San Pedro Gilmonene	168168	72.1458	02/03/1981	01/03/2031
San Francisco de Asis	169359	6.8808	11/11/1981	10/11/2031
La Chuparrosa	169360	1.2000	11/11/1981	10/11/2031
San Antonio	177934	49.0000	29/05/1986	28/05/2036
Primera Ampl. de San Antonio	215568	32.1847	05/03/2002	04/03/2052
Robledo	191436	49.4860	19/12/1991	18/12/2041
Primera Ampliacion de Sirio	192176	24.0000	19/12/1991	18/12/2041
Total		398.18		

### Table 4.1 San Ignacio Mining Concession Details

The Authors did not independently verify the legal status of the San Ignacio concessions. According to a legal title opinion report prepared by Vázquez Sánchez (2023), the concessions forming the San Ignacio Property are valid, in force and effect, and are in good standing with respect to biannual mining duty payments, including the mining duties due on July 31, 2023, filing of annual Work Assessment Reports, and filing of Production Reports. The concessions are free and clear of any lien, encumbrance, burden, or contracts in effect, registered or in processed to be registered with the Public Registry of Mining ("RPM"). MMR is the registered holder of 100% rights and ownership of the San Ignacio concessions (Vázquez Sánchez, 2023).

The Authors are not aware of any royalties to which the San Ignacio mining concessions may be subject.









### 4.2 Ownership Agreements and Royalties

### 4.2.1 GSilver-Great Panther Agreement

On June 29, 2022, GSilver signed a binding definitive agreement (the "Agreement") with Great Panther to acquire all of Great Panther's Mexican assets through the purchase of Great Panther's Mexican subsidiary, MMR, including the San Ignacio Mine; in addition to the Guanajuato mine and Cata processing plant (collectively known as the Valenciana Mine Complex or VMC), the Topia mine and production facility (collectively known as the Topia Property), and the El Horcón and Santa Rosa exploration projects.

GSilver closed the MMR acquisition on August 4, 2022, with the execution of customary closing documents in Mexico and Canada and with the payment to Great Panther of US\$14.7M, as follows:

- USD\$6.7M in GSilver common shares at a deemed price of CAD\$0.335 per share, for a total issuance of 25,787,200 (the "Consideration Shares"); and
- USD\$8.0M in cash (the "Cash Consideration").

The Consideration Shares were subject to a statutory hold period of four months and one day expiring December 5, 2022. In addition to the statutory hold period, the Consideration Shares were subject to voluntary hold periods as follows:

- 8 months for 25% of total Consideration Shares expiring April 4, 2023; and
- 12 months for 25% of total Consideration Shares expiring August 4, 2023.

GSilver also paid USD\$1.35M in working capital adjustments to Great Panther for excess working capital left in MMR over and above the agreed upon target working capital. Total acquired working capital included USD\$500k in cash.

GSilver also agreed to pay Great Panther up to an additional USD\$2.0M in contingent payments as follows:

- USD\$500,000 upon Guanajuato Silver producing 2,500,000 ounces of silver from the purchased MMR assets;
- USD\$750,000 if the price of silver closes at or above USD\$27.50 per ounce for 30 consecutive days within two years after closing; and
- USD\$750,000 if the price of silver closes at or above USD\$30.00 per ounce for 30 consecutive days within three years after closing.

# 4.2.2 Surface Rights

Surface rights sufficient for underground mining operations at San Ignacio are maintained by GSilver. The Company, through its wholly owned Mexican subsidiary MMR, owns a 100% interest in certain surface rights at the San Ignacio Property, totalling 19.4 hectares, covering the waste rock dump, surface infrastructure, main access road, and the San



Ignacio ramp entrance. The Company also holds surface rights to a smaller block surrounding the historical San Ignacio shaft.

Surface access elsewhere on the San Ignacio Property is negotiated with individual owners. GSilver currently maintains agreements with five landowners to utilize small areas for mine infrastructure, such as vent shafts, utility poles, cables, and pipelines, as well as exploration drilling sites.

The Company holds surface rights to the areas surrounding the Cata processing plant, laboratory, and office, as well as the Guanajuato tailings storage facility.

#### 4.3 Mining Law, Mining Royalties & Taxes

#### 4.3.1 Mining Law

The mining industry in Mexico is controlled by the Secretaría de Economía – Dirección General de Minas, which is located in, and administered from, Mexico City. The Mexican Mining Law, its Regulation (collectively, the "Mining Law"), and Article 27 of the Mexican Constitution regulate mining issues. Mining concessions in Mexico may only be obtained by Mexican nationals or Mexican companies incorporated under Mexican laws. The construction of processing plants requires further governmental approval. In Mexico, surface land rights are distinct from mining concessions.

After an amendment to the Mining Law on April 28, 2005, there is no longer a distinction between the exploration mining concessions and exploitation mining concessions. The Mining Law grants the holder of a mining concession exclusive rights to conduct exploration for the purpose of identifying mineral deposits and quantifying and evaluating economically usable reserves, to prepare and to develop exploitation works in areas containing mineral deposits, and to extract mineral products from such deposits.

Mining concessions are granted for 50 years from the date of their registration with the Public Registry of Mining to the concession holder as a matter of law if all regulations have been complied with. During the final five years of this period, the concession holder may apply for one additional 50-year period, which is automatically granted provided all other concession terms have been complied with. Mining rights in Mexico can be transferred by their private holders with no restrictions or requirements other than to register the transaction with the Public Registry of Mining.

To maintain a concession in good standing holders are required to provide evidence of the exploration and/or exploitation work carried out on the claim under the terms and conditions stipulated in the Mining Law, and to pay semi-annual mining duties based on the number of hectares covered by the concession area, established under the Federal Duties Law. Exploration work can be evidenced with investments made on the lot covered by the mining claim, and the exploitation work can be evidenced the same way, or by obtaining economically utilizable minerals. Non-compliance with these requirements is cause for cancellation only after the Secretariat of Economy of Mexico communicates in



writing to the concessionaire of any such default, granting the concessionaire a specified time frame in which to remedy the default.

If a concession holder does not carry out exploration or exploitation activities for two continuous years within the first 11 years of its concession title, it will be required to pay an additional charge equal to 50% of the two-year concession duty. The concession duty increases to 100% for continued inactivity after the 12th year. Payment of the additional concession duty is due 30 days after the end of the two-year period.

Mining companies are subject to an annual special mining duty of 7.5% on profits derived from the sale of minerals minus authorized deductions, and an annual extraordinary mining duty of 0.5% on the gross value of sales of gold, silver, and platinum. Both duties are payable on the last business day of March of the year following the levied year.

On May 8, 2023, several amendments to existing statutes were passed by the Mexican Congress that materially changed mining regulations in Mexico. The changes affect Mexico's Mining Law, National Water Law (Ley de Aguas Nacionales), General Law for Ecological Balance and Environmental Protection (Ley General de Equilibrio Ecológico y Protección al Ambiente) ("LGEEPA"), and General Law for the Prevention and Integral Management of Waste (Ley General para la Prevención y Gestión Integral de los Residuos) ("LGPGIR").

The amendments to the Mining Law condition granting of mining concessions on the availability of water and modify the current process for obtaining concessions by adding a public bidding process. The awarded bidder will receive the concession only after securing any and all necessary environmental, social, and/or labour authorizations and permits. This includes revised and expanded indigenous and public consultation rules and processes, with costs covered by the winner of the bid. The amendments eliminate the preferential status of mining activities; concession holders will no longer be entitled to request land access and superficial rights to conduct mining activities and must instead form an agreement between the landowner and the mining company.

Under the amended regulations, the term of a mining concession is shortened to 30 years, with a one-time renewal for a second term of 25 years. Transfer of mining concessions now requires the prior approval of the Ministry of Economy (Secretaría de Economía). Mining concessions may now be used as collateral by their owners only in the event the mine is operating. Concessions assigned to Mexican government-owned companies will have an indefinite term and will be non-transferrable.

Mining concession titles will now be granted for the exploitation of a specific mineral. Mining exploration activities will be the exclusive responsibility of the Mexican Geological Survey (Servicio Geológico Mexicano) ("SGM"). Private parties may submit relevant data and information to the Ministry of Economy regarding the existence of minerals or metals in a given area that is neither allocated or subject to a concession, for the Ministry to review and consider issuing bids for mining concessions or advise the SGM whether to enter into a collaboration agreement with the parties to perform exploration work.



### 4.3.2 Mining Royalties & Tax Status

According to a legal title opinion report prepared by Vázquez Sánchez (2023), the concessions forming the San Ignacio Property are in good standing with respect to biannual mining duty payments, including the mining duties due on July 31, 2023, filing of annual Work Assessment Reports, and filing of Production Reports.

The 0.5% extraordinary mining duty and the 7.5% special mining duty were not applicable to San Ignacio for 2022.

#### 4.4 Permitting, Environmental Liabilities and Significant Factors

### 4.4.1 Permitting

Article 27 of the Mexican Constitution establishes that natural resources are part of the nation's heritage and, therefore, the Federal Government is responsible for the regulation of resource management. Although the Mining Legislation for Mexico emanates from Article 27, there are many secondary laws that complement the regulatory framework.

At the federal level, the unit authorized to generate, apply, supervise, and monitor compliance with environmental regulations is the Ministry of Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales; "SEMARNAT"). Additional organizations related to monitoring mining activity include:

- National Water Commission (Comisión Nacional del Agua; "CONAGUA").
- National Commission of Natural Protected Areas (Comisión Nacional de Áreas Naturales Protegidas; "CONANP").
- Federal Office of Environmental Protection (Procuraduría Federal de Protección al Ambiente; "PROFEPA").

At the state level, the unit responsible for monitoring compliance in environmental matters is the Ministry of Environment and Territorial Planning (Secretaría de Medio Ambiente y Ordenamiento Territorial; "SMAOT"), formerly the Institute of Ecology (Instituto de Ecología), for the State of Guanajuato.

The municipal level is monitored by the General Directorate of Ecology and Environment (Dirección General de Ecología y Medio Ambiente; "DGEMA").

To commence exploration at a property, a company may be required to completed necessary studies in accordance with SEMARNAT, including an environmental impact evaluation, an environmental impact assessment, a preventive report or a change in the use of land authorization.

All necessary permits are in place for mining at San Ignacio. The main permits applicable to the San Ignacio operation are presented in Table 4.2.



Table 4.2 San Ignacio Permit Summary

Level	Authority	Environmental Permit	Status	Register Number	Authorization Number	Authorization Date
		ENVIRONMENTAL IMPACT ASSESSMENT OPERATION OF TAILING DAM No.9	VALID		GTO.131.1.1/0642/2012.	2012-11-23
		CHANGE OF LAND USE FOR EXPANSION OF TAILING DAM No. 9	VALID	11/DS-0005/05/14	GTO.131.1.2/0658/2015.	2015-09-02
		ENVIRONMENTAL IMPACT ASSESSMENT SECOND EXTENSION OF TAILING DAM No. 9	VALID		GTO.131.1.1/0859/2018	2018-11-09
		MODIFICATION OF ENVIRONMENTAL IMPACT ASSESSMENT SECOND EXTENSION OF TAILING DAM №. 9	VALID	11/MP-0099/06/18	GTO.131.1/123/2022	2022-02-24
		CHANGE OF LAND USE FOR SECOND EXTENSION OF TAILING DAM №.9 "COMPLEMENTARY POLYGON"	VALID	11/DS-0004/06/19	GTO.131.2/156/2021	2021-04-23
		ENVIRONMENTAL IMPACT ASSESSMENT SAN IGNACIO MINE	VALID		GTO.131.1.1/0566/2013.	2013-10-01
		CHANGE OF LAND USE FOR WASTEROCK NO. 3	VALID	11/DS-0072/08/20	GTO.131.2/097/2022	2022-02-10
FEDERAL	SEMARNAT	UPDATING OF THE REGISTRY AS A GENERATOR OF HAZARDOUS WASTE "MILL PLANT"	VALID	11/HR-0098/03/17	NRA: MMRSP1101511	2017-03-22
		REGISTRY AS A GENERATOR OF HAZARDOUS WASTE "SAN IGNACIO MINE"	VALID	11/EV-0097/03/17	NRA: MMR1101500028	2017-03-22
		UPDATING OF THE REGISTRY AS A GENERATOR OF HAZARDOUS WASTE	VALID	DGGIMAR.710/0007205	NRA: MMRSP1101511 RPMRMM: 11-PMM-I-0042- 2010	2017-09-07
		UNIQUE ENVIRONMENTAL LICENSE (LAU, BY ITS ACRONYM IN SPANISH)	VALID		NRA: MMRSP1101511	2006-08-30
		MODIFICATION OF THE UNIQUE ENVIRONMENTAL LICENSE (LAU, BY ITS ACRONYM IN SPANISH)	VALID	11/LU-0173/08/18	NRA: MMRSP1101511 LAU: before LAU-11- 47/01501/2006, after LAU: LAU-11/0047-2006 (GTO.131.1/501/2019)	Concession: 30/08/2006 1st. Update: 18/02/2013 2nd. Update: 29/07/2019
		MINING WASTE MANAGEMENT PLAN	VALID	DGGIMAR.710/0001025	NRA: MMRSP1101511 RPMRMM: 11-PMM-I-0190- 2019	2019-02-01
		UPDATE OF ANNUAL OPERATING CERTIFICATE (COA, BY ITS ACRONYM IN SPANISH) MILL PLANT 2022	VALID	11/COW0376/06/23	BITÁCORA: 11/COW0376/06/23.	2023-06-26
		UPDATE OF ANNUAL OPERATING CERTIFICATE (COA, BY ITS ACRONYM IN SPANISH) 2022 SAN IGNACIO MINE	VALID	11/COW0377/06/23	BITÁCORA: 11/COW0377/06/23.	2023-06-26
		UPDATE OF CHANGE OF OWNERSHIP CONAGUA	VALID	GUA-L-2531-19-11-15	08GUA107052/12FMDL11	2016-10-24
	CONAGUA	FEDERAL ZONE OCCUPANCY CONCESSION TITLE "ARROYO LOS MEXICANOS".	VALID	B00.910.01.1/001982(DIC)	Título No. 834164 (GUA-L- 2797-20-12-17)	2020-12-09
		FEDERAL ZONE OCCUPANCY TITLE "ARROYO SANTA ROSA".	VALID	B00.910.01.1/001981(DIC)	Título No. 834171 (GUA-L- 2800-20-12-17)	2020-12-09
		SAN IGNACIO WASTEWATER DISCHARGES	VALID	B00.910.01/001935	Título No. 811815 GUA-L- 1316-03-06-16	2019-06-02
STATE	SMAOT	REGISTER AS A GENERATOR OF SPECIAL MANAGEMENT WASTE	VALID		GUA-GRME-221/2011	2022-08-01
		SPECIAL WASTE AND URBAN SOLIDS MANAGEMENT PLAN	VALID		PM-000200/2017	2017-09-19
MUNICIPAL	1A	LAND USE LICENSE: (HACIENDA DE BUSTOS)	VALID	OF. No. DAU/V/25782/2022	EXP. DPUPA/2352/2013	2022-10-11
	GEM	LAND USE LICENSE: TAILINGS DAM	VALID	OF. No. DAU/V/25855/2022	EXP. DPUPA/3155/2016	2022-10-11
		LAND USE LICENSE: SAN IGNACIO MINE	VALID	OF. No. DAU/V/25946/2022	EXP. DPUPA/3154/2016	2022-10-11



The Company undertakes a number of activities to monitor and control possible environmental impacts related to exploration and mining activities, including monitoring of various wastes, emissions, and water. These activities were established in accordance with applicable regulations, permit conditions, and GSilver's environmental, social, and governance ("ESG") policies. A summary of the main monitoring activities related to the San Ignacio operation is presented in Table 4.3.

Category	Legal Requirement	Monitoring	Frequency	
Waste	NOM-157-SEMARNAT-2009	Waste rock monitoring	Annual	
Air (atmospheric	NOM-025-SSA1-2014	Perimeter Powder PM 10 and PM 2.5	Quarterly	
emissions)	NOM-035-SEMARNAT-1993	Perimeter Powder (total suspended particles)	Annual	
Water		Water quality analysis	Biannual	
vvater	INUIVI-UU I-SEIVIARINA I-202 I	Groundwater quality analysis	Biannual	

Table 4.3 San Ignacio Monitoring Activities Summary	Table 4.3 San	Ignacio	Monitoring	Activities	Summary
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# 4.4.2 Environmental Liabilities

There are no known environmental liabilities associated with the San Ignacio mining concessions, other than the provisions recognized in GSilver's Consolidated Financial Statements and detailed in the document "San Ignacio Mine Closure Cost Estimate, Asset Retirement Obligation", for the estimated present value of future reclamation, rehabilitation, and monitoring of the San Ignacio Mine. This value comprises the costs associated with mining infrastructure and waste stockpile at the San Ignacio operation. As of December 31, 2022, the cost for closure of the San Ignacio site is estimated to be USD\$662,521.

# 4.4.3 Significant Factors

The Authors are not aware of any environmental liabilities, significant factors or risks that would affect access, title, or the ability to perform work at San Ignacio.



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

### 5.1 Accessibility

San Ignacio lies within the boundaries of the Municipality of Guanajuato, within Guanajuato State, in central Mexico. It is approximately 8 km northwest of the city of Guanajuato and 35 km east-southeast of the city of León. Several small towns and villages are located within the San Ignacio concessions, including Mexiamora, San Pedro Gilmonene, Santo Niño, and San Ignacio de Purísima.

From Guanajuato, the Property is accessed by a 35-minute (20 km) drive from the northern outskirts of the city, mostly by paved road, via Camina a Santa Ana, through the towns of Santa Ana and El Arenal. From León, the Property is accessed by a 1-hour and 15-minute (50 km) drive via Mexican Federal Highway 45 and Guanajuato State Highway 77 (GTO 77), exiting GTO 77 at the town of Los Jacintos, and proceeding northeast through the towns of El Paraíso and Sangre de Cristo. Numerous maintained and unmaintained gravel roads provide access to most areas of San Ignacio.

Regional access to the San Ignacio Property is presented in Figure 5.1.

### 5.2 Climate

The San Ignacio area is characterized by a temperate, semi-humid climate. It is generally dry for most of the year, with a wet season from June to September, during which time rainfall averages approximately 600 millimetres. Weather records from the city of Guanajuato indicate that the average January maximum and minimum temperatures are 23 and 7 degrees Celsius (°C), respectively. July average maximum and minimum temperatures are 27 and 14°C (National Oceanic and Atmospheric Administration, 2022).

Exploration and mining work can be conducted year-round, uninterrupted by weather.

# 5.3 Local Resources and Infrastructure

The Guanajuato Mining District has a lengthy history of mining; skilled labour, technical services, drilling contractors, mining and exploration supplies, and many other goods and services are available from the nearby cities of Guanajuato, León, Silao, and San Felipe. Modern mining completed at the San Ignacio operation by Great Panther and GSilver was conducted primarily by contractors sourced from nearby communities. According to 2020 census data, the municipality of Guanajuato hosts a population of approximately 194,500 and the León metropolitan area hosts a population of approximately 2,140,354. Both cities offer extensive infrastructure and support for the mining industry.

The Bajío International Airport, officially known as the Aeropuerto Internacional de Guanajuato (Guanajuato International Airport) is located in the city of Silao, 20 km southeast of León and approximately 17 km southwest of the Property.



Figure 5.1. Regional Access





The airport is serviced with multiple daily flights to and from Mexico City and other cities in Mexico, as well as direct flights to and from numerous US cities including Houston, Dallas-Fort Worth, Los Angeles, and Chicago.

The surface and underground infrastructure at San Ignacio includes the following:

- Underground workings from surface to approximately 250 m below surface, including ramps, shafts, vents, and multiple levels.
- Connection to the national electrical power grid and substation facilities.
- Conventional and mechanized underground mining equipment.
- Mine maintenance shop and associated office and stores.
- Diesel storage facility.
- Access road and mine waste dumps.

Surface rights sufficient for underground mining operations are maintained by GSilver. Grid power is available, and some buildings and storage sheds exist on site at the old San Ignacio shaft. New surface facilities near the ramp include roads, a mechanical shop, an electrical sub-station, diesel storage, waste dumps and security facilities.

Electrical power for the Property is provided by the Federal Electricity Commission (CFE Comision Federal de Electricidad) which is owned by the Mexican Government. There is one power transmission line (13,200 V) that provides the electrical power supply for the plant and mine. At San Ignacio, there are four electrical substations of different capacities, including a substation for the compressor's operation. There are four transformers with different capacities, one of 1500KVA, one of 900KVA, one of 600KVA and one of 75KVA. Water for the operations comes from storage in historical underground workings.

San Ignacio mineralized material is processed at the Company-owned Cata facility, located in the city of Guanajuato. In addition to the processing plant, the Cata facility includes an analytical laboratory, core storage and logging facilities, and geological and administrative offices, which are used to support activities at San Ignacio, the VMC, and the Company's other exploration projects in the Guanajuato region.

During the site inspections, the lead Author observed the Property access and infrastructure listed above. Access is sufficient for year-round operations, and all facilities and infrastructure required to continue exploration and mining operations are in place and appear to be in good working condition. Sources of power, water, and personnel are adequate for continued mining operations.

# 5.4 Physiography

San Ignacio is located within the Sierra de Guanajuato physiographic sub-province of the Central Mexican Plateau. The area is characterized by rolling hills with small, incised drainages that provide windows through thin soil cover to bedrock exposures. Elevations range from approximately 2,200 m to 2,400 m above mean sea level. A portion of the San Ignacio Property hosts cultivated land used by local farmers for agriculture.



# 6 History

# 6.1 Early History of the Guanajuato Mining District (pre-2005)

Mining in the Property area has a lengthy history dating back to the pre-colonial era, with small-scale surface mining first undertaken by the indigenous peoples of the Central Mexican Plateau. The discovery of silver and gold by the Spanish spurred colonization and settlement of the region during the 1530s and 1540s. The city of Guanajuato was founded in 1548 by viceroy Antonio de Mendoza, coinciding with the first significant mineral discovery, called San Bernabé, located in the village of La Luz. The development of the San Bernabé mine spurred growth and the discovery of other mineral deposits in the region, leading to the rise of the Guanajuato Mining District.

In 1550, an outcrop of the Veta Madre structure was found on what is now the Rayas mineral concession in Guanajuato. Numerous mines were opened during the latter half of the 16<sup>th</sup> century exploiting the Veta Madre structure, including the Valenciana, Guadalupe, Cata, and Rayas mines. However, mining in the district took place on a relatively small scale until the early 1700s, when the application of explosives for tunnelling resulted in a significant increase in mining productivity.

Although Valenciana was discovered in the 16<sup>th</sup> century, it reached its highest production levels during the latter half of the 18<sup>th</sup> century, with development financed by Antonio Obregón y Alcocer. At its peak from 1768 until the early 19<sup>th</sup> century, the Valenciana Mine accounted for two thirds of global annual silver production.

The San Ignacio Property is located within the La Luz mining camp of the Guanajuato Mining District. Historical documentation indicates that mining activity in the La Luz camp has experienced numerous boom and bust cycles; however, no mining records remain of work undertaken in the area from 1548 to 1793. Several maps post-dating 1793 depict development and mining from several shafts and adits, exploiting the La Luz vein system.

Mining in the Guanajuato Mining District ceased in 1816 and all production facilities were destroyed during the Mexican War of Independence.

In 1868, British capital reopened the Valenciana Mine, with production continuing until 1878. Lack of rail facilities and the necessity for hauling heavy equipment from the coast by mule hindered production during this period.

In the early 1900s, mining production declined due to low metal prices. During this time, American interests acquired and reopened many of the mines in the district. Old dumps and tailings were reprocessed to extract gold and silver using the newly discovered cyanide process. However, the onset of the Civil War in 1910 severely curtailed mining activity in the country and resulted in a decades-long slump in production.

In 1939, the mines in the district were turned over to the Sociedad Cooperativa Minera Metalurgica Santa Fe de Guanajuato ("the Cooperative"), following public demands for


higher compensation and better working conditions. The Cooperative operated several mines in the district throughout the latter half of the 20<sup>th</sup> century and into the 2000s. During this time the Cooperative amassed the San Ignacio Property located within the La Luz mining camp of the Guanajuato Mining District.

There are twelve known historical workings on the San Ignacio Property, including major shafts at San Ignacio, Purisima, Pili, and San Jose de Gracia. No historical production figures are available for these workings except for those relating to Cooperative mining from the San Ignacio shaft.

The historical Cooperative mining only exploited approximately 500 m of strike length along one of the three known structures on the Property, and there is no record of any previous exploration elsewhere on the claim block. Cooperative production records from 1977 to 2001 indicate that 617,455 tones grading 113 g/t Ag and 1.01 g/t Au were extracted from the San Ignacio shaft, targeting the Purisima structure, with an average rate of extraction of 85 t per day. San Ignacio was put on care and maintenance by the Cooperative in 2001 due to low metal prices but the infrastructure remained intact (Great Panther Silver Limited, 2011).

The Cooperative initiated diamond drilling at San Ignacio in 1979 with drilling from underground workings at the San Ignacio shaft. Holes from surface were drilled sporadically during the period from 1982 until 1990 and focused on a vein system parallel to, and to the east of, the current target area of interest at San Ignacio. Historical drill core from Cooperative drill programs at San Ignacio no longer exists; however, hard copy and scanned digital logs and assays from the historical drill programs are available at the Cata offices in Guanajuato.

Great Panther acquired San Ignacio from the Cooperative in 2005, in addition to the Guanajuato mine and Cata processing plant (collectively known as the Valenciana Mine Complex or VMC), the Topia mine and production facility (collectively known as the Topia Property), and the El Horcón and Santa Rosa exploration projects.

# 6.2 Exploration and Development by Great Panther (2005-2022)

# 6.2.1 Summary of Historical Non-Drilling Exploration Activity

Non-drilling exploration activity completed by Great Panther at San Ignacio comprised surface geological and structural mapping, and rock sampling of outcrops and exposures in historical underground workings, as well as underground geological mapping, chip and channel sampling, development, and mining. An overview of the results of Great Panther's underground sampling is presented in Figure 6.1. The locations of surface and short adit chip and channel underground samples are presented in Figure 6.2.

Historical exploration results are reported as silver (Ag), gold (Au), and/or silver equivalent (AgEq\*). Historical AgEq\* values are calculated using metal prices set at US\$1,800/oz Au and US\$22.50/oz Ag, with 87% recovery for both, yielding a Ag to Au ratio of 80:1.



This ratio is in keeping with GSilver's current exploration practices and is maintained herein.

Great Panther commenced exploration at San Ignacio in 2010, having previously focused on the Guanajuato mine after acquiring the properties in 2005. An initial program of extensive reconnaissance, surface mapping, and rock sampling completed during 2010 indicated that the three known vein structures (Purisima, Melladito and Nombre de Dios) were up to 4 km long and contain irregular silica breccia veins hosting gold and silver mineralization. Several drill targets were identified for subsequent testing along the 4 km strike length (Great Panther Silver Limited, 2011).

In February 2011, Dr. Darcy Baker of Equity Exploration Consultants completed structural mapping and logging of one diamond drillhole.

In 2013, Great Panther conducted structural mapping and rock sampling of the Intermediate Vein in the upper levels of the mine to provide information on grade distribution and to aid in mine planning (Great Panther Silver Limited, 2014). Additional work in 2013 included a structural geology focused review of the San Ignacio drill core and the collection of petrographic samples by David Rhys (Rhys, 2013), as well as petrographic and scanning electron microscope analysis of core samples collected from the Melladito and Intermediate veins by Katherina Ross (Ross, 2013).

Great Panther's 2018 and 2019 exploration efforts were focused on surface and underground drilling at San Ignacio. Mining focus was on the northern extent, along the Nombre de Dios veins, and an exploration / development ramp was being driven south into the old San Pedro mine area where the Purisima vein system merges with the Melladito vein system.

In 2019, surface exploration was focused on both the Nombre de Dios vein extension north, and on the Melladito and Purisima veins orientation in the old San Pedro mine area.

The detailed geological mapping, structural geological studies, outcrop sampling, drift development, and re-sampling of old underground workings was completed on an ongoing basis to highlight additional priority targets along the 4 km of prospective structures. The underground development along both Intermediate and Melladito veins confirmed the geological and grade continuity of the veins.

The exploration work completed by Great Panther confirmed that the top of the mineralized epithermal system is below surface situated at approximately 2,350 masl in the north and 2,250 masl in the southern part of San Ignacio. This vertical limit was indicated on longitudinal sections from the historical operations of the Cooperative on veins at San Ignacio, and from longitudinal sections of deposits on an adjacent property owned by Endeavour Silver. The strong vertical control on mineralization is characteristic of the area and the mineralized intervals range from 100 to 150 m in vertical range; however, locally, the mineralized intervals can range from 50 m to greater than 250 m.











# Figure 6.2 Great Panther Surface and Short Adit Sampling Results (AgEq\*), San Ignacio (Brown and Nourpour, 2022)



# 6.2.2 Summary of Historical Drilling

From 2010 to 2021, Great Panther completed 604 drillholes, totalling 115,581.70 m, at San Ignacio. Great Panther's San Ignacio drill programs are summarized in Table 6.1, with drillhole collar locations presented in Figures 6.3 and 6.4.

Historical exploration results are reported as silver (Ag), gold (Au), and/or silver equivalent (AgEq\*). Historical AgEq\* values are calculated using metal prices set at US\$1,800/oz Au and US\$22.50/oz Ag, with 87% recovery for both, yielding a Ag to Au ratio of 80:1. This ratio is in keeping with GSilver's current exploration practices and is maintained herein.

Year	Drilling Company	Location	ID	Total Depth (m)	No. of Holes
2010	BD Drilling Mexico	Surface	ESI10-001 to ESI10-005	2,294.00	5
2011	BD Drilling Mexico	Surface	ESI11-006 to ESI11-061	16,878.50	56
2012	BD Drilling Mexico	Surface	ESI12-062 to ESI12-103	9,556.30	43
2013	Servicios Drilling	Surface	ESI13-104 to ESI13-116	1,143.60	13
2014	Rock Drill	Surface	ESI14-117 to ESI14-141	3,728.00	25
2014	Servicios Drilling, Mexico	Underground	UGSI14-001 to UGSI14-002	104.10	2
2015	Rock Drill	Surface	ESI15-142 to ESI15-157	2,256.90	16
2015 Servicios Drilling, Mexico		Underground	UGSI15-001 to UGSI15-018	2,482.50	18
2016	Maza Drilling	Surface	ESI16-158 to ESI16-174	3,765.80	17
2016	Versa Perforaciones SA de CV	Underground	UGSI16-001 to UGSI16-026	5,263.90	26
	Maza Drilling	Surface	ESI17-175 to ESI17-230	13,962.50	56
2017	Versa Perforaciones SA de CV	Underground	UGDSI17-001 to UGDSI17-003, UGSI17-001 to UGSI17-043	8202.50	46
2019	Maza Drilling	Surface	ESI18-231 to ESI18-250	6,121.60	20
2010	Versa Perforaciones SA de CV	Underground	UGSI18-001 to UGSI18-033	5,600.80	33
2010	Maza Drilling	Surface	ESI19-251 to ESI19-280	7,482.10	30
2019	Versa Perforaciones SA de CV	Underground	UGSI19-001 to UGSI19-045	3,239.00	45
2020	Versa Perforaciones SA de CV	Surface	ESI20-281 to ESI20-315	7,267.50	35
2020	DR Drilling	Underground	UGSI20-046 to UGSI20-082	2,890.20	37
2021	Versa Perforaciones SA de CV	Surface	ESI21-316 to ESI21-375	11,659.10	60
2021	KAV Drilling	Underground	UGSI21-001 to UGSI21-021	1,682.80	21
		Total		115,581.70	604

## Table 6.1 Great Panther Drillhole Summary, San Ignacio

The drilling at San Ignacio was divided into two general modes of operation, including 1) exploration drilling, and 2) production drilling. Production drilling is predominantly concerned with definition and extension of the known zones, to confirm and upgrade the resources and to guide development and mining and is generally done to provide access for sampling and localized knowledge of the vein position which regularly pinches and swells. Exploration drilling is conducted further from the active mining area with the goal of expanding the mineral resource base. Great Panther used the drilling results from both programs in the estimation of several historical Mineral Resource Estimates (Section 6.3) and in subsequent production (Section 6.4).















The Great Panther drillhole collar surveys were completed using total station instruments and uploaded directly to a database for merging with the downhole logging data. Downhole surveys were performed every 50 m using a Reflex instrument with the survey data manually input into the database. Downhole surveys were typically not performed on shorter production drillholes measuring less than 60 m. For the shorter production drillholes, the orientation was measured only at the collar.

Great Panther's initial surface drill programs tested three northwest striking veins that crop out in the San Ignacio area. Drillholes at San Ignacio were typically oriented to intersect the mineralized veins at a high angle. The drill programs initially delineated eight veins with significant gold and silver mineralization in the northern portion of the San Ignacio property. Six veins with structural continuity were delineated over 950 m along strike and 350 m down dip. Overall, the core recovery of mineralized zones at San Ignacio averaged 89%.

Later drilling and development programs completed by Great Panther provided additional geological information to support the re-interpretation of the mineralized zones. This included the delineation of nine veins in the northern portion of San Ignacio, between grid line 100N and 1150N, and nine veins in the southern part of the property (San Pedro area) between 100N and 1100S. The nine northern veins demonstrating structural continuity were identified from diamond drillhole intersections, underground mapping, and sampling, and to some extent surface mapping. These veins have a demonstrated a strike length of up to 1,000 m and a dip length of up to 350 m. Seven of the veins are very steeply dipping and four are shallowly dipping and are likely off shoots of the other veins.

Between 100N and 1150N, five drillholes intersected voids which were interpreted to represent historical workings limited in extent. Holes ES11-039 (450N), ES13-105 (475N), ES13-112 (625N), ES13-116 (725N), and ESI14-121 (300N) intersected broken core or voids ranging from 1 to 3 m in core length. These areas of historical workings were excluded from the Great Panther historical resource models discussed in Section 6.3. Historical maps from the Melladito vein system from ~400N to 100N have been accurate in indicating areas of historical exploitation. These historical maps show exploitation further south on Melladito and Purisima vein systems. South of 100N, several drillholes intersected voids which were interpreted to represent the old San Pedro shaft historical workings. The drillhole void locations match well with historical workings known from longitudinal sections. These areas of historical workings were excluded from Great Panther's historical resource models discussed in Section 6.3.

Resource delineation underground and surface drilling in 2015 focused on the Intermediate and Melladito zones and the Melladito, Melladito Splay, Melladito 2 and Melladito 3 zones, respectively (Great Panther Silver Limited, 2016).

Drilling in the San Pedro shaft area since 2016, and into 2021, and the driving of the San Pedro ramp (presently at ~800S) has defined several zones including the Melladito South, Melladito S3, Purisima, Purisima W5, Purisima HW, Purisima Bo, and Purisima Bo 2. Detailed drilling from the San Pedro ramp has defined areas left un-mined by previous operators (below lowest levels, and in lower grade areas). Drilling north of the old San



Ignacio shaft from 100N to 400N better defines the Santo Niño vein. The Santo Niño zone is 20 m into the footwall of the Purisima vein. Exploration drilling at San Ignacio in 2021 evaluated the extension of the Purisima vein between the historical Santo Niño and San Pedro shafts and intersected a 300 m long mineralized zone that is near to surface and extends over 150 m down dip (Great Panther Mining Ltd., 2021).

All exploration drilling at San Ignacio was suspended in November 2021 (Great Panther Mining Ltd., 2022c).

### 6.3 Historical Mineral Resource Estimates

The following text summarizes historical mineral resource estimates ("MREs") calculated by previous operators for San Ignacio.

The Authors of this Report have not done sufficient work to classify any of the historical estimates discussed in this section as current mineral reserves or mineral resources. The Authors have referred to these estimates as "historical resources" and the reader is cautioned not to treat them, or any part of them, as current mineral resources. The historical resources summarized below were included simply to demonstrate the mineral potential, and to provide the reader with a complete history of the Property. The Authors of this Report have reviewed the information in this section, as well as that within the cited references, and have determined that it is suitable for disclosure.

A current mineral resource estimate prepared in accordance with NI 43-101 and CIM guidance for San Ignacio is presented below in Section 14.

### 6.3.1 Historical Mineral Resource Estimates for San Ignacio (2011 to 2020)

Several historical MREs have been calculated for the San Ignacio Property from 2011 to 2020 (Table 6.2). The historical MREs presented in Table 6.2 were calculated prior to the implementation of the standards set forth in NI 43-101 and Canadian Institute of Mining (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May, 2014) and CIM Estimation of Mineral Resources & Mineral Reserves Best Practices Guidelines (November, 2019).

Effective Date	Company	Class	Tonnes	Au (g/t)	Ag (g/t)	Method	Cut-off	Source
08/30/2011	Janelle Smith	Inferred	611,000	2.05	127	Ordinary Kriging	Base case cut-off grade of 118 g/t silver equivalent, with a 50:1 ratio of Ag:Au value.	Smith (2011)
03/31/2012	Michael Waldegger	Inferred	826,000	2.28	121	Ordinary Kriging	Base case cut-off grade of 125g/t silver equivalent, with a 60.8:1 ratio of Ag:Au value.	Waldegger (2012)

# Table 6.2 Summary of Historical Mineral Resources, San Ignacio (2011 to 2020; modifiedfrom Brown and Nourpour, 2022)



Effective	Company	Class	Tonnes	Au (g/t)	Ag (g/t)	Method	Cut-off	Source
04/06/2014	Robert F.	Indicated	103,000	3.54	165	ID3	Base case cut-off grade of	Waldegger and
	Brown & Michael Waldegger	Inferred	737,000	2.04	115		125g/t silver equivalent, with a 60:1 ratio of Ag:Au value.	Brown (2014)
07/31/2014	Robert F.	Indicated	180,300	3.03	173	ID3	USD\$100 per tonne cut-	Brown (2014)
	Brown	Inferred	787,700	3.26	160		off.	
07/31/2015	Robert F.	Measured	249,810	3.39	151	ID3	USD\$74 per tonne cut-off.	Brown (2015)
	Brown	Indicated	110,542	2.79	133			
		M&I	360,352	3.2	145			
		Inferred	770,950	2.76	138			
07/31/2016	Robert F.	Measured	408,327	2.88	116	ID3	Cut-offs are based on the	Brown (2016)
	Brown	Indicated	133,398	2.56	106		marginal operating costs	
		M&I	541,725	2.8	114		USD\$57/tonne.	
		Inferred	645,318	2.15	121			
08/31/2017	Matthew C.	Measured	801,468	3.09	142	ID3	Cut-offs are based on the	Wunder (2018)
	Wunder	Indicated	196,949	2.68	215		marginal operating costs	
		M&I	998,417	3.01	141		USD\$71/tonne.	
		Inferred	573,431	2.44	130			
10/31/2019	Robert F.	Measured	314,863	3.06	156	ID3	Cut-offs are based on full	Brown and
	Brown & Mohammad	Indicated	71,554	2.87	173		operating costs per mining	Nourpour (2020)
	Nourpour	M&I	386,417	3.03	159		USD\$100/tonne.	(2020)
		Inferred	501,870	2.69	149			
07/31/2020	Robert F.	Measured	314,802	2.64	142	ID3	Cut-offs are based on full	Brown and
	Brown & Mohammad	Indicated	73,096	2.19	144		operating costs per mining	Nourpour
	Nourpour	M&I	387,898	2.56	142		USD\$100/tonne.	(20200)
	'	Inferred	992,835	2.33	169			

# 6.3.2 Historical Mineral Resource Estimate for San Ignacio (2021)

On February 28, 2022, Great Panther reported a MRE for San Ignacio (Table 6.3). This MRE was supported by a technical report titled, "NI 43-101 Mineral Resource Update Technical Report on the Guanajuato Mine Complex, Guanajuato and San Ignacio Operations, Guanajuato State, Mexico", prepared for Great Panther by Brown and Nourpour (2022), with an effective date of July 31, 2021. The Authors are referring to the 2021 Great Panther MRE as a "historical resource" and the reader is cautioned not to treat it, or any part of it, as a current resource.



Table	6.3	Summary	of	Great	Panther	Historical	Mineral	Resource	Estimate	2021,	San
Ignaci	o (E	ffective Da	te .	July 31	, 2021; B	rown and N	lourpour	, <b>2022</b> )			

Class	Tonnes	Ag(g/t)	Ag(oz)	Au(g/t)	Au(oz)	Ag eq (g/t)	Ag eq (oz)	Au eq (g/t)	Au eq (oz)
Total Measured	202,682	148	967,124	2.8	18,267	387	2,523,073	4.56	29,683
Total Indicated	65,146	134	281,611	2.79	5,839	372	779,653	4.38	9,172
Total M&I	267,828	145	1,248,734	2.8	24,106	384	3,302,726	4.51	38,856
Total Inferred	445,217	178	2,551,719	2.65	38,002	404	5,781,944	4.75	68,023

Notes:

1. Cut-offs were based on the marginal operating costs per mining area being USD\$127.40/tonne for San Ignacio.

2. Block model grades converted to USD's value using plant recoveries of 87.15% Ag, 86.70% Au, and net smelter terms negotiated for concentrates.

3. Rock Density for San Ignacio is 2.64t/m<sup>3</sup>,

4. Totals may not agree due to rounding.

5. Grades in metric units.

6. Contained silver and gold in troy ounces.

7. Minimum true width 0.5m.

8. Metal Prices USD\$20.00/oz silver, and USD\$1,650.00/oz gold.

9. Ag eq oz were calculated using 85:1 Ag:Au ratio.

10. Inferred Mineral Resources have a great amount of uncertainty as to their existence and as to whether they can be mined legally or economically. It cannot be assumed that all or part of the Inferred Mineral Resources will ever be upgraded to a higher category.

11. Mineral Resources that are not Mineral Reserves have no demonstrated economic viability. The potential quantity and grade is conceptual in nature, there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the target being delineated as a Mineral Resource.

#### 6.4 Production History (2013 to 2021)

There are twelve known historical workings on the San Ignacio Property, including major shafts at San Ignacio, Purisima, Pili, and San Jose de Gracia. No historical production figures are available for these workings except for those relating to Cooperative mining from the San Ignacio shaft.

The historical Cooperative mining only exploited approximately 500 m of strike length along one of the three known structures on the Property, and there is no record of any previous exploration elsewhere on the claim block. Cooperative production records from 1977 to 2001 indicate that 617,455 tones grading 113 g/t Ag and 1.01 g/t Au were extracted from the San Ignacio shaft, targeting the Purisima structure, with an average rate of extraction of 85 t per day. San Ignacio was put on care and maintenance by the Cooperative in 2001 due to low metal prices but the infrastructure remained intact (Great Panther Silver Limited, 2011).

At San Ignacio, mineralized material was initially recovered from low-grade surface stockpiles in the San Jose de Gracia shaft area and processed at the Company's Cata plant. A total of 10,252 tonnes averaging 0.42 g/t Au and 61 g/t Ag were processed from March 2011 to March 2012.

On August 21, 2012, Great Panther purchased surface rights totalling 19.4 hectares to allow for the development of a ramp, waste dumps and auxiliary infrastructure at San Ignacio (Great Panther Silver Limited, 2013). Development commenced with the construction of a 2 km access road to an underground portal in October 2013 (Great Panther Silver Limited, 2014). Early development focused on infrastructure work south of the Intermediate vein on higher grade zones with wide and consistent veins (Great



Panther Silver Limited, 2015). Mine development in 2015 totalled 4,333 m and was concentrated on infrastructure work including the preparation of loading bays, pumping stations and developing access levels to stopes (Great Panther Silver Limited, 2016). Total mine development in 2017 and 2018 was 3,649 m and 2,558 m, respectively (Great Panther Silver Limited, 2019).

San Ignacio is an underground operation, and the production process consists of conventional mining incorporating cut and fill and resue methods. The mining method at San Ignacio is mechanized cut and fill, with fill provided by waste development. Jacklegs were used in stopes for 70 degrees to vertical production holes, and if necessary, the hanging wall was blasted to create a 2.0 m wide stope. The San Ignacio operation comprises one shaft and adit used for ventilation, levels, and one main access ramp.

The material extracted at San Ignacio is trucked approximately 20 km to the Cata processing plant, a pyrite-silver-gold flotation circuit, using highway rated conventional 20-tonne trucks. Blending of the San Ignacio mineralized material and mineralized material from Great Panther's Guanajuato operation began in July 2016 and the processing (milling) of the blended material continued until Guanajuato was placed on care and maintenance in November 2021. San Ignacio was subsequently placed on care and maintenance in January 2022.

Great Panther mining at San Ignacio focused on the Nombre de Dios zones, with lesser production from Melladito South and Intermediate zones, and initial development in the Purisima zone. Total production at San Ignacio from October 2013 to July 31, 2021, was 1,130,922 tonnes (Brown and Nourpour, 2022).

A summary of Great Panther's production from San Ignacio and the VMC Guanajuato operation between 2013 and 2021, including total metal produced, is presented in Table 6.4. San Ignacio production is summarized in Table 6.5. The blending of mineralized material from San Ignacio and the VMC commenced in 2016; therefore, the 2016-2021 reported figures in Table 6.4 reflect total production from both operations. The reader is cautioned that the Company's VMC Guanajuato operation is situated off-Property.

The increase in production shown in the years 2014 to 2017 reflects the increase in production from San Ignacio. In 2018, production declined at Guanajuato and was increasingly dominated by San Ignacio. In 2019 and 2020, production was almost entirely from San Ignacio, with Guanajuato placed on care and maintenance from January to July 2019, with limited production once operations resumed. On the account of the directive of the Mexican Federal Government, both mining operations were suspended from April 2 to June 3, 2020, to mitigate the spread of the COVID-19 virus. Guanajuato and the Cata processing plant were placed on care and maintenance effective late November 2021 and San Ignacio was placed on care and maintenance effective early January 2022 while awaiting permits to extend the tailings facility (Great Panther Mining Ltd., 2022b).

A current mineral resource estimate prepared in accordance with NI 43-101 and CIM guidance for San Ignacio is presented below in Section 14.



Year <sup>1</sup>	Tonnes Mill/Mine Guanajuato	Tonnes Mill/Mine San Ignacio	Tonnes (milled)	Production Ag (oz)	Production Au (oz)
2013	220,463	1,082	221,545	1,079,980	15,063
2014	213,658	54,154	267,812	1,239,009	15,906
2015	180,691	129,253	309,944	1,708,061	21,126
2016	136,349	183,694	320,043	1,473,229	21,626
2017	131,335	185,475	316,810	1,386,964	21,501
2018	88,364	212,650	301,014	1,096,757	19,073
2019	7,610	179,886	187,610	590,781	11,588
2020	33,248	119,560	151,001	520,903	6,779
2021	37,975	111,354	149,329	485,315	6,659
Totals	1,049,693	1,177,108	2,225,108	9,580,999	132,662

#### Table 6.4 Production Summary and Metal Produced, San Ignacio and Guanajuato (Off-Property) Operations

Notes:

1. 2013-2015 reported figures reflect tonnes milled; 2016-2021 reported figures reflect tonnes mined which has a small discrepancy to tonnes milled.

Year	Tonnes	Head Grade Ag (g/t)	Head Grade Au (g/t)
2013	1,082	121	2.11
2014	54,154	129	2.49
2015	129,253	147	3.19
2016	183,694	120	2.99
2017	185,475	115	3.11
2018	212,650	105	2.57
2019	179,886	110	2.31
2020	119,560	110	1.75
2021	111,354	94	1.98
Totals	1,177,108	115	2.61

## Table 6.5 Production Summary, San Ignacio

No mineral reserves have ever been estimated for San Ignacio. Great Panther commenced production at San Ignacio without having completed final feasibility studies. Accordingly, the production decisions were not based on any feasibility studies of mineral reserves demonstrating economic and technical viability of San Ignacio. As a result, there may be increased uncertainty and risks of achieving any particular level of recovery of minerals from San Ignacio, or the costs of such recovery. As San Ignacio does not have established mineral reserves, the Company faces higher risks that anticipated rates of production and production costs, as reported in Brown and Nourpour (2022). These risks could have a material impact on the ability to generate revenues and cash flows to fund operations from and achieve or maintain profitable operations at San Ignacio.



# 7 Geological Setting and Mineralization

Information on the regional and local geology and mineralization is sourced from previous technical reports on the Property by Rennie and Bergen (2011), Smith (2011), Brown (2012), Waldegger (2012), Brown and Sprigg (2013), Brown (2014), Waldegger and Brown (2014), Brown (2015; 2016; 2017), Wunder (2018) and Brown and Nourpour (2020; 2020b; 2020c; 2022), and references therein. The Authors of this Report have reviewed these sources and consider them to contain all the relevant geological information regarding the San Ignacio Property.

# 7.1 Regional Geology

San Ignacio lies within the Guanajuato Mining District in the southern part of the Mesa Central physiographic province.

The Mesa Central is an elevated plateau of Cenozoic volcanic and volcaniclastic rocks in central Mexico. The Mesa Central is bound to the north and the east by the Sierra Madre Oriental, to the west by the Sierra Madre Occidental and to the south by the Trans-Mexican Volcanic Belt. The Mesa Central comprises a Paleocene to Pliocene sequence of dacite-rhyolite, andesite and basalt, aged 66 Ma to present, with related intrusive bodies and intercalated local basin fill deposits of coarse sandstones and conglomerates. This Cenozoic volcanic-sedimentary sequence overlies a package of deformed and weakly metamorphosed Mesozoic submarine mafic volcanic and turbidite rocks.

Within the Mesa Central, the Property is situated within the Sierra de Guanajuato, a northwest-trending anticlinal structure measuring approximately 100 km long and 20 km wide. The strata within the belt are transected by northwest, north, east-to-west, and northeast trending regional scale faults. The northwest trending structures predominantly control the position of mineralization. Normal fault movement along northeast trending faults resulted in the downward displacement of certain blocks and the preservation of strata that was eroded in other areas. The northwest faults and structural intersections along these faults are therefore important locators of mineral camps within the belt.

The Guanajuato Mining District represents the central zone of a polymetallic mineralized belt that runs from south-central Mexico, through Guanajuato, and onwards to north-central Mexico (Carrillo-Chávez et al., 2003). The mineralized belt is related to subduction processes occurring in the Middle Tertiary and by extensional stress defined by the northwest to southeast orientation of the mineralized veins (Randall et al., 1994). The three main north-west trending precious metal-bearing vein systems in the Guanajuato Mining District are Sierra, Veta Madre and La Luz. The geology and mineralized systems of the region are illustrated in Figures 7.1 and 7.2.

The Guanajuato Mining District is underlain by Mesozoic marine sediments and predominantly mafic submarine lava flows, (252 Ma – 66 Ma), of the Luz and Esperanza Formations, which are weakly metamorphosed and intensely deformed. This basal



sequence is cut by a variety of intrusive bodies ranging in composition from pyroxenite to granite with tonalitic and dioritic intrusive being the most volumetrically significant.

Cretaceous volcanic rocks (145 Ma – 79 Ma) of La Luz Basalt underlie the San Ignacio Property. These rocks are part of a volcanic-sedimentary complex that has various tectonic interpretations, but in general preserves a tectonic history thought to be related to a north-eastward tectonic thrust event. By contrast, much of the area to the south, and in and around Guanajuato, is underlain by a series of Tertiary volcanic rocks that lie unconformably on top of the La Luz Basalt. The lower Guanajuato Conglomerate is widespread and is of mid-Eocene to early Oligocene age (41.2 Ma - 27.82 Ma). Later volcanic rocks were deposited unconformably on the Guanajuato conglomerate in a caldera setting at the intersection of regional northeast and northwest mid-Oligocene extensional fracture systems.

## 7.2 Property Geology

San Ignacio is underlain by a monotonous package of basalt (Kbas) and andesite (Kanlf) volcanic rocks belonging to the lower Cretaceous La Luz andesite (Randall et al., 1994; Stewart, 2006; Baker, 2011). The basalt generally has subtle to well-developed pillow structures that are locally flattened. In a few localities, inter-pillow hyaloclastite is present and is characterized by a fine breccia composed of devitrified glass shards in a fine groundmass. Primary layering and tops-up indicators are generally difficult to determine from the small outcrops typical of the property, but according to Stewart (2006), the San Ignacio property stratigraphy is not overturned.

Andesite is generally massive to locally feldspar-phyric to laminated (very rarely) and was probably formed by accumulation of a series of extrusive flows and ash falls.

Locally, these volcanic rocks have interbeds composed of sandstone, siltstone, or fine, pale ash layers (generally sericite-quartz). A more coarse-grained felsic (possibly dacite) unit is exposed northwest of the San Jose mine in the southern part of the property. Where observed, bedding is generally shallowly dipping. The local geology of San Ignacio is presented in Figure 7.3.

The mapped distribution of basalt and andesite units is consistent with a lower unit of pillowed basalt, overlain and broadly in-folded with andesite. Although Stewart (2006) mapped mostly basalt across the San Ignacio property, he also reported that the stratigraphy east of Guanajuato generally consists of a lower pillowed basalt unit overlain by varied andesite volcanic rocks, so it is likely that similar stratigraphy is present at San Ignacio.

The mapped distribution of basalt and andesite units is consistent with open, shallowly plunging, property-scale folding.











#### Figure 7.2 Mineralized Systems of the Guanajuato Mining District

Effective Date: September 21, 2023





Figure 7.3 Local Geology of the San Ignacio Property



Two types of dykes are present on the San Ignacio Property, and both are quite rare. In the northern part of San Ignacio, a few fine-grained mafic dykes are exposed and preserve foliation and fractures like the host volcanic rocks, so these dykes are probably quite early. Fine-grained felsic dykes occur locally near the Veta Nombre de Dios structure and are generally moderately silicified with minor fine-grained pyrite.

## 7.3 Mineralization

Mineralization at San Ignacio is closely associated with the structural history of the region.

The most important phase of mineralization in the Guanajuato district consists of epithermal Ag-Au veins contained within northwest-trending, Cenozoic-age faults. The La Luz structure consists of numerous mineralized fractures in a north-westerly trending orientation, which extends for a known strike of approximately 8 km long. Historically productive veins at San Ignacio include Veta Melladito and Veta Purisima. Veins identified at San Ignacio include the Melladito, Melladito Bo, Melladito South, Melladito S3, Intermediate, Intermediate 2, Nombre de Dios (NDD), Nombre de Dios 1.5, Nombre de Dios 2N, Nombre de Dios 2S, Nombre de Dios 3, Purisima, Purisima W5, Purisima HW, Purisima FW, Purisima Int., Purisima Bo, Purisima Bo 2, and Santo Niño veins (Figure 7.4).

Mineralization at San Ignacio is contained within tabular veins, vein stockwork and breccias. The eighteen veins with structural continuity inferred from surface mapping and diamond drilling from surface, and now with extensive underground development, have been defined up to 2,200 m along strike and 150 m down dip. The five Melladito and Intermediate veins are very steeply dipping, the five Nombre de Dios veins are shallowly dipping (45-50° west) and are likely off-shoots of the Intermediate veins, and the eight Purisima veins are shallowly dipping at 45-50° to the west. The veins are accompanied by hydrothermal alteration, consisting of argillic, phyllic, silicic and propylitic facies.

The primary commodities of San Ignacio are silver and gold with approximately equal contributions, by value, of each. Mineralization consists of fine-grained disseminations of acanthite and pyrargyrite (silver minerals), electrum (gold-silver mineral), with accessory pyrite, as well as very minor sphalerite and chalcopyrite. Mineral textures in this zone are typically fracture filling, drusy and coliform masses.

Average grades of the eighteen San Ignacio veins range from 58 to 237 g/t Ag and 1.65 to 3.84 g/t Au.

### 7.3.1 Melladito Veins

The Melladito vein dips steeply to the east, with a true width ranging from 0.25 to 19.5 m. The vein has been delineated to a maximum of 1,450 m along strike and to a depth of 350 m. The structure is open at depth and along strike; however, the strongest mineralization has been observed in a core zone 550 m in strike length and from surface to 150 m down dip.



Figure 7.4 Three-Dimensional Model of Mineralization and Underground Workings, San Ignacio (Top: Plan View; Bottom: Isometric View)





The Melladito Bo vein is a sigmoidal loop on the footwall side of the Melladito vein between 200 to 500N. It dips steeply to the east and has an average width of 2.5 m. Silver-gold grades in the thicker sections are often on the footwall side.

The Melladito South vein, dips steeply to the east and has an average width of 1 to 2 m. It is noted from 0S to ~650S where it traces off the property and plunges below the Purisima vein.

#### 7.3.2 Intermediate Veins

The Intermediate vein is steeply dipping and narrow with a true width ranging from 0.25 to 8.5 m. It has been delineated for 400 m along strike and 350 m below surface. It is a splay of the Melladito vein and merges into the Melladito vein at approximately 475N. Further south, the structure continues as the Melladito vein.

The Intermediate 2 vein is positioned east of the Intermediate vein. It is a near vertically dipping relatively narrow (approximately 1.0 m in width) vein.

#### 7.3.3 Nombre de Dios Veins

The Nombre de Dios ("NDD") vein is narrow, ranging from 0.25 to 4 m in width, and shallowly dipping at 45 to 60° to the southwest. It has been delineated for 600 m along strike and 180 m down dip. The vein is open to the south. At depth, the Nombre de Dios vein appears to intersect the Intermediate and Melladito veins and is therefore limited in its potential down dip extent. To the north, it terminates at line 850N where it may continue in Nombre de Dios 2N with a 40 m offset to the east.

The Nombre de Dios 2S runs parallel to the Nombre de Dios and Nombre de Dios 1.5 structures. It has been delineated for 300 m from 150 to 450N. The vein dips 70° to the southwest. The average width of this vein is 1.5 m.

The Nombre de Dios 2N is narrow, ranging in width from 0.25 to 4 m, and shallowly dipping at 45° to the southwest. It has been delineated for 400 m along strike and 100 m down dip. The vein is open to the north. To the south, it terminates at line 850N where it may continue in Nombre de Dios 1 with a 40 m offset to the west.

The Nombre de Dios 1.5 is a parallel vein located between the Nombre de Dios and Nombre de Dios 2S veins. It has been delineated for 400 m from 150 to 550N. The vein dips 60° to the southwest. The average width of this vein is 1 m.

The Nombre de Dios 3 vein is a small segment which is near vertical dipping. It could be a fault offset of the Intermediate 2 vein.



## 7.3.4 Purisima Veins

The Purisima vein dips at 45 to 50° to the southwest, and ranges in width from 0.5 to 3 me. It strikes to the north-northwest, north of the old San Ignacio mine shaft, but at the shaft the vein swings to a northwest orientation, then merges with the Melladito South vein at 400S where it bends back to a north-northwest orientation.

The Purisima Bo is a footwall splay to Purisima dipping at 75° to the southwest. It includes a 10 m wide bulge in the northern part, but generally averages 1 to 2 m in thickness. Both the Purisima and Purisima Bo were sites of mining from the 17th to early 20th centuries (the historical San Pedro and Mexiamora shafts).

The Purisima Int vein occurs between the Purisima Bo and Purisima vein, in a complex area where the Purisima veins merge with the Melladito vein system.

The Purisima HW vein is ~20 m above the Purisima vein. Most of the Purisima HW vein, typically 0.5 to 2 m thick, seems to be mostly in-situ; however, some historical mining has occurred along the structure. Recent development by Great Panther has noted the Purisima HW veins (Purisima W5 and Purisima Bo 2) to be steeper dipping splays of the Purisima structure.

The Santo Niño vein is the northern continuation of the Purisima structure in the old Santo Niño shaft area. The Santo Niño vein is approximately 20 m into the footwall of the Purisima vein in the old San Ignacio shaft area. Some mining has occurred along the Santo Niño vein, where width is typically 0.5 to 1.5 m.



# 8 Deposit Type

The primary deposit type of interest at the Property is low sulphidation epithermal silvergold mineralization. The epithermal deposit model is presented in Figure 8.1.





Epithermal systems are hydrothermal deposits formed near surface (<1km below the water table) from low temperature fluids (100-320°C) that originate from meteoric, magmatic or a combination of these sources. Epithermal systems may form in association with hot springs, and at depths in the order of several hundred's meters below the paleosurface. Hydrothermal processes are driven by remnant heat from volcanic activity, which in the case of Guanajuato occurred in the middle to late Tertiary. Circulating thermal waters, rising through fissures, eventually reach the "boiling level" where the hydrostatic pressure is low enough to allow boiling to occur. This can impart a limit to the vertical extent of the mineralization as the boiling and deposition of minerals is confined to a relatively narrow band of thermal and hydrostatic conditions. However, in many cases repeated healing and reopening of host structures can occur, which causes cyclical vertical movement of the boiling zone, resulting in mineralization that spans a much broader range of elevations. This appears to have occurred at Guanajuato.

The mineral deposits in the region are classic fissure-hosted low sulphidation epithermal gold-silver-bearing quartz veins and stockwork. Low sulphidation epithermal mineralization are vein type deposits that form at shallow from dominantly meteoric fluids



with neutral to near neutral pH and low temperature. Banded veins, drusy veins, crustiform veins, and lattice textures are common. Low sulphidation deposits typically have Au-Ag mineralization, occasionally with banded adularia, sericite, rhodonite and rhodocrosite. Alteration in these systems is often sericite-illite proximal to mineralization grading to illite-smectite and to chlorite  $\pm$  epidote  $\pm$  calcite alteration on the outer margins of the system. Mineralization in low sulphidation systems generally consists of Au  $\pm$  Ag with minor Zn, Pb, Cu, Mo, As, Ab and Hg (Sillitoe and Hedenquist, 2003; Cooke and Hollings, 2017).

Mineralization of significance at the Property consists of fine-grained disseminations of acanthite, electrum, aguilarite and naumannite with accessory pyrite, and relatively minor sphalerite, galena and chalcopyrite. Gangue minerals include quartz, calcite, adularia and sericite. The veins are accompanied by hydrothermal alteration consisting of argillic, phyllic, silicic and propylitic facies. Mineral textures in this zone are typically fracture-filling, drusy and coliform masses.

Epithermal type precious metal deposits in the La Luz vein system and in the San Ignacio Property area are strongly vertically controlled and pinch to centimeter scale at surface, associated with weak shear zones, minor argillic alteration and weakly anomalous precious metal values. The mineralized vertical interval typically is 100 to 150 m; however, it can range from 50 m to well beyond 250 m.

San Ignacio includes low sulphidation epithermal system deposits characterized by a quartz-calcite vein/breccia system; silver (acanthite and pyrargyrite), gold (electrum); very low sulphide (pyrite) content; shear controlled; and vertical extension of 200 m.



# 9 Exploration

From August 2022 to May 2023, GSilver collected a total of 5,681 underground channel samples from 2,498 sample locations at San Ignacio. Channel sampling was completed in accessible stopes and development headings. Most of the samples were collected from the NDD veins (n=3,402) and the Melladito veins (n=1,584), with additional samples collected from the Purisima and Intermedia veins. The results of the recent underground channel sampling are presented in Figures 9.1 to 9.3.

Exploration results in this section are reported as silver equivalent (AgEq\*), with AgEq\* calculated using metal prices set at US\$1,800/oz Au and US\$22.50/oz Ag, with 87% recovery for both, yielding a Ag to Au ratio of 80:1. This remains consistent with the ratio that is utilized internally and in public disclosure of exploration results by GSilver and is maintained herein.

Over half of the samples (51.2%; n=2,910) returned greater than 100 g/t AgEq\* up to a maximum value of 89,439 g/t AgEq\*, 15.7 per cent (%) of the samples (n=892) returned greater than 500 g/t AgEq\* ranging from 500 g/t AgEq\* to 89,439 g/t AgEq\*, and 4.9% of the samples (n=282) returned greater than 1,000 g/t AgEq\*, ranging from 1001 g/t AgEq\* to 89,439 g/t AgEq\*. Maximum values of each vein returned in the 2022-2023 underground channel sampling include:

- 89,439 g/t AgEq\* over a sample length of 0.7 m returned from sample 547447 collected from NDD on mine level 2283 and 13,628 g/t AgEq\* over a sample length of 1 m returned from sample 548088 collected from NDD 3 on mine level 2215.
- 7,380 g/t AgEq\* over a sample length of 0.5 m returned from sample 544469 collected from the Melladito vein on mine level 2145 and 5,803 g/t AgEq\* over a sample length of 0.7 m returned from sample 541443 collected from the Melladito vein on mine level 2143.
- 4,291 g/t AgEq\* over a sample length of 0.3 m returned from sample 548837 and 2,987 g/t AgEq\* over a sample length of 0.4 m from sample 548843, both collected from the Purisima vein on mine level 2140.
- 1,885 g/t AgEq\* over a sample length of 0.7 m returned from sample 548928 and 1,664 g/t AgEq\* over a sample length of 0.5 m from sample 549167, both collected from the Intermedia vein on mine level 2208.



<sup>\*</sup> AgEq values are calculated using metal prices set at US\$1,800/oz Au and US\$22.50/oz Ag, with 87% recovery for both, yielding a Ag to Au ratio of 80:1

Channel samples were collected by GSilver sampling personnel in development drifts and production stopes. The lengths of the channels ranged from 0.2 to 15.6 m and averaged 1.4 m. Samples were collected using a hammer and chisel moving from the footwall to the hanging wall side of the structure. Sample lengths ranged from 0.15 to 4 m and averaged 0.62 m. Sample depths of 0.02 to 0.03 m were maintained. Sample weights generally ranged from 0.50 to 5.0 kg. The rock chips were captured on a 1.5 by 1.5 m canvas sheet. Each sample was crushed to approximately ¼ inch size fraction on a square steel plate and homogenized. The sample was then divided into four equal parts with two opposite parts selected for an individual sample.

The sample was placed in poly sample bags inscribed with the sample ID and labelled with the sample ID, date, mine, site (drift, stope, shaft, etc.), and the name of the sampler. The sample ID was marked in the field along the sample line using spray paint. The sample width was recorded in a field notebook.

Each sample was located using a topographic control point in the field and was marked on a topographic map along with the sample number. The samples were sequenced with standards and blanks inserted according to the Company's QA-QC procedure at a rate of 1 in every 20 for each QA-QC sample type, as summarized in Section 11.3.2. For duplicates, GSilver used 5% of rejects and pulps for duplicate analysis due to erratic mineralization in the core samples. Regular umpire checks were undertaken for reject and pulp material using a third-party, ISO accredited laboratory. The samples were delivered to the Cata laboratory for analysis via Aqua Regia with an atomic absorption spectroscopy (AAS) finish, and any that reported greater than 10 g/t Au or 300 g/t Ag were re-analysed by fire assay with a gravimetric finish. The Cata laboratory is independent of the Authors of this Technical Report; however, it remains under GSilver management and is not an independent laboratory.

The underground sampling completed by GSilver provided high-resolution geochemical data along significant strike lengths of the primary vein structures at San Ignacio, aiding in the delineation of unmined resources and confidence in the continuity of mineralization. This data led directly to increases in both scale and confidence in the San Ignacio mineral resources in the current MRE.











#### Figure 9.2 GSilver Underground Sampling Results Melladito South and NDD (AgEq\*)





#### Figure 9.3 GSilver Underground Sampling Results Melladito (AgEq\*)



# 10 Drilling

A total of 640 surface and underground diamond drillholes (DDH) totalling 120,674.3 m have been completed at San Ignacio from 2010 to 2023. Of these drillholes, the Company has completed 36 DDH, totalling 5,092.7 m, from November 2022 to June 2023. The drillholes and metreage contained in GSilver's database for San Ignacio are presented in Table 10.1. Collar locations are presented in Figure 10.1.

Historical exploration results are reported as silver (Ag), gold (Au), and/or silver equivalent (AgEq\*). Historical AgEq\* values are calculated using metal prices set at US\$1,800/oz Au and US\$22.50/oz Ag, with 87% recovery for both, yielding a Ag to Au ratio of 80:1. This ratio is in keeping with GSilver's current exploration practices and is maintained herein.

Year	No. of Drillholes	Total Depth (m)	Location	Company
2010	5	2,294.00	Surface	
2011	56	16,878.50	Surface	
2012	43	9,556.30	Surface	
2013	13	1,143.60	Surface	
2014	27	3,832.10	Surface, Underground	
2015	2015         34           2016         43		Surface, Underground	Orest Darithan
2016			Surface, Underground	Great Pantner
2017	102	22,165.00	22,165.00 Surface, Underground	
2018	53	11,722.40	Surface, Underground	
2019	75	10,721.10	Surface, Underground	
2020	72	10,157.70	Surface, Underground	
2021	81	13,341.90	Surface, Underground	
2022	13	1,797.70	Underground	Cuanaiuata Silvar
2023	23	3,295.00	Underground	Guanajuato Silver
Total	640	120,674.40		

### Table 10.1. San Ignacio Drilling Summary (2010-2023)

# 10.1 Historical Drilling Summary (1979-2021)

The Sociedad Cooperativa Minera Metalurgica Santa Fe de Guanajuato ("the Cooperative") commenced diamond drilling at San Ignacio in 1979 from underground workings at the San Ignacio shaft. The Cooperative drilled exploration holes from surface sporadically during the period from 1982 to 1990, targeting a vein system parallel, and to the east of, the current target area of interest at San Ignacio. The Authors have not reviewed the Cooperative historical drill data and the core from the Cooperative drill programs no longer exists; however, hard copy logs and assays from the drill programs are available at the Cata mine site at Guanajuato.









Great Panther completed 604 DDH, totalling 115,581.70 m, at San Ignacio from 2010 to 2021. A detailed discussion of historical drilling completed at the Property and significant results of these drill programs are provided in Section 6.2.2 of this Report and in previous technical reports on the Property by Smith (2011), Waldegger (2012), Waldegger and Brown (2014); Brown (2014; 2015; 2016), Wunder (2018), Brown and Nourpour (2020; 2020c; 2022) and Livingstone et al. (2022).

Great Panther's drill programs targeted several mineralized veins and were completed at varying orientations, determined by the interpreted orientation of the target vein. The Great Panther diamond drillhole (DDH) depths ranged from 9 to 600 m, and averaged 191 m. The Great Panther drill programs led to the delineation of nine veins in the northern portion of San Ignacio, between grid line 100N and 1150N, and nine veins in the southern part of the property (San Pedro area) between 100N and 1100S.

The diamond drilling was completed BD Drilling, Servicios Drilling, Rock Drill of Aguascalientes, Mexico, Maza Drilling, Versa Perforaciones SA de CV, and KAV Drilling (Table 6.1; Section 6.2.2). Known information on the procedures and methodologies of drilling conducted on the Property from 2010 to 2021 is summarized below in Section 11. Additional validation of the historical data was completed by APEX personnel, under the direct supervision of Mr. Dufresne, during the calculation of the MRE. The historical drilling data used in the San Ignacio MRE and detailed in Section 14 of this Report has been deemed adequate and acceptable by the Authors for use herein.

# 10.2 GSilver Drilling Summary (2022-2023)

As of the Effective Date of this Report, the Company has completed 36 diamond drillholes (DDH), totalling 5,092.7 m, at San Ignacio. The drilling was conducted from November 2022 to June 2023. The drillholes were completed at several veins and at several mine levels with varying orientations, and azimuths ranging from 7 to 356° and inclinations ranging from -1 to -90° and +10 to +61°. The depths of the holes ranged from 43.5 to 295 m and averaged 141.5 m. Collar information for GSilver's 2022-2023 drill programs is presented in Table 10.2.

Initially, the primary focus of the drilling at San Ignacio was to target the Melladito vein system and extend mineralization in the southern and northern areas of the mine. The latter half of the drill program focused on the extension of mineralization from the Melladito, Purisima, and the Nombre de Dios vein systems. The drilling confirmed the continuity of the mineralization at depth within the Melladito vein and confirmed the mineralization extension at depth of the Purisima vein.

GSilver's recent drilling at San Ignacio was used in the MRE detailed in Section 14 of this Report. Significant results of the Company's drilling at San Ignacio are presented in Table 10.3. Drilling results in this section are reported as silver equivalent (AgEq\*), with AgEq\* calculated using metal prices set at US\$1,800/oz Au and US\$22.50/oz Ag, with 87% recovery for both, yielding a Ag to Au ratio of 80:1. This remains consistent with the ratio that is utilized internally and in public disclosure of exploration results by GSilver and is



maintained herein. Longitudinal sections showing the Melladito, Purisima, NDD1, NDD2, and NDD3 veins are presented in Figures 10.2 to 10.5, respectively.

Hole ID	Mine Level	Easting (m) Local	Northing (m) Local	Easting (m) UTM N83Z14	Northing (m) UTM N83Z14	RL (m) Local	Total Depth (m)	Azimuth	Inclination
UGSI22-001	RPA 440	-6307.01	-1995.78	258505.30	2328189.14	2113.74	150.5	254	-90
UGSI22-002	RPA 440	-6290.15	-1911.21	258523.32	2328273.47	2104.02	122.0	318	-52
UGSI22-003	RPA 440	-6289.69	-1913.83	258523.75	2328270.84	2103.81	105.5	235	-61
UGSI22-004	RPA 740	-6092.92	-2237.52	258716.02	2327944.47	2162.84	99.5	175	-68
UGSI22-005	RPA 740	-6095.79	-2236.79	258713.16	2327945.24	2165.58	43.5	236	30
UGSI22-006	RPA 740	-6095.39	-2236.84	258713.56	2327945.19	2162.79	164.0	274	-62
UGSI22-007	RPA 740	-6095.48	-2236.35	258713.48	2327945.68	2162.91	167.0	302	-51
UGSI22-008	RPA 740	-6093.31	-2239.96	258715.60	2327942.04	2163.48	127.0	148	-36
UGSI22-009	RPA 740	-6095.17	-2238.63	258713.76	2327943.39	2163.80	144.0	241	-79
UGSI22-010	NIV 740	-6415.91	-1696.60	258400.54	2328489.79	2209.68	137.0	173	-54
UGSI22-011	50 N	-6417.52	-1696.81	258398.93	2328489.60	2210.25	122.5	200	-31
UGSI22-012	RPA 35+	-6417.59	-1694.23	258398.89	2328492.18	2209.81	120.0	272	-73
UGSI22-013	RPA 35+	-6417.19	-1694.12	258399.30	2328492.28	2209.66	295.2	083	10
UGSI22-014	PZA#3, PO 680S	-6093.29	-2237.24	258715.66	2327944.76	2162.69	170.0	185	-75
UGSI23-001	PO 680 S	-6260.20	-2058.17	258551.24	2328126.11	2183.08	207.0	158	-78
UGSI23-002	SAN PEDRO 450	-6262.14	-2060.67	258549.26	2328123.64	2183.11	105.5	240	-57
UGSI23-003	450 SAN PEDRO	-6260.26	-2058.30	258551.18	2328125.98	2183.06	135.5	273	-71
UGSI23-004	450 SAN PEDRO	-6260.81	-2061.04	258550.59	2328123.25	2183.10	141.0	190	-69
UGSI23-005	RPA 892	-6764.39	-808.28	258064.37	2329382.81	2211.18	95.5	234	-1
UGSI23-006	RPA 892	-6763.37	-807.72	258065.40	2329383.36	2212.71	135.0	246	33
UGSI23-007	RPA 892	-6764.17	-808.00	258064.59	2329383.09	2213.11	139.0	270	39
UGSI23-008	XO 2140-711	-6188.20	-2306.79	258619.80	2327876.53	2138.99	174.0	028	-46
UGSI23-009	XO 2140-711	-6185.69	-2310.42	258622.26	2327872.86	2139.30	176.0	055	-38
UGSI23-010	XO 2140-711	-6189.10	-2305.74	258618.91	2327877.59	2138.85	163.5	007	-34
UGSI23-011	XO 2140-711	-6185.39	-2311.17	258622.55	2327872.11	2139.48	183.0	073	-29
UGSI23-012	XO-680	-6094.73	-2235.89	258714.24	2327946.13	2166.35	133.0	282	61
UGSI23-013	SAN PEDRO 442	-6180.01	-2154.48	258630.09	2328028.70	2130.42	135.5	258	-66
UGSI23-014	RPA 2210-745N	-6651.47	-1014.12	258174.43	2329175.44	2185.76	105.0	268	-66
UGSI23-015	RPA-2210-745N	-6649.31	-1017.39	258176.55	2329172.14	2185.77	132.5	190	-56
UGSI23-016	RPA-2210-745N	-6650.76	-1013.21	258175.16	2329176.34	2186.07	107.0	313	-44
UGSI23-017	RPA-2210-745N	-6650.75	-1018.45	258175.09	2329171.10	2186.39	75.5	214	-37
UGSI23-018	RPA-GRAL 551	-6546.69	-1391.08	258274.00	2328797.08	2245.74	134.0	356	-41
UGSI23-019	RPA-GRAL 551	-6546.88	-1391.34	258273.80	2328796.82	2245.47	146.0	349	-66
UGSI23-020	RPA-GRAL 551	-6546.25	-1391.38	258274.43	2328796.77	2245.42	106.5	018	-61
UGSI23-021	RPA 551	-6766.31	-1192.35	258057.15	2328998.81	2233.50	203.0	052	-40
UGSI23-022	RPA 551	-6765.88	-1192.96	258057.57	2328998.20	2233.30	192.0	071	-44

 Table 10.2 San Ignacio Drillhole Collar Information (2022-2023)



Hole ID	Vein	From (m)	To (m)	Width (m)	True Width (m)	Au (g/t)	Ag (g/t)	AgEq* (g/t)
UGSI22-002	Melladito	67.80	68.40	0.60	0.56	1.65	12	144
UGSI22-004	Melladito (Branch)	61.95	62.60	0.65	0.62	1.92	11	165
UGSI22-004	Melladito	68.30	70.80	2.50	1.82	3.11	14	263
UGSI22-004	Including	68.30	68.80	0.50	0.36	3.32	12	278
UGSI22-004	Including	68.80	69.55	0.75	0.55	2.37	12	202
UGSI22-004	Including	69.55	70.30	0.75	0.55	3.32	21	287
UGSI22-004	Including	70.30	70.80	0.50	0.36	3.70	7	304
UGSI22-005	Melladito (Branch)	38.50	39.85	1.35	1.31	0.74	87	146
UGSI22-006	Melladito	93.75	100.20	6.45	4.92	5.11	810	1,219
UGSI22-006	Including	93.75	94.30	0.55	0.42	25.84	4,914	6,981
UGSI22-006	Including	94.30	94.85	0.55	0.42	28.23	1,693	3,951
UGSI22-006	Including	94.85	96.35	1.50	1.14	0.70	84	140
UGSI22-006	Including	96.35	97.40	1.05	0.81	0.37	123	153
UGSI22-006	Including	97.40	98.50	1.10	0.84	0.54	434	478
UGSI22-006	Including	98.50	99.50	1.00	0.77	0.71	610	667
UGSI22-006	Including	99.50	100.20	0.70	0.53	0.71	354	411
UGSI22-008	Melladito (Branch)	57.15	58.05	0.90	0.89	1.58	2	129
UGSI22-009	Melladito (Branch)	70.20	71.10	0.90	0.46	1.01	76	158
UGSI22-014	Melladito (Branch)	66.75	67.85	1.10	0.63	1.91	5	158
UGSI23-002	Hanging Wall Vein	25.30	26.00	0.70	0.57	1.28	26	129
UGSI23-003	Wall vein	35.25	35.60	0.35	0.17	4.03	52	374
UGSI23-005	Melladito	87.50	89.00	1.50	1.50	0.85	8	76
UGSI23-006	Melladito	109.25	111.75	2.50	2.48	1.08	6	9.3
UGSI23-008	HW Purisima	1.00	3.70	2.70	1.90	1.95	501	657
UGSI23-008	Including	1.00	2.00	1.00	0.70	3.42	744	1018
UGSI23-008	Purisima	16.55	16.90	0.35	0.22	2.01	2	163
UGSI23-008	Melladito	151.55	152.00	0.45	0.35	0.23	94	113
UGSI23-009	HW Purisima	0.00	3.00	3.00	1.93	1.26	415	516
UGSI23-009	Including	1.85	2.20	0.35	0.22	4.14	2020	2351
UGSI23-009	Melladito (Branch)	123.35	124.30	0.95	0.77	0.25	113	133
UGSI23-009	Including	123.80	124.30	0.50	0.40	0.46	215	252
UGSI23-010	HW Purisima	4.35	5.25	0.90	0.45	1.78	557	699
UGSI23-010	Purisima	17.80	21.30	3.50	2.14	1.68	8	142
UGSI23-010	Including	20.30	21.30	1.00	0.64	2.57	9	215
UGSI23-010	Melladito	109.80	113.20	3.40	1.74	1.72	122	260
UGSI23-010	Including	111.80	113.20	1.40	0.60	2.94	151	386
UGSI23-010	Melladito	124.00	131.90	7.90	4.89	0.32	334	359
UGSI23-010	Including	128.55	129.30	0.75	0.37	1.25	1947	2047
UGSI23-010	Including	131.00	131.90	0.90	0.52	0.44	383	418
UGSI23-011	HW Purisima	0.00	3.40	3.40	2.22	0.78	112	175
UGSI23-011	Including	3.90	4.15	0.25	0.24	1.00	254	334
UGSI23-011	HW2 Purisima	6.00	6.55	0.55	0.48	3.26	260	520

# Table 10.3. Significant Results of GSilver's 2022-2023 San Ignacio Drill Programs



Hole ID	Vein	From (m)	To (m)	Width (m)	True Width (m)	Au (g/t)	Ag (g/t)	AgEq* (g/t)
UGSI23-011	Purisima	26.25	27.90	1.65	1.06	1.11	1	89
UGSI23-011	Including	27.35	27.90	0.55	0.35	1.79	0	143
UGSI23-012	Purisima	60.00	61.10	1.10	0.55	0.32	85	111
UGSI23-012	HW Purisima	70.90	72.95	2.05	1.50	0.06	89	94
UGSI23-012	Including	70.90	71.60	0.70	0.40	0.09	221	228
UGSI23-012	HW2 Purisima	115.65	116.30	0.65	0.50	0.48	60	98
UGS123-013	Melladito	70.50	72.15	1.65	0.95	1.33	14	120
UGS123-013	Including	70.00	70.50	0.50	0.32	1.77	9	150
UGSI23-015	NDD3 (Loop)	92.50	93.65	1.15	0.58	2.77	4	226
UGSI23-015	NDD3	106.55	107.15	0.60	0.25	4.05	2	326
UGSI23-017	NDD3	56.90	59.40	2.50	1.90	2.25	63	243
UGSI23-019	NDD1 Loop	43.20	43.60	0.40	0.27	0.11	85	94
UGSI23-019	NDD1	44.55	45.75	1.20	0.80	1.07	67	152
UGSI23-019	NDD1.5	58.60	59.50	0.90	0.61	0.51	99	139
UGSI23-019	NDD2	94.20	94.90	0.70	0.54	2.22	13	191
UGSI23-019	NDD3	135.50	136.65	1.15	0.71	2.32	4	189
UGSI23-020	NDD1	33.60	34.45	0.85	0.72	0.35	204	232
UGSI23-020	NDD1.5	40.10	40.30	0.20	0.17	0.04	2	5
UGSI23-020	NDD2	77.65	78.55	0.90	0.82	1.01	38	119
UGSI23-021	Mell Comp Gral	103.10	110.85	7.75	4.11	1.26	35	136
UGSI23-021	NDD2	136.45	137.30	0.85	0.85	0.23	3	21
UGSI23-021	NDD3	185.20	187.45	2.25	1.62	2.55	5	209
UGSI23-021	Loop NDD3	192.05	194.10	2.05	1.37	4.20	6	342
UGS123-021	HW Vein	199.20	200.40	1.20	0.69	2.93	5	239
UGS123-022	Melladito	125.50	128.55	3.05	1.29	1.51	180	301
UGS123-022	NDD2	141.00	142.00	1.00	0.98	0.60	2	50
UGS123-022	NDD3	175.10	177.10	2.00	1.29	3.41	6	279
UGS123-022	NDD3 (Loop)	185.15	185.35	0.20	0.12	3.44	8	283





## Figure 10.2 Longitudinal Section of the Melladito Vein Showing Drill Intercepts (AgEq\*)

\* AgEq values are calculated using metal prices set at US\$1,800/oz Au and US\$22.50/oz Ag, with 87% recovery for both, yielding a Ag to Au ratio of 80:1



Figure 10.3 Longitudinal Section of the Purisima Vein Showing Drill Intercepts (AgEq\*)








\* AgEq values are calculated using metal prices set at US\$1,800/oz Au and US\$22.50/oz Ag, with 87% recovery for both, yielding a Ag to Au ratio of 80:1







\* AgEq values are calculated using metal prices set at US\$1,800/oz Au and US\$22.50/oz Ag, with 87% recovery for both, yielding a Ag to Au ratio of 80:1





Figure 10.6 Longitudinal Section of the NDD3 Vein Showing Drill Intercepts (AgEq\*)

\* AgEq values are calculated using metal prices set at US\$1,800/oz Au and US\$22.50/oz Ag, with 87% recovery for both, yielding a Ag to Au ratio of 80:1



The 2022 and 2023 drilling was conducted by KAV Drilling Mexico of Guanajuato, on behalf of GSilver. The core drilling was HQ in diameter. Drillhole collar surveys were completed using total station instruments and uploaded directly to a database for merging with the downhole logging data. Downhole surveys were generally performed at 10 m, 50 m and every 50 m thereafter using a Reflex survey instrument with the survey data manually input into the database.

Drill core logging was completed by GSilver geologists. For each drillhole, geological observations were made comprising lithology, mineralization, veining, and structural measurements. Geotechnical data were recorded, including core recovery, rock quality designation (RQD) and specific gravity measurements. GSilver geologists identified and marked intervals for sampling. The marked sample intervals were cut in half with a diamond saw. One half of the core was left in the core box, the other half was placed in plastic bags, sealed and labeled. Intervals and unique sample numbers were recorded on the drill logs and the samples were sequenced with standards and blanks inserted according to the Company's QA-QC procedure at a rate of 1 in every 20 for each QA-QC sample type, as summarized in Section 11.3.2. For duplicates, GSilver used 5% of rejects and pulps for duplicate analysis due to erratic mineralization in the core samples. Regular umpire checks were undertaken for reject and pulp material using a third-party, ISO accredited laboratory.

The drill samples were prepared and analysed at the Cata laboratory (MVS-GTO) in Guanajuato, Mexico, using aqua regia with an atomic absorption spectroscopy (AAS) finish. Samples that reported greater than 10 g/t Au or 300 g/t Ag were re-analysed by fire assay with a gravimetric finish. The Cata laboratory was an ISO accredited laboratory under the SGS Group until the end of 2018. The Cata laboratory is independent of the Authors of this Technical Report; however, it remains under GSilver management and is not independent of the Company.



## **11** Sample Preparation, Analyses and Security

This section summarizes the sampling preparation, analyses, security, and quality control and quality assurance protocols and procedures employed by Great Panther between 2010 and 2021, and by GSilver from 2022 to the Effective Date of this Report, at the San Ignacio Property. The Great Panther and GSilver underground channel sampling and drillhole data are utilized in the MRE herein and discussed in the sections below. Quality control and quality assurance (QA-QC) data summarized in Section 11.3 includes the period from Q3 2022 to Q3 2023.

The Authors are unaware of any sampling preparation, analyses, security, and quality control and quality assurance information regarding historical exploration programs completed prior to the Great Panther work. Drilling and sampling data completed prior to the Great Panther work is poorly documented and not utilized in the MRE herein. Therefore, it is not discussed further below. However, these results may have been used to guide modern exploration targeting.

## **11.1 Sample Collection, Preparation and Security**

## 11.1.1 Great Panther Historical Channel Sampling (2010-2021)

Channel sampling was completed in accessible stopes and development headings. The mine geologist marked out the sample position and completed a detailed drawing of the face prior to sampling. The sampling was completed by Great Panther technicians using a rock hammer and chisel to break rock chips along a line across the structure.

The quality of the channel samples was reported to have been more variable than the drill samples. The rock was observed to be highly variable in hardness and competence and was therefore difficult to achieve volumetrically consistent representation along the entire sample length. Sample bias may result where higher grades happen to correlate with zones of differing hardness characteristics. Brown and Nourpour (2022) noted that the increased variance may also be due to the use of the mat rolling technique used to reduce the channel sample mass. The Authors recommend an alternative method to mat rolling be used to reduce the sample size if possible.

Prior to mid-2016, all San Ignacio channel and drillhole sampling and geological data was entered into a DataShed database using LogChief software. Post 2016, Great Panther utilized an internal in-house software that loaded data directly into a Microsoft SQL database, with all of the San Ignacio data stored digitally in this database. In 2012, Great Panther initiated the recording of continuous channel sampling in the form of a pseudo-drillhole to allow the compositing of samples. All channel sampling by Great Panther personnel was carried out in this manner with the data recorded in the database.

Great Panther's protocol for Quality Assurance and Quality Control (QA-QC) sample insertion was one duplicate in every 19 samples and one blank and one standard for every 40 samples.



All phases of the sampling, transport, and analysis were carried out by authorized Great Partner personnel. Channel samples were sent for analysis to the Cata laboratory, located within the Cata facility in the city of Guanajuato. The Cata facility is fully fenced with 24-hour on-site security.

## 11.1.2 Great Panther Historical Drilling (2010-2021)

From 2010 to 2021, Great Panther completed 604 drillholes, totalling 115,581.70 m, at San Ignacio. The diamond drilling was completed by BD Drilling, Servicios Drilling, Rock Drill of Aguascalientes, Mexico, Maza Drilling, Versa Perforaciones SA de CV and KAV Drilling (Table 6.1; Section 6.2.2).

Great Panther's exploration drill core was HQ and NQ in diameter. Production drillholes completed prior to July 2011 were generally AQ in size. During July 2011, a BQ diameter rig (Diamec) was added to the production drilling capacity.

The drill core was transported twice a day from the drill site via pick up truck to the core storage and logging facility located at the gated Cata plant site. At the logging facility the core boxes were laid out by field technicians. The technicians fitted the core pieces together and cleaned the core surface in preparation for logging by the geologist. Depth markers were checked for proper labelling, and the boxes were labelled with the drill core intervals. The technicians completed measurements of core recovery and rock quality designation (RQD) and recorded the data onto paper logs.

Prior to mid-2016, all San Ignacio channel and drillhole sampling and geological data was entered into a DataShed database using LogChief software. Post 2016, Great Panther utilized an internal in-house software that loaded data directly into a Microsoft SQL database, with all of the San Ignacio data stored digitally in this database.

The drill core samples were prepared by technicians working under the direction of Great Panther's mine and exploration geologists. HQ and NQ diameter core were cut in half longitudinally using a diamond bladed saw. AQ and BQ diameter core was sample whole. The sample lengths were determined using mineralogical or lithological characteristics and marked on the core boxes by the geologists.

For exploration drilling, the minimum and maximum sample lengths were 0.5 and 1.5 m, respectively. For production drilling, in areas of little or no obvious mineralization, maximum sample lengths measured from 1.5 to 2.0 m. In mineralized or silicified zones, the maximum sample length was reduced to 0.6 m, while the minimum length was 0.3 m. There are several instances where drill samples with lengths greater than 2.0 m occur in the database, this is due to broken and/or small-diameter core.

Once the sample length was determined, a technician recorded the sample intervals in a numbered and perforated ticket book. The numbered part of each ticket was stapled to the core tray at the appropriate sample interval and the butt portion of the ticket book was marked with the drillhole number and sample interval information. For each sample



interval, the core (or half core) was placed along with a numbered ticket inside a prenumbered clear plastic sample bag. The bag was then tied with string and delivered with other samples from the same hole to the onsite Cata laboratory. Sample numbers and intervals were written on the ticket books for future data capture.

The first nine diamond core holes at San Ignacio (ESI10-001 – ESI11-009) were completed under the management of the Guanajuato geology department. Mine geologists logged and sampled the core. Following an internal audit by Great Panther, which identified deficiencies in core handling and sampling procedures, the responsibility for diamond drilling and exploration at San Ignacio changed to Great Panther's exploration department. The exploration staff re-logged and re-sampled all nine drillholes. The remaining surface drillholes were completed under the management and direction of the exploration department.

Chain of custody was established upon sample collection with the use of unique sample IDs, documentation of samples per shipment to the lab, as well as sign-off forms for receipt of samples by the laboratory. Great Panther's protocol for Quality Assurance and Quality Control (QA-QC) sample insertion was one duplicate in every 19 samples and one blank and one standard for every 40 samples.

Bulk density (specific gravity, or "SG") determinations were conducted on samples measuring approximately 10 cm in length. The sample lengths were selected by a field technician from whole or half-core (NQ or HQ). The test work was completed on-site by field technicians and followed the water submersion method on air-dried samples. Non-friable, non-porous core samples were weighed in air and then weighed while suspended from the scale in a basket, which was submerged in water. The raw information was recorded on paper logs. The samples were returned to the core box once the determinations were completed. No formal quality control quality assurance (QA-QC) was completed during the bulk density determinations.

## 11.1.3 GSilver Channel Sampling

From August 2022 to May 2023, GSilver collected a total of 5,681 underground channel samples from 2,498 sample locations at San Ignacio. GSilver sampling personnel collected the channel samples from development drifts and production stopes and extracted the rock chip samples using a hammer and chisel, along a line across the structure.

Prior to sampling, each sample line was marked by a mine geologist and each individual sample was marked with purple spray paint, differentiating lithological changes, fault zones, mineralized structures, and other geological characteristics. Samples were collected using a hammer and chisel moving from the footwall to the hanging wall side of the structure. A maximum sample length of 1.5 m was observed. Nominal sample widths of 0.10 m and depths of 0.02 to 0.03 m were maintained. Sample weights generally ranged from 0.50 to 5.0 kg.



The rock chips were captured on a 1.5 by 1.5 m canvas sheet. The sheet was cleaned between samples to mitigate the risk of contamination. The sample was then crushed to approximately ¼ inch size fraction on a square steel plate and homogenized. The sample was divided into four equal parts by dividing the square plate into four equal triangles. The two opposite parts were selected, and the rest of the sample was discarded.

The selected sample parts were placed in 40 by 30 cm poly sample bags inscribed with the unique sample identification (ID) number. Each sample was labelled with the sample ID, date, mine, site (drift, stope, shaft, etc.), and the name of the sampler. The sample ID was marked in the field along the sample line using spray paint and the sample width was recorded in a field notebook.

Each sample was located using a topographic control point in the field and was marked on a topographic map along with the sample number. A sampling report was prepared and included the following data: mine, name of sampler, date, dispatch number, line ID, sample ID, sample width, sample type, vein code, location taken (roof, wall, etc.), underground level, site, topographic point reference, and distance to topographic point reference. GSilver personnel recorded this information in the San Ignacio underground sample Microsoft SQL database, along with sample coordinates, azimuth, and inclination.

GSilver's QA-QC procedures for the 2022 to mid-2023 underground channel sampling programs included the insertion of certified reference materials (standards), blanks, and duplicates into the sample sequence. The rate of QA-QC material insertion was approximately 1 per 20 samples.

The samples were subsequently delivered to the Cata laboratory for analysis.

## 11.1.4 GSilver Drilling

As of the Effective Date of this Report, the Company has drilled 36 NQ sized diamond drillholes (DDH), totalling 5,092.7 m, at San Ignacio, from November 2022 to June 2023. The drilling was completed by Kav Drilling Mexico from the city of Guanajuato.

San Ignacio drill core was logged and sampled at the Cata core storage and logging facility in Guanajuato. Upon receiving drill core sampling personnel first cleaned the core and verified the sequence and hole depth in accordance with the block system used by the drill contractor, whereby a block labelled with the hole depth was inserted into the box after each drill run. The sampler marked the core boxes with depth ranges and recovery and rock quality designation (RQD) was measured for each core interval between blocks. Recovery and RQD measurements were captured manually and delivered to the geologist at the end of the shift, or upon completion of RQD for the drillhole.

GSilver drill log data were input directly to the project database by the logging geologist. Prior to describing the core, the geologist recorded the drillhole collar and survey information (coordinates, azimuth, inclination, date, drill rig, diameter, etc.). The core was then marked with yellow, red, and blue wax pencil to indicate contacts and/or lithological



changes (rock type, faults, alterations, breccias, veins etc.). Yellow was used to mark rock type and alteration, blue was used for structures such as faults and fractures, and red was used for veins and hydrothermal breccias. Once the core was marked, the geologist logged observations comprising rock type, colour, hardness, alteration, mineralization, veining, weathering, and structural features, utilizing standardized codes. Descriptions and notes were also allowed in the database.

The geologist marked out samples based on the areas of interest identified during the core logging. Sample breaks generally corresponded to geological changes and were marked with red arrows indicating the beginning and end of each sample. Tags inscribed with the unique sample number and hole depth range were stapled to the box at the beginning of each sample. The maximum nominal sample length was 1.5 m, and the minimum nominal sample length was 0.3 m. Shoulder samples of 5 to 10 m were included above and below each mineralized structure.

Core segments with a length between 10 and 20 cm, and weighing at least 500 g, were selected for SG measurements. Non-porous samples representative of the geology and mineralization of the interval were selected. Measurements were collected for all vein and mineralized breccia samples, as well as wallrock at the top and bottom of the interval. S SG values were determined using the water submersion method on air-dried samples. QA-QC measures included ensuring clean water was used for submerged measurements, re-measuring samples that returned values outside of the expected range, and utilizing standard weights to calibrate the digital balance.

Prior to cutting, core was photographed, ensuring that sample numbers and ranges were visible. The core boxes were then moved to the cutting area in the Cata core facility. Marked sample intervals were cut in half with a diamond saw. One half of the core was left in the core box, the other half was placed in pre-labeled plastic bags along with a sample tag bearing the unique sample number. The sample bags were sealed for transport to the laboratory with the requisite report to be signed upon receipt by the laboratory. All logging and sampling information was recorded in the San Ignacio drillhole Microsoft SQL database.

GSilver's QA-QC procedures for the 2022 to mid-2023 drill core sampling programs included the insertion of certified reference materials (standards), blanks, and field duplicates into the sample sequence. The rate of QA-QC material insertion was approximately 1 per 20 samples.

The samples were subsequently delivered to the Cata laboratory for analysis.

## 11.2 Analytical Procedures

## 11.2.1 Great Panther Analytical (2010-2021)

The underground channel and drill core samples collected by Great Panther were analysed at the Cata laboratory within the Cata facility. The Cata laboratory is equipped



to perform analyses via aqua regia digest, fire assay, gravimetric, and atomic absorption spectroscopy (AAS).

The analytical process for the historical samples involved initial receipt of samples by Cata laboratory staff from the company personnel followed by oven-drying of samples. Dry samples were then run through a crusher (10 mesh) and subsequently a 200 g split was run through a disc mill for pulverizing to 98% passing 200 mesh. Samples were analysed by aqua regia with an AAS finish, and any that reported greater than 10 g/t Au or 300 g/t Ag were re-analysed by fire assay with a gravimetric finish. The laboratory can also perform determinations for arsenic (As), copper (Cu), lead (Pb), zinc (Zn) and antimony (Sb) via AAS; however, these elements were not typically analysed for core samples. Assay certificates were sent directly from the laboratory to the Great Panther geology department via e-mail.

The Cata laboratory was constructed by SGS Group (SGS), under the supervision of Great Panther, and was managed and operated by the SGS from 2006 to 2018 (coded as SGS-GTO in the San Ignacio database). During this period, the Cata laboratory was ISO accredited under the SGS Group. The Cata laboratory reverted to Great Panther management at the beginning of 2019, and therefore, lost its SGS accreditation (coded as MVS-GTO in the San Ignacio database). However, according to Brown and Nourpour (2022), the Cata laboratory staff and SGS procedures were maintained. The Cata laboratory is independent of the Authors of this Report; however, it is not independent of Great Panther or the Company.

## 11.2.2 GSilver Analytical (2022-2023)

All of GSilver's channel and drill core samples were submitted to the Cata laboratory (MVS-GTO) for analysis. GSilver has managed the Cata laboratory as of the acquisition date of the Property, and the equipment and procedures remain unchanged.

The analytical process for the samples involved initial receipt of samples by Cata laboratory staff from the company personnel followed by oven-drying of samples. Dry samples were then run through a crusher (10 mesh) and subsequently a 200 g split was run through a disc mill for pulverizing to 98% passing 200 mesh. Samples were analysed by Aqua Regia with an AAS finish, and any that reported greater than 10 g/t Au or 300 g/t Ag were re-analysed by fire assay with a gravimetric finish. Gold and silver detection limits are 0.005 g/t Au and 5 g/t Ag. The Cata laboratory is also configured perform determinations for As, Cu, Pb, Zn and Sb via AAS; however, these elements were not typically analysed for core samples. Assay certificates were sent directly from the laboratory to the GSilver geology department via e-mail.

The Cata laboratory was an ISO accredited laboratory under the SGS Group until the end of 2018. The Cata laboratory is independent of the Authors of this Technical Report; however, it remains under GSilver management and is not independent of the Company.

All pulps are stored in an on-site warehouse in a safe and well-organized manner, in sealed containers with proper labels, including the project name, lot number and sample



IDs contained in each lot. The rejects are stored in closed containers and properly labelled with container number and the number of samples contained within the container. They are kept in storage for the necessary time indicated by industry standards.

## 11.3 Quality Assurance – Quality Control (QA-QC)

A routine QA-QC program, including instrument calibration and a database of results of the testing, was implemented by SGS for the Cata laboratory (SGS-GTO) until the end of 2018. Under Great Panther, and recently under GSilver management, the Cata laboratory (MVS-GTO) has continued the QA-QC program.

In addition to the internal laboratory QA-QC monitoring, the analytical portion of the QA-QC program employed by both Great Panther and GSilver aimed to provide a means by which the accuracy and precision of the assaying that is performed on its drilling and underground channel samples can be measured to ensure the highest possible data quality. The QA-QC procedures included the insertion of certified reference materials (CRMs or standards), blanks, and quarter-core duplicates into the sample sequence, as well as arranging regular umpire checks with a third-party certified laboratory.

## 11.3.1 Great Panther QA-QC (2010-2021)

Great Panther's protocol for QA-QC sample insertion was one duplicate in every 19 samples and one blank and one standard for every 40 samples. The Great Panther database administrator flagged any suspicious QA-QC results and reported them to the relevant geologist. Re-assaying was performed in cases were data entry and sample collection issues such as sample swaps were ruled out by the geologist.

In January 2013, Great Panther's Guanajuato QA-QC data were audited by Dr. Wesley M. Johnson of Quality Analysis Consultants. Regarding SGS-GTO laboratory, Dr. Johnson stated that *"There is no obvious problem with the data generated in the laboratory from either an accuracy or a precision standpoint (Johnson, 2013)"*. The Authors note that although this statement is based on the review of Great Panther's Guanajuato operation (off-Property) data, drilling samples from San Ignacio were analysed using the same equipment at the same facility during this period.

With the Cata laboratory reverting to Great Panther management, an enhanced umpire assay regime commenced in early 2019. Core sample pulps were submitted for re-assay to an independent, certified laboratory operated by SGS in Durango, Mexico (SGS-DGO). The umpire assay regime included re-assay of core samples and Great Panther inserted standard reference materials and duplicates. SGS Durango is ISO/IEC 17025 accredited and is independent of Great Panther, the Company, and the Authors of this Report.

Great Panther's San Ignacio QA-QC results from August 2020 to December 2021 are detailed in a previous report on the Property written by Livingstone et al. (2022). No significant issues were reported with respect to the sample collection methodology, sample security, sample preparation or sample analyses in the Great Panther exploration



programs. The QA-QC results of previous programs completed at San Ignacio by Great Panther are detailed in previous reports on the Property by Rennie and Bergen (2011), Smith (2011), Waldegger (2012), Brown and Sprigg (2013), Brown (2014), Waldegger and Brown (2014), Brown (2015; 2016; 2017), Wunder (2018) and Brown and Nourpour (2020; 2020b; 2020c; 2022).

### 11.3.2 GSilver QA-QC (2022-2023)

GSilver's QA-QC procedures for the 2022 to mid-2023 channel and drill core sampling programs included the insertion of certified reference materials (CRMs or standards), blanks, and field duplicates into the sample sequence. The rate of QA-QC material insertion rates is presented in Table 11.1. All samples were analyzed at the Company's Cata laboratory (MVS-GTO). Regular umpire checks were undertaken for reject and pulp material using a third-party, ISO accredited laboratory. Umpire checks were completed either by SGS Durango (SGS-DGO) or Corporación Química Platinum S.A. de C.V.

Sample Type	Frequency	Responsibility		
Coarse blank	1/20	Lagging Coologists / Crade Control		
Fine blank (pulp)	1/20 only for Pulps	Logging Geologists / Grade Control		
Duplicate Reject	Dandem 5%	QA-QC Analyst		
Duplicate Pulp	Random 5%			
Low-grade CRMs				
Medium-grade CRMs	Alternating 1/20	Logging Geologists / Grade Control		
High- grade CRMs				

#### Table 11.1 GSilver QA-QC Material Insertion Rates

GSilver QA-QC personnel reviewed the channel and drill core sampling QA-QC results monthly. If more than 5% of the standards returned values outside of two standard deviations of the suggested value, the batch was considered a failure and was reanalyzed. If samples within the batch returned values outside of three standard deviations of the suggested value, the batch was considered a failure and the batch plus 15 samples on either side of the batch sequence were re-analyzed. For re-analysis, the pulps of the samples were re-labeled with new numbers and new QA-QC samples were inserted into the sample sequence for analysis.

For blanks, if more than 10% of the samples returned values greater than 2 times the detection limit, contamination was considered and the remaining diamond core was quartered, re-numbered and re-submitted to the laboratory with control samples. If samples returned values greater than 3, 5, 10 times the detection limit, depending on the type of sample, than contamination was considered and the remainder of the core plus 15 samples on either side was quartered, re-numbered, and re-submitted to the laboratory with control samples.



If the re-analysed results returned acceptable values, the new values were considered the correct values and entered into the database, replacing the previous values. Permission from the head of the GSilver geology department and a formal report outlining the reason for the database change were required for this action.

For duplicates, GSilver used 5% of rejects and pulps for duplicate analysis due to erratic mineralization in the core samples. The duplicate rejects and pulps were assigned a new sample number and were re-submitted to the laboratory for analysis. The results were plotted with the original results along the X-axis and the reject results along the Y-axis. The results of the coefficient of determination (R2) value and relative percentage difference were determined from the duplicate plots.

APEX personnel used applications developed with Streamlit software, in conjunction with customized Python scripts developed internally by APEX personnel, to evaluate QA-QC data collected during GSilver's 2022 to mid-2023 underground drilling and channel sampling programs and to produce standard, blank, and duplicate plots.

The data plots were separated into two main groups, including exploration drilling samples (underground drilling 2022 – June 2023) and underground channel samples (2022 – June 2023). The QA-QC sample type, quantity, and results for the different sampling programs are presented in Table 11.2.

Datasets by sampling program	QA-QC sample type	# QA-QC samples	# failures of Ag	# failures of Au	% failures of Ag	% failures of Au
	Blank	154	0	2	0.0%	1.3%
	Standard (GTS16)	68	11	2	16.2%	2.9%
	Standard (GTS17)	92	0	0	0.0%	0.0%
Exploration drilling	Duplicate (coarse)	138	4	7	2.9%	5.1%
samples	Duplicate (pulp)	133	7	4	5.3%	3.0%
	Umpire (coarse)	225	18	36	8.0%	16.0%
	Umpire (pulp)	145	9	17	6.2%	11.7%
	Blank	194	0	1	0.0%	0.5%
	Standard (GTS16)	19	0	0	0.0%	0.0%
	Standard (GTS17)	147	0	0	0.0%	0.0%
Underground	Standard (GTS19)	42	0	0	0.0%	0.0%
channel samples	Duplicate (coarse)	304	13	41	4.3%	13.5%
	Duplicate (pulp)	456	30	45	6.6%	9.9%
	Umpire (coarse)	577	44	76	7.6%	13.2%
	Umpire (pulp)	1027	60	106	5.8%	10.3%

## Table 11.2 Summary Statistics for San Ignacio QA-QC Samples

Overall, the data collection quality was reasonable, and the number of failures was not significant. Many of the errors were related to duplicates, particularly in gold values, and



may be due, at least in part, to sampling bias resulting from nuggety gold and silver mineralization. A few failures have been observed in the blanks and CRMs, as summarized in the subsections below.

#### 11.3.2.1 Blanks

Blank samples were inserted into the sample stream to check for contamination during the preparation and analytical procedures. Coarse blank samples provide a means by which the sample preparation procedures at laboratories can be tested for potential issues related to sample-to-sample contamination, usually due to incomplete clearing/cleaning of crushing and pulverizing machines between samples. The blank material used in the drill programs was sourced from a barren rhyolite tuff of the La Bufa Formation, from the south side of Guanajuato. The blank material was crushed, pulverized and homogenized at the Cata laboratory.

Blanks were analysed for Ag and Au by Aqua Regia digest with AAS finish at the Cata laboratory, with subsequent umpire checks completed at SGS-Durango. The lower detection limits for gold and silver are 0.005 g/t Au and 5 g/t Ag, respectively, for analyses completed at the Cata laboratory, and 2 g/t Ag for analyses completed at SGS-Durango. Blanks were considered to be within "pass" tolerance if the assay value is less than 3 times the detection limit.

A total of 154 blank samples were submitted to the laboratory with drill core sample dispatches from 2022 to June 2023. Results indicate a low occurrence of contamination for the drill core analysis. No blank failures were observed in Ag values. Two blank samples returned Au values outside of established limits. The results of the blank analyses from both laboratories are presented in Figures 11.1 to 11.2.



#### Figure 11.1 Exploration Drilling Blank Sample Performance (Ag)







A total of 194 blank samples were submitted to the laboratory with underground channel sample dispatches from 2022 to June 2023. Results indicate a low occurrence of contamination for the channel sample analysis. No blank failures were observed in Ag values. One blank sample returned a Au value outside of established limits. The results of the blank analyses from both laboratories are presented in Figures 11.3 and 11.4.











In the opinion of the Authors, results from the blank sample analyses for the GSilver drilling and underground sampling completed from 2022 to June 2023 display no significant issues and are acceptable for use in this Report.

#### 11.3.2.2 Standards

Analytical standards (CRMs) were inserted into the sample stream to verify the overall analytical precision and accuracy of laboratory results. Standard samples comprise pulverized and homogenized materials that have been suitably tested, normally by means of a multi-lab, round-robin analysis, to establish an accepted (certified) value for the standard. Statistical analysis is undertaken to define and support the "acceptable range" (i.e., variance), by which subsequent analyses of the material may be judged. Generally, this involves examination of assay results relative to inter-lab standard deviation (SD), resulting from round-robin testing data for each standard, whereby individual assay results may be examined relative to 2SD and 3SD ranges. Standards were considered to be within "pass" tolerance if the assay value falls within 3SD of the certified value.

From 2022 to June 2023, four standards (GTS11, GTS16, GTS17, and GTS19) were used in GSilver's drilling and underground channel sampling programs. The standards were prepared between 2017 and 2021 by two accredited laboratories, SGS-Durango and Corporación Química Platinum S.A. de C.V. They were commissioned using sample material from the San Ignacio and Guanajuato operations, provided by the Company's wholly owned subsidiary MMR. The certified value and tolerance intervals of each standard used in San Ignacio exploration programs are presented in Table 11.3.



GSilver Manufacturer		Element	Mathad	Certified	Toleranc	e Interval	Date of Usage	
STD ID	Certificate	Element			High	Low	From	То
	SGS DU33474	Ag	FAA313	0.798	0.648	0.948		
GTS11	MSD-BAJA	Au	FAA313	137.63	123.56	151.7	6/4/2017	Current
	LEY	Au	FAG_GC	1.95	1.75	2.15		
CTS16	GTS16 SGS GTS-STD-13	Ag	FAG_GC	28.6	24.5	32.8	2/0/2020	Current
61310		Au	FAG_GCAA	0.77	0.62	0.91	3/9/2020	
		Ag	FAG_GC	433	410	455		
CT017	SGS	Au	FAG_GCAA	2.74	2.31	3.17	3/30/2020	Current
61317	GTS-STD-14	Au	FA-Grav	1.354	1.205	1.503		
		Au	FAG313	18.34	18.22	18.46		
CTS10		Ag	FA-AA	181.56	159.78	203.34	0/1/2021	Current
GIS19	CQP-09-1004	Au	FA-Grav	1.319	0.96	1.68	9/1/2021	Current

Table 11.3 San Ignacio Certified Standard Values and Tolerance Intervals

The dataset included only one analysis for standard GTS11, dispatched in March 2023. The results of the standard analyses for GTS16, GTS17, and GTS19 are presented in Figures 11.5 to 11.14.











Figure 11.7 GTS16 (GTS-STD-13) CRM of Ag Analysis for Underground Samples











#### Figure 11.9 GTS17 (GTS-STD-14) CRM of Ag Analysis for Drill Samples

Figure 11.10 GTS17 (GTS-STD-14) CRM of Au Analysis for Drill Samples



Figure 11.11 GTS17 (GTS-STD-14) CRM of Ag Analysis for Underground Samples







#### Figure 11.12 GTS17 (GTS-STD-14) CRM of Au Analysis for Underground Samples





#### Figure 11.14 GTS19 (CQP-21-1008) CRM of Au Analysis for Underground Samples





The results of the standard analyses are listed as follows:

- GTS16 returned an overall failure rate of 16.2% for Ag and 8.7% for Au in drill samples. No failures were observed in underground samples for both Ag and Au analysis.
- GTS17 returned no failures for both Ag and Au analysis in the drilling and underground samples. Although no failures were observed, there is a systematic negative bias in Ag analysis in both drill and underground samples.
- GTS19 is only used for the underground samples and returned no failures for both Ag and Au. However, a slightly positive bias is observed for the Ag analysis.

The analytical results for standard GTS16 had the greatest number of analytical failures for silver and should be investigated further; however, in general, the results of the standard analyses for drilling and underground sampling completed by GSilver from 2022 to June 2023 show no significant issues. In the opinion of the Authors, results from the standard sample analyses for the GSilver drilling and underground sampling completed from 2022 to June 2023 are acceptable for use in this Report.

## 11.3.2.3 Duplicates

Duplicate samples are collected to assess the repeatability of individual analytical values. Two types of duplicates (coarse n=138, and pulp n=133) were analyzed at the Cata lab (MVS-GTO) for the GSilver San Ignacio drilling and underground sampling programs.

The coarse duplicate (n=138) failure rate was 2.9% (n=4) for Ag and 5.1% (n=7) for Au. The pulp duplicate failure rates were 5.3% (n=7) for Ag and 3% (n=4) for Au. Results of the core duplicate analyses are presented in Figures 11.15 to 11.18.









Figure 11.16 Coarse Duplicates used for Au Analysis of Drill Samples









Figure 11.18 Pulp Duplicates used for Au Analysis of Drill Samples

Failure rates for underground sample coarse duplicates were 4.3% (n=13) for Ag and 13.5% (n=41) for Au. Pulp duplicates returned similar results, with failure rates of 6.6% (n=30) for Ag and 9.9% (n=45) for Au. Results of the underground sampling duplicate analyses are presented in Figures 11.19 to 11.22.









Figure 11.20 Coarse Duplicates used for Au Analysis of Underground Samples

Figure 11.21 Pulp Duplicates used for Ag Analysis of Underground Samples









In the opinion of the Authors, results from the duplicate sample analyses for the GSilver drilling and underground sampling completed from 2022 to June 2023 display no significant issues and are acceptable for use in this Report.

#### 11.3.2.4 Umpire Checks

Great Partner commenced an enhanced umpire assay regime in early 2019 and all San Ignacio exploration sample pulps were submitted to the independent, certified SGS-Durango laboratory for re-analysis and statistical comparison of assay values using correlation coefficients. SGS Durango is ISO/IEC 17025 accredited and is independent of Great Panther, the Company, and the Authors of this Technical Report.

Upon acquisition of the Property, GSilver took over management of the Cata laboratory (MVS-GTO) and select San Ignacio exploration sample pulps were submitted to SGS-Durango or "Corporation Química Platinum" for umpire checks.

A total of 225 coarse and 145 pulp duplicates from GSilver exploration drill programs completed from 2022 to mid-2023 were sent to SGS Durango for umpire checks. The coarse umpire check's failure rates were 8% (n=18) for Ag and 16% (n=36) for Au (Figures 11.23 to 11.24). The pulp umpire check's failures were 6.2% (n=9) for Ag and 11.7% (n=17) for Au (Figures 11.25 to 11.26).







## Figure 11.24 Umpire Check Analysis of the Coarse Duplicates (Au) by SGS vs MVS for Drill Samples









Figure 11.26 Umpire Check Analysis of the Pulp Duplicates (Au) by SGS vs MVS for Drill Samples



A total of 577 coarse and 1027 pulp duplicates from GSilver underground sampling programs completed between 2022 to mid 2023 were sent to SGS Durango for umpire checks. The coarse duplicate failure rates were 7.6% (n=44) for Ag and 13.2% (n=76) for Au (Figures 11.27 to 11.28). The pulp duplicate failure rates were 5.8% (n=60) for Ag and 10.3% (n=106) for Au (Figures 11.29 to 11.30).







## Figure 11.28 Umpire Check Analysis of the Coarse Duplicates (Au) by SGS vs MVS for Underground Samples





# Figure 11.29 Umpire Check Analysis of the Pulp Duplicates (Ag) by SGS vs MVS for Underground Samples



# Figure 11.30 Umpire Check Analysis of the Pulp Duplicates (Au) by SGS vs MVS for Underground Samples



The umpire check analyses of underground samples returned slightly higher failure rates for gold in comparison to silver. In the opinion of the Authors of this Report, the analytical results for silver and gold are considered acceptable and sufficient for use in this Report.



## 11.4 Adequacy of Sample Collection, Preparation, Security and Analytical Procedures

In the opinion of the Authors of this Report, there were no significant issues with respect to the sample collection methodology, sample security, sample preparation or sample analyses in the San Ignacio exploration programs completed by Great Panther historically or by GSilver in 2022 to mid-2023.

The QA-QC measures including the insertion rates and performance of blanks, standards, and duplicates for the GSilver indicate the following:

- No significant contamination issue was observed in the blank performances for the Au and Ag analysis of both the drill and underground samples.
- Duplicate results from the underground samples showed a fair correlation for gold. This is likely due, at least in part, to sample bias resulting from nuggety gold observed within various mineralized zones.
- Standard GTS16 returned an overall failure rate of 16.2% for Ag and 8.7% for Au in drill samples. No failure was observed in underground samples for both Ag and Au analysis. As for the drill samples, the failures were on the high side and require further investigation.
- Standard GTS17 showed no failure rate for both Ag and Au analysis in the drilling and underground samples. A systematic negative bias in Ag analysis is observed in both drill and underground samples, which requires investigation.
- Standard GTS19 is only used for the underground samples and returned no (0%) failures for both Ag and Au. However, a positive bias on the high side is observed for the Ag analysis, which requires investigation.

GSilver should reconsider using standards GTS16 and GTS17 as these materials include the following disclaimer: *"reference material is characterized by limited laboratory testing and is not certified according to best practice principles of ISO 17034. Caution should be used when applying this material to evaluate a laboratory performance."* 

The Authors recommend that in addition to the commercially produced CRMs, the Company use custom developed matrix-matched CRMs that are produced from particular styles of mineralization in the deposits, with the Round Robin prepared by different laboratories. The custom CRMs should be inserted with similar grades of dispatch samples, based on mineralization observed in the sample and recorded in the drill log or sample description. The CRMs should be inserted randomly in a dispatch by automatic dispatch creation tools in the database system rather than fixed interval, manual insertion.

Regarding bulk density determinations on GSilver drill core, the Authors note that no formal QA-QC program was in place to provide confidence in the precision or accuracy of the results of the testing. However, the results are within the range of expected density values for the material tested and the SG determination procedures are consistent with industry standard practices. The Authors recommend that any future bulk density determinations select duplicate samples at a standard frequency and send them to an



independent laboratory for testing. In addition, the scale should be monitored regularly using a standard weight.

The Authors note that although the Cata laboratory is non-independent, and managed by GSilver, the umpire checks undertaken at the independent and certified SGS-Durango laboratory is sufficient to verify the performance of the Cata laboratory and the reproducibility of the Ag-Au analyses.

In conclusion, the data within GSilver's databases are considered suitable for use in the further evaluation of the Property and for its intended use in this Report, including the mineral resource estimation. Ongoing evaluation of the QA-QC data should be conducted to proactively identify opportunities for improvement in sampling, preparation, and analytical protocols.



## 12 Data Verification

#### 12.1 Database Verification

Prior to mid-2016, all San Ignacio channel and drillhole sampling and geological data was entered into a DataShed database using LogChief software. Post 2016, Great Panther utilized an internal in-house software that loaded data directly into a Microsoft SQL database, with all of the San Ignacio data stored digitally in this database. GSilver continues to use this in-house software for data collection and storage. The total database encompasses diamond drilling data and underground sampling data.

The Company is currently in the process of migrating data for all of their projects into a new in-house, cloud-based database system designed to improve processing performance and streamline modelling of drilling and sampling data by standardizing collection and coding. A new mobile logging platform is also integrated.

The calculation of the MRE detailed in Section 14 utilized data extracted from the GSilver SQL database to a Microsoft Access relational database on 11 July 2023. The drillhole database contained 640 unique drillhole collar records with a total core length of over 120,674 m, and the underground sample database contained 35,288 channel samples. Overall, both databases were deemed to be well organized.

GSilver provided two separate Microsoft Access databases for drillhole data and underground sampling data, as follows:

- *Drillholes San Ignacio.accdb* current to July 11<sup>th</sup>, 2023, included ten data tables for underground exploration drilling:
  - Alteration 25,247 records
  - Assays 35,096 samples
  - Collars 640 drillholes (120,674.32 m)
  - Core Recovery 43,947 runs
  - Lithology 22,894 records
  - Minerals 25,161 records
  - Specific Gravity 15,863 readings
  - Structure Orientation 20,2073 records
  - Down Hole Survey 3,205 records
  - $\circ$  Vein 18,241 records
- *UG Samples San Ignacio.accdb* current to June 26<sup>th</sup>, 2023, included three data tables of underground samples:
  - Collars 35,288 channels
  - Assays 86,083 samples
  - Survey 86,083 records



The Authors were also provided with a three-dimensional (3D) topographic surface, as well as 3D wireframes representing the existing mine workings in Micromine (.tridb) and AutoCAD (.dxf) formats.

The Authors imported the underground and drillhole data into Micromine Origin & Beyond 2023.5, along with the 3D topography, mine workings, and historical resource wireframes and block models. A visual examination of the data in 3D did not demonstrate any obvious spatial issues. Mineralized underground samples and drill intercepts are spatially coincident with past and present mine production levels, historical resource blocks, and/or vein models. Surface drillhole locations are consistent with areas of disturbance in satellite imagery. Selected drill collar locations and orientations listed in the database were verified and cross-checked against collar survey reports.

Approximately one-third of the assays returned from exploration drilling completed post-2021, and included in the *Drillholes San Ignacio.accdb* database, were reviewed and compared to laboratory certificates from the Cata and SGS Durango laboratories (Table 12.1). No errors were identified from the 2,388 checked assay records, accounting for 6% of the total drillhole assay data.

Table 12.1	Snapshot of	<b>Drillhole Assay</b>	/ Data Verification
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	Original Data in Database	2						So	urce data			Compariso	n
DataSet 💌	SampleID V Hole_ID V	mFrom 💌 m	To 🔄 Dispatch_ID	▼ Date_Sample ▼	Au_ppm 💌 Ag_ppm	LabCert	💌 SampleID 💌 🗸	Au_ppr 👻 Ag	ppr 🔻 Au_Method 💌	Ag_Method 💌	Sample 🔻	Au_ppm	▼ Ag_ppr ▼ Comment ▼
San Ignacio	1094276 ESI20-315	98.38	98.88 EMR20-1258	1/22/2021	0.014 <2	DU50202	1094276	0.014 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094277 ESI20-315	98.88	99.38 EMR20-1258	1/22/2021	0.008 <2	DU50202	1094277	0.008 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094278 ESI20-315	99.38	100.28 EMR20-1258	1/22/2021	0.021 <2	DU50202	1094278	0.021 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094279 ESI20-315	100.28	101.72 EMR20-1258	1/22/2021	<0.005 <2	DU50202	1094279 <	<0.005 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094280 ESI20-315	101.72	103.18 EMR20-1258	1/22/2021	0.008 <2	DU50202	1094280	0.008 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094281 ESI20-315	103.18	104.64 EMR20-1258	1/22/2021	0.006 <2	DU50202	1094281	0.006 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094282 ESI20-315	104.64	106.14 EMR20-1258	1/22/2021	0.008 <2	DU50202	1094282	0.008 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094283 ESI20-315	106.14	106.65 EMR20-1258	1/22/2021	0.015 <2	DU50202	1094283	0.015 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094284 ESI20-315	106.65	107.15 EMR20-1258	1/22/2021	0.08	2 DU50202	1094284	0.08	2 GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094285 ESI20-315	107.15	107.65 EMR20-1258	1/22/2021	0.007 <2	DU50202	1094285	0.007 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094286 ESI20-315	107.65	108.15 EMR20-1258	1/22/2021	<0.005 <2	DU50202	1094286 <	<0.005 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094287 ESI20-315	108.15	109.28 EMR20-1258	1/22/2021	0.052 <2	DU50202	1094287	0.052 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094288 ESI20-315	109.28	109.78 EMR20-1258	1/22/2021	0.006 <2	DU50202	1094288	0.006 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094289 ESI20-315	109.78	110.28 EMR20-1258	1/22/2021	<0.005 <2	DU50202	1094289 <	<0.005 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094290 ESI20-315	136.46	136.96 EMR20-1258	1/22/2021	0.009 <2	DU50202	1094290	0.009 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094291 ESI20-315	136.96	137.46 EMR20-1258	1/22/2021	<0.005 <2	DU50202	1094291 <	<0.005 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094292 ESI20-315	137.46	138.45 EMR20-1258	1/22/2021	<0.005 <2	DU50202	1094292 <	<0.005 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094293 ESI20-315	138.45	139.32 EMR20-1258	1/22/2021	<0.005 <2	DU50202	1094293 <	<0.005 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094294 ESI20-315	139.32	140.29 EMR20-1258	1/22/2021	0.01 <2	DU50202	1094294	0.01 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094295 ESI20-315	140.29	141.26 EMR20-1258	1/22/2021	0.008 <2	DU50202	1094295	0.008 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094298 ESI20-315	141.26	141.76 EMR20-1258	1/22/2021	0.009 <2	DU50202	1094298	0.009 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094299 ESI20-315	141.76	143.16 EMR20-1258	1/22/2021	0.046 <2	DU50202	1094299	0.046 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094300 ESI20-315	143.16	143.86 EMR20-1258	1/22/2021	0.047 <2	DU50202	1094300	0.047 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	0 1094301 ESI20-315	143.86	144.56 EMR20-1258	1/22/2021	<0.005 <2	DU50202	1094301 <	<0.005 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094302 ESI20-315	144.56	145.26 EMR20-1258	1/22/2021	<0.005 <2	DU50202	1094302 <	<0.005 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094303 ESI20-315	145.26	145.96 EMR20-1258	1/22/2021	0.006 <2	DU50202	1094303	0.006 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094304 ESI20-315	145.96	146.68 EMR20-1258	1/22/2021	0.071	3 DU50202	1094304	0.071	3 GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094305 ESI20-315	146.68	147.78 EMR20-1258	1/22/2021	0.012 <2	DU50202	1094305	0.012 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094306 ESI20-315	147.78	148.53 EMR20-1258	1/22/2021	0.019 <2	DU50202	1094306	0.019 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094307 ESI20-315	148.53	149.03 EMR20-1258	1/22/2021	0.027	2 DU50202	1094307	0.027	2 GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094308 ESI20-315	149.03	149.53 EMR20-1258	1/22/2021	0.018 <2	DU50202	1094308	0.018 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094309 ESI20-315	158.72	159.22 EMR20-1258	1/22/2021	0.006 <2	DU50202	1094309	0.006 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094310 ESI20-315	159.22	159.72 EMR20-1258	1/22/2021	<0.005 <2	DU50202	1094310 <	<0.005 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094311 ESI20-315	159.72	160.97 EMR20-1258	1/22/2021	0.032	6 DU50202	1094311	0.032	6 GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094312 ESI20-315	160.97	162.22 EMR20-1258	1/22/2021	0.063 128.0	57 DU50202	1094312	0.063	128.67 GE_FAA313	GO_FAG313	TRUE	TRUE	TRUE
San Ignacio	1094313 ESI20-315	162.22	163.47 EMR20-1258	1/22/2021	0.007	3 DU50202	1094313	0.007	3 GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE
San Ignacio	1094314 ESI20-315	163.47	164.72 EMR20-1258	1/22/2021	<0.005 <2	DU50202	1094314 <	<0.005 <2	GE_FAA313	GE_ICP40B	TRUE	TRUE	TRUE

During the initial stage of data verification, some negligible discrepancies were identified in the third decimal place of assay results returned from exploration drilling conducted between March and May 2021. It transpired that only the Cata laboratory certificates were provided to APEX. Umpire checks performed by SGS Durango supersede the Cata results in the database. APEX personnel requested the finalized umpire check laboratory certificates, the assay results in the database were re-compared with the SGS laboratory certificates, and the results were verified.



Assays returned from underground samples completed post-2021, totalling 5,873 samples and included in the *Drillholes San Ignacio.accdb* database, were reviewed and compared to laboratory certificates from the Cata and SGS Durango laboratories (Table 12.2). A total of 26 errors, including 12 from samples within the MRE estimation domains, were identified, accounting for only 0.4% of the data checked. These errors have since been corrected.

	Original data in database						Source data			Difference	(Original - Source	2)	
SampleID ≚	from_i 💌	to_m 🞽 D	ate_Sampled 🗾	Au_orig 🗵	Ag_orig 🔺	Dispatch	*	au_plot_ppm 🗾	ag_plot_ppm 🗾	Au_Diff 💌	Ag_Diff 💌	Notes_Au 📑	Notes_Ag
539475	0.00	0.55	1/19/2022	2.5	2.5	GTG22-1193	36		2.5	2.50	-0.50	check?	LDL <5
545905	0.00	0.40	8/12/2022	0.19	14.0	GTG22-1194	13	0.25	8	-0.06	6.0	reassay?	reassay?
545906	0.40	0.75	8/12/2022	7.14	204.0	GTG22-1194	13	0.477	16	6.66	188.0	reassay?	reassay?
545907	0.00	0.40	8/12/2022	2.04	62.0	GTG22-1194	13	0.586	11	1.46	51.0	reassay?	reassay?
545908	0.40	1.20	8/12/2022	3.20	241.0	GTG22-1194	13	1.324	18	1.88	223.0	reassay?	reassay?
545909	1.20	1.65	8/12/2022	1.56	90.0	GTG22-1194	13	0.461	12	1.10	78.0	reassay?	reassay?
545910	1.65	2.25	8/12/2022	1.64	103.0	GTG22-1194	13	0.202	17	1.43	86.0	reassay?	reassay?
545911	2.25	2.85	8/12/2022	0.37	70.0	GTG22-1194	13	0.196	14	0.18	56.0	reassay?	reassay?
545981	0.80	1.80	8/25/2022	1.07	27.0	GTG22-1196	52	6.116	182	-5.05	-155.0	reassay?	reassay?
545982	1.80	2.80	8/25/2022	1.05	33.0	GTG22-1196	52	0.088	36	0.97	-3.0	reassay?	reassay?
545983	0.00	0.70	8/25/2022	5.32	216.0	GTG22-1196	52	19.35	450	-14.03	-234.0	reassay?	reassay?
545984	0.70	1.10	8/25/2022	1.05	226.0	GTG22-1196	52	0.836	242	0.21	-16.0	reassay?	reassay?
545985	1.10	2.00	8/25/2022	4.38	256.0	GTG22-1196	52	2.5	3	1.88	253.0	reassay?	reassay?
545995	0.40	1.10	8/27/2022	0.36	27.0	GTG22-1196	55	0.221	18	0.14	9.0	check?	check?
542631	0.00	0.90	11/14/2022	2.96	164.0	GTG22-1209	93	3.619	143	-0.66	21.0	check?	check?
543397	0.00	0.60	1/10/2023	0.42	6.0	GTG23-1221	L3	0.401	3	0.02	3.0	check?	check?
543398	0.60	1.20	1/10/2023	2.06	174.0	GTG23-1221	L3	0.032	3	2.03	171.0	check?	check?
544966	1.30	1.80	2/21/2023	5.37	531.0	GTG23-1230	)9	0.676	38	4.70	493.0	sample id error?	sample id error?
544966	1.30	1.80	2/21/2023	5.37	531.0	GTG23-1230	)9	0.273	6	5.10	525.0	sample id error?	sample id error?
544967	1.80	2.40	2/21/2023	0.68	38.0					0.68	38.0	sample id error?	sample id error?
544968	2.40	2.80	2/21/2023	0.27	6.0					0.27	6.0	sample id error?	sample id error?
545162	0.00	0.50	3/17/2023	0.57	12.0	GTG23-1237	74	0.258	28	0.32	-16.0	duplicate?	duplicate?
545163	0.00	0.90	3/17/2023	4.13	12.0	GTG23-1237	74	0.356	29	3.77	-17.0	duplicate?	duplicate?
545162A	0.00	1.00	3/24/2023	0.26	28.0					0.26	28.0	reassay?	reassay?
545163A	1.00	1.60	3/24/2023	0.36	29.0					0.36	29.0	reassay?	reassay?
548501	0.00	0.30	5/13/2023	3.09	8.0	GTG23-1248	37	0.246	74	2.84	-66.0	check?	check?

Table	12.2 Snapshot	of Underaround	Sample Assav	Data Verification

Select assays returned from drilling and underground sampling completed by Great Panther prior to 2021 were previously reviewed and compared to laboratory certificates by Livingstone et al. (2022). Copies of 26 drill core dispatches and corresponding assay certificates from the Cata laboratory and SGS Durango were reviewed and compared against the San Ignacio drillhole database. A total of 824 drill samples were reviewed by the Authors and found to have no errors. Copies of 39 underground channel sample assay certificates from the Cata laboratory were reviewed and compared against the San Ignacio underground dataset. A total of 830 underground samples were reviewed by the Authors and found to have no errors.

In the Authors' opinion, the San Ignacio drillhole and underground databases are reasonably free of any material or systematic errors and are adequate and suitable for use in this Report, including the MRE.

## 12.2 Qualified Person Site Inspection

Mr. Christopher W. Livingstone, P.Geo., Senior Geologist of APEX and a Qualified Person, conducted a site inspection for verification purposes from August 13 to 14, 2023. Mr. Livingstone previously visited the Property from April 7 to 8, 2022. Mr. Dufresne and



Ms. Clarke did not visit the San Ignacio Property, as Mr. Livingstone's visits were deemed sufficient by the QPs.

The August 2023 site inspection comprised an inspection of recent San Ignacio diamond drill core at the Cata core logging facility, the collection of two quarter drill core samples, and a review of the San Ignacio 3D data compilation. Mr. Livingstone was unable to visit the underground workings at San Ignacio during the 2023 visit due to a serious accident, resulting in a temporary closure of the mine site. The April 2022 site inspection comprised a tour of the Property, including entering several underground workings at the San Ignacio operation, collar verification from recent drilling, the collection of two verification samples, and a review of recent drill core to verify reported geology and mineralization. Mr. Livingstone also toured the Cata offices, core shack, processing plant, and analytical laboratory. The April 2022 site inspection is detailed in Livingstone et al. (2022).

Mr. Livingstone was accompanied by Mr. Avila and GSilver geologists Ms. Fernanda Espinoza and Mr. Jesus Fernando Mendoza Ramírez during the August 2023 core viewing at the Cata core facility. Four holes, all drilled during 2023, were viewed and two quarter drill core samples were collected. The samples were collected as quarter core duplicates of GSilver sample intervals (Table 12.2). Maps, sections, drill logs, and analytical results were provided as necessary during the inspection.

		Auth	or's Sample	es	GSilver Samples				
Hole ID	Vein	From	То	Sample ID	Au (g/t)	Ag (g/t)	Sample ID	Au (g/t)	Ag (g/t)
UGSI23-010	Melladito	128.55	129.30	E545462	1.71	1,425	1153580	1.254	1,947
UGSI23-021	NDD3	185.20	185.65	E545463	4.44	8.4	1154911	5.811	3

#### Table 12.3 Comparison of Author's and GSilver's Drill Core Analyses

The Author inspected mineralized intersections from the Melladito and Purisima veins in drillhole UGSI23-010 (Figure 12.1) and collected a sample from the Melladito Vein. Sample E545462 duplicated GSilver half core sample 1153580 over the interval of 128.55 m to 129.30 m, which was reported to contain 1.254 g/t Au and 1,947 g/t Ag. The interval comprised a vein of white and grey quartz with adularia, silver sulphide mineralization (acanthite), and minor pyrite flanked by rubbly, faulted andesite wall rock containing quartz vein material (Figure 12.2 Left).





Figure 12.1 Drill Section UGSI23-010

Figure 12.2 San Ignacio Drill Core (Left: UGSI23-010 Melladito Vein intercept; Centre: UGSI23-015 NDD 3 Vein intercept; Right: UGSI23-021 NDD 3 Vein intercept)



The NDD 3 Vein was observed in hole UGSI23-015 over the interval of 106.55 m to 107.15 m, which was reported to contain 4.05 g/t Au and 2 g/t Ag (Figure 12.2 Centre). Both the Melladito and NND 3 veins were observed in hole UGSI23-021 (Figure 12.3). Sample E545463, collected from the NDD 3 Vein, duplicated GSilver sample 1154911 over the interval of 185.20 m to 185.65 m, which was reported to contain 5.811 g/t Au and 3 g/t Ag (Figure 12.2 Right). In both holes, the NDD 3 Vein comprised grey and white


quartz with minor sulphides, flanked by andesite wall rock containing additional stringers, veinlets, weak stockwork and breccia zones.





The Author observed the Melladito, NDD 2, NDD 3, and NDD Loop veins in hole UGSI23-22, the final hole of the San Ignacio drilling campaign (Figure 12.4). The Purisima and Melladito veins are characterized by high grade Ag with low to moderate grade Au, while the NDD veins contain higher concentrations of Au with nil to low grade Ag.





## Figure 12.4 Drill Section UGSI23-022

Visual inspection and sampling of the veins confirmed the presence of mineralization in each drillhole intercept examined. The quarter core duplicate samples compare well with the original assays; the variations in gold and silver grade can be attributed to sampling bias resulting from nuggety gold and silver mineralization, which is generally more pronounced in higher grade samples.

In addition to the August 2023 core viewing, the Author reviewed the San Ignacio 3D data compilation and discussed the San Ignacio MRE with Mr. Avila. Exploration plans for San Ignacio were also discussed, including drilling at Purisima, Santa Nino, north and central Melladito, and NDD. Drilling of deep targets at Purisima and northern Santa Nino were identified as the current priorities.

The April 2022 underground inspection included a tour of workings and facilities at San Ignacio, including the offices and storage areas, waste dump, main ramp and the Melladito South underground area. Mr. Livingstone observed the geology, alteration, and mineralization, and reviewed plan maps and sections for each area toured. The visual inspection was consistent with the reported geology and mineralization and confirmed the



presence of significant mining infrastructure at San Ignacio. An underground sample taken from the Melladito South are confirmed the presence of significant gold and silver mineralization underground at San Ignacio.

Observations and results from Mr. Livingstone's site visits and sampling verify the presence of significant silver-gold mineralization both in active mine areas and in exploration drilling at San Ignacio. Rock types, alteration, and mineralization observed underground, in drill core, and at surface while touring the Property are consistent with the reported geology and historical exploration results. The mining infrastructure observed is consistent with reported historical production.

#### **12.3 Validation Limitations**

Based on the site inspection, verification sampling, and data review, the Authors have no reason to doubt the reported geology, exploration, and production results.

#### 12.4 Adequacy of Data

The Authors have reviewed the adequacy of the exploration information and the Property's physical, visual, and geological characteristics. No significant issues or inconsistencies were discovered that would call into question the validity of the data. In the Authors' opinion, the San Ignacio data is adequate and suitable for use in this Report, including the MRE.



# 13 Mineral Processing and Metallurgical Testing

The Authors are not aware of any third-party laboratory-based mineral processing and metallurgical testing completed by GSilver or Great Panther.

#### 13.1 Historical Metallurgical Test Work (2011 to 2015)

Historically, Great Panther conducted metallurgical test work aimed at improving the operation of the Cata processing plant. In 2011, Great Panther added a new flotation section, with the installation of five new fully automated Outotec cells which replaced the old sections of rougher cells. In 2012, a small regrind mill was installed with improvements in metallurgical recoveries. In 2012 and 2013 the primary crushing units were upgraded with a new Metso HP300 crusher, and new vibrating twin screens. Lastly, in 2013, a new state of the art filter press was installed to reduce water content in the concentrate.

In 2015, Great Panther completed internal test work to optimize the consumption of reagents and the overall milling process to obtain maximum recovery and to comply with the concentration of required grades. The metallurgical samples were collected throughout active areas of the mine and are representative of the mineralization present at Guanajuato and San Ignacio. There are no deleterious elements or processing factors that significantly affect the extraction of silver and gold into the concentrate. The results of the metallurgical testwork completed in November and December 2015 are summarized in Table 13.1.

	Metallurgical Balance 70%-30%											
Description	Weight	%	Gra	ade	Cont	ained	Reco	veries	Head	Grade		
Description	(g)	Weight	Au (g/t)	Ag (g/t)	Au	Ag	Au	Ag	Au	Ag		
Concentrate	34	3.4	56.96	5,351	1.94	181.93	71.23	71.38	2.32	251		
Scavenger	42	4.2	7.73	857	0.32	35.99	11.94	14.12	REC. Au	REC. Ag		
Tails	924	92.4	0.5	40	0.46	36.96	16.82	14.5	83.18	85.5		
Totals	1000	100	2.72	255			100	100				
Metallurgical Balance 60%-40%												
Description	Weight	%	Gra	ade	Cont	ained	Reco	veries	Head Grade			
Description	(g)	Weight	Au (g/t)	Ag (g/t)	Au	Ag	Au	Ag	Au	Ag		
Concentrate	41	4.1	44.66	3,861	1.83	158.3	65.53	71.74	4.57	278		
Scavenger	28	2.8	19.43	930	0.54	26.04	19.47	11.8	REC. Au	REC. Ag		
Tails	931	93.1	0.45	39	0.42	36.31	14.99	16.46	85.01	83.54		
Totals	1000	100	2.79	221			100	100				
				Metallurgica	l Balance 5	0%-50%						
Description	Weight	%	Gra	ade	Cont	ained	Reco	veries	Head	Grade		
Description	(g)	Weight	Au (g/t)	Ag (g/t)	Au	Ag	Au	Ag	Au	Ag		
Concentrate	40	4	56.97	4,163	2.28	166.52	69.25	69.91	2.79	214		
Scavenger	25	2.5	18.11	1,071	0.45	26.78	13.76	11.24	REC. Au	REC. Ag		
Tails	935	93.5	0.6	48	0.56	44.88	16.99	18.84	83.01	81.16		
Totals	1000	100	3.29	238			100	100				
				Metallurgica	l Balance 5	0%-50%						

# Table 13.1 Great Panther 2015 Metallurgical Test Work Summary (Brown and Nourpour, 2022)

Effective Date: September 21, 2023



<b>D</b> :	Weight % Grade Contained Recoveries				veries	Head	Grade				
Description	(g)	Weight	Au (g/t)	Ag (g/t)	Au	Ag	Au	Ag	Au	Ag	
CONC. 1L	107	2.14	141.86	5,827	3.04	124.72	81.09	74.22	3.22	171	
Scavenger	115	2.29	3.99	142	0.09	3.26	2.44	1.94	REC. Au	REC. Ag	
Tails 1 L	101	2.02	8.75	362	0.18	7.32	4.73	4.36	88.26	80.52	
Tails	4677	93.54	0.47	35	0.44	32.74	11.74	19.48			
Totals	5000	100	3.74	168			100	100			
			Metallur	gical Balanc	e Test Xant	ato Isoprop	ilico				
Description	Weight	%	Gra	ade	Cont	ained	Reco	veries	Head	Grade	
Description	(g)	Weight	Au (g/t)	Ag (g/t)	Au	Ag	Au	Ag	Au	Ag	
CONC. 2L	6	0.3	1341.93	37,912	4.03	113.74	74.69	61.59	4.44	146	
Scavenger	37	1.85	17.05	703	0.32	13.01	5.85	7.04	REC. Au	REC. Ag	
Tails 1 L	28	1.4	11.97	721	0.17	10.09	3.11	5.47	86.4	78.14	
Tails 2 L	7	0.35	42.19	2,134	0.15	7.47	2.74	4.04			
Tails finales	1922	96.1	0.76	42	0.73	40.36	13.6	21.86			
Totals	2000	100	5.39	185			100	100			
Metallurgical Balance San Ignacio Low Grade											
Description	Weight	% Woight	Gra	ade	Contained Recoveries		Head Grade				
	(9)	weight	Au (g/t)	Ag (g/t)	Au	Ag	Au	Ag	Au	Ag	
Concentrate	41	4.1	55.41	1,/3/	2.27	/1.22	/4.51	60.04	2.84	127	
Scavenger	44	4.4	2.88	287	0.13	12.63	4.16	10.65	REC. Au	REC. Ag	
lails	915	91.5	0./1	38	0.65	34.77	21.34	29.31	70.69	78.66	
lotals	1000	100	3.05	119			100	100			
	Metallurgical Balance Test Xantato Amilico										
Description	(a)	% Weight	Gra A (ar/4)		Cont A	Contained Recoveries		пеаа	Grade		
Concentrate	(9)	2.0	AU (g/t)	Ag (g/t)	Au 2.50	Ag	AU 70.00	Ag 67.29	Au 2.05	49 106	
Seavenger	29	2.9	15.7	2,001	0.30	11 13	10.05	07.30 8.07			
Tails	25	2.5	0.63	21	0.59	20.33	16.73	0.97	76.35	82.07	
Totals	1000	94.0 100	3.50	12/	0.0	29.55	10.75	23.05	70.55	03.21	
10(d)5	1000	100	0.00 Ietallurgical	Balance Te	st San Iona	cio 100% 75	% a -200	100			
	Weight	%	Gra	ade	Cont	ained	Reco	veries	Head	Grade	
Description	(g)	Weight	Au (a/t)	Aa (a/t)	Au	Αα	Au	Αα	Au	Αα	
Concentrate	40	4	57.16	1.903	2.29	76.12	68.53	60.46	3.1	132	
Scavenger	34	3.4	13.92	429	0.47	14.59	14.18	11.59	REC. Au	REC. Ag	
Tails	926	92.6	0.62	38	0.58	35.19	17.29	27.95	72.05	82.71	
Totals	1000	100	3.34	126			100	100		1	
-			Metallurgica	I Balance To	est San Igna	acio 100% 8	2 %-200				
<b>D</b> :	Weight	%	Gra	ade	Cont	ained	Reco	veries	Head	Grade	
Description	(g)	Weight	Au (g/t)	Ag (g/t)	Au	Ag	Au	Ag	Au	Ag	
Concentrate	41	4.1	72.01	2,301	2.95	94.34	80.04	73.76	3.21	135	
Scavenger	49	4.9	4.77	165	0.23	8.09	6.34	6.32	REC. Au	REC. Ag	
Tails	910	91	0.55	28	0.5	25.48	13.62	19.92	80.08	86.38	
Totals	1000	100	3.69	128			100	100			
			Metallu	urgical Balar	nce Test Sa	n Ignacio 70	%				
Description	Weight	%	Gra	ade	Contained Recoveries					Grade	
Description	(g)	Weight	Au (g/t)	Ag (g/t)	Au	Ag	Au	Ag	Au	Ag	
Concentrate	60	6	45.39	1,495	2.72	89.7	76.37	71.27	2.9	124	
Scavenger	52	5.2	7.67	200	0.4	10.4	11.18	8.26	REC. Au	REC. Ag	
Tails	888	88.8	0.5	29	0.44	25.75	12.45	20.46	79.54	87.55	
Totals	1000	100	3.57	126			100	100			
			Metallu	urgical Balar	nce Test Sa	n Ignacio 75	%				



Description	Weight	%	Gra	ade	Contained		Recoveries		Head Grade		
Description	(g)	Weight	Au (g/t)	Ag (g/t)	Au	Ag	Au	Ag	Au	Ag	
Concentrate	30	3	102.75	3,017	3.08	90.51	78.03	68.96	3.67	141	
Scavenger	31	3.1	14.25	345	0.44	10.7	11.18	8.15	REC. Au	REC. Ag	
Tails	939	93.9	0.45	32	0.43	30.05	10.79	22.89	77.11	89.21	
Totals	1000	100	3.95	131			100	100			
			Metallu	urgical Balaı	nce Test Sa	n Ignacio 75	%				
Description	Weight	%	Gra	ade	Cont	ained	Reco	veries	Head Grade		
Description	(g)	Weight	Au (g/t)	Ag (g/t)	Au	Ag	Au	Ag	Au	Ag	
Concentrate	63	6.3	34.09	1,004	2.15	63.25	78.37	65.91	3	130	
Scavenger	51	5.1	2.99	155	0.15	7.91	5.56	8.24	REC. Au	REC. Ag	
Tails	886	88.6	0.5	28	0.44	24.81	16.07	25.85	74.15	83.93	
Totals	1000	100	2.74	96			100	100			
			Metall	urgical Bala	nce Test Sa	nta Margari	ta				
Description	Weight	%	Gra	ade	Cont	ained	Reco	veries	Head	Grade	
Description	(g)	Weight	Au (g/t)	Ag (g/t)	Au	Ag	Au	Ag	Au	Ag	
Conc. Prim.	50	5	68.03	2,171	3.4	108.55	78.99	71.71	3.8	145	
Conc. Scav.	28	2.8	12.58	443	0.35	12.4	8.18	8.19	REC. Au	REC. Ag	
Tails	922	92.2	0.6	33	0.55	30.43	12.83	20.1	87.17	79.9	
Totals	1000	100	4.31	151			100	100			

#### 13.2 GSilver Mineral Processing

Mineralized material from San Ignacio is treated at the Cata processing plant. The processing plant utilizes five stages, including: crushing, milling, flotation, thickening and filtering, as well as concentrate dewatering circuits to generate sulphide concentrates containing silver and gold, which are sent off site for smelting and refining. The processing flow sheet of the Cata plant is illustrated in Figure 13.1.

The Cata mill was put on care and maintenance status by Great Panther in November 2021 due to lack of tailings capacity. GSilver recommissioned the mill in December 2022, and the processing plant recommenced operations in January 2023. The plant comprises three ball mills and a two-stage crushing system. The Cata mill processes mineralized material from both San Ignacio and the VMC Guanajuato operation, and the full capacity of the mill is 36,000 tonnes per month (1,200 tonnes per day). Recent infrastructure upgrades to the mill includes a new Falcon concentrator and the implementation of hydraulic backfilling of tailings, which has led to the acceleration of plant operations (Guanajuato Silver Company Ltd., 2023; 2023b; 2023d).





Figure 13.1 Cata Processing Plant Flow Schematic

Prior to the full re-opening of the Cata mill, a small amount of mineralized material extracted from San Ignacio was sent to the Company's Villalpando processing plant, located at GSilver's El Cubo Mines Complex. The Villalpando mill consists of a two-stage crushing circuit, ball mill grinding, reagent storage, flotation, gravity treatment, and concentrate filtration for product shipment (Figure 13.2). A recent upgrade to the Villalpando mill is the addition of a gravity circuit for the recovery of native silver gold and electrum from the hydrocyclone underflow stream. Tailings disposal is in a conventional tailings pond facility. The Villalpando mill processes approximately 1,500 tonnes per day (Jorgensen et al., 2023).

Figure 13.2 Villalpando Processing Plant Flow Schematic (after Jorgensen et al., 2023)





Mineralized material from the San Ignacio operation was blended with mineralized material from GSilver's VMC Guanajuato operation prior to processing at the Cata plant, and with mineralized material from GSilver's El Cubo operation prior to processing at the Villalpando plant. The total tonnage values for each operation were determined using haul truck tonnage weights compared against a control file. The silver and gold grades were estimated using monthly mine grade control data as the primary reference, with grades refined based on monthly plant production grades. Recoveries are based on total plant production from all operations. Metal production values are pro-rated for each operation using the tonnage and grade data.

From August 2022 to September 2023, a total of 122,137 dry metric tonnes (DMT) of material extracted from San Ignacio were processed at Cata and Villalpando mills, producing 250,726 silver ounces and 4,696.5 gold ounces. Head grades and recoveries over this period averaged 76.29 g/t Ag with an 83.7% recovery for silver and 1.40 g/t Au with an 85.2% recovery for gold. A summary of GSilver's San Ignacio production is shown in Table 13.2.

		Tonnagel	Head G	irades <sup>2</sup>	Recov	eries <sup>3</sup>	Ounces Produced <sup>4</sup>		
Year	Month	(DMT)	Au (g/t)	Ag (g/t)	Rec Au	Rec Ag	Oz Au prod	Oz Ag prod	
	August	2,689	1.33	118	90.4%	89.7%	103.8	9,115	
	September	6,761	1.23	54.02	90.0%	89.3%	240.8	10,493	
2022	October	7,092	1.24	56.28	87.8%	87.0%	248.6	11,164	
	November	8,289	1.15	60.62	88.1%	84.9%	269.7	13,721	
	December	9,596	1.15	71.31	82.7%	82.0%	292.1	18,048	
	January	9,649	1.28	78.59	84.4%	83.6%	334.5	20,382	
	February	11,360	1.65	87.43	82.7%	82.3%	498.3	26,268	
	March	13,112	1.23	78.22	80.4%	80.9%	418.1	26,685	
	April	12,167	1.34	87.35	84.1%	80.1%	439.3	27,358	
2023	May	11,661	1.63	95.56	89.5%	88.2%	545.3	31,610	
	June	10,904	1.60	57.22	86.0%	83.0%	482.5	16,612	
	July	9,046	1.50	69.33	84.7%	83.8%	370.2	16,897	
	August	6,679	1.69	89.17	84.6%	82.9%	307.4	15,870	
	September	3,131	1.69	79.67	85.6%	81.1%	145.8	6,504	
	Totals	122,137	1.40	76.29	85.2%	83.7%	4,696.5	250,726	

## Table 13.2 Summary of San Ignacio Production (August 2022 to September 2023)

Notes:

1. Tonnage values for San Ignacio were determined using haul truck tonnage weights compared against a control file.

2. Silver and gold grades were estimated using monthly grade control data as the primary reference, with grades refined based on monthly plant production grades.

3. Recoveries are based on total plant production from all operations.

4. Metal production values are pro-rated for the San Ignacio operation using the tonnage and grade data.

Mine development at San Ignacio during 2022 and 2023 comprised a total of 491 m and 1,719 m, respectively, advancing mining faces, ramps, and underground other workings.



## 14 Mineral Resource Estimates

#### 14.1 Introduction

The 2023 San Ignacio Project Mineral Resource Estimate (2023 San Ignacio MRE) presented in this section describes historical drilling and drilling conducted on the San Ignacio Project between 2010 and 2023. It supersedes the 2021 historical MRE for the San Ignacio Project (Brown and Nourpour, 2022). Previous historical mineral resource estimates discussed in Section 6 of this Report are considered historical in nature and the reader is cautioned not to treat them, or any part of them, as current mineral resources. The historical resources summarized in Section 6 were included simply to demonstrate the mineral potential, and to provide the reader with a complete history of the Property.

This section details an updated NI 43-101 and CIM (2014; 2019) MRE completed for the San Ignacio Project by Mr. Warren Black, M.Sc., P.Geo., Mr. Tyler Acorn, M.Sc., and Mr. Kevin Hon, B.Sc., P.Geo. of APEX Geoscience Ltd. (APEX) of Edmonton, Alberta, Canada, under the direct supervision of Mr. Michael Dufresne, M.Sc., P.Geol., P.Geo, the QP who takes responsibility for Section 14.

The workflow implemented for the calculation of the 2023 San Ignacio MRE was completed using Micromine commercial resource modelling and mine planning software (v.23.5), Resource Modelling Solutions Platform (RMSP; v.1.10.2), and Maptek's Vulcan Workbench (v2023.3). Supplementary data analysis was completed using the Anaconda Python distribution and custom Python packages developed by APEX.

The drillhole and underground channel sample databases were validated by APEX geologists under the supervision of Mr. Dufresne, as summarized in Section 12.1. Mr. Dufresne accepts the San Ignacio Project drillhole and underground channel sample databases as reliable and suitable for ongoing Mineral Resource estimation.

Mineral Resource modelling was conducted in the San Ignacio local mine grid. The Mineral Resource block model utilized a selective mining unit (SMU) parent block size of 2.5 m (X) by 2.5 m (Y) by 2.5 m (Z) with a minimum subblock size of 0.5 m (X) by 0.5 m (Y) by 0.5 m (Z). The gold and silver grades were estimated for each block using Ordinary Kriging with locally varying anisotropy (LVA) to ensure grade continuity in various directions was reproduced in the block model. Sub-blocks retained the grade of the parent block. The 2023 San Ignacio MRE is reported as undiluted within a series of underground mining shapes. Details regarding the methodology used to calculate the MRE are documented in this section.

This section uses a silver equivalent grade (AgEq) based on metal prices of \$1,850/oz for gold (Au) and \$22/oz for silver (Ag). Both metals assume an 87% recovery rate. Therefore, all AgEq calculations in this section employ an Ag to Au ratio of 84.1:1. This ratio was determined based on current Reasonable Prospects for Eventual Economic Extraction (RPEEE) parameters, as outlined in Section 14.9.



Definitions used in this section are consistent with those adopted by CIM's "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines" dated November 29, 2019, and "Definition Standards for Mineral Resources and Mineral Reserves" dated May 10, 2014, and prescribed by the Canadian Securities Administrators' NI 43-101 and Form 43-101F1, Standards of Disclosure for Mineral Projects. Mineral Resources that are not mineral reserves have not demonstrated economic viability.

#### 14.2 Mineral Resource Estimate Data Description

The 2023 San Ignacio MRE used samples collected from surface and underground drillholes and underground channels. It utilized a drillhole database with 640 unique drillholes totalling 120,674 m, drilled between 2010 and 2023. This database included collar locations, surveys, assays, and geological details. Additionally, the MRE used an underground channel sample database with 86,083 samples collected from 2016 to 2023, containing channel locations, surveys, and assays. Both databases were considered during domain interpretation and metal estimation.

In total, 595 drillholes and 78,995 channel samples intersected the estimation domains, summarized in Table 14.1 and Table 14.2. Within the estimation domains, there were 5,245 m of drilling, of which 856 m (16 % of the total) were unsampled intervals, assumed to be waste, and assigned a nominal waste value, half the detection limit of modern assay methods (0.0025 g/t Au). Within the estimation domains were 53,175 m of channel samples with no missing intervals.

Zone	Number of Drillholes	Total Meters Inside Domain*
Intermediate	149	529.8
Melladito North	163	1054.7
Melladito South	135	591.7
Nombre de Dios	202	845.5
Purisima	180	1367.9

#### Table 14.1 2023 San Ignacio Project Drillhole Summary

\* Excluding unsampled intervals

#### Table 14.2 2023 San Ignacio Project Channel Summary

Zone	Number of Samples	Total Meters Inside Domain*
Intermediate	11,620	7,599.6
Melladito North	38,408	27,606.0
Melladito South	4,401	3,129.5
Nombre de Dios	24,148	14,572.8
Purisima	418	267.6

\* Excluding unsampled intervals



## 14.2.1 Data Verification

APEX personnel validated the drillhole and channel sample databases by checking for inconsistencies in analytical units, duplicate entries, interval, length, or distance values less than or equal to zero, blank or zero-value assay results, out-of-sequence intervals, intervals or distances greater than the reported drillhole length, inappropriate collar locations, survey and missing interval and coordinate fields. A small number of errors were identified and corrected in the databases. A detailed discussion on the verification of drill hole and channel data is provided in Sections 11 and 12 of this Report. Mr. Dufresne considers the supplied databases suitable for Mineral Resource estimation.

## 14.3 Estimation Domain Interpretation

Grade estimation wireframes were developed by implicitly modelling drillhole intervals coded to specific estimation domains. The domain creation process involved iterative adjustments based on diverse geological inputs. Expert modelling geologists, who are deeply familiar with the deposit, contributed to and reviewed various stages of the process, refining the domain coding as required. This process was iterated until the final domains were established. The main objective was to link similar styles of mineralization within a single estimation domain while respecting geological and structural controls on orientation and spatial continuity. Non-mineralized intervals were classified as waste. Critical inputs for defining domain boundaries and orientations were:

- Underground mapping.
- Drillhole geological logging.
- Silver and Gold assays.

Mineralization at the San Ignacio Project is hosed in epithermal quartz and calcite veins within a northwest-trending Cenozoic-age fault system. Five distinct mineralized vein orientation zones exist at the Project: Intermediate, Melladito North, Melladito South, Nombre de Dios, and Purisima. Each zone has a distinct mineralization style and orientation that can be traced for some distance. The primary mineralization occurs in tabular veins, vein stockwork and breccias of quartz and calcite surrounded by green aphanitic andesite. The veins range from steely dipping (Melladito and Intermediate) to shallow 45-50° dipping (Nombre de Dios and Purisima). For a detailed discussion regarding the geological setting and mineralization, see Sections 7 and 8.

In total, 40 estimation domains were used to calculate the 2023 San Ignacio MRE. GSilver provided APEX with 19 domains created based on geological characteristics and previous mining experience. APEX modified two domains to capture more nearby mineralization and reduce internal dilution. APEX modelled 21 additional domains to capture mineralized material outside the estimation domains GSilver provided. The San Ignacio estimation domain descriptions and groupings are presented in Tables 14.3 and 14.4. An orthogonal view of the 2023 San Ignacio MRE estimation domains is shown in Figure 14.1.



Grade Estimation Domain Zones	Domains	Description
Intermediate	4	The Intermediate vein ranges from 0.25 to 8.5 m in width, steeply dipping to the west. The domains in this zone are located between the NDD and Melladito veins.
Melladito North	3	Near vertical veins that range from 0.25 to 19.5 m in width, dipping to the northeast.
Melladito South	9	Vein dips steeply to the east and has a average wide of 1-2 m. It is traced south and plunges below the Purisiam vein.
Nombre de Dios	7	Narrow veins that range from 0.25 to 4 m in width, dipping 45 to 60° to the southwest. They are the most eastern domains at San Ignacio.
Purisima	17	Shallow veins that range from 0.5 to 3 m in width, dipping 45 to 50° to the southwest. Western most domains at San Ignacio

## Table 14.3 San Ignacio Estimation Domain Descriptions

## Table 14.4 Domain Groupings

Grade Estimation Domain Zones	Domains
Intermediate	Intermedia, Intermedia-2, Intermedia-3, Intermedia-4
Melladito North	Melladito-Bo, Melladito-N, Melladito-N2
Melladito South	Melladito-S, Melladito-S2, Melladito-S3, Melladito-S4, Melladito-S5, Melladito-S6, Melladito-S7, Melladito-S8, Melladito-S9
Nombre de Dios	NDD, NDD-15, NDD-2N, NDD-2S, NDD-3, NDD-3N, SantaAna
Purisima	Purisima, Purisima-Bo, Purisima-Bo2, Purisima-E, Purisima-E2, Purisima-FW, Purisima-HW, Purisima- Loop, Purisima-S, Purisima-W, Purisima-W2, Purisima-W3, Purisima-W4, Purisima-W5, SantoNino, SantoNino-W, SantoNino-W2







## 14.4 Exploratory Data Analysis

## 14.4.1 Bulk Density

A total of 15,595 bulk-density samples were available from the San Ignacio Property drillhole database. APEX staff conducted exploratory data analysis (EDA) to assess density variations across lithologies and estimation domains. The EDA revealed minimal fluctuation in bulk density at the San Ignacio Property and that a density value of 2.64 g/cm<sup>3</sup> adequately represented all mineralized material. Figure 14.2 shows the density variability between closely related domains or those with sufficient data for independent evaluation.





Figure 14.2 Bulk density measurements.

Note: Only domains with at least 150 measurements are displayed.

## 14.4.2 Raw Analytical Data

Tables 14.5 to 14.8 present the summary statistics for the raw (uncomposited) assays from sample intervals within the estimation domains. The assays within each estimation domain exhibit a single coherent statistical population.



			Standard	Coefficient	Minimum	_	Percentiles		Maximum
Domain	Count	Mean	Deviation	of Variation	g/t	25	50 (Median)	75	g/t
Global	35,401	18.8	101.5	5.4	1	1	1	6	11,951
Melladito Bo	135	31.6	53.5	1.7	1	1	6	38	318
Melladito North	1,096	83.0	384.8	4.6	1	4	21	82	11,951
Melladito N2	31	86.5	245.5	2.8	3	13	26	55	1,408
Melladito South	556	70.7	256.6	3.6	1	4	11	57	4,914
Melladito S2	62	17.2	19.7	1.1	1	2	11	26	90
Melladito S3	25	67.6	114.0	1.7	1	8	25	67	512
Melladito S4	68	78.4	130.7	1.7	1	4	30	95	735
Melladito S5	42	36.1	85.7	2.4	1	3	10	21	447
Melladito S6	12	125.3	143.0	1.1	1	5	60	239	429
Melladito S7	13	33.8	33.3	1.0	5	7	22	42	128
Melladito S8	7	16.3	16.4	1.0	2	5	9	21	52
Melladito S9	22	91.9	91.4	1.0	7	29	61	113	368
Intermedia	247	96.9	163.5	1.7	1	4	24	119	1,040
Intermedia 2	331	82.5	146.7	1.8	1	3	16	105	1,100
Intermedia 3	59	85.2	120.2	1.4	1	13	38	95	568
Intermedia 4	39	90.1	132.2	1.5	1	14	54	87	587
NDD	373	70.5	181.7	2.6	1	2	14	68	2,662
NDD 1.5	374	60.5	116.8	1.9	1	1	9	57	680
NDD 2N	193	74.9	130.3	1.7	1	3	18	75	816
NDD 2S	100	59.5	90.2	1.5	1	2	16	76	380
NDD 3	65	81.3	188.4	2.3	1	2	8	73	1,100
NDD 3N	30	120.1	126.0	1.0	1	35	100	166	626
Purisima	640	83.2	165.4	2.0	1	6	23	85	2,119
Purisima Bo	166	40.2	90.6	2.3	1	1	5	23	687
Purisima Bo2	15	14.6	22.4	1.5	1	1	5	10	67
Purisima E	37	65.5	113.8	1.7	1	2	10	64	480
Purisima E2	10	46.8	49.5	1.1	1	1	20	97	126
Purisima FW	101	30.5	67.2	2.2	1	2	7	23	461
Purisima HW	113	161.7	374.8	2.3	1	7	35	130	2,334
Purisima Loop	42	169.3	313.8	1.9	1	9	36	148	1,619
Purisima S	34	143.0	324.7	2.3	1	4	19	88	1,363
Purisima W	94	72.9	111.6	1.5	1	4	17	83	596
Purisima W2	86	72.6	123.7	1.7	1	4	23	75	596
Purisima W3	11	30.6	24.3	0.8	2	10	30	44	80
PurisimaW4	54	138.4	247.2	1.8	1	9	49	116	1,483
PurisimaW5	5	132.5	84.3	0.6	3	71	156	204	229
SantaAna	54	134.0	288.1	2.1	1	2	18	127	1,390
SantoNino	316	67.5	173.7	2.6	1	3	12	61	2,238
SantoNinoW	18	29.6	37.4	1.3	1	4	9	40	112
SantoNinoW2	8	175.7	175.2	1.0	1	4	155	325	434

#### Table 14.5 Raw Silver (g/t) Drilling Assay Statistics for the 2023 San Ignacio MRE



Demain	Count	Mean	Standard	Coefficient of	Minimum		Percentiles		Maximum
Domain	Count	g/t	Deviation	Variation	g/t	25	50 (Median)	75	g/t
Global	86,083	143.2	394.5	2.8	1	26	72	177	89,426
Melladito Bo	7,621	71.6	94.9	1.3	1	17	40	92	2,377
Melladito North	30,775	123.6	195.0	1.6	1	28	66	148	6,282
Melladito N2	12	149.7	211.7	1.4	18	50	93	132	828
Melladito South	3,467	99.8	259.8	2.6	1	11	33	97	6,260
Melladito S2	667	25.9	32.9	1.3	1	8	19	35	476
Melladito S3	142	11.3	18.4	1.6	1	1	7	13	152
Melladito S4	6	4.2	3.3	0.8	1	1	4	7	9
Melladito S5	94	15.9	17.3	1.1	1	7	15	20	150
Melladito S6	1	21.0	-	-	21	21	21	21	21
Melladito S9	24	30.8	36.6	1.2	1	7	11	40	137
Intermedia	6,462	190.3	234.6	1.2	1	65	132	240	8,751
Intermedia 2	5,122	266.1	265.3	1.0	1	81	211	368	4,531
Intermedia 3	36	170.8	180.3	1.1	1	39	113	247	743
NDD	8,578	147.9	981.3	6.6	1	26	78	182	89,426
NDD 1.5	5,637	185.4	453.8	2.4	1	41	116	241	30,223
NDD 2N	6,575	149.3	275.6	1.8	1	29	77	182	8,884
NDD 2S	1,918	283.7	353.3	1.2	1	79	178	354	6,007
NDD 3	1,435	248.8	505.8	2.0	1	24	111	323	13,607
NDD 3N	5	105.6	109.3	1.0	24	25	70	91	318
Purisima	51	48.9	106.8	2.2	1	6	10	36	704
Purisima Bo	190	139.2	210.0	1.5	1	27	80	166	1,864
Purisima Bo2	1	5.0	-	-	5	5	5	5	5
Purisima FW	142	19.8	21.7	1.1	1	7	14	22	148
Purisima HW	34	151.6	265.6	1.8	1	9	23	159	1,102

 Table 14.6 Raw Silver (g/t) Channel Sample Assay Statistics



Damain	0	Mean	Standard	Coefficient of	Minimum		Percentiles		Maximum
Domain	Count	g/t	Deviation	Variation	g/t	25	50 (Median)	75	g/t
Global	35,401	0.35	1.88	5.29	0.00	0.01	0.04	0.13	172.79
Melladito Bo	135	1.83	3.77	2.06	0.00	0.03	0.34	1.79	26.85
Melladito North	1,096	2.03	3.53	1.74	0.00	0.20	0.76	2.44	48.24
Melladito N2	31	1.53	2.22	1.45	0.02	0.16	0.60	1.28	9.44
Melladito South	556	1.64	3.29	2.00	0.00	0.10	0.33	1.83	34.44
Melladito S2	62	2.93	5.08	1.73	0.00	0.20	1.05	3.34	33.32
Melladito S3	25	3.82	4.86	1.27	0.00	0.70	1.49	4.84	16.08
Melladito S4	68	1.35	1.83	1.35	0.00	0.13	0.67	1.65	8.00
Melladito S5	42	2.20	3.41	1.55	0.00	0.08	0.24	2.48	11.27
Melladito S6	12	0.54	0.66	1.22	0.01	0.20	0.28	0.63	2.38
Melladito S7	13	0.70	0.62	0.88	0.03	0.18	0.68	0.83	2.56
Melladito S8	7	1.19	1.26	1.06	0.04	0.32	1.01	1.30	4.03
Melladito S9	22	3.57	4.89	1.37	0.10	0.63	1.87	4.13	22.05
Intermedia	247	1.49	2.46	1.65	0.00	0.08	0.30	1.61	13.70
Intermedia 2	331	1.45	2.81	1.94	0.00	0.05	0.22	1.71	28.68
Intermedia 3	59	2.25	3.89	1.73	0.03	0.17	0.78	1.99	19.06
Intermedia 4	39	1.50	1.69	1.13	0.00	0.17	0.82	2.42	7.78
NDD	373	1.32	4.82	3.64	0.00	0.06	0.19	0.79	81.82
NDD 1.5	374	0.87	1.95	2.24	0.00	0.04	0.18	0.84	24.67
NDD 2N	193	1.13	2.42	2.14	0.00	0.06	0.22	1.00	20.53
NDD 2S	100	1.16	2.26	1.95	0.00	0.04	0.19	0.67	8.98
NDD 3	65	1.56	1.86	1.19	0.00	0.21	0.91	2.13	8.58
NDD 3N	30	1.15	1.82	1.59	0.00	0.20	0.43	1.29	6.98
Purisima	640	1.06	2.79	2.64	0.00	0.08	0.22	0.77	28.52
Purisima Bo	166	1.19	2.60	2.19	0.00	0.04	0.14	0.81	16.77
Purisima Bo2	15	1.47	2.62	1.79	0.00	0.01	0.26	1.35	9.88
Purisima E	37	0.36	0.57	1.57	0.00	0.06	0.21	0.39	3.20
Purisima E2	10	0.36	0.51	1.41	0.00	0.04	0.15	0.48	1.76
Purisima FW	101	0.85	1.89	2.22	0.00	0.07	0.22	0.68	14.10
Purisima HW	113	0.74	1.37	1.85	0.00	0.06	0.19	0.79	9.92
Purisima Loop	42	3.86	9.68	2.51	0.00	0.14	0.64	2.69	58.76
Purisima S	34	4.64	18.29	3.94	0.00	0.04	0.22	0.83	104.06
Purisima W	94	0.59	1.19	2.01	0.00	0.06	0.16	0.63	9.54
Purisima W2	86	0.21	0.34	1.58	0.00	0.04	0.08	0.24	2.20
Purisima W3	11	0.53	0.57	1.09	0.04	0.17	0.33	0.62	2.16
Purisima W4	54	0.46	1.00	2.15	0.00	0.05	0.11	0.48	6.35
Purisima W5	5	0.49	0.43	0.87	0.03	0.21	0.23	0.86	1.14
SantaAna	54	1.05	1.89	1.80	0.00	0.07	0.33	0.92	10.80
SantoNino	316	1.59	10.79	6.77	0.00	0.07	0.17	0.51	172.79
SantoNino W	18	0.71	1.76	2.50	0.00	0.05	0.14	0.45	7.81
SantoNino W2	8	1.84	2.18	1,18	0.05	0.49	0.66	2.69	6.99

## Table 14.7 Raw Gold (g/t) Drilling Assay Statistics

Effective Date: September 21, 2023



			Standard	Coefficient of			Percentiles		
Domain	Count	Mean	Deviation	Variation	Minimum	25	50 (Median)	75	Maximum
Global	86,083	2.93	4.76	1.62	0.00	0.59	1.70	3.80	455.94
Melladito Bo	7,621	2.98	4.39	1.47	0.00	0.79	2.00	3.92	204.35
Melladito North	30,775	3.14	3.91	1.24	0.00	0.86	2.01	4.05	115.16
Melladito N2	12	4.40	4.28	0.97	1.05	1.99	3.34	4.82	17.57
Melladito South	3,467	2.22	4.06	1.83	0.00	0.18	0.71	2.87	86.34
Melladito S2	667	4.32	5.35	1.24	0.00	0.76	2.48	5.86	51.41
Melladito S3	142	2.01	2.78	1.38	0.00	0.12	0.90	2.73	16.90
Melladito S4	6	0.20	0.10	0.50	0.05	0.14	0.22	0.25	0.37
Melladito S5	94	3.31	2.78	0.84	0.00	0.72	3.08	5.01	12.40
Melladito S6	1	0.30	-	-	0.30	0.30	0.30	0.30	0.30
Melladito S9	24	0.80	1.28	1.61	0.00	0.08	0.34	0.57	5.69
Intermedia	6,462	3.23	3.67	1.13	0.00	0.88	2.16	4.30	57.10
Intermedia 2	5,122	4.47	5.13	1.15	0.00	1.09	3.24	6.35	135.98
Intermedia 3	36	4.14	4.45	1.07	0.17	1.05	2.37	5.36	19.08
NDD	8,578	2.30	4.01	1.75	0.00	0.36	1.03	2.71	133.04
NDD 1.5	5,637	2.91	3.91	1.34	0.00	0.67	1.80	3.86	91.75
NDD 2N	6,575	2.42	9.99	4.12	0.00	0.38	0.96	2.30	455.94
NDD 2S	1,918	3.51	4.51	1.29	0.00	0.72	2.08	4.65	51.60
NDD 3	1,435	2.06	2.29	1.11	0.00	0.39	1.32	2.97	19.45
NDD 3N	5	1.32	0.41	0.31	0.57	1.33	1.42	1.46	1.82
Purisima	51	0.39	0.49	1.26	0.01	0.11	0.21	0.35	2.21
Purisima Bo	190	3.46	3.56	1.03	0.00	0.92	2.64	4.82	21.30
Purisima Bo2	1	0.36	-	-	0.36	0.36	0.36	0.36	0.36
Purisima FW	142	1.47	1.85	1.26	0.00	0.33	0.83	1.82	11.19
Purisima HW	34	1.55	3.20	2.06	0.01	0.07	0.22	1.52	15.55

## Table 14.8 Raw Gold (g/t) Channel Sample Assay Statistics

## 14.4.3 Compositing Methodology

Assay sample lengths for both channel and drillhole samples within the estimation domains show that sample interval lengths predominantly ranged from 0.5 to 1 m, as shown in Figure 14.3 and Figure 14.4, respectively. A composite length of 1.0 m was selected as most sample interval lengths are equal to or less than that length.





Figure 14.3 Distribution of Raw Drillhole Interval Lengths

Figure 14.4 Distribution of Raw Channel Interval Lengths



The length-weighted compositing process started from the drill hole collar and ended at the bottom of the hole. However, the final composite intervals along the drillhole could not cross contacts between estimation domains. Therefore, composites extending downhole were truncated when intersecting one of these contacts. A new composite began at these contacts and extended downhole until the maximum composite interval length was reached or another truncating contact was intersected. If the last composite interval was <0.5 m, the composite was not considered when calculating the MRE to avoid introducing short sample bias in the grade interpolation process.



## 14.4.4 Grade Capping

Composites were capped to a specified maximum value to ensure metal grades were not overestimated by including outlier values during estimation. Probability plots illustrating each composite's values were used to identify outlier values that appeared greater than expected relative to each estimation domain's commodity distribution. Composites identified as potential outliers on the log-probability plots were evaluated in three dimensions (3D) to determine whether they were part of a high-grade trend. If identified outliers were deemed part of a high-grade trend that still required a grade capping level, the grade capping level used on them may not have been as aggressive as the grade capping level used to control isolated high-grade outliers.

Grade capping was completed by assessing the drillhole and underground channel composites separately within each domain. Table 14.9 and 14.10 indicate the grade capping levels determined using the log-probability plots. A visual inspection of the potential outliers revealed that they had no spatial continuity with each other.

		Drillhole Compos	ites	Underg	round Channel C	omposites
Domain	Ag Capping Level (g/t)	No. of Composites	No. of Capped Composites	Ag Capping Level (g/t)	No. of Composites	No. of Capped Composites
Melladito Bo	200	151	1	660	5421	5
Melladito North	735	1018	3	2500	21796	10
Melladito N2	86	26	2	0	4	0
Melladito South	910	434	1	1650	2455	7
Melladito S2	None	43	0	112	474	3
Melladito S3	None	17	0	60	86	2
Melladito S4	180	61	4	0	2	0
Melladito S5	None	26	0	28	51	2
Melladito S6	None	8	0	None	1	0
Melladito S7	None	11	0	-	-	-
Melladito S8	None	5	0	-	-	-
Melladito S9	150	15	2	None	12	0
Intermedia	510	241	5	1000	4295	16
Intermedia 2	560	351	3	1350	3064	12
Intermedia 3	180	56	3	300	20	3
Intermedia 4	300	33	2	-	-	-
NDD	350	365	7	1600	5127	3
NDD 1.5	550	480	2	1750	3236	4
NDD 2N	None	155	0	2900	3783	3
NDD 2S	280	124	1	1550	1060	4
NDD 3	335	70	3	2400	858	4
NDD 3N	200	16	4	None	2	0
Purisima	735	573	3	None	35	0
Purisima Bo	250	152	3	390	108	5

#### Table 14.9 Silver Grade Capping Levels Applied to Composites Before Estimation



		Drillhole Composi	ites	Underground Channel Composites					
Domain	Ag Capping Level (g/t)	No. of Composites	No. of Capped Composites	Ag Capping Level (g/t)	No. of Composites	No. of Capped Composites			
Purisima Bo2	None	10	0	None	1	0			
Purisima E	None	23	0	-	-	-			
Purisima E2	None	6	0	-	-	-			
Purisima FW	200	79	5	None	99	0			
Purisima HW	805	106	2	None	18	0			
Purisima Loop	600	32	2	-	-	-			
Purisima S	150	25	4	-	-	-			
Purisima W	330	73	1	-	-	-			
Purisima W2	250	62	3	-	-	-			
Purisima W3	None	7	0	-	-	-			
Purisima W4	210	43	5	-	-	-			
Purisima W5	None	2	0	-	-	-			
SantaAna	None	38	0	-	-	-			
SantoNino	370	264	5	-	-	-			
SantoNino W	None	13	0	-	-	-			
SantoNino W2	None	5	0	-	-	-			

## Table 14.10 Gold Grade Capping Levels Applied to Composites Before Estimation

		Drillhole Compos	ites	Underg	round Channel C	omposites
Domain	Au Capping Level (g/t)	No. of Composites	No. of Capped Composites	Au Capping Level (g/t)	No. of Composites	No. of Capped Composites
Melladito Bo	8	151	4	28	5421	6
Melladito North	20	1018	2	62	21796	3
Melladito N2	None	26	0	None	4	0
Melladito South	15	434	1	34	2455	3
Melladito S2	8	43	4	27	474	1
Melladito S3	None	17	0	5	86	4
Melladito S4	None	61	0	None	2	0
Melladito S5	None	26	0	None	51	0
Melladito S6	None	8	0	None	1	0
Melladito S7	None	11	0	-	-	-
Melladito S8	None	5	0	-	-	-
Melladito S9	None	15	0	None	12	0
Intermedia	8	241	2	None	4295	0
Intermedia 2	8	351	5	34	3064	2
Intermedia 3	11	56	1	None	20	0
Intermedia 4	4	33	3	-	-	-
NDD	7	365	5	44	5127	3
NDD 1.5	7	480	3	35	3236	2
NDD 2N	6.5	155	4	110	3783	3
NDD 2S	7.5	124	1	27	1060	3



		Drillhole Compos	ites	Underg	round Channel C	omposites
Domain	Au Capping Level (g/t)	No. of Composites	No. of Capped Composites	Au Capping Level (g/t)	No. of Composites	No. of Capped Composites
NDD 3	None	70	0	10	858	7
NDD 3N	None	16	0	None	2	0
Purisima	11	573	6	None	35	0
Purisima Bo	6	152	5	8	108	6
Purisima Bo2	None	10	0	None	1	0
Purisima E	None	23	0	-	-	-
Purisima E2	None	6	0	-	-	-
Purisima FW	7	79	2	6	99	2
Purisima HW	3	106	6	None	18	0
Purisima Loop	None	32	0	-	-	-
Purisima S	None	25	0	-	-	-
Purisima W	2	73	3	-	-	-
Purisima W2	None	62	0	-	-	-
Purisima W3	None	7	0	-	-	-
Purisima W4	1	43	3	-	-	-
Purisima W5	None	2	0	-	-	-
SantaAna	4	38	1	-	-	-
SantoNino	16	264	2	-	-	-
SantoNino W	None	13	0	-	-	-
SantoNino W2	None	5	0	-	-	-

## 14.4.5 Declustering

Data collection often focused on high-value areas, resulting in sparse areas being underrepresented in the raw composite statistics and distributions. Spatially representative (declustered) statistics and distributions were required for accurate validation. Declustering techniques calculated a weight for each datum, giving more weight to data in sparse and less in dense areas. Using a 100 m cell size for both gold and silver, APEX personnel applied cell declustering to calculate weights for each drillhole and channel composite across all estimation domains.

## 14.4.6 Final Composite Statistics

Summary statistics for the merged, declustered, and capped drillhole and underground channel composites contained within the estimation domains are presented in Tables 14.11 and 14.12. The composites within each estimation domain exhibit a single coherent statistical population.



		Mean	Standard	Coefficient of	Minimum		Percentiles		Maximum
Domain	Count	(g/t)	Deviation	Variation	g/t	25	50 (Median)	75	(g/t)
Global	57227	133.9	173.9	1.3	1	30	79	174	2,900
Melladito Bo	5572	66.7	74.3	1.1	1	19	41	87	660
Melladito North	22814	122.2	161.1	1.3	1	33	73	154	2,500
Melladito N2	30	39.9	28.5	0.7	5	17	34	63	99
Melladito South	2889	93.2	168.6	1.8	1	13	37	103	1,650
Melladito S2	517	24.4	19.3	0.8	1	11	21	32	112
Melladito S3	103	19.6	40.0	2.0	1	4	9	16	344
Melladito S4	63	63.7	64.2	1.0	1	7	33	121	180
Melladito S5	77	19.4	33.4	1.7	1	7	11	20	227
Melladito S6	9	132.4	144.2	1.1	1	21	92	147	429
Melladito S7	11	27.0	22.5	0.8	5	9	21	37	85
Melladito S8	5	13.0	8.9	0.7	2	7	9	20	26
Melladito S9	27	54.4	45.5	0.8	1	20	44	64	150
Intermedia	4536	177.5	158.7	0.9	1	74	135	231	1,000
Intermedia 2	3415	240.3	216.7	0.9	1	71	198	346	1,350
Intermedia 3	76	88.5	80.8	0.9	1	29	52	151	300
Intermedia 4	33	77.8	95.6	1.2	1	16	46	66	300
NDD	5492	132.4	151.8	1.1	1	35	86	176	1,600
NDD 1.5	3716	166.7	184.0	1.1	1	42	118	231	1,750
NDD 2N	3938	149.6	209.2	1.4	1	42	96	183	2,900
NDD 2S	1184	251.2	264.9	1.1	1	78	171	330	1,550
NDD 3	928	230.3	308.9	1.3	1	35	124	317	2,400
NDD 3N	18	114.5	68.1	0.6	3	51	101	181	200
Purisima	608	73.8	117.5	1.6	1	8	26	85	735
Purisima Bo	260	68.0	85.7	1.3	1	4	32	112	390
Purisima Bo2	11	12.3	20.5	1.7	1	1	4	6	65
Purisima E	23	59.7	90.1	1.5	1	5	18	70	386
Purisima E2	6	56.6	34.6	0.6	13	40	52	59	126
Purisima FW	178	25.7	37.7	1.5	1	6	14	27	200
Purisima HW	124	145.9	207.0	1.4	1	13	63	164	805
Purisima Loop	32	143.2	184.7	1.3	1	14	55	232	600
Purisima S	25	60.3	58.3	1.0	1	7	45	108	150
Purisima W	73	63.9	80.1	1.3	1	7	30	97	330
Purisima W2	62	56.1	67.5	1.2	1	11	28	72	250
Purisima W3	7	31.2	16.7	0.5	8	23	28	36	65
Purisima W4	43	83.3	70.8	0.8	1	27	59	131	210
Purisima W5	2	122.5	62.1	0.5	60	91	123	154	185
SantaAna	38	140.9	308.2	2.2	1	2	18	157	1,390
SantoNino	264	54.4	89.4	1.6	1	1	14	64	370
SantoNino W	13	27.7	27.5	1.0	1	6	16	45	75
SantoNino W2	5	176.3	158.0	0.9	2	8	160	330	382

Note: Statistics consider declustering weights and capping.



		Mean	Standard	Coefficient of	Minimum		Percentiles		Maximum
Domain	Count	g/t	Deviation	Variation	g/t	25	50 (Median)	75	g/t
Global	57227	2.88	3.61	1.26	0.00	0.76	1.86	3.79	110.00
Melladito Bo	5572	2.81	2.84	1.01	0.00	0.96	2.07	3.74	28.00
Melladito North	22814	3.14	3.45	1.10	0.00	1.07	2.17	4.04	62.00
Melladito N2	30	1.73	1.85	1.07	0.05	0.35	0.67	2.73	6.00
Melladito South	2889	2.18	3.31	1.52	0.00	0.23	0.96	2.79	34.00
Melladito S2	517	4.32	4.59	1.06	0.00	1.13	2.86	5.86	27.00
Melladito S3	103	2.12	2.27	1.07	0.00	0.61	1.52	2.92	13.56
Melladito S4	63	1.04	1.31	1.26	0.00	0.15	0.66	1.42	7.14
Melladito S5	77	2.45	2.44	1.00	0.00	0.25	1.65	4.06	9.60
Melladito S6	9	0.63	0.70	1.11	0.01	0.25	0.30	0.67	2.27
Melladito S7	11	0.68	0.44	0.65	0.15	0.47	0.62	0.76	1.87
Melladito S8	5	0.86	0.49	0.57	0.04	0.73	0.79	1.29	1.44
Melladito S9	27	1.89	2.77	1.46	0.03	0.34	1.08	1.82	11.21
Intermedia	4536	3.09	3.08	1.00	0.00	1.03	2.25	4.23	40.73
Intermedia 2	3415	4.15	4.03	0.97	0.00	1.11	3.10	6.17	34.00
Intermedia 3	76	2.54	3.31	1.31	0.04	0.30	1.39	2.90	12.95
Intermedia 4	33	1.29	1.25	0.97	0.00	0.23	0.92	1.75	4.00
NDD	5492	2.29	3.37	1.47	0.00	0.46	1.17	2.77	44.00
NDD 1.5	3716	2.72	3.08	1.13	0.00	0.74	1.88	3.71	35.00
NDD 2N	3938	2.39	5.80	2.43	0.00	0.51	1.15	2.52	110.00
NDD 2S	1184	3.38	3.90	1.15	0.00	0.75	2.27	4.59	27.00
NDD 3	928	2.02	1.92	0.95	0.00	0.59	1.42	2.81	10.00
NDD 3N	18	1.44	1.70	1.18	0.07	0.43	0.59	1.72	6.01
Purisima	608	0.82	1.68	2.03	0.00	0.08	0.25	0.80	11.00
Purisima Bo	260	1.90	2.24	1.18	0.00	0.10	0.89	2.89	8.00
Purisima Bo2	11	0.70	0.84	1.19	0.00	0.03	0.36	1.06	2.79
Purisima E	23	0.35	0.35	1.00	0.04	0.13	0.19	0.42	1.54
Purisima E2	6	0.35	0.29	0.83	0.08	0.16	0.28	0.34	0.95
Purisima FW	178	1.15	1.38	1.20	0.00	0.23	0.71	1.47	7.00
Purisima HW	124	0.78	1.02	1.31	0.00	0.09	0.26	1.10	6.00
Purisima Loop	32	3.21	6.53	2.03	0.00	0.34	1.28	3.18	35.98
Purisima S	25	5.56	16.05	2.89	0.01	0.12	0.34	1.01	72.82
Purisima W	73	0.44	0.56	1.26	0.02	0.08	0.18	0.57	2.00
Purisima W2	62	0.21	0.33	1.60	0.00	0.05	0.09	0.23	2.20
Purisima W3	7	0.53	0.33	0.63	0.14	0.24	0.58	0.67	1.15
Purisima W4	43	0.29	0.32	1.11	0.00	0.06	0.14	0.34	1.00
Purisima W5	2	0.55	0.06	0.11	0.49	0.52	0.55	0.58	0.61
SantaAna	38	0.63	0.97	1.52	0.00	0.07	0.23	0.63	4.00
SantoNino	264	0.82	2.33	2.84	0.00	0.05	0.18	0.49	16.00
SantoNino W	13	0.85	2.02	2.38	0.01	0.13	0.15	0.55	7.81
SantoNino W2	5	1.59	1.01	0.64	0.30	0.58	1.66	2.64	2.75

Fable 14.12 Final Gold (g/	t) Composite	Statistics for the	2023 San Ignacio MRE
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Note: Statistics consider declustering weights and capping.



## 14.4.7 Variography and Grade Continuity

Experimental semi-variograms are calculated along the major, minor, and vertical principal directions of continuity, defined by three Euler angles. These angles describe the orientation of anisotropy through a series of left-hand rule rotations that are:

- 1. Angle 1: A rotation about the Z-axis (azimuth) with positive angles being clockwise rotation and negative representing counter-clockwise rotation;
- 2. Angle 2: A rotation about the X-axis (dip) with positive angles being counterclockwise rotation and negative representing clockwise rotation; and
- 3. Angle 3: A rotation about the Y-axis (tilt) with positive angles being clockwise rotation and negative representing counter-clockwise rotation.

APEX calculated standardized correlograms for each Mineral Resource zone using composite data. In each zone, the primary geological factors affecting mineralization guided the main directions for continuity, which served as the basis for variogram calculations.

Experimental variograms were calculated and modelled for multiple domains in each zone to evaluate parameter sensitivity. Within the zones, variogram ranges for both structures showed reasonable consistency, with slight variations between major and minor directional ranges. The vertical direction showed the most variability. The most robust variogram from each zone was used to estimate grade within all domains in each zone.

Figure 14.5 shows a sample variogram modelled with silver composites from the Melladito North domain. Table 14.13 and Table 14.14 provide the modelled variogram parameters for each zone, for silver and gold, respectively.







Table 14.13 Silver Variogram Parameters

A						Structure 1					Structure 2				
Domain	Ang 1	Ang 2	Ang 3	Sill	C0	Turne	~	R	anges (m)		Туре	C2	R	anges (m)	)
	•	-	Ū			туре	61	Major	Minor	Vert			Major	Minor	Vert
Melladito North	340	-50	76	1	0.1	exp	0.5	25	25	4	sph	0.4	75	55	6
Melladito South	20	-49	50	1	0.1	exp	0.6	25	25	2	sph	0.3	70	55	3
Intermedia	215	-48	23	1	0.1	exp	0.7	25	25	3	sph	0.2	80	35	3
NDD	215	-48	23	1	0.4	exp	0.5	25	25	2	sph	0.2	75	75	4
Purisima	145	-35	42	1	0.1	exp	0.8	25	25	4	sph	0.2	75	40	5

Abbreviations: C0 – nugget effect; C1 – covariance contribution of first structure; C2 – covariance contribution of second structure; Vert – vertical; sph – spherical variogram; exp – exponential variogram.

#### Table 14.14 Gold Variogram Parameters

		Δησι Δησι		ng Ang						Structure	1				Structure	2	
Domain	Ang 1	Ang 2	Ang 3	Sill	C0	Turne	<b>C1</b>	R	anges (m)		Туре	C2	R	anges (m)	)		
	-	_	-			туре	U1	Major	Minor	Vert			Major	Minor	Vert		
Melladito North	342	-1	87	1	0.1	exp	0.5	30	30	7	sph	0.4	100	55	7		
Melladito South	20	-49	50	1	0.1	exp	0.6	25	25	3	sph	0.3	70	70	3		
Intermedia	136	-67	-59	1	0.1	exp	0.5	25	25	3	sph	0.4	55	45	3		
NDD	215	-48	23	1	0.1	exp	0.75	25	25	2	sph	0.15	75	25	4		
Purisima	155	-35	42	1	0.1	exp	0.7	25	25	3	sph	0.2	60	40	5		

Abbreviations: C0 – nugget effect; C1 – covariance contribution of first structure; C2 – covariance contribution of second structure; Vert – vertical; sph – spherical variogram; exp – exponential variogram.



## 14.5 Block Model

#### 14.5.1 Block Model Parameters

Each estimation domain used for the 2023 San Ignacio MRE was populated with a subblocked model. No blocks were created outside of the estimation domains. Table 14.14 details the grid definition used.

Direction	Origin	Number of Blocks	Parent Block Size (m)	Minimum Sub-Block Size (m)
Х	-7,936	2,250	2.5	0.5
Y	-2,831	2,500	2.5	0.5
Z	1,875	575	2.5	0.5
Rotation		No rotation		

#### Table 14.15 2023 San Ignacio MRE block model definition.

Notes: Origin for a block model in RMSP represents the coordinates of the centroid of the block with minimum X, Y, and Z.

#### 14.5.2 Depletion of Mined Out Material

Areas affected by mining activities were classified as either modern or historical. Blocks determined to be mined out were not included in the MRE statement within Section 14.10.

The modern mining areas were accounted for by 3D models of underground workings provided to APEX by GSilver, last updated on May 31, 2023, and verified by underground surveying. Blocks within the 3D GSilver model were flagged as modern mined-out material and removed from the model.

Historical mining areas are located primarily in the Purisima area and are now inactive. The location of these historical stopes is poorly constrained. To estimate the extent of the historical stopes, blocks within a 40 by 30 by 5 m search ellipsoid around current logging data logged as backfill or stope were considered previously mined-out material and removed from the model. These logged intervals were interpreted to be historical workings intercepted during drilling.

## 14.5.3 Types of Mineralized Material

APEX identified three types of mineralized material: Modern Remnant, Historical Remnant, and In Situ in unmined areas. Modern Remnant material exists adjacent to modern workings, between areas that are mined. This material was not removed from block modelling as it was classified as unmined (Figure 14.6). As described in Section 14.9, underground mining stopes were generated to constrain the mineral resources. Each stope was assessed to classify its blocks as either Modern Remnant or In Situ. For In Situ classification, the block's centroid must be a minimum of 10 meters from the 3D workings wireframe. Modern Remnant material is still under evaluation for potential resources; however, it is not included in the MRE statement within Section 14.10.





Figure 14.6 Example of Modern Workings and Remnant Material

Note: The translucent green wireframe is the GSilver workings 3D model. Only blocks contained in the UG mining shapes are displayed.

Historical Remnant material was classified as material within a 60 by 45 by 30 m search ellipsoid of modern logging data logged as either backfill or stope. Blocks within a 40 by 30 by 5 m search ellipsoid of these logged intervals were considered previously mined material and removed from the model (Figure 14.7). These logged intervals were interpreted to be historical workings intercepted during drilling. Blocks classified as Historical Remnant material is not included in the MRE statement within Section 14.10 and are removed from the model.

Lastly, In Situ material is unaffected by current or historical mining activities. These are above, below, and along strike from current operations and outside any modelled historical stopes. The In Situ material is the only material reported in Section 14.10.





Figure 14.7. Example of Historical Remnant Material

Note: The translucent green wireframe is the GSilver workings 3D model.

## 14.6 Grade Estimation Methodology

Ordinary Kriging (OK) was used to estimate silver and gold grades for the 2023 San Ignacio MRE. Only blocks that intersect the mineralization domain were estimated.

Estimation used locally varying anisotropy (LVA), which employs different rotation angles to set the variogram model's principal directions and search ellipsoid for each block. Trend surface wireframes assigned these angles to blocks within the estimation domain, enabling structural complexities to be captured in the estimated block model.

During grade estimation for each domain, the nugget effect and covariance contributions of the standardized variogram model were scaled to match the variance of the composites



within that domain. The ranges used for each mineralized zone were unchanged from the standardized variogram model.

Boundaries between estimation domains and country rock were considered hard boundaries; data from outside a domain could not be used for grade estimation within that domain.

A four-pass estimation method was employed to control Kriging's inherent smoothing and manage the influence of high-grade samples, ensuring correct volume variance was achieved at the selected block scale. Each pass had specific rules, including limits on the number of composites considered per drillhole, search sector, and total, as outlined in Table 14.16 and Table 14.17 for silver and gold, respectively. The variogram models described in Section 14.5 were used unchanged. While these rules introduced local bias, they improved the global accuracy of the grade and tonnage estimates above the reported cutoff.

Zone	Pass	Max	lax Search Ranges (m)		No. of Ellipse Sectors	Min No. of Comps	Max No. of Comps	Max No. of Comps per DH
		Major	Minor	Vertical				
Intermedia	1	25.0	25.0	3.0	1	2	30	3
	2	80.0	35.0	3.0	1	2	30	3
	3	120.0	52.5	4.5	1	2	30	3
	4	160.0	70.0	6.0	1	2	30	3
Melladitio-N	1	25.0	25.0	4.0	1	2	30	5
	2	75.0	55.0	6.0	1	2	30	5
	3	112.5	82.5	9.0	1	2	30	5
	4	150.0	110.0	12.0	1	2	30	5
Melladitio-S	1	25.0	25.0	5.0	1	2	30	2
	2	70.0	55.0	5.0	1	2	30	2
	3	105.0	82.5	4.5	1	2	30	5
	4	140.0	110.0	6.0	1	2	30	5
NDD	1	25.0	25.0	2.0	1	2	30	4
	2	75.0	75.0	4.0	1	2	30	4
	3	112.5	112.5	6.0	1	2	30	3
	4	150.0	150.0	8.0	1	2	30	3
Purisima	1	25.0	25.0	4.0	1	2	30	3
	2	75.0	40.0	5.0	1	2	30	3
	3	112.5	60.0	7.5	1	2	30	3
	4	150.0	80.0	10.0	1	2	30	3

#### Table 14.16 Search Strategy Parameters Used to Estimate Silver



Zone	Pass	ass Max Search Ranges (m)		No. of Ellipse Sectors	Min No. of Comps	Max No. of Comps	Max No. of Comps per DH	
		Major	Minor	Vertical				
Intermedia	1	25.0	25.0	3.0	1	2	30	3
	2	55.0	45.0	3.0	1	2	30	3
	3	82.5	67.5	4.5	1	2	30	3
	4	110.0	90.0	6.0	1	2	30	3
Melladitio-N	1	30.0	30.0	7.0	1	2	30	4
	2	100.0	55.0	7.0	1	2	30	4
	3	150.0	82.5	10.5	1	2	30	4
	4	200.0	110.0	14.0	1	2	30	4
Melladitio-S	1	25.0	25.0	3.0	1	2	30	3
	2	70.0	70.0	3.0	1	2	30	3
	3	105.0	105.0	4.5	1	2	30	3
	4	140.0	140.0	6.0	1	2	30	3
NDD	1	25.0	25.0	2.0	1	2	30	4
	2	75.0	25.0	4.0	1	2	30	4
	3	112.5	37.5	6.0	1	2	30	4
	4	150.0	50.0	8.0	1	2	30	4
Purisima	1	25.0	25.0	3.0	1	2	30	2
	2	60.0	40.0	5.0	1	2	30	2
	3	90.0	60.0	7.5	1	2	30	3
	4	120.0	80.0	10.0	1	2	30	3

## Table 14.17 Search Strategy Parameters Used to Estimate Gold



#### 14.7 Model Validation

#### 14.7.1 Statistical Validation

APEX staff conducted statistical tests to validate that the block model accurately reflects drillhole data. Swath plots confirm directional trends, while volume-variance analysis verifies accurate mineral quantity estimates at different cutoff grades.

#### 14.7.1.1 Direction Trend Analysis Validation

Swath plots verified that the estimated block model honoured directional trends and identified potential areas of over- or under-estimation. The swath plots were generated by calculating the average metal grades of composites and the OK-estimated blocks. The combined MRE block model was assessed for a comprehensive global evaluation. Examples of the swath plots used to validate the MRE are illustrated in Figure 14.8 to Figure 14.13.

Overall, the block model compared well with the composites. There was some observed local over- and under-estimation. Due to the limited number of conditioning data available for the grade estimation in those areas, this result was expected.



#### Figure 14.8 2023 San Ignacio MRE Easting Ag Swath Plot





Figure 14.9 2023 San Ignacio MRE Northing Ag Swath Plot









Figure 14.11 2023 San Ignacio MRE Easting Au Swath Plot









Figure 14.13 2023 San Ignacio MRE Elevation Au Swath Plot

## 14.7.1.2 Volume-Variance Analysis Validation

Smoothing is an intrinsic property of Kriging, and as described in Section 14.7, volumevariance corrections were used to mitigate its effects. Theoretical histograms were calculated to verify the correct level of smoothing, indicating the anticipated variance and distribution of each estimated metal for the chosen block model size. Scaled composite histograms were utilized to compute expected tonnes and average grades above various cutoff grades. The comparison between the expected model variance and the variance of the estimated model confirmed that the appropriate level of smoothing was achieved for the estimated blocks' scale.

Overall, the estimated silver and gold grades showed the desired amount of smoothing, as illustrated in Figure 14.14 and Figure 14.15, respectively. Further changes to the search strategy would risk introducing excessive local bias.





Figure 14.14 Volume-variance Analysis for Silver





## 14.7.2 Visual Validation

APEX personnel visually reviewed the estimated block model grades in cross-sectional views, comparing the estimated block model grades to the input composites and the modelled mineralization trends. The block model compared very well to the input compositing data. Local high- and low-grade zones were reproduced as desired, and the


locally varying anisotropy adequately maintained variable mineralization orientations. Figure 14.16, Figure 14.17, Figure 14.18, and Figure 14.19 illustrate the grade estimation blocks and composites for the Intermedia, Melladito North, Purisima, and Santa Nino domains, respectively.





- 1. The cross-section is at a northing of -1250 looking north.
- 2. Un-depleted sub-blocked model.







- 1. The cross-section is at a northing of -1250 looking north.
- 2. Un-depleted sub-blocked model.







- 1. The cross-section is at a easting of -6700 looking north.
- 2. Un-depleted sub-blocked model.







- 1. The cross-section is at a northing of -1500 looking north.
- 2. Un-depleted sub-blocked model.



#### 14.8 Mineral Resource Classification

#### 14.8.1 Classification Definitions

The 2023 San Ignacio MRE discussed in this Technical Report was classified in accordance with guidelines established by the CIM "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines" dated November 29, 2019, and CIM "Definition Standards for Mineral Resources and Mineral Reserves" dated May 14, 2014.

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.

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.

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.

#### 14.8.2 Classification Methodology

According to the CIM definition standards, the 2023 San Ignacio MRE was classified as Measured, Indicated, and Inferred. The MRE's classification was based on geological confidence, data quality, data density, and grade continuity of the data. The 2023 San Ignacio MRE classification was a four-step approach:

1. Completed a multiple-pass classification strategy using parameters outlined in Table 14.18.



- 2. Blocks within 10 m of three or more channel samples were upgraded one classification level (i.e., inferred to indicated or indicated to measured).
- 3. Any blocks within domains created by APEX determined by GSilver geological personnel as low geological confidence could not exceed inferred classification.

Classification	Daga	Minimum No.		Ranges (m)			
Classification	Fd55	of Drillholes	Minor	Vertical			
Measured	1	6	15	15	5		
Indicated	2	4	30	30	10		
Inferred	3	2	100	50	15		

Table 14.18 Search Parameters Utilized by the Multiple-Pass Classification Strategy

Step one of the 2023 San Ignacio MRE Classification was to run the multiple-pass classification strategy consisting of a sequence of runs that flag each block with the run number first meeting a set of search restrictions. With each subsequent pass, the search restrictions decreased, representing a decrease in confidence and classification from the previous run. For each run, a search ellipsoid was centred on each block and orientated in the same way described in Section 14.6. This process was completed separately from grade estimation. The results were smoothed using an LVA variant of the maximum a posterior selection (MAPS) algorithm developed by APEX. Figure 14.20 illustrates step one of the classification approach for the Melladitio North domain that considers only drillhole composites.

Step two of the classification process was to upgrade any blocks within a 10 m radius that contained three underground channel samples by one classification category. Underground channel samples were selected based on a geologist's visual assessment. Therefore, channel samples provide significantly higher confidence in mineralization continuity. For this reason, blocks associated with channel samples were upgraded by one classification category (i.e., inferred to indicated or indicated to measured). Figure 14.21 illustrates step two of the classification process for the Melladito North domain.

Step three limited the classification within the Purisima-W, Purisima-W2, and Purisima-W4 peripheral estimation domains created by APEX personnel. GSilver's geological personnel flagged these three domains as having lower confidence and requiring additional data for establishing mineralization continuity. This step was conservative, minimizing the risk of overestimating the measured or indicated resources until further information validates these zones.





Figure 14.20 Melladitio North Classification Model After Completing Step 1

Note: The centroids of drillhole composites are illustrated as circles.





Figure 14.21 Melladitio North Classification Model After Completing Step 2

Note: The centroids of drillhole composites are illustrated as circles and underground sample composites as triangles.

#### 14.9 Reasonable Prospects for Eventual Economic Extraction (RPEEE)

The 2023 San Ignacio MRE block model was used as input for various stope scenarios using Vulcan, targeting a minimum grade for mined material. The generated stopes had a minimum 1 m horizontal width and dimensions of 20 m by 20 m in length and height, sub-dividable to 10 m by 10 m. Considering the parameters and costs in Table 14.19, the material contained within the mining shapes was required to have a minimum grade of 120 g/t AgEq\*\* to establish RPEEE. Therefore, the stope optimization scenario with a minimum grade of 120 g/t AgEq\*\* constrains the MRE stated in this report, as it demonstrates reasonable prospects for economic extraction.



<sup>\*\*</sup> AgEq values are calculated using metal prices set at US\$1,850/oz Au and US\$22/oz Ag, with 87% recovery for both, yielding a Ag to Au ratio of 84.1:1

Parameters	Unit	Value
Silver Price	US\$/ozt	22
Gold Price	US\$/ozt	1850
NSR Royalty	%	0
Silver Recovery	%	87
Gold Recovery	%	87
Mining Cost Waste	US\$/t mined	40
Mining Cost – Mineralized Material	US\$/t mined	40
Processing Cost	US\$/t milled	16
G&A Cost	US\$/t milled	18
AgEq Cutoff	g/t	120

Table 14.19 Parameter and Costs Used to Calculate the Reporting Cutoff

Figure 14.22 Orthogonal View of the 2023 San Ignacio MRE Block Model





#### 14.10 Mineral Resource Estimate Statement

The 2023 San Ignacio MRE discussed in this Technical Report was classified in accordance with guidelines established by the CIM "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines" dated November 29, 2019, and CIM "Definition Standards for Mineral Resources and Mineral Reserves" dated May 14, 2014.

APEX personnel used Ordinary Kriging with locally varying anisotropy to estimate silver and gold grades in a 3 m (X) by 3 m (Y) by 3 m (Z) parent block model. This model was sub-blocked to 0.5 m by 0.5 m by 0.5 m for stope optimization and resource reporting. Kriging considered capped drillhole and underground channel composites.

The San Ignacio MRE was depleted by removing modern and historical mined-out material. Modern mined-out material was removed by eliminating blocks inside of the 3D workings models provided to APEX by GSilver. To estimate the extent of the historical stopes, blocks within a 40 by 30 by 5 m search ellipsoid around current logging data logged as backfill or stope were considered previously mined and removed.

Remnant material also exists between and around the modern and historical workings. Modern Remnant material exists between modern stopes and workings left after mining activities. This material is still under evaluation for potential resources and was not included in the 2023 San Ignacio MRE. Historical Remnant material was identified by flagging blocks within a 60 by 45 by 30 m search ellipsoid around current logging data logged as backfill or stope. The location and quantity of this material are a source of uncertainty, so it was not included in the 2023 San Ignacio MRE.

The In Situ material exists above, below, and along strike to current operations and outside the modelled historical stopes and was the only material included in the 2023 San Ignacio MRE.

For Measured Resources, blocks required a minimum of three drillholes within a search ellipse measuring 25 m by 25 m by 15 m, based primarily on the first variogram structure. For Indicated Resources, blocks required a minimum of three drillholes within a search ellipse measuring 45 m by 35 m by 15 m. For Inferred Resources, blocks required at least one drillhole within a search ellipse of 80 m by 50 m by 15 m, based primarily on the second variogram structure. As a final step, the classification of resources within 10 m of channel composites was upgraded by one level of confidence (i.e., inferred to indicated or indicated to measured). Because the channel samples were collected underground, where geologists could observe and verify the geological continuity of the mineralized material, the confidence in the interpretation was increased significantly. This final classification step had a minor influence on the reported In Situ resources, as the channel samples influence is primarily limited to the Modern Remnant potential resource area.



The 2023 San Ignacio MRE comprises Measured and Indicated Mineral Resources of 7.621 million ("M") troy ounces ("oz") AgEq\*\* at 300 g/t AgEq\*\* within 0.79M tonnes (t), and Inferred Resources of 22.167M oz AgEq\*\* at 318 g/t AgEq\*\* within 2.166M t. These figures represent increases in contained metals of approximately 4.318M oz AgEq\*\* in the Measured and Indicated category (130% increase) and 16.385M oz AgEq\*\* in the Inferred category (283% increase) versus the previously reported historical resource estimate (Brown and Nourpour, 2022). The 2023 MRE for the San Ignacio mine is presented in Table 14.20.

# Table 14.20 2023 San Ignacio Mineral Resource Estimate – Effective Date September 21,2023

Classification	Tonnos	Average Grade (g/t)			Contained Metal (troy ounces)			
Glassification	Tonnes	Ag	Au	AgEq <sup>8</sup>	Ag	Au	AgEq <sup>8</sup>	
Measured	171,000	105	2.16	287	578,000	12,000	1,575,000	
Indicated	619,000	128	2.08	304	2,557,000	41,000	6,046,000	
Measured & Indicated	790,000	123	2.10	300	3,136,000	53,000	7,621,000	
Inferred	2,166,000	127	2.27	318	8,877,000	158,000	22,167,000	

Notes:

1. The 2023 San Ignacio Mineral Resources were estimated and classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines" dated November 29, 2019, and the CIM "Definition Standards for Mineral Resources and Mineral Reserves" dated May 10, 2014.

2. The 2023 MRE was prepared by Warren Black, M.Sc., P.Geo., Tyler Acorn, M.Sc., and Kevin Hon, B.Sc., P.Geo of APEX Geoscience Ltd under the supervision of the Qualified Person ("QP"), Michael Dufresne, M.Sc., P.Geo., President of APEX Geoscience Ltd.

3. Mineral resources which are not mineral reserves do not have demonstrated economic viability. No mineral reserves have been calculated for San Ignacio. There is no guarantee that any part of mineral resources discussed herein will be converted to a mineral reserve in the future.

4. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, market, or other relevant factors discussed in Section 14.12.

5. The quantity and grade of the reported Inferred Resources are uncertain in nature and there has not been sufficient work to define these Inferred Resources as Indicated or Measured Resources. It is reasonably expected that most of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

6. All figures are rounded to reflect the relative accuracy of the estimates. Totals may not sum due to rounding.

7. Specific gravity of 2.64 is used for 2023 MRE.

8. Metal prices are set at US\$1,850/oz Au and US\$22/oz Ag, with 87% recovery for both. This yields an Au: Ag ratio of 84.1:1 for the calculation of AgEq.

9. Costs are US\$40.0/t for mining, US\$16.0/t for processing, and US\$18/t for G&A, leading to a 120 g/t AgEQ reporting cutoff grade.

 Underground resources are confined to potentially minable shapes defined by a stope optimizer. The resulting stopes have a minimum horizontal width of 1 m and length and height dimensions of 20 m by 20 m, which can be sub-stoped to 10 m by 10 m. They must also contain a minimum grade of 120 g/t AgEQ.



<sup>\*\*</sup> AgEq values are calculated using metal prices set at US\$1,850/oz Au and US\$22/oz Ag, with 87% recovery for both, yielding a Ag to Au ratio of 84.1:1

#### 14.11 Mineral Resource Estimate Sensitivity

Mineral Resources can be sensitive to the selection of the reporting cutoff grade. Other cutoff grades are presented in Table 14.21 for sensitivity analyses of the In Situ underground resources.

Classification	AgEq Cutoff	Tannaa	Ave	rage Gra	de (g/t)	Containe	Contained Metal (troy ounces)			
Classification	(g/t)	Tonnes	Ag	Au	AgEq	Ag	Au	AgEq		
	100	181,000	101	2.1	278	588,000	12,000	1,611,000		
	120	171,000	105	2.16	287	578,000	12,000	1,575,000		
Measured	130	164,000	108	2.2	294	571,000	12,000	1,549,000		
	140	156,000	112	2.26	302	562,000	11,000	1,513,000		
	150	147,000	117	2.32	312	551,000	11,000	1,472,000		
	200	108,000	141	2.63	362	488,000	9,000	1,253,000		
	250	80,000	163	2.94	410	419,000	8,000	1,056,000		
	100	655,000	124	2.01	293	2,613,000	42,000	6,174,000		
	120	619,000	128	2.08	304	2,557,000	41,000	6,046,000		
	130	595,000	132	2.13	311	2,521,000	41,000	5,948,000		
Indicated	140	567,000	136	2.19	320	2,477,000	40,000	5,824,000		
	150	537,000	141	2.25	329	2,424,000	39,000	5,685,000		
	200	401,000	166	2.57	382	2,138,000	33,000	4,923,000		
	250	290,000	196	2.93	443	1,827,000	27,000	4,123,000		
	100	836,000	119	2.03	290	3,201,000	55,000	7,785,000		
	120	790,000	123	2.1	300	3,136,000	53,000	7,621,000		
	130	759,000	127	2.15	307	3,092,000	52,000	7,498,000		
Measured and Indicated	140	722,000	131	2.2	316	3,038,000	51,000	7,337,000		
	150	684,000	135	2.26	326	2,976,000	50,000	7,157,000		
	200	509,000	161	2.58	378	2,626,000	42,000	6,176,000		
	250	370,000	189	2.93	436	2,246,000	35,000	5,179,000		
	100	2,280,000	124	2.19	308	9,094,000	160,000	22,574,000		
	120	2,166,000	127	2.27	318	8,877,000	158,000	22,167,000		
Inferred	130	2,082,000	130	2.33	326	8,708,000	156,000	21,829,000		
	140	1,975,000	134	2.41	336	8,493,000	153,000	21,366,000		
	150	1,858,000	137	2.51	348	8,186,000	150,000	20,819,000		
	200	1,360,000	156	3.05	413	6,821,000	133,000	18,039,000		
	250	974,000	179	3.66	487	5,605,000	115,000	15,256,000		

#### Table 14.21 Underground MRE Sensitivity Table

#### 14.12 Previous Mineral Resource Estimates

On February 28, 2022, Great Panther reported a MRE for San Ignacio (Table 6.3). This MRE was supported by a technical report titled, "NI 43-101 Mineral Resource Update



Technical Report on the Guanajuato Mine Complex, Guanajuato and San Ignacio Operations, Guanajuato State, Mexico", prepared for Great Panther by Brown and Nourpour (2022), with an effective date of July 31, 2021. The Authors are referring to the 2021 Great Panther MRE as a "historical resource" and the reader is cautioned not to treat it, or any part of it, as a current resource.

The 2023 updated Mineral Resource Estimate (MRE) adds 75 drillholes and 9,784 channel samples. It also uses a new method for domain construction and MRE calculation. These changes resulted in material differences between the two MREs (Table 14.22). Indicated resources have increased due to new drilling and modeling, while active mining has reduced Measured resources. Inferred resources have increased due to increased due to increased due to increased drilling and more expansive domains that follow well understood mineralization trends.

Table 14.22 Comparison between updated 2023 San Ignacio MRE and the July 31, 2021 Historical MRE

Classification	Tannaa	Av	erage Grade	(g/t)	Contained Metal (troy ounces)			
Classification	Tonnes	Ag	Au	AgEq	Ag	Au	AgEq	
Measured	-16%	-29%	-23%	-26%	-40%	-34%	-38%	
Indicated	850%	-4%	-25%	-18%	808%	602%	675%	
Measured & Indicated	195%	-15%	-25%	-22%	151%	120%	131%	
Inferred	387%	-29%	-14%	-21%	248%	316%	283%	

Note: Positive per cent change indicates an increase from the 2021 MRE

#### 14.13Risk and Uncertainty in the Mineral Resource Estimate

Modelling structurally controlled precious metal deposits has inherent risk. This style of deposit is very complex regarding geological and mineralization continuity along with potential nugget effects. Broader zones with a high density of veins, breccia zones, or structural features favourable to mineralization provide much less uncertainty as they are easier to map and predict. Connecting drill hole intercepts of thin mineralized discrete veins or vein zones into continuous interpretations is a more significant source of uncertainty. De-risking the geological continuity for this deposit style requires rigorous interpretation and high-quality oriented structural data from drilling. The current mineralized grade estimation domain interpretations are well-founded and supported by modern drilling and underground mapping. There are some areas with wider-spaced drilling that, with additional drilling, may cause changes in the mineralized grade estimation domain interpretational drilling is completed, updating the mineralization model on an ongoing basis and working to remove internal dilution as much as possible will increase confidence in the mineralized grade domain interpretation.

The 3D wireframes for underground workings supplied by GSilver have a few-meter discrepancy with the surface drillholes. This inaccuracy has led to the inclusion of waste material in drillhole assays flagged within these domains, consequently lowering the



grade of the intersections. However, the impact is mitigated by using underground channel samples, which provide substantial support in the affected areas. Additionally, this issue is primarily confined to zones dominated by Modern Remnant material and poses less of a concern in In Situ unmined material which is the basis for the MRE reported in this Section. Future work could evaluate if this could be mitigated.

Uncertainty exists regarding the precise locations of historical mining operations. While resource drilling will help identify the locations of mining voids and backfill material, rigorous mapping will still be necessary in future work to establish a robust model of these historically mined-out areas.

Infill drilling is essential for confirming the grade continuity in areas with Inferred resources. Lacking this step, these zones introduce elevated uncertainties in both mining operations and resource planning.

The uncertainty around the mineability of Modern Remnant material is significant enough to exclude it from this MRE update. Future work should focus on identifying areas that can be mined effectively to allow for this material to be included in subsequent MRE assessments.

Underground channel sample intervals are typically small and require 1 m compositing, contrasting with drillhole sampling intervals that extend up to 1.5 m. Future assessments should evaluate if these two datasets can be composited at different lengths and determine if the difference in support is material to the robustness of the estimate.

The Authors are unaware of any other significant material risks to the MRE besides the risks inherent to mineral exploration and development. Potential risk factors include changes in metal prices, increases in operating costs, fluctuations in labour costs and availability, availability of investment capital, infrastructure failures, changes in government regulations, community engagement and socio-economic community relations, civil disobedience and protest, permitting and legal challenges, and general environmental concerns. The mining industry in Mexico is also prone to incursions by illegal miners, or "lupios", who gain access to mines or exploration areas to steal mineralized material. These incursions pose a safety, security and financial risk and can potentially compromise underground structures, equipment, and operations.

In the QPs' opinion there are no significant risks or uncertainties, other than mentioned above, that might materially affect the results of this Mineral Resource Estimate, and there appears to be no apparent impediments to developing the MRE at the San Ignacio Property.

# Sections 15-22 are not applicable to this Report.



# 23 Adjacent Properties

This section discusses mineral properties that occur outside of San Ignacio. The QPs have not visited any of these projects and are unable to verify information pertaining to mineralization on the competitor properties, and therefore, the information in the following section is not necessarily indicative of the mineralization on the Property that is the subject of this Report. The information provided in this section is simply intended to describe examples of the type and tenor of mineralization that exists in the region and is being explored for at San Ignacio. Relevant past and present producers located adjacent to San Ignacio are presented in Figure 23.1.



#### Figure 23.1. Relevant Properties Adjacent to San Ignacio

Endeavour Silver Corp. ("Endeavour") operates the Bolañitos Project in Guanajuato State. It is located immediately north and east of San Ignacio and approximately 8 km northwest of the city of Guanajuato. The Bolañitos Project consists of four operating mines: the Bolañitos, Lucero, San Miguel, and Asuncion underground Ag-Au mines, as well as several past producing mines and a 1,600 tonne per day concentrator (Mah, Schwering and Gray, 2022). The mines are hosted within the La Luz vein system.



The Bolañitos Mine is situated in the eastern part of the Guanajuato Mining District within the La Luz camp, on the northeast side of the Sierra de Guanajuato. The geology of the area is dominated by the Esperanza and La Luz formations, with mineralization occurring primarily within the La Luz Formation. Mineralization at the Bolañitos Mine dissipates at the contact with the Esperanza Formation. Silver and gold mineralization occurs as openspace fillings in fracture zones, or as impregnations in locally porous wall rock, and is directly related to faulting. Mineralization in the veins at Bolañitos comprise classic banded and brecciated epithermal type. Typically, silver mineralization occurs in dark sulphide rich bands within the veins. Major metallic minerals include pyrite, argentite, electrum, ruby silver, galena, and sphalerite. Alteration types observed include phyllic (sericite) and silicification, which forms haloes around the mineralizing structures (Mah, Schwering and Gray, 2022).

The mineral resource estimate and mineral reserve estimate for Bolañitos, as of May 31, 2022, are presented in Tables 23.1 and 23.2, respectively. The cut-off grades are based on a 151 g/t Ag Eq for Lucero, a 149 g/t Ag Eq for La Luz and San Miguel production areas, and 157 g/t Ag Eq for Belen. The price assumptions are \$21.80/oz for Ag and \$1,735/oz for Au for resource cut-off calculations. The metallurgical recoveries are 85.7% Ag and 90.1% Au. Minimum mining widths of 0.8 m were applied to the mineral reserve calculations. The mineral resources for Bolañitos are estimated exclusive of, and in addition to, mineral reserves (Endeavour Silver Corp., 2023).

			Average Value			Material Content			
Classification	AqEq Cut- off	Mass	AgEq	Silver	Gold	AgEq	Silver	Gold	
	g/t	kt	g/t	g/t	g/t	koz	koz	koz	
Measured	Variable	42.0	322	97	3.0	435	131	4.0	
Indicated	Variable	411.5	279	111	2.3	3697	1470	30.0	
Measured + Indicated	Variable	453.5	283	110	2.3	4132	1601	34.0	
Inferred	Variable	1656.6	331	141	2.5	17608	7494	132.2	

Table 23.1. Mineral Resource Estimate for the Bolañitos Project (after Endeavour Silver Corp., 2023)



	AqEq Cut-	Mass	A	verage Valu	e	Material Content			
Classification	off	IVIASS	AgEq	Silver	Gold	AgEq	Silver	Gold	
	g/t	kt	g/t	g/t	g/t	koz	koz	koz	
Proven	Variable	158	266	57	2.63	1357	290	13.4	
Probable	Variable	376	265	73	2.41	3199	878	29.2	
Proven + Probable	Variable	534	326	101	2.8	4556	1168	42.6	

Table	23.2.	Mineral	Reserve	Estimate	for the	e Bolañitos	Project	(after	Endeavour	Silver
Corp.,	2023	)					-			

Endeavour operates the Bolañitos Mine concentrator, situated approximately 3 km north of the San Ignacio shaft, which is a 1,600 tpd capacity flotation plant that is currently processing at approximately 1,200 tpd. Part of Endeavour's mining at the Bolañitos Mine is also development and mining from the Lucero Adit located approximately 200 m east of the north-east corner San Ignacio, which consists of numerous veins parallel to the structures on the Property (Endeavour Silver Corp., 2020). Production from the Bolañitos operation in 2022 is reported to have been at 422,239 tonnes throughput producing 622,892 ounces of Ag, and 21,813 ounces of Au (Mah, Schwering and Gray, 2022).

In addition to the Bolañitos Mine, Endeavour owns the inactive Cebada mine, located immediately northwest of the Company's VMC property along the Veta Madre system. Cebada is approximately 6.1 km east of San Ignacio and 4.2 km north of the city of Guanajuato.



#### 24 Other Relevant Data and Information

GSilver operates the neighbouring Valenciana Mine Complex (the "VMC"), formerly known as the Guanajuato Mine Complex, which sits along the Veta Madre system approximately 7 km to the east of the San Ignacio mine (see Figure 23.1). It consists of the Valenciana, Guanajuatito, Cata, Los Pozos, and Promontorio mines over a 4.2 km strike. The mine complex was put on care and maintenance in November 2021; production recommenced after acquisition by GSilver in August 2022.

Mineralization at the VMC occurs in structurally complex multi-generational vein guartz dominated stockwork and breccia zones along the Veta Madre. The northwest trending Veta Madre extends over a strike length of 25 km and dips 45° to the southwest. Historical work at Guanajuato has defined six mineralized areas, including Cata, Los Pozos, Santa Margarita, Promontorio, Valenciana and Guanajuatito. Average silver grades of the mineralized material at Guanajuato typically range from 100 to 500 gram per tonne (g/t) Ag and locally can exceed 1,000 g/t Ag. Gold grades generally range from 0.5 to 2 g/t Au, except for Santa Margarita where average grades range from 5 to 7 g/t Au (Livingstone et al., 2022). On February 28, 2022, Great Panther reported a historical mineral resource estimate for the VMC, as shown in Table 24.1.

Class	Tonnes	Ag(g/t)	Ag(oz)	Au(g/t)	Au(oz)	Ag eq (g/t)	Ag eq (oz)	Au eq (g/t)	Au eq (oz)
Total Measured	166,262	255	1,362,426	1.81	9,681	409	2,185,272	4.81	25,709
Total Indicated	85,404	240	658,767	1.68	4,600	382	1,049,757	4.5	12,350
Total M&I	251,666	250	2,021,193	1.76	14,280	400	3,235,029	4.7	38,059
Total Inferred	220,760	225	1,597,357	1.95	13,873	391	2,776,596	4.6	32,666

#### Table 24.1 Summary of Great Panther Mineral Resource Estimate 2021, VMC (Effective Date July 31, 2021; Brown and Nourpour, 2022)

Notes:

Cut-offs were based on the marginal operating costs per mining area being USD\$135.70/tonne for Cata, USD\$135.70/tonne for Santa Margarita, 1. USD\$96.50/tonne for Los Pozos, USD\$124.90/tonne for Guanajuatito, USD\$148.50/tonne for Promontorio, and USD\$113.10/tonne for Valenciana.

1. Block model grades converted to USD\$ value using plant recoveries of 87.15% Ag, 86.70% Au, and net smelter terms negotiated for concentrates. Rock Density for Cata is 2.66t/m<sup>3</sup>, 2.65t/m<sup>3</sup> Santa Margarita, Los Pozos 2.68t/m<sup>3</sup>, Guanajuato 2.69t/m<sup>3</sup>, Promontorio and Valenciana 2.67t/m<sup>3</sup>.

Totals may not agree due to rounding. 3.

4 Grades in metric units.

- 5. Contained silver and gold in troy ounces. 6. Minimum true width 0.5m.
- Metal Prices USD\$20.00/oz silver, and USD\$1,650.00/oz gold. 7.
- 8. Ag eq oz were calculated using 85:1 Ag:Au ratio.
- 9. Inferred Mineral Resources have a great amount of uncertainty as to their existence and as to whether they can be mined legally or economically. It cannot be assumed that all or part of the Inferred Mineral Resources will ever be upgraded to a higher category.
- Mineral Resources that are not Mineral Reserves have no demonstrated economic viability. The potential quantity and grade is conceptual in nature, 10 there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the target being delineated as a Mineral Resource.

The Authors are referring to the 2021 Great Panther mineral resource estimate for the VMC as historical and the reader is cautioned not to treat it, or any part of it, as a current resource. The historical resource provides an indication of the extent of mineralization identified in the region by previous operators. To verify the historical MRE as a current mineral resource, a Qualified Person would need to complete database validation, undertake a full review of estimation parameters and procedures, and complete an



updated mineral resource estimate and NI 43-101 technical report incorporating additional production (mining depletion), drilling and underground sampling completed at the VMC since July 31, 2021.

In addition to the VMC, GSilver owns the El Cubo property ("El Cubo"), situated 15 km to the east-southeast of San Ignacio. Mineralization at El Cubo occurs as open-spaced fillings in fracture/fault zones or impregnations in locally porous wall rock. The mineralization occurs within several stratigraphic formations, predominately the Guanajuato Formation conglomerate and the Bufa Formation rhyolite. The mineralized veins strike to the northwest and to the northeast. Vein mineralization averages 1 to 2 m in width, with mineralized breccia zones measuring up to 10 m wide (Jorgensen et al., 2023). The mineral resource estimate for El Cubo, as of December 31, 2022, is presented in Table 24.2.

Table 24.2 Mineral Resource Estimate for El Cubo as of December 31, 2022 (Jorgensen et al., 2023)

Class	Tonnes	Ag(g/t)	Ag(oz)	Au(g/t)	Au(oz)	Ag eq (g/t)
Total Measured	0					
Total Indicated	453,180	200	2,914,0000	2.51	36,500	400
Total Inferred	1,364,000	219	9,585,000	2.84	129,900	446

Notes:

2. Numbers have been rounded.

3. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources estimated will be converted into Mineral Reserves.

The reader is cautioned that the information provided in this section is not necessarily indicative of the mineralization on the Property that is the subject of this Report. The information provided in this section is simply intended to summarize relevant properties in the region owned by the Company.

As of the Effective Date of this Report, the Authors are not aware of any other relevant data and/or information, with respect to San Ignacio.



<sup>1.</sup> Silver Equivalent calculated using 1 oz of gold is equal to 80 oz of silver.

# 25 Interpretation and Conclusions

The San Ignacio Property is a silver-gold exploration project situated within the Guanajuato Mining District in Guanajuato State. The Guanajuato Mining District represents a zone of a polymetallic mineralized belt that runs from south-central Mexico, through Guanajuato, and onwards to north-central Mexico (Carrillo-Chávez et al., 2003). Globally, the Guanajuato Mining District represents one of the largest silver producing districts in the world with continuous mining activity occurring for nearly 500 years (Moncada and Bodnar, 2012).

The Guanajuato Mining District is underlain by Mesozoic marine sediments and predominantly mafic submarine lava flows of the Luz and Esperanza Formations, which are weakly metamorphosed and intensely deformed. This basal sequence is cut by a variety of intrusive bodies ranging in composition from pyroxenite to granite with tonalitic and dioritic intrusive being the most volumetrically significant. The three main north-west trending precious metal-bearing vein systems in the district include the Veta Madre, La Luz and Sierra systems.

The primary commodities of San Ignacio are silver and gold with approximately equal contributions, by value, of each. The primary deposit type of interest at San Ignacio is low sulphidation epithermal silver-gold mineralization. Mineralization consists of fine-grained disseminations of acanthite and pyrargyrite (silver minerals), electrum (gold-silver mineral), with accessory pyrite, as well as very minor sphalerite and chalcopyrite. Mineral textures in this zone are typically fracture filling, drusy and coliform masses.

Mineralization is associated with the La Luz structure which consists of numerous mineralized fractures in a north-westerly trending orientation, extending for a known strike length of approximately 8 km. A total of 18 veins have been identified during historical exploration at San Ignacio, with mineralization contained within tabular veins, vein stockwork and breccias. Veins identified at San Ignacio include the Melladito, Melladito Bo, Melladito South, Melladito S3, Intermediate, Intermediate 2, Nombre de Dios (NDD), Nombre de Dios 1.5, Nombre de Dios 2N, Nombre de Dios 2S, Nombre de Dios 3, Purisima, Purisima W5, Purisima HW, Purisima FW, Purisima Int., Purisima Bo, Purisima Bo 2, and Santo Niño veins. Average gold and silver grades of the veins range from 58 to 237 grams per tonne (g/t) Ag and 1.65 to 3.84 g/t Au.

#### 25.1 Historical Exploration

The Guanajuato Mining District has a lengthy history of mining and exploration dating back to 1548, when silver mineralization was discovered in the La Luz area by Spanish colonists. Since then, greater than 1 billion ounces of silver have been mined in the district (Brown and Nourpour, 2022).

The Sociedad Cooperativa Minera Metalurgica Santa Fe de Guanajuato ("the Cooperative") operated several mines in the district throughout the latter half of the 2<sup>0th</sup> century into the 2000s. During this time the Cooperative amassed the San Ignacio



property located within the La Luz mining camp. The Cooperative initiated diamond drilling at San Ignacio in 1979 with drilling from underground workings at the San Ignacio shaft. Holes from surface were drilled sporadically during the period from 1982 until 1990 and focused on a vein system parallel to, and to the east, of the current target are of interest at San Ignacio.

Exploration at San Ignacio by Great Panther from 2010 to 2021 consisted of surface and underground geological and structure mapping, channel and rock chip sampling, and diamond drilling, as well as underground development including geological mapping, sampling, and mining. From 2010 to 2021, Great Panther completed 604 drillholes, totalling 115,581.70 m, at San Ignacio. The Great Panther drill programs led to the delineation of nine veins in the northern portion of San Ignacio, between grid line 100N and 1150N, and nine veins in the southern part of the property (San Pedro area) between 100N and 1100S and led to the calculation of several historical MREs.

#### 25.2 Production History

Twelve known historical workings exist at San Ignacio, including major shafts at San Ignacio, Purisima, Pili and San Jose de Gracia. No production figures for these workings are available to the Authors, except for those relating to the mining by the Cooperative from the San Ignacio shaft. Cooperative records from 1977 to 2001 indicate that 617,455 tonnes at an average grade of 113 g/t Ag and 1.01 g/t Au were extracted from the San Ignacio shaft along the Purisima vein structure, at an average rate of 85 tpd.

Great Panther commenced production at San Ignacio in 2013. San Ignacio is an underground operation, and the production process consists of conventional mining incorporating cut and fill and resue methods. Most of the mineralized material from the San Ignacio is treated at the Cata processing plant. The Cata processing plant utilizes five stages, including: crushing, milling, flotation, thickening and filtering, as well as concentrate dewatering circuits to generate sulphide concentrates containing silver and gold, which are sent offsite for smelting and refining.

A summary of Great Panther's production from San Ignacio and the VMC from 2013 to 2021 is presented in Table 25.1. The blending of mineralized material from San Ignacio and the VMC commenced in 2016; therefore, the 2016-2021 reported figures in Table 25.1 reflect total production from both operations. The reader is cautioned that the Company's VMC Guanajuato operation is situated off-Property.

The increase in production shown in the years 2014 to 2017 reflects the increase in production from San Ignacio. In 2018, production declined at Guanajuato and was increasingly dominated by San Ignacio. In 2019 and 2020, production was almost entirely from San Ignacio, with Guanajuato placed on care and maintenance from January to July 2019, with limited production once operations resumed. On the account of the directive of the Mexican Federal Government, both mining operations were suspended from April 2 to June 3, 2020, to mitigate the spread of the COVID-19 virus. Guanajuato and the Cata processing plant were placed on care and maintenance effective late November 2021



and San Ignacio was placed on care and maintenance effective early January 2022 while awaiting permits to extend the tailings facility (Great Panther Mining Ltd., 2022b).

#### Table 25.1 Production Summary and Metal Produced, San Ignacio and Guanajuato (Off-Property) Operations

Year <sup>1</sup>	Tonnes Mill/Mine Guanajuato	Tonnes Mill/Mine San Ignacio	Tonnes (milled)	Production Ag (oz)	Production Au (oz)
2013	220,463	1,082	221,545	1,079,980	15,063
2014	213,658	54,154	267,812	1,239,009	15,906
2015	180,691	129,253	309,944	1,708,061	21,126
2016	136,349	183,694	320,043	1,473,229	21,626
2017	131,335	185,475	316,810	1,386,964	21,501
2018	88,364	212,650	301,014	1,096,757	19,073
2019	7,610	179,886	187,610	590,781	11,588
2020	33,248	119,560	151,001	520,903	6,779
2021	37,975	111,354	149,329	485,315	6,659
Totals	1,049,693	1,177,108	2,225,108	9,580,999	132,662

Notes:

1. 2013-2015 reported figures reflect tonnes milled; 2016-2021 reported figures reflect tonnes mined which has a small discrepancy to tonnes milled.

From August 2022 to September 2023, a total of 122,137 dry metric tonnes (DMT) of material extracted from San Ignacio were processed at Cata and Villalpando mills, producing 250,726 silver ounces and 4,696.5 gold ounces. Head grades and recoveries over this period averaged 76.29 g/t Ag with an 83.7% recovery for silver and 1.40 g/t Au with an 85.2% recovery for gold.

#### 25.3 GSilver Exploration

Exploration completed by GSilver at San Ignacio from the date of acquisition to the Effective Date of this Report has included underground channel sampling, diamond drilling, surface and underground development and mining.

Exploration and drilling results were reported as silver (Ag), gold (Au), or silver equivalent (AgEq\*), with AgEq\* calculated using metal prices set at US\$1,800/oz Au and US\$22.50/oz Ag, with 87% recovery for both, yielding a Ag to Au ratio of 80:1. This remains consistent with the ratio that was utilized internally and in public disclosure of exploration results by GSilver and is maintained herein.



From August 2022 to May 2023, GSilver collected a total of 5,681 underground channel samples from 2,498 sample locations at San Ignacio. Channel sampling, of variable lengths ranging from 0.15 to 4 m and averaging 0.62 m in length, was completed in accessible stopes and development headings. Most of the samples were collected from the NDD veins (n=3,402) and the Melladito veins (n=1,584), with additional samples collected from the Purisima and Intermedia veins. Over half of the samples (51.2%; n=2,910) returned greater than 100 g/t silver equivalent (AgEq\*) up to a maximum value of 89,439 g/t AgEq\*, 15.7 per cent (%) of the samples (n=892) returned greater than 500 g/t AgEq\* to 89,439 g/t AgEq\*, and 4.9% of the samples (n=282) returned greater than 1,000 g/t AgEq\* to 89,439 g/t AgEq\*. Maximum values include 89,439 g/t AgEq\*, over a sample length of 0.7 m, collected from NND on mine level 2283 and 13,628 g/t AgEq\*, over a sample length of 1 m, collected from NND 3 on mine level 2215. Maximum values include 89,439 g/t AgEq\*, over a sample length of 1 m, collected from NND 3 on mine level 2215.

The underground sampling completed by GSilver provided high-resolution geochemical data along significant strike lengths of the primary vein structures at San Ignacio, aiding in the delineation of unmined resources and confidence in the continuity of mineralization. This data led directly to increases in both scale and confidence in the San Ignacio mineral resources in the current MRE.

From November 2022 to June 2023, GSilver completed 36 diamond drillholes (DDH), totalling 5,092.7 m, at San Ignacio. Initially, the primary focus of the drilling at San Ignacio was to target the Melladito vein system and extend mineralization in the southern and northern areas of the mine. The latter half of the drill program focused on the extension of mineralization from the Melladito, Purisima, and the Nombre de Dios vein systems. The drilling confirmed the continuity of the mineralization at depth within the Melladito vein and confirmed the mineralization extension at depth of the Purisima vein. Select significant results include:

- 4.92 m (true width) of 1,219 g/t AgEq\* from 93.75 m depth in drillhole UGSI22-006
   Including 0.42 m (true width) of 6,981 g/t AgEq\* from 93.75 m
- 4.89 m (true width) of 359 AgEq\* from 124.00 m depth in drillhole UGSI23-010

   Including 0.37 m (true width) of 2,047 g/t AgEq\* from 128.55 m

GSilver's recent drilling at San Ignacio was used in the MRE detailed in Section 14 of this Report.



<sup>\*</sup> AgEq values are calculated using metal prices set at US\$1,800/oz Au and US\$22.50/oz Ag, with 87% recovery for both, yielding a Ag to Au ratio of 80:1

#### 25.4 Mineral Resource Estimate

This Report details a mineral resource estimate (MRE) prepared in accordance with NI 43-101 and CIM guidance for San Ignacio. The 2023 San Ignacio MRE for San Ignacio was completed by Mr. Warren Black, M.Sc., P.Geo., Mr. Tyler Acorn, M.Sc., and Mr. Kevin Hon, B.Sc., P.Geo., all of APEX, under the direct supervision of Mr. Dufresne, M.Sc., P.Geol., P.Geo., who takes responsibility for the MRE contained herein.

The 2023 San Ignacio MRE used samples collected from surface and underground drillholes and underground channels. It utilized a drillhole database with 640 unique drillholes totalling 120,674 m, drilled between 2010 and 2023. This database includes collar locations, surveys, assays, and geological details. Additionally, the MRE used an underground channel sample database with 86,083 samples collected from 2016 to 2023, containing channel locations, surveys, and assays. Both databases were considered during domain interpretation and metal estimation. The 2023 MRE was based on newly constructed domain models and used drilling and underground channel sampling databases updated to July 11, 2023.

The Mineral Resource block model utilized a selective mining unit (SMU) parent block size of 2.5 m (X) by 2.5 m (Y) by 2.5 m (Z) with a minimum sub-block size of 0.5 m (X) by 0.5 m (Y) by 0.5 m (Z). The gold and silver grades were estimated for each block using Ordinary Kriging with locally varying anisotropy (LVA) to ensure grade continuity in various directions is reproduced in the block model. Kriging considered capped drillhole and underground channel composites. The MRE was reported as undiluted within a series of underground mining shapes. The 2023 San Ignacio MRE used a silver equivalent grade (AgEq) based on metal prices of \$1,850/oz for gold (Au) and \$22/oz for silver (Ag). Both metals assume an 87% recovery rate. Therefore, all AgEq calculations in this section employ an Ag:Au ratio of 84.1:1. This ratio was determined based on current Reasonable Prospects for Eventual Economic Extraction (RPEEE) parameters.

Three types of material were identified during the calculation of the MRE: In Situ (unaffected by mining), Modern Remnant, and Historical Remnant. A three-dimensional wireframe of modern workings, current to May 31, 2023, was used to exclude alreadymined areas from the block model. Volumes within the estimation domains that lie in between and immediately next to modern stopes were categorized as Modern Remnant material. Historical Remnant material was classified as material within a 60 by 45 by 30 m search ellipsoid of modern logging data logged as either backfill or stope. These logged intervals were interpreted to be historical workings intercepted during drilling. Modern Remnant and Historical Remnant material were not included in the MRE. The 2023 San Ignacio MRE was based solely on In Situ material, unaffected by current or historical mining activities.



The 2023 MRE comprises Measured and Indicated Mineral Resources of 7.621 million troy ounces (oz) AgEq\*\* at 300 g/t AgEq\*\* within 0.79 million tonnes, and Inferred Resources of 22.167 million oz AgEq\*\* at 318 g/t AgEq\*\* within 2.166 million tonnes. The 2023 MRE is presented in Table 25.2.

Table	25.2	2023	San	Ignacio	Mineral	Resource	Estimate -	Effective	Date	September	21,
2023				_							

Classification	Tonnes	Average Grade (g/t)		Contained Metal (troy ounces)			
		Ag	Au	AgEq <sup>8</sup>	Ag	Au	AgEq <sup>8</sup>
Measured	171,000	105	2.16	287	578,000	12,000	1,575,000
Indicated	619,000	128	2.08	304	2,557,000	41,000	6,046,000
Measured & Indicated	790,000	123	2.10	300	3,136,000	53,000	7,621,000
Inferred	2,166,000	127	2.27	318	8,877,000	158,000	22,167,000

Notes:

 The 2023 San Ignacio Mineral Resources were estimated and classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines" dated November 29, 2019, and the CIM "Definition Standards for Mineral Resources and Mineral Reserves" dated May 10, 2014.

 The 2023 MRE was prepared by Warren Black, M.Sc., P.Geo., Tyler Acorn, M.Sc., and Kevin Hon, B.Sc., P.Geo of APEX Geoscience Ltd under the supervision of the Qualified Person ("QP"), Michael Dufresne, M.Sc., P.Geo., President of APEX Geoscience Ltd.

3. Mineral resources which are not mineral reserves do not have demonstrated economic viability. No mineral reserves have been calculated for San Ignacio. There is no guarantee that any part of mineral resources discussed herein will be converted to a mineral reserve in the future.

4. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, market, or other relevant factors.

5. The quantity and grade of the reported Inferred Resources are uncertain in nature and there has not been sufficient work to define these Inferred Resources as Indicated or Measured Resources. It is reasonably expected that most of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

6. All figures are rounded to reflect the relative accuracy of the estimates. Totals may not sum due to rounding.

7. Specific gravity of 2.64 is used for 2023 MRE.

8. Metal prices are set at US\$1,850/oz Au and US\$22/oz Ag, with 87% recovery for both. This yields an Au:Ag ratio of 84.1:1 for the calculation of AgEq.

9. Costs are US\$40.0/t for mining, US\$16.0/t for processing, and US\$18/t for G&A, leading to a 120 g/t AgEQ reporting cutoff grade.

10. Underground resources are confined to potentially minable shapes defined by a stope optimizer. The resulting stopes have a minimum horizontal width of 1 m and length and height dimensions of 20 m by 20 m, which can be sub-stoped to 10 m by 10 m. They must also contain a minimum grade of 120 g/t AgEQ.



<sup>\*\*</sup> AgEq values are calculated using metal prices set at US\$1,850/oz Au and US\$22/oz Ag, with 87% recovery for both, yielding a Ag to Au ratio of 84.1:1

#### 25.5 Conclusions

Based upon a review of available information, historical and current exploration and production data, Mr. Livingstone's recent site inspection and the 2023 MRE, the Authors outline San Ignacio as a property of merit prospective for the discovery of additional silver-gold low sulphidation epithermal deposits. This contention is supported by knowledge of:

- The favourable geological setting of the Property and its central position within the Guanajuato Mining District. Key north-west trending precious metal-bearing vein systems in the district include the Veta Madre, La Luz and Sierra systems.
- Historical surface and drilling by Great Panther that intersected significant precious metal mineralization at San Ignacio, including eighteen mineralized veins at San Ignacio. The primary mineralized veins at San Ignacio include Melladito, Intermedia, Nombre de Dios and Purisima.
- Significant results of silver and gold mineralization returned from recent channel sampling and drilling programs conducted by GSilver and the calculation of the 2023 San Ignacio MRE.
- San Ignacio historical and recent production, head grade and metal recovery records from the Cata processing plant from 2006 to 2021 and 2022 to 2023.

Further evaluation of Modern Remnant material presents an opportunity to quickly build significant additional near-mine resources at San Ignacio. Areas of Modern Remnant that are identified as mineable should be included in subsequent mineral resource estimates. Furthermore, lower confidence mineralized domains included in the 2023 San Ignacio MRE represent compelling targets for additional exploration drilling.

#### 25.6 Risks, Uncertainties, and Opportunities

Regarding the 2023 San Ignacio MRE, modelling structurally controlled precious metal deposits has inherent risk. This style of deposit is very complex regarding geological and mineralization continuity. De-risking the geological continuity for this deposit style requires rigorous interpretation and high-quality oriented structural data from drilling. The current mineralized grade estimation domain interpretations are well-founded and supported by modern drilling and underground mapping. There are some areas with wider-spaced drilling that, with additional drilling, may cause changes in the mineralized grade estimation domain interpretational drilling is completed, updating the mineralization models on an ongoing basis and working to remove internal dilution as much as possible will increase confidence in the mineralized grade domain interpretation.

The 3D wireframes for underground workings supplied by GSilver have a few-meter discrepancy with the surface drillholes. This inaccuracy has led to the inclusion of waste material in drillhole assays flagged within these domains, consequently lowering the grade of the intersections. However, the impact is mitigated by using underground



channel samples, which provide substantial support in the affected areas. Additionally, this issue is primarily confined to zones dominated by Modern Remnant material and poses less of a concern in In Situ material reported in this Section. Future work could evaluate if this could be mitigated.

Uncertainty exists regarding the precise locations of historical mining operations. While resource drilling will help identify the locations of mining voids and backfill material, rigorous mapping will still be necessary in future work to establish a robust model of these historically mined-out areas.

Infill drilling is essential for confirming the grade continuity in areas with Inferred resources. Lacking this step, these zones introduce elevated uncertainties in both mining operations and resource planning. With further exploration, opportunity exists to upgrade areas with Inferred resources to Indicated or Measured resources.

The uncertainty around the mineability of Modern Remnant is significant enough to exclude it from this MRE update. Future work should focus on identifying areas that can be mined effectively to allow for this material to be included in subsequent MRE assessments.

Underground channel sample intervals are typically small and require 1 m compositing, contrasting with drillhole sampling intervals that extend up to 1.5 m. Future assessments should evaluate if these two datasets can be composited at different lengths and determine if the difference in support is material to the robustness of the estimate.

In addition, San Ignacio is subject to the same types of risks and uncertainties as other similar precious and base metal mining projects. GSilver will attempt to reduce risk/uncertainty through effective project management, engaging technical experts, and developing contingency plans. Potential risk factors include changes in metal prices, increases in operating costs, fluctuations in labour costs and availability, availability of investment capital, infrastructure failures, changes in government regulations, community engagement and socio-economic community relations, civil disobedience and protest, permitting and legal challenges, and general environmental concerns. The mining industry in Mexico is also prone to incursions by illegal miners, or "lupios", who gain access to mines or exploration areas to steal mineralized material. These incursions pose a safety, security and financial risk and can potentially compromise underground structures, equipment, and operations.

There is no guarantee that further exploration at San Ignacio will result in the discovery of additional mineralization or an economic mineral deposit. Nevertheless, in the QPs opinion there are no significant risks or uncertainties, other than mentioned above, that could reasonably be expected to affect the reliability or confidence in the currently available exploration information with respect to the Property. There appears to be no apparent impediments to developing the MRE at the San Ignacio Property.



## 26 Recommendations

As a property of merit, a 2-phase work program is recommended to delineate additional precious metal mineralization at San Ignacio to support future mineral resource expansion and ongoing production.

Phase 1 should include drilling at the Melladito, Purisima, Nombre de Dios, and Santo Nino vein systems, with an initial focus on deep drilling at Purisima and Santo Nino. The Authors recommend a diamond drill program of approximately 12,000 metres intended to expand orebodies, delineate additional mineral resources, and upgrade existing inferred resources. Oriented core instruments should be utilized, and measurements captured as part of the logging. Additional underground exploration development should also be completed to aid in accessing target areas at depth with limited exploration data. This should include ongoing ramp development between the Melladito and Purisima/Santo Nino areas. The estimated cost of the Phase 1 work program for the San Ignacio Property totals USD\$1,548,000, not including contingency funds or taxes.

Phase 2 exploration is dependent on budget availability and the results of Phase 1. It should comprise additional drilling at the Melladito, NDD, Purisima, and Santo Nino areas, as well as testing new mineralized domains included in the current MRE to increase confidence in the resources. Additional underground exploration development should be undertaken as needed to access new and underexplored areas. Phase 2 should also include an updated MRE and technical report. The estimated cost of the Phase 2 work program for the San Ignacio Property totals USD\$2,230,000, not including contingency funds or taxes.

Collectively, the estimated cost of the recommended work programs for San Ignacio totals USD\$3,778,000, not including contingency funds or taxes (Table 26.1).

Phase	Item	Amount (USD\$)	
Phase 1	All in cost for drilling at San Ignacio (12,000 m @ \$100/m)	\$1,200,000	
	All in cost for underground exploration development (600 m @ 580/m)	\$348,000	
	Sub-total:	\$1,548,000	
Phase 2	All in cost for drilling at San Ignacio (15,000 m @ \$100/m)	\$1,500,000	
	All in cost for underground exploration development (1,000 m @ 580/m)	\$580,000	
	Mineral Resource Estimate and Technical Report	\$150,000	
	Sub-total:	\$2,230,000	
Phase 1 & 2	Total:	\$3,778,000	

#### Table 26.1 2022 Budget for Proposed Exploration (San Ignacio)



#### APEX Geoscience Ltd.

"Signed and Sealed"

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EGBC Permit to Practice #1003016 APEX Geoscience Ltd.

APEGA Permit to Practice #48439 APEX Geoscience Ltd.



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# 28 Certificate of Author

#### 28.1 Christopher W. Livingstone Certificate of Author

I, Christopher W. Livingstone, B.Sc., P.Geo., of Vancouver, BC, do hereby certify that:

- 1. I am a Senior Geologist of APEX Geoscience Ltd. ("APEX"), with a business address of 100, 11450 160 St. NW, Edmonton, Alberta, Canada.
- 2. I am the Author and am responsible for Sections 1 to 5, 7 to 8, 12, 24 to 26 of this Technical Report entitled: **"Technical Report on the San Ignacio Property, Guanajuato, Mexico"**, with an Effective Date of September 21, 2023 (the "Technical Report").
- 3. I am a graduate of UBC, Vancouver, BC with a B.Sc. in Earth and Ocean Sciences (specialization Geology) and have practiced my profession continuously since 2011. I have over 12 years of experience in the mineral exploration and mining industry, including over 8 years in a position of senior responsibility as a project manager and decision-maker. I have supervised multiple projects with relevant deposit types including epithermal gold-silver, polymetallic veins, and sediment-hosted precious and base metals.
- 4. I am a Professional Geologist (P.Geo.) registered with the Association of Professional Engineers and Geoscientists of B.C. (No. 44970) and I am a 'Qualified Person' in relation to the subject matter of this Technical Report.
- 5. I visited the Property that is the subject of this Technical Report on April 7-8, 2022, and August 13-14, 2023. I have conducted a review of the San Ignacio Property data.
- 6. I am independent of Guanajuato Silver Company Ltd., as defined by Section 1.5 of National Instrument 43-101. I have not received, nor do I expect to receive, any interest, directly or indirectly, in Guanajuato Silver Company Ltd. I am not aware of any other information or circumstance that could interfere with my judgment regarding the preparation of the Technical Report.
- 7. I have had previous involvement with the San Ignacio Property, that is the subject of this Technical Report. In 2022, I was the lead author of an NI 43-101 technical report written on behalf of GSilver for the Valenciana Mine Complex, which at the time included the San Ignacio Property and GSilver's Guanajuato operation. The published reference related to this work is included in Section 27, References (see Livingstone et al., 2022).
- 8. I have read and understand National Instrument 43-101 and Form 43-101 F1 and the Report has been prepared in compliance with the instrument.
- To the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated and Signed this 2 day of November 2023 in Vancouver, British Columbia, Canada

"Signed and Sealed"

Signature of Qualified Person Christopher W. Livingstone, B.Sc., P.Geo. (EGBC #44970)

Effective Date: September 21, 2023



#### 28.2 Michael B. Dufresne Certificate of Author

I, Michael B. Dufresne, M.Sc., P.Geo., P.Geol., of Edmonton, Alberta, do hereby certify that:

- 1. I am President and a Principal of APEX Geoscience Ltd. ("APEX"), with a business address of 100, 11450 160 St. NW, Edmonton, Alberta, Canada.
- I am the Author and am responsible for Sections 6.3, 6.4, 13 and 14 and contributed to Sections 1, 25 and 26 of this Technical Report entitled: "Technical Report on the San Ignacio Property, Guanajuato, Mexico", with an Effective Date of September 21, 2023 (the "Technical Report").
- 3. I graduated with a B.Sc. Degree in Geology from the University of North Carolina at Wilmington in 1983 and a M.Sc. Degree in Economic Geology from the University of Alberta in 1987. I have worked as a geologist for more than 36 years since my graduation from university and have been involved in all aspects of mineral exploration and mineral resource estimations for precious and base metal mineral projects and deposits in Canada and internationally.
- 4. I am and have been registered as a Professional Geologist with the Association of Professional Engineers and Geoscientists ("APEGA") of Alberta since 1989 and a Professional Geoscientist with the Association of Professional Engineers and Geoscientists ("EGBC") of British Columbia since 2012. I am a 'Qualified Person' in relation to the subject matter of this Technical Report.
- 5. I have not visited the Property that is the subject of this Technical Report. I have conducted a review of the San Ignacio Property data.
- 6. I am independent of Guanajuato Silver Company Ltd., as defined by Section 1.5 of National Instrument 43-101. I have not received, nor do I expect to receive, any interest, directly or indirectly, in Guanajuato Silver Company Ltd. I am not aware of any other information or circumstance that could interfere with my judgment regarding the preparation of the Technical Report.
- 7. I have had previous involvement with the San Ignacio Property, that is the subject of this Technical Report. In 2022, I co-authored an NI 43-101 technical report written on behalf of GSilver for the Valenciana Mine Complex, which at the time included the San Ignacio Property and GSilver's Guanajuato operation. The published reference related to this work is included in Section 27, References (see Livingstone et al., 2022).
- 8. I have read and understand National Instrument 43-101 and Form 43-101 F1 and the Report has been prepared in compliance with the instrument.
- 9. To the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated and Signed this 2 day of November 2023 in Edmonton, Alberta, Canada

"Signed and Sealed"

Signature of Qualified Person Michael B. Dufresne, M.Sc., P.Geo., P.Geol. (APEGA #48439; EGBC #37074)


## 28.3 Fallon T. Clarke Certificate of Author

I, Fallon T. Clarke, B. Sc., P.Geo., of Victoria, British Columbia, do hereby certify that:

- 1. I am a Senior Geologist of APEX Geoscience Ltd. ("APEX"), with a business address of 9/18 Parry Street, Fremantle, Western Australia, Australia.
- I am the Author and am responsible for Sections 6.1, 6.2, 9-11, 23 and 27 and contributed to Sections 1, 25 and 26 of this Technical Report entitled: "Technical Report on the San Ignacio Property, Guanajuato, Mexico", with an Effective Date of September 21, 2023 (the "Technical Report").
- 3. I graduated with a B.Sc. Degree in Geology from the University of Saskatchewan in 2010. I have worked as a geologist for more than eleven years since my graduation from university and have experience with exploration for precious and base metal deposits of various types through North America and Australia, including epithermal silver-gold deposits.
- 4. I am and have been registered as a Professional Geologist with the Association of Professional Engineers and Geoscientists ("APEGS") of Saskatchewan since 2015. I am a 'Qualified Person' in relation to the subject matter of this Technical Report.
- 5. I have not visited the Property that is the subject of this Technical Report. I have conducted a review of the San Ignacio Property data.
- 6. I am independent of Guanajuato Silver Company Ltd., as defined by Section 1.5 of National Instrument 43-101. I have not received, nor do I expect to receive, any interest, directly or indirectly, in Guanajuato Silver Company Ltd. I am not aware of any other information or circumstance that could interfere with my judgment regarding the preparation of the Technical Report.
- 7. I have had previous involvement with the San Ignacio Property, that is the subject of this Technical Report. In 2022, I co-authored an NI 43-101 technical report written on behalf of GSilver for the Valenciana Mine Complex, which at the time included the San Ignacio Property and GSilver's Guanajuato operation. The published reference related to this work is included in Section 27, References (see Livingstone et al., 2022).
- 8. I have read and understand National Instrument 43-101 and Form 43-101 F1 and the Report has been prepared in compliance with the instrument.
- 9. To the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated and Signed this 2 day of November 2023 in Perth, Western Australia, Australia

"Signed and Sealed"

Signature of Qualified Person Fallon T. Clarke, B.Sc., P.Geo (APEGS #27238)

