



**NI 43-101 TECHNICAL REPORT  
UPDATED MINERAL RESOURCE ESTIMATE OF CALLANQUITAS  
GOLD-SILVER DEPOSIT AND POTENTIAL OF IGOR PROJECT**

Otuzco - Huaranchal, La Libertad – Peru

Prepared for PPX Mining Corp.

Report Date – December 31, 2023

**Qualified Persons:**

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**MINING PLUS**

**Document Control Information**

 <b>Customer</b>	<b>NI 43-101 Technical Report                  Updated Mineral Resource Estimate                  2023 - Callanquitas Gold Silver                  Deposit</b>	<b>REVISION</b>	
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Revision	Prepared By	Reviewed By	Issued For	Approved By	Date
0	María Muñoz	Matthew Karl	RC	-	08-Feb-2024
1	María Muñoz	PPX/Geologica/ YaKum	RC	-	13-Feb-2024
2	María Muñoz	Matthew Karl	FV	-	16-Feb-2024
3					
4					

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**CERTIFICATE OF QUALIFICATION (Maria Muñoz Lizarve)**

I, María del Carmen Muñoz Lizarve, P. Geol MAIG (QP), do hereby certify that I am author of the Technical Report titled "NI 43-101 Technical Report Updated Mineral Resource Estimate of Callanquitas Gold-Silver deposit and potential of Igor Project on Otuzco - Huaranchal, La Libertad – Peru" (the "Technical Report") with an effective date of December 31, 2023, prepared for PPX Mining Corp. (the "Issuer"), do hereby certify:

1. I am an independent Principal Resource Geologist currently employed by Mining Plus Perú S.A.C.
2. My current work address is Avenida Jose Pardo 513, Office 1001, Miraflores, Lima, Peru, 15074.
3. I graduated with a Bachelor of Science in Geological Engineering from the National University of Saint Augustine, Arequipa Perú in 2003.
4. I am registered as a Professional Geologist in Perú (CIP 115281) and as a Member of the Australian Institute of Geoscientists (Membership Number 7570)
5. I have practiced my profession continuously since 2003. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
6. I visited Callanquitas Mine from January 17th to 19th, 2024.
7. I am responsible for the technical parts of chapter 1, 2, 3, 4, 5, 6, 10, 11, 12, 14, 25, 26 and 27 of the Technical Report.
8. I have not had prior involvement with the property that is the subject of the Technical Report.
9. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
10. I am independent of PPX Mining Corp. (the Issuer) applying all the tests in section 1.4 of National Instrument 43-101.
11. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
12. At the effective date of December 31<sup>st</sup>, 2023, to the best of my knowledge, information, and belief, the technical report, or part that I am responsible for, contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
13. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 19<sup>th</sup> day of February 2024.

María del Carmen Muñoz Lizarve P. Geo., (AIG No. 7570)  
Mining Plus Peru S.A.C.

**CERTIFICATE OF QUALIFICATION (Alain-Jean Beauregard)**

I, Alain-Jean Beauregard, P. Geo., do hereby certify that I am author of the Technical Report titled “NI 43-101 Technical Report Updated Mineral Resource Estimate of Callanquitas Gold-Silver deposit and potential of Igor Project on Otuzco - Huaranchal, La Libertad – Peru” (the “Technical Report”) with an effective date of December 31, 2023, prepared for PPX Mining Corp. (the “Issuer”), do hereby certify:

1. I, Alain-Jean Beauregard, P. Geo., certify that I am employed as a Senior Geologist with Geologica Groupe-Conseil Inc. with a resident address of 240 Chemin des Pimbinas, La Conception, Québec, Canada. The certificate is related to the report entitled “NI 43-101 Technical Report Updated Mineral Resource Estimate – Callanquitas Mine on Otuzco - Huaranchal, La Libertad – Peru (According to the National Instrument Form 43-101F1)”.
2. I graduated from Concordia University with a Bachelor of Applied Science degree in Geology and Mining in 1978. I am a member of the Order of Geologists and Geophysicists of Quebec (No. 227).
3. I have worked as a geologist for a total of 45 years since my graduation from university with the production of more than one thousand and five hundred (>1500) technical and financial evaluation reports in English or French for government authorities, private and public companies including numerous market value assessments of mining properties from grassroots projects to developed mines, and several companies' entire portfolio of properties. I have been using geophysical data from various surveys (Magnetic, Electromagnetic, IP-Resistivity, Radiometric, Gravity, Topographic, Spectrometric, Lidar, etc.) since 1978 for geoscientific compilations, interpretations and recommendations for follow up exploration work such as selecting priority drill targets in the Archean rocks of the Superior Province and the highly metamorphic terrain of the Grenville Province for iron, titanium, uranium, rare earth minerals, graphite, precious and base metals. I have organized and managed several exploration campaigns for gold, base metals and industrial metals, especially in remote areas of Abitibi, but also in other parts of the province of Québec (Labrador Trough, Gaspé Peninsula, James Bay, St-Lawrence River, North Shore, Ungava, etc.), in eastern Canada, Europe, Africa and the Americas.
4. I visited the Property from November 3 to 7, 2023. I am responsible for the technical parts of chapters 1, 7, 8, 9, 12, 23, 25, 26 and 27 of the Technical Report.
5. I am independent of the issuer (PPX Mining Corporation) and the Igor Project applying all of the tests in section 1.5 of National Instrument 43-101. I have had no previous involvement with the Igor Project.
6. I have read the definition of “Qualified Person” set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects (“NI 43-101”) and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for those sections of the Technical Report that I am responsible for and preparing in compliance with this instrument.
7. At the effective date of December 31<sup>st</sup>, 2023, to the best of my knowledge, information, and belief, the technical report, or part that I am responsible for, contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
8. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report. I confirm to have read 43-101 F1 form and related appendices and that the Technical Report has been prepared in compliance with the National Instrument 43-101.

Dated this 19<sup>th</sup> day of February 2024.

Alain-Jean Beauregard, P. Geo., (OGQ No. 227)  
Geologica Groupe-Conseil Inc.

**CERTIFICATE OF QUALIFICATION (Daniel Gaudreault)**

I, Daniel Gaudreault, P. Eng., do hereby certify that I am author of the Technical Report titled “NI 43-101 Technical Report Updated Mineral Resource Estimate of Callanquitas Gold-Silver deposit and potential of Igor Project on Otuzco - Huaranchal, La Libertad – Peru” (the “Technical Report”) with an effective date of December 31, 2023, prepared for PPX Mining Corp. (the “Issuer”), do hereby certify:

1. I, Daniel Gaudreault, P. Eng., certify that I am employed as a Senior Engineer with Geologica Groupe-Conseil Inc. with a resident address of 4 Rina-Lasnier, Saint-Charles-Borromée, Quebec, Canada. The certificate is related to the report entitled “NI 43-101 Technical Report Updated Mineral Resource Estimate – Callanquitas Mine on Otuzco - Huaranchal, La Libertad – Peru (According to the National Instrument Form 43-101F1)”.
2. I graduated with a degree in Geological Engineering (“Eng.”) from the University of Québec in Chicoutimi in 1983. I am a member of the “Ordre des ingénieurs du Québec (OIQ #39834).
3. I have worked as an engineer for a total of 40 years since my graduation from university. As an engineer specializing in exploration geology, I have been using geophysical data from various surveys (Magnetic, Electromagnetic, IP-Resistivity, Radiometric, Gravity, Topographic, Spectrometric, Lidar, etc.) since 1983 for geoscientific compilations, interpretations and recommendations for follow up exploration work such as selecting priority drill targets in the Archean rocks of the Superior Province and the highly metamorphic terrain of the Grenville Province for iron, titanium, uranium, rare earth minerals, graphite, precious and base metals. I have been involved with all aspects of planning, organization and supervision of mineral exploration projects, especially in remote areas of Abitibi, Québec. I have been in charge of teams of professionals and technicians on geological projects in the most severe conditions. I have also completed several geoscientific compilations and technical reports on areas of interest in Québec, Ontario, USA (California & Nevada) and South America (mainly Peru).
4. I have not visited the Project. I am responsible for the technical parts of chapter 1, 7, 8, 9, 23, 25, 26 and 27 of the Technical Report.
5. I am independent of the issuer (PPX Mining Corporation) and the Igor Project applying all of the tests in section 1.5 of National Instrument 43-101. I have had no previous involvement with the Igor Project.
6. I have read the definition of “Qualified Person” set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects (“NI 43-101”) and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for those sections of the Technical Report that I am responsible for preparing.
7. At the effective date of December 31<sup>st</sup>, 2023, to the best of my knowledge, information, and belief, the technical report, or part that I am responsible for, contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
8. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report. I confirm to have read 43-101 F1 form and related appendices and that the Technical Report has been prepared in compliance with the National Instrument 43-101.

Dated this 19<sup>th</sup> day of February 2024.

Gaudreault, P. Eng. (OIQ #39834)  
Geologica Groupe-Conseil Inc.

**CERTIFICATE OF QUALIFICATION (Eddy Canova)**

I, Eddy Canova, Geo., do hereby certify that I am author of the Technical Report titled “NI 43-101 Technical Report Updated Mineral Resource Estimate of Callanquitas Gold-Silver deposit and potential of Igor Project on Otuzco - Huaranchal, La Libertad – Peru” (the “Technical Report”) with an effective date of December 31, 2023, prepared for PPX Mining Corp. (the “Issuer”), do hereby certify:

1. I, Eddy Canova, residing at 8-410 Allée des Cimes, Mont-Tremblant, Quebec, J8E 0B3, am working as a consulting geologist and President for GeoConsul Canova Inc. on a number of geological contracts in Quebec. The certificate is related to the report entitled “NI 43-101 Technical Report Updated Mineral Resource Estimate of Callanquitas Gold-Silver deposit and potential of Igor Project on Otuzco - Huaranchal, La Libertad – Peru”, (According to the National Instrument Form 43-101F1)”. This report was written for PPX Mining Corp. and dated December 21, 2023 (the “Technical Report”).
2. I graduated with a Bachelor of Science (Geology), from McGill University in 1977. I am a Fellow member of the Geological Association of Canada and a member of the Ordre des Géologues du Québec (OGQ No. 403).
3. I have worked as a geologist for a total of 40 years since my graduation from university. I have worked and visited various projects in Peru over the years from 2007 to present.
4. I have visited the Property from November 3 to 7, 2023. I am responsible for the technical parts of chapters 1, 7, 8, 9, 12, 23, 25, 26 and 27 of the Technical Report.
5. I am independent of the issuer (PPX Mining Corporation) and the Igor Project applying all of the tests in section 1.5 of National Instrument 43-101. I have had no previous involvement with the Igor Project.
6. I have read the definition of “qualified person”, set out in National Instrument 43-101- Standards of Disclosure for Mineral Prospects (“NI 43-101”), and certify that by reason of my education, affiliation with a professional association (as defined by NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
7. At the effective date of December 21, 2023, to the best of my knowledge, information, and belief, the technical report, or part that I am responsible for, contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
8. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report. I confirm to have read 43-101 F1 form and related appendices and that the Technical Report has been prepared in compliance with the National Instrument 43-101.
9. I have had no prior involvement with the property that is the subject of the Technical Report.

Dated this 19<sup>th</sup> day of February 2024.

Eddy Canova, Geo., OGQ (#403)  
Geologica Groupe-Conseil Inc.

**CERTIFICATE OF QUALIFICATION (Peter Kondos)**

I, Peter Kondos, Ph.D., of Toronto, Ontario Canada, as the author of section 13 in the technical report entitled “NI 43-101 Technical Report Updated Mineral Resource Estimate of Callanquitas Gold-Silver deposit and potential of Igor Project on Otuzco - Huaranchal, La Libertad – Peru” (the “Technical Report”) with an effective date of December 31, 2023, prepared for PPX Mining Corp. (the “Issuer”), do hereby certify:

1. I am currently employed as CEO of YaKum Consulting Inc. with an office at 910A Logan Ave., Toronto, Ontario M4K 3E4 Canada.
2. I am a graduate of McGill University in Montreal, Canada (Master of Engineering in 1983 and Ph. D. in Hydrometallurgical Engineering in 1989).
3. I am a Fellow Member (FAusIMM #334726) of the Australian Institute of Mining and Metallurgy and Fellow (#94171) of the Canadian Institute of Mining and Metallurgy.
4. I have 37 years of experience in the areas of metallurgy and mining. I have managed projects in research, process development for new properties and expansions, led multidisciplinary teams and strategic teams, plant troubleshooting, due diligence for acquisitions and overall business management. I have authored over 30 technical publications, 10 patents and several books, and I have been the recipient of three prestigious awards.
5. I have read the definition of “Qualified Person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.
6. I have not visited the Project; however, a site visit was not required for my role in this report.
7. I am responsible for the preparation of chapters 1, 13, 25 and 26.
8. I am independent of the Issuer as independence is described in Section 1.5 of NI 43-101.
9. Prior to being retained by the Issuer, I have not had prior involvement with the property that is the subject of the Technical Report.
10. I have read NI 43-101 and Form 43-101F1, and this Technical Report was prepared in compliance with NI 43-101.
11. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the portion of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the portions of the Technical Report for which I am responsible not misleading.

Dated this 19<sup>th</sup> day of February 2024.

Peter Kondos, Ph.D. (FAusIMM #334726)  
YaKum Consulting Inc.

## 1 EXECUTIVE SUMMARY

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This Technical Report has been compiled for PPX Mining Corp. ("PPX") to facilitate the public release of information regarding Mineral Resources Update at the Callanquitas gold-silver deposit and potential of Igor Project, dated January 8<sup>th</sup>, 2024. The preparation of this report adheres to the guidelines outlined in the National Instrument 43-101 Standards of Disclosure for Mineral Projects. Two independent firms were engaged in the preparation of this Technical Report: a) Mining Plus Peru S.A.C., responsible for the Callanquitas Mineral Resources Update, and b) Geologica Groupe-Conseil Inc., tasked with the geological review, analysis, and data compilation to assess the potential of the Igor Project.

### 1.1 Property Description and Ownership

The Callanquitas gold–silver deposit is part of the Igor project located in northwestern Perú approximately 150 kilometres northeast of the city of Trujillo in the Huaranchal, district of the Region de La Libertad. The property consists of four contiguous and overlapping mining concessions of approximately 1,300 hectares centred at approximately 781,746E and 9,153,629N UTM WGS84 Zone 17S.

PPX represents that there are no environmental liabilities of material importance within the property and all the necessary permits for exploration and mining activities are in place. Permitting for the proposed processing plant is in progress as of the effective date of this report.

### 1.2 Exploration and Mining History

Historical exploration and small-scale mining are believed to have begun during the 1500s. During the 1980s, mineralized mantos on the eastern side of Cerro Bola de Igor were exploited for gold and silver and there is a now an abandoned 50 tonnes per day (tpd) gold processing plant. PPX and its predecessor Sienna Gold Inc. began exploration of the property in 2005. Drilling programs at the Igor Project occurred from 2006 to end of December 2018, led by PPX and predecessors Peruvian and Sienna, utilizing diamond drilling. Covering 48 drillholes and 8,241 meters, they targeted Domo, Pampa Igor, Portachuelos, and Tesoros. Five post-May 2018 drillholes were excluded from the previous NI 43-101 (2018) by MDA, reviewing the potential of Tesoro.

In the Callaquintas area, approximately 93 drillholes from 2006 to May 2018, spanning 23,821 meters along Callanquitas Este and Oeste veins, were included in the resource update. Drillholes were spaced around 50 m x 50 m, with wider peripheral areas (100 m to 150 m). All drillholes were used, reporting widely spaced ones as geological potential. No new drilling occurred post-May 2018 in this sector.



From October 2016 to Sep 2018, PPX commenced underground test mining and bulk sampling of the Callanquitas Este vein. A total of 31,437 tonnes with an average gold grade of 8.56g Au/t were mined and toll processed at the off-site cyanide carbon-in-leach plant of Silver Cascas S.A.C. Approximately 7,042 ounces of gold have been produced for an average gold recovery of 81.2%, and there was no recovery of silver from this material.

From July 2017 to December 2023, there has been small-scale production at a rate of 101 tonnes per day (tpd), with a cumulative tonnage of 244,255 tonnes and an average grade of 9.62 g/t Au. This ore has been toll processed at the off-site Malin plant of Silver Cascas S.A.C. (“Silver Cascas”) and Las Lomas Doradas S.A.C. Approximately 59,489 ounces of gold have been produced, with an average gold recovery rate of 78.79%. There was no recovery of silver from this material until March 2021. Following March 2021 until December 2023, 184 g/t Ag for 369,597 ounces of silver were recovered. PPX has reported “direct cash costs” of \$262/tonne processed.

Underground mining activities have permitted the taking of subterranean channels by PPX, which have been employed during resource estimation.

### 1.3 Geology and Mineralization

Callanquitas is centred on the southeast-plunging Igor anticline, a major fold and topographic high that largely consists of the Chimú Formation quartz arenite in its core, overlain by sandstone, siltstone, and thin black shale seams assigned to the Santa and Carhuaz Formations. Dacite porphyry dikes occur within the northwest-trending anticlinal axis and within north- and northeast-trending structural zones cutting the anticline. The entire sequence has been cut by northwest-, northeast- and north-trending faults.

The crest of the Igor anticline is transected by the approximately north-south trending, near-vertical Callanquitas fault and vein system that consists of multiple fault splays, fault breccia and gouge, hydrothermal breccia, discontinuous narrow veins, vein breccia, stockwork, and brecciated porphyritic dacite dikes. Two major splays have been named “Callanquitas Oeste” and “Callanquitas Este” veins, which are sub-vertical to steeply west dipping. Individual veins can be up to 1.5km long with thicknesses between 0.2 to 8.2m.

Gold and silver mineralization is found in breccias that originally contained variable quantities of pyrite, arsenopyrite, and minor chalcopyrite which have been strongly oxidized to depths of 200 to 300 meters below surface. Ag/Au ratios are generally low (about 10:1) in the oxide portion of the deposit but can increase to over 100:1 at the oxide-sulphide interface.

## 1.4 Metallurgical Testing and Mineral Processing

Historical test work, treatment, and toll treatment of ore from Callanquitas East has generally shown rather low gold recoveries from oxide ore. A program of test work has been carried out in a Canadian laboratory to try and improve the recovery. It was found that the ore contained naturally occurring carbon, which adsorbs gold and results in lower gold recoveries. This is relatively common and is referred to as preg-robbing. By using carbon in leach, the activated carbon competes with the naturally occurring carbon and higher gold recoveries are achieved. In addition, flotation test work was carried out on sulphide ore, with excellent results being achieved.

## 1.5 Mineral Resources

The Mineral Resources Estimate for the Callanquitas Deposit was prepared by Ms. María Muñoz, a full-time employee of Mining Plus Peru S.A.C. The Mineral Resources within the Callanquitas gold-silver deposit are deemed potentially suitable for underground mining. These estimates are derived from drillholes and channel samples spanning the years 2006 to 2018, as documented in 2018: “Technical Report and Pre-Feasibility Study for The Callanquitas Gold-Silver Deposit, Igor Project, La Libertad Region, Peru”. Additionally, the data set includes 5 drillholes located in the Tesoro area; however, but these holes are not included as part of the Mineral Resources; and 57 channels from 2019, along with 210 channels from 2023; the latest is in the deepest part to evaluate the expansion of resources at depth.

Post-2018, mining activities in the deposit have enhanced the geological understanding, leading to a new geological interpretation. Furthermore, the estimated resources have been adjusted to account for updated economic parameters, ensuring compliance with the "reasonable prospects for eventual economic extraction requirement". These different aspects have generated a material change in resources, mainly due to mining production, which has generated a reduction in resources compared to those reported in 2018. The Mineral Resource is reported inside underground optimized shapes with a reasonable cut-off grade of 2.00 g/t gold equivalent, based on a gold price of US\$1800/oz and silver price of US\$20/oz, mining costs and metallurgical recovery from the current mining activities.

The Mineral Resource Estimate (MRE), with an effective date of 30 September 2023, has been reported in accordance with the Canadian National Instrument 43-101 (NI 43-101) Standards for Disclosure for Mineral Projects. The estimation process followed the “Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines” prepared by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM, 2019). Callanquitas comprises three structures, namely Callanquitas West and Callanquitas East, along with a minor structure named Callanquitas Sigmoid, the latest one is a smaller sigmoid of Callanquitas East. The determination of estimated domains involves a combination of these structures with their associated grade shell. The length sample exhibits variability, although composite lengths of

0.5 m were specifically chosen, representing a multiple of prevalent or dominant raw sampling intervals. Grade capping has been selectively applied to composited grade intervals within each estimation domain. The estimation methodologies for gold and silver grades predominantly employ Ordinary Kriging (OK) across most domains. However, Inverse Distance Square (ID2) was utilized for estimating Callanquitas Sigmoid due to the limited dataset available. To validate the results, bias checks were conducted using nearest neighbor (NN) estimation.

As of September 30, 2023, the MRE includes Measured, Indicated, and Inferred Resources; as Measured and Indicated resources in Oxides, there are around 663,700 tonnes with a gold equivalent grade of 4.70, with a metal content of 100,000 ounces of gold equivalent, and as Inferred in oxides there are around round 528,500 tonnes with a gold equivalent grade of 4.40, with a metal content of 75,000 ounces of gold equivalent.

Sulphides have been classified as inferred because their information is limited. Mining Plus highlights that the initial Metallurgical tests carried out in-house have demonstrated high recoveries, however, for these resources the recovery has been considered similar to that of oxides. There are around round 231,400 tonnes with a gold equivalent grade of 4.63, with a metal content of 34,000 ounces of gold equivalent. Table 1-1 summarizes the resources for Mina Callanquitas.

Table 1-1 Callanquitas Mineral Resource as of 30 September 2023

Zone	Material	Category	Tonnes	Au	Ag	AuEq	Au	Ag	AuEq
			m <sup>3</sup>	g/t	g/t	g/t	koz	koz	koz
Total	Oxides	Measured	22,900	5.25	48	5.56	4	35	4
		Indicated	640,800	3.75	141	4.67	77	2,905	96
		<b>Meas+Ind</b>	<b>663,700</b>	<b>3.80</b>	<b>137</b>	<b>4.70</b>	<b>81</b>	<b>2,923</b>	<b>100</b>
		Inferred	528,500	3.72	103	4.40	63	1,750	75
	Sulphide	Measured	-	-	-	-	-	-	-
		Indicated	-	-	-	-	-	-	-
		<b>Meas+Ind</b>	-	-	-	-	-	-	-
		Inferred	231,400	2.79	278	4.63	21	2,068	34

Notes:

1. Mineral Resources are not Mineral Reserves and have not demonstrated economic viability.
2. The MRE has been categorized in accordance with the CIM Definition Standards (CIM, 2014).
3. All figures are rounded to reflect the relative accuracy of the estimates. Minor discrepancies may occur due to rounding to appropriate significant figures.
4. The Mineral Resource was estimated by Ms Muñoz QP(Geo) of Mining Plus, Independent Qualified Person under NI 43-101.
5. The Mineral Resource is reported inside a underground shell with a cut-off grade of 2.00 g/t gold equivalent, estimated using a gold price of 1,800 US\$/oz and silver price of US\$ 20 US\$/oz.
6. MRE is reported on a 100 percent basis within an underground shell.
7. The gold equivalent is based in the following formula  $AuEq = Au + Ag * 0.0066$ .
8. The effective date for mineral resources of 30 September 2023.
9. The cut-off date for mining depletion is 30 September 2023.

## 1.6 Conclusions and Recommendations

### 1.6.1 Conclusions

Geologica has endorsed PPX's recent exploration efforts, considering them comprehensive and in line with standard mining industry practices. Notably, the Portachuelos, Domo, and Tesoros mineralized zones exhibit significant lateral extension potential, justifying upcoming infill and definition drilling activities. These zones, situated within brecciated and fractured quartzites, showcase substantial width of up to 2.9 m and up to 2 kms in length.

Geophysical surveys, particularly Magnetometer and IP-Resistivity-Chargeability, effectively located mineralized structures in the central property, guiding future drilling plans. Core and channel sampling, conducted by Geologica, validated earlier assay results by PPX and confirmed the lateral continuity of mineralized zones. Drill core sampling unveiled elevated gold grades at depth.

The database is considered relatively free of errors and suitable for estimating Mineral Resources for gold and silver. The mineral resource estimate, which integrates historical drilling, new channel data, and an updated geological interpretation featuring a grade shell with a cut-off grade surpassing 2.3 g/t AuEq to discern economically viable grades, has facilitated the determination of Measured, Indicated, and Inferred Resources. Mining Plus has noted certain considerations regarding the precision of underground workings between 3200 and 3400 levels, which may have potential implications for channel locations and geological interpretation, it is deemed non-material for this level of study and should be addressed in future updates.

In detail, oxide resources total approximately 663,700 tonnes, with Measured and Indicated resources holding 100,000 ounces of gold equivalent and Inferred resources containing 75,000 ounces. Additionally, Inferred sulphide resources amount to about 231,400 tonnes, including 34,000 ounces of gold equivalent. Notably, mineralization remains open in azimuth and depth for Callanquitas Este and Oeste.

Metallurgical analysis underscores the need for a carbon-in-leach (CIL) process due to preg-robbing characteristics. Optimal leach extractions of 87% for gold and 55% for silver are recommended, with anticipated cyanide and lime consumption estimates. The expected carbon loading for gold + silver is advised to be at least 10,000 g/t. Additionally, the reduction of weak acid dissociable cyanide complexes can be achieved using SO<sub>2</sub>-Air and copper, emphasizing the comprehensive approach taken for resource evaluation and metallurgical considerations.

### **1.6.2 Recommendations**

The proposed exploration plan involves two phases aimed at defining the lateral and depth extensions of the Portachuelos, Domo, and Tesoros zones. Phase 1 includes surface exploration activities such as trenching, mapping, geophysical surveys, and geochemical soil sampling, with a budget of CAD \$618,000. Phase 2 involves diamond drilling for a total of 9,000 meters, core logging, mineralized drill core sample assaying, and the generation of a work report with categorized resource calculations, amounting to CAD \$3,055,000. The combined budget for Phases 1 and 2 is CAD \$3,673,000, with an additional 15% allocated for supervision, management, and contingencies.

Several recommendations for enhancing mineral resource understanding are provided, including infill drilling, continued exploration in open mineralization areas, and the implementation of quality assurance and quality control measures. Other suggestions involve updating underground workings information, conducting grade shell analysis for gold and silver separately, and reviewing mineralized intervals outside modeled veins for potential inclusion in geological interpretation and resource estimation. Additionally, a monthly mine reconciliation is recommended to identify and address potential issues in the estimation process or data quality. Lastly, a drill hole spacing study is suggested to determine optimal spacing for Measured, Indicated, and Inferred resources.

Due to the presence of naturally occurring carbon in the ore, a carbon in the leach process must be used to maximize gold recovery from oxide ore. To minimize cyanide consumption, it is necessary to carry out pre-aeration and add sufficient lime to achieve a constant pH prior to adding cyanide. Any plant to treat ore from Callanquitas must also have a separate flotation circuit to treat ore containing sulphides.

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## 2 INTRODUCTION

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PPX Mining Corp. (“PPX”), a Canadian company (TSX.V: PPX.V, SSE: PPX, BVL: PPX) based in Toronto, Ontario; previously known as Peruvian Precious Metals Corp., operates as an exploration-stage company with a primary focus on acquiring, exploring, and assessing mineral properties. The company engages in joint venturing, developing properties further, or disposing of them upon completion of the evaluation process.

PPX is specifically committed to exploring and advancing the Igor property through its subsidiary, Sienna Minerals S.A.C (“Sienna”). The Igor gold and silver project is located in a notable metallogenic belt named as XXIB, characterized by epithermal deposits hosted in sedimentary rocks in northwestern Perú approximately 150 kilometres northeast of the city of Trujillo in the Huaranchal district of the Region de La Libertad.

Sienna benefits from a strategic partnership with Proyectos La Patagonia S.A.C. (“PLP”), a key collaborator assisting in the mining operations on the Igor property in the area known as the Callanquitas Gold-Silver deposit, operated under the name of the Callanquitas Mine. The Igor property encompasses three exploration targets: Portachuelos, Domo, and Tesoros, each with early exploration activities, including a spaced diamond drilling. There is the potential to enhance resources in the future through additional drilling efforts.

The previous Mineral Resource Estimate, dated July 28, 2018, reported in the “Technical Report and Pre-Feasibility Study (“PFS”) for the Callanquitas Gold-Silver deposit, Igor Project, Region de La Libertad, Perú,” prepared by Mine Development Associates (“MDA”), incorporated results from drilling up to May 2018, alongside information from underground exploration and test mining activities. The Minera Resource include two major splays have been named “Callanquitas Oeste” and “Callanquitas Este”.

Post-May 2018, Sienna continued exploration, completing five (5) additional drillholes in the Tesoro area through September 2018 that was included in the database, while underground channel sampling in Callanquitas persisted from August 2018 to September 2019 and in July 2023.

Concurrently, mining activities at Callanquitas Este post-May 2018 played a role in improving the geological understanding and reinterpretation of mineralized structures. Additionally, these operations led to the depletion of previously estimated resources.

The various factors mentioned have resulted in significant changes to the initial resource estimates from 2018 by MDA. As a result, Mining Plus was commissioned to conduct an update on the resources with the latest information that includes mainly the underground channels post-May 2018, new geological interpretation, and appropriate depletion with the mining activities.

## 2.1 Terms of Reference

Mining Plus Peru S.A.C. (“Mining Plus”) was requested by PPX to update the Mineral Resource Estimate and subsequent prepare the NI 43-101 Technical Report for the Callanquitas Gold-Silver deposit in the Igor Property in Northern Peru, this document is titled “NI 43-101 Technical Report Updated Mineral Resource Estimate of Callanquitas Gold-Silver deposit and potential of Igor Project on Otuzco - Huaranchal, La Libertad – Peru”.

Additionally, Geologica Groupe-Conseil Inc. (“Geologica”) was commissioned to assess the existing mineralization and its potential to increase resources in the primary exploration targets, namely Portachuelos, Domo, and Tesoros.

The purpose of this report is to provide a technical summary for the Callanquitas gold – silver deposit, including an updated estimate of the mineral resources and additional revision of the exploration target in the properties.

## 2.2 Qualified Person and the personal inspection on the property

The Mineral Resources Estimate was estimated by Ms. Maria Muñoz, a member of the Australian Institute of Geoscientists (“MAIG”), Ms. Muñoz is a full-time employee of Mining Plus and she is an independent Qualified Person (“QP”) as defined by the National Instrument 43-101. Mrs. Muñoz visited the Callanquitas Mine on January 17 – 19, 2024. This site visit included discussing the project status, evaluating the current drilling, and sampling program, conducting field verification of the drilling, investigating representative exposures in road cuts and outcrops, and reviewing the project geology.

Mr. Alain-Jean Beauregard, Mr. Eddy Canova, and Mr. Daniel Gaudreault, all full-time employees of Geologica and recognized as independent Qualified Persons (“QP’s”) under the National Instrument 43-101, conducted an assessment of the geological potential of the Portachuelos, Domo, and Tesoros mineralized zones. During their visit to the Igor Property from November 3 to 7, 2023, Mr. Beauregard and Mr. Canova thoroughly examined and sampled the core, underground workings, and adits, with a specific focus on the three primary mineralized zones. Geologica is an independent mining exploration consulting firm based in Val-d’Or (Quebec), Canada.

Mr. Peter Kondos, PhD., a full-time employee of YaKum Consulting Inc. and recognized as an independent Qualified Person (“QP”) under the National Instrument 43-101, conducted an assessment of the Metallurgy aspect related to the different work developed in Callanquitas Gold-Silver deposit. Mr. Kondos did not conduct a site visit, as it was deemed unnecessary based on the outlined responsibilities in this document.

The Qualified Persons for “NI 43-101 Technical Report Updated Mineral Resource Estimate of Callanquitas Gold-Silver deposit and potential of Igor Project on Otuzco - Huaranchal, La Libertad – Peru”, are detailed in the Table 2-1.

*Table 2-1 Qualified Persons*

Firm	Name	Chapter
Mining Plus Peru S.A.C.	Ms. Maria Muñoz Lizarve	1, 2, 3, 4, 5, 6, 10, 11, 12, 14, 25, 26 and 27
Geologica Groupe-Conseil Inc.	Mr. Alain-Jean Beauregard	1, 7, 8, 9, 12, 23, 25, 26 and 27
	Mr. Eddy Canova	1, 7, 8, 9, 12, 23, 25, 26 and 27
	Mr. Daniel Gaudreault	1, 7, 8, 9, 23, 25, 26 and 27
YaKum Consulting Inc.	Dr. Peter Kondos	1, 13, 25 and 26

### 2.3 Effective Date

The effective date of the mineral resources presented in this technical report is September 30, 2023. The database utilized to underpin the mineral resources is as of July 2023, and the depletion takes into account the mined resources until the end of September 2023. Additionally, it involves a geological reinterpretation of mineralized structures based on knowledge gained from mining operations.

The effective date of this technical report is December 31, 2023. The 2018 Pre-Feasibility Study is no longer current and as such should not be relied upon.

### 2.4 Sources of Data

This document represents an update to the previous Technical Report and Pre-Feasibility Study (“PFS”) for the Callanquitas Gold-Silver deposit, Igor Project, prepared by MDA in July 2018 (“NI 43-101, 2018” onward). In this update, sections or chapters have been amended based on recent work and additional information to report Mineral Resources. Any chapters not pertinent to this update and presently not in effect are excluded from this updated technical report.

Furthermore, PPX provided internal reports, the database of drillholes and underground channels, geological interpretation, 3D geological modeling, among other documents, along with all pertinent supporting documentation.

This report heavily relies on data from PPX and previous independent reviewers. The authors thoroughly reviewed available data, exercising judgment on its general reliability. In cases of inadequate or unreliable data, exclusions or adjustments were made. The author conducted

independent investigations to reasonably present conclusions, interpretations, and recommendations.

Mining Plus and Geologica assume the accuracy of the information used in this report. They believe expressed interpretations are reasonable and grounded in the mining operation's understanding and current comprehension of mineralization processes and geological context. Mining Plus and Geologica formed independent opinions based on this input and provided data.

## 2.5 Frequently Used Acronyms, Abbreviations, Definitions, and Units of Measure

In this report, measurements are generally reported in metric units. Where information was originally reported in Imperial units, the authors have made the conversions as shown below. In cases of metallurgical tests, if the original data was reported in Imperial units, those are retained to avoid changes in precision and rounding.

Currency, units of measure, and conversion factors used in this report include are shown in Table 2-2.

*Table 2-2 Units of measure and Conversion Factors*

	Units of measure	Conversion Factors	
<b>Linear Measure</b>	1 centimeter	0.3937 inch	
	1 meter	3.2808 feet	1.0936 yard
	1 kilometer	0.6214 mile	
<b>Area Measure</b>	1 hectare	2.471 acres	0.0039 square mile
<b>Capacity Measure (liquid)</b>	1 liter	0.2642 US gallons	
<b>Weight</b>	1 tonne	1.1023 short tons	2,205 pounds
	1 kilogram	2.205 pounds	

Currency Unless otherwise indicated, all references to dollars (\$) in this report refer to currency of the United States

Frequently used acronyms and abbreviations

AA	atomic absorption spectrometry
Ag	silver
Au	gold
cm	centimeters
core	diamond core-drilling method
CAD	Canadian dollars
°C	degrees centigrade
°F	degrees Fahrenheit

ft	foot or feet
g/t	grams per tonne
ha	hectares
ICP	inductively coupled plasma analytical method
in	inch or inches
kg	kilograms
km	kilometers
kW	kilowatts
kWH	kilowatt-hours
l or L	liter
lbs	pounds
µm	micron
m	meters
m <sup>2</sup>	square meters
m <sup>3</sup>	cubic meters
Ma	million years old
mi	mile or miles
mm	millimeters
NSR	net smelter return
oz	ounce
ppm	parts per million
ppb	parts per billion
QA/QC	quality assurance and quality control
RC	reverse-circulation drilling method
RQD	rock-quality designation
t	metric tonne or tonnes
tpa	metric tonnes per annum
tpd	metric tonnes per day
tph	metric tonnes per hour
tpy	metric tonnes per year

### 3 RELIANCE ON OTHER EXPERTS

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The author is not expert in legal matters, such as the assessment of the validity of mining claims, mineral rights, and property agreements in Peru or elsewhere. The author did not conduct any investigations of the environmental, tax, or political issues associated with the Igor project, and are not experts with respect to these matters. The author has therefore relied fully upon information and opinions provided by PPX Mining Corp. (“PPX”), which expresses the following:

The details presented in Sections 4.2 and 4.3 derive from the Limited Title Report on the “Predios de PPX en el Perú,” dated November 10, 2018. This report was compiled by Mrs. Liliana Garfias, a Mineral Land Consultant for PPX, and has undergone a review and update as of February 2, 2024.

- Section 4.2, which pertains to mineral and surface land tenure; and
- Section 4.3, which pertains to legal agreements and encumbrances.

For sections 4.4, 4.5, information and opinions were provided by Mr. Marcial Gutierrez, Geology manager in Sienna Mineral S.A.C. subsidiary of PPX and the independent lawyer consultant Liliana Garfias.

The author has fully relied on PPX to provide complete information concerning the pertinent legal status of PPX and its affiliates, as well as current legal title, material terms of all agreements, and material environmental and permitting information that pertains to the Igor project.

## 4 PROPERTY, DESCRIPTION AND LOCATION

The author is not expert in land, legal, environmental, and permitting matters and can therefore express no opinion regarding these topics as they pertain to the Igor project. However, the author does not know of any significant factors and risks that may affect access, title, or the right or ability to perform work on the property, beyond what is described in this report.

Figure 4-1 shows the ownership details of PPX companies in Peru.

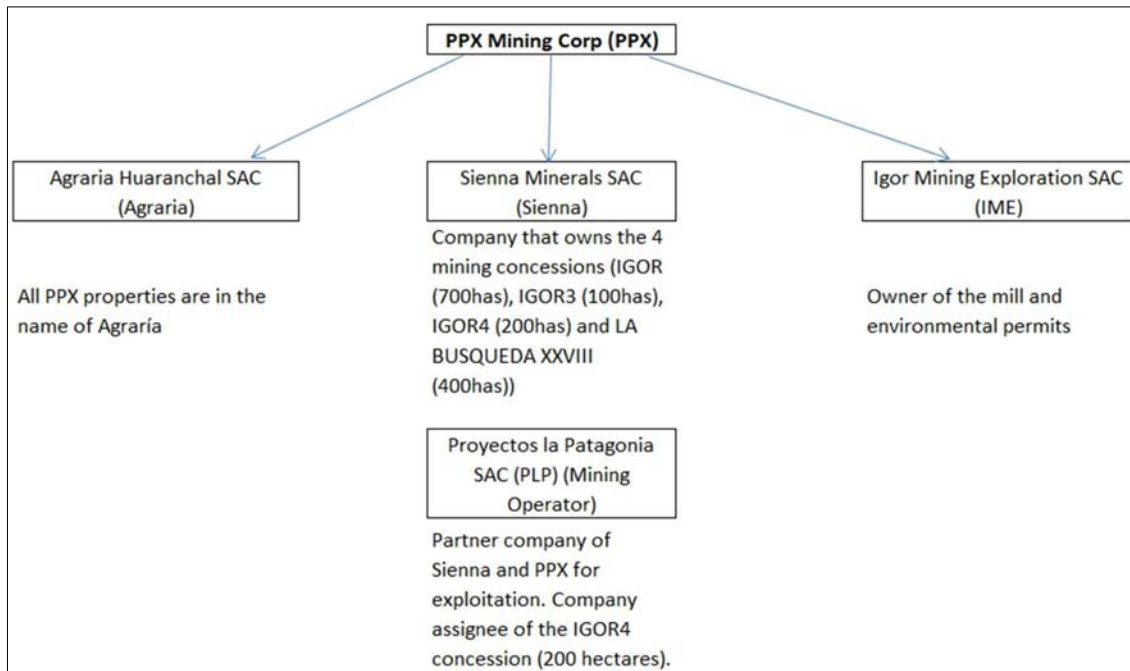


Figure 4-1 Ownership details of PPX companies in Peru

### 4.1 Area and Location

The Callanquitas gold–silver deposit is located in northwestern Perú approximately 150 kilometres northeast of the city of Trujillo, in the Huaranchal district of the Region de La Libertad (Figure 4-2), which until 2002 was known as the Departamento de La Libertad. The project is located within a mining property that consists of four contiguous and overlapping mining concessions centred at approximately 781,746E and 9,153,629N UTM WGS84 Zone 17S as shown in Figure 4-3.



Figure 4-2 Location of the Igor Project, Perú (PPX, 2024)

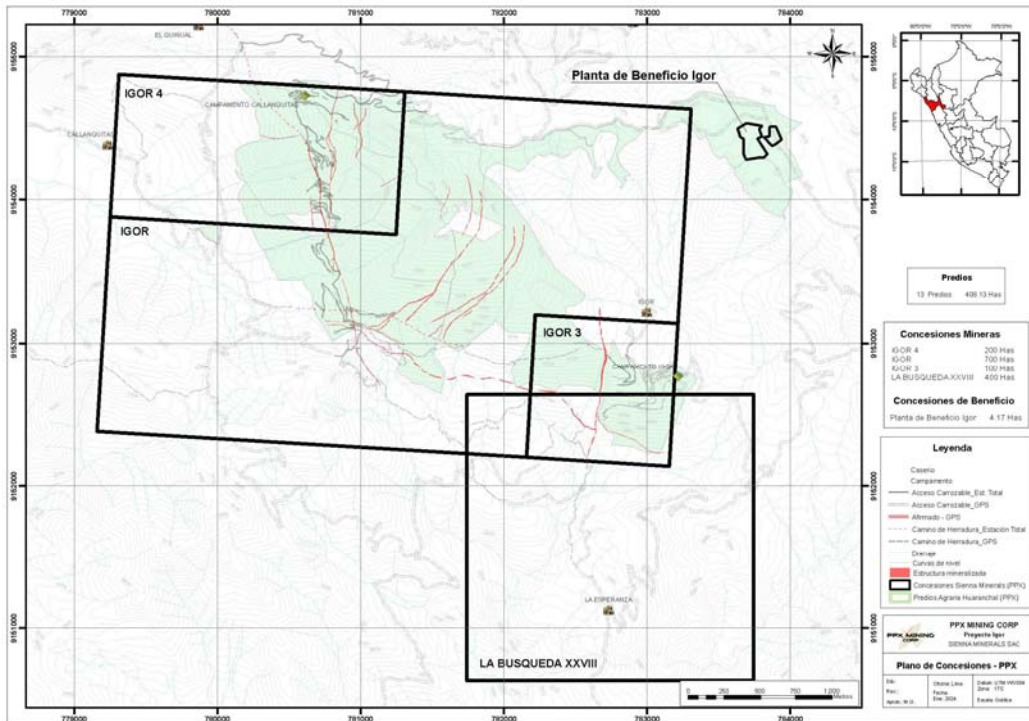


Figure 4-3 Igor Project Property Map (PPX, 2024)



## 4.2 Land Area

The four concessions of the Igor property are summarized in Table 4-1. Accounting for their overlapping configuration (Figure 4-3), the four concessions occupy approximately 1,300 hectares effective.

*Table 4-1 Mining Concessions of the Igor Property*

Concession	Area (ha)	Recording Date	Recording Number	Owner
Igor	700	27/05/2005	20000192	Sienna Minerals
Igor 3	100	27/05/2005	11313877	Sienna Minerals
Igor 4	200	27/05/2005	11313881	Sienna Minerals
La Busqueda XXVIII	400	15/09/2010	11024783	Sienna Minerals

PPX holds 100% ownership of the Igor mining concessions, which are of the metallic type, through its wholly owned subsidiary Sienna Minerals S.A.C. The mineral rights to these concessions are subject to the paramount title of the Republic of Perú, administered by the Instituto Geológico Minero Metalúrgico de Perú (“INGEMMET”). Under the General Mining Law of Perú, the title holder has the right to explore, develop and exploit metal mineral mines. The concessions do not expire if the requirements to maintain the concessions under the General Mining Law are met. Mining concessions are granted without a term or time limit, and can be held indefinitely, provided that the obligations thereunder are discharged by the mining titleholder. For the Igor property, these obligations include the payment of annual license fees that total \$3,605.45 and have been paid through December 2023. Before June 2024, the deadline accepted by the authority, the validity of the current year 2024 will be paid.

Holders of valid mining concessions are also obligated to invest in the exploration and exploitation of minerals and must reach certain production levels no later than the expiration of the tenth year, calculated from the following year in which the title was granted. If minimum production levels are not reached, a series of escalating penalties are imposed. The title holder of the property can avoid the application of these penalties by annual investment. In the case of the Igor property, PPX is required to produce minerals with a value of \$1,524,801 in 2024 or invest \$1,337,961 in 2024 to avoid the application of the penalties and maintain the property in good standing.

If the minimum production is not reached at the end of 30 years since the following year in which the title concession was granted, the termination of the mining concession must be declared by the Mining and Metallurgical Geological Institute of Perú (“INGEMMET”). The

thirty years are completed in 2039, (Art. 8 Decreto Supremo No. 011-2027-EM) according to internal calculations of INGEMMET.

Surface rights granting access to, and disturbance of the surface of the Igor property for exploration and mining activities are held by PPX through their subsidiaries Agraria Huaranchal S.A.C., which collectively own 408.14 hectares of property known as “predios” within and adjacent to the Igor concessions (Figure 4-3). PPX represents that these “predios” provide adequate access and surface rights for the potential exploitation of the Callanquitas deposit and access of other targets of Igor (Portachuelos, Domo, Tesoros). Municipal taxes must be paid to maintain ownership of the “predios”. These taxes are estimated to be approximately \$7,000 per year.

### 4.3 Agreements and Encumbrances

There are royalties on mineral production from the Igor properties of the NSR 2% payable to Rivi Oportunity Fund LD.

There are no payments required for surface access rights, or other underlying agreements relating to any of the claims other than the municipal surface property taxes and annual of validities mining concession fees summarized above.

The total estimated annual concession and land holding costs are \$86,845 (maximum amount with no activity in the concessions) as summarized in Table 4-2.

*Table 4-2 Summary of Annual Concession and Land Holding Costs*

Item	Estimated Annual Cost (\$)
Annual Concession Fees	\$ 3,605
Investment in Lieu of Required Minimum Production Values (penalty)	\$ 76,240
Municipal Property Tax	\$ 7,000
<b>Total</b>	<b>\$ 86,845</b>

### 4.4 Environmental Liabilities

PPX declares that there are plans to close and transfer some components used in exploration for the current Mina Callanquitas mine and its expansions. There are no materially significant environmental liabilities associated with disturbances caused by exploration activities within the Igor property.

### 4.5 Environmental Permitting

Several environmental permits are required to develop the project in Igor, for exploration, exploitation and for the plant. PPX through its subsidiaries and partners obtained and is in process the following:

- Aprobación de la Declaración de Impacto Ambiental (DIA) del Proyecto de Explotación Callanquitas, for exploitation within the Igor 4 concession. This is valid until March 2026 and is regulated by the Gerencia Regional de Minería de La Libertad (GREMH – LL).
- Aprobación del Estudio de Impacto Ambiental Semidetallado (EIASd) del Proyecto Planta de Beneficio Igor at the end of 2018, additionally, a current modification of the EIASd has been endorsed, extending its validity for a new five-year period from February 2024 to February 2029, which is regulated by the Gerencia Regional de Minería de La Libertad (GREMH – LL).
- Certificado de Identificación de Restos Arqueológicos (“CIRA”), for exploration, exploitation and benefit plant, regulated by the Ministerio de Cultura.
- Certificado de tratamiento de aguas servidas from the Dirección General de Salud Ambiental e Inocuidad Alimentaria (“DIGESA”) (2010).
- Aprobación del Permiso de uso de explosivos (2016).
- Aprobación del Licencia de uso de aguas para una actividad industrial de explotación (2017).
- Aprobación del Declaración de Impacto Ambiental (“DIA”) for exploration within the Igor 4 concession (2017-2021).
- Estudio de Impacto Ambiental Semidetallado (“EIASd”) which is valid until the end of 2019 and is regulated by the Dirección General de Asuntos Ambientales Mineros (“DGAM”).
- Permiso de Uso de Agua for exploration activities, regulated by the Autoridad Nacional del Agua (“ANA”) (2017-2019).

Permits for the plant were obtained in 2018 and the modification from pad leaching to tank leaching plus the sulphide line is currently in process, for future construction. Table 4-3 summarizes the status of the permitting process.

*Table 4-3 Awarded Permits*

Ref	Description	Awarded Date
1	Modification of the EIASd of the Igor plant, which includes leaching in tanks and sulfide line. (Issued by GREM, Regional Directorate of Mines and Energy-Trujillo).	13-02-2024
2	CIRA certificate (Issued by INC, National Cultural Institute), this confirms the non- existence of archeological remains within the new proposed plant area.	13-06-2023
3	Permit Authorization to Start Construction Activities (IA) is approval (Issued by GREM, Regional Directorate of Mines and Energy-Trujillo).	16-01-2019

4	EIAsd approval (Issued by GREM, Regional Directorate of Mines and Energy-Trujillo). Confirming compliance to all Peruvian environmental laws applied to Processing Plants.	19-11-2018
5	Community agreement, Caserio Igor - Processing Plant, covering the life of the project (Processing Plant), initially estimated for 8 years.	20-11-2018

Permits pending approval are summarized in Table 4-4.

*Table 4-4 Pending Approval*

Ref	Description	Expected Date
A	Permit to build and initiate operations of the New Process Plant, referred as F2 (Detailed engineering) and issued by GREM Trujillo.	30-04-2024
B	Permit to use water according to new water availability, according to modification of the plant process. (issued by ANA).	30-03-2024
C	PMA approval (Issued by INC), this is an Environmental Monitoring Plan (Plan Monitoreo Ambiental - PMA) that Processing Plant can use to start work within the CIRA approved area. The PMA also assigns an (approved) archeologist to supervise the work.	30-04-2024

PPX declares that it has obtained the necessary environmental permits for exploration, exploitation, and processing plant activities. Obtaining permits for the modification and construction of the new processing plant engineering is in process, and has not yet been completed as of the effective date of this report.

## 5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The information presented in this section is based on the NI 43-101, 2018 report created by MDA. The author has examined this information and is of the opinion that this summary is materially accurate.

### 5.1 Access to Property

From the city of Trujillo there are two land routes for access to the property as shown in Figure 5-1. Both routes consist of a combination of paved and unpaved roads. The northern route through the towns of Chicama, Sausal, 9 de Octubre and Lucma totals approximately 145 kilometers. The southern route through Otuzco and Huaranchal is approximately 157 kilometers and requires about two more hours of travel time. The city of Trujillo has commercial airline service to the cities of Lima and Cuzco, Perú, and may be reached in approximately eight hours driving time from Lima via the Pan-American Highway.

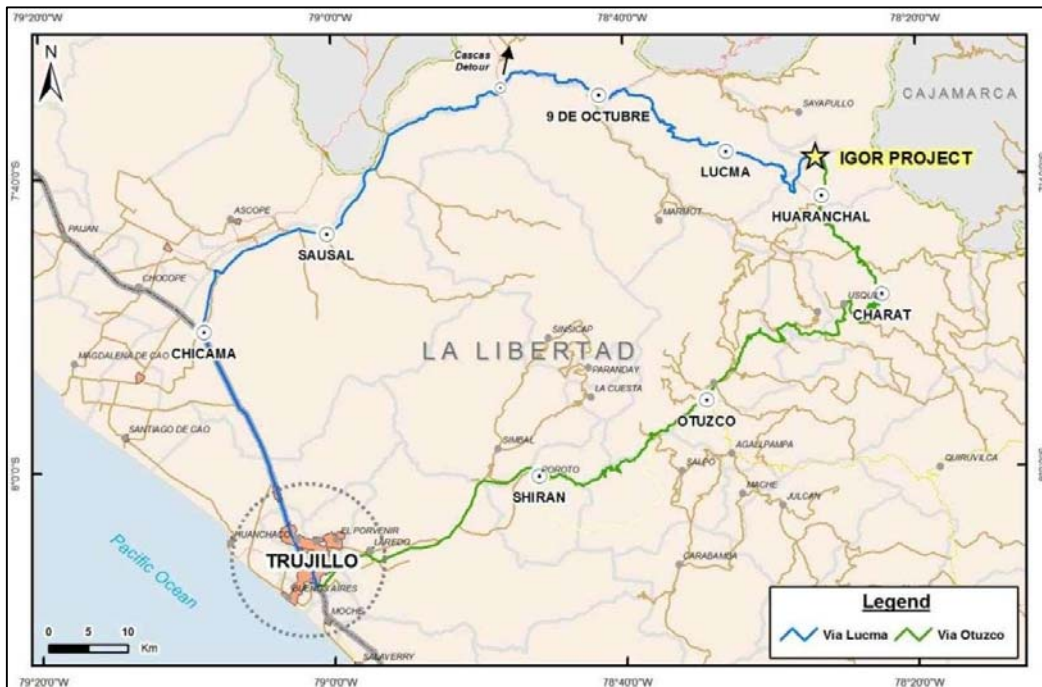


Figure 5-1 Access Map for the Igor Project, Perú (MDA, 2018)

The surface rights as described in Section 4.3 are sufficient for the mining and exploration activities proposed in this report.

## 5.2 Climate

Temperature and precipitation data for the town of Huaranchal, 5.5 kilometers south of the Igor property, are summarized in Table 5-1. The area is characterized by cool dry winters, and temperate rainy summers. Because the Igor property is approximately 700 meters to 1,700 meters higher in elevation than Huaranchal, minimum temperatures during the Andean winter can reach below 0°C, and maximum temperatures are generally lower than those shown in Table 5-1.

Mining and exploration can be conducted year-round.

*Table 5-1 Average Climate Conditions at Huaranchal, Perú (MDA, 2018)*

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature (°C)	16.5	16.2	16.2	15.8	14.7	13.9	13.9	14	14.7	15.4	15.3	15.8
Min. Temperature (°C)	10	9.8	9.7	9.2	7.1	5.4	5.4	5.8	7	8.3	8	8.5
Max. Temperature (°C)	23.1	22.7	22.7	22.4	22.4	22.4	22.4	22.2	22.4	22.5	22.7	23.1
Avg. Temperature (°F)	61.7	61.2	61.2	60.4	58.5	57.0	57.0	57.2	58.5	59.7	59.5	60.4
Min. Temperature (°F)	50.0	49.6	49.5	48.6	44.8	41.7	41.7	42.4	44.6	46.9	46.4	47.3
Max. Temperature (°F)	73.6	72.9	72.9	72.3	72.3	72.3	72.3	72.0	72.3	72.5	72.9	73.6
Precipitation / Rainfall (mm)	79	96	130	53	11	4	2	4	12	41	29	39

Note: source: <https://en.climate-data.org/location/875088/>

## 5.3 Physiography and Vegetation

The property includes extremely rugged to rolling mountainous terrain. Elevations in the area range between 2,800 meters and 3,800 meters, with abrupt topographic transitions. Slopes on the southern parts of the Igor concession and the La Busqueda XVIII concession are less severe. There are sites within the concessions and surface holdings potentially suitable for mine infrastructure such as waste rock and tailings storage, heap leach pads, and a process plant area.

At lower elevations of the property, vegetation consists of mixed brush, grasses, and trees. The upper elevations are mainly rocky alpine grasslands with sparse brush, such as at Cerro Igor (Figure 5-2).

## 5.4 Local Resources and Infrastructure

Electrical power from the regional system is available within the project area but is insufficient for the project’s proposed requirements. Diesel-powered generators are presently in place and supply electrical power for the underground workings at the Callanquitas mine. As discussed in Section 4.2, PPX controls sufficient surface rights for access, exploration, and

mining operations. Water supply for the mine will be collected from a river and pumped to a reservoir with a capacity of 1,000 m<sup>3</sup> and will be treated for purification. The installation of upgraded power grid is being investigated.



*Figure 5-2 View of Cerro Igor and Adjacent Ridge (MDA, 2018)*

Currently, there is a camp at the project site to accommodate mining personnel. The project camp facility comprises dormitories, laundry services, and sanitary facilities, all equipped with heating and hot water amenities. Additionally, a designated dining area is provided for meals and recreational purposes, there is a lounge area for non-working hours activities.

In the region, several towns and small cities offer an adequate supply of skilled and unskilled labor suitable for a mining operation. The villages of Callanquitas and Igor serve as sources of manual labor, complementing PPX's community social programs. The city of Trujillo provides access to engineering and industrial equipment and services, fuel, banking, telecommunications, and transportation services.

## 6 HISTORY

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The details presented in this section are derived from the NI 43-101, 2018 report prepared by MDA. The author has thoroughly reviewed this information, held discussions with key personnel at Sienna, and is confident that this summary is accurate.

### 6.1 Exploration History

The Igor project’s name derives from the son of a Russian immigrant who explored the area in the 1880s, but there are shallow underground workings believed to date from as early as the 1500s. The Igor concessions were recorded in 1979. In the 1980s, mineralized mantos (stratabound type) on the eastern side of Cerro Bola de Igor were exploited for gold and silver and there is a now abandoned, 50 tpd gold processing plant located close to the village of Igor.

At some point after the 1980s, the Igor concessions were acquired by Mr. Samuel Guia. In 1998, Mr. Guia optioned the property to Rio Amarillo Gold Ltd., but the option was not exercised, and ownership of the property reverted to Mr. Guia. In 2001, Matrix Gold Mining Investment S.A. (“Matrix”) entered into a purchase option agreement with Mr. Guia for the property. In June of 2005, Sienna Minerals S.A.C. (“Sienna”), the Peruvian, wholly owned subsidiary of Sienna Gold Inc., purchased a 60% interest in the Igor concession from Matrix. Sienna purchased the remaining 40% interest from Matrix in 2006 and purchased the Busqueda XVIII concession from Vena Resources in August of 2010. Sienna Gold Inc. changed its name to Peruvian Precious Metals Corp (“Peruvian”) in July of 2013. In August of 2016, Peruvian changed its name to PPX Mining Corp, retaining 100% ownership of the property through its subsidiary Sienna. Exploration conducted within the Igor property by Sienna Gold Inc., Peruvian and PPX are discussed in Section 9.0 of this report.

### 6.2 Historic Mineral Resource Estimates

There have been no historical resource estimates completed on the Callanquitas property.

### 6.3 Mining Production

In the area, there is evidence of artisanal production within the Igor property, specifically in the exploration targets of Tesoros, Domos, and some other minor structures. There is no record of mineral production before 2016. From October 2016 to Sep 2018, PPX commenced underground test mining and bulk sampling of the Callanquitas Este vein. A total of 31,437 tonnes with an average gold grade of 8.56g Au/t were mined and toll processed at the off-site cyanide carbon-in-leach plant of Silver Cascas S.A.C. Approximately 7,042 ounces of gold have been produced for an average gold recovery of 81.2%, and there was no recovery of silver from this material.



From July 2017 to December 2023, there has been small-scale production at a rate of 101 tonnes per day (tpd), with a cumulative tonnage of 244,255 tonnes and an average grade of 9.62 g/t Au. This ore has been toll processed at the off-site Malin plant of Silver Cascas S.A.C. (“Silver Cascas”) and Las Lomas Doradas S.A.C. Approximately 59,489 ounces of gold have been produced, with an average gold recovery rate of 78.79%. There was no recovery of silver from this material until March 2021, after that and until December 2023, 184 g/t Ag producing 369,597 ounces of silver. PPX has reported “direct cash costs” of \$262/tonne processed.

## 7 GEOLOGICAL SETTING AND MINERALISATION

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The details provided in this section are drawn partially from the NI 43-101, 2018 report prepared by MDA and the recent review done by Geologica Groupe-Conseil (“Geologica”). The author has reviewed this information and is confident that this summary is accurate.

### 7.1 Regional Geologic Setting

The Igor project is situated within the XXIB belt of Au-Ag epithermal deposits hosted in sedimentary rocks in northern Peru. As reported by INGEMMET in 2018, the region features high-sulfidation epithermal deposits embedded in lower Cretaceous siliciclastic sequences of the Goyllarisquizga Group, with a mineralization age ranging between 18 and 14 million years. These deposits are situated in fractured sequences of the Chimú Formation, with a thickness varying from 500 to 900 meters and comprising four members of quartzites, sandstones, and shales with coal layers. The basal members exhibit a higher shale content, accompanied by coal layers.

Mineralization occurs in fracture systems such as disseminated veins and stockwork, with metal contents ranging from combinations of Au-Ag-Cu at the base to Au-Ag at the top. Towards the top, mineralization also occurs in breccias, lenticular structures, and in the form of a manto. Rocks undergo alteration including silica, quartz-alunite, quartz-sericite, and argillic alteration. Among the prominent deposits are Lagunas Norte (Alto Chicama), La Virgen, Santa Rosa, Rosario de Belén, Shahuindo, among others.

The observed geological structures in the region indicate strong tectonism caused by late Cretaceous orogenesis and subsequent movements, resulting in compressed folding and block dislocations. On average, the major structures trend NNW. Volcanic rocks do not show significant deformation (Cossio, 1964).

### 7.2 Local Geology

The Igor project is situated in the Cordillera Occidental of the Peruvian Andes, which is part of the Andean fold and thrust-fault belt and has undergone multiple episodes of east-northeast vergent compressional deformation related to Cenozoic convergence of the Nazca and South American plates. The local geology is characterized by multiple northwest-southeast striking anticlines and synclines that are largely upright and have been cut by southwest-dipping thrust faults. Marine shale and intercalated sandstone and quartzite sequences of the Upper Jurassic Chicama Formation are the oldest rocks exposed in the cores of the anticlines (Figure 7-1).

The Chicama Formation is overlain by the Lower Cretaceous Chimú Formation, consisting of quartz arenite with intercalated thin black shale and local coal seams, which in turn is overlain

by several marine sedimentary units of lower Cretaceous age (Figure 7-1). Largely subaerial volcanic rocks of the mid-Eocene to Miocene Calipuy Group unconformably overly the Mesozoic sedimentary rocks and several Paleogene and Neogene stocks and dikes of felsic to intermediate compositions have intruded the major folds.

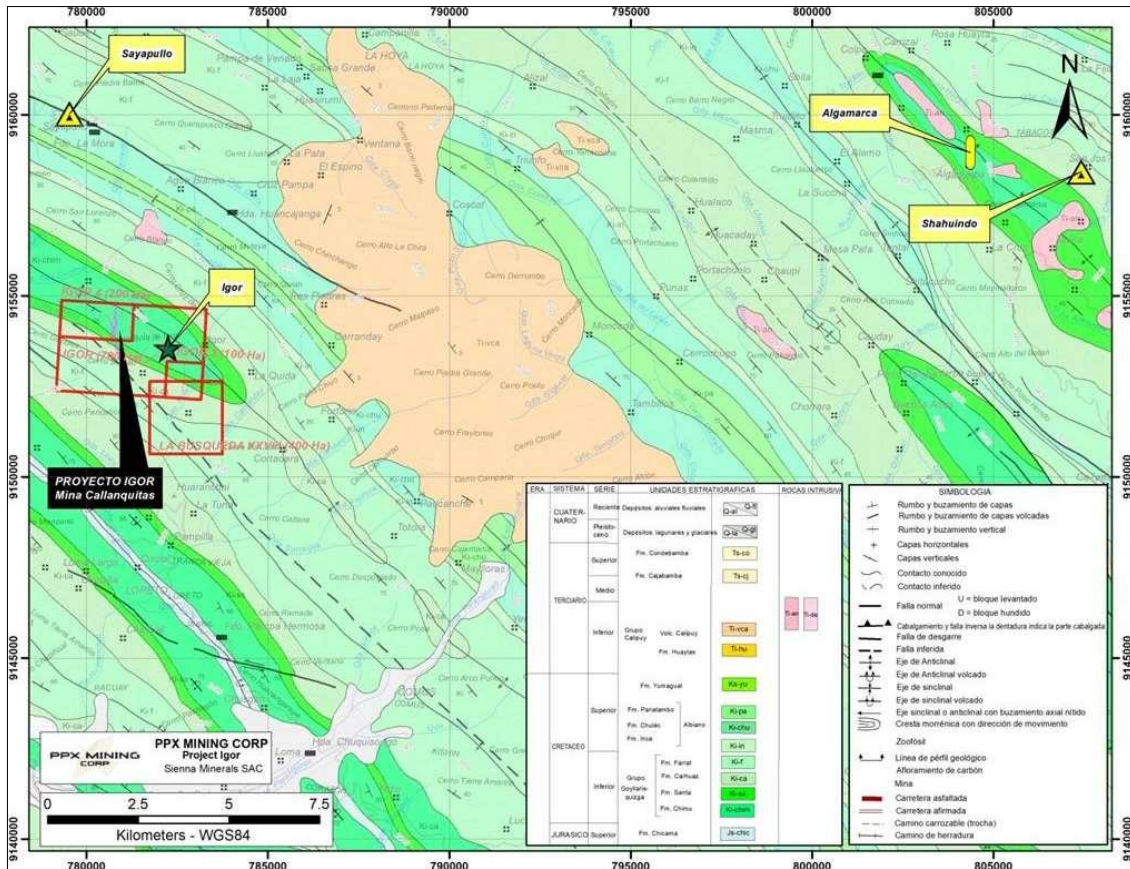


Figure 7-1 Local Geology of the Igor Project Area (PPX, 2018)

### 7.3 Property Geology

The Igor project is centered on the informally named, northwest-striking, southeast-plunging Igor anticline, a major fold and topographic high that largely consists of the Chimú Formation quartz arenite in its core. Overlying the Chimú, and occurring on the limbs of the anticline, are a clastic sedimentary sequence of interlayered, lensing sandstone, siltstone, and thin black shale seams, which is assigned to the Santa and Carhuaz Formations.

A dacite porphyry stock (locally named the Huevo de Condor stock), and sills out crop within the southwestern limb of the anticline. Dacite porphyry dikes, thought to be emanating from the stock, occur within the northwest-trending anticlinal axis and within north- and northeast-

trending structural zones cutting the anticline. The dacite intrusions are pre-mineralisation although there appears to be some spatial association with mineralization. It is likely that the same structural zones which were favorable for intrusive emplacement, were amenable to later hydrothermal fluid movement and subsequent mineralization. Minor granodiorite is present in some of the deep drillholes. The entire sequence has been cut by a variety of northwest-, northeast- and north-trending faults (Figure 7-2).

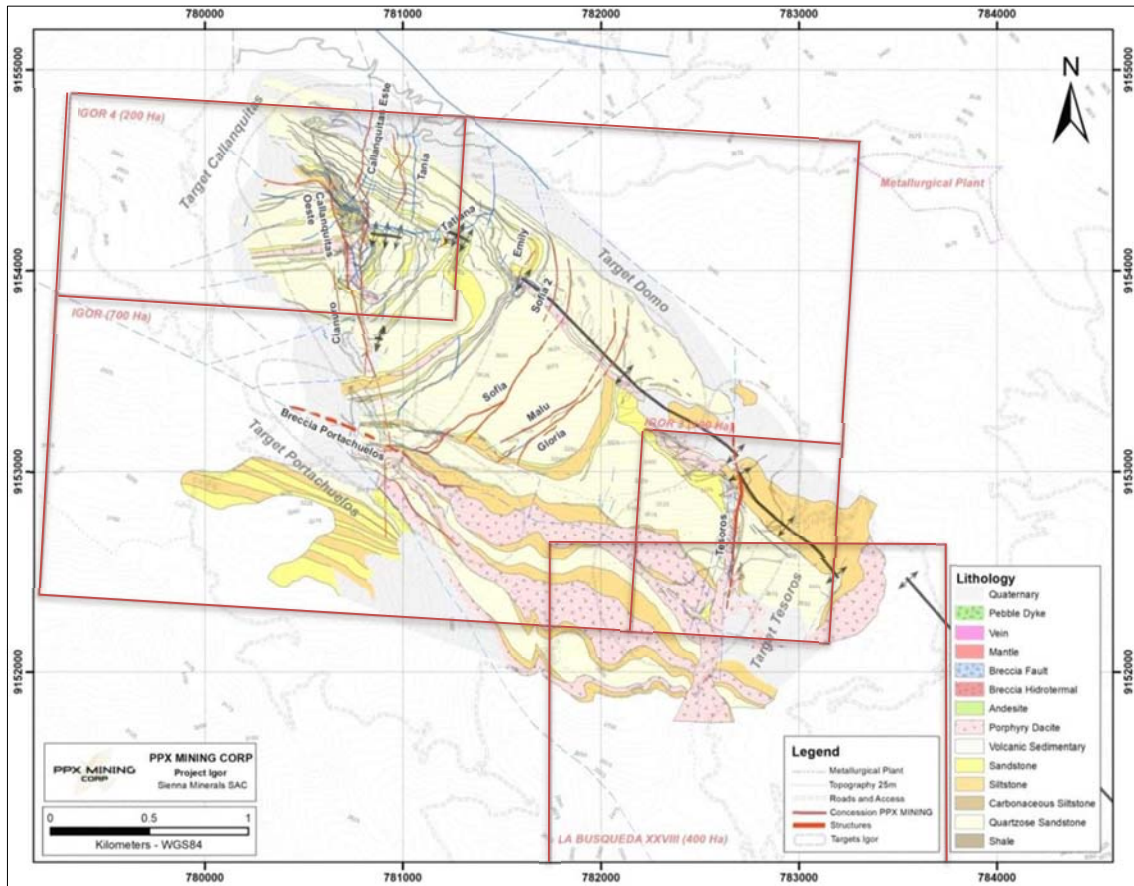


Figure 7-2 Igor Property Geologic Map (PPX, 2018)

The crest of the Igor anticline is transected obliquely by the approximately north-south trending, near-vertical Callanquitas fault and vein system (Figure 7-2), that is at least 2.4 kilometers in length, and as much as 8.2 meters in width. It has been referred to as the “Callanquitas Structure” by Davis and Sim (2013) and consists of multiple fault splays, fault breccia and gouge, hydrothermal breccias, discontinuous narrow veins, vein breccias, stockworks, and brecciated porphyritic dacite dikes. Two major splays have been named “Callanquitas Oeste” and “Callanquitas Este” (Figure 7-2). Because the individual Callanquitas mineralized zones have an over-all vein-like morphology, and gold-silver mineralization within it is not as wide as the entire host fault zone, for the purpose of reporting the mineralized

zone, the author prefers the term "Callanquitas vein" when referring to the gold-silver deposit.

## 7.4 Mineralization

Igor project mineralization occurs within four primary target areas: Callanquitas, Domo, Tesoros, and Portachuelos (see Figure 7-2). Mineralization within the property often occurs at the transition zone from Chimú up into the Santa and Carhuaz rocks. There is a spatial association of dacite porphyry dikes emplaced within structural breccias with both structural and manto-style mineralization.

The Callanquitas area, which is on the northwest side of the Igor anticline, is the focus of the current resource estimate. Domo and Tesoros, within the east and southeast sides of the anticline, respectively, have had limited drilling and both are areas of minor artisanal mining activity. Portachuelos is an exploration target on the southwest limb of the anticline on trend south of Callanquitas.

### 7.4.1 Callanquitas Veins

The Callanquitas veins (Callanquitas Este, Callanquitas Oeste and Cianuro) occur within a north-south striking zone of multiple, anastomosing to divergent faults that extend over a length of 2,400 meters. Individual veins can be up to 1.5 km long with thicknesses between 0.2 to 8.2 meters. The Callanquitas structures are open along strike to the south and north, and at depth.

The Callanquitas mineralization is considered an intermediate-sulfidation type, consisting of mineralized structural breccias that originally contained variable quantities of pyrite, arsenopyrite, and minor chalcopyrite. These sulfide minerals were subsequently strongly oxidized to significant depths. The primary mineralized structures (Callanquitas Este and Oeste structures) are nearly vertical, but steep westerly dips are common.

The structures cut through a sequence of sandstone, siltstone, and quartzite. The silicified sandstone and quartzite units were more amenable to brecciation, and therefore more favorable for migrating hydrothermal fluids and mineralization. The dacite intrusive rocks are generally argillically-altered, and although the mineralized structures cut through the dacite, the general lack of brecciation and development of open-space renders the intrusions a poor host for mineralization.

Detailed underground mapping by PPX, along with a re-logging of early core holes, indicated multiple stages of veining, brecciation, alteration, and mineralization. The initial events appear to be emplacement of quartz veins within faults, followed by multiple stages of hydrothermal brecciation ("HBx") with associated pervasive silicification, which was then cross-cut by sulfide veinlets. The last stage is a fault gouge or tectonic breccia ("TBx") usually

occurring adjacent or cross cutting the HBx. The highest gold grades are associated with the early quartz and HBx while increased silver occurs with the late-stage sulfide veinlets. The TBx is argillized and appears to be mostly post-mineral in the paragenesis, though it often contains low-grade gold in the range of 0.5 to 1.0 g/t Au. Gold within the TBx is believed to be due to the presence of mineralized clasts within the argillized fault gouge, though there are exposures underground of TBx with oxidized veinlets that can assay up to multiple grams of gold. It is possible that there are multiple TBx events with early-stage faulting prior to the formation of silica-sulfide veinlets.

Drilling indicates that mineralization in the Callanquitas Este and Oeste veins occurs over a 1,400 meters north-south strike length, and extends to depths of up to 500 meters below the topographic surface. Oxidation within the mineralized structures occurs to depths of 200 to 300 meters below surface. Ag/Au ratios are generally low (about 10:1) in the oxide portion of the deposit but can increase to over 100:1 at the oxide-sulfide interface. The change in Ag/Au ratios is not just related to supergene enrichment, but also represents the occurrence of late-stage, silver-rich, silica-sulfide veinlets which cut the more gold-rich hydrothermal breccias.

#### 7.4.2 Domo

Domo mineralization occurs within a zone of bedded-parallel mantos and perpendicular veins along the crest of the southeast end of the Igor Anticline. Gold and silver mineralization is controlled by a series of northeast-southwest trending faults and occurs as oxidized pyritic breccias with variable silicification. The exploration program demonstrated that gold and silver mineralization are often present in mineable grades when a feeder system (vein, pebble dyke etc.) intersects the axial area of a significant anticlinal fold. This type of event resulted in mineralization in the Tesoros saddle reef / mantos. These tectonic conditions also resulted in mineralization at the Domo zone in the topographically highest area of the Igor Concession which is clearly evident in the extensive artisanal workings. Nine shallow (<50 meters) holes were drilled into this zone in 2007. Due to the friable nature of the manto material the first two drillholes, they did not have sufficient core recovery to be useful in making a resource estimate.

The Domo mineralized zone consists of five (5) NNE striking veins, three (3) of which can extend for 1.2 Km. Between 2006 and 2018, thirteen (13) diamond drillholes totalling 1907.78 meters were completed in the Domo zone. In the past, Hole DO-05 has intersected 12.6 g/t Au and 303.1 g/t Ag over 2.8 m.

#### 7.4.3 Tesoros

Tesoros mineralization consists of gold and silver-bearing veins, breccias, and mantos along a major north-northeast striking fault that has localized the emplacement of dacitic porphyries and pebble Dykes.

The Tesoros fault/brecia zone contains an epithermal, high sulfidation mineralized deposit hosted in brecciated Chimu sandstones. The zone contains occurrences of high-grade mineralization. The previous drill program has shown that the breccia zone was cut off by the transverse fault and that the boiling zone of the hydrothermal fluids did not extend below the 3100-meter elevation.

Between 2006 and 2018, a total of 4,283.83 meters of drilling within twenty-two (22) diamond drillholes were completed on the Tesoros zone. Hole TE-18-01 has intersected significant grades of 640 g/t Ag over 1.7 meters within a brecciated and altered zone containing disseminated mineralization and in TE-18-05 intersecting 1.03 g/t Au equivalent over 23.4 meters. The Tesoros Veins Zone is oriented NS and extends over an area of 1.5 kilometres.

#### **7.4.4 Portachuelos**

Portachuelos lies along the southern extension of the Callanquitas structural zone in an area where the north-south Callanquitas structure, and the northeast-trending Domo structures, and trend to the south and southwest into the western portion of the Huevo de Condor dacite porphyry stock. It is an early-stage exploration target which is currently the focus of PPX exploration drilling.

Artisanal workings occur at the junction of a breccia within the transition zone which is associated with a large fault system. Samples collected in 2008 by R. Henkle and M. Lytle, over the mineralized breccia zone (3 to 5 meters wide) had average gold and silver values of 2.8 g/t and 41.6 g/t respectively. Metallic minerals were identified within the gangue quartzite or most rocks which is predominantly composed of quartz as follows: Sphalerite; Pyrite (generally occurs as disseminations within quartz veins and quartzite host rock); Chalcopyrite occurs as fine inclusions within quartz. Goethite and limonite are oxidized minerals appearing as nests, compact material, filling veins and banded aggregates.

Artisanal workings on the Portachuelos structure are on the hillside stretching over 100 m in strike length on quartz vein structures of 1.4 to 3.9 m wide within quartzites in contact with the porphyritic dacites mineralized with pyrite (2% to 25%), visible silver and with 1% to 5% chalcopyrite locally. The structure is open along the strike and at depth.

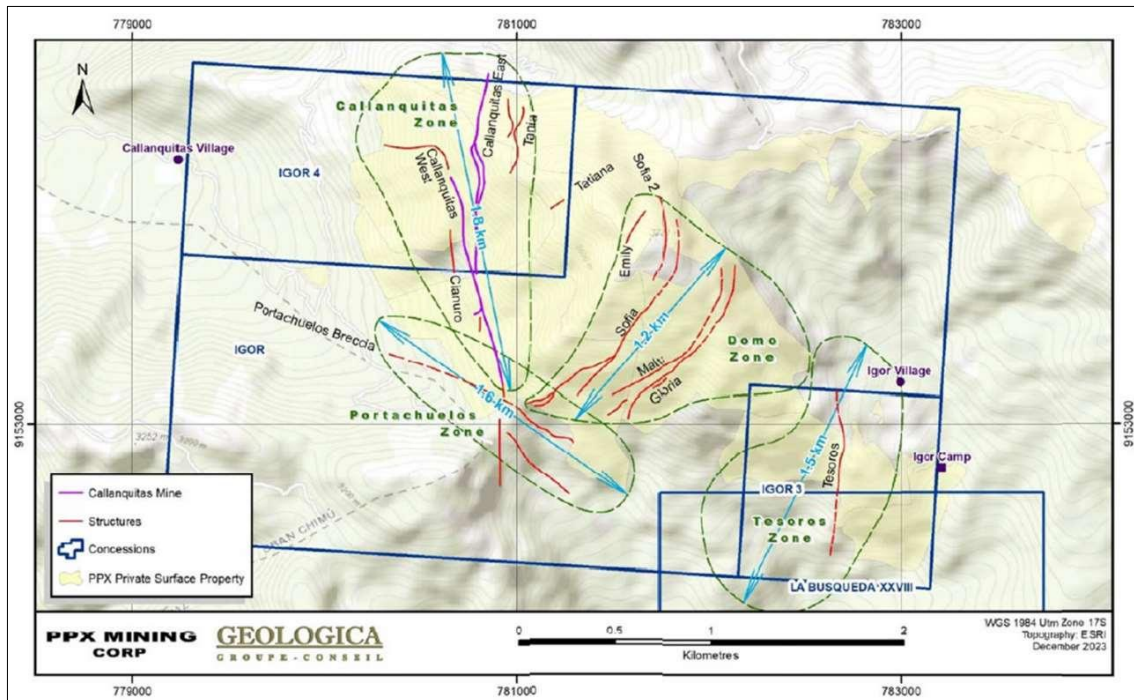


Figure 7-3 Igor project with primary target areas



## 8 DEPOSIT TYPES

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The information in this section is derived from the NI 43-101, 2018 report prepared by MDA. The author has reviewed this information and believes this summary is materially accurate.

Field evidence suggests that the Igor project mineralization belongs to the epithermal type of gold-silver deposit (Guilbert and Park, 1986). In general, epithermal gold-silver deposits are composed of structurally or stratigraphically controlled disseminations or veins that form in a shallow environment (less than or about 1.5 km), and are hosted by volcanic or sedimentary rocks. The mineralization is dominated by gold and silver but can contain variable amounts of copper, lead, and zinc.

Epithermal gold deposits can be placed on a scale between:

- High sulfidation, characterized by quartz-kaolinite-alunite alteration, enargite and other sulfo-salt minerals, or high sulfur oxidation state (Ashley, 1982; Hedenquist, 1987; Bonham, 1988); and
- Low sulfidation, characterized by adularia-sericite alteration.

The setting, alteration, and mineralization characteristics of the Callanquitas deposit are consistent with an intermediate to high-sulfidation epithermal system (Hedenquist et al., 2000). The deposit lacks the characteristic enargite, vuggy residual quartz, and alunite of the high-sulfidation systems and does not have the adularia diagnostic of the low-sulfidation systems.

The Igor project mineralization occurs within mineralized structural breccias that originally contained variable quantities of pyrite, arsenopyrite, and minor chalcopyrite. These sulfide minerals were subsequently strongly oxidized to significant depths.

The Igor project lies in a similar geologic setting, and has a similar intermediate-sulfidation mineral style, as Tahoe Resources' Shahuindo gold-silver mine located about 25 kilometers east of Igor (see Shahuindo location on Figure 7-2). Mineralization at both properties occur within the Lower Cretaceous sedimentary package, and while the Shahuindo mineralization is being exploited as a bulk-tonnage, open-pit deposit, the Shahuindo mineralization does exhibit strong structural control within the siltstone/sandstone host rocks. Dacite porphyry stocks and sills occur at both properties, and these appear to be spatially, if not genetically, related to the gold-silver mineralization.

## 9 EXPLORATION

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The details provided in this section are drawn partially from the NI 43-101, 2018 report prepared by MDA and the recent review done by Geologica Groupe-Conseil Inc. (“Geologica”) and Mining Plus Peru S.A.C (“Mining Plus”). The authors have reviewed this information and are confident that this summary is accurate.

PPX and its predecessors Peruvian and Sienna have carried out surface and underground geologic mapping and sampling, geophysical surveys, and drilling since 2005. Drilling is summarized in Section 10, underground sampling began in 2017 and is summarized in Section 9.4.

### 9.1 Geologic Mapping

PPX geologists and consultants mapped the surface geology of the Igor concession and portions of the Busqueda XVIII concession at a scale of 1:5,000 during 2006 through to 2018. The central portion of the Igor concession was also mapped at a scale of 1:1,000 during that time. A total of approximately 3,240 meters of underground workings also have been mapped, including the Callanquitas mine, at Tesoros. The underground mapping has been at a scale of 1:250.

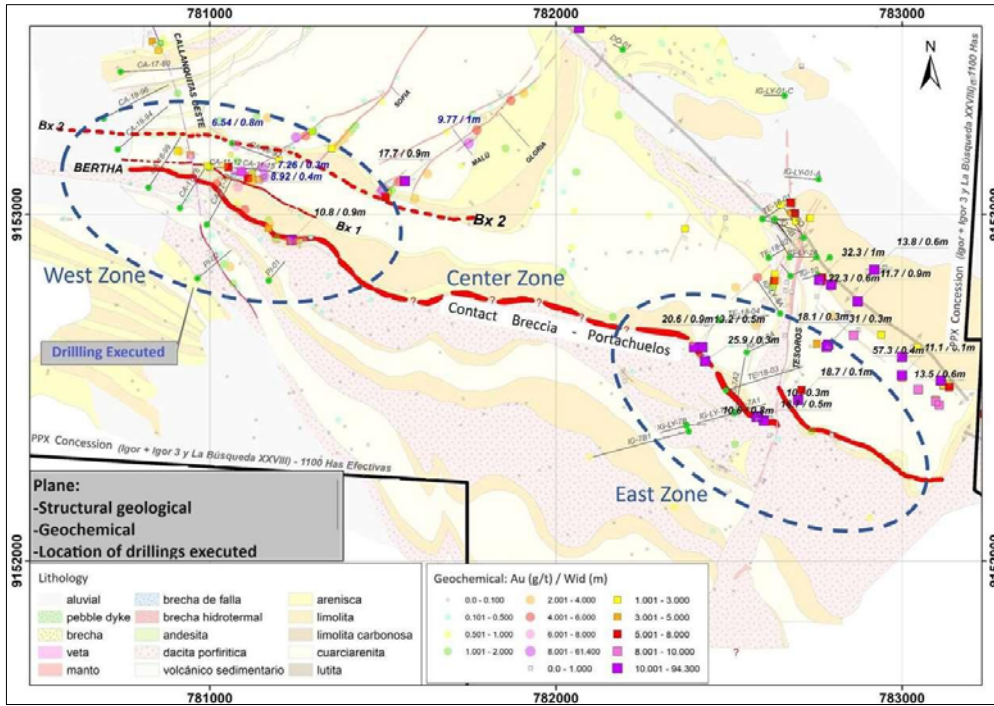
### 9.2 Geochemical Sampling

#### 9.2.1 Geochemical Sampling Pre-2018

Henkle and Lytle (2008) reported that in 2005 through to 2007 a total of approximately 3,100 surface geochemical samples “of all kinds” were collected from the property and analysed for gold, silver, and other elements. By the middle of 2013, a total of approximately 4,200 surface samples were collected (Davis and Sim, 2013), including outcrop, trench and “old working samples”.

Maps compiled by PPX in May of 2018 indicate there are geochemical data from 252 soil samples, 1,911 surface rock samples including trench and channel samples, and 2,254 underground samples which are mainly channel samples. The results for gold and silver are

summarized with the thematic maps shown in Figure 9-1 and Figure 9-2.



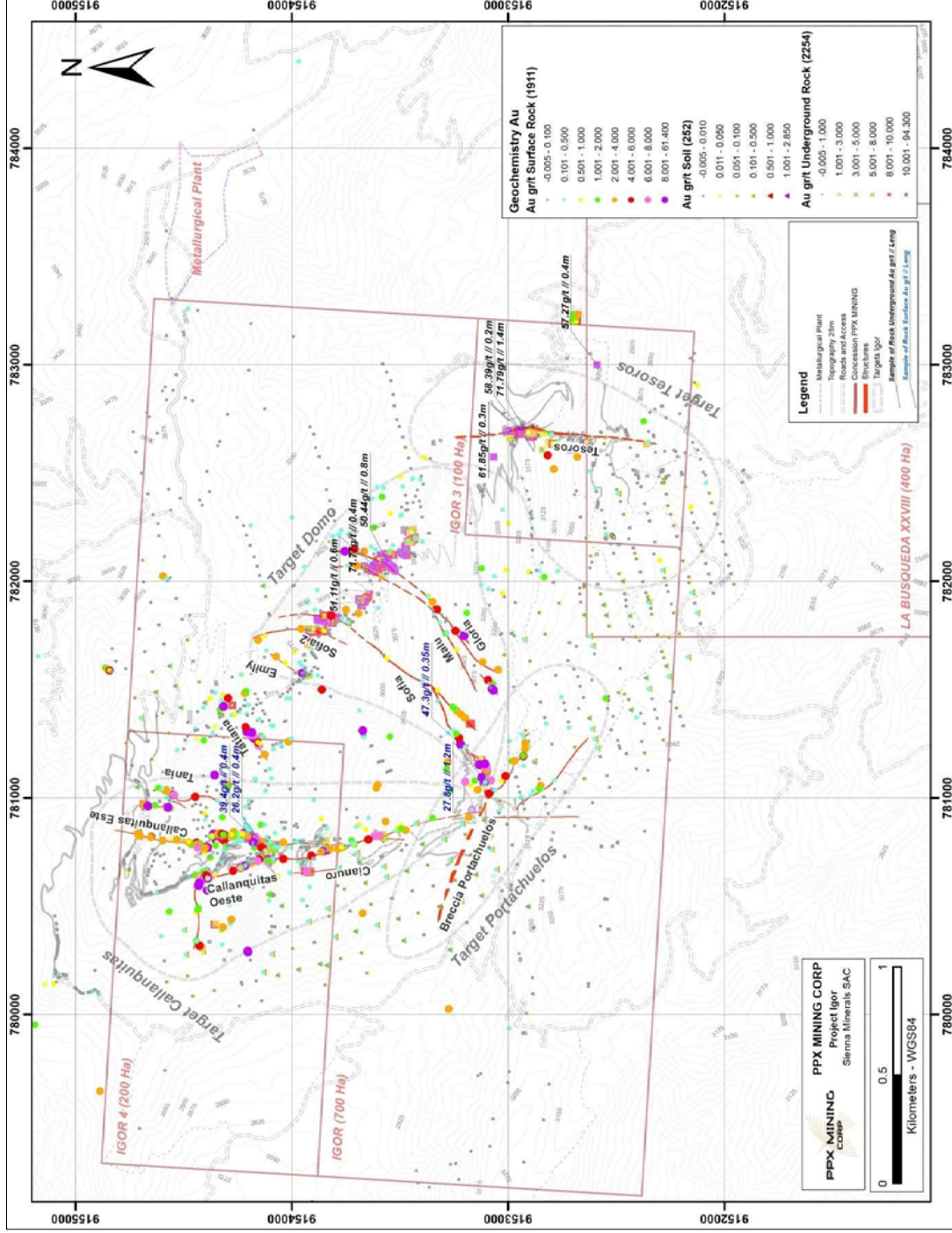


Figure 9-1 Gold in PPX Surface and Underground Samples (PPX, 2018)

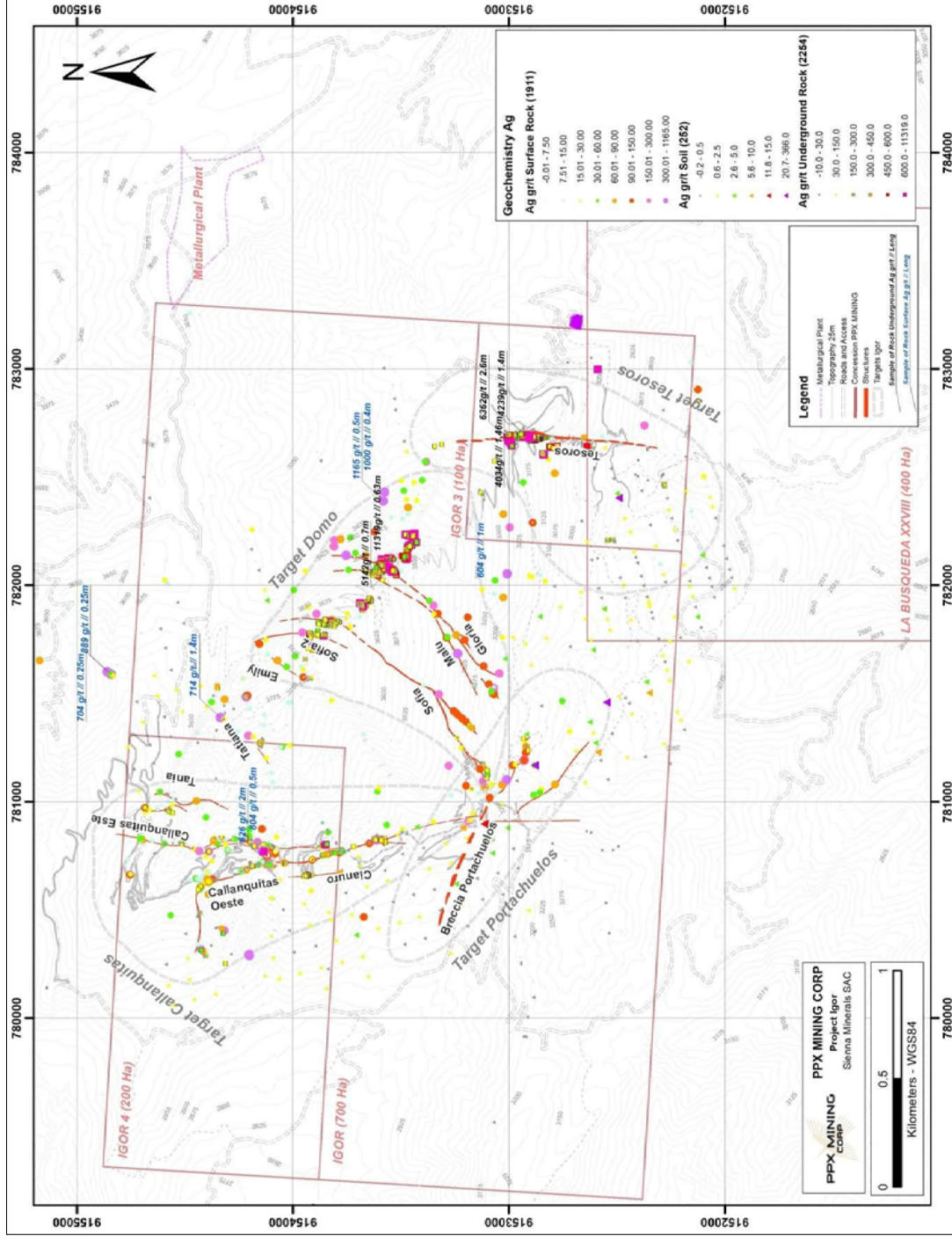


Figure 9-2 Silver in PPX Surface and Underground Samples (PPX, 2018)

### 9.2.2 Geochemical Sampling Post-2018

From 2018 to 2022, PPX has completed a series of trenches with channel sampling and grab sampling (underground and surface) programs on the Tesoros, Domo and Portachuelos mineralized zones.

On the Tesoros zone, a total of 120 channel samples (29 on the surface and 91 underground) were collected. Best gold values obtained vary from 5.408 g/t Au over 0.1 m (sample N009536) to 31.03 g/t Au over 0.29 m (sample I009637), and silver values varying from 122 g/t Ag over 0.9 m (sample I237790) to 10,382.52 g/t Ag over 0.25 m. (sample Nvi5092340D). The mineralized structure can vary in width from 3.0 m to 5.0 m and run for approximately 1.0 km or more occurring in breccias.

On the Domo zone, a total of 24 channel and 1 chip samples (4 on the surface and 21 underground) were collected. Best gold values obtained vary from 2.8 g/t Au over 0.5 m (Sample N009521) to 5.92 g/t Au over 0.8 m (sample N009405), and silver values varying from 145 g/t Ag over 0.2 m (sample N009454) to 1,436 g/t Ag over 0.3 m (sample N009457). The mineralized structure can vary in width from 2 m to 4 m and trend for approximately 1.2 km.

On the Portachuelos zone, a total of 31 channel and 4 chip samples (9 on the surface and 26 underground) were collected. Best gold values obtained vary from 1.24 g/t Au over 0.3 m (sample I237676) to 25.89 g/t Au over 0.3 m (sample E982945), and silver values varying from 122 g/t Ag over 0.8 m (sample E982944) to 1,230 g/t Ag over 0.6 m (sample N009408). The Portachuelos mineralized structure can vary in width from 2 m to 5 m and run for approximately 1.5 km with open lateral extensions as observed in the field to the southeast. As observed on Figure 9-4, parallel mineralized structures BX 2 runs for 1 kilometer and structure BX 1 for approximately 400 meters.

### 9.3 Geophysical Surveys

Two geophysical surveys have been conducted at the Igor project. An induced polarization and resistivity (“IP/Res”) survey was carried out in 2008 by Geofísica Consultores SRL over the central part of the property. The IP/Res survey totalled 14.3 line-kilometers on nine lines with an azimuth of N75°E. Figure 9-5 and Figure 9-6 show the results. A major area of elevated chargeability and low resistivity corresponds to the altered porphyritic dacite intruded into the southwest part of the Igor anticline. The chargeability “high” and resistivity “low” extends to the northwest to the Portachuelos area and north along the Callanquitas fault zone. These geophysical trends mimic the location of dacite dikes and sills encountered by drilling beneath cover and at depth along the Callanquitas zone.

In 2007, a ground magnetic survey was performed by Fugro Ground Geophysics Pty Ltd. A total of 55.7 line-kilometers were surveyed along an azimuth of N75°E. Figure 9-7 shows the results. A modest magnetic high corresponds to the dacite intrusion.

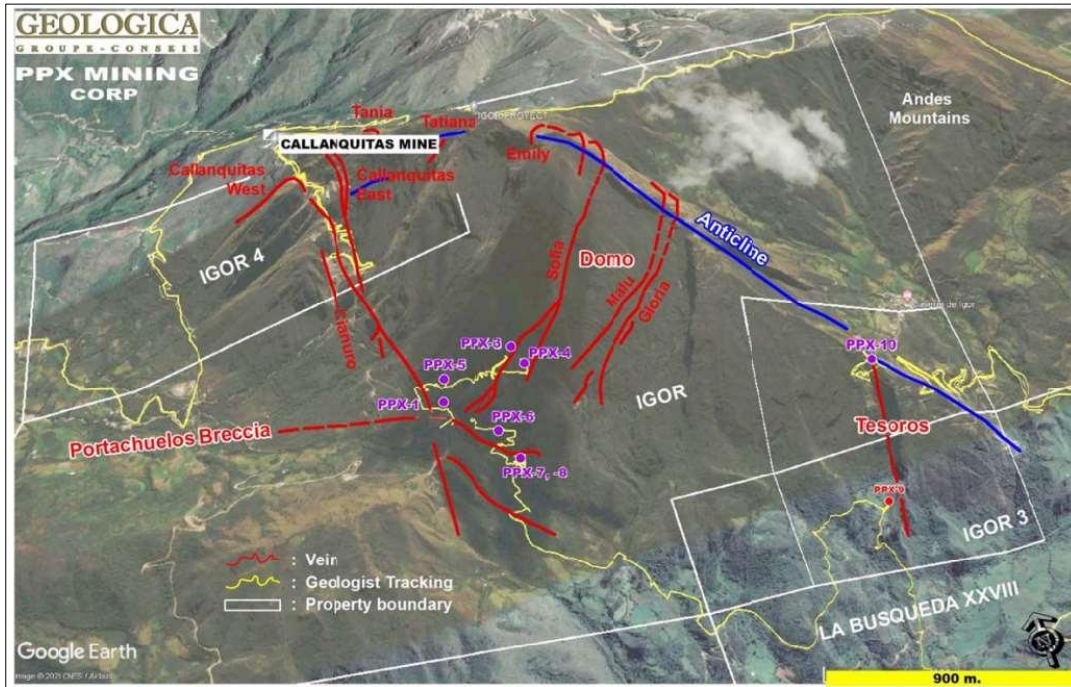


Figure 9-3 Location of Trenches (Geologica, 2023)

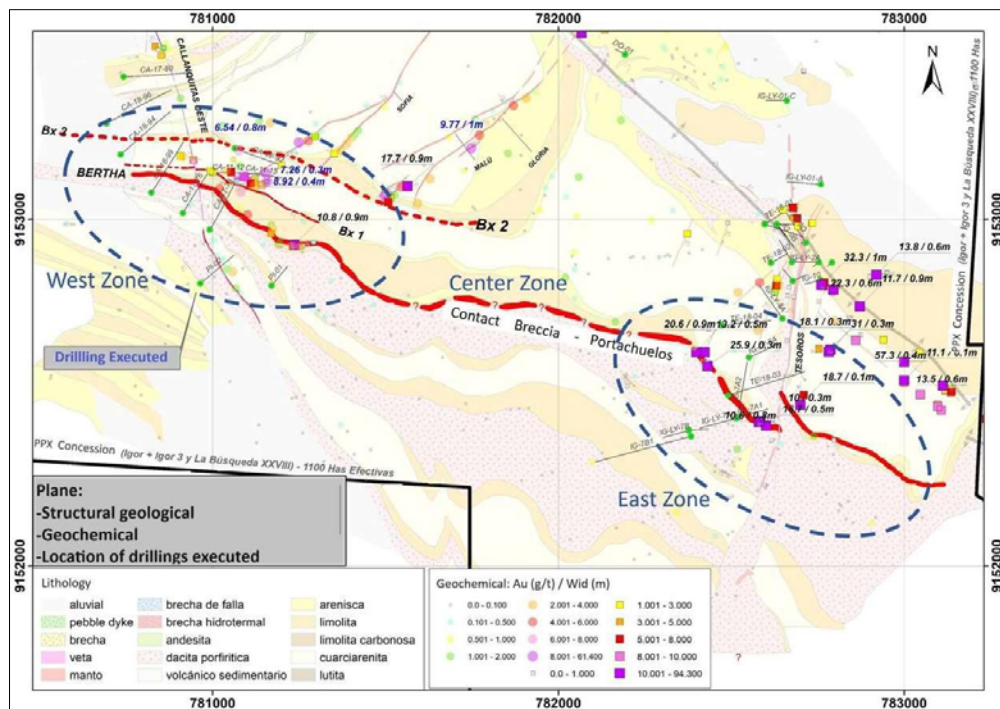


Figure 9-4 Plan view of Portachuelos Mineralized Zones (Geologica, 2023)

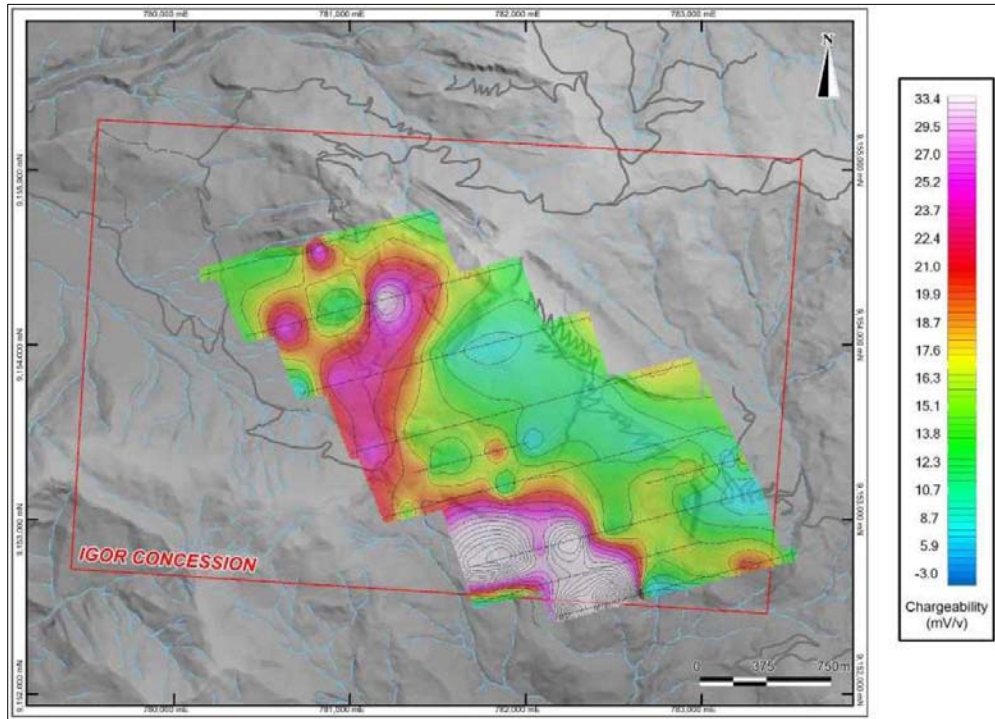
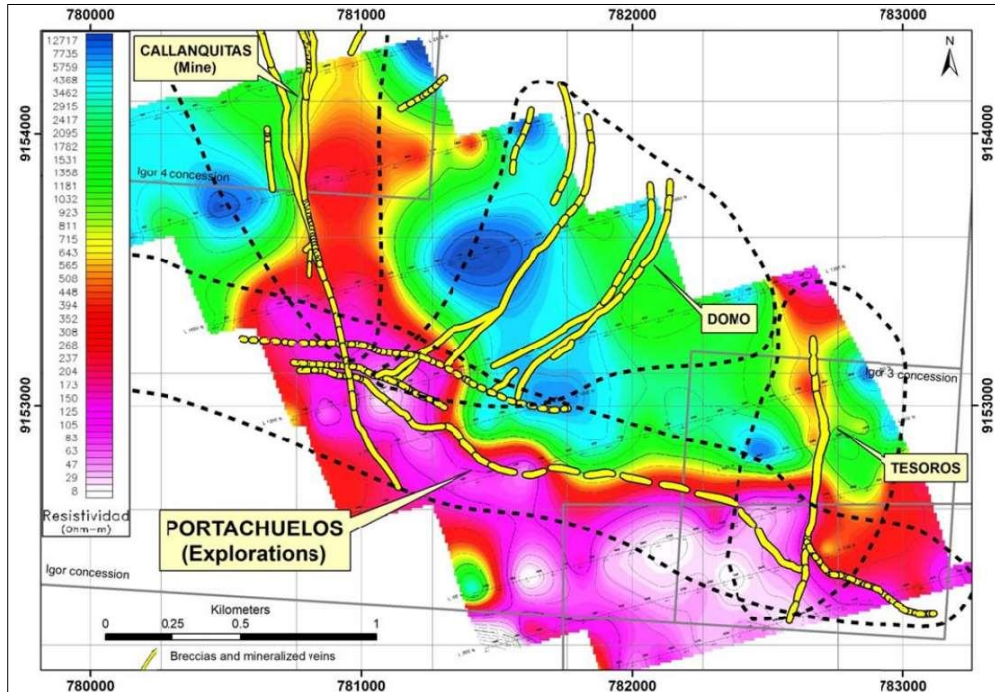


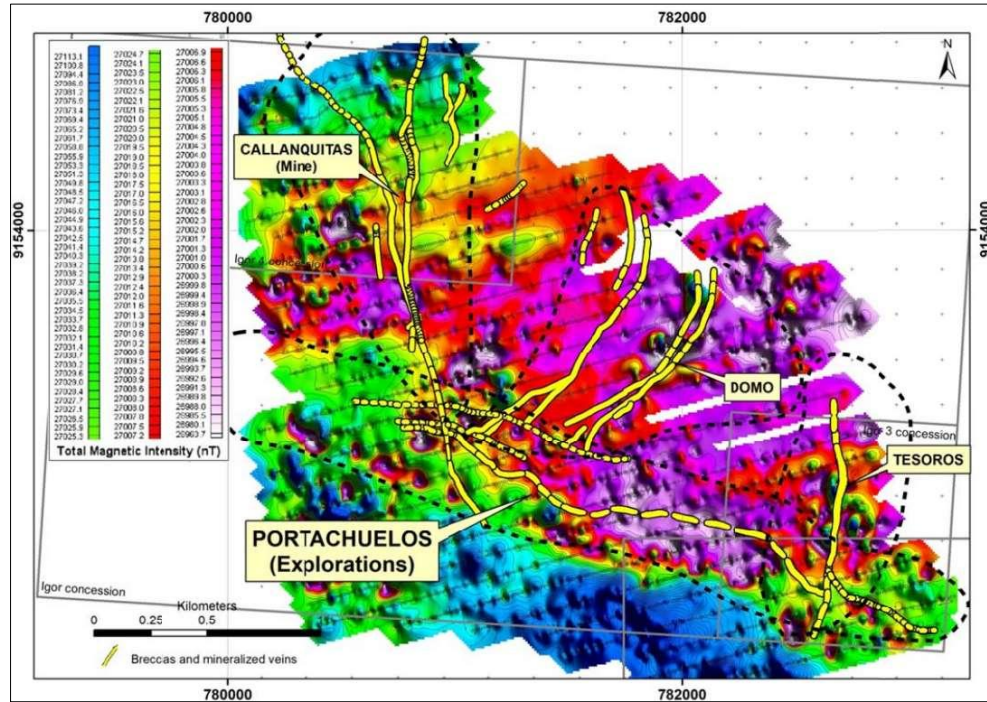
Figure 9-5 Chargeability Map, 2006 IP/Resistivity Survey (PPX, 2018)



Note: IP-Resistivity Survey completed in 2008, covering the central-west part of Igor property hosting the Callanquitas Mine and the Portachuelos mineralized structure. Sulphide mineralization is clearly represented by the high chargeability.

Figure 9-6 Resistivity Map, 2008 IP/Resistivity Survey (Geologica, 2023)





Note: 2008 Magnetometer Survey covering the central-west part of the Igor Property. Continuity breaks and domain contacts are observed by colour changes.

Figure 9-7 Total Ground Magnetic Survey, 2008 (Geologica, 2023)

## 9.4 Underground Channel Sampling

### 9.4.1 PLP - Underground Channel Sampling 2016 - 2023

PLP has conducted a selectively underground sampling in Callanquitas Este and Callanquitas Oeste for mining production purposes since 2016. This sampling was confined to the mineralized vein, characterized by high economic grades, predominantly exceeding 4 g/t Au and averaging 11.9 g/t Au. Notably, weakly mineralized zones within the vein were excluded from the sampling process. All sampling activities were performed for operational reasons, and consequently, the dataset lacks quality control samples. The sample lengths vary, ranging from 0.20 m to 8.20 m.

The analysis of these samples took place in a non-certified local laboratory situated in Trujillo; consequently, these channel samples did not play a role in the estimation process. Over the period spanning 2016 to February 2023, a total of 13,064 samples were collected.

### 9.4.2 PPX - Underground Channel Sampling 2017 - 2023

As part of its exploration program, PPX conducted underground channel sampling, collecting a total of 502 samples from the Callanquitas Este vein between 2017 and 2018. An additional 267 samples were gathered from 2019 to 2023, primarily in Callanquitas Este at deeper levels

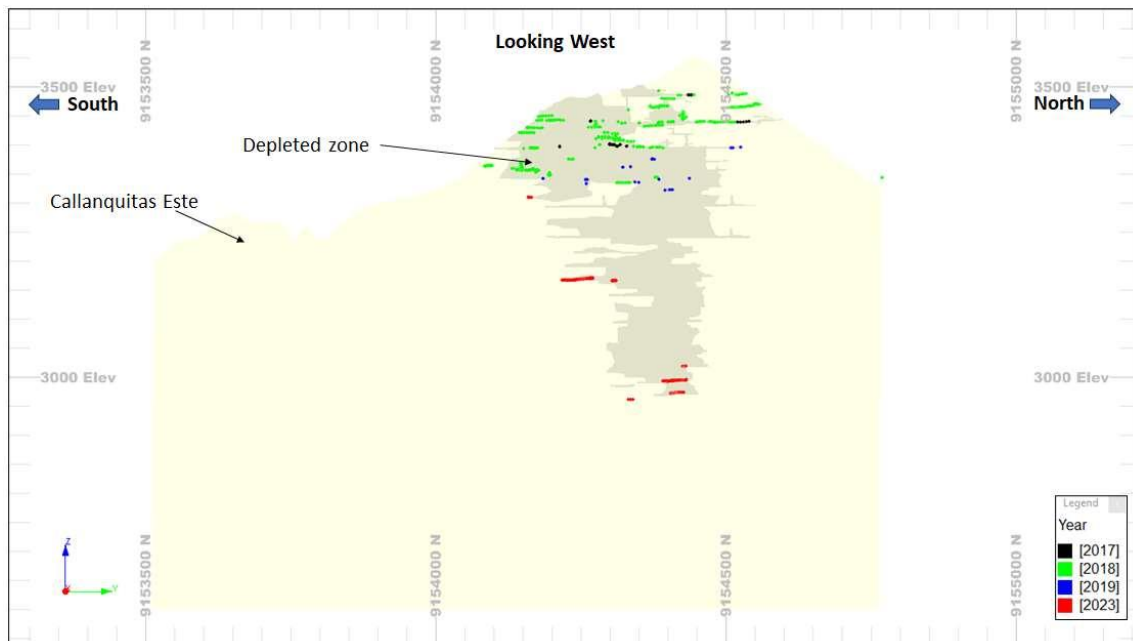
(between approximately 2950 m and 3020 m above sea level), with a small proportion collected from Callanquitas Oeste. These channel samples, ranging from 0.2 to 3.5 meters in length, with a median length of 0.9 meters, constitute face samples taken across the width of the mineralized structure. The samples are collected systematically every 3.0 m.

Typically, a single approximately 1-meter channel sample covers the entire width of the mineralized vein or breccia. In cases of vein or breccia widening, two to three contiguous channel samples are taken to characterize the mineral zone. The central sample usually represents the high-grade vein or hydrothermal breccia, while the surrounding samples consist of lower-grade wall rock or weakly mineralized tectonic breccia.

Table 9-1 provides a summary of the channels in Callanquitas, and Figure 9-8 illustrates the spatial distribution in Callanquitas Este.

*Table 9-1 Channel summary for the Callanquitas Mine*

Year	N° Channel	Total Metres	N° Assay
2017	50	46.70	50
2018	452	401.24	452
2019	57	70.30	57
2023	210	131.35	210
<b>Sub Total</b>	<b>769</b>	<b>649.59</b>	<b>769</b>



*Figure 9-8 Longitudinal section of Callanquitas Este showing the spatial location of the PPX underground channels samples (Mining Plus, 2023)*

## 9.5 QP opinion

In the Geologica's opinion, the exploration targets outlined by PPX's geologists for the Igor property are founded on rational and well-founded geological observations, data, and interpretations. The author suggests proceeding with the planned exploration work.

The delineation of exploration targets relies primarily on exploration information, only PPX underground channels, which have followed procedures deemed representative and appropriate for inclusion in the resource estimate.

Geologica has not conducted an in-depth examination of the underground sampling data in the Callanquitas area undertaken by either PPL or PPX, and therefore, and cannot express an opinion on the same. Nevertheless, specific information regarding the reliability of this data can be found in Section 11.

## 10 DRILLING

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The details provided in this section are drawn partially from the NI 43-101, 2018 report prepared by MDA and the recent review done by Mining Plus Peru S.A.C. (“Mining Plus”). The author has reviewed this information and is confident that this summary is accurate.

### 10.1 Summary

Drilling programs have been undertaken at the Igor Project between 2006 and 2018 by PPX and its predecessors Peruvian and Sienna, and included diamond drilling only. A total of 48 drillholes, covering 8,241.14 meters of drilling, are distributed across four exploration targets: Domo, Pampa Igor, Portachuelos, and Tesoros. Five drillholes were undertaken post-May 2018, and were not considered in the previous NI 43-101, 2018 developed by MDA. Mineral resources cannot be estimated in these areas due to the spacing and density of drilling.

In the Callanquitas area, approximately 93 drillholes were completed between 2006 and May 2018, covering a total of 23,821.12 meters along the Callanquitas Este and Oeste veins. The spacing between drillholes varies, but mostly adheres to an approximate grid of 50 m x 50 m, with some outlying areas being wider spaced, ranging from 100 m to 150 m. All drillholes have been utilized in the resource update, for which this document is presented. Drillholes that are too widely spaced have only been reported as a geological potential, and not as a mineral resource. There has been no new drilling in this sector post-May 2018. A summary of drilling is shown in Table 10-1.

The distribution of drillhole collar locations within the Igor project is shown in Figure 10-1. Representative cross sections showing the gold mineral-domains in the Callanquitas Este and Callanquitas Oeste veins are presented in Figure 10-2 and Figure 10-3.

Table 10-1 Summary of Igor Project Diamond-Core Drilling

Objective	Year	Area	Holes	Meters
Exploration Drilling	2006 - 2008	Domo	10	655.81
	2006 - 2008	Pampa de Igor	5	1,203.25
	2006 - 2008	Tesoros	17	1,770.78
	2006 - 2008	Portachuelos	2	349.30
	2017	Portachuelo	5	1,212.00
	2018 (May)	Portachuelo	4	1,740.20
	2018 (Post May)	Tesoros	5	1,309.80
	<b>Subtotal</b>			<b>48</b>
Resource Drilling	2006 - 2008	Callanquitas	4	849.32
	2010	Callanquitas	2	926.60
	2011	Callanquitas	13	5,429.00
	2012	Callanquitas	58	12,803.75
	2017	Callanquitas	12	2,710.15
	2018 (May)	Callanquitas	4	1,102.30
	<b>Subtotal</b>			<b>93</b>
<b>Totals</b>			<b>141</b>	<b>32,062.26</b>

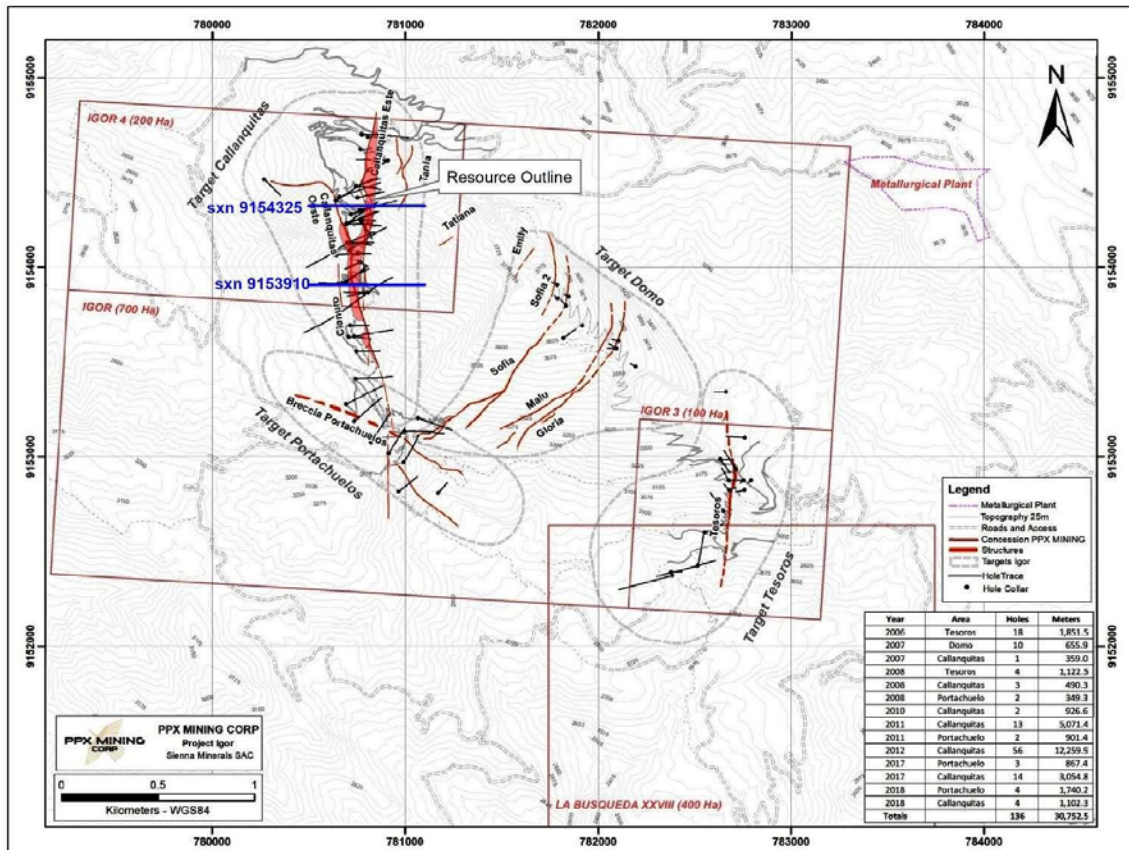


Figure 10-1 Map of Igor Project Drill Holes (MDA, 2018)

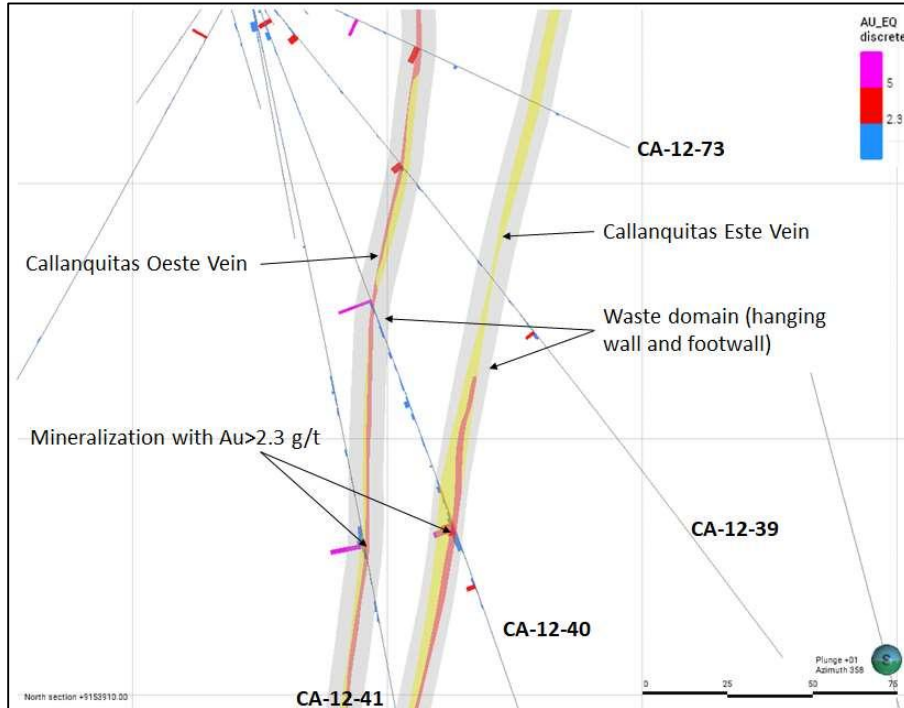


Figure 10-2 Cross Section 9153910 Showing Gold Mineral Domains

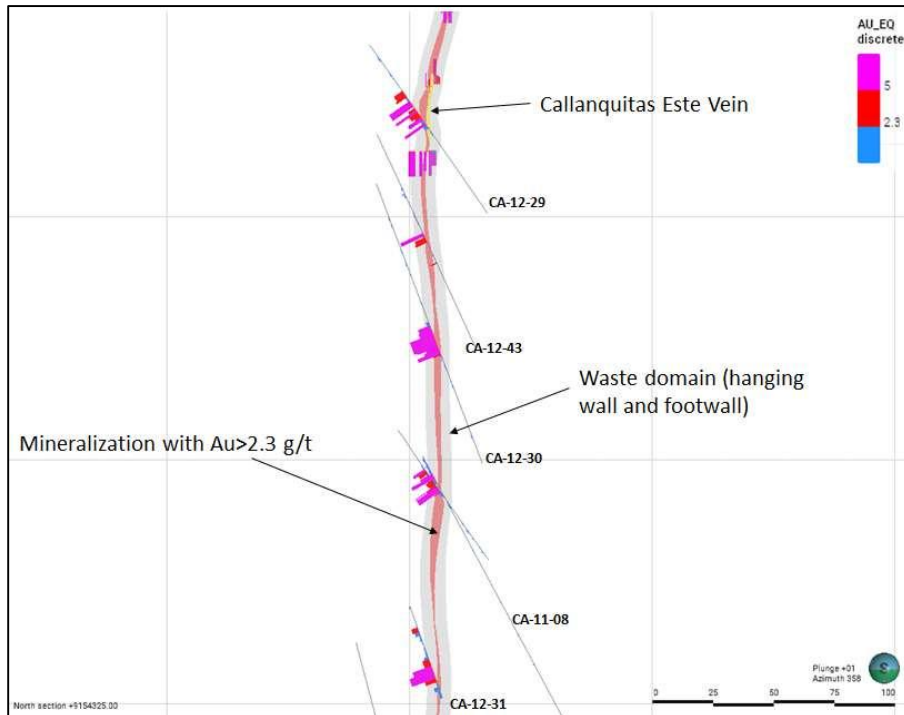


Figure 10-3 Cross Section 9154325 Showing Gold Mineral Domains

## 10.2 PPX Drilling 2006 - 2007

PPX's initial drilling program consisted of 28 holes drilled in the Tesoros and Domo areas. One drillhole was also drilled in the Callanquitas zone. BQ-, NQ- and HQ-diameter core sizes were recovered (Davis and Sim (2013)). The drilling contractor was Mining Drilling Service and MDH of Lima.

The 2006 drilling was done with a skid-mounted Diamec 262 core drill. It has been reported that in 2007 drilling was done by the drilling contractor Energold Drilling using a Hydrocore Series One core drill (Davis and Sim, 2013).

## 10.3 PPX Drilling 2008

Four additional diamond core drillholes were drilled at Tesoros, three holes were drilled at Callanquitas, and two holes were drilled in the Portachuelos area in 2008. The best results were in Callanquitas hole CA-08-1B, which intersected 218.4 meters at average grades of 1.44g Au/t and 22.3g Ag/t, but that hole was lost while still in mineralization. Energold Drilling was the drilling contractor, and a Hydrocore Series One core drill was used (Davis and Sim, 2013).

## 10.4 PPX Drilling 2010 – 2012

Drilling in 2010 through to 2012 was mainly performed by AK Drilling International of Lima, Perú, with a track-mounted Sandvik DE-710 core drill. Some of the drilling was done by Bradley-MDH of Lima, Perú, with a Diamec 250 core drill (Davis and Sim, 2013). HQ-diameter was the core size for most of the drilling during this period; much smaller amounts of NQ- and BQ-diameter core were also recovered.

A total of 15 drillholes were drilled at the Callanquitas area in 2010 and 2011 to test the near-surface fault zone mineralization, in addition to the potential for porphyry-style mineralization at depth. Two holes were drilled at the Portachuelos area. Good results at Callanquitas confirmed the presence of a principal mineralized north-south zone with a length of at least 900 meters.

A total of 56 drillholes were drilled at the Callanquitas area in 2012 with the objective of expanding mineralization and defining mineral resources. Drilling focused primarily on the "Callanquitas Este" structure but also targeted and defined the sub-parallel "Callanquitas Oeste" structure. Potentially economic mineralization on the Callanquitas structures was defined over a 1,000-meter strike length and to depths of over 500 meters.

### 10.5 PPX Drilling 2017 - 2018

Drilling resumed in 2017, and by May of 2018 totalled about 6,765 meters in 25 holes, 18 of which were drilled in the Callanquitas area. Four of the holes were drilled in the Portachuelos area. The drilling contractor was MDH of Lima, Perú. Two LD-250 man-portable core rigs were used to recover HQ and NQ sizes of core.

The primary objective of the Callanquitas drilling was to infill gaps in the previous drill pattern and upgrade resource classification. The results increase confidence in mineral continuity within the structures. All 2017 to 2018 drilling has been included within the current resource estimate.

### 10.6 PPX Drilling Post May 2018

Between May and December 2018, a total of 5 drillholes were completed, resulting in a drilled length of 1,310 meters. These drillholes were specifically undertaken in the Tesoros area, covering 788 assays.

### 10.7 Drill-Hole Collar Surveys

PPX geologists used a hand-held GPS to survey the locations of the drill-hole collars in 2006 through 2008. For the 2010 through 2012 and the 2017 through 2018 drilling campaigns, the drilling sites were initially located by a contract surveyor (Ingeniería y Construcciones Inka S.A.C.) using coordinates provided by the PPX geology group. The collars were re-surveyed again after drill-hole completion.

Upon drillhole completion, a cement plug was put within the upper meter of the hole. A 0.75-meter square concrete monument was built over the collar with a PVC pipe with metal re-bar marking the precise hole location. The drillhole specifics, including northing, easting, elevation, drill depth, and orientation, were etched within the concrete monument.

The 2017 and 2018 drillhole locations are still evident and undisturbed, while many of the pre-2017 drill hole locations are no longer visible due to post drilling surface disturbances, primarily the construction of a new road to access further drill sites, and heavy vehicle traffic to access these sites. PPX has provided photos of all historic drill sites which show the concrete monuments marking these now mostly covered drill locations.

### 10.8 Down-Hole Surveys

During 2010, through to 2012, all drillholes holes were surveyed with a REFLEX EZ-Trac survey tool at 50 meter intervals. During 2017 to 2018, Callanquitas drillholes were surveyed with the REFLEX tool at 25 meter intervals, and the drillholes at Portachuelos were surveyed at 50 meter intervals.



## 10.9 QP opinion

The author believes that the drilling and sampling procedures employed by PPX at the Callanquita deposit are appropriate and sufficient for estimating Mineral Resources. However, the exploration target (Domo, Pampa Igor, Portachuelos, and Tesoros) lacks adequate drilling density to establish any Mineral Resources. The author is not aware of any drilling, sampling, or recovery factors associated with PPX drilling that would significantly affect the accuracy and reliability of the results incorporated into the database used for Mineral Resource Estimations, as discussed in Section 14.

## 11 SAMPLE PREPARATION, ANALYSES AND SECURITY

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The details provided in this section are drawn partially from the NI 43-101, 2018 report prepared by MDA and the recent review done by Mining Plus Peru S.A.C. (“Mining Plus”). The author has reviewed this information and is confident that this summary is accurate.

### 11.1 Core Handling, Logging, and Sampling

The following information on the 2006 through to 2008 core handling and sampling procedures is from Henkle and Lytle (2008). Information on the 2010 through to 2018 core handling, logging, and sampling procedures is from Davis and Sim (2013), and noted by Paul Tietz (MDA, 2018) during his January 2018 site visit.

Core handling and sampling for PPX’s 2006 through to 2008 drilling consisted of transporting the core from the drill rig to a secure, rented facility in Trujillo. After the core was logged, the core was cut in half longitudinally and separated into 2 meter intervals, with one half placed back into the core box for storage and the other half placed into tagged and sealed plastic bags for shipment to the laboratory.

For the 2010 through to 2018 drilling, the full heavy-duty, plastic core boxes were collected from the drill rig and moved to the core facilities, which included separate core logging and cutting shacks, where geotechnical and then geological logging were performed by PPX geologists. The core facilities were located onsite for the 2010 through to 2012 drilling, but were moved into the town of Huaranchal, located one-hour drive south of the project site, for the 2017 and 2018 drilling. For the latter drilling program, the core was collected at the drill site, and brought into town about once per day by PPX technicians or the drilling crew.

Geotechnical information was recorded on paper logging forms, and later captured in electronic spreadsheets. This included recovery, RQD, and fracture frequency measurements, alteration, and joint classifications. Geological information included lithology, alteration, mineralization, and structural variations all recorded on paper logging forms and later captured in electronic spreadsheets.

Commencing in 2010, after logging, and sample intervals based on geological characteristics were marked on the core boxes with sample lengths ranging from 0.5 meters to 2.0 meters. In the case of poor recovery, sample lengths >2.0 meters were permitted, but a zone with poor recovery (< 60%) was never mixed with a zone of good recovery. Samples were assigned a blind number sequence, and the sample locations were marked in the plastic core box and with dividers added in. Quality assurance and quality control (“QA/QC”) samples were inserted every tenth sample, and the QA/QC sample locations were noted on the core boxes. The core was marked with a control cut line, perpendicular to the principal structural/bedding

fabric, so that two symmetrical halves could be produced when cut. The core was then photographed and moved to the cutting shack and laid out in order.

The marked-up core was cut along the control lines and the two core halves were placed back in the core boxes. A diamond saw was used to cut the core, though in zones of highly broken core or clay-rich intervals, a spatula was used to separate the two halves and sample the core. Field duplicates were obtained by taking the halved core and cutting it again to produce two quarter pieces of core. In 2010 through to 2012, one quarter-core split was used as the original and the other quarter-core split was used as the field duplicate. In 2017 and 2018, the original sample has been a full half-core and the duplicate is a quarter-core split of the remaining half core.

The samples were placed in polythene bags along with a pre-numbered sample tag, and closed using a zip tie. The sample number was also written on the outside of the sample bag with a permanent marker. The samples were then collected and placed in large (rice) sacks, and the sample numbers were written on the outside of the sacks and closed with a metal tie.

The samples were trucked by PPX personnel to Trujillo, a major city located on the coast 100km west of the project site, where they were picked up by SGS Laboratories (“SGS”) personnel, and transported to the SGS laboratory facility in Lima for analyses. The chain of custody for all transfers of the samples from Huaranchal, to Trujillo, and then Lima, was recorded and kept in PPX’s Huaranchal office.

## 11.2 Channel Sampling

As part of its exploration program, PPX collected 502 underground channel samples from the Callanquitas Este vein between 2017 and 2018. An additional 267 samples were obtained from 2019 to 2023, primarily from deeper levels in Callanquitas Este, with some from Callanquitas Oeste. The overall sampling procedure for both cases has been similar, with minor changes, as described below:

- The sample collection process involves the use of two samplers with a hammer and chisel, mainly taken from the face of newly exposed underground workings. In some cases, samples were collected from the roof due to operational constraints.
- The sampling area is initially washed down to provide a clear view of the vein and eliminate materials that may contaminate the sample.
- Typically, a single approximately 1 meter channel sample covers the entire width of the mineralized vein or breccia. In cases of vein or breccia widening, two to three variables contiguous channel samples are taken to characterize the mineral zone. The central sample usually represents the high-grade vein or hydrothermal breccia, while the surrounding samples consist of lower-grade wall rock or weakly mineralized tectonic breccia.

- A channel sample area is marked and oriented perpendicular to the strike of the mineralized structure.
- After marking, the sampler proceeds to collect collar and orientation data from its location at the beginning of the channel, taking topographical points as a reference or some references from underground work.
- The channel sample has a length between 0.2 meters to 3.5 meters for samples between 2017 and 2018, and 0.3 meters to 2.0 meters for samples between 2019 and 2023. The width of each channel sample is approximately 0.2 meters wide with a depth of approximately 0.02 meters.
- The channel is sampled to cover the entire channel area, from the footwall to the hanging wall. The sample is collected in a horizontally positioned sack. If the sample exceeds 5 kg, it is divided into four equal parts, and one-fourth or half is collected, ensuring a minimum of 2 to 3 kg. The sack used for channel sampling is rotated to the other side and subsequently discarded.
- The final sample is placed in a bag with a coded ticket and shipped to the laboratory.
- The entire process is conducted under the inspection of the sampling supervisor geologist, with supervision and guidance on the insertion of QA/QC samples (Quality Assurance vs Quality Control).
- In the case of twin duplicate samples between 2017 and 2019, the control sample is taken from the original sample and split into two separate samples. For samples in 2023, the twin duplicate samples referring to a new sample are taken directly from the channel.
- The underground channel samples in the database are recorded as an independent sample and not as a pseudo-hole as is usual.

### 11.3 Sample Preparation and Analysis

The 2006 through to 2008 drill samples were analysed at the ALS Chemex Laboratories (“ALS”) in Lima, Peru. After crushing the total sample, and then pulverizing a 250g split to 85% of the sample passing 70 microns, a 30-gram aliquot was assayed for gold by fire-assay fusion with an atomic absorption (“AA”) finish (ALS code Au-AA23). A second 0.5-gram aliquot was analysed for 34 elements, including silver, by inductively-coupled plasma atomic-emission spectroscopy (“ICP”) after aqua regia digestion (ALS code ME-ICP41).

Samples which exceeded 10 ppm Au in the initial gold analyses were re-assayed by fire-assay fusion with a gravimetric finish (ALS code Au-GRA21). Samples with silver greater than the ICP upper detection limit of 100 ppm Ag were re-assayed by AA following aqua regia digestion (ALS code Ag-AA46). Samples with very high-grade silver values (>1,500 ppm Ag) were re-assayed by fire assay with gravimetric finish (ALS code AG-GRA21).

The 2010 through to 2023 drilling and underground samples were analysed at SGS Laboratories (“SGS”) in Lima, Peru. After crushing the total sample, and then pulverizing a 250g split to 85% of the sample passing 70 microns, a 30-gram aliquot was assayed for gold by fire-assay fusion with an AA finish (SGS code FAA313). A second 0.5-gram aliquot was analysed for 39 elements, including silver, by ICP following digestion by aqua regia (SGS code ICP12B).

Samples which exceeded the upper limits of the initial gold analyses (>5 ppm Au) were re-assayed by fire assay with a gravimetric finish (SGS code FAG303). Samples with silver greater than the ICP upper limit of 100 ppm Ag were re-assayed by AA following aqua regia digestion (SGS code AAS11B).

ALS and SGS are global companies functioning as independent certified laboratories worldwide. Both hold ISO/IEC 17025:2017 certification, which serves as a Quality Management System for laboratories. There is no relationship between the laboratories and PPX, so all procedures and analytical assays have been carried out independently and objectively.

#### **11.4 Sample Security**

The core and core samples in all drilling campaigns have remained under the supervision of PPX personnel, and kept in secure, locked facilities throughout the logging and sampling process. There is an acceptable chain of custody protocol for the shipping and transferring of samples to the analytical laboratories. Once a drill hole is logged and sampled, the sampled core is taken by truck from Huaranchal to PPX’s secure core storage facility in Trujillo. It is Mr. Tietz’s opinion that the sampling and chain of custody protocols used by PPX are adequate.

#### **11.5 Quality Assurance/Quality Control (“QA/QC”)**

QA/QC samples were inserted into the sample stream and sent to the laboratories on a regular basis in all drilling campaigns. For the 2006 through to 2008 drilling, QA/QC samples consisted of preparation blanks and certified reference materials (“CRMs”) inserted at an approximate rate of one QA/QC sample for every 50 drilling samples sent to ALS and SGS. In addition, for this period of years, the database does not mention the type of blank (coarse or fine), or the type of standard used.

For all later drilling campaigns (2010 to 2018), twin duplicates were collected and included in the sample stream sent to ALS and SGS, while keeping the same QA/QC insertion rate, i.e. one blank, one standard, or one twin duplicate, was included with every nine samples sent to the lab. The QA/QC samples have been inserted on a regular pattern, so an approximately equal number of QA/QC sample types have been inserted into the sample stream.

Also, channel campaigns consisted principally within two periods, 2017 through to 2019, and 2023. The first period consisted in the preparation of blanks, standards, and pulp duplicate with a little improvement in insertion compared to drilling, and recently in 2023 were added coarse and twin duplicates. The insertion ratio has been 13% on average in the first period, however last year reached 20%.

Table 11-1 and Table 11-2 show the summary of inserted sample quantities and ratios reported in the report for drillholes and channels respectively.

Table 11-1 Summary of QA/QC Drillhole analysis

Year	Total Samples	Original Samples	Blank		Reference Standards (CRIMs)	Duplicate Twin	Total QA/QC		Laboratory	Sector
			Fine Blank	Coarse Blank			Samples	%		
2006	915	892	-	-	2	-	2	0.2%	ALS - SGS	TE
2007	455	453	-	-	-	-	-	0.0%	ALS - SGS	CA, DO, TE
2008	1,170	1,058	-	-	38	-	38	3.2%	ALS	CA, PI, TE
2010	349	311	-	15	11	12	38	10.9%	ALS - SGS	CA
2011	4,290	3,842	-	162	146	140	448	10.4%	ALS - SGS	CA
2012*	8,796	7,785	-	411	342	258	1,011	11.5%	SGS	CA
2017**	3,096	2,710	44	131	128	83	386	12.5%	SGS	CA
2018	3,036	2,625	68	112	146	85	411	13.5%	SGS	CA, TE
<b>Sub total</b>	<b>22,107</b>	<b>19,676</b>	<b>112</b>	<b>831</b>	<b>813</b>	<b>578</b>	<b>2,334</b>	<b>10.6%</b>	-	-
<b>% Insertion</b>	<b>100.0%</b>	<b>89.0%</b>	<b>0.5%</b>	<b>3.8%</b>	<b>3.7%</b>	<b>2.6%</b>	<b>10.6%</b>			

\*Ninety-seven (97) blank samples were removed from the QA/QC database due to incorrect identification or sample-related issues.

\*\*Three (3) twin duplicate samples were excluded because the original reference sample does not exist.

Note: Mining Plus emphasizes that the QA/QC database of PPX includes sampling dates that may slightly differ from the drill date, potentially leading to minor discrepancies between the two dates.

Table 11-2 Summary of QA/QC Channels analysis

Year	Total Samples	Original Samples	Blank		Reference Standards (CRIMs)	Duplicate		Total QA/QC		Laboratory
			Fine Blank	Coarse Blank		Pulp Duplicate	Coarse Duplicate	Samples	%	
2017	58	50	1	2	3	2		8	13.8%	SGS
2018	519	452	10	21	19	17		67	12.9%	SGS
2019	89	57	3	3	3	3		12	13.5%	SGS
2023	250	210	5	10	15	5	10	50	20.0%	SGS
<b>Sub total</b>	<b>916</b>	<b>769</b>	<b>19</b>	<b>36</b>	<b>40</b>	<b>27</b>	<b>5</b>	<b>137</b>	<b>15%</b>	-
<b>% Insertion</b>	<b>100.0%</b>	<b>84.0%</b>	<b>2.1%</b>	<b>3.9%</b>	<b>4.4%</b>	<b>2.9%</b>	<b>0.5%</b>	<b>1.1%</b>	<b>15.0%</b>	

Note: Mining Plus emphasizes that the QA/QC database of PPX includes sampling dates that may slightly differ from the drill date, potentially leading to minor discrepancies between the two dates.

### 11.5.1 Blanks

Preparation “Coarse” blanks: Preparation blanks were inserted into the sample stream to monitor possible laboratory contamination during sample preparation. For analyses of blanks to be meaningful, they must be sufficiently coarse to require the same crushing and pulverizing stages as the drill samples. PPX has used a coarse quartzite gravel collected from offsite as blank material. PPX has stated that SGS conducted round-robin testing of the source material to verify that the quartzite is unmineralized, though Mining Plus has not seen these data.

Analytical “Fine” blanks: Analytical blanks were used to monitor possible contamination or calibration problems during the assaying of gold concentrations. PPX used a blank commercial pulp supplied by COMACSA (Agregados Calcáreos S.A.) for the 2017-2018 QA/QC programs.

Blank results that are greater than five (5) times the lower detection limit of the relevant analyses are typically considered failures that require further investigation, and possible re-assaying of associated drilling samples. The detection limits of the ALS and SGS analyses was 0.005 g Au/t and 0.2 g Ag/t, so blank samples assaying more than 0.025 g Au/t and 1.0 g Ag/t are failures. A total of 998 blanks (867 preparation blanks, 131 analytical blanks) are within the current Igor project database.

Table 11-3 shows the summary of the blank samples results and Figure 11-1 illustrates an example of the analysis of coarse blanks for drillholes only in Callanquitas area. In both instances, the percentage of failures falls within acceptable limits.

*Table 11-3 Coarse Blank Analysis for Callanquitas Area*

Blank	Type	Element	Total	Min	Max	D. Limit	Failures	%Failures
Coarse	Channel	Au (g/t)	36	0.0025	0.019	0.005	0	0.0%
		Ag (g/t)	36	0.1	0.5	0.2	0	0.0%
	Drillhole	Au (g/t)	804	0.0025	0.096	0.005	8	1.0%
		Ag (g/t)	804	0.1	7.5	0.2	11	1.4%
Fine	Channel	Au (g/t)	19	0.0025	0.007	0.005	0	0.0%
		Ag (g/t)	19	0.1	0.4	0.2	0	0.0%
	Drillhole	Au (g/t)	85	0.0025	0.024	0.005	1	1.2%
		Ag (g/t)	85	0.1	0.5	0.2	0	0.0%



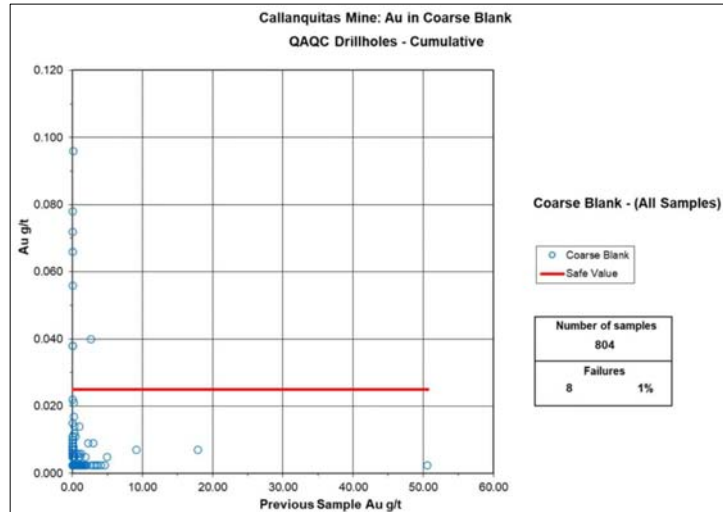


Figure 11-1 DDH - Coarse Blank Control Samples of Gold for Callanquitas Area

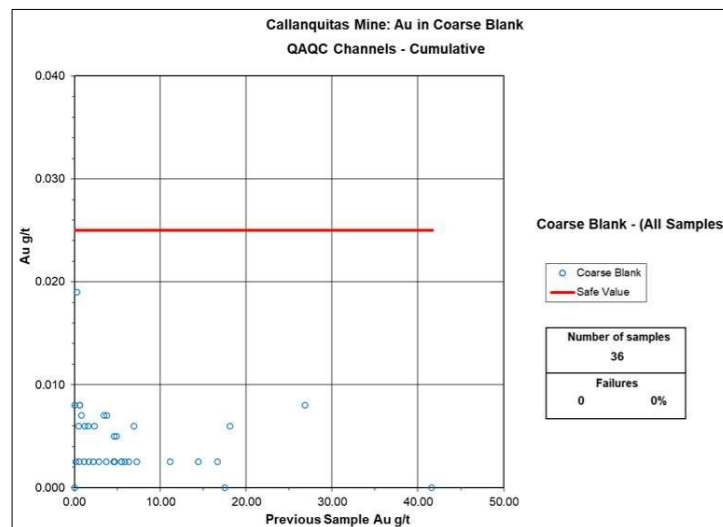


Figure 11-2 Channels - Coarse Blank Control Samples of Gold for Callanquitas Area

### 11.5.2 Reference Standards (CRMs)

CRMs were used to monitor analytical accuracy. PPX has used 15 different CRMs during the various drilling campaigns or underground channel sampling. The standards used are certified pulp material purchased from commercial laboratories Smee and Associates (“Smee”) (Vancouver, Canada) and ROCKLABS (Auckland, New Zealand).

Table 11-4 is listing of the various standards used and includes the laboratory source, expected value, and standard deviation (“SD”), for each reference standard. As indicated in Table 11-4, the ROCKLABS CRMs were only certified for gold.

*Table 11-4 Igor Project Reference Standards*

Standard	Samples	Source	Gold		Silver	
			Mean (g/t)	SD (g/t)	Mean (g/t)	SD (g/t)
OxF100	91	Rocklabs	0.804	0.019	-	-
OxF125	115	Rocklabs	0.806	0.02	-	-
OxJ80	46	Rocklabs	2.331	0.042	-	-
SE29	135	Rocklabs	0.597	0.008	-	-
SE58	193	Rocklabs	0.607	0.019	-	-
SL51	8	Rocklabs	5.909	0.136	-	-
AuOx18	4	Smee	2.876	0.202	77.8	5.1
AuOx28	60	Smee	2.391	0.049	488	8
AuOx29	55	Smee	0.606	0.028	174	3
AuOx34	16	Smee	8.81	0.026	1077	15
PAL-11	27	Smee	2.05	0.11	536	13
TR 11209	52	Smee	0.663	0.024	1.77*	0.15
EPIT-15	5	Smee	7.21	0.42	187	11
EPIT21	6	Smee	4.45	0.28	158	7
Unnamed STD	40	-	-	-	-	-

\* Expected silver value is considered "Provisionary" by Smee who advises caution when assessing the accuracy of individual analyses

A total of 853 analyses of CRM samples are within the project database (813 from drillholes and 40 from underground channels sampling). Not all 11 CRMs were used in all drilling campaigns. Usually, only one or two different CRMs were inserted into the same sample shipments. This resulted in just a handful of analyses for some of the standards.

Figure 11-3 and Figure 11-4 show the results of two standards for gold, for drillholes (2017 to 2018, Callanquitas Area) and channels (2017 to 2019). In these instances, the value of the reference standards (CRM) is identified as the "best value," with no outliers identified. It is noticeable that in Figure 11-3 a negative bias is present; however, this bias falls within the acceptable range (less than 5%). These examples serve as illustrative instances of CRM data stored in the database. There are no significant biases observed in the standards, and any minor errors are attributed to standard coding issues.

The results of the CRM analyses indicate no material concerns with the standard data, the results of which provide confidence in the use of the drill and underground sample data.

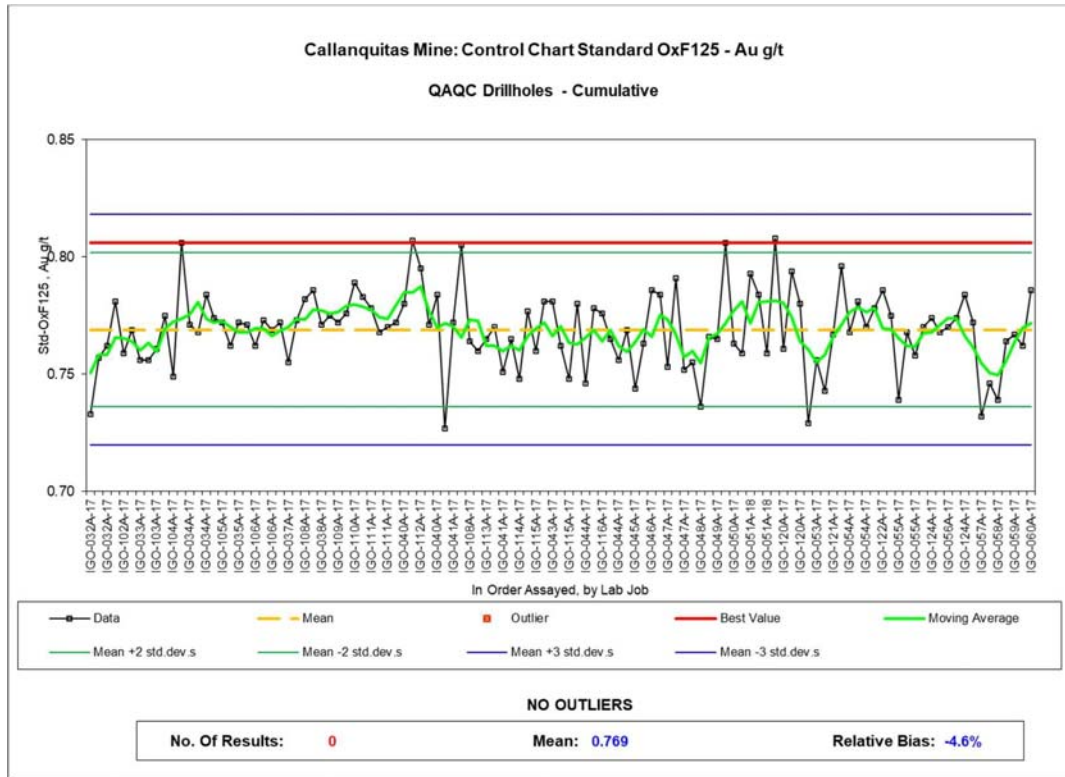


Figure 11-3 DDH - OxF125 Standard Control Samples of Gold for Callanquitas Area

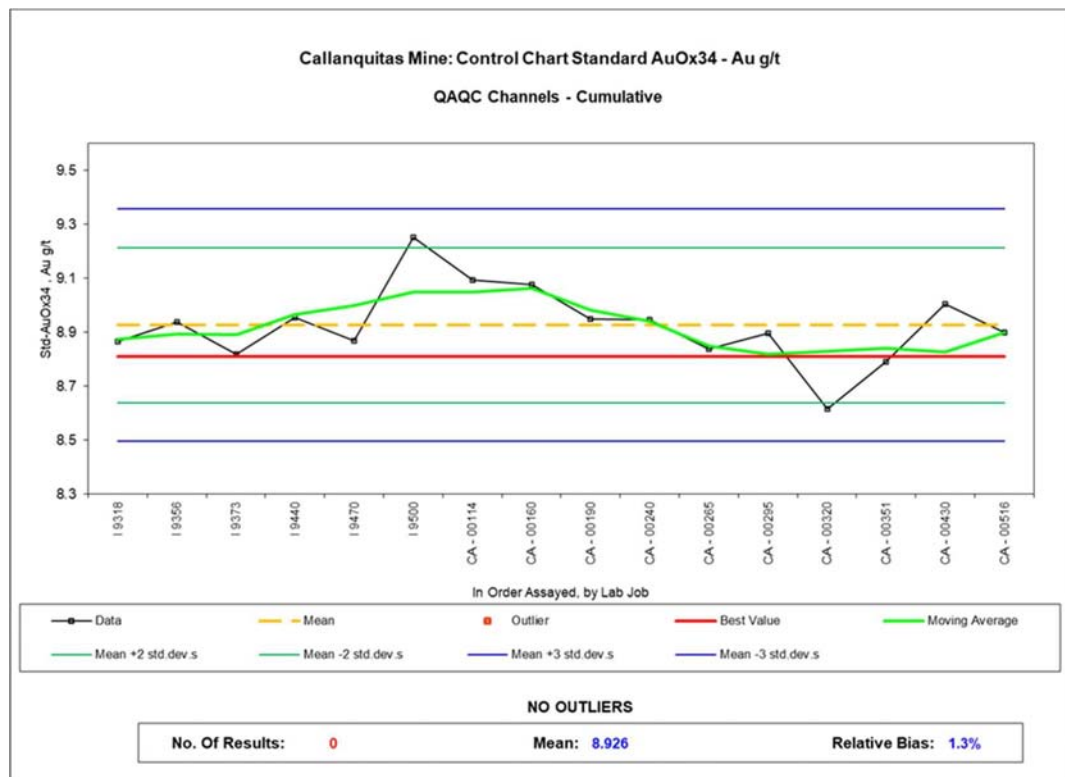


Figure 11-4 Channel – AuOx34 Standard Control Samples of Gold

### 11.5.3 Quarter-Core Twin Duplicates

Twin duplicates are secondary quarter-core samples collected from the same drilling interval as the original sample. They are mainly used to assess the natural grade variability of the deposit, as well as to evaluate the total subsampling variances attributable to splitting both in the field, and in all subsequent subsampling steps in the laboratory.

In PPX's 2010 to 2012 drill program, the field duplicate sampling procedure was to take both the original and duplicate as quarter-core samples from the same half-cut core piece. The sampling procedure changed in the 2017 to 2018 drill program where the original sample was a full half core and the duplicate was a quarter-core split of the remaining half core.

A total of 588 twin duplicate samples were analyzed, comprising 578 from drillholes and 10 from channels in the Igor project. It's worth noting that no twin duplicates were inserted for drillholes from 2006 to 2008. Additionally, twin duplicates for channels were exclusively introduced during 2023 where the twin duplicate samples referring to a new sample are taken directly from the channel.

The individual data sets were evaluated and there are no material differences between the ALS and SGS data. The data presented herein are the results of the combined data sets.

Table 11-5 presents a summary of the results for twin duplicate samples in drilling and channel areas in Callanquitas, considering a factor of 20 and an accepted relative error of 30%. The table indicates that channels have experienced failures beyond the acceptable range; however, due to the limited amount of data, conclusive findings cannot be drawn. In the case of drillholes, it is observed that gold exhibits few failures, whereas silver is slightly above the accepted range, this difference is not considered significant.

Figure 11-5 and Figure 11-6 show the analysis of gold in drillholes and channels, respectively in the Callanquitas area. The graph shows that most of failures are near the origin and the failure % is in the acceptable range.

*Table 11-5 Twin duplicate Analysis for Callanquitas Area*

Type	Element	Detection Limit	Total Pairs	Mean Original	Mean Duplicate	Number Failures	Failure Rate
Channel	Au (g/t)	0.005	10	4.344	3.947	2	20%
	Ag (g/t)	0.2	10	69.67	69.73	6	60%
Drillhole	Au (g/t)	0.005	553	0.225	0.209	34	6%
	Ag (g/t)	0.2	553	11.607	16.373	63	11%

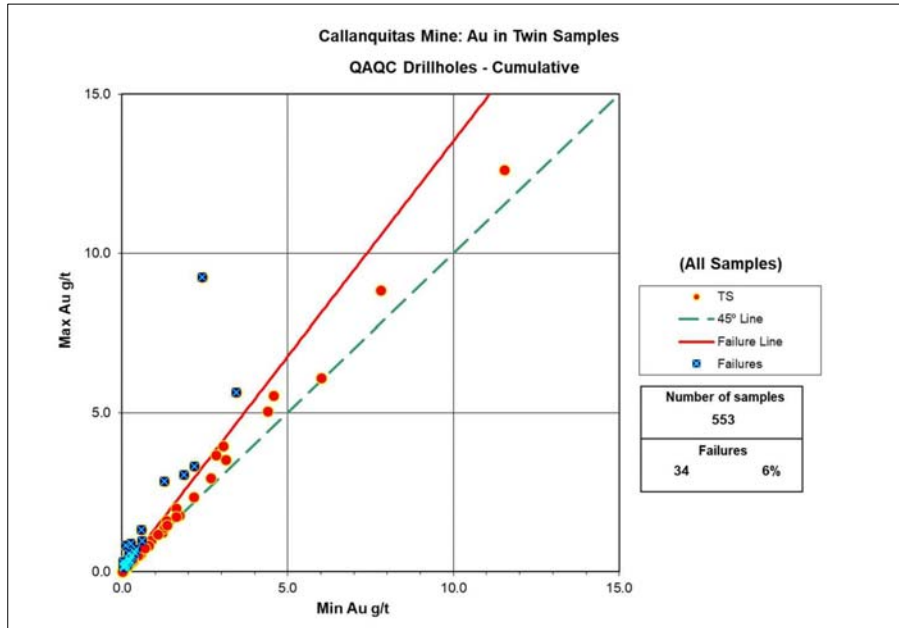


Figure 11-5 DDH – Duplicate Twin Control Samples of Gold for Callanquitas Area

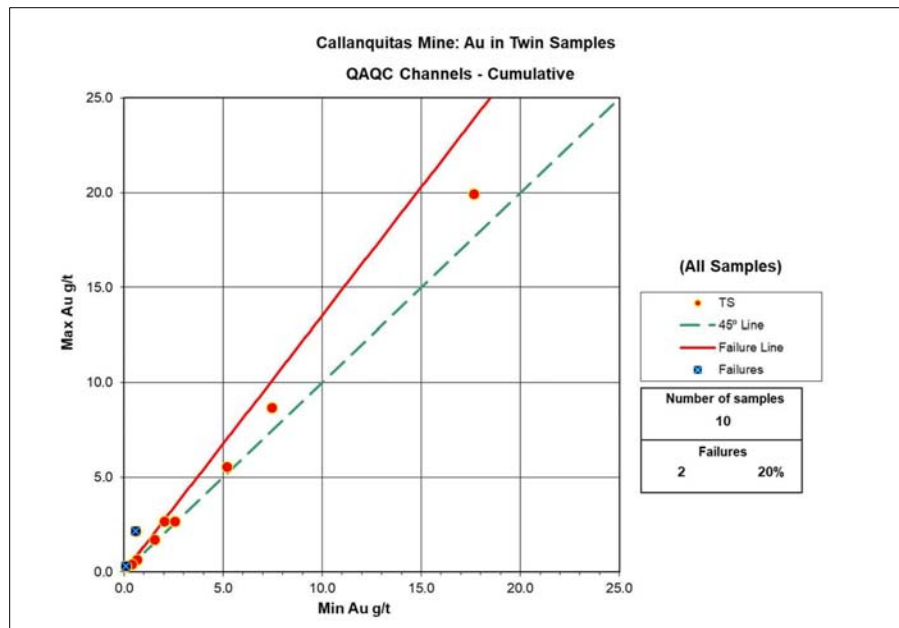


Figure 11-6 Channel – Duplicate Twin Control Samples of Gold for Callanquitas Area

**11.5.4 Second-Lab Pulp Check Assays**

Inter lab pulp duplicates, consisting of original assay pulps from the primary laboratory that are analyzed by a second laboratory, were used to test for assaying accuracy. PPX sent 200 original pulps to Inspectorate in 2012, and then sent an additional 347 original pulps to Certimin in 2018. SGS was the primary laboratory for all original pulps.

The analysis of the inter lab pulp duplicates done by MDA in 2018, involved the application of the Relative Difference (“RD”) and Absolute Value of the Relative Difference (“AVRD”) methods to assess the results. Total original and duplicate mean grades were evaluated along with RD and AVRD data to assist in determining bias and sample variability, respectively.

Table 11-6 and Table 11-7 show the inter lab pulp duplicate analyses for gold and silver, respectively, while Figure 11-7 and Figure 11-8 are graphical examples of the RD and AVRD data, respectively, for the gold same-pulp duplicates. Within the tables, the 2012 Inspectorate and 2018 Certimin results are shown separately though as is readily apparent the results are similar for both data sets. There is no material bias between SGS and the second laboratories, and the sample variability is below 10% for both gold and silver analyses. These results provide confidence in the use of the SGS data.

Table 11-6 Inter Lab Pulp Checks of SGS Drill Hole Gold Assays (MDA, 2018)

Year	Second Lab	Au t/g	Total Pairs	mean orig.	mean dupl.	diff%	mean rel_diff%	mean abs_rel_diff%
2012	Insperctorate	>0.1	199	4.186	4.171	-0.4	-1.6	8.7
2012	Insperctorate	>1.0	124	6.489	6.466	-0.4	-3.2	7.6
2018	Certimin	>0.1	301	3.215	3.195	-0.6	2.1	5.5
2018	Certimin	>1.0	166	5.497	5.451	-0.8	1.2	5.0

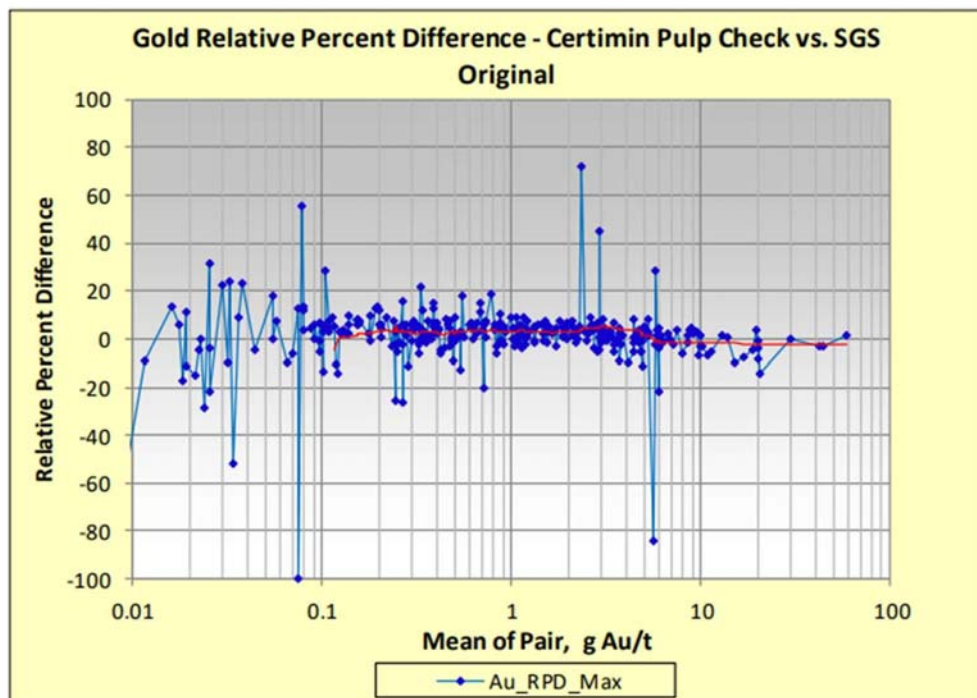


Figure 11-7 Relative Percent Difference: Certimin Gold vs. SGS Original Gold (MDA, 2018)

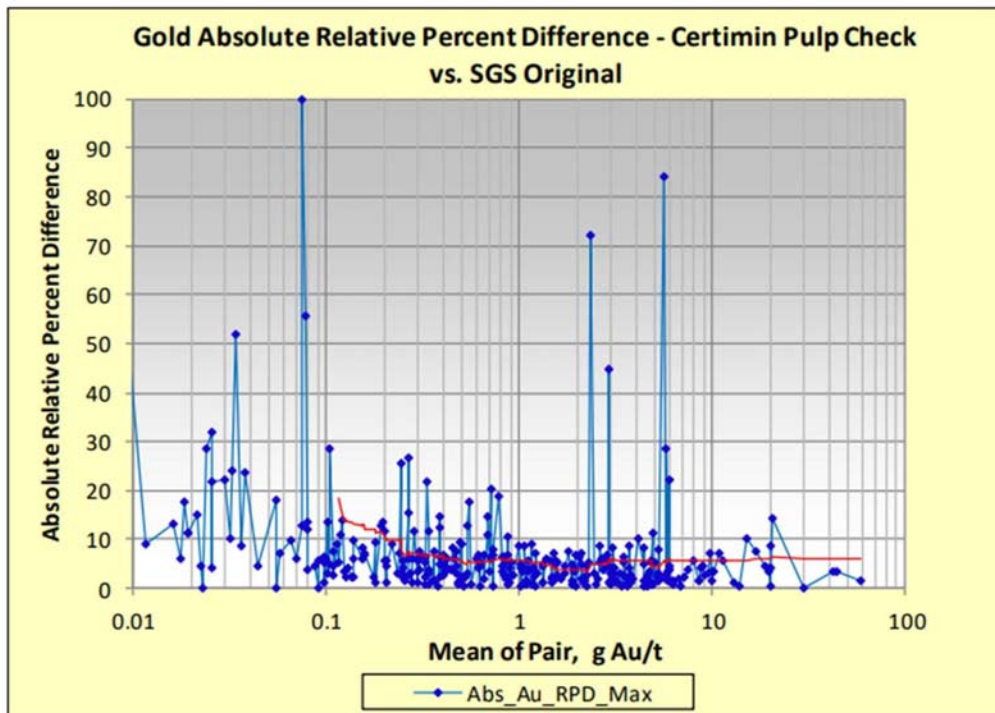


Figure 11-8 Absolute Relative Percent Difference: Certimin Gold vs. SGS Original Gold (MDA, 2018)

Table 11-7 Second-Lab Same Pulp Checks of SGS Drill Hole Silver Assays (MDA, 2018)

Year	Second Lab	Au t/g	count	mean orig.	mean dupl.	diff%	mean rel_diff%	mean abs_rel_diff%
2012	Insperctorate	>10.0	132	439.7	444.4	1.1	-1.3	5.7
2012	Insperctorate	>100	51	1077.4	1090	1.2	-2.8	5.2
2018	Certimin	>10.0	168	123.6	122.3	-1	0.2	6.6
2018	Certimin	>100	42	404.9	397.6	-1.8	-2.1	4.5

### 11.5.5 Conclusion of QA/QC

Since 2010, QA/QC samples have been inserted into the sample stream on a very regular basis with coarse and fine blanks, CRMs, or twin duplicates within each laboratory batch.

There is no evidence of significant cross contamination during sample preparation, although there were occasional blank failures. These failures, which are mostly very low-grade, are not considered to have a material negative impact on the use of the assay data in resource estimation and classification.

In the course of the conducted work in both drillholes and channels, various CRMs with diverse grades have been incorporated, predominantly falling below 2.5 g/t. Most of these CRMs exhibit low grades, specifically below 0.8 g/t Au. It is noteworthy that, for the silver-only CRMs provided by Smee, certified silver values have been included in the dataset since

2017. The failure rate for the CRMs is below 1%, with all failures showing no discernible bias in the results, it is noted that, in most cases, gold values show negative biases, while a positive bias is observed in the case of silver. In both cases, the difference with respect to the CRM values does not exceed 5% and this difference is not considered relevant. Therefore, the primary laboratory demonstrates reasonable accuracy.

The precision in quarter-core field duplicates is within reasonable ranges for the completed drilling. Some variations were noticed for the channel samples, however, due to the limited number of samples, conclusive findings could not be drawn. It is recommended to monitor future channel samples, and the sampling process for further insights.

Second laboratory same-pulp duplicate assays show close agreement with the original laboratory analyses with no material bias (less than 5%) and the total variability averaging less than 10% for all laboratory comparisons.

### 11.6 QP Opinion

It is the opinion of the author that the PPX drilling, channels, and sampling procedures used at the Callanquitas deposit are reasonable and adequate for the purposes of estimation of Mineral Resources. The author does not know of any drilling, sampling, or recovery factors related to the drilling that would materially impact the accuracy and reliability of results that are included in the database used for Mineral Resource estimation.

The channels have exhibited limited precision; however, due to the smaller number of samples, conclusive findings cannot be made. Upon further review during data verification, higher grades (positive bias) have been noted compared to nearby drilling samples. However, reconciliations in the last month of August 2023 (note that no reconciliation is conducted in the Callanquitas mine) do not highlight these differences. The author attributes this variation to the erratic nature of precious metals and potential mineral loss during sampling in drillholes, potentially influenced using a diamond saw and water that might have washed away oxides containing gold and silver. Continuous monitoring through reconciliation and QA/QC processes in underground samples can provide clarity on these discrepancies. The author has concluded that the channels can be utilized in the estimation process, as they have not exhibited a significant difference with the mining production data. Moreover, most channels are situated in mined areas, with only a small sector contributing to mineral resources.



## 12 DATA VERIFICATION

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### 12.1 Site visit Mining Plus

The author (Ms Maria Muñoz) conducted a site visit from January 17<sup>th</sup> to the 19<sup>th</sup>, 2024, aiming to validate the data supporting the Callanquitas deposit. The objectives of the site visit were as follows:

- Understand the geological and geographical context of the project.
- Verify the nature and extent of all exploratory work relevant to the current mineral resource estimate.
- Perform field checks on key drill collar coordinates.
- Verify mineralized and non-mineralized core intercepts.
- Review Standard Operating Procedures for:
  - Drilling, sampling, and analytical processes, encompassing various stages in the sampling and assaying chain from raw samples to prepared pulps.
  - Examine procedures related to geological logging, re-logging, core sampling, analytical QAQC controls, and the chain of custody.
  - Assess methods for bulk density determination.
- To undertake a visit to the retained sample storage facilities for core, rejects, and pulps.
- Review the processes involved in database management.

Following the site visit, Mining Plus concludes that the drilling and sampling information are sufficiently reliable to interpret the mineralized structure's boundaries and that the resource database is reliable to support the mineral resource estimate. The following were observed:

- Mining Plus considers that the drilling procedures followed are to industry best practices, and the resulting drilling pattern is sufficient to interpret the geometry and the mineralization boundaries with confidence.
- Mining Plus is of the opinion that the sample preparation, security protocols, and analytical procedures adopted for the Project drilling conform to industry best practices.
- Mining Plus considers that the geology and mineralization controls are well understood and are appropriately applied during the development of the drilling and geological interpretation.
- The survey control and collar survey are considered accurate.
- The available information indicates that the resource database has been compiled and validated, and forms an appropriately reliable basis for the mineral resource estimate.
- The QA/QC program, as designed and implemented, is adequate, and the assay results within the resource database are suitable for use in a mineral resource estimate.

- Mining Plus’s review of the results of previous independent sampling has confirmed the presence of gold in the same order of magnitude as the original samples for the Callanquitas Gold Silver deposit.

Mining Plus made a number of minor recommendations for continuous improvement.

Following the site visit assessment and various discussions with key project personnel, Mining Plus concludes that the drilling and sampling information is sufficiently reliable to interpret the boundaries of the mineralized structure, and the resource database is reliable to support the mineral resource estimate. The following observations were noted:

- Mining Plus acknowledges that the drilling procedures adhere to industry best practices, and the resulting drilling pattern provides sufficient confidence in interpreting the geometry and mineralization boundaries.
- The sample preparation, safety protocols, and analytical procedures implemented for Project drilling are deemed to align with industry best practices. Minor suggestions for ongoing improvement have been identified.
- Mining Plus asserts that geological and mineralization controls are well-understood and appropriately applied during the development of drilling and geological interpretation.
- The precision of both the survey control and collar survey is regarded as high.
- The information at hand indicates that the resource database has been compiled and validated, providing a reliable foundation for mineral resource estimation. Nonetheless, there is an observation that the collection of channels should follow a pseudo-drilling approach rather than being treated as independent samples. Furthermore, it is recommended to centralize information storage on an official server to ensure effective management and serve as the most up-to-date official data.
- The QAQC program, as designed and implemented, demonstrates acceptable results, and has not revealed any significant issues. Therefore, the resource database is considered suitable for use in a mineral resource estimate. Among the observations, it is recommended to increase the monitoring of channels and enhance controls for duplicates, including twins, coarse, and pulp. Additionally, ongoing checks on pulp with an external laboratory are advised. Standard controls should encompass values close to the deposit's mean grade and the cut-off grade, along with a high grade value, whenever possible, for both gold and silver.
- Regular density measurements should be conducted in both the waste area and the mineralized vein, clearly identifying the name of the vein to which each measurement concerns.
- The core shack established in Trujillo ensures the proper and secure storage of cores along with their corresponding reject samples and pulps from the Igor project.

- Mining Plus conducted independent sampling of three core samples (one-third of core), and one sample from a stockpile sourced from an underground working, confirming the presence of gold in a magnitude comparable to the original samples from the Callanquitas deposit.

## 12.2 Site visit Geologica

The authors (Mr. Alain-Jean Beauregard and Mr. Eddy Canova) checked the existing data of the past and recent reports of exploration targets. According to elements reported in the statutory documents, sampling works, and the analyses seem to be made according to standards in force at that time and still valid today, although a procedure and method are not described. Channel samples did validate the presence of gold, silver and locally copper in some areas. Several historic showings were found such as outcrops, old trenches, surface mining of colonial times and recent underground developments.

The authors have visited the Igor Property between November 3<sup>rd</sup> and the 7<sup>th</sup>, 2023. They were carefully assisted and guided by Mr. Marcial Gutierrez, Exploration Manager and three (3) PPX technical assistants in the channel sampling process in the field, and one technical assistant (Mr. Manual Chamorro) at the core shack for sampling of selected mineralized core of chosen diamond drillholes intersections across the Portachuelos, Domo and Tesoros mineralized zones. Forty-nine (49) core mineralized samples were taken from drillholes CA-17-76; CA-18- 94; IG-7A-2 in the Portachuelos Zone; from drillholes TE-18-02 and TE-18-05 in the Tesoros Zone and from drillholes DO-2008-05 and DO-2008-06 in the Domo Zone.

During the recent visit, in November 2023, Geologica has collected 82 samples (33 channel samples on the PPX-3 to PPX-10 and 49 core samples in DDHs CA-17-76, CA-18-94, IG-7A2, TE-18-02, TE-18-05, DO-08-05 and DO-08-06) with added two (2) blanks, five (5) duplicates and three (3) standards (Table 12-1 and Table 12-2). The results confirm the presence of gold and silver in the mineralization in the intervals sampled. The correlation between original and 2nd half core sampling varies from moderate to excellent for gold and silver (Table 12-1).

Geologica's samples were collected independently of PPX, kept secure, and transported to the SGS assay laboratory in Lima, Peru, for fire assay using aliquots of 30 g. For fire assaying, all assays were finished by atomic absorption; samples that returned greater than 10 g/t Au were re-assayed using a gravimetric finish. Sample preparation included crushing to 90% less than 2 mm, riffing out a 250 g fraction, and pulverizing to 95% less than 75 µm.

Table 12-1 Comparison between PPX sampling and Geologica independent check Sampling for core drilling

PPX Mining Corp.								Geologica Inc.		
DDH N°	Zone	From (m)	To (m)	Length (m)	Sample N°	Au g/t	Ag g/t	Sample N°	Au g/t	Ag g/t
CA-17-76	Portachuelos	162.1	163.75	1.65	K164854	1.87	16.1	W952201	1.875	18.3
CA-17-76	Portachuelos	163.75	165.4	1.65	K164855	0.753	3.1	W952202	1.619	5.2
CA-17-76	Portachuelos	165.4	166.5	1.10	K164856	0.963	3.1	W952203	0.930	5.3
CA-17-76	Portachuelos	166.5	168.1	1.60	K164857	1.185	4.7	W952204	1.000	3.6
CA-17-76	Portachuelos	168.1	169.5	1.40	K164858	1.237	9.4	W952205	0.964	6.3
CA-17-76	Portachuelos	169.5	171.15	1.65	K164859	1.223	10.7	W952206	0.980	8.9
CA-18-94	Callanquitas	211.4	212.9	1.50	M179395	1.149	6.8	W952207	0.902	6.4
CA-18-94	Callanquitas	212.9	214.9	2.00	M179396	0.433	5	W952208	0.501	4
CA-18-94	Callanquitas	214.9	216	1.10	M179397	4.953	20	W952209	3.914	19.6
CA-18-94	Callanquitas	216	217.1	1.10	M179398	3.209	50	W952210	2.626	14.1
CA-18-94	Callanquitas	217.1	218.5	1.40	M179399	2.188	11.6	W952211	1.288	5.1
CA-18-94	Callanquitas	218.5	218.85	0.35	M179401	10.06	146	W952212	13.290	85.5
CA-18-94	Callanquitas	218.85	219.45	0.60	M179402	1.205	6.4	W952213	0.496	2.2
CA-18-94	Portachuelos	72.8	73.7	0.9	M179266	3.642	45.2	W952214	2.498	107
CA-18-94	Portachuelos	73.7	74.7	1.00	M179267	9.866	904	W952215	7.009	628
CA-18-94	Portachuelos	74.7	76.2	1.500	M179268	5.164	260	W952216	2.805	70.9
CA-18-94	Portachuelos	76.2	77.4	1.20	M179269	3.807	731	W952217	2.977	709
CA-18-94	Portachuelo	77.4	78.8	1.40	M179270	6.56	322	W952218	4.916	1203
IG-7A2	Portachuelos	38.2	38.8	0.60	E637398	3.71	33.2	W952219	1.972	21.3
IG-7A2	Portachuelos	38.8	39.32	0.52	E637399	0.727	0.5	W952220	1.906	11.1
IG-7A2	Portachuelos	39.32	41.3	1.98	E637401	6.83	24.8	W952221	4.892	15.4
IG-7A2	Portachuelos	41.3	42.74	1.44	E637402	0.563	16.8	W952222	0.774	27.2
TE-18-02	Tesoros	91.7	92.15	0.45	K166433	2.801	78.5	W952223	0.526	28.7
TE-18-02	Tesoros	92.15	93.5	1.35	K166434	0.591	4.7	W952224	0.691	4.7
TE-18-02	Tesoros	93.5	95.3	1.80	K166436	0.677	5.5	W952225	0.446	3.6
TE-18-02	Tesoros	95.3	96	0.70	K166437	1.46	138	W952226	1.286	155
TE-18-02	Tesoros	96	96.8	0.80	K166438	0.448	13.9	W952227	0.375	10.5
TE-18-05	Tesoros	113.85	114.45	0.60	K166996	1.046	132.3	W952228	1.111	862
TE-18-05	Tesoros	114.45	116.6	2.15	K166997	1.095	843.9	W952229	0.712	20.7
TE-18-05	Tesoros	116.6	117.3	0.70	K166998	0.105	69.5	W952230	0.145	6.1
TE-18-05	Tesoros	122.45	123.8	1.35	K167003	1.722	32.7	W952231	1.749	143
TE-18-05	Tesoros	123.8	124.8	1.00	K167004	0.523	10.1	W952232	0.514	8.8
DO-08-05	Domo	0	0.44	0.44	A1976	13.15	12.2	W952233	13.510	8.2
DO-08-05	Domo	0.44	0.7	0.26	A1977	9.97	16.4	W952234	3.716	4.8
DO-08-05	Domo	0.7	1.04	0.34	A1978	4.61	5.1	W952235	0.611	2.5
DO-08-05	Domo	1.04	1.51	0.47	A1979	0.13	0.1	W952236	0.045	0.2
DO-08-05	Domo	1.51	1.91	0.40	A1980	6.63	28	W952237	0.744	3.4
DO-08-05	Domo	37.91	38.6	0.69	A2004	0.009	0.2	W952238	0.005	0.2
DO-08-05	Domo	38.6	39.72	1.12	A2005-A2006	30.884	743.7	W952239	19.11	195
DO-08-05	Standard	EPIT-15						W952240	6.551	186
DO-08-05	Domo	39.72	41.35	1.63	A2007	0.019	0.3	W952241	<0.005	<0.2
DO-08-06	Domo	0	0.5	0.50	A2049+A2050	15.366	205.6	W952242	2.217	28.5
DO-08-06	Domo	0.5	1.3	0.80	A2051+A2052	5.919	165.7	W952243	0.332	22.3
DO-08-06	Domo	1.3	2.49	1.19	A2053+A2054	0.087	3.5	W952244	0.042	1.4
DO-08-06	Domo	10.59	11.22	0.63	A2060+A2061	4.107	58.3	W952245	0.968	13.3
DO-08-06	Domo	11.22	12.15	0.93	A2062	3.33	172.0	W952246	2.686	130
DO-08-06	Domo	12.15	12.87	0.72	A2063	2.82	10.6	W952247	0.543	3.9
DO-08-06	Domo	12.87	14.67	1.80	A2064+A2065	0.650	0.5	W952248	0.711	0.7
DO-08-06	Blank	Coarse						W952249	<0.005	0.2

Table 12-2 Geologica Sampling on the channels

Channel Sampling by Geologica											
Zone	Channel	Easting	Northing	Elevation	Azimuth	From (m)	To (m)	Sample N°	Au g/t	Ag g/t	
Domo	PPX-3	781267	9153220	3333	120	0	0.85	Y720251	0.030	0.9	
						0.85	1.35	Y720252	1.785	18.3	
						1.35	2.35	Y720253	0.041	0.7	
	PPX-4	781323	9153169	3285	125	0	0.2	Y720254	0.196	3.8	
						0.2	0.8	Y720255	4.497	150	
						0.8	1.2	Y720256	0.152	4.2	
	PPX-5	781005	9153214	3277	110			Y720257	0.23	1.1	
	Portachuelos	PPX-6	781157	9152976	3119	15	0	1.5	Y720258	0.070	11.4
							1.5	2.7	Y720259	1.400	126
Standard							EPIT-21	Y720260	4.665	158	
2.7							4.2	Y720261	1.310	154	
PPX-6A		781163	9152980	3122	15	0	1.2	Y720262	3.112	189	
PPX-7		781231	9152911	3110	340	0	1.2	Y720263	0.300	16.2	
						1.2	2.7	Y720264	1.636	24.3	
						2.7	4.2	Y720265	0.740	22.6	
						4.2	4.45	Y720266	0.499	102	
PPX-7A		781237	9152925	3110	0	0	1	Y720267	0.271	25.1	
						1	1.4	Y720268	3.425	287	
PPX-8		781212	9152913	3100	137	0	1.5	Y720269	0.232	14.8	
						1.5	2.5	Y720271	0.901	41.8	
		781217	9152916	3100	110	2.5	4	Y720272	4.953	83.3	
						4	5.3	Y720273	1.934	51.2	
						Blank Fine	TR-22145	Y720270	<0.005	<0.2	
PPX-9		782577	9152412	2895	53	0	1.3	Y720274	0.03	1.4	
						1.3	2.4	Y720275	0.064	0.7	
	2.4					3.5	Y720276	0.046	0.9		
Tesoros	PPX-10	782663	9152871	3153	307	0	0.8	Y720277	0.759	14.9	
						0.8	2	Y720278	0.291	48.6	
						2	2.6	Y720279	0.48	88.4	
						Standard	EPIT-15	Y720280	7.101	187	
	PPX-10A				79	0	1.5	Y720281	0.571	45	
						1.5	2.5	Y720282	4.347	271	
						2.5	3.5	Y720283	1.344	147	

### 12.3 Data Review

Between March and July 2023 (Mining Plus, 2023), Mining Plus conducted a comprehensive review of the database utilized in the Mineral Resource Estimate for the Igor Project. This thorough examination encompassed all diamond drillholes conducted from 2006 to December 31, 2018, as well as the underground channel samples gathered by PPX from 2017 to July 31, 2023.

Also Mining Plus review holes and channels done by PPL, and as the majority of the work was conducted outside established industry standards, it was deemed unreliable and consequently excluded from the resource estimates.

The primary objective of the review of the drilling database was to identify and rectify potential errors in:

- Database structure.
- Spatial location of collars.
- Downhole survey measurement
- Geochemical analysis.
- Sample recovery vs. grade.
- QA/QC program results.
- Bias between channels and drillholes.
- Bulk density measurements.

The result of this review is summarized in Table 12-3.

#### **12.4 QP opinion**

The qualified persons for preparing this technical report assert that the data employed to underpin the mineral resource estimate are satisfactory and suitable for the designated purpose.

Additionally, the Property exhibits notable merit with mineralized structures such as Callanquitas, Portachuelos, Tesoros, and Domo. This justifies further exploration through the subsequent phases.

Table 12-3 Summary of the findings of the database review conducted by Mining Plus

Review		Comments
Collar Location	Database structure	<ul style="list-style-type: none"> <li>No material problems were identified, and the database structure as well as the supporting files are well organized.</li> <li>Some differences have been found in the nomenclature for a sample, specifically in the names of the channels, PPX must have consistency in the registration codes of the samples. Logging codes should be consistent.</li> </ul>
	20% of source data, was cross-check with certificates.	<ul style="list-style-type: none"> <li>Collar certificates were provided by PPX. Mining Plus did not find any error in the coordinates with respect to its certificate, however the CA-12-20 drillhole does not have a collar and therefore must be removed.</li> <li>29 channel samples do not match the ID sample field with their certificate. Mining Plus suggests it be corrected before being used.</li> </ul>
Downhole survey	XYZ - Site Verification	<ul style="list-style-type: none"> <li>Callanquitas Mine visit was done from January 17<sup>th</sup> to 19<sup>th</sup>, 2024. Most of the collars are not available for re-survey, Mining Plus reviewed the available collar (CA-17-91) with no material difference with the database.</li> </ul>
	XYZ - Data base Verification	<ul style="list-style-type: none"> <li>There were no problems identified with the coordinates, additionally no problems or errors have been detected when entering the data.</li> <li>There were no depths greater than those reported in the collar table with respect to the other tables.</li> </ul>
Drill Core Recovery Samples	20% back to source data, (cross-check with certificates).	<ul style="list-style-type: none"> <li>PPX provided reflex measurements in Excel files, which demonstrate the downhole measurements; however, it does not represent a certificate as such, due to the lack of the sign off of the executing company.</li> </ul>
	Kink check	<ul style="list-style-type: none"> <li>No significant deviations were found in the drilling.</li> </ul>
	Holes without Downhole survey	<ul style="list-style-type: none"> <li>All holes have a downhole survey, which was carried out predominantly every 25 meters, and others at 50 meters.</li> </ul>
	Data base Verification	<ul style="list-style-type: none"> <li>The downhole survey measurement does not specify the type of equipment used; however, discussions with the technical team indicate that it was conducted using Reflex equipment.</li> <li>The channels do not present survey certificates.</li> <li>100% of drillholes have sample recovery information, with an average core recovery of 95%.</li> <li>There is 1 hole with 84% recovery (CA-12-73).</li> </ul>
Assays	20% back to source data, (cross-check with certificates).	<ul style="list-style-type: none"> <li>The samples with Au and Ag assay results were reviewed with their respective laboratory certificate, no significant differences were detected. Mining Plus highlights from the review:                             <ul style="list-style-type: none"> <li>Presence of values -333, -999, -777, assigned for samples that have low or no recovery and not sampled.</li> <li>2,748 intervals were assigned with gold values of 0.0025, which represents half of the detection limit value (-0.005).</li> </ul> </li> </ul>
	Data type comparison by drilling campaign.	<ul style="list-style-type: none"> <li>No data type comparison was made since most of the campaigns have drilled in different areas.</li> <li>Data comparison between channels and drilling reveals a positive bias, indicating a higher grade in channels compared to drillholes. The reasons for these differences are not entirely clear; however, a comparison of mining production with the channel data does not show any significant variations.</li> </ul>
	Data base Verification.	<ul style="list-style-type: none"> <li>No overlaps exist in the database.</li> <li>Names of certificates and laboratories are included in the assay table.</li> </ul>

Density samples		<ul style="list-style-type: none"> <li>All samples include ID_sample.</li> <li>No negative values are observed, except for values below the detection limit, no recovery samples and not sampled.</li> </ul>
0% back to source data Data base Verification.		<ul style="list-style-type: none"> <li>The density certificates were administered by PPX, both for diamond samples and channels.</li> <li>All core samples have a length of 0.10 meters to 0.20 meters.</li> </ul>
Twin holes		<ul style="list-style-type: none"> <li>No twin holes were observed.</li> </ul>
QA/QC		<ul style="list-style-type: none"> <li>No material problems are identified. Mining plus has reviewed the results of 2011, 2014, 2016, 2017, 2018, 2023 where the following stands out:             <ul style="list-style-type: none"> <li>There is an apparent contamination of blank samples for the silver values, in some cases it is around low grades, indicating that the blanks samples have small silver values. Additionally, there are few blank samples with values in economic zones; however, due to the number of samples it is not considered relevant.</li> <li>The twin samples for some campaigns have low precision in some cases; nevertheless, due to the proportion that they represent are not relevant.</li> </ul> </li> </ul>



## 13 MINERAL PROCESSING AND METALLURGICAL TESTING

A considerable amount of test work was carried out on heap leaching and is reported in the Pre-Feasibility Study prepared in Mine Development Associates (MDA, 2018). Only tank leaching is reported here as tank leaching will be used, being considered to offer higher and more certain recoveries than heap leaching.

### 13.1 Historical Test Work

A report dated 2014 (Alex Stewart International in Perú - bottle-roll cyanide leach) from Alex Stewart Laboratories and signed by Ing. Gonzalo Sotomayor reported that gravity recovery on the oxidized mineral gave low recoveries (28.2% for gold, 1.7% for silver), and flotation only gave recoveries of 49.5% gold and 13.0% silver. Extended leach times of 120 hours gave the results shown in Table 13-1.

*Table 13-1 Cyanidation Results at 120 hours Leach Time (Alex Stewart Lab, 2014)*

P80 microns	Head Grade g/t		Extraction %	
	Gold	Silver	Gold	Silver
147	19.26	138	77.9	7.3
105	19.26	138	78.3	7.4
75	19.26	138	81.4	8.0

Tellurium was detected at a concentration of 31 ppm and was identified as a potential factor influencing uniform gold grades in tailings. This consistency is linked to the presence of gold tellurides resistant to leaching. Cyanide consumption was reported as relatively high (3.6 kg/t) with 4 kg/t lime being used.

In 2020, K.W. Quimica Germana (Mineral Laboratory in Lima – Peru) carried out agitation tank leach tests on two samples of mineral, using a grind of 85-90% passing 200 mesh (75 micron) and a leach time of 48 hours. The results are shown in Table 13-2 .

*Table 13-2 Cyanidation Results at 48 hours Leach Time (K. W. Quimica Germana, 2020)*

Sample	Head Grade g/t		Extraction %	
	Gold	Silver	Gold	Silver
KW 2152	5.5	33.1	77.8	32.1
KW 2153	14.4	91.2	85.7	71.1

Very high cyanide consumptions were recorded at 7.0 kg/t and 6.8 kg/t for KW 2152 and KW 2153 respectively. Sodium hydroxide was used for pH control, but consumptions were lower at 3.1 kg/t and 1.2 kg/t. Kinetics showed leaching essentially complete in 24 hours.

### 13.2 Large Scale Ore Processing

Ore has been mined and treated at a third-party plant at a nominal 150 tonnes per day for several years and as an example, the production data by month is shown for 2022 until September 2023 in Table 13-3. These results serve as indicators, given that the ores extracted from the Igor Mine are high-grade ores from the overall deposit, nonetheless, they indicate a highly satisfactory current processing efficiency.

*Table 13-3 Custom Milling Results for Igor Mine Ore Processed in 2022 to September 2023*

Month	Tonnes	Gold g/t	Gold Recovery %	Silver g/t	Silver Recovery %
January 2022	4,123	12.04	70.20%	165	50.00%
February 2022	2,955	12.21	74.10%	249	50.00%
March 2022	4,083	13.04	76.70%	243	50.00%
April 2022	3,865	12.89	78.10%	194	50.00%
May-22	3,384	11.33	67.80%	153	50.00%
June 2022	3,196	12.64	72.00%	264	50.00%
July 2022	3,342	13.04	79.00%	300	50.00%
August 2022	3,834	12.03	80.80%	246	50.00%
September 2022	2,862	11.7	73.30%	303	50.00%
October 2022	4,585	12.3	81.00%	290	50.00%
November 2022	3,575	11.48	81.40%	266	50.00%
December 2022	4,429	9.44	78.70%	284	49.70%
January 2023	4,411	11.63	80.72%	324	50.00%
February 2023	7,017	8.90	80.83%	138	50.00%
March 2023	2,846	9.60	72.90%	203	50.00%
April 2023	2,458	9.45	76.69%	203	50.00%
May-23	1,397	6.43	75.54%	101	50.00%
June 2023	2,217	7.41	79.14%	300	50.00%
July 2023	4,015	8.46	71.92%	187	50.00%
August 2023	3,478	7.87	77.05%	156	50.00%
September 2023	3,085	8.02	75.80%	107	50.00%
<b>Total for 2022 - Sep 2023</b>	<b>75,156</b>	<b>10.72</b>	<b>76.75%</b>	<b>223</b>	<b>50.00%</b>

The recovery for silver is set at 50% by contract although it is known that the recovery is slightly higher. Mining is selective, and the grade is maintained at high levels to ensure that the operation is profitable given the high cost of transporting and treating the ore.

### 13.3 Base Metallurgical Laboratories Test Work (2023)

Three samples were sent to Base Met Laboratories of Kamloops and the results are described in the Metallurgical Testing of The Igor Project report, May 2023 (BL1216).

Assays of the three samples are shown in Table 13-4.

*Table 13-4 Head Assays of Three Igor Project Samples (Base Met Labs, 2023)*

Sample	Assays				
	Gold g/t	Silver g/t	Sulfur %	Carbon %	Iron %
Mine Plan Blend	10.1	59	0.05	0.20	23.2
High Grade	31.1	984	0.13	0.44	29.0
High Sulfide	5.4	970	12.80	0.60	10.3

The Mine Plan Blend was a composite sample taken from various locations in the mine, High Grade was taken from a known high-grade zone in the mine, both of these were considered oxide mineral and the sulphur analysis showed this to be the case. The High Sulfide sample was a composite of three drillholes which intersected the sulfide zone to the south of the oxide ore presently being mined.

QEMSCAN analysis showed that pyrite is the dominant sulfide mineral for all samples, but at only low levels with copper sulfide and arsenopyrite minerals in the Mine Plan Blend and High Grade material. The High Sulfide sample had higher levels of copper.

The non-sulfide minerals were comprised of quartz and iron oxides in the Mine Plan Blend and High-Grade samples, quartz, clay, and mica in the High Sulfide sample.

The level of carbon was considered high enough to have some preg-robbing potential.

### **13.3.1 Comminution Testing**

The Bond ball mill work index was measured for each of the three samples with a closing screen of 106 µm and a nominal product sizing of P<sub>80</sub> 75 µm (Table 13-5).

*Table 13-5 Comminution Test Summary (Base Met Labs, 2023)*

Sample	CSS Microns	Feed F <sub>80</sub> Microns	Product P <sub>80</sub> Microns	Work Index kW-h/tonne
Mine Plan Blend	106	1,561	81	12.5
High Grade	106	2,114	81	10.3
High Sulfide	106	1,791	72	17.3

The Mine Plan Blend and High-Grade material were of only average hardness at 12.5 and 10.3 kW-hr/tonne respectively while the High Sulfide material was appreciably harder with a Bond index of 17.3 kW-hr/tonne.

**13.3.2 Metallurgical testing**

Initial tests were performed on Mine Plan Blend using gravity concentration with a Knelson Gravity concentrator. The gravity tailings were then leached with cyanide. The leach results are shown in Table 13-6. All leach tests were conducted at 40% solids.

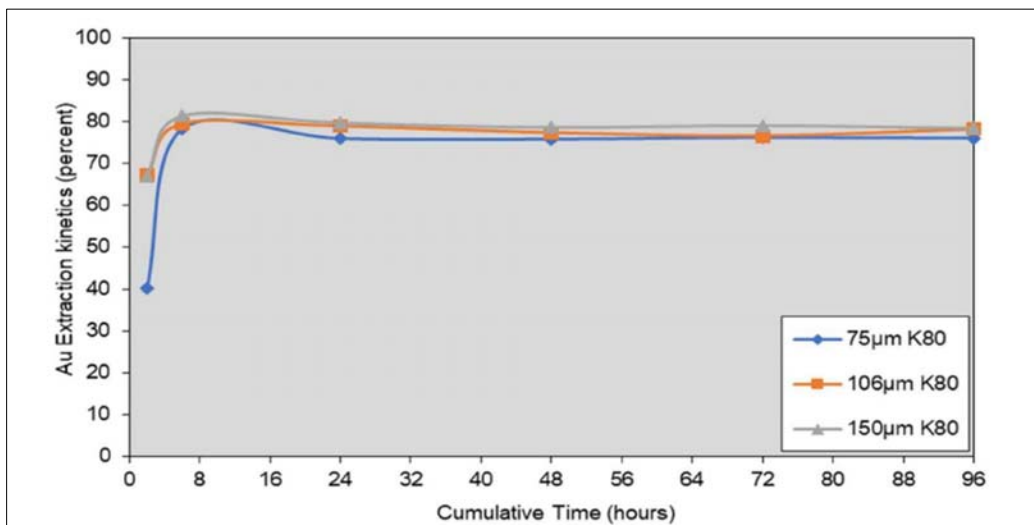
*Table 13-6 Overall Gravity Leaching Results of the Mine Plan Blend Sample (Base Met Labs, 2023)*

Grind microns	Direct Leach Extraction%	
	Gold	Silver
75	76.0	56.5
106	78.2	56.4
150	78.4	55.2

The leach extractions were relatively low, in line with those obtained in the commercial plant with most of the historic test work. It was found that gravity concentration gave only 3.1% gold recovery, and it was concluded that gravity concentration should be eliminated.

Grind size had little effect, with only small differences in extraction although it appears that a finer grind gave slightly lower extractions, which can be explained as finer grinding liberates more pre-robbing carbon and activates it.

Leach kinetics for both gold and silver were monitored in these tests and the results are shown in the two graphs below (Figure 13-1 and Figure 13-2).



*Figure 13-1 Grind Size Investigation Kinetics of Gold Leaching (Base Met Labs, 2023)*

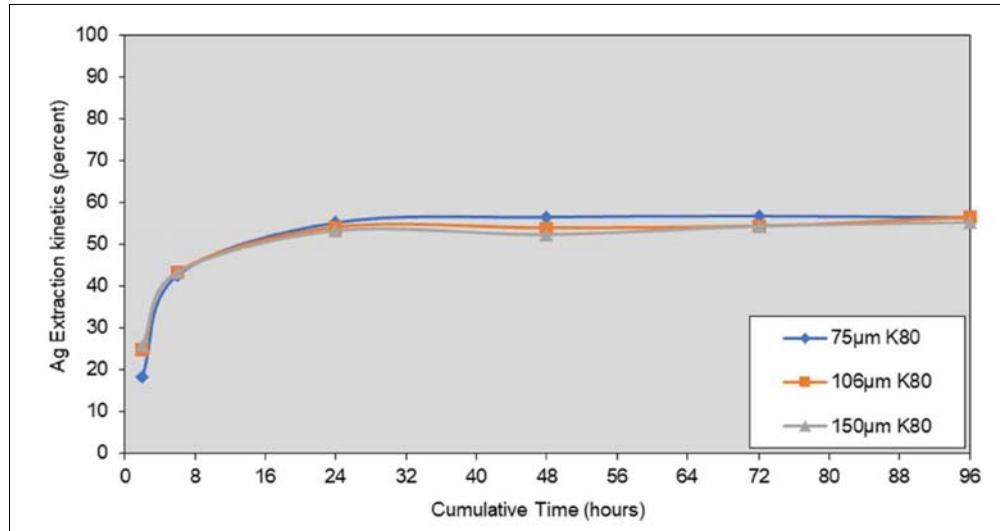


Figure 13-2 Grind Size Investigation Kinetics of Silver Leaching (Base Met Labs, 2023)

The results show that gold leaching is fast, with final extractions obtained after only 8 hours, while silver leaching is somewhat slower, 24 hours being required. The grind size had no significant effect on kinetics.

The relatively low recoveries obtained, and the presence of carbon in the samples suggested that the ore may show preg-robbing characteristics. A preg-robbing evaluation confirmed this assumption, particularly in the High Sulphide Sample. Due to this observation tests were carried out using a Carbon in Leach procedure, with 50 g/t carbon and 40% solids.

The results are shown in the Table 13-7 below and the direct leach results are also shown to allow comparison.

Table 13-7 Direct and CIL Leach Recoveries for the Mine Plan Blend Composite (Base Met Labs, 2023)

Grind microns	Direct Leach Extraction%		Carbon in Pulp Leach Extraction %	
	Gold	Silver	Gold	Silver
75	76.0	56.5	88.8	52.1
106	78.2	56.4	87.2	52.0
150	78.4	55.2	86.1	54.3

The very significant increase in gold extraction is evident and a Carbon in Leach flowsheet should be used.

These results were confirmed with two Carbon in Leach tests to prepare solution for cyanide destruction test work without prior gravity concentration, with a grind of 106 microns, where extractions of 84.3% and 84.8% were obtained.

The oxide ore as represented by the Mine Plan Blend has highly acidic characteristics, probably due to large amounts of ferrous iron (two valent iron) which when oxidized at high

pH produces large amounts of H<sup>+</sup> ions. If these ions are not reacted with a base (lime) then cyanide consumption can be very high and it may be this behaviour which led to very high cyanide consumptions due to complexing of cyanide and HCN loss being reported in earlier test work. This was noted at the start of the present test work and care was taken to add sufficient lime to control the pH above 10.5. The average lime requirement was 8.5 kg/t and the cyanide consumption 2.3 kg/t. In order to avoid a possible low pH condition in the first CIL tank, a pre-oxidation step was used, and this test resulted in lower cyanide consumption of 1.8 kg/t with a lime usage of 8.5 kg/t.

### High Grade material

One test was carried out on the high-grade sample and an extraction of 87.5% was obtained.

### Sulfide ore

A carbon in leach test was carried out on the sulfide ore at a grind of 106 microns. Gold extraction was 54.6%, and the silver extraction 17.3%. The low result for gold and more importantly with this high-grade silver material, the low silver extraction prompted a flotation test to be carried out.

A flotation test was carried out using potassium amyl xanthate collector (PAX) and MIBC frother. Concentrate was collected at one-minute intervals with 30 and 28 g/t of each reagent being added at the start of flotation and about half this amount at one-minute intervals. The overall reagent usage was 95 g/t of PAX and 70 g/t of MIBC. The results are shown in Table 13-8 and it can be seen that high recoveries of gold and silver to concentrate were obtained (94.1% and 96.9% respectively). The concentrate grade was 19.5 g/t gold and 3790 g/t silver. Multi element analysis of the concentrate was carried out and the elements of interest, some of which may attract penalties were:

Arsenic 2.6%, Bismuth 212 ppm, Cadmium 49 ppm, Copper 0.93%, Iron 32.5%, Mercury 4 ppm, Lead 0.17%, Antimony 0.96% and Zinc 0.098%.

*Table 13-8 Flotation Result of the High Sulphide Composite (Base Met Labs, 2023)*

Grind microns	Weight %	Assay g/t or %			Distribution		
		Gold	Silver	Sulfur	Gold	Silver	Sulfur
Product 1 to 6	35.7	19.5	3,790	33.6	94.1	96.9	98.1
Tailings	64.3	0.68	68	0.37	5.90	3.1	1.9

### Carbon loading

With the relatively high silver content, the loading capacity of carbon is important to determine the size of the carbon circuit. Six samples of Mine Plan Blend were leached directly and filtered, and the clear leach solution was contacted with carbon at different solution to

carbon ratios. The concentrations of gold and silver in solution and the calculated loading on the carbon are shown in Table 13-9.

Table 13-9 Carbon Loading Result Summary (Base Met Labs, 2023)

Carbon Concentration g/l	Initial		Final Solution		Carbon Loading		
	Gold conc. g/l	Silver conc. g/l	Gold conc. g/l	Silver conc. g/l	Gold g/t	Silver g/t	Au + Ag g/t
10.0	5.07	24.1	0.02	0.71	505	2,339	2,844
5.0	5.07	24.1	0.07	2.48	1,000	4,324	5,324
2.5	5.07	24.1	0.21	7.26	1,944	6,736	8,680
1.0	5.07	24.1	0.93	15.30	4,140	8,800	12,940
0.5	5.07	24.1	2.20	20.10	5,740	8,000	13,740

The carbon loading capacity can be expressed as:

### Carbon Loading Capacity

$$\log (X/M) = m \log C + \log K$$

### EQUIL LOADING

4404	at 1.00 mgpl
3004	at 0.50 mgpl
1812	at 0.20 mgpl

Where	X/M	=	mg of gold adsorbed per gram of carbon at equilibrium.
	C	=	mgpl of gold remaining in solution.
	m	=	constant (slope)
	K	=	constant (intercept)

With relatively high-grade ore and rapid leaching of gold, high loading values are possible, but as carbon loading increases, so does the amount of gold and silver locked up in the carbon. For design purposes, a loading value of 10,000 g/t gold + silver would be reasonable, but higher loadings are possible if silver increases further.

### **Cyanide destruction**

After leaching and adsorption, the solution will be treated to destroy free and WAD (weak acid dissociable cyanide complexes). Barren leach solution would normally be recycled to the grinding circuit, but the presence of carbonaceous material in the ore which can adsorb gold (preg-robbing) means only cyanide free solution can be recycled if gold losses are to be minimized.

Leached slurry will be treated by the commonly used SO<sub>2</sub> – Air process, originally developed by INCO. Sodium bisulfite will be used as the source of sulfur dioxide and a copper catalyst will be added in the form of a copper sulfate solution.

The amount of SO<sub>2</sub> and copper sulfate were varied when added to an aerated leach slurry after gold and silver had been adsorbed with carbon. The results are shown in Table 13-10 below:

*Table 13-10 Cyanide Detoxification Result Summary (Base Met Labs, 2023)*

Test #	CN Total ppm	CNWAD ppm	Copper mg/l	Iron mg/l	Zinc mg/l	Nickel mg/l	Copper added ppm	SO <sub>2</sub> :CN WAD ratio g/g CN
Feed	574.0	310.0	3.30	94.30	0.04	0.34		
1	2.6	0.6	0.27	0.73	0.01	0.01	200	5
2	73.2	0.3	0.22	26.10	0.03	0.03	50	5
3	113.1	0.5	0.27	40.30	0.03	0.03	25	5
4	109.2	0.7	0.32	38.80	0.03	0.03	25	4
5	129.9	1.4	0.30	46.00	0.02	0.02	0	4

Using a 1 hour retention time and the addition of 4 grams of SO<sub>2</sub> and 25 ppm copper, the final solution contained less than 1 mg/l WAD cyanide and negligible amounts of copper, zinc and nickel.

### Dewatering testing

Cyclone overflow from the grinding circuit will contain approximately 30% solids and thickening will be necessary to increase this to approximately 45% solids for leaching. After leaching and cyanide destruction, the slurry must be thickened to a higher solid concentration prior to pumping to the tailings management area.

Initial static settling tests identified that Magna Floc MF 351, 156 and 10 all gave fast settling rates.

For Mine Plan Blend, ground to a P80 of 106 microns, Magna Floc 10, under neutral conditions gave settling velocities of 7.3, 28.3, 59 and 59.9 m/h at 5, 10, 20 and 30 g/t dosages. Raising the pH to 10.5 further increases these rates.

After cyanide destruction rates of settling, using Magna Floc were very similar, 26.8 m/h compared to 28.3 m/h for feed to leaching.

A continuous test was carried out and with a 15% solid feed slurry using ground Mine Plan blend with a nominal grind of P80 106 microns, pH 5.5 and 10 g/t flocculent addition, a loading rate of 0.5 t/m<sup>2</sup>/h an overflow 378 mg/l solids was obtained with an underflow density of 68.9% solids. Raising the flocculent addition to 15 g/t and a 0.7 t/m<sup>2</sup>/h gave an overflow with 306 mg/l solids and a 68.2% solids underflow. At pH 10.5, a loading rate of 0.7 t/m<sup>2</sup>/h and 10 g/t Magna Floc 10, the overflow contained 282 mg/l solids and the underflow 64.9% solids.



### 13.4 Conclusions

- The mineralized material exhibits some pre-robbing characteristics and a carbon in leach (CIL) process should be used.
- Gravity concentration is not effective, particularly in the case of the oxide samples.
- Leach extractions of 87% for gold and 55% for silver should be used.
- Cyanide consumption is expected to be 2.5 kg/t and lime consumption 8.5 kg/t although some variation occurred in the test work using the same sample and allowance for variation should be made in the reagent addition system.
- Carbon loading of at least 10,000 g/t gold and silver is expected.
- WAD cyanide can be reduced to less than 1 mg/l using 4 kg SO<sub>2</sub> per kg of WAD cyanide, with the addition of 30 ppm of copper and a residence time of 1 hour.
- Sulphide ore may be treated by flotation and high recoveries of gold and silver more than 90% obtained, to a concentrate. In test work, the concentrate contained 19.5 g/t gold and 3790 g/t silver.

## 14 MINERAL RESOURCE ESTIMATES

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Mining Plus Perú S.A.C. ("Mining Plus") has been engaged by Sienna Minerals S.A.C. ("Sienna"), a subsidiary of PPX Mining Corp. ("PPX"), to undertake the development of the Mineral Resource Estimate for the Callanquitas Mine. The scope of the assignment encompasses 3D grade shell modelling, and the Mineral Resource Estimate. All conclusions and recommendations provided in this document are constrained by the information received, processed, and discussions held with the technical staff of Sienna and are presented after the report.

The Mineral Resource Estimate ("MRE"), with an effective date of 30 September 2023, has been reported in accordance with the Canadian National Instrument 43-101 (NI 43-101) Standards for Disclosure for Mineral projects. The estimation process followed the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines" (CIM, 2019).

The MRE herein for the Callanquitas Mine was prepared by Ms. María Muñoz, MAIG, QP (Geo), Principal Resources Geologist, and Independent Qualified Person under NI 43-101 who takes responsibility for it. The MRE was done with the support of Kelinda Raymundo, (Geo) Senior Geologist Consultant, both are full-time employees of Mining Plus.

The previous Mineral Resource Estimate (MRE) dated November 29, 2018, was reported in an NI 43-101 technical report of December 3, 2018, prepared by Mine Development Associates ("MDA"). The MRE included drillholes and channels dating from 2006 to 2018, which will be referred to as historical drillholes. Sienna has included 5 drillholes in the database and 57 channels in 2019 and 210 channels in 2023, new geological interpretation, new economic parameters, and the depletion of the resource with the mining production, which have generated a material change in resources mainly due to mining production. Mining plus highlights that the 5 holes are located in the Tesoros area and are not part of the current resource estimate.

The scope of the work consisted of the following:

- Reviewing the 3D model of the mineralized structure for the three main structures (Callanquitas Este, West and Sigmoid), limits of the mineralization zone (oxides and sulphides), and the depleted area.
- Develop a 3D grade shell with a cut-off > 2.3 g/t AuEq, which would separate economic grades from non-economic grades.
- Estimation of the gold and silver grades.

The assessment of the database is thoroughly outlined in the report created by Mining Plus

in 2023 titled: "PPG11379 - Mina Callanquitas - GAP Analysis review aligned to NI 43-101\_V3\_rev MC\_final". This report, produced by Mining Plus in an earlier phase, was provided to the client Sienna for review and correction of observations before its utilization in the resource estimation process.

The overall Callanquitas mine has 141 diamond holes, of which 104 holes are intersecting the Callanquitas Este and Callanquitas Oeste veins. These have been included in the resource estimate, in addition to 769 channels, 80% located in Callanquitas Este and 20% in Callanquitas Oeste. Mining Plus believes that there are no material inconsistencies in the database that could have a significant impact on the resource estimate.

Mining Plus generated 3D grade shell with a threshold of 2.3 g/t AuEq, using Leapfrog GEO® software to delineate potentially economic mineralization. The grade shell was generated from non-composite data, considering a minimum modellable width of 0.30 meters. The criteria were the same for Callanquitas Este, West and Sigmoid

Based on the database of drillholes, 3D veins, and 3D grade shell, two block models were generated. One for Callanquitas Este and Sigmoid, and the other for Callanquitas Oeste according to their orientations.

The estimation domains are based on a combination of the veins and their grade shell. Additionally, the rock wall around 5 m from the veins has been considered as a domain and has been called a halo.

A statistical study of the gold and silver grade distribution, and behavior was undertaken to estimate the grades in the block model, drillhole intervals have been composited with a length of 0.50 m. Grade capping has been applied to composite grade intervals on a case-by-case basis within each estimation domain.

Grades were estimated using Ordinary Kriging (OK) for most of the domains, except for Callanquitas Sigmoid, it was estimated with Inverse Distance Square (ID2) due to the small amount of data; the bias was checked using nearest neighbor (NN) estimation.

The bulk densities applied to the models is based on measurements of 107 core samples and 39 underground rock samples. Apparent bulk density was assigned to the block model as averages of the veins.

As of September 30, 2023, the MRE includes Measured, Indicated, and Inferred Resources; as Measured and Indicated resources in Oxides, there are around 663,700 tonnes with a gold equivalent grade of 4.70, with a metal content of 100,000 ounces of gold equivalent, and as Inferred in oxides there are around round 528,500 tonnes with a gold equivalent grade of 4.40, with a metal content of 75,000 ounces of gold equivalent.

Sulphides have been classified as inferred because their information is limited. Mining Plus highlights that the initial Metallurgical tests carried out in-house have demonstrated high recoveries, however, for these resources the recovery has been considered similar to that of oxides. There are around round 231,400 tonnes with a gold equivalent grade of 4.63, with a metal content of 34,000 ounces of gold equivalent.

Table 14-1 summarizes the resources for Mina Callanquitas.

Table 14-1 Callanquitas Mineral Resource as of 30 September 2023

Zone	Material	Category	Tonnes	Au	Ag	AuEq	Au	Ag	AuEq
			m <sup>3</sup>	g/t	g/t	g/t	koz	koz	koz
Total	Oxides	Measured	22,900	5.25	48	5.56	4	35	4
		Indicated	640,800	3.75	141	4.67	77	2,905	96
		<b>Meas+Ind</b>	<b>663,700</b>	<b>3.80</b>	<b>137</b>	<b>4.70</b>	<b>81</b>	<b>2,923</b>	<b>100</b>
		Inferred	528,500	3.72	103	4.40	63	1,750	75
	Sulphide	Measured	-	-	-	-	-	-	-
		Indicated	-	-	-	-	-	-	-
		<b>Meas+Ind</b>	-	-	-	-	-	-	-
		Inferred	231,400	2.79	278	4.63	21	2,068	34

Notes:

1. Mineral Resources are not Mineral Reserves and have not demonstrated economic viability.
2. The MRE has been categorized in accordance with the CIM Definition Standards (CIM, 2014).
3. All figures are rounded to reflect the relative accuracy of the estimates. Minor discrepancies may occur due to rounding to appropriate significant figures.
4. The Mineral Resource was estimated by Ms Muñoz QP(Geo) of Mining Plus, Independent Qualified Person under NI 43-101.
5. The Mineral Resource is reported inside a underground shell with a cut-off grade of 2.00 g/t gold equivalent, estimated using a gold price of 1,800 US\$/oz and silver price of 20 US\$/oz.
6. MRE is reported on a 100 percent basis within an underground shell.
7. The gold equivalent is based in the following formula  $AuEq = Au + Ag * 0.0066$ .
8. The effective date for mineral resources of 30 September 2023.
9. The cut-off date for mining depletion is 30 September 2023.

## 14.1 Geological Model

The gold and silver mineralization of Mina Callanquitas corresponds to an intermediate sulphidation system hosted in the magmatic-hydrothermal breccia units that break the Goyllarisquiza sediments. Mineralization in sediments occurs as filling of secondary fractures due to the low permeability of the rocks. There is an intrusive that also cuts through the sediments where mineralization is medium to low. Table 14-2 shows the different lithologies logged in the drilling.

Callanquitas Este vein has a strike of 5° to 10° NE and Callanquitas Oeste has a strike of 340° NE, in both cases the dip is around 87°E with variable thicknesses, ranging from 0.30 cm to 6 meters.

Figure 14-1 and Figure 14-2 show a boxplot for Au and Ag for each lithology logged. A box plot is a diagram used to show the statistical distribution of data in a visual and summarized manner. The box plot indicates the position of the minimum, maximum, median (the blue line with '50'), and mean (red line with 'M') values, with the position of the quartiles of the data (blue lines). These plots also provide information on the dispersion, skewness, number of samples and range of the data. It was observed that the potentially economic mineralization is present mainly in the of HYBX, HYBXO, V, VR lithologies.

PPX carried out the interpretation of the mineralized veins based on geological knowledge from geological mapping, and the drilling that has intercepted the lithologies with the largest mineralization potential (PEB, ST, TBX, HYBX, HYBXO, V, VR). These rocks are part of the Callanquitas breccias in different events, and these events include clasts of other lithologies (siltstones, sandstones, quartzites, dacites, etc.). The limits of oxides and sulphides (mineralization zone) have been modelled, additionally, there is a mixed zone that is not so clearly defined, so it has been modelled as part of the oxides zone. Mining Plus emphasizes that the modelling of the veins was conducted utilizing vein system tools and the snapping option in Leapfrog.

Figure 14-3 and Figure 14-4 show the longitudinal section for Callanquitas Este and Callanquitas Oeste veins with mineralization zone. Table 14-3 shows the list of wireframes of mineralization zone per veins.

In opinion of Mining Plus, the grades around the structure should be included in the estimation process, this will allow an appropriate dilution during the optimization of resources or reserves. Hereinafter, the grades around the veins will be called Halo, which has been modelled as an aureole with a range of influence of 5 meters around the veins.

Mining Plus has highlighted that the surface topography has a low precision, so the information that is above has not been included during the modelling or resource estimation.

Table 14-2 Lithology codes registered in the database

Lithology Code	Metres Logged	Metres Sampled	Description
BX	423.12	423.12	Polymictic breccia or monomictic breccia (both with rock dust matrix and without mineralization)
BXT	7.91	7.91	Tectonic breccia (Fault breccia, folding breccias, these are monomictic and the fragments are from the host rock)
CO	464.08	305.02	Overburden
F	3.33	3.33	Failure with presence with gauge
FL	1.90	1.90	Failure with presence with gauge
GRD	40.45	40.45	Granodiorite
HYBX	748.89	736.31	Hydrothermal breccia with quartz matrix
HYBXO	383.74	381.94	Hydrothermal breccia with oxide matrix
PA	27.80	27.80	Porphyritic andesite
PD	3,413.97	3,391.01	Porphyritic dacite
PEB	191.39	191.39	Pebble dike
QA	12,373.44	12,182.70	Quartzite
SIL	2,131.27	2,009.85	Massive clayey siltstone, laminated clayey siltstone or clayey shale
SILC	3,571.97	3,427.86	Massive carbonaceous siltstone, laminated carbonaceous siltstone, carbonaceous siltstone interbedded with sandstone or carbonaceous shale
SST	7,709.14	7,421.57	Massive sandstone, Laminated sandstone, Sandstone interbedded with carbonaceous siltstone or sandstone interbedded with argillaceous siltstone
TBX	776.16	775.55	Tectonic breccia (Fault breccia, folding breccias, these are monomictic and the fragments are from the host rock)
V	120.92	110.48	Vein
VR	35.75	35.75	Replacement Vein
VSED	58.60	58.60	Sedimentary volcanic
No logged	342.13	61.46	Intervals no logged
<b>Total</b>	<b>32,826</b>	<b>31,594</b>	

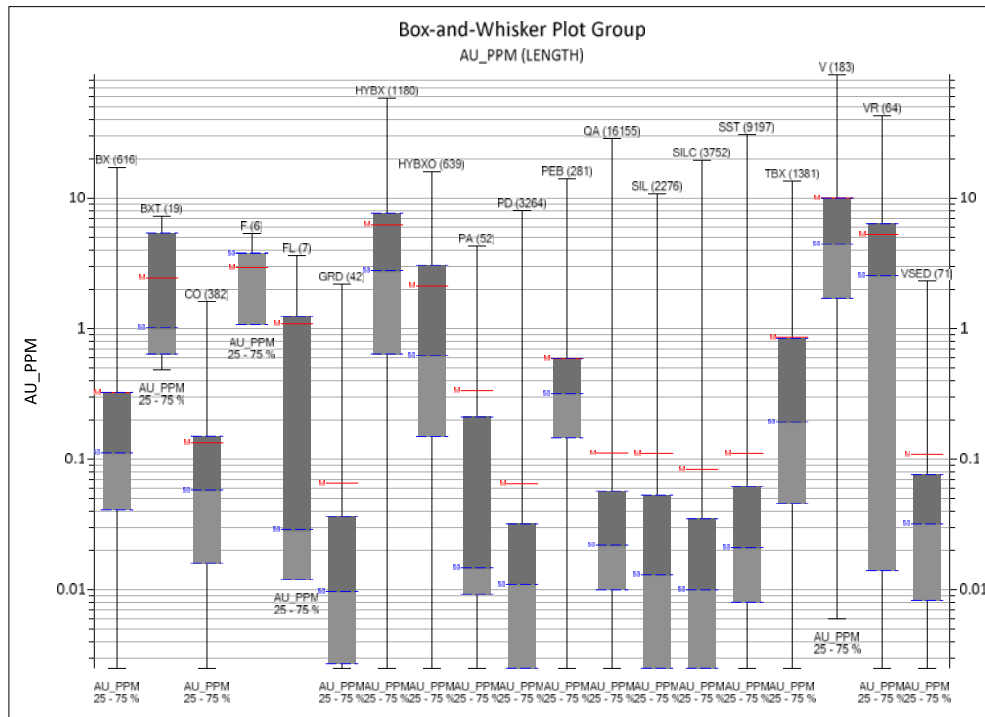


Figure 14-1 Box plot of Au within each lithology

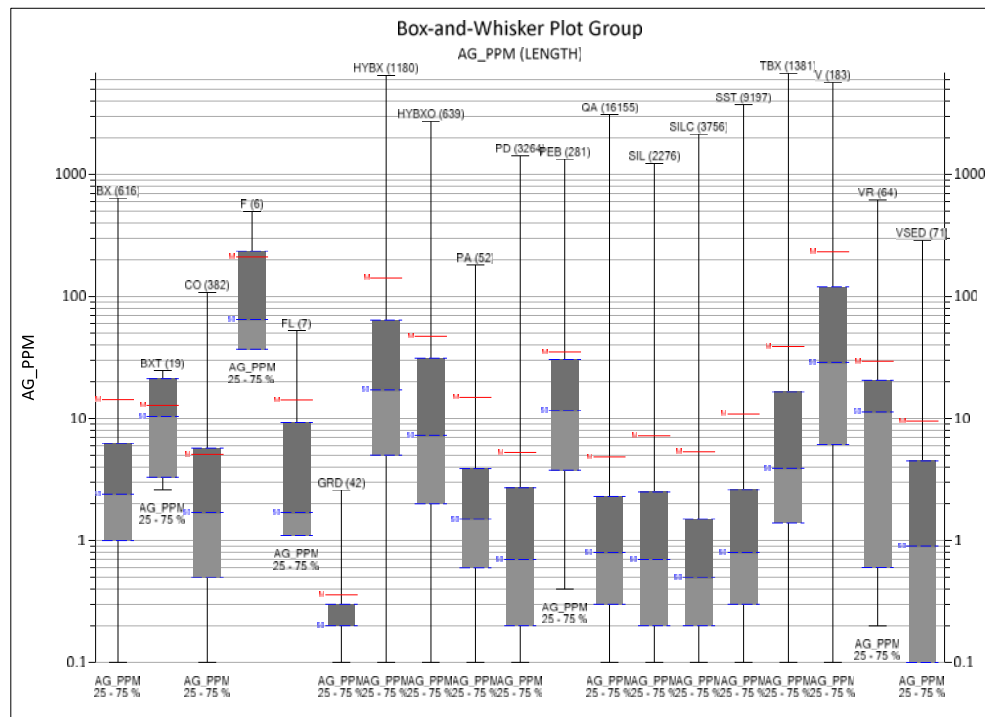
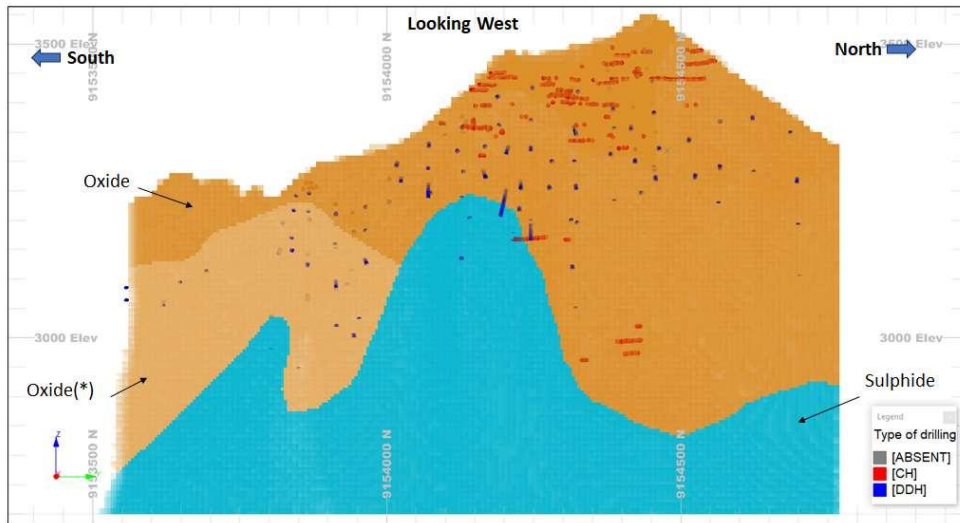


Figure 14-2 Box plot of Ag within each lithology



\*Note: there is a mixed zone that is not clearly defined, which has been modeled for reference only, but has been considered as oxides.

Figure 14-3 Longitudinal section of Callanquitas Este vein with mineralization zones

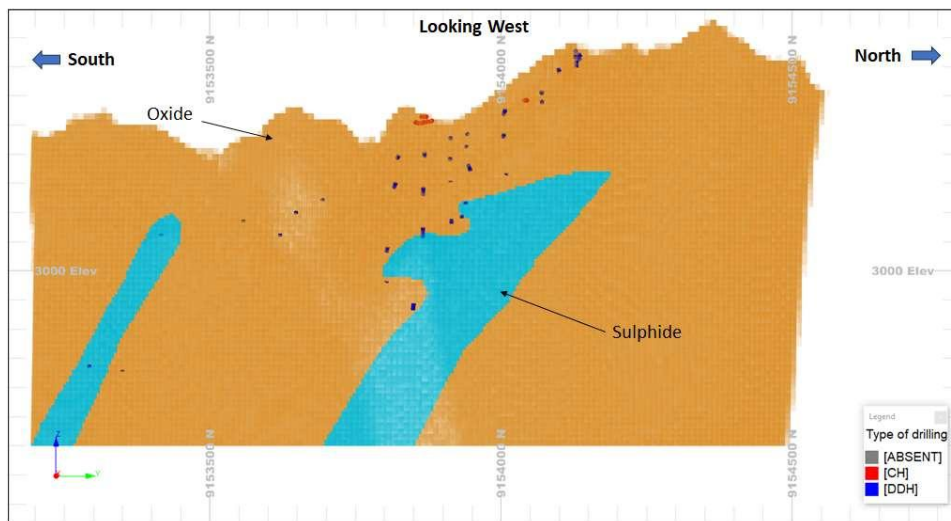


Figure 14-4 Longitudinal section of Callanquitas Oeste vein with mineralization zone

Table 14-3 Summary of the mineralization wireframes.

Code	Wireframe Name	Description
10	ce_area_oxidotr/pt	Oxide of Callanquitas Este vein
*20	ce_area_mixtostr/pt	Oxide of Callanquitas Este vein
30	ce_area_sulfurostr/pt	Sulphide of Callanquitas Este vein



10	co_area_oxidostr/pt	Oxide of Callanquitas Oeste vein
30	co_area_sulfurostr/pt	Sulphide of Callanquitas Oeste vein

*\*Note: there is a mixed zone that is not clearly defined, which has been modeled for reference only, but has been considered as oxides.*

## 14.2 Grade shell model

Mining Plus generated a grade shell model to separate the economic grades within the modelled structures and reduce the variability that exists in each one.

The grade shells were created using the Indicator Interpolant utility in Leapfrog software, as follow:

- The cut-off applied is 2.3 g/t gold equivalent: AuEq (AuEq = Au + (Ag x 0.0066)).
- The economic parameters on which the cut-off was based differ slightly from the economic optimization parameters, reported in 14.17.1, where initially a gold price of 1,750 US\$/oz and a price of 107 US\$/t combined mining and processing operating cost was considered; obtaining a cut-off of 2.3 g/t AuEq, Mining Plus considers continuing with that cut-off value for grade shell to avoid including greater dilution.
- The cut-off was defined by applying the economic parameters described in Section 14.17.1.
- The search ellipses applied are:
  - For Callanquitas Este, the search ellipse has a direction of 5° E and a dip of 80°/90° and 200 x 200 x 5 m maximum range.
  - For Callanquitas Oeste the search ellipse has a direction of 340° E and a dip of 80°/90° and 200 x 200 x 5 m maximum range.
  - For Sigmoid, the search ellipse has a direction of 0° E and a dip of 80°/90° and 50 x 50 x 5 m maximum range.
- Additional strings were created to enhance modeling, ensuring continuity and preventing excessive widening of the grade shell intervals.
- An attempt was made to respect as much as possible the thickness of the economic modelled intervals throughout the 3D section. However, there are some instances where these intervals can be affected by nearby intervals from other drilling intercepts with greater thicknesses.
- An isovalue of 0.5 was applied for all grade shells, values less than 0.5 would indicate that the model has been built allowing more dilution to be included (for example 0.1 indicates a highly diluted and highly continuous model), whereas

values above 0.5 would indicate that the model will have less dilution (for example values above 0.9 indicate that the model is extremely conservative). Modelling only intervals above the cut-off grade generated little interpreted wireframe continuity.

- The wireframes of the grade shell did not snap at hole intervals, due to software limitations. The drillhole coding with the wireframes is directly performed in Leapfrog, and these coded wireframes are subsequently utilized for resource estimation.

Table 14-4 shows the list of wireframes used in the estimation with their respective codes. Figure 14-5 and Figure 14-6 show the grade shells interpreted in a longitudinal view and Figure 14-7 shows an example of a cross-section with the modelled structure, the grade shell, and the halo.

Table 14-4 Summary of Wireframes modelling

Code	Wireframe Name	Description
101	aeq_ind2.3_cetr/pt	Grade shell using a cut off >2.3 g/t AuEq inside the Callanquitas Este structure
201	aeq_ind2.3_cotr/pt	Grade shell using a cut off >2.3 g/t AuEq inside the Callanquitas Oeste structure
301	aeq_ind2.3_sgtr/pt	Grade shell using a cut off >2.3 g/t AuEq inside the Callanquitas Sigmoid structure
100	callanquitas_estetr/pt	Callanquitas Este structure
200	callanquitas_oestetr/pt	Callanquitas Oeste structure
300	sigmoide1tr/pt	Callanquitas Sigmoid structure
998	caja_callanquitas_estetr/pt	Halo of waste for Callanquitas Este structure
999	caja_callanquitas_oestetr/pt	Halo of waste for Callanquitas Oeste structure
998	caja_sigmoide1tr/pt	Halo of waste for Callanquitas Sigmoid structure

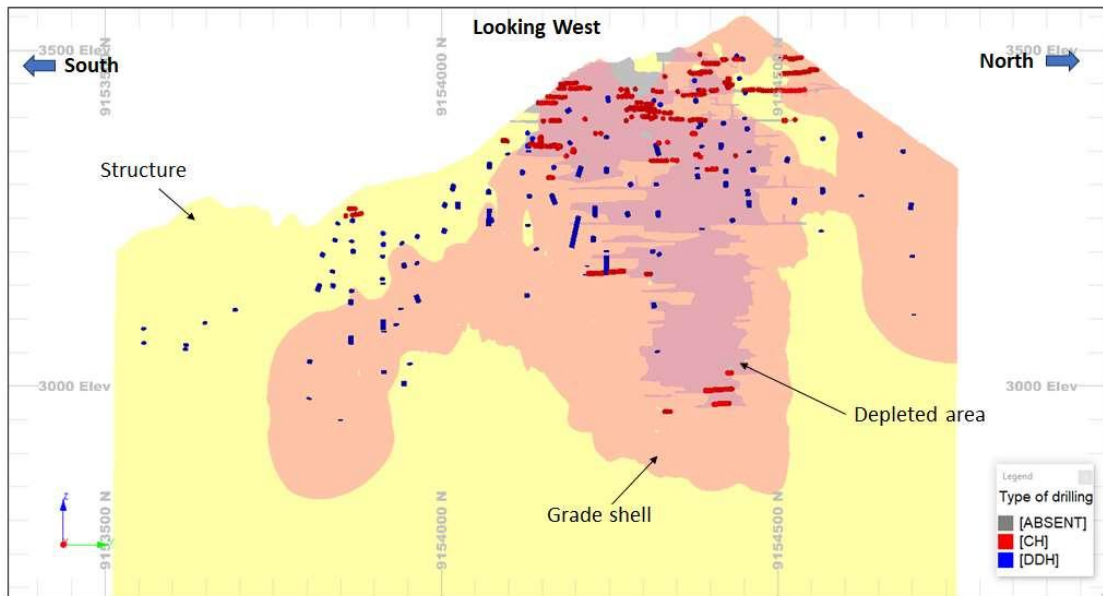


Figure 14-5 Longitudinal Section showing the grade shell interpreted for Callanquitas Este

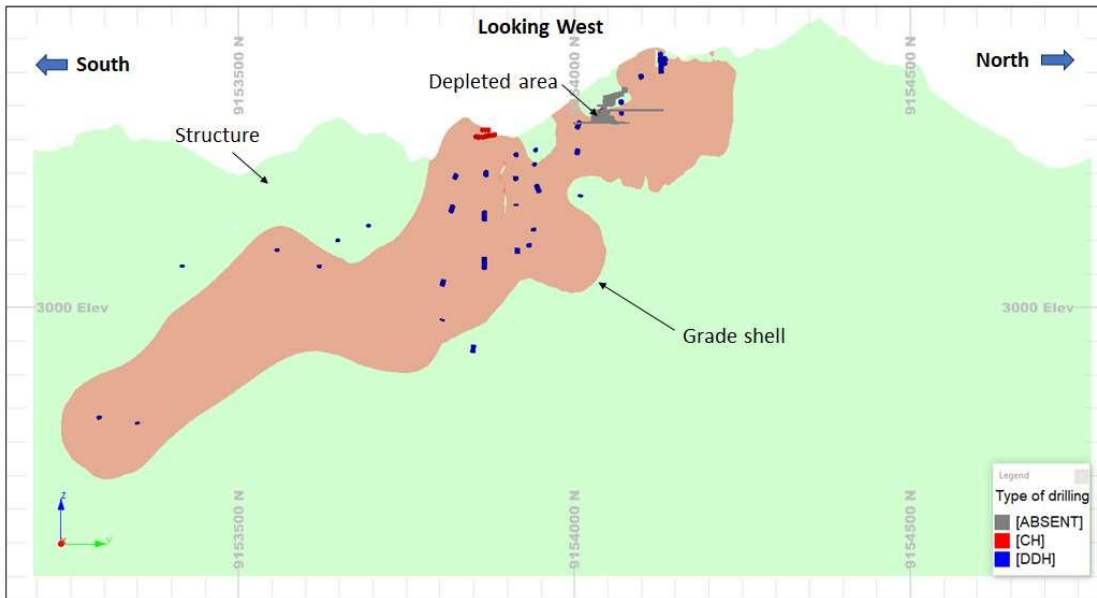


Figure 14-6 Longitudinal Section showing the grade shell interpreted for Callanquitas Oeste

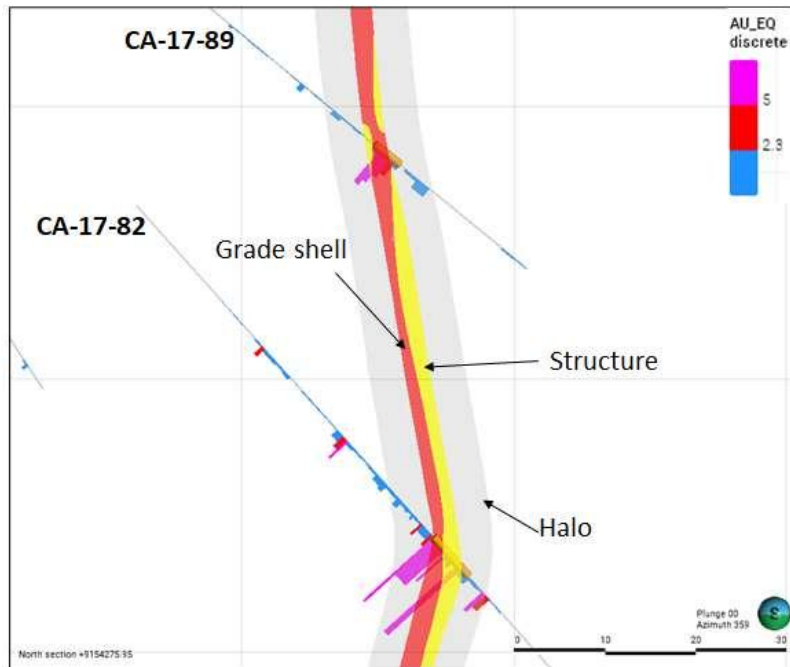


Figure 14-7 Cross section 9154275-N showing the grade shell interpreted for Callanquitas Este

### 14.2.1 Observations during geological modelling

- Mining Plus has determined that some mineralized intervals considered in the previous estimate, should not be included within new the mineralized structure due to greater geological understanding and to ensure continuity.
- All wireframes created in Leapfrog were exported to Datamine software for resource estimation, which was validated for any problems such as cross-overs, self-intersecting triangles, and open sections. It was observed that the de-survey method between Leapfrog and Datamine has a difference, based on an error in the version of Leapfrog being used (v2023.1; error has been resolved in subsequent releases), losing snapping with the holes in Datamine software. Wireframes which are not correctly snapped to the drillhole can introduce dilution or exclude mineralized samples at the wireframe margins depending on the software.
- The flagging of drillholes was reviewed trying to maintain consistency with what was obtained from leapfrog and avoid discrepancies due to differences between the de-survey methods and the error in translation to Datamine. The flagging was undertaken in Leapfrog, with subsequent extract of the drilling data in Datamine so as to ensure the correct coding despite the de-surveying variance between the software packages at the time.
- All efforts were made to account for any discrepancies by Mining Plus, however there may be some areas that may be over or under-representing the volume of the structure throughout the deposit, but a balance is observed between one or the other, considering that this may have a local rather than global impact.
- The precision of the surface topography and some mining works above the 3000 level and below the 3400 level should be reviewed. These may impact the location of the samples within the estimation process. Blocks below 3400 levels were not classified as Measured Resources.

### 14.3 Topographic survey

The topography was provided by PPX under the name "topographymine.dxf" and the zone of depletion for Callanquitas Este and Callanquitas Oeste, with the name "topo\_explotada\_co\_oct.dm" and "topo\_extraido\_ce\_oct.dm" in datamine format. Figure 14-8 shows the topography and location of the veins in 3D.

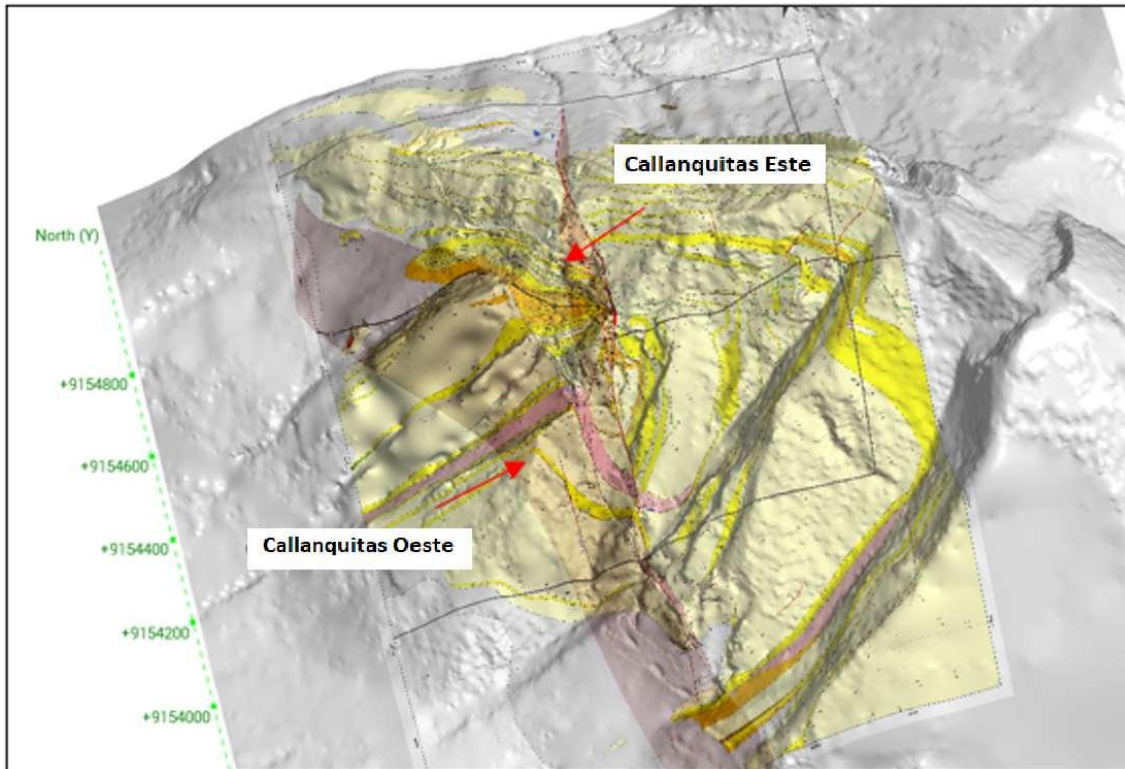


Figure 14-8 3D view showing the location of Veins

#### 14.4 Exploratory Data Analysis

The MRE has been based on a subset of the drillhole database reported in Section 12.3 of this report. No specific drillholes or assay results have been excluded from PPX; however, drillholes or channels from PPL were not part of the estimation process, since no differences or biases have been found that could suggest any exclusion. The drillholes and channels that have participated in the estimation are those that have intersected with the modeled structures.

The spacing of the drillholes is irregular. In the central area of Callanquitas Este, the drill pattern has a spacing close to 50 m by 50 m which is partially mined, towards the periphery the drilling can have a spacing of 70 m to 100 m. In Callanquitas Oeste, the drill pattern is close to 50 m by 50 m centrally, and on the periphery, it reaches from 100 m to 150 m.

Statistical analysis and plots of the gold and silver samples by veins and grade shell were performed to determine the estimation domains and to analysis the appropriate approach in the estimation process. Oxide/sulphide limits were not considered, since the sulphide zone has limited samples for adequate analysis.

Table 14-5 shows the basic length-weighted statistics for gold and silver separated by structures (coded 100, 200, and 300) for all data, Table 14-6 and Table 14-7 show only for

diamond hole and channel respectively. Table 14-8 shows the basic length-weighted statistics for gold and silver of the grade shell inside each vein, the codes ending in 1 correspond to the vein inside the grade shell and 2 corresponds to the vein outside the grade shell.

Table 14-6 and Table 14-7 show that the gold grades in drillholes are lower compared to channels (positive bias in the channel samples), and in the case of silver the opposite is true. This difference was also observed inside the grade shell but with less differences. Mining Plus discussed these differences with PPX and concluded that the channels have been carried out in richer zones of the deposit, and have been carried out in a selective manner. However, the reconciliation carried out in August showed that the channels have a good match with the production so the positive bias of the channels is not conclusive. It is recommended the bias be monitored as the project progresses.

Additionally, Mining Plus highlights the following:

- The lithologies that represent the veins are, TBX, HYBX, HYBXO, V, VR, PEB.
- Gold and silver are controlled within the modelled veins.
- There is a population of high grade and low grade within the veins for which the grade shells are modelled above a threshold of 2.3 g/t AuEq, that could potentially help control high mineralization.
- Within the modelled veins (Table 14-5), a coefficient of variation for gold is less than 2 and slightly higher for silver; according to the apparent 3D reviews, there are concentrations of higher grades by area, so to restrict this data, grade shells were applied.
- The variability of the grades is well controlled by the grade shell 101,102,201,202,301,302 (Table 14-8), where it is observed that the samples inside the grade shell are higher compared to the samples outside the grade shell.

Table 14-5 Summary statistics of Gold, Silver and Gold Equivalent separated by Veins – All raw samples

Element	Statistic	100	200	300
Au g/t	Samples	1939	77	382
	Minimum	0.003	0.038	0.008
	Maximum	88.16	10.66	20.87
	<b>Mean</b>	<b>5.57</b>	<b>1.86</b>	<b>2.50</b>
	CV	1.58	1.21	1.26
Ag g/t	Samples	1939	77	382
	Minimum	0.1	0.4	0.5
	Maximum	6763.5	195	2731
	<b>Mean</b>	<b>145.61</b>	<b>20.98</b>	<b>99.62</b>
	CV	3.52	2.12	2.70
AuEq g/t	Samples	1939	77	382
	Minimum	0.004	0.053	0.019
	Maximum	96.265	10.717	29.415
	<b>Mean</b>	<b>6.53</b>	<b>2.00</b>	<b>3.16</b>
	CV	1.51	1.19	1.33

Table 14-6 Summary statistics of Gold, Silver and Gold Equivalent separated by Veins – Diamond holes raw samples

Element	Statistic	100	200	300
Au g/t	Samples	867	77	359
	Minimum	0.003	0.038	0.008
	Maximum	63.13	10.66	20.87
	<b>Mean</b>	<b>3.10</b>	<b>1.86</b>	<b>2.38</b>
	CV	1.77	1.21	1.28
Ag g/t	Samples	867	77	359
	Minimum	0.1	0.4	0.5
	Maximum	5720	195	2731
	<b>Mean</b>	<b>187.21</b>	<b>20.98</b>	<b>101.29</b>
	CV	3.50	2.12	2.71
AuEq g/t	Samples	867	77	359
	Minimum	0	0.05	0.02
	Maximum	68.45	10.72	29.41
	<b>Mean</b>	<b>4.34</b>	<b>2.00</b>	<b>3.05</b>
	CV	1.76	1.19	1.37

Table 14-7 : Summary statistics of Gold, Silver and Gold Equivalent separated by Veins – Channel raw samples

Element	Statistic	100	200	300
Au g/t	Samples	1072	0	23
	Minimum	0.044	0	0.835
	Maximum	88.16	0	10.95
	<b>Mean</b>	<b>7.67</b>	<b>0.00</b>	<b>5.42</b>
	CV	1.36	0.00	0.68
Ag g/t	Samples	1072	0	23
	Minimum	0.3	0	4.4
	Maximum	6763.5	0	176
	<b>Mean</b>	<b>110.25</b>	<b>0.00</b>	<b>60.50</b>
	CV	3.13	0.00	0.95
AuEq g/t	Samples	1072	0	23
	Minimum	0.3	0	4.4
	Maximum	96.26	0	11.97
	<b>Mean</b>	<b>8.40</b>	<b>0.00</b>	<b>5.82</b>
	CV	1.32	0.00	0.69

Table 14-8 Summary statistics of Gold, Silver and Gold Equivalent separated by Veins combined with grade shell – All raw samples

Element	Statistic	101	102	201	202	301	302
Au g/t	Samples	1081	858	31	46	152	230
	Minimum	0.03	0.003	0.073	0.038	0.124	0.008
	Maximum	88.16	52.05	10.66	8.28	20.87	12.33
	<b>Mean</b>	<b>8.73</b>	<b>1.19</b>	<b>3.51</b>	<b>0.87</b>	<b>4.96</b>	<b>0.82</b>
	CV	1.15	2.94	0.74	1.34	0.69	1.60
Ag g/t	Samples	1081	858	31	46	152	230
	Minimum	0.4	0.1	0.7	0.4	0.5	0.8
	Maximum	6763.5	5720	195	97.7	2731	530
	<b>Mean</b>	<b>234.07</b>	<b>22.81</b>	<b>44.97</b>	<b>6.50</b>	<b>200.13</b>	<b>30.52</b>
	CV	2.79	4.05	1.43	1.60	1.97	1.93
AuEq g/t	Samples	1081	858	31	46	152	230
	Minimum	0.03	0	0.08	0.05	0.16	0.02
	Maximum	96.26	68.45	10.72	8.92	29.41	15.83
	<b>Mean</b>	<b>10.27</b>	<b>1.34</b>	<b>3.80</b>	<b>0.91</b>	<b>6.28</b>	<b>1.02</b>
	CV	1.08	2.77	0.72	1.33	0.77	1.53

Note: the codes ending in 1 correspond to the structure inside the grade shell and 2 correspond to the structure outside the grade shell



#### 14.4.1 Correlations between variables

Figure 14-9 shows the scatter plots of gold and silver in raw data. The scatter plots show moderately to poorly defined clouds of points, and overall a poor linear correlation coefficients, suggesting that each variable should be estimated independently. The lack of correlation between gold and silver is attributed to the apparent existence of two distinct mineralizing events.

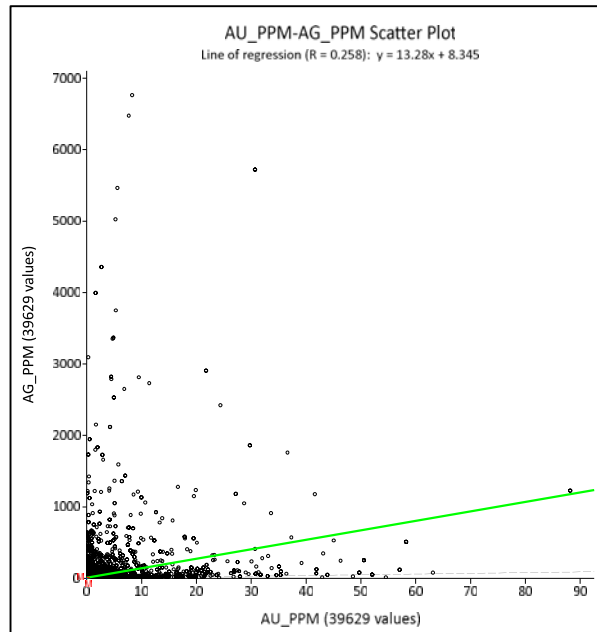


Figure 14-9 Scatter Plots of Ag vs Au for all structures combined - Raw Sample

#### 14.4.2 Sample recovery

Mining Plus reviewed the core sample recoveries from the drilling results, no correlation is observed between grades and recoveries; 95% of the samples have up to 90% recovery. Two holes were detected (CA-12-40, CA-12-73) with recoveries less than 87%; however, no material problems were detected that may indicate their exclusion.

### 14.5 Estimation Domains

Estimation domains are defined to subset resource estimates into statistically distinct groups and reduce variability within groups. The domains were applied to the Callanquitas Este, Callanquitas Oeste and Callanquitas Sigmoid estimates based on the veins model and grade shell.

Table 14-9 show the estimation domains for each structure, Figure 14-10 and show box and whisker plots per estimation domain, where it can be seen that the approach taken to define domains separates different populations of gold and silver.

Table 14-9 Estimation Domain

Code	Vein Description	Grade Shell
101	Callanquitas Este - No economic	Outside
102	Callanquitas Este - Economic	Inside
201	Callanquitas Sigmoid - No economic	Outside
202	Callanquitas Sigmoid - Economic	Inside
301	Callanquitas Oeste - No economic	Outside
302	Callanquitas Oeste - Economic	Inside
998	Halo for Callanquitas Este and Sigmoid	-
999	Halo for Callanquitas Oeste	-

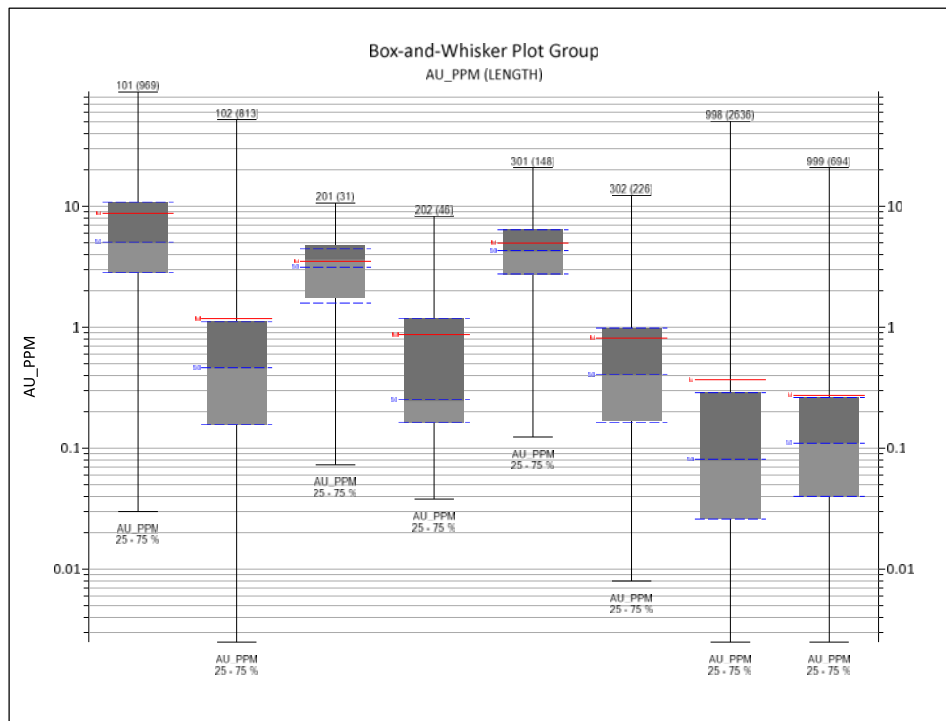


Figure 14-10 Box Plots of Gold by Domain – Raw Samples

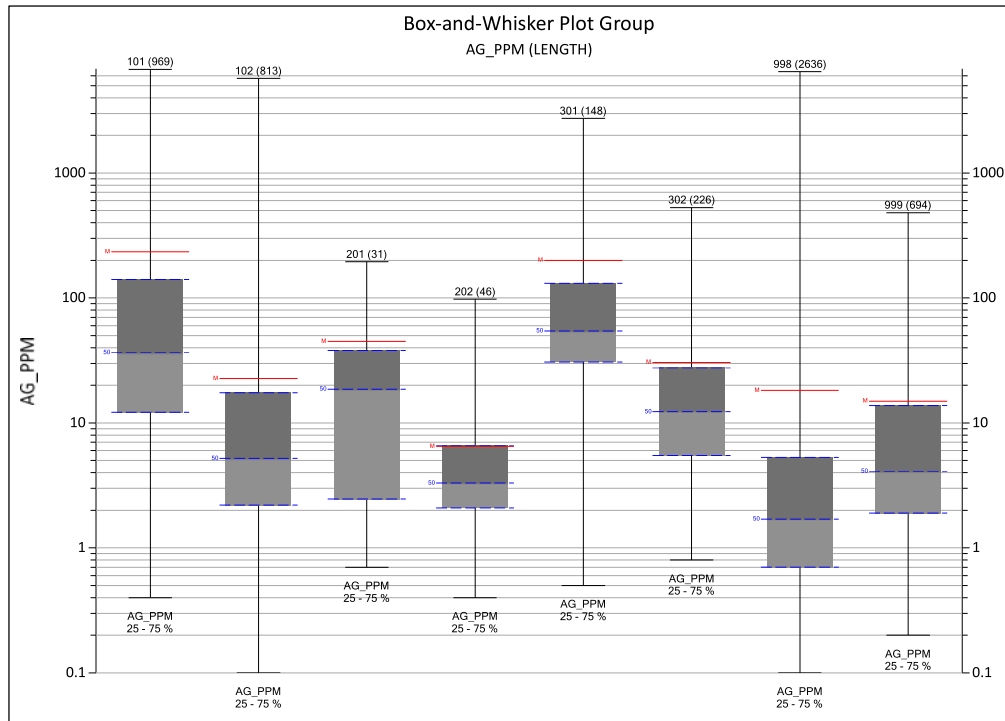


Figure 14-11 Box Plots of Silver by Domain – Raw Samples

**14.5.1 Treatment of missing / Absent sample**

Table 14-10 shows the percentage of sampled intervals separated by estimation domains. It highlights that the non-sampled intervals are a minimal component of each domain, so they were treated as absent values, and their impact on the resource estimate has not been considered relevant due to their quantity.

Table 14-10 Sampling percentage summary by estimation domain

ESTDOM	Total Length Sample			% Length Sampled	
	Total	Gold Samples	Silver Samples	Au ppm	Ag ppm
101	632.99	626.59	626.59	98.99%	98.99%
102	457.56	453.76	453.76	99.17%	99.17%
201	13.89	13.89	13.89	100.00%	100.00%
202	23.01	23.01	23.01	100.00%	100.00%
301	82.10	82.10	82.10	100.00%	100.00%
302	139.83	137.56	137.56	98.38%	98.38%
998	1887.37	1876.17	1876.17	99.41%	99.41%
999	494.48	493.75	493.75	99.85%	99.85%
<b>Total</b>	<b>3731.25</b>	<b>3706.85</b>	<b>3706.85</b>	<b>99.35%</b>	<b>99.35%</b>

## 14.6 Compositing

Drilling intervals were coded with the estimation domains and composited with a target length of 0.5 m downhole honoring the estimation domain boundary with a minimum length of 0.25 m. All composites with lengths less than 0.25 m were included in the neighboring composite as long as a maximum length of 0.75 m was not exceeded. Mining Plus notes that the sample length is variable; however, the composite lengths of 0.5 m was selected as a multiple of common or dominant raw sampling intervals (Figure 14-12).

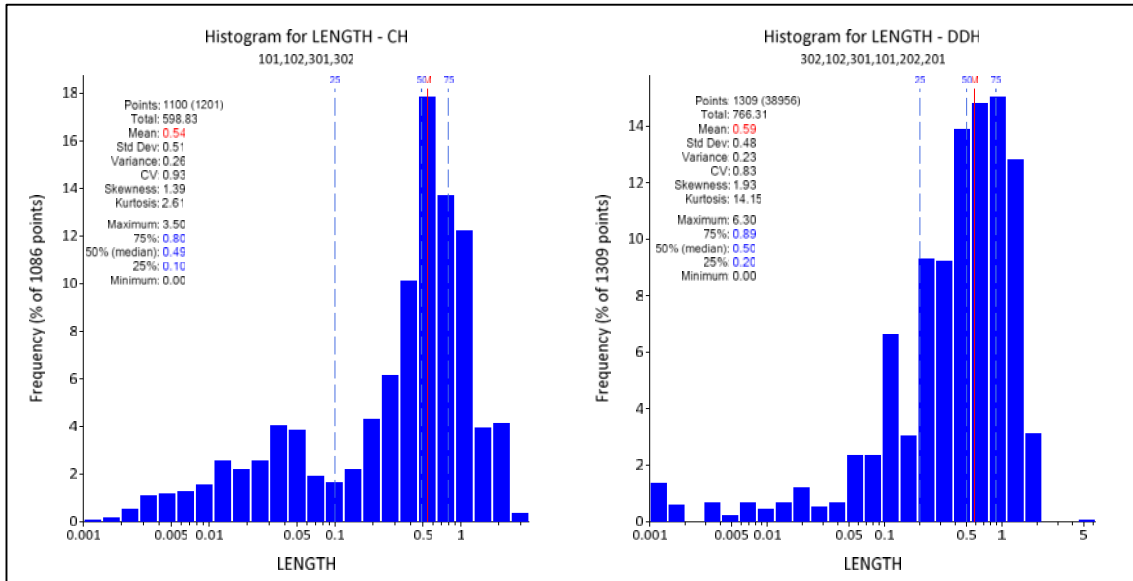


Figure 14-12 Uncomposited sample data in the structure – On the left: length of the channel and on the right: length of diamond holes

Mining Plus investigated alternative composite lengths of 1.0 m average and a minimum value of 0.50 m and a maximum of 1.50 m, 1.0 m average and a minimum value of 0.25 m and a maximum of 1.75 m composites to include the narrowest veins and 0.75 m average and a minimum value of 0.25 m and a maximum of 1.25 m composite.

A comparison of the relative difference of mean between the raw data and each composite by estimation domains is presented in Figure 14-13 and Figure 14-14. Mining Plus notes that the 0.50 m composite has a slight difference with the mean of the raw samples adjusted, showing a better fit than the other composites, where the mean grade of the other composites can have significant differences of up to +/-10%, being able to have a relevant impact during the estimation of resources.

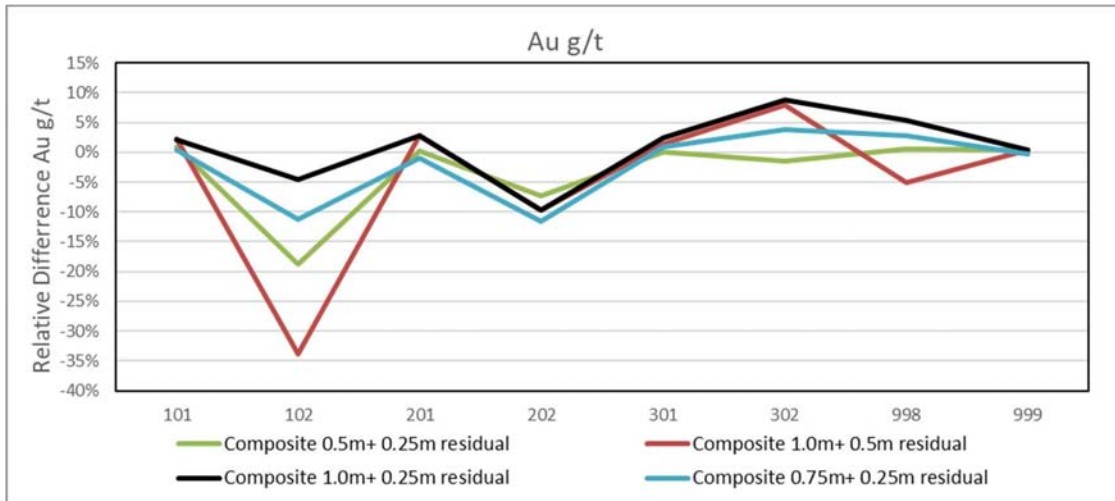


Figure 14-13 Comparison of gold results with different composite lengths

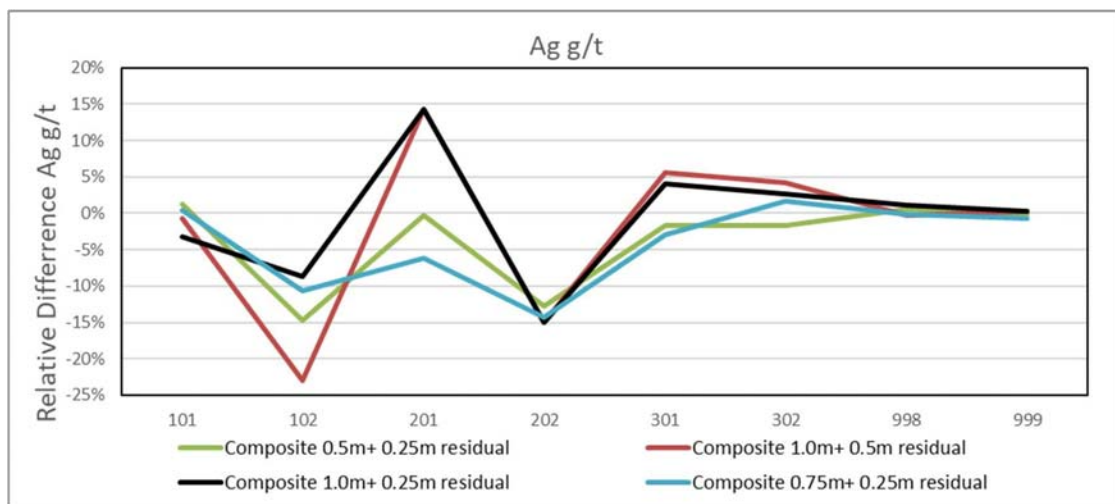


Figure 14-14 Comparison of silver results with different composite lengths

### 14.7 Top Cutting

Grade capping is the process of reducing the grade of an outlier sample (generally overly high grades) to a value that is representative of the surrounding grade distribution, thereby minimizing the overestimation of adjacent blocks in the vicinity of the outlier.

Top cutting, or capping of outlier grades, was determined for each estimation domain for each element. The analyzes was done using the “*global top cut analyzes*” from Snowden Supervisor software. Several steps have been undertaken to determine the requirement for top cutting and to ascertain the reliability and spatial clustering of the high-grade composites. The top cutting assessment considered the following:

- Review of the composite data to identify data that deviates from the general data distribution. This was completed by examining the cumulative distribution function.
- Comparison of the percentage of metal that is lost in a certain cut, and the effect of the Coefficient of Variation (CV) given by the cut applied.
- Visual 3D review to assess the clustering of the high-grade composite data.

In general, the existence of outliers for most of the elements is low and those domains with a coefficient of variation (CV) greater than 2 that could have a greater impact on the estimation of resources are rare. Table 14-11 and Table 14-12 summarize uncut and cut gold and silver statistics of composites for each estimation domain. Examples of top cut analysis have been provided in Figure 14-15 and Figure 14-16.

Likewise, the percentage of capped samples is less than 5%, except for some domains that present a high CV due to mixing population. ESTDOM 102 had an additional outlier grade restriction (or value clamping) for gold with a threshold value of 20 g/t, and a search range of 10 m due to localized economic mineralization.

Table 14-11 and Table 14-12 summarizes uncut and cut composites for gold and silver statistics for each estimation domain. Examples of top cut analyzes are shown in Figure 14-15 and Figure 14-16.

Table 14-11 Top cut statistics by estimation domain – Au g/t composite data

ESTDOM	Number of Samples		Mean Grade			Top-Cut Value	Standard Deviation		Coeff of Variation		Max Un-Cut Grade	Top-Cut %ile
	Un-Cut	Top-Cut	Un-Cut	Top-Cut	% Diff		Un-Cut	Top-Cut	Un-Cut	Top-Cut		
101 AU_CUT	1252	4	8.81	8.74	-0.8%	60.00	10.06	9.60	1.14	1.10	88.16	0.3%
102 AU_CUT	911	32	0.96	0.70	-27.3%	2.30	2.65	0.65	2.78	0.94	52.05	3.5%
201 AU_CUT	27	0	3.52	3.52	0.0%	-	2.23	2.23	0.63	0.63	10.66	0.0%
202 AU_CUT	47	0	0.81	0.81	0.0%	-	0.91	0.91	1.12	1.12	3.25	0.0%
301 AU_CUT	185	0	4.96	4.96	0.0%	-	3.19	3.19	0.64	0.64	20.87	0.0%
302 AU_CUT	271	0	0.80	0.80	0.0%	-	1.18	1.18	1.47	1.47	12.33	0.0%
998 AU_CUT	3840	64	0.37	0.30	-18.9%	3.00	1.26	0.55	3.40	1.83	31.00	1.7%
999 AU_CUT	1095	27	0.28	0.24	-11.6%	1.50	0.53	0.34	1.92	1.39	6.06	2.5%

Note: ESTDOM 102 applied an outlier restriction for gold with a maximum value of 20 g/t, for a search range of 10 m.

Table 14-12 Top cut statistics by estimation domain – Ag g/t composite data

ESTDOM	Number of Samples		Mean Grade			Top-Cut Value	Standard Deviation		Coeff of Variation		Max Un-Cut Grade	Top-Cut %ile
	Un-Cut	Top-Cut	Un-Cut	Top-Cut	% Diff		Un-Cut	Top-Cut	Un-Cut	Top-Cut		
101 AG_CUT	1252	20	237.26	217.89	-8.2%	3000.00	645.81	516.89	2.72	2.37	6763.50	1.6%
102 AG_CUT	911	3	19.35	18.65	-3.6%	400.00	48.29	40.44	2.50	2.17	688.35	0.3%
201 AG_CUT	27	0	44.85	44.85	0.0%	-	59.50	59.50	1.33	1.33	195.00	0.0%
202 AG_CUT	47	0	5.67	5.67	0.0%	-	5.64	5.64	0.99	0.99	29.80	0.0%
301 AG_CUT	185	0	196.85	196.85	0.0%	-	362.55	362.55	1.84	1.84	2257.12	0.0%
302 AG_CUT	271	0	30.00	30.00	0.0%	-	53.39	53.39	1.78	1.78	530.00	0.0%
998 AG_CUT	3840	27	18.28	15.40	-15.8%	500.00	112.34	58.62	6.15	3.81	4969.80	0.7%
999 AG_CUT	1095	20	14.93	13.58	-9.0%	100.00	28.89	21.46	1.94	1.58	272.33	1.8%

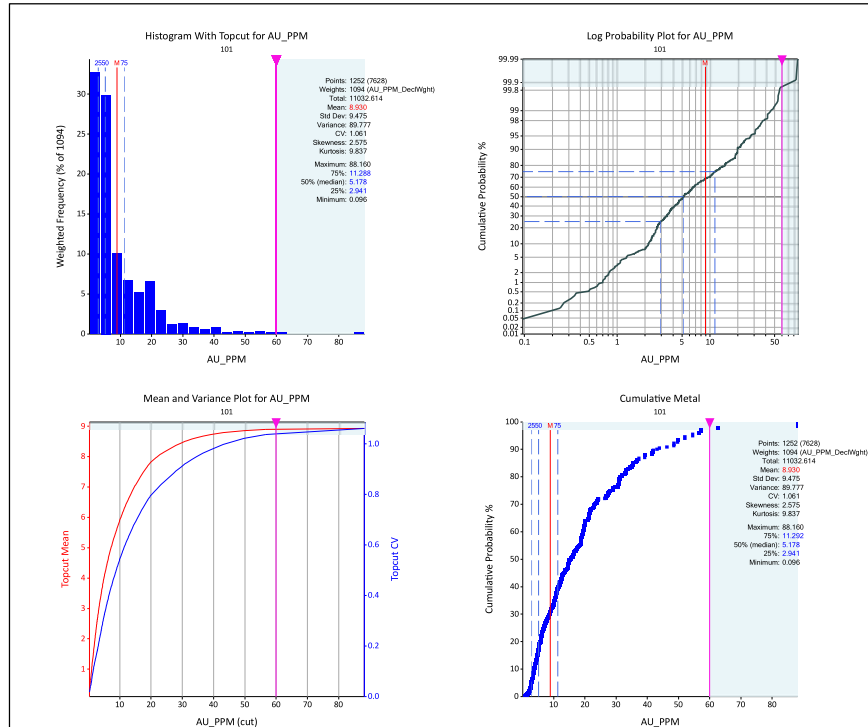


Figure 14-15 Example of the top cut analysis – Estimation domain 101 for gold

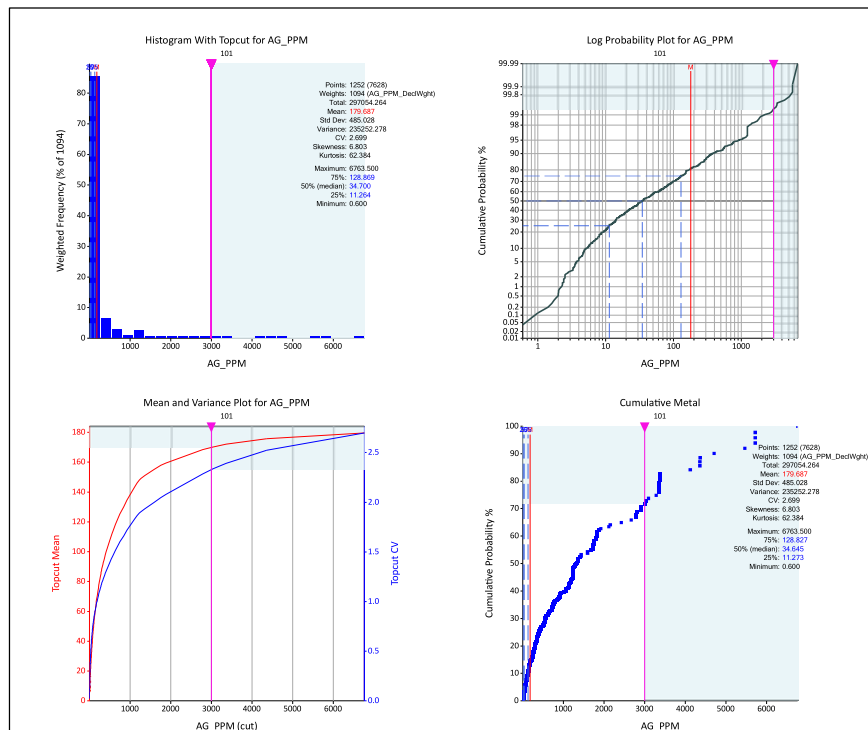


Figure 14-16 Example of the top cut analysis – Estimation domain 101 for silver



## 14.8 Bulk Density Determination

The bulk density was analyzed by the SGS laboratory of Perú applying the paraffin method. There are 146 bulk-density samples, 107 corresponding to core samples and 39 corresponding to underground rock samples. The total samples are distributed in the veins modelled and in the Halo domain as detailed in Table 14-13, where 2 samples were excluded due to their classification as outliers.

Mining Plus has observed that the bulk density samples are limited by each vein, so the value assigned in the block model corresponds to the average bulk density for each vein, excluding anomalous values that are outside the range of three times the standard deviation.

In the case of Callanquitas Sigmoid, there are not enough samples to obtain an adequate average value, so the applied bulk density corresponds to 2.40 t/m<sup>3</sup> (value from Callanquitas Oeste).

*Table 14-13 In-situ bulk density applied by structures modelled*

Code	Description	Number of samples	Minimum (t/m <sup>3</sup> )	Maximum (t/m <sup>3</sup> )	Mean (t/m <sup>3</sup> )	Coeff. of Variation	Outlier excluded
100	Callanquitas Este	52	2.04	3.05	2.54	0.07	2
200	Callanquitas Sigmoid	2	2.27	2.46	2.37	0.04	
300	Callanquitas Oeste	27	2.04	2.74	2.40	0.068	
999	Halos	63	2.05	3.08	2.56	0.069	

## 14.9 Variography

Snowden Supervisor software was used to generate normal score variograms with three structured spherical models and a nugget value to reflect the spatial continuity and geological variability of the deposit. The nugget value and threshold contributions were derived from downhole experimental variograms followed by final model fitting to directional variogram plots. Normal score variograms were chosen to model continuity of scores as they were found to provide better structures due to the log-normal distribution (Wilde, B. J., & Deutsch, C. V. - 2007).

The normal variogram scores were modeled for those estimation domains with sufficient data to be modeled, which were used for other domains without variograms with similar geological characteristics or similar statistical distribution.

Table 14-14 shows the variograms modelled, the following observations were also made:

- Three spherical structures are used for the estimation of Au and Ag.

- Estimation domains 201, 202, 301 and 302 did not have enough data separately to generate a robust variogram.
- Au and Ag from domains 201, 202, 301 and 302 were estimated with the same variogram of gold and silver from domain 101 and 102 depending on economic or no economic domain.

An example of the normal score variogram models for domain by gold is presented in Figure 14-17 and Figure 14-18.

Table 14-14 Normal scores variogram models

Assay	ESTDOM	Rotations			1st Structure			2nd Structure			3rd Structure					
		Z	Y	X	Sill 1	Along strike	Down dip	Perpendicular	Sill 2	Along strike	Down dip	Perpendicular	Sill 3	Along strike	Down dip	Perpendicular
AU_CUT	101	-90	90	-90	0.306	6	14.5	2.6	0.28	48.6	22.1	3.3	0.246	97.7	104.9	3.4
AU_CUT	102	-90	90	-90	0.266	8.5	16.8	2.2	0.16	30.5	106.7	3.3	0.455	104.4	120.2	3.4
AU_CUT	998	-90	90	-90	0.099	8.4	19.7	3.9	0.21	24.6	54.4	4.2	0.328	79.6	89.2	5
AU_CUT	999	-90	90	-90	0.106	8.4	19.7	2.2	0.179	19.5	50.3	3.3	0.372	68.7	70.3	3.4
AG_CUT	101	-90	90	-90	0.134	11	7.1	2.6	0.209	13.9	82	3.2	0.366	115.4	113.6	4.3
AG_CUT	102	-90	90	-90	0.226	5.7	7.2	2.6	0.186	11.1	16.4	3.2	0.361	78.6	90.8	4.3
AG_CUT	998	-90	90	-90	0.235	3.3	15.5	2.6	0.176	6.7	24	3.2	0.277	58.8	100.5	4.3
AG_CUT	999	-90	90	-90	0.032	10.8	28.4	2.6	0.185	33.8	58.2	3.2	0.353	39.5	72.8	4.3

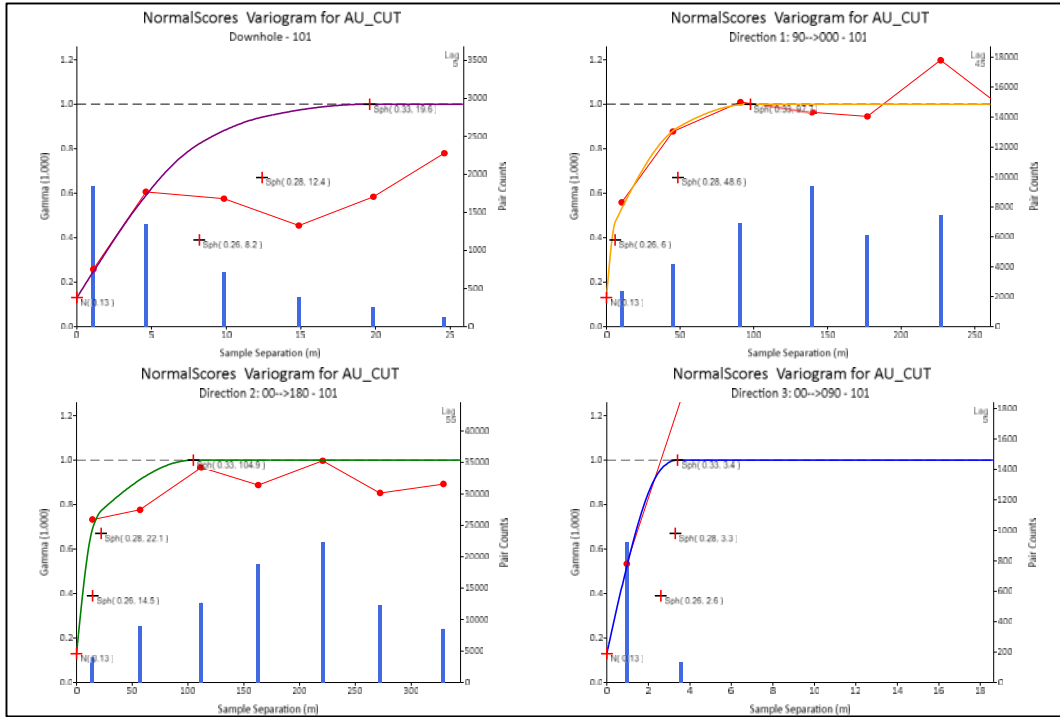


Figure 14-17 Estimation domain 101 - Normal scores variogram model for gold

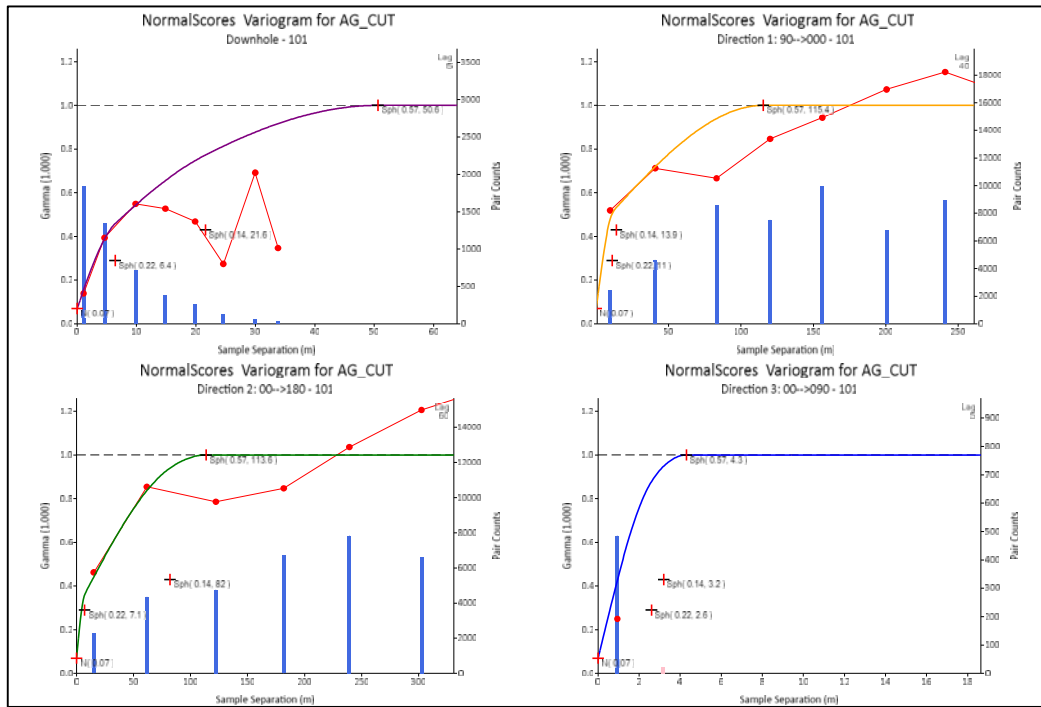


Figure 14-18 Estimation domain 101 - Normal scores variogram model for silver

#### 14.10 Contact Plots of estimation domains

A contact analysis between oxides and sulphides was not carried out, primarily due to the restricted availability of sulphide samples. Regarding Vein, halo, and grade shell domains, it is observed that the majority exhibit hard boundaries or insufficient data, making it challenging to establish conclusions about soft contacts. Hard boundaries were used for all estimation domains, which are considered adequate for this level of study. As project development progresses and new drilling information is generated, this analyzes must be performed.

#### 14.11 Block Model

Two separate three-dimensional block models were constructed for the project, covering all the interpreted structures and halo domains in Datamine software.

Block sizes selected was based on the geometry of the interpreted domains, the data drill spacing, and some consideration to the expected SMU mining method. A main cell size of 1 mE x 10 mN x 10 mRL with sublocking at a cell size of 0.25 mE x 5 mN x 5 mRL was selected to improve the volumetric representation of the interpreted wireframe models. Two block models have been considered with different rotations with respect to the average orientation of the veins. Callanquitas Sigmoid has been estimated in conjunction with Callanquitas Este.

Sufficient variables were included in the block model to allow grade estimation. The construction parameters of the block model are shown in Table 14-15 and Table 14-16.

The cell size has been selected based on the drill hole spacing, a block cell size smaller than 10 mN x 10 mRL is not supported by the data density considering the predominance of drill hole data.

Smaller cell dimensions, with the current drill hole spacing, can lead to a less robust and overly smoothed estimate because the grade-tonnage curves could be distorted and biased; therefore their economic evaluations based on ore loss and mining recovery will carry an undue level of risk.

*Table 14-15 Block model parameters for Callanquitas Este*

Description	X	Y	Z
Minimum Coordinates	780,400	9,153,100	2,700
Size Cell	1	10	10
N. Cell	900	190	100
Size Sub-Cell	0.25	5	5
Rotation	0	0	0

*Table 14-16 Block model parameters for Callanquitas Oeste*

Description	X	Y	Z
Minimum Coordinates	780,400	9,153,100	2,700
Size Cell	1	10	10
N. Cell	900	190	100
Size Sub-Cell	0.25	5	5
Rotation	-10	0	0

## 14.12 Grade Estimation Methods

Gold and silver were estimated independently using ordinary kriging (OK), inverse distance squared (ID2) and nearest neighbor (NN) methods, based on the 0.50 m length composites, with a minimum composite length of 0.25cm. Each estimation domain was estimated separately using hard estimation domains boundaries (no sharing of composites across domain boundaries).

Mining Plus considered the following for the estimation methods:

- The veins and grade shell wireframes were used to define the estimation domains. The grade shells were used inside each structure to avoid mixing grade populations and ensure better control during the estimation process.
- The grade shells were used to constrain the grades >2.3 g/t AuEq so as not to extrapolate economic mineralization throughout the modeled structure.
- 0.50 m regular composites, with a minimum length of 0.25 m.
- Grade capping has been applied to composited grade intervals on a case-by-case basis for each estimation domain.
- Variography analyzes were performed for gold and silver in the estimation domains with sufficient data to generate robust variograms (estimation domains 101, 102, 998, and 999).
- For all estimated domains, no octant search was applied.
- Hard boundaries were considered for all estimation domains, there was no sharing of composite grades across domain boundaries.
- Gold and silver were estimated independently using ordinary kriging (OK), for domains without variography, variograms of domains with similar characteristics were considered.
- Datamine’s dynamic anisotropy option was used to improve the correlation between drillholes.

- A maximum of two composites per drill hole were used, the first pass used 4 holes, the second pass 3 holes and the third pass estimated with 1 hole, a fourth pass was necessary to complete some unestimated blocks in outlying areas.
- To verify the estimate of the block grade, simultaneous estimates were completed using the Nearest Neighbor (NN) and Inverse Distance Square (ID2) with the same domains and search parameters that the OK estimate.
- The NN was estimated with a composite length based on the length of the modelled interval and with one composite.
- Mining Plus observed that during the validations, that the estimation domains 201, and 202, due to the small amount of data, that the composites displayed a better fit with the ID2 estimation.
- The grades used to report the resources correspond mostly to the estimate with OK except for the estimation domain 201 and 202 that was estimated with ID2.
- Additionally, an estimate of OK was made with the composites without top cutting of the high grades to evaluate the loss of metal.
- A parent cell discretization of 4 (X) x 4 (Y) x 2 (Z) was used.

### 14.13 Search parameters

The search strategy used a dynamic anisotropy oriented in the direction of the veins modelled. This is where the search direction changes with each inflection of the wireframe down to the parent block scale. The search ranges used the variogram ranges of the main domain (101). The first search was based on the range of the variogram that reached a sill of 50%, the second search pass, and third pass used ranges of 2 times and 4 times the range of the first search respectively. A fourth pass was necessary to complete some small unestimated areas at the model extents.

Table 14-17 shows the results of each pass and the total number of samples to be used in each search, and results of the volume in each estimation pass for the Mineral Resources estimated are presented in Table 14-18.

Table 14-17 Search parameters

Search Ellipsoid (m)				Rotation °			No. of Composites			Discretization
Search Pass	X	Y	Z	Z Axis	Y Axis	X Axis	Min	Max	Max per drillhole	
1	22.5	20	2.5	Dynamic anisotropy			7	15	2	4 x 4 x 2
2	45	40	5				5	12	2	4 x 4 x 2
3	90	80	10				2	8	2	4 x 4 x 2
4	150	120	10				1	6	2	4 x 4 x 2

Table 14-18 Gold estimation pass summary (Measured, Indicated and Inferred Resources)

ESTDOM	Volume					
	All (m <sup>3</sup> )	Pass 1 (m <sup>3</sup> )	Pass 2 (m <sup>3</sup> )	Pass 3 (m <sup>3</sup> )	Pass 4 (m <sup>3</sup> )	Pass 4 (%)
101	456,275	289,469	153,506	12,125	1,175	0%
102	409,688	262,175	134,288	10,900	2,325	1%
201	14,425	11,019	3,406	-	-	0%
202	32,794	11,406	20,256	750	381	1%
301	149,675	83,663	61,369	3,638	1,006	1%
302	158,894	83,275	72,300	2,956	363	0%
998	3,625,263	2,255,688	1,062,238	77,188	230,150	6%
999	1,206,606	657,688	532,188	15,406	1,325	0%

#### 14.14 Metal Risk Review

Mining Plus made a comparison of the results of the capped grade (Top cut), and the uncapped grade estimation. This was to evaluate the impact of potential metal loss due to the capping of outlier gold and silver grades. For all metal loss analysis scenarios, it was performed with OK.

Extremely high outlier values, and lower continuity can result in overestimation of grades in zones that have a low probability of being mineralized. Table 14-19 and Table 14-20.

Show the results of this comparison, Mining Plus makes the following observations:

- The grade caps reduce the gold grade around to 0.1% and 8.9% for silver in the mineralized domains (101,201,301). This is an acceptable level of mineral loss.
- For estimation domain 101, the silver grade reduces by around 13%, showing sensitivity to high grades.
- For estimation domains 102 and 998, the gold has a significant mineral loss greater than 10%, showing a greater sensitivity to high grades compared to the other domains, likewise, it is highlighted that these domains are potentially not economical.



Table 14-19 Metal loss analysis for gold by estimation domains

ESTDOM	Volume	%Mineral	Composite	Composite capped	Top-Cut %ile	AUOKNC	AUOK	Relative Diff. %
101	464,388	72%	1,252	4	0.3%	6.54	6.52	-0.2%
102	721,513	-	911	32	3.5%	0.43	0.38	-12.6%
201	14,425	2%	27	-	0.0%	3.45	3.45	0.0%
202	32,044	-	47	-	0.0%	0.46	0.46	0.0%
301	161,781	25%	185	-	0.0%	4.60	4.60	0.0%
302	1,233,444	-	271	-	0.0%	0.13	0.13	0.0%
998	6,596,231	-	3,840	64	1.7%	0.24	0.17	-28.7%
999	6,469,944	-	1,095	27	2.5%	0.05	0.05	-4.1%
<b>Mineral</b>	<b>640,594</b>	<b>100%</b>	<b>1,464</b>	<b>4</b>	<b>0.3%</b>	<b>5.98</b>	<b>5.97</b>	<b>-0.1%</b>
<b>Total</b>	<b>15,693,769</b>	<b>-</b>	<b>7,628</b>	<b>100</b>	<b>1.3%</b>	<b>0.40</b>	<b>0.36</b>	<b>-8.3%</b>

Note: AUOK: Uncapped gold, AUOKNC: Capped gold.

Table 14-20 Metal loss analysis for silver by estimation domains

ESTDOM	Volume	%Mineral	Composite	Composite capped	Top-Cut %ile	AGOKNC	AGOK	Diff
101	464,388	72%	1,252	20	1.6%	183	160	-13%
102	721,513	-	911	3	0.3%	10	10	-2%
201	14,425	2%	27	-	0.0%	58	58	0%
202	32,044	-	47	-	0.0%	5	5	0%
301	161,781	25%	185	-	0.0%	209	209	0%
302	1,233,444	-	271	-	0.0%	5	5	0%
998	6,596,231	-	3,840	27	0.7%	9	8	-9%
999	6,469,944	-	1,095	20	1.8%	3	2	-8%
<b>Mineral</b>	<b>640,594</b>	<b>100%</b>	<b>1,464</b>	<b>20</b>	<b>1.4%</b>	<b>186.51</b>	<b>169.91</b>	<b>-8.9%</b>
<b>Total</b>	<b>15,693,769</b>	<b>-</b>	<b>7,628</b>	<b>50</b>	<b>0.7%</b>	<b>13</b>	<b>12</b>	<b>-8.2%</b>

Note: AGOK: Uncapped silver, AGOKNC: Capped silver.

## 14.15 Model Validation

Mining Plus has validated the estimation using the following tools:

- Plan and sectional views comparing drillhole grades with estimated block grades.
- Global model statistics, excluding areas that would be classified as Potential only.
- Validation trend plots (also called swath plots), excluding areas that would be classified as Potential.
- Log-histograms, excluding areas that would be classified as Potential.

Figure 14-19 and Figure 14-24 show the estimation of gold, silver and gold equivalent using Ordinary Kriging, both for Callanquitas Este and Callanquitas Oeste.

Mining Plus considers the NN estimate to provide an ungrouped mean grade and is suitable for determining global estimation bias and local bias. Table 14-21 and Table 14-22 show the comparison between the estimated OK and NN grades, where values higher than 10 % or lower than -10% difference is over or underestimated, respectively. In general, it is observed that the resource estimate presents an acceptable bias in most cases, only estimation domain

301 indicate silver grade is slightly underestimated; also, estimation domain 998 indicate that the gold and silver grade is slightly underestimated, in both cases are not material.

Mining Plus emphasizes that during the validations, it was observed that the estimation domain 201 and 202, due to the small amount of data, the composites present a better fit with the ID2 estimation. The grades used to report the resources correspond mostly to the estimate with OK except for the estimation domain 201 and 202 that was estimated with ID2.

An example of a swath plot and a log histogram are presented in Figure 14-25 to Figure 14-28 swath plots compare the mean grade of the grades estimated in the block model with OK against the NN and ID2 results and only the composites are shown as reference, which can be strongly affected by clustering.

The various validation tools all show close agreement between the drillholes and current estimation.

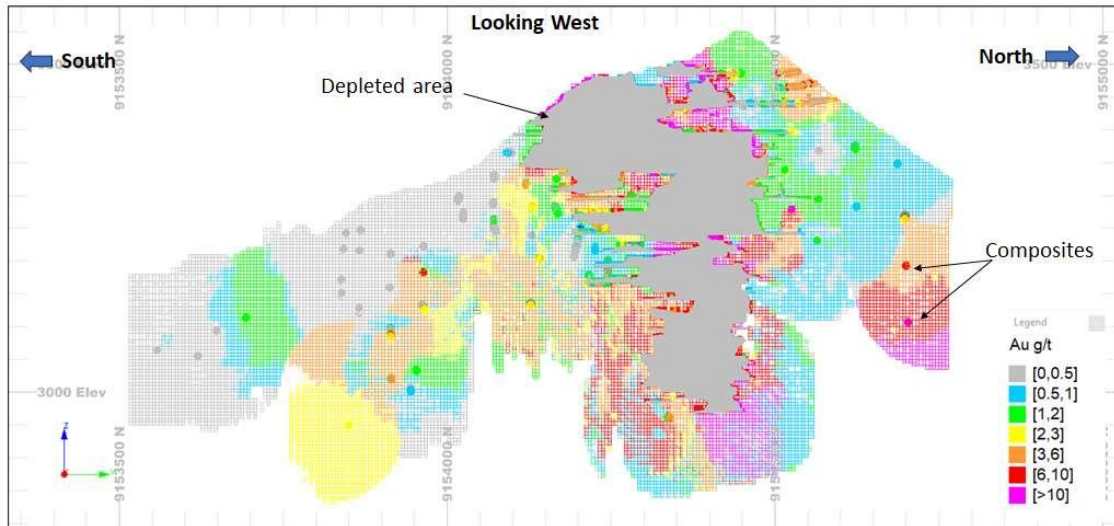


Figure 14-19 Longitudinal Section with composites and block model coloured by gold grade – Callanquitas Este

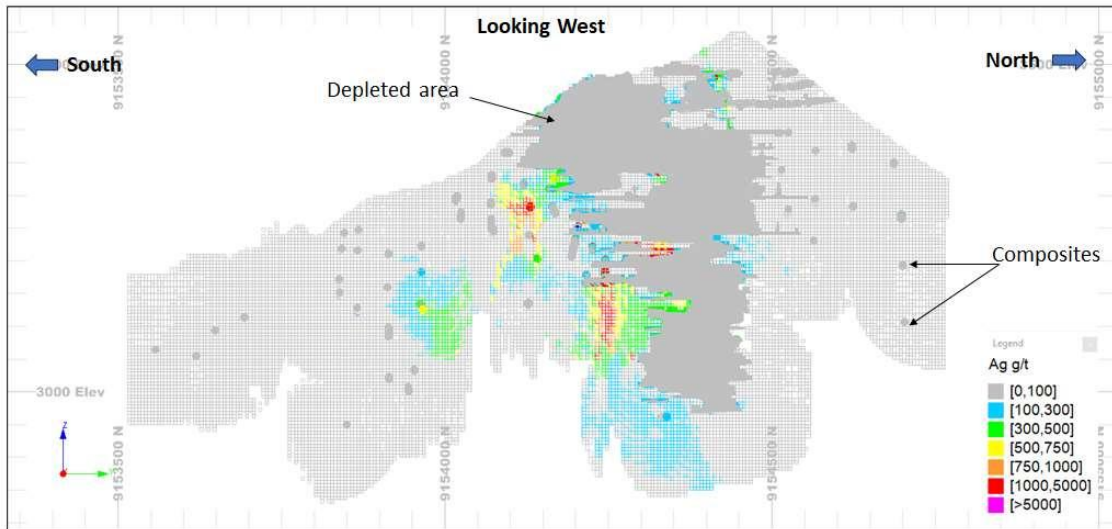


Figure 14-20 Longitudinal Section with composites and block model coloured by silver grade – Callanquitas Este

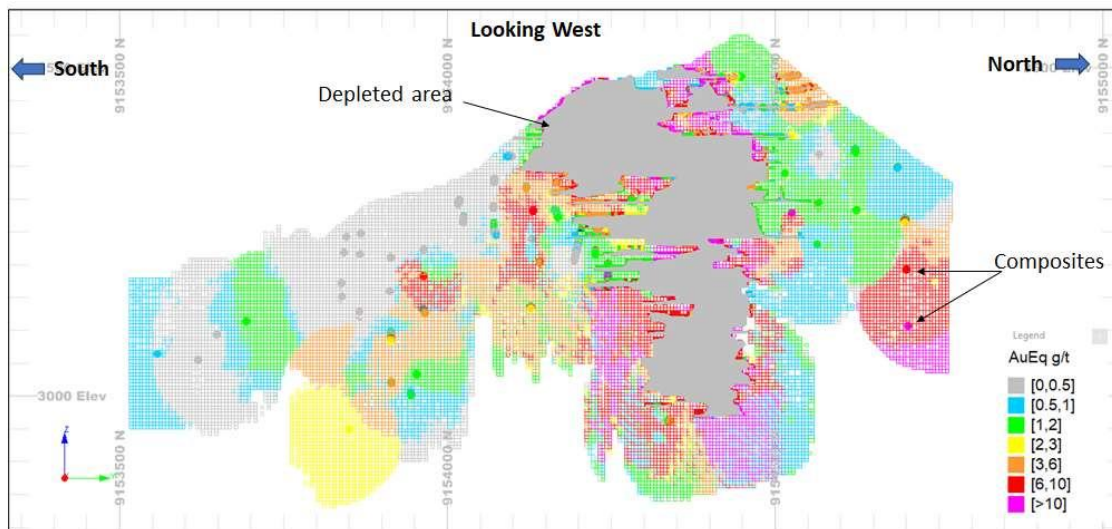


Figure 14-21 Longitudinal Section with composites and block model coloured by gold equivalent grade – Callanquitas Este

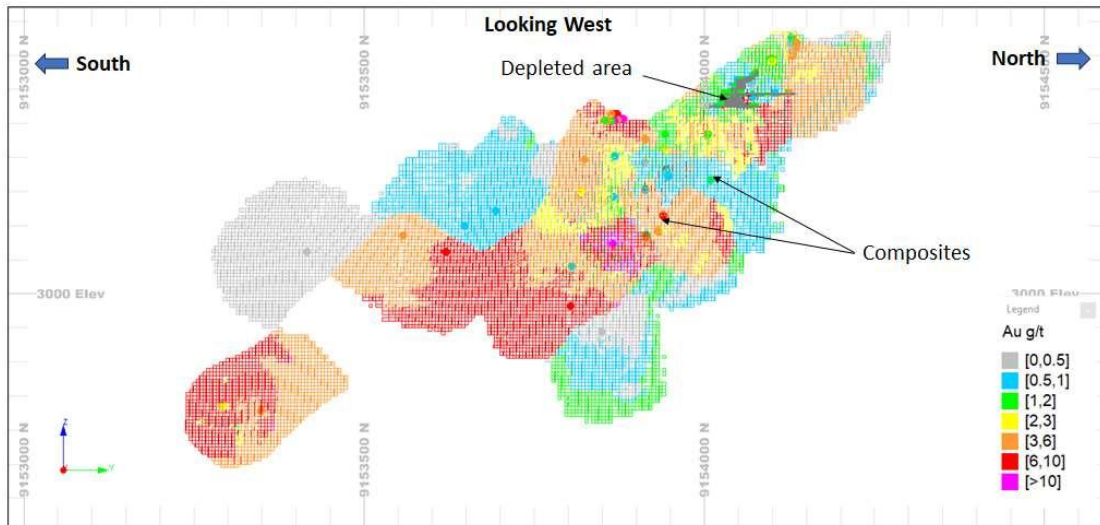


Figure 14-22 Longitudinal Section with composites and block model coloured by gold grade – Callanquitas Oeste

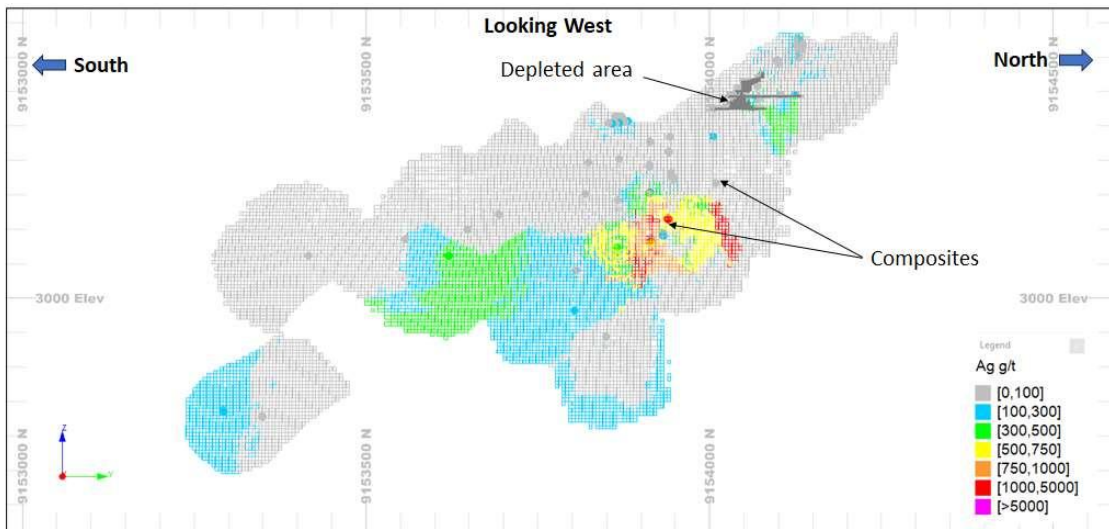


Figure 14-23 Longitudinal Section with composites and block model coloured by silver grade – Callanquitas Oeste

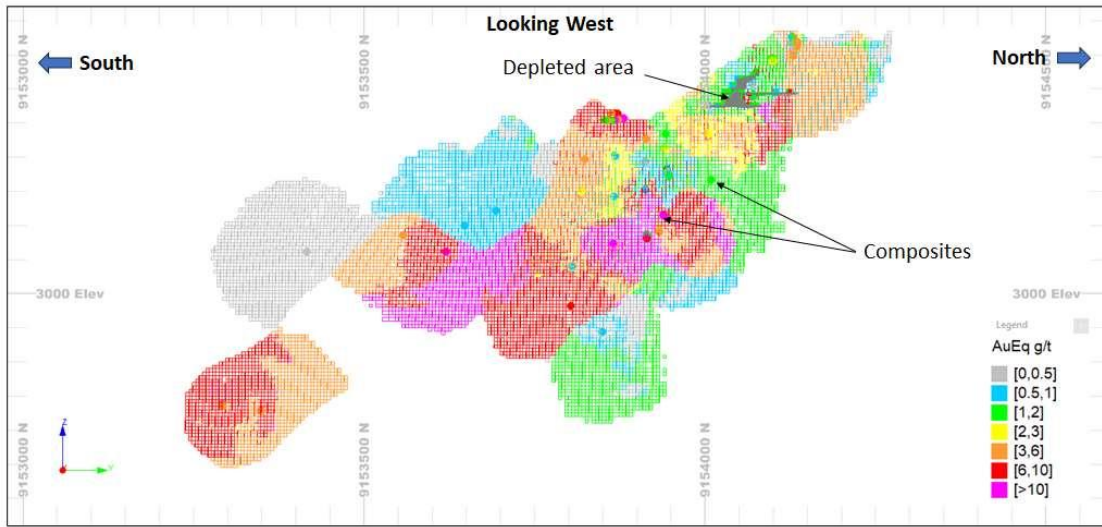


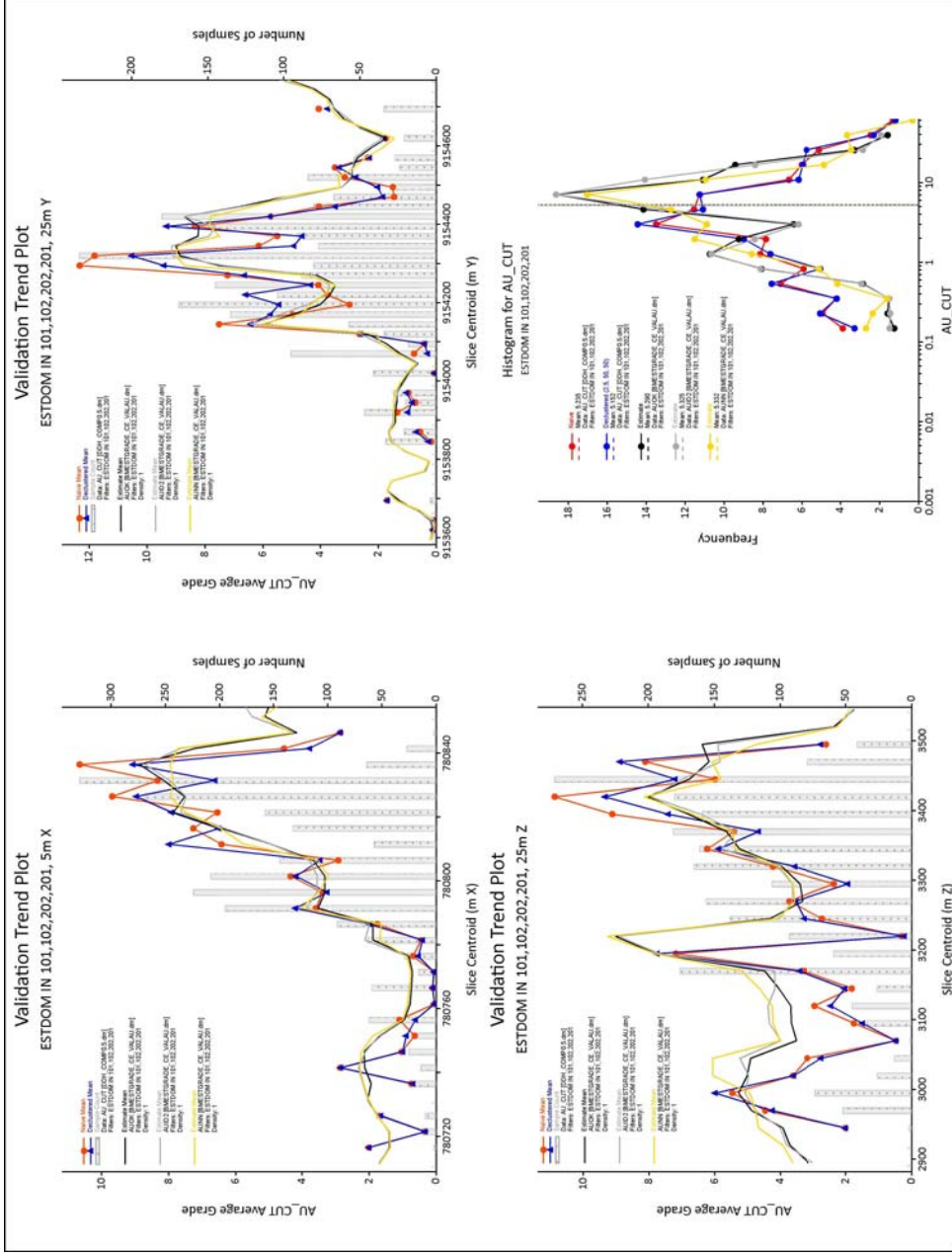
Figure 14-24 Longitudinal Section with composites and block model coloured by gold equivalent grade – Callanquitas Oeste

Table 14-21 Global bias for gold

ESTDOM	Volume	AUOK	AUID2	AUNN	% Diff OK vs NN	% Diff ID2 vs NN	No. of Composites	Mean Composite
101	464,388	6.52	6.60	6.65	-1.9%	-0.8%	1252	8.74
102	721,513	0.38	0.37	0.39	-4.7%	-5.4%	911	0.70
201	14,425	3.45	3.39	3.44	0.3%	-1.5%	27	3.52
202	32,044	0.46	0.44	0.42	8.1%	3.3%	47	0.81
301	161,781	4.60	4.75	4.61	-0.2%	3.0%	185	4.96
302	1,233,444	0.13	0.13	0.13	-0.9%	-3.5%	271	0.80
998	6,596,231	0.17	0.16	0.20	-13.0%	-17.6%	3840	0.30
999	6,469,944	0.05	0.05	0.05	-2.7%	-5.0%	1095	0.24
<b>Mineral</b>	<b>640,594</b>	<b>5.97</b>	<b>6.06</b>	<b>6.06</b>	<b>-1.5%</b>	<b>0.0%</b>	<b>1,464</b>	<b>8.17</b>
<b>Total</b>	<b>9,223,825</b>							

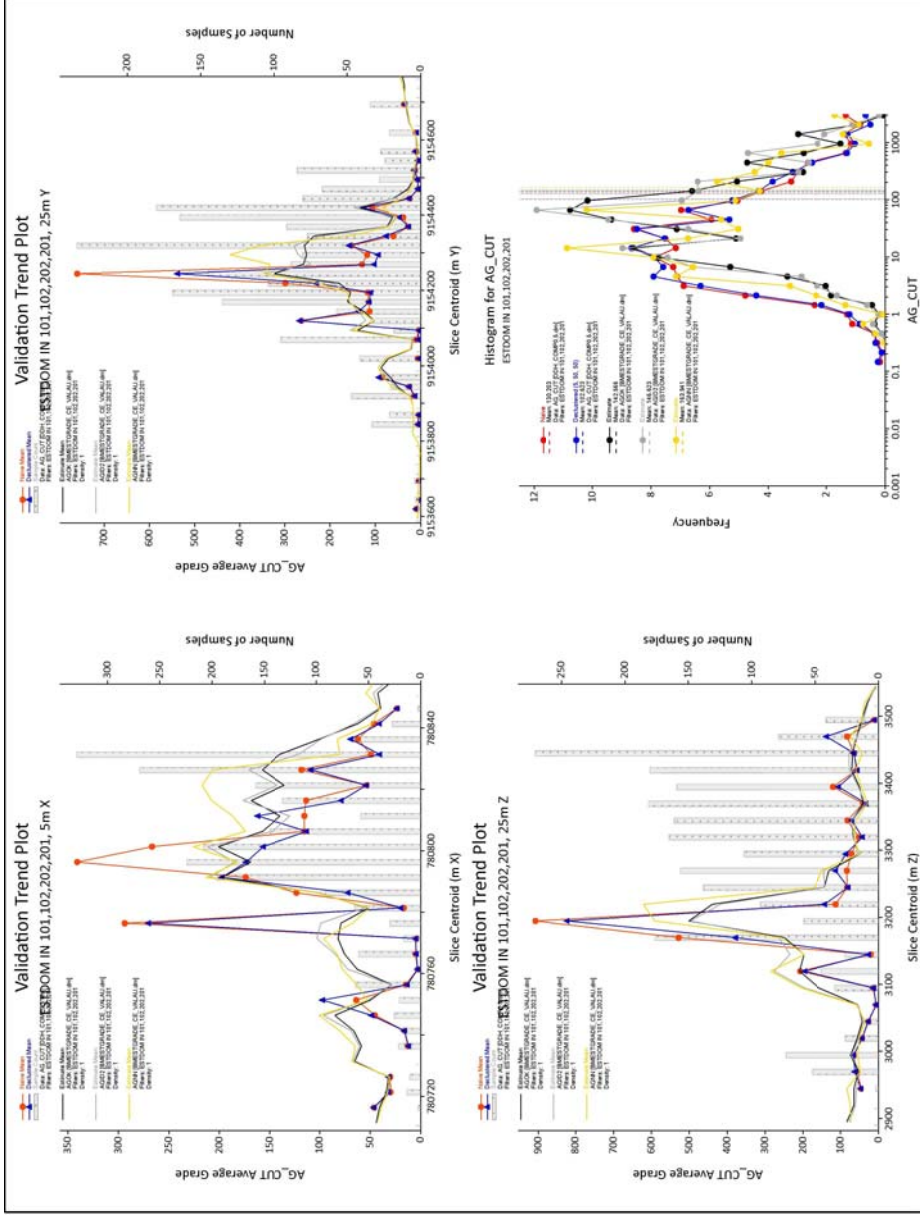
Table 14-22 Global bias for silver

ESTDOM	Volume	AGOK	AGID2	AGNN	% Diff OK vs NN	% Diff ID2 vs NN	No. of Composites	Mean Composite
101	464,388	159.65	166.60	172.74	-7.6%	-3.6%	1252	217.89
102	721,513	10.00	9.91	11.07	-9.7%	-10.5%	911	18.65
201	14,425	57.44	56.43	62.01	-7.4%	-9.0%	27	44.85
202	32,044	5.37	5.18	5.21	3.1%	-0.6%	47	5.67
301	161,781	209.37	207.09	240.45	-12.9%	-13.9%	185	196.85
302	1,233,444	5.05	5.06	5.05	0.2%	0.2%	271	30.00
998	6,596,231	8.20	7.98	9.21	-11.0%	-13.4%	3840	15.40
999	6,469,944	2.42	2.32	2.54	-4.8%	-8.8%	1095	13.58
<b>Mineral</b>	<b>640,594</b>	<b>169.91</b>	<b>174.34</b>	<b>187.35</b>	<b>-9.3%</b>	<b>-6.9%</b>	<b>1,464</b>	<b>460</b>
<b>Total</b>	<b>9,223,825</b>							



Note: Just for reference, the composite is in red color and declustered composite (5 m x 50 m x 50 m) is in blue color

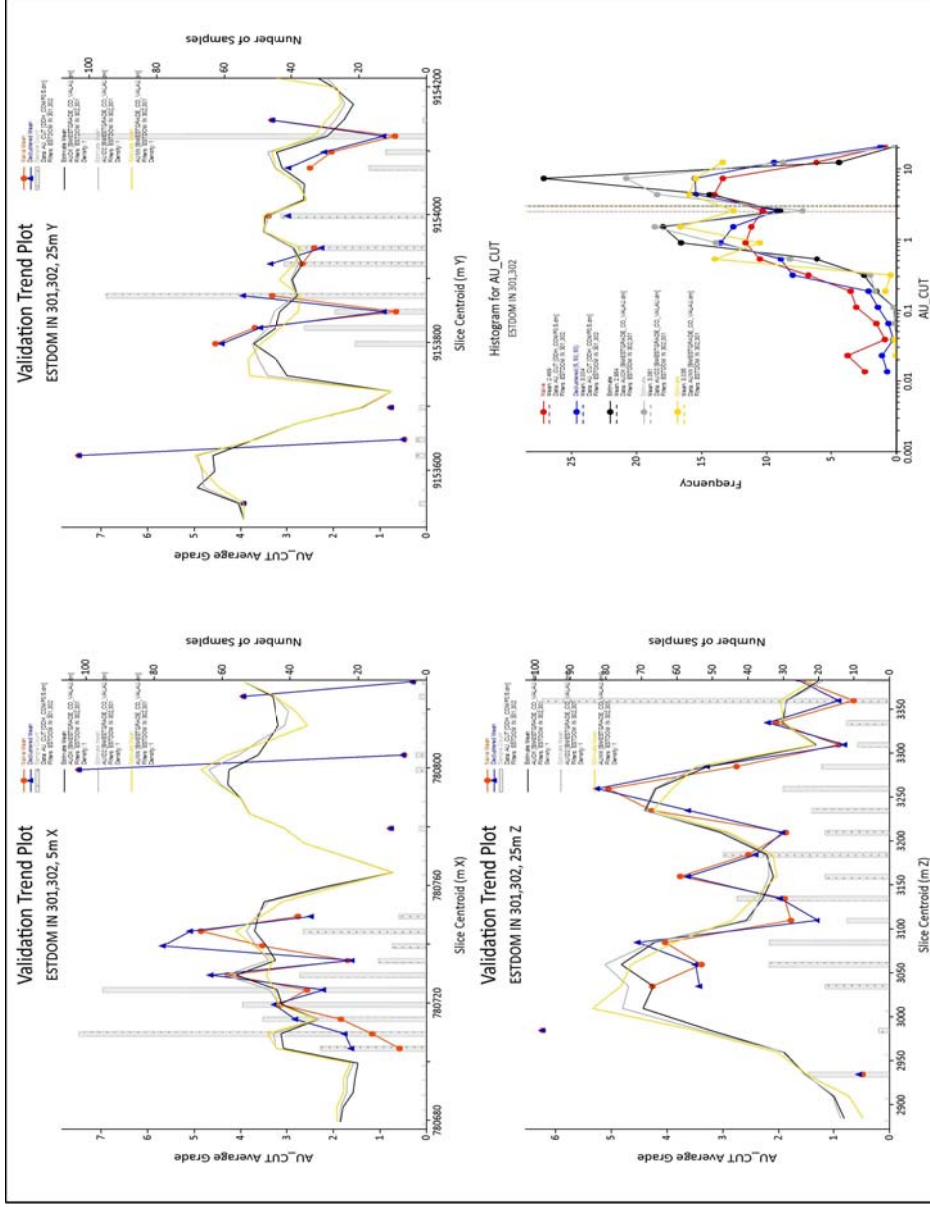
Figure 14-25 Swath Plots comparing OK (black), ID2 (grey) and NN (orange) estimates for gold by combined domain 101, 102, 201 and 202 (Callanquitas Este and Sigmoid)



Note: Just for reference, the composite is in red color and declustered composite (5 m x 50 m x 50 m) is in blue color

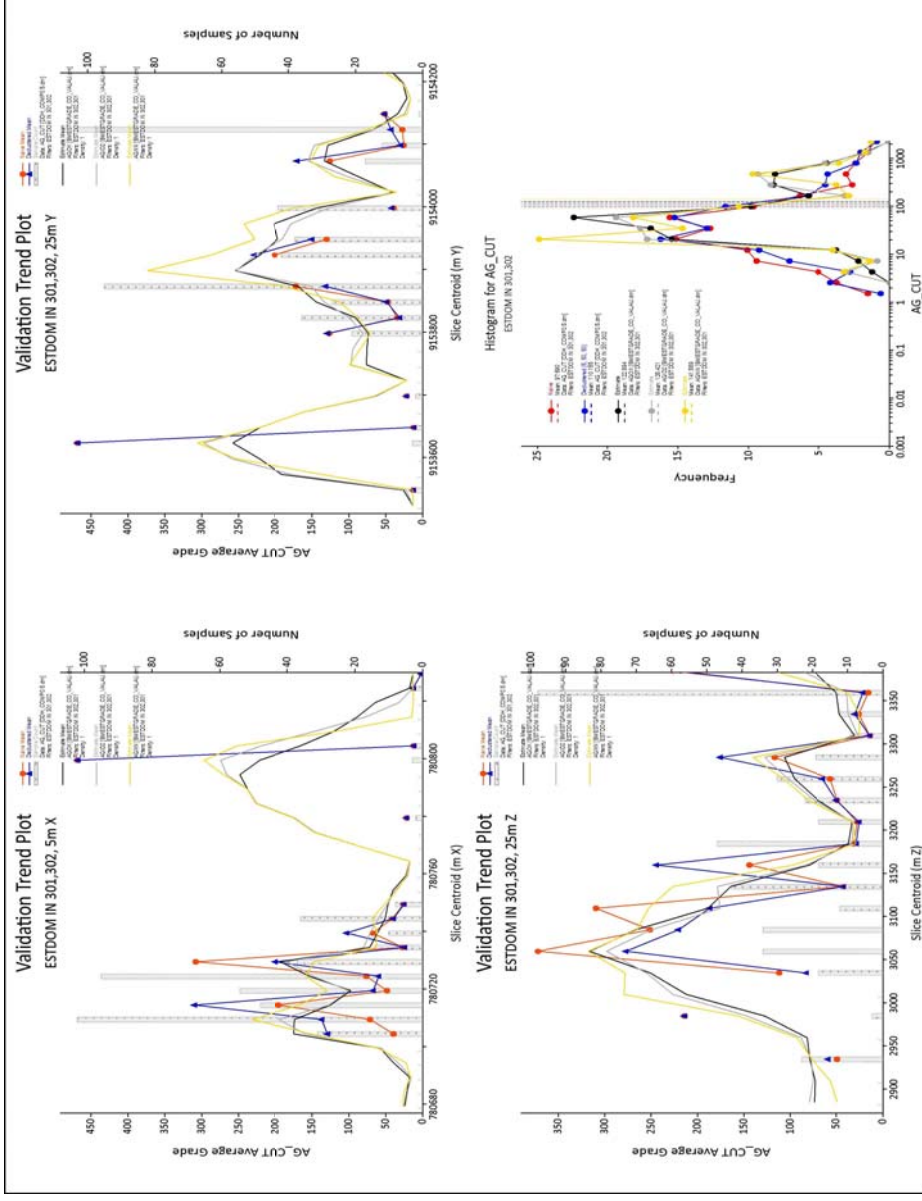
Figure 14-26 Swath Plots comparing OK (black), ID2 (grey) and NN (orange) estimates for silver by combined domain 101, 102,201 and 202 (Callanquitas Este and Sigmoid)





Note: Just for reference, the composite is in red color and declustered composite (5 m x 50 m x 50 m) is in blue color

Figure 14-27 Swath Plots comparing OK (black), ID2 (grey) and NN (orange) estimates for gold by combined domain 301 and 302 (Callanquitas Oeste)



Note: Just for reference, the composite is in red color and declustered composite (5 m x 50 m x 50 m) is in blue color

Figure 14-28 Swath Plots comparing OK (black), ID2 (grey) and NN (orange) estimates for silver by combined domain 301 and 302 (Callanquitas Oeste)

### 14.16 Mineral Resource Classification and Criteria

The mineral resource has been categorized as Measured, Indicated, and Inferred resources, reflecting the varying uncertainty over data quality, geological evidence, grade continuity, geological interpretation, and drill spacing. A 3D wireframe was created to code the block model using the search passes (1,2,3) as a guide and the nominal close to 50 m x 50 m drill spacing, where a classification quite similar to that carried out in the previous estimation as follows:

- Measured Resources with a maximum distance of 15 m, in areas with continuous channel sampling and at least 7 composites.
- Indicated Resource with a maximum distance of 45 m, with a minimum of 3 holes and a minimum of 5 composites.
- All material that has not been previously classified has been designated as Inferred Resource with a maximum distance of 90m with respect to the nearest drilling.
- The unclassified blocks with peripheral holes have been called geological potentials.

Figure 14-29 and Figure 14-30 show the resource classification for Callanquitas Este and Callanquitas Oeste veins respectively

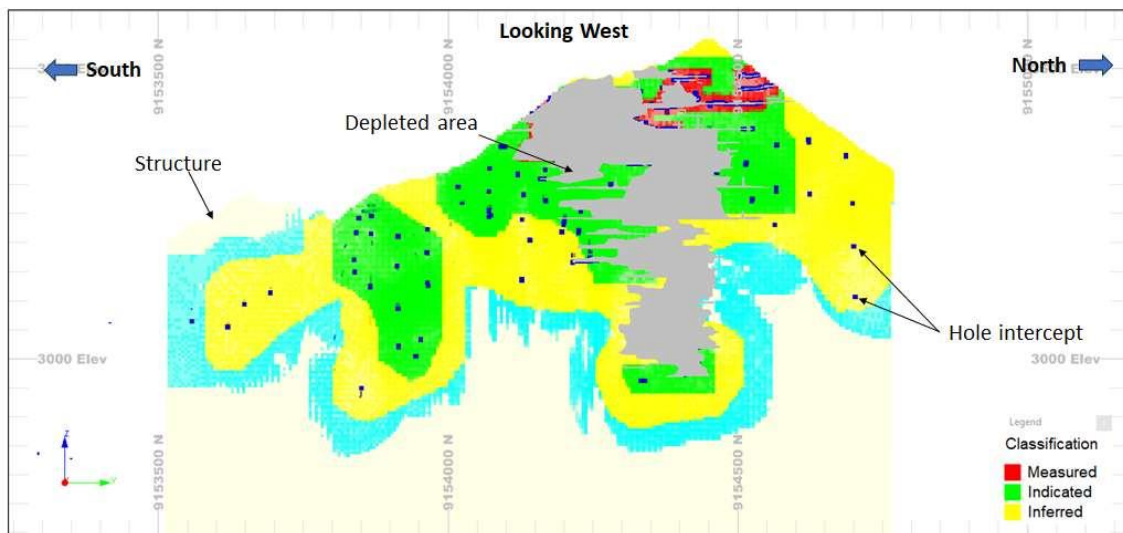


Figure 14-29 3D view of the Callanquitas Este vein block model colored by resource category (Cyan color is potential blocks)

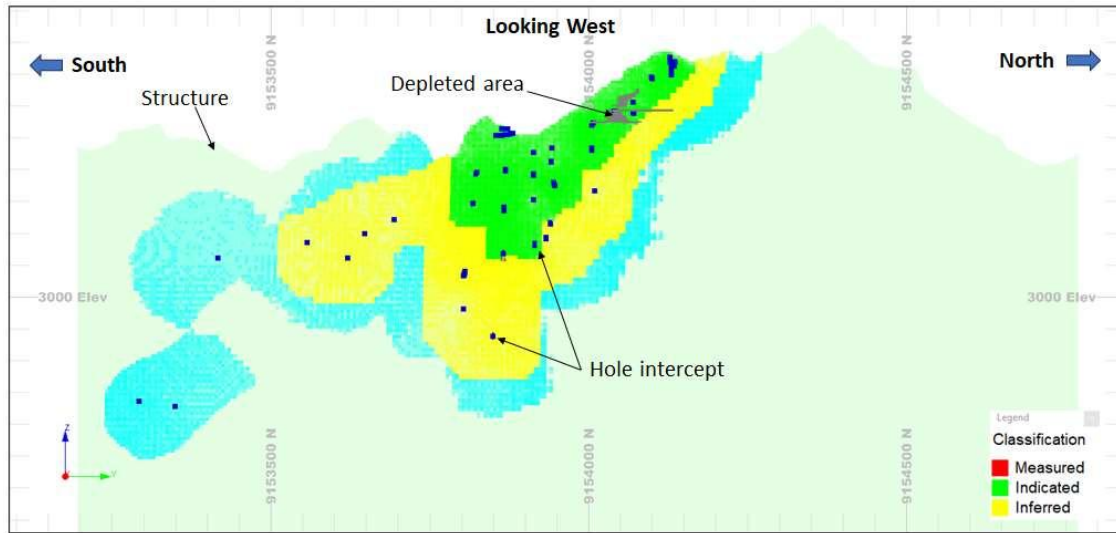


Figure 14-30 3D view of the Callanquitas Oeste vein block model colored by resource category (Cyan color is potential blocks)

### 14.17 Mineral Resource Statement

The Mineral Resource calculation of the Callanquitas mine, as of September 2023 is presented in Table 14-23. Those Mineral Resources considered potentially exploitable through optimized underground exploitation methods, the Mineral Resource of oxide and sulphides are reported above a cut-off grade of 2.0 g/t AuEq. The Mineral Resource is reported inside a underground shell with a cut-off grade of 2.3 g/t gold equivalent, estimated using a gold price of 1,800 US\$/oz and silver price of 20 US\$/oz. Note that the optimization stopes have a classification and oxidation code based on abundant material within each stope, with this code the block model has been reported.

The Mineral Resource has been categorized as Measured, Indicated, Inferred Resources reflecting uncertainty about data quality, geological evidence, continuity of grades, geological interpretation and well spacing.

The Mineral Resource Estimate (MRE), with an effective date of 30 September 2023, has been reported in accordance with the Canadian National Instrument 43-101 (NI 43-101) Standards for Disclosure for Mineral projects. The estimation process followed the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) “Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines” (CIM, 2019).

The Qualified Person (QP) for the MRE according to the definition of NI 43-101 is Ms. María Muñoz, MAIG QP (Geo), Principal Geologist of Mining Plus. The Mineral Resource Estimate is suitable for public reporting.

As of September 30, 2023, the MRE includes Measured, Indicated, and Inferred Resources; as Measured and Indicated resources in Oxides, there are around 663,700 tonnes with a gold equivalent grade of 4.70, with a metal content of 100,000 ounces of gold equivalent, and as Inferred in oxides there are around round 528,500 tonnes with a gold equivalent grade of 4.40, with a metal content of 75,000 ounces of gold equivalent.

Sulphides have been classified as inferred because their information is limited. Mining Plus highlights that the initial Metallurgical tests carried out in-house have demonstrated high recoveries, however, for these resources the recovery has been considered similar to that of oxides. There are around round 231,400 tonnes with a gold equivalent grade of 4.63, with a metal content of 34,000 ounces of gold equivalent.

Table 14-23 Callanquitas Mineral Resource as of 30 September 2023

Zone	Material	Category	Tonnes	Au	Ag	AuEq	Au	Ag	AuEq
			m <sup>3</sup>	g/t	g/t	g/t	koz	koz	koz
Total	Oxides	Measured	22,900	5.25	48	5.56	4	35	4
		Indicated	640,800	3.75	141	4.67	77	2,905	96
		<b>Meas+Ind</b>	<b>663,700</b>	<b>3.80</b>	<b>137</b>	<b>4.70</b>	<b>81</b>	<b>2,923</b>	<b>100</b>
		Inferred	528,500	3.72	103	4.40	63	1,750	75
	Sulphide	Measured	-	-	-	-	-	-	-
		Indicated	-	-	-	-	-	-	-
		<b>Meas+Ind</b>	-	-	-	-	-	-	-
		Inferred	231,400	2.79	278	4.63	21	2,068	34

Notes:

1. Mineral Resources are not Mineral Reserves and have not demonstrated economic viability.
2. The MRE has been categorized in accordance with the CIM Definition Standards (CIM, 2014).
3. All figures are rounded to reflect the relative accuracy of the estimates. Minor discrepancies may occur due to rounding to appropriate significant figures.
4. The Mineral Resource was estimated by Ms Muñoz QP(Geo) of Mining Plus, Independent Qualified Person under NI 43-101.
5. The Mineral Resource is reported inside a underground shell with a cut-off grade of 2.00 g/t gold equivalent, estimated using a gold price of 1,800 US\$/oz and silver price of US\$ 20 US\$/oz.
6. MRE is reported on a 100 percent basis within an underground shell.
7. The gold equivalent is based in the following formula  $AuEq = Au + Ag * 0.0066$ .
8. The effective date for mineral resources of 30 September 2023.
9. The cut-off date for mining depletion is 30 September 2023.

Table 14-24 Callanquitas Mineral Resource as of 30 September 2023 by Vein

Zone	Category	Oxides				Sulphide			
		Tonnes	Au	Ag	AuEq	Tonnes	Au	Ag	AuEq
		m <sup>3</sup>	g/t	g/t	g/t	m <sup>3</sup>	g/t	g/t	g/t
Callanquitas Este	Measured	22,900	5.25	48	5.56	-	-	-	-
	Indicated	409,000	3.56	138	4.47	-	-	-	-
	<b>Meas+Ind</b>	<b>431,900</b>	<b>3.65</b>	<b>133</b>	<b>4.53</b>	-	-	-	-
	Inferred	365,800	3.57	79	4.09	158,200	2.31	229	3.82
Callanquitas Oeste	Measured	-	-	-	-	-	-	-	-
	Indicated	231,800	4.06	146	5.02	-	-	-	-
	<b>Meas+Ind</b>	<b>231,800</b>	<b>4.06</b>	<b>146</b>	<b>5.02</b>	-	-	-	-
	Inferred	162,700	4.05	159	5.10	73,200	3.83	385	6.37
Total	Measured	22,900	5.25	48	5.56	-	-	-	-
	Indicated	640,800	3.75	141	4.67	-	-	-	-
	<b>Meas+Ind</b>	<b>663,700</b>	<b>3.80</b>	<b>137</b>	<b>4.70</b>	-	-	-	-
	Inferred	528,500	3.72	103	4.40	231,400	2.79	278	4.63

Notes: All figures are rounded to reflect the relative accuracy of the estimates. Minor discrepancies may occur due to rounding to appropriate significant figures.

#### 14.17.1 Reasonable prospects for eventual economic extraction requirement

An optimization was carried out at stope using Deswik software to determine the extent of the mineral resource with "reasonable prospects for eventual economic extraction" using the Cut and Fill method to satisfy the requirement in accordance with industry standards.

Mining Plus performed a resource optimization following the economics parameters and stope dimensions detailed in Table 14-25 and Table 14-26.

Table 14-25 Economic parameters for resources optimization

Item	Economic Parameters		
	Unit	Gold	Silver
Metal Price	US\$/oz	1800	20
Mining cost	US\$/t	57.7	57.7
Processing Cost	US\$/t	38.98	38.98
Leaching Recovery	%	88%	55%
Deduction	%	95%	95%
Refining Cost	US\$/oz	20	1.2
AuEq Cut off	g/t	2.01	
AuEq Cut off (Final)	g/t	2.00	
Equivalent constant	-	0.0066	
AuEq Formula	-	Au+Ag*0.0066	

Table 14-26 Stopes dimensions for optimization

Description	Units	Values
Optimization field	g/t	AUEQ
Default Dip	degrees	90
Default Strike	degrees	0
Cut-off Grade	g/t	2
Method Mining	Type	Cut and fill
Method	Type	Vertical - Slice
Stope Orientation Plan	Type	YZ
Stope Length	Meters	10
Stope Height	Meters	2.5
Minimum Stope Width	Meters	0.8
Maximum Stope Width	Meters	10
Minimum Pillar Between Stopes	Meters	5
ELOS Dilution Footwall	Meters	0
ELOS Dilution Hanging wall	Meters	0
Footwall Dip Angle Range	degrees	89-90
Hanging wall Dip Angle Range	degrees	89-90
Maximum change Dip	degrees	1
Stope Strike Angle Minimum	degrees	-25
Stope Strike Angle Maximum	degrees	25
Maximum change Strike	degrees	10
Maximum Stope Thickness Ratio - Top to Bottom	ratio	2.25
Maximum Stope Thickness Ratio - Left to Right	ratio	2.25
Default Rock Density	t/m3	2.56
Resource categories Shape	Cat	1,2,3

### 14.18 Mineral Resource Estimate Sensitivity

Mining Plus also evaluated the Callanquitas mine mineral resource estimate by cut-off grade range between 2.0 gt/ AuEq and 7.0 g/t AuEq. Tables (Table 14-27 to Table 14-30) and plots (Figure 14-31 to Figure 14-36) are produced separately for all oxides and sulphides for Callanquitas Este and Callanquitas Oeste

Table 14-27 Grade-tonnage curve of mineral resources within the oxide zone - Callanquitas Este

Cut-off	Measured + Indicated				All Categories			
	Tonnes	Au (g/t)	Ag (g/t)	AuEq (g/t)	Tonnes	Au (g/t)	Ag (g/t)	AuEq (g/t)
2.00	431,923	3.65	133	4.53	797,710	3.62	108	4.33
2.50	413,497	3.73	136	4.63	756,753	3.71	112	4.44
3.00	385,064	3.85	140	4.77	687,718	3.87	114	4.62
3.50	325,791	4.07	150	5.06	548,915	4.21	117	4.98
4.00	246,669	4.43	165	5.51	430,131	4.53	125	5.36
4.50	185,891	4.78	181	5.97	318,422	4.90	136	5.80
5.00	135,147	5.28	182	6.48	223,339	5.38	143	6.33
5.50	91,400	5.85	193	7.13	150,199	5.93	151	6.93
6.00	62,837	6.68	176	7.85	102,049	6.64	143	7.58
6.50	41,847	7.62	172	8.76	70,415	7.39	132	8.26
7.00	33,366	8.41	142	9.35	52,610	8.13	113	8.88

Notes: The figures are not rounded, for a direct comparison with the block model

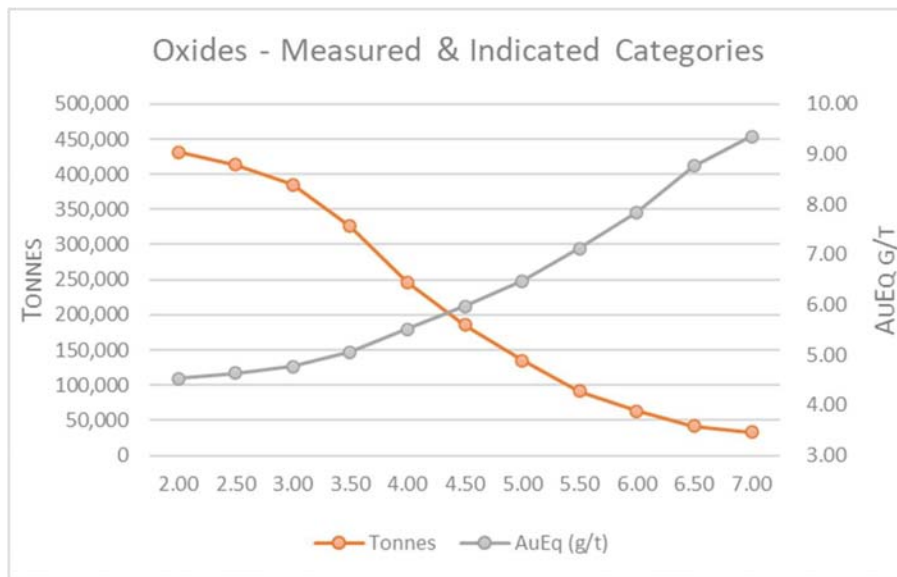


Figure 14-31 Grade-tonnage curve of Measured & Indicated mineral resources within the oxide zone - Callanquitas Este



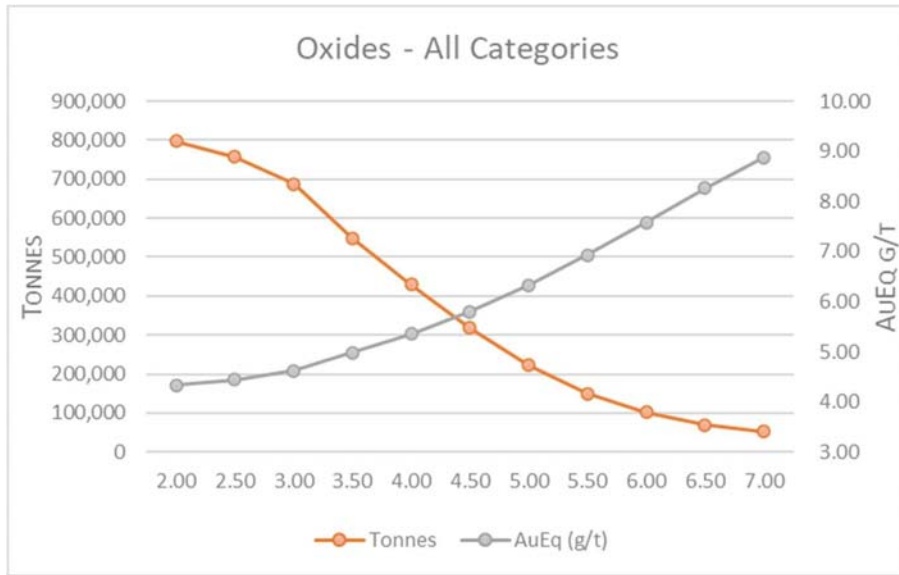


Figure 14-32 Grade-tonnage curve of all mineral resources within the oxide zone - Callanquitas Este

Table 14-28 Grade-tonnage curve of mineral resources within the sulphide zone - Callanquitas Este

Cut-off	Measured + Indicated				All Categories			
	Tonnes	Au (g/t)	Ag (g/t)	AuEq (g/t)	Tonnes	Au (g/t)	Ag (g/t)	AuEq (g/t)
2.00	-	-	-	-	158,159	2.31	229	3.82
2.50	-	-	-	-	143,925	2.34	246	3.97
3.00	-	-	-	-	109,955	2.59	267	4.35
3.50	-	-	-	-	85,005	2.77	295	4.72
4.00	-	-	-	-	65,662	2.87	328	5.04
4.50	-	-	-	-	47,856	3.01	359	5.38
5.00	-	-	-	-	32,025	3.18	392	5.77
5.50	-	-	-	-	20,369	3.50	403	6.16
6.00	-	-	-	-	12,632	3.94	399	6.57
6.50	-	-	-	-	7,986	4.38	385	6.92
7.00	-	-	-	-	3,304	5.70	261	7.42

Notes: The figures are not rounded, for a direct comparison with the block model

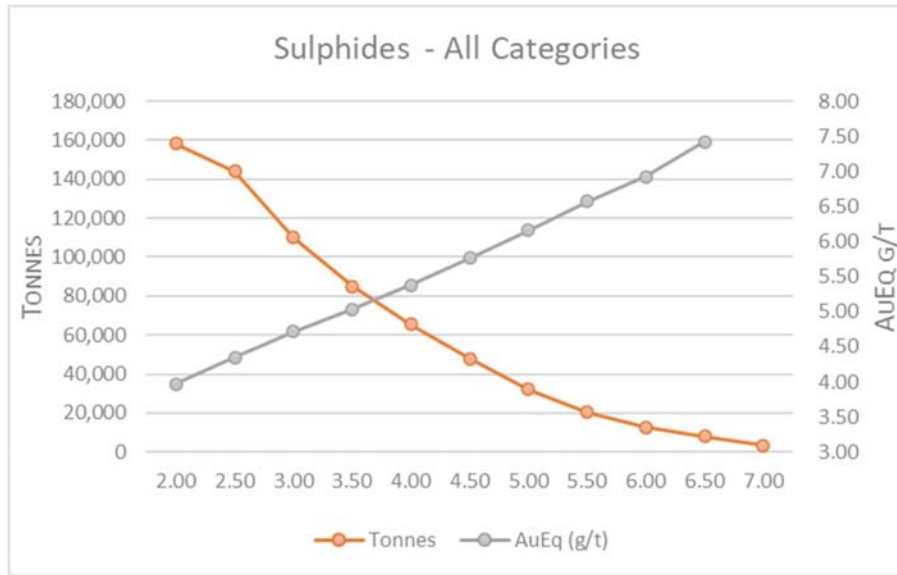


Figure 14-33 Grade-tonnage curve of mineral resources within the sulphide zone - Callanquitas Este

Table 14-29 Grade-tonnage curve of mineral resources within the oxide zone - Callanquitas Oeste

Cut-off	Measured + Indicated				All Categories			
	Tonnes	Au (g/t)	Ag (g/t)	AuEq (g/t)	Tonnes	Au (g/t)	Ag (g/t)	AuEq (g/t)
2.00	232,450	4.19	149	5.20	396,128	4.21	156	5.27
2.50	224,856	4.26	153	5.30	383,773	4.28	160	5.37
3.00	208,002	4.41	161	5.51	359,729	4.40	167	5.54
3.50	184,870	4.60	174	5.79	315,439	4.62	183	5.86
4.00	167,160	4.73	187	6.00	282,651	4.76	197	6.10
4.50	134,659	4.93	218	6.42	238,015	4.94	221	6.45
5.00	96,281	5.19	281	7.10	181,592	5.17	266	6.98
5.50	73,836	5.36	338	7.66	143,897	5.35	307	7.44
6.00	55,398	5.54	404	8.29	112,383	5.50	353	7.91
6.50	45,877	5.63	454	8.72	91,735	5.61	393	8.28
7.00	38,879	5.76	487	9.07	75,325	5.75	422	8.62

Notes: The figures are not rounded, for a direct comparison with the block model

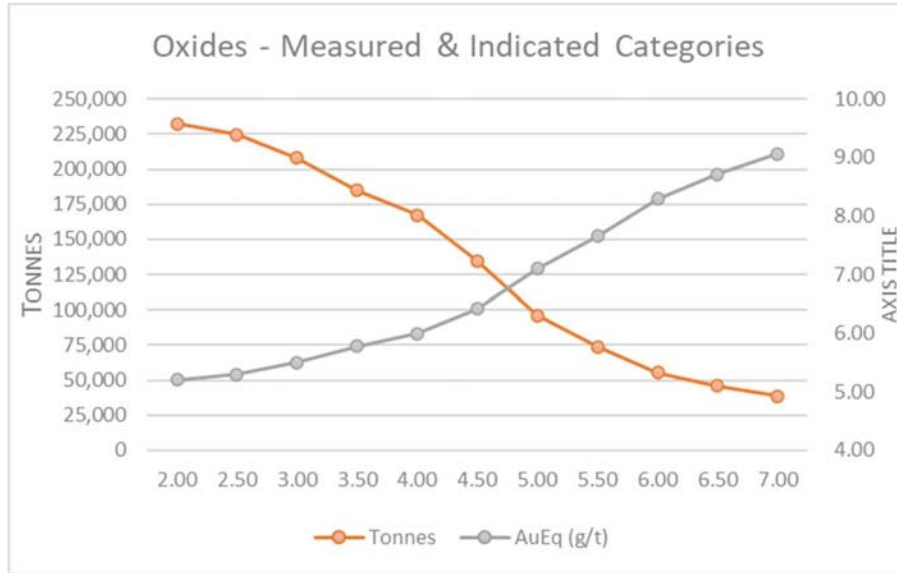


Figure 14-34 Grade-tonnage curve of Measured & Indicated mineral resources within the oxide zone - Callanquitas Oeste

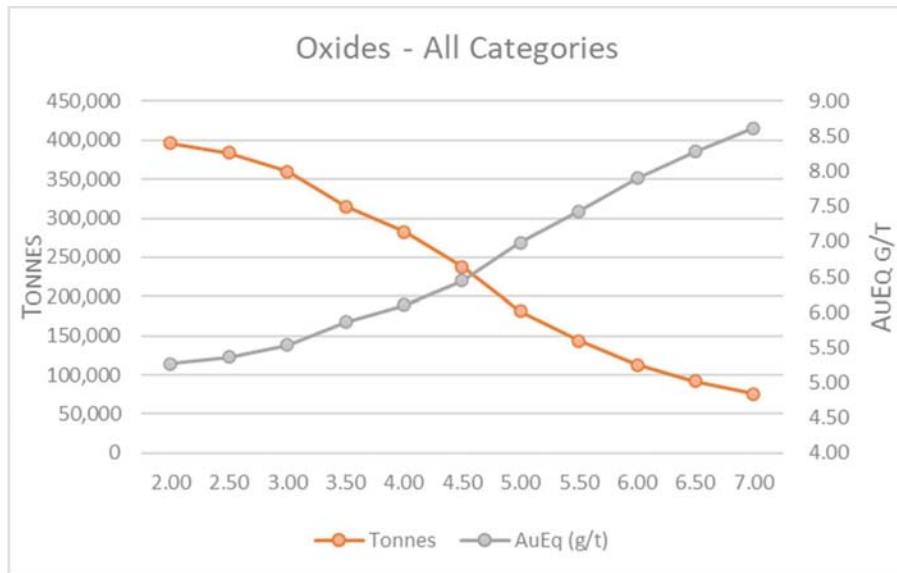


Figure 14-35 Grade-tonnage curve of all mineral resources within the oxide zone - Callanquitas Oeste

Table 14-30 Grade-tonnage curve of mineral resources within the sulphide zone - Callanquitas Oeste

Cut-off	Measured + Indidated				All Categories			
	Tonnes	Au (g/t)	Ag (g/t)	AuEq (g/t)	Tonnes	Au (g/t)	Ag (g/t)	AuEq (g/t)
2.00	-	-	-	-	73,192	3.83	385	6.37
2.50	-	-	-	-	72,783	3.85	386	6.40
3.00	-	-	-	-	71,063	3.89	394	6.49
3.50	-	-	-	-	69,089	3.93	403	6.58
4.00	-	-	-	-	66,415	3.99	413	6.72
4.50	-	-	-	-	62,672	4.07	424	6.87
5.00	-	-	-	-	55,472	4.18	455	7.19
5.50	-	-	-	-	48,095	4.29	490	7.53
6.00	-	-	-	-	42,224	4.38	523	7.83
6.50	-	-	-	-	37,710	4.48	542	8.06
7.00	-	-	-	-	33,136	4.61	562	8.32

Notes: The figures are not rounded, for a direct comparison with the block model

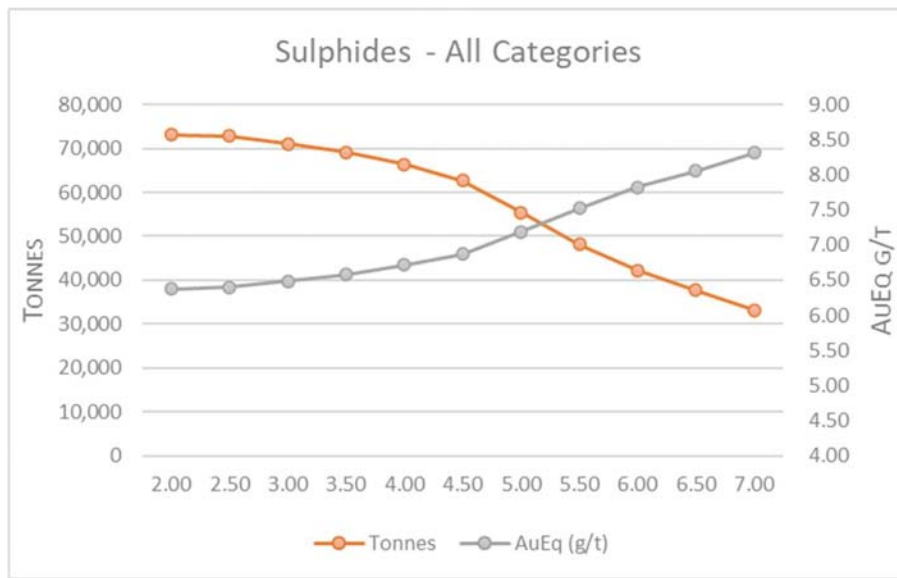


Figure 14-36 Grade-tonnage curve of mineral resources within the sulphide zone - Callanquitas Oeste

### 14.19 Comparison with historical estimate

The current MRE is not directly comparable to the previous estimate completed by PPX Mining Corp due to:

- 210 channels being added in 2023.
- The new geological interpretation, where Mining Plus considered some mineralized intervals included in the previous estimate, not suitable for inclusion

in the current estimate due to revised geological understanding and poor continuity.

- To determine the cut-off grade, the gold and silver prices of 1,800 US\$/oz and 20 US\$/oz respectively were applied, while in 2018 the prices used were 1,350 US\$/oz and 18 US\$/oz.
- In 2018, a price off 75 US\$/t combined was applied to mining and processing operating costs, at an 80% extraction rate, while the current estimate uses 97 US\$/t and a metallurgical recovery of 88% for gold and 55% for silver.
- Changes in economic parameters affected the equivalence factor from 0.004444 to 0.0066, while the equivalent cut-off grade remained at 2.0 g/t AuEq.
- Between 2018 and 2023, mining production has continued, with a total of approximately 246,000 tonnes extracted, generating resource depletion.

Table 14-31 shows the results of the current MRE with respect to the 2018 MRE, where Measured and Indicated resources have decreased mainly due to mine production, while Inferred resources in oxides have increased slightly due to new channels. The changes in sulphides are due to a slight change in their overall boundaries.

*Table 14-31 Resource estimate 2023 done by Mining Plus vs Resource estimate 2018 done by PPX Mining at a cut-off grade of 2.0 AuEq*

Material	Category	Resources 2023			Resources 2018		
		Tonnes	Au	Ag	Tonnes	Au	Ag
		m <sup>3</sup>	g/t	g/t	m <sup>3</sup>	g/t	g/t
Oxides	<b>Meas + Ind</b>	<b>663,700</b>	<b>3.80</b>	<b>137</b>	<b>1,470,000</b>	<b>4.72</b>	<b>110</b>
	Inferred	528,500	3.72	103	344,000	4.58	125
Sulphide	Inferred	231,400	2.79	278	269,000	2.97	159

## 14.20 Mineral Resource Risk Assessment

Possible risk factors together with the rationale for the approach taken or mitigating factors established to reduce any risk are described below:

- The quality of the data has not allowed us to have a large quantity of mineral measured, considering that the drilling pattern is 50 m by 50 m. These resources cannot be classified beyond what is indicated until a closer 25 m drill space is carried out to understand the quality of the existing information.
- It is necessary to have a new drilling campaign that allows having information that supports the interpretation of the grade shell, to have better precision of the volumes. In the case of Callanquitas Este and West.

- To mitigate any extrapolation, Mining Plus applied reasonable searches for mineralization style, in Callanquitas Este structure outside of grade shell, a search restriction was applied to economic grades to avoid overestimation and smearing of these grade in the low grade zone

## 15 MINERAL RESERVE ESTIMATES

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This section is not relevant to this Report.

## 16 MINING METHODS

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This section is not relevant to this Report.



## 17 RECOVERY METHODS

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This section is not relevant to this Report.

## 18 PROJECT INFRASTRUCTURE

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This section is not relevant to this Report.

## 19 MARKET STUDIES AND CONTRACTS

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This section is not relevant to this Report.

## **20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT**

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This section is not relevant to this Report.

## 21 CAPITAL AND OPERATING COSTS

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This section is not relevant to this Report.

## 22 ECONOMIC ANALYSIS

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This section is not relevant to this Report.

## 23 ADJACENT PROPERTIES

Surrounding the Callanquitas mine there are a number of mining operations (Figure 23-1). These include the nearby non-metallic mining operations of Agaucu and El Rocio; and metallic mining operations of Shahuindo, Alto Chicama, La Arena, La Arena II project and El Toro. The majority of these mines are located along the Belt of Au-Ag epithermal hosted in sedimentary rocks. Exceptions include Shahuindo and El Toro that belong to the Belt of Au-Ag epithermal hosted in volcanic rocks, and the Belt of Cu-Mo (Au) porphyries, Pb-Zn-Cu (Ag) skarns and polymetallic deposits related to Miocene intrusions, respectively (INGEMMET, 2024). These projects highlight the significance of the mining and exploration district in the vicinity of the Igor property and the Callanquitas deposit. It is crucial to emphasize that the mentioned deposits are not directly related to the mineralization present on the Igor property.

Shahuindo and La Arena (La Arena II project) are operated by Pan American Silver, the first being located in Cajamarca, and the others in La Libertad. Shahuindo and La Arena are gold deposits that use open pits as the mining method. The Measured and Indicated mineral resources in Shahuindo are estimated in 12.5 million tonnes with a grade of 0.32 g/t Au, the Inferred mineral resources are 10.1 million tonnes with a grade of 0.38 g/t Au; and the reserves are estimated at 92.4 million tonnes with a grade of 0.47 g/t Au. The Measured and Indicated mineral resources in La Arena are estimated in 12.5 million tonnes with a grade of 0.19 g/t Au, the Inferred mineral resources are 5.8 million tonnes with a grade of 0.23 g/t Au; and the reserves are estimated at 32.6 million tonnes with a grade of 0.33 g/t Au (Pan American Silver, 2023).

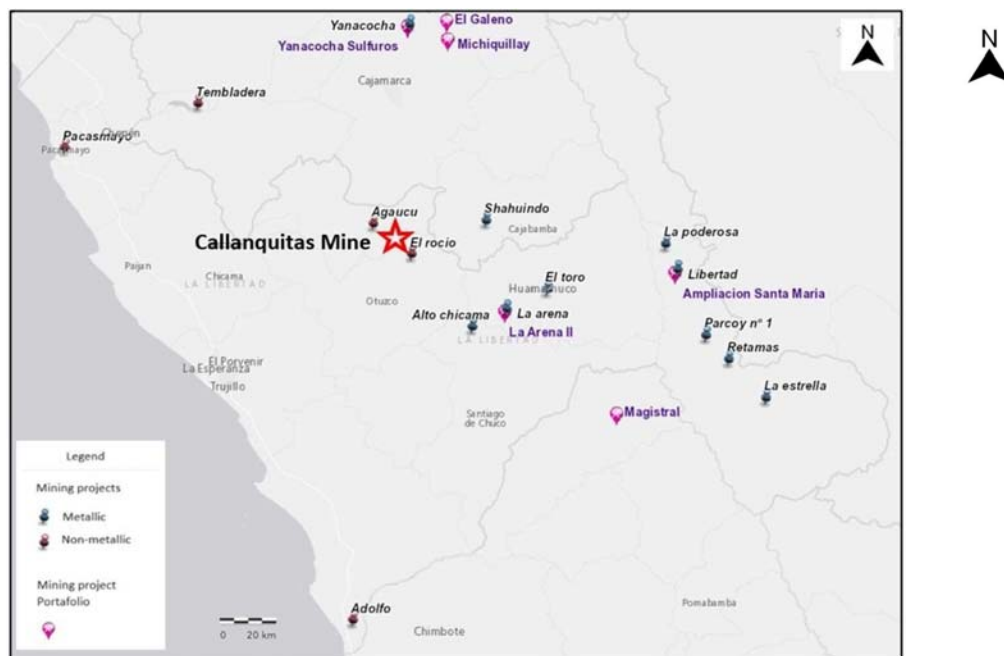


Figure 23-1 Reference map of the mines and exploration projects adjacent to Callanquitas Mine (INGEMMET, 2024)

## **24 OTHER RELEVANT DATA AND INFORMATION**

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This section is not relevant to this Report.



## 25 INTERPRETATION AND CONCLUSIONS

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Based on the site visit and subsequent evaluation of the Project, the authors offer the following conclusions

### 25.1 Geology and exploration target

Geologica considers that the recent exploration efforts conducted by PPX have been reasonably completed using exploration techniques and approaches that are generally standard practices in the mining industry.

Past and recent work completed at the Portachuelos, Domo and Tesoros mineralized zones has permitted to observe lateral extension potential at significant width and grades to justify infill and definition drilling on them. Just like at Callanquitas, interesting grades of gold and silver mineralization have been found in these three (3) main zones. These mineralized structures show good width from 2 m to 5 m and lateral length extensions from 1,2 km to 2,0 km and are hosted within brecciated and fractured quartzites of the favourable Chimu-Santa Formations and transition zones. The mineralization was injected within altered fractures, faults, fold flanks (mantos) and fold noses. The hot fluids were carrying metal ions from deeper within the intrusion or intrusive magma and formed epithermal veins once cooled. Just like at Callanquitas mine, depth extensions of the three zones (Portachuelos, Domo & Tesoros) could reach 500 meters or more and be open along strike.

The various geophysical surveys (Mag and IP-Resistivity-Chargeability) permitted to locate the mineralized structures and their lateral and depth extensions in the central part of the property covering Callanquitas and Portachuelos. Once drilled, these mineralized structures and extensions will eventually permit ore resource calculation, if warranted. The recent core and channel sampling completed by two of the authors has permitted to validate and corroborate the assay results previously obtained by PPX and confirm the presence of significant results as well as to observe the lateral continuity of the mineralized zones. Drill core sampling of the 3 areas has confirmed the mineralization present with grades above 1 g/t ranging from 1.06 g/t to 19.11 g/t Au and silver grades up to 560.94 g/t Ag over widths of 1.04 m to 9.05 m. The channel sampling at surface has also confirmed the mineralization presence in the three areas with grades above 1 g/t Au ranging from 1.14 g/t to 4.50 g/t Au and silver grades up to 209.00 g/t Ag over channel widths of 0.5 m to 3.8 m. The drillholes have illustrated higher gold grades at depth and observed in the sampled drillholes and surface channel sampling.

### 25.2 Mineral Resources

The drill hole spacing in the central portion is approximately 50 m by 50 m, expanding to 100 m to 150 m at the extents. However, underground workings above 3200 level and below

3400 level appear to have low accuracy, potentially affecting the location of channels and, consequently, geological interpretation.

To separate economic grades from non-economic grades within each of the Sienna modelled veins, a grade shell with a cut-off grade  $> 2.3 \text{ g/t AuEq}$  was constructed. The estimated resources incorporate historical drilling, new channel data, and revised geological interpretation, with no significant issues identified. It is noted that there is mineralization outside the modelled veins that is not clearly identified or understood geologically. These have not been part of this update of the estimated resources.

The positive bias identified in the channels compared to drilling exist remains inconclusive, as mining reconciliation demonstrates good reconciliation with the channels. Comparisons with previous resources are not feasible due to various changes, including new channels, geological interpretation, grade shell usage, adjusted economic parameters, and mining depletion.

The overall mineral resource estimates contain Measured, Indicated, and Inferred Resources. In Oxides, Measured and Indicated resources total approximately 663,700 tonnes with a gold equivalent grade of 4.70, containing 100,000 ounces of gold equivalent. Inferred resources in oxides are around 528,500 tonnes with a gold equivalent grade of 4.40, containing 75,000 ounces of gold equivalent.

Sulphides are designated as Inferred Mineral Resources due to a limited amount of available information. Initial in-house metallurgical tests show promising results, the anticipated recovery for these specific resources is considered comparable to that of oxides. The Mineral Resource as sulphides are approximately 231,400 tonnes with a gold equivalent grade of 4.63, resulting in a metal content of 34,000 ounces of gold equivalent.

### **25.3 Metallurgy**

The mineralized material displays pre-robbing characteristics, indicating the necessity of employing a carbon-in-leach (CIL) process. Gravity concentration proves ineffective, especially with oxide samples. Optimal leach extractions of 87% for gold and 55% for silver are recommended. Anticipated cyanide consumption is 2.5 kg/t, and lime consumption is expected to be 8.5 kg/t, recognizing variations in test work with the same sample. Thus, allowances for variation should be incorporated into the reagent addition system. An expected carbon loading of at least 10,000 g/t for gold + silver is advised. Moreover, weak acid dissociable cyanide complexes (WAD) can be reduced to less than 1 mg/l by employing 4 kg of  $\text{SO}_2$  per kg of WAD cyanide, supplemented with 30 ppm of copper and a residence time of 1 hour.

## 26 RECOMMENDATIONS

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The authors make the following recommendations:

### 26.1 Geology and exploration target

To better define the lateral and depth extensions of the Portachuelos, Domo and Tesoros zones, a phase 1 surface exploration program of Magnetometer, IP-Resistivity-Chargeability and Gravimetry surveys followed by mechanical trenching with tractor and hoe with detailed mapping and sampling is recommended. A geochemical soil sampling survey will be completed on the three (3) mineralized zone extensions. A phase 2 diamond drilling (NQ size) with infill holes and exploration on the three (3) zone extensions will eventually permit a categorized resource calculation. This drilling program will consist of 4,000 meters on the Portachuelos Zone, 3,000 meters on the Domo Zone and 3,000 meters on the Tesoros Zone. The budget for Phases 1 and 2 programs is set at \$618,000 and \$3,055,000 Canadian dollars ("CAD") respectively, with detailed descriptions provided for each phase as outlined below:

The recommendations and budget listed below should be carefully followed:

<b><u>PHASE 1 – Follow-up surface and exploration work</u></b>	<b><u>CAD \$</u></b>
<ul style="list-style-type: none"> <li>• Surface Trenching and Outcrop Stripping 30 days at \$2,500/day (including tractor with hoe and operator).</li> </ul>	75 000 \$
<ul style="list-style-type: none"> <li>• Detail mapping, sampling and assaying, 1 geologist and 1 geological assistant, 20 days at \$1,000/day.</li> </ul>	20 000 \$
<ul style="list-style-type: none"> <li>• Sample Analysis of Rock Samples 1,000 samples at 50\$/sample (including sample collection, transport and assaying) .</li> </ul>	50 000 \$
<ul style="list-style-type: none"> <li>• Geophysical Surveys (Mag and IP-Resistivity-Chargeability) Magnetometer survey, 100 km at \$100/km IP-Resistivity-Chargeability survey, 50 km at \$1000/km.</li> </ul>	10 000 \$ 50 000 \$
<ul style="list-style-type: none"> <li>• Orientation Gravimetric Survey to detect Mineralized Massive Sulphides.</li> </ul>	80 000 \$
<ul style="list-style-type: none"> <li>• Geochemical Soil Surveys (on Mineralized Zone Extensions) 100 m interval, 250 samples at \$60/sample.</li> </ul>	15 000 \$
<ul style="list-style-type: none"> <li>• One Diamond Drill Hole on each zone (Tesoros, Domo and Portachuelos) to validate recent results in a trenching, geophysics and soil Geochem program. 1,000 meters at 300\$/meter (all included).</li> </ul>	300 000 \$

<ul style="list-style-type: none"> <li>Core logging (1 geologist and 1 technical assistant) supervising 1 drill 12 days at 1,500\$/day (all included).</li> </ul>	18 000 \$
<b><u>Sub-total Phase 1:</u></b>	<b><u>618 000 \$</u></b>
<b><u>PHASE 2 – Surface Exploration and Definition Drilling</u></b>	
<ul style="list-style-type: none"> <li>Diamond Drilling on selected surface prioritized targets generated on the whole property as well as infill drilling on the three main mineralized zones 9,000 meters at 300\$/meter (all included).</li> </ul>	2 700 000 \$
<ul style="list-style-type: none"> <li>Core logging (2 geologists and 2 technical assistants) supervising 2 drills 120 days at 1,500\$/day (all included).</li> </ul>	180 000 \$
<ul style="list-style-type: none"> <li>Mineralized drill core sample assaying 2,500 samples at 40\$/sample (including sample collection, transport and assaying).</li> </ul>	100 000 \$
<ul style="list-style-type: none"> <li>Work Report with Categorized Resource Calculation on the three (3) mineralized zones.</li> </ul>	75 000 \$
<b><u>Sub-total Phase 2:</u></b>	<b><u>3 055 000 \$</u></b>
<b><u>Sub-total Phases 1 &amp; 2:</u></b>	<b><u>3 673 000 \$</u></b>
<b><u>Supervision, management and Contingencies (≈15%)</u></b>	<b><u>550 000 \$</u></b>
<b><u>Total Phase 1 &amp; 2:</u></b>	<b><u>4 223 000 \$</u></b>

## 26.2 Mineral Resources

Several recommendations are proposed to enhance the overall understanding and estimation of resources.

- Infill drilling is suggested to upgrade Inferred and Indicated resources to Indicated and Measured resources.
- Continue exploration with drilling in areas with open mineralization to increase Inferred resources.
- The drilling should proceed with quality assurance and quality control (QA/QC) measures, containing twin duplicates, coarse, and pulp samples. Reference Standards samples should cover three grade ranges: the average grade of the deposit, those close to the cut-off grade, and high grades.
- Increasing the density samples per veins.
- Update of underground workings with accuracy problems, and update the data accordingly with new information.

- Grade shell should be done for gold and silver separate since this element has no correlation and should be snapped to the hole interval.
- Review the mineralized interval that is outside the mineralized veins modelled, and understand its potential inclusion as part of geological interpretation and in the resources.
- Conduct a monthly mine reconciliation to determine if there are any potential problems with the estimation process or the data used, which will help to better predict resources and potential reserve, this will also help understand if there is any bias in the channels that should be considered.
- A drill hole spacing study is suggested to determine the optimum borehole spacing for Measured, Indicated and Indicated.

### **26.3 Metallurgy**

Due to the presence of naturally occurring carbon in the ore, a carbon in the leach process must be used to maximize gold recovery from oxide ore. To minimize cyanide consumption, it is necessary to carry out pre-aeration and add sufficient lime to achieve a constant pH prior to adding cyanide. Any plant to treat ore from Callanquitas must also have a separate flotation circuit to treat ore containing sulphides.

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