Updated NI 43-101 TECHNICAL REPORT, PRE-FEASIBILITY STUDY FOR THE DIABLILLOS Ag-Au PROJECT

Salta & Catamarca Provinces, Argentina

Prepared for

AbraSilver Resource Corp.

Report Date: January 17th, 2025.
Effective Date: December 3rd, 2024.

Qualified Persons:
Luis Rodrigo Peralta, FAusIMM CP (Geo)- INSA
Joseph M. Keane, P. Eng., Q.P. (SME) - SGS
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Shaida Miranda, MAusIMM CP – Mining Plus

Important Notice

This report was prepared as a National Instrument 43-101 Technical Report for AbraSilver Resources Corporation ("AbraSilver") by a team of consultants contracted by AbraSilver ("the Team"). The quality of information, conclusions and estimates contained herein is consistent with the level of effort involved in the Team's services, based on:

1. Information available at the time of preparation.
2. Data supplied by outside sources as detailed herein.
3. The assumptions, conditions, and qualifications set forth in this report.

This report is intended for use by AbraSilver subject to the terms and conditions of its contracts with the consultants and the Team and to the relevant securities legislation. The contracts permit AbraSilver to file this report as a technical report with Canadian securities regulatory authorities, pursuant to National Instrument 43-101, Standards of Disclosure for Mineral Projects. Except for the purposes legislated under provincial securities law or stock exchange rules, any other uses of this report by any third party are at that party's sole risk. The responsibility for this disclosure remains with AbraSilver. The user of this document should ensure that this is the most recent Technical Report for the property as it is not valid if a new technical report has been issued.

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Cautionary Statement

Certain information and statements contained in this report are "forward looking" in nature. Forward-looking statements include, but are not limited to: statements with respect to the economic and other parameters of the project; Mineral Resource and Reserve estimates; the cost and timing of any development of the project; the proposed mine plan and mining methods; dilution and mining recoveries; processing method and rates and production rates; projected metallurgical recovery rates; infrastructure requirements; capital, operating and sustaining cost estimates; the projected life of mine and other expected attributes of the project; the net value per block value (NVB); taxation and royalties; capital; future metal prices; the project location; the timing of the environmental assessment process; changes to the project configuration that may be requested as a result of stakeholder or government input to the environmental assessment process; government regulations and permitting timelines; estimates of reclamation obligations; requirements for additional capital; environmental risks; and general business and economic conditions.

All forward-looking statements in this report are necessarily based on opinions and estimates made as of the date such statements are made and are subject to important risk factors and uncertainties, many of which cannot be controlled or predicted. In addition to, and subject to, such specific assumptions discussed in more detail elsewhere in this report, the forward-looking statements in this report are subject to the following assumptions:

- There being no signification disruptions affecting the development and operation of the project.
- Exchange rate assumptions being approximately consistent with the assumptions in the Report.
- The availability of certain consumables and services and the prices for power and other key supplies being approximately consistent with assumptions in the report.
- Labour and materials costs being approximately consistent with assumptions in the report.
- Assumptions made in Mineral Resource and Reserve estimates, including, but not limited to, geological interpretation, grades, metal price assumptions, metallurgical and mining recovery rates, geotechnical and hydrogeological assumptions, capital and operating cost estimates, and general marketing, political, business, and economic conditions.

CERTIFICATE OF QUALIFIED PERSON

I, *Luis Rodrigo Peralta,* B.Sc. (Geo) FAusIMM CP (Geo), do hereby certify that I am author of the Sections; 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.8, 1.12, 1.13, 1.14, 1.15, 1.17, 1.18, 1.19 (partial), 2 to 12, 14, 18 to 20, 21, 23, 24, 25.1, 26.1, 26.4, 26.5 and 27 of the Technical Report titled "Updated NI 43-101 Technical Report, Pre-Feasibility Study for the Diablillos Project, Salta & Catamarca Provinces, Argentina" prepared for AbraSilver Resource Corp. and dated January 17th, 2025 (the "Technical Report")..

1. My current work address is Virgen de Lourdes Oeste 1275, Capital, San Juan, Argentina, 5400.
2. I am an independent Senior Resource Geologist.
3. I graduated with a Bachelor in Geology Science from the National University of San Juan, San Juan City, Argentina in 2008.
4. I am a registered Fellow and Chartered Professional in good standing of the Australasian Institute of Mining and Metallurgy, since 2010. FAusIMM membership number 304480.
5. I have practiced my profession continuously since 2008. My relevant experience includes over 15 years´ experience working in relevant open pit and underground mines in South America. I have advanced in position since exploration geologist, senior resource geologist to Technical Services Manager, overseen the Mineral Resource estimate at Casposo Mine, Cerro Vanguardia Mine, El Toqui Mine, Pirquitas Mine, Chinchillas Mine, and other projects. Also, I have worked as geologist consultant evaluating projects in South America in all their levels of study: green field exploration, brownfield exploration to resource definition and mining production.
6. 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 fulfil the requirements to be a "Qualified Person" for the purposes of NI 43-101.
7. I am responsible for the preparation of sections 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.8, 1.12, 1.13, 1.14, 1.15, 1.17, 1.18, 1.19 (partial), 2 to 12, 14, 18 to 20, 21, 23, 24, 25.1, 26.1, 26.4, 26.5 and 27.
8. I have previously participated in the preparation of five Technical Reports for this property, dated October 28th, 2021: January 3rd, 2022, and November 28th, 2022, April 30th 2024, and May 29th, 2024 as an independent senior consultant.
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 AbraSilver Resource Corp. (the Issuer) applying all the tests in section 1.5 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. I visited the Property from April 24th to May 03rd, from October 02nd to October 8th, 2023, and from October 18th to October 22nd, 2024, for the purposes of this report.
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 17TH day of January in 2025.

"Signed and Sealed"

Luis Rodrigo Peralta, Bachelor in Geology Science, FAusIMM CP (Geo).
Fellow of the Australian Institute of Mining and Metallurgy – Membership Number 304480.

CERTIFICATE OF QUALIFIED PERSON

I, *Joseph M. Keane*, P.Eng. do hereby certify that:

1. I am an Independent Mineral Processing Engineer Consultant and a Registered Member of the SME. I contributed to the report entitled "Updated NI 43-101 Technical Report, Pre-Feasibility Study for the Diablillos Project, Salta & Catamarca Provinces, Argentina" (the "Technical Report") prepared for AbraSilver Resource Corp. and dated January 17th, 2025, as an associate of the following organization: SGS North America Inc., 3845 North Business Centre Drive, Tucson, Arizona 85705, Telephone: 520-579-8315, Fax: 520-579-7045, E-Mail: Joseph.Keane@sgs.com
2. This certificate specifically applies to the Technical Report referenced above.
3. I graduated with a degree of Bachelor of Science in Metallurgical Engineering from the Montana School of Mines in 1962. I obtained a Master of Science degree in Mineral Processing Engineering in 1966 from the Montana College of Mineral Science and Technology. In 1989, I received a Distinguished Alumni Award from that institution. I have worked as a metallurgical engineer for a total of 60 years since my graduation from university.
4. I am a member of the Society for Mining, Metallurgy, and Exploration, Inc. (SME# 1682600) and am a registered professional metallurgical engineer in Arizona (#12979) and Nevada #5462).
5. I visited the property on 13th to 14th September 2022.
6. I have not had prior involvement with the property considered in the Technical Report.
7. 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 fulfil the requirements to be a "Qualified Person" for the purposes of NI 43-101.
8. I am responsible for Section 1.7, 1.11, 1.19 (partial), 13, 17, 5.4, 26.3 and 27 of the Technical Report, and I am the Qualified Person for matters relating to the information contained in that report section.
9. I am independent of the issuer applying all the tests in Section 1.5 of NI 43-101.
10. As of the date of this certificate, to the best of my knowledge, information, and belief, the technical report section for which I am responsible contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
11. 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 assessable by the public.

Dated this 17TH day of January in 2025.

"Signed and Sealed"

Joseph M. Keane, P.E., Q.P.
SME Membership number 1682600 and Registered Professional metallurgical engineer in Arizona #12979 and Nevada #5462.

CERTIFICATE OF QUALIFIED PERSON

I, *Miguel Fuentealba Vergara*, P.Eng. (Mining) MAusIMM, do hereby certify that I am author of the Sections 1.9, 1.10, 1.19 (partial), 15, 16, 25.2, 25.3, 26.2 and 27 of the Technical Report titled "Updated NI 43-101 Technical Report, Pre-Feasibility Study for the Diablillos Project, Salta & Catamarca Provinces, Argentina" prepared for AbraSilver Resource Corp. and dated January 17th, 2025.

1. My current work address is Lote B8, Santa Ana, Cayumapu, Valdivia, Chile.
2. I am an independent Senior Reserve Mining Engineer.
3. I graduated with a Professional degree in Mining Engineering from the University of Santiago of Chile (USACH), Santiago City, Chile in 1998.
4. I am a registered Member of the Australasian Institute of Mining and Metallurgy, since 2007. MAusIMM membership number 226663.
5. I am a registered Member of the Chilean Resources and Reserves Mining Commission, since 2010. Membership number 100.
6. I have practiced my profession continuously since 1998. My relevant experience includes over 25 years´ experience working in relevant open pit and underground mines in South America. I have advanced in position since mine planning engineer to Technical Services Manager, overseen the Mineral Reserve estimate at Cerro Vanguardia and Gualcamayo Mine in Argentine, Carmen de Andacollo Mine from Teck and Mantoverde Mine in Chile, Minera San Gregorio Gold Mine from Orosur in Uruguay, and other projects. Also, I have worked as senior mining consultant evaluating projects in South America.
7. 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 fulfil the requirements to be a "Qualified Person" for the purposes of NI 43-101.
8. I am responsible for the preparation of sections 1.9, 1.10, 1.19 (partial), 15, 16, 25.2, 25.3, 26.2 and 27 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 AbraSilver Resource Corp. (the Issuer) applying all the tests in section 1.5 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. I visited the Property from October 02nd to October 8th, 2023, and from October 18th to October 22nd, 2024, for the purposes of this report.

1 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 17TH day of January in 2025.

"Signed and Sealed"

Miguel Fuentealba Vergara, Professional Mining Engineer, MAusIMM (Mining Eng.), Q.P.
Member of the Chilean Commission for Resources & Reserves, Member Number 100.
Member of the Australian Institute of Mining and Metallurgy, Membership Number 226663.

CERTIFICATE OF QUALIFIED PERSON

I, Shaida Miranda Gutierrez, MAusIMM CP, certify that I am employed as a Principal Mining Consultant within Mining Plus SAC with an office address of Avenida Jose Pardo 513, Office 1001, Lima, Perú.

1. This certificate applies to the technical report titled "Updated NI 43-101 Technical Report, Pre-Feasibility Study for the Diablillos Ag-Au project Salta & Catamarca Provinces, Argentina" dated of January 17th 2025 (the "Technical Report").
2. I graduated from the Pontificia Universidad Católica del Perú - PUCP in 2009 with a B.S. in Mining Engineering and in 2016 with a M.Sc. in Corporate Finance.
3. I am a member of Australasian Institute of Mining and Metallurgy -AusIMM with CP #3002631.
4. I have been practicing my profession for 16 years, during which I have been directly involved in the development of mining plans in all stages of study, including operations. I have also conducted OPEX and CAPEX estimations in mining, as well as economic evaluations of open-pit mining projects and mining operations."
5. 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 fulfil the requirements to be a "Qualified Person" for those sections of the Technical Report that I am responsible.
6. I have not visited the Diablillos Ag-Au Project in Salta & Catamarca, Argentina.
7. I am responsible for Sections 1.16, 22, 25.5 and 27 of the Technical Report.
8. I am independent of AbraSilver Resource Corp as defined in Section 1.5 of NI 43-101.
9. I have had no previous involvement with the Diablillos Ag-Au Project.
10. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information so that those sections of the Technical Report are not misleading.
11. I consent to the use and publication of the Technical Report or any extracts or summaries thereof by AbraSilver in its news release dated December 3rd, 2024 (the "News Release").
12. 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.

Dated this January 17th, 2025.

"Signed and sealed"

Shaida Miranda, MAusIMM CP

1 EXECUTIVE SUMMARY

1.1 Property Description, and Location

The Diablillos property is located within the Puna region of Argentina, in the southern part of Salta Province along the border with Catamarca Province, approximately 160 km southwest of the city of Salta and 375 km northwest of the city of Catamarca. The property comprises 15 contiguous and overlapping mineral concessions acquired by AbraSilver in 2016.

The project site has good year-round accessibility through a 150 km paved road, followed by a well-maintained gravel road, shared with other adjacent projects.

1.2 History

The Diablillos property has been explored from the 1960s until the present. Initial exploration was carried out by the Argentinian military while evaluating the Puna for porphyry-style copper deposits. Exploration directed specifically at Diablillos began in 1971. From 1984 to 1985 Shell and Billiton conducted rock chip sampling and geochemical surveying. In 1985, Billiton optioned the property. In 1987, Ophir conducted 34 rotary holes. The property was held by BHP until 1991. In 1992, Pacific Rim optioned the property and completed requirements to acquire 100% ownership. Pacific Rim conducted exploration work until 1996, when Barrick Exploraciones Argentina SA, obtained an option on the shares of Pacific Rim. Pacific Rim continued exploration, initiated a preliminary environmental impact study and a metallurgical study. In December 2001, Silver Standard Resources acquired all assets of Pacific Rim Corporation and continued exploration with ground magnetic surveying and drilling.

The mining concessions at Diablillos were granted by the Government of Salta through an agreement with SSRM Mining (“SSRM”, previously “SSRI”) and Pacific Rim Mining Corporation Argentina SA, now 100% owned by AbraSilver. In September 2019, AbraPlata and Aethon entered into a binding arrangement over the properties of Pacific RIM Mining Corporation, a subsidiary of SSRI. This transaction was supported by Silver Standard Resources who were the original vendor of the Diablillos property to AbraPlata.

In March 2021, AbraPlata formerly changed its name to AbraSilver Resource Corporation.

On July 2021, Silver Standard Resources announced the sale of their royalty portfolio to EMX Royalties. This transaction included a 1% NSR held on the Diablillos project as well as a US$7 million payment.

1.3 Geological Setting, Mineralization, and Deposit Types

The Diablillos Project contains a weathered high-sulphidation epithermal silver-gold system hosted primarily in Tertiary volcanic and sedimentary rocks. Drilling to date has outlined several occurrences of epithermal silver-gold mineralization, the Oculto zone, JAC zone, Laderas zone and Fantasma zone.

Several satellite zones of silver/gold-rich epithermal mineralization have been located within a 500 m to 1.5 km distance surrounding the Oculto/JAC epicentre. The focus of this Technical Report is the Oculto, JAC, Fantasma and Laderas zones.

1.4 Exploration and Drilling

Exploration work on the Diablillos Project was conducted by several operators over the history of the Project. This includes 170,017m of drilling in 864 drill holes, split as 111,582m of diamond drilling ("DDH"), and 55,593m of reverse circulation drilling ("RC").

Total meters drilled by year are summarised in Figure 1-1.

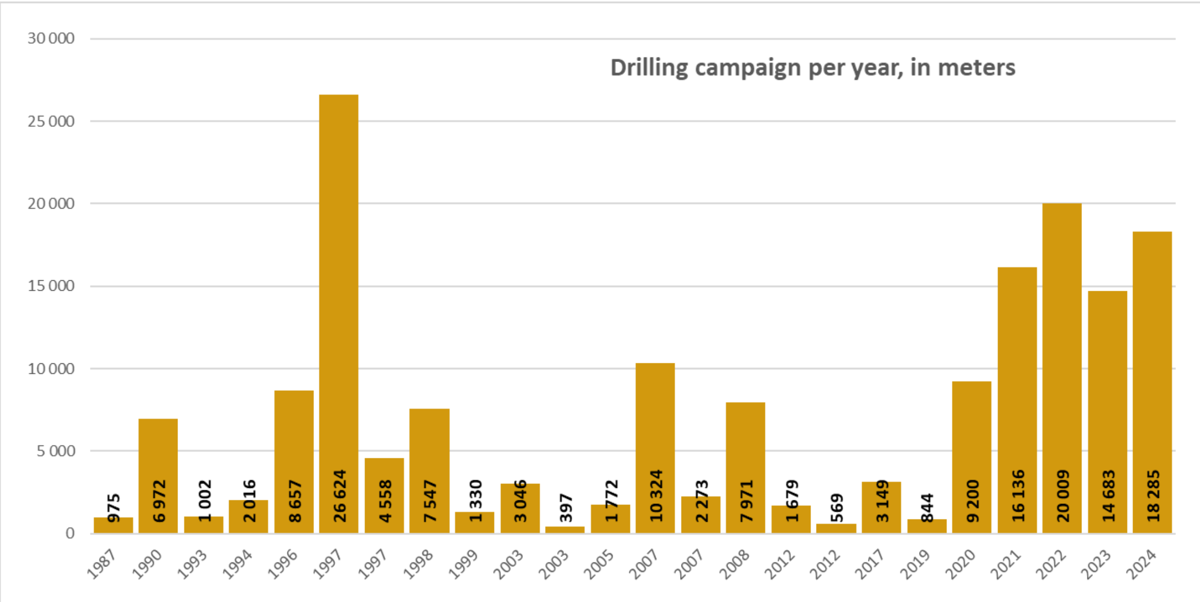

Figure 1-1: Diablillos drilling history

Source: AbraSilver Resource Corp., 2024

Exploration results from the 2024 drilling campaign will be reported in an updated Mineral Resource estimate later in 2025.

1.5 Sample Preparation, Analysis and Security

Sampling and analytical work from the 1996 to 2008 exploration programs was reviewed. It appears to have been conducted using industry standard practices. From 2008, the property was explored primarily by SSRM until 2017 when AbraSilver took ownership. During this time all drilling, including collaring, surveying, logging, sampling, and chain of custody for drilling campaigns was conducted in an appropriate manner consistent with industry best practice.

The number and orientation of drill holes and the sampling methods employed reflect an adequate representation of the mineralization at Oculto, JAC and the other identified orebodies. Core splitting and sampling was handled solely by dedicated staff and the samples were stored securely.

Assaying was performed using conventional, industry standard methods, and by well-known independent commercial laboratories.

1.6 Data Verification

Mr. Peralta visited the Diablillos Project on three occasions, from April 24th to May 3rd, 2023, October 2nd to October 8th, 2023, and October 18th to October 22nd, 2024. He conducted a general site inspection, including drill collar locations, core review, logging facility, logging procedures, camp facilities and a surface geology review on the JAC, Laderas, Fantasma and other nearby areas. Core from several drill holes was inspected and compared with the logs. Collar locations were confirmed by handheld GPS.

Vertical cross sections and plan views with detailed geology, alteration and interpretation were discussed with AbraSilver geologists. Discussions included future exploration targets and near-term objectives. Based on Mr. Peralta’s opinion, the site and geology procedures were as described in previous Technical Reports, with well-maintained facilities and orderly core storage.

Site visits by Mr. Fuentealba (October 2nd to October 8th, 2023, and October 18th to October 22nd, 2024) and Mr. Keane (September 13th to September 15th, 2022) were carried out to verify the main project aspects, focusing on mining methodology, processing, general layout, infrastructure, and environment. It was confirmed that these processes were compliant with industry best practice and in line with legislation.

1.7 Mineral Processing and Metallurgical Testing

In 2022, AbraSilver sent a total of 42 samples representing the Oculto mineralisation to SGS Lakefield for metallurgical testing. In early 2023, an additional 14 test samples representing the JAC/Fantasma mineralisation were sent to SGS for additional metallurgical studies. Based on the latest Mineral Resource estimate, the Oculto orebody represents approximately 85% of the currently identified Diablillos mineralisation inventory, while JAC/Fantasma represents approximately 15%.

The beneficiation investigations included comminution tests, mineralogical identifications, whole ore leach tests, gravity concentration, gravity tailings cyanidation testing, Merrill-Crowe precipitation, cyanide destruction tests, sedimentation studies and rheology tests. For both Oculto and JAC mineralisation, the main host minerals are quartz, followed by minor amounts of alunite and iron oxide. Comminution tests indicated that Oculto is abrasive and hard requiring size reduction by grinding while JAC is softer and less abrasive.

The metallurgical studies indicated that the ore is amenable to conventional cyanide leaching and gravity recovery. Compared to other gold and silver deposits, the silver recovery of this material was quite high, reaching 80% for both Oculto and JAC mineralisation. Based on the test work on the Oculto mineralisation, the following key processing conditions are recommended:

- Primary grind size of 150 microns.
- Incorporation of gravity concentration and intensive cyanidation circuits.
- Retention time of cyanide leaching of the gravity tails of 36 hours, with a slurry density around 45% solids by weight.
- Six stages of Counter current Decantation (CCD) with a wash ratio of three to optimize the solubilized gold and silver recovery.
- One hour of retention time for cyanide destruction.

In late 2023, additional metallurgical tests were conducted on four different zones identified within the Oculto mineralization, being the Silver Enrichment, Shallow Gold, Deep Gold, and Northeast zones. Only gravity concentration and gravity tailings leaching tests were performed. The metal recoveries were slightly higher than those of the composite sample. However, results were in a similar range to the composite studies, as shown in Table 1-1.

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Table 1-1: Gravity recovery and gravity tails leach recovery for different mineralized zones

Sample Composite	Gravity Au Distribution		Gravity Ag Distribution		Gravity Tailing Cyanidation Extraction		Overall Recovery Gravity + Cyanidation	
	Conc	Tail	Conc	Tail	Au	Ag	Au	Ag
	%	%	%	%	%	%	%	%
JAC & Fantasma	**17.3**	82.7	**9.1**	90.9	**81**	**87**	**84.3**	**88.2**
Silver Enrichment	**16.2**	83.8	**16.4**	83.6	**84**	**83**	**86.2**	**85.6**
Shallow Gold	**12.3**	87.7	**5.4**	94.6	**87**	**54**	**88.3**	**56.8**
Deep Gold	**8.6**	91.4	**3.3**	96.7	**82**	**82**	**83.7**	**82.6**
Northeast	**10.1**	89.9	**7.5**	92.5	**88**	**80**	**89.3**	**81.7**

A geo-metallurgical model has been developed segregating the deposit into five distinct domains, with overall life of mine (LOM) silver and gold recoveries **averaging 83.6% and 86.8%**, respectively.

1.8 Mineral Resource Estimate

The updated Mineral Resource estimate for the Diablillos Project, provided in Table 1-2 was estimated by Mr. Peralta, B.Sc., FAusIMM CP (Geo), independent senior resource geologist. The results are based on approximately 606 drill holes (historical and current) totalling 133,000 metres of drilling, including the latest Phase III drill campaign, conducted in 2022/23, which totalled 24,077 metres.

Gold and silver grades were estimated in the block model from Reverse Circulation and Diamond Drill holes, including recent drilling between 2022 and 2023. Industry-standard ordinary Kriging ("OK") estimation methodology was used. Bias was reviewed by using a parallel estimation with inverse square distance ("ID2"). Drill hole intervals have been composited to a length of 1m, which is the average sample length for core sampling. Grade capping has been applied to composited grade intervals on a case-by-case basis within each estimation domain. The estimation domains were defined using a combination of lithology domains, alteration domains, and oxide / sulphide, defining a set of 18 domains for gold and silver in the Oculto and Laderas zone. For JAC and Fantasma zones iso-surface grade shells at 5 g/t AgEq were built, defining four zones for the JAC zone and 2 zones for Fantasma.

The Mineral Resource estimate was summarized with an effective date of November 22nd, 2023. It has been estimated in alignment with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Estimation of Mineral Resource and Mineral Reserves Best Practices Guidelines (CIM, 2019), and the Mineral Resource estimate has been categorized in accordance with the CIM Definition Standards (CIM, 2014). It is comprised of Measured, Indicated and Inferred Mineral Resources as summarised in Table 1-2.

This Technical Report is considered by Mr. Peralta ("QP") to meet the stated requirements of a Mineral Resource estimate as defined in Canadian NI 43-101 regulations.

Table 1-2: Diablillos Mineral Resource Estimate – As of November 22nd, 2023

Deposit	Zone	Category	Tonnes (000 t)	Ag (g/t)	Au (g/t)	AgEq (g/t)	Contained Ag (koz Ag)	Contained Au (koz Au)	Contained AgEq (koz AgEq)
Oculto	Oxides	Measured	12,170	101	0.95	178	39,519	372	69,523
		Indicated	34,654	64	0.85	133	71,306	947	147,748
		Measured & Indicated	***46,824***	***74***	***0.88***	***145***	***111,401***	***1,325***	***218,335***
		Inferred	3,146	21	0.68	76	2,124	69	7,677
JAC	Oxides	Measured	1,870	210	0.17	224	12,627	10	13,452
		Indicated	3,416	198	0.12	208	21,744	13	22,808
		Measured & Indicated	***5,286***	***202***	***0.13***	***212***	***34,329***	***22***	***36,191***
		Inferred	77	77	-	77	190	-	190
Fantasma	Oxides	Measured	-	-	-	-	-	-	-
		Indicated	683	105	-	105	2,306	-	2,306
		Measured & Indicated	***683***	***105***	***-***	***105***	***2,306***	***-***	***2,306***
		Inferred	10	76	-	76	24	-	24
Laderas	Oxides	Measured	-	-	-	-	-	-	-
		Indicated	464	16	0.91	89	239	14	1,334
		Measured & Indicated	***464***	***16***	***0.91***	***89***	***239***	***14***	***1,334***
		Inferred	55	43	0.57	89	76	1	157
Total	Oxides	Measured	14,040	116	0.85	184	52,146	382	82,975
		Indicated	39,217	76	0.77	138	95,594	974	174,196
		Measured & Indicated	***53,257***	***87***	***0.79***	***151***	***148,275***	***1,360***	***258,087***
		Inferred	3,288	23	0.66	76	2,415	70	8,049

Notes for Mineral Resource Estimate:

1. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
2. The formula for calculating AgEq is as follows: Silver Eq oz = Silver oz + Gold oz x (Gold Price/Silver Price) x (Gold Recovery/Silver Recovery).
3. The Mineral Resource model was populated using Ordinary Kriging grade estimation within a three-dimensional block model and mineralized zones defined by wireframed solids, which are a combination of lithology and alteration domains. The 1m composite grades were capped where appropriate.
4. The Mineral Resource is reported inside a conceptual Whittle open pit shell derived using US$ 24.00/oz Ag price, US $1,850/oz Au price, 82.6% process recovery for Ag, and 86.5% process recovery for Au. The constraining open pit optimization parameters used were US $1.94/t mining cost, US $22.97/t processing cost, US $3.32/t G&A cost, and average 51-degree open pit slopes.
5. The MRE has been categorized in accordance with the CIM Definition Standards (CIM, 2014).
6. A Net Value per block ("NVB") cut-off was used to constrain the Mineral Resource with the conceptual open pit. The NVB was based on "Benefits = Revenue-Cost" being positive, where, Revenue = [(Au Selling Price (US$/oz) - Au Selling Cost (US$/oz)) x (Au grade (g/t)/31.1035)) x Au Recovery (%)] + [(Ag Selling Price (US$/oz) - Ag Selling Cost (US$/oz)) x (Ag grade (g/t)/31.1035)) x Ag Recovery (%)] and Cost = Mining Cost (US$/t) + Process Cost (US$/t) + Transport Cost (US$/t) + G&A Cost (US$/t) + [Royalty Cost (%) x Revenue]. The NVB method resulted in an average equivalent cut-off grade of 45g/t AgEq.
7. The Mineral Resource is sub-horizontal with sub-vertical feeders and has reasonable prospects for eventual economic extraction by open pit methods.
8. In-situ bulk density was assigned to each model domain, according to sample averages for each lithology domain, separated by alteration zones and subset by oxidation.
9. All tonnages reported are dry metric tonnes and ounces of contained gold and silver are troy ounces.
10. Mining recovery and dilution factors have not been applied to the Mineral Resource estimates.
11. The Mineral Resource was estimated by Mr. Luis Rodrigo Peralta, B.Sc., FAusIMM CP (Geo), Independent Qualified Person under National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101").
12. Mr. Peralta is not aware of any environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues that could materially affect the potential development of the Mineral Resource.
13. All figures are rounded to reflect the relative accuracy of the estimates. Minor discrepancies may occur due to rounding to appropriate significant figures.

1.9 Mineral Reserve Estimate

The Mineral Reserve estimate for the Diablillos Project, provided in Table 1-3 was estimated by Mr. Fuentealba, MAusIMM, P. Eng. (QP). It is based on the Mineral Resource block model documented in the Mineral Resource estimate (Section 14 of this report). The Mineral Reserves are calculated using a combination of the ultimate open pit design (Section 15 of this report) and the production schedule (Section 16 of this report).

The Mineral Reserve estimate for the Diablillos Project, with an effective date of March 7th, 2024, has been estimated and classified based on the CIM's Estimation of Mineral Resource and Mineral Reserves Best Practices Guidelines (CIM, 2019) and is reported in accordance with the Canadian Securities Administrators' National Instrument 43-101 ("NI 43-101").

Maiden Proven & Probable ("P&P") Mineral Reserves containing 210 Moz of AgEq metal (42.3 Mt at 91 g/t Ag & 0.81 g/t Au) have been estimated.

Table 1-3: Mineral Reserve Estimate - Diablillos Project, Salta, Argentina. By category, all domains - As of March 7th, 2024

Mineral Reserve (all domains)	Tonnage (Mt)	Au (g/t)	Ag (g/t)	AgEq (g/t)	Contained Ag (000 oz Ag)	Contained Au (000 oz Au)	Contained AgEq (000 oz AgEq)
Proven	12.4	0.86	118	185	46,796	341	73,352
Probable	29.9	0.80	80	142	76,684	766	136,267
Total Proven and Probable	**42.3**	**0.81**	**91**	**154**	**123,480**	**1,107**	**209,619**

Notes for Mineral Reserve Estimate:

1. The Mineral Reserves have an effective date of March 07, 2024.
2. The Qualified Person for the Mineral Reserves Estimate is Mr. Miguel Fuentealba, P. Eng.
3. Mineral Reserves were estimated using the Canadian Code of the Canadian Institute of Mining, Metallurgy, and Petroleum (CIM), Definition of Standards for Mineral Resources and Mineral Reserves, prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.
4. The Mineral Reserves are based on a pit design which is aligned with the ultimate pit selected during the optimization process performed at Whittle.
5. Estimated reserves at a sale price of US$1,750 per ounce of Au and US$22.5 per ounce of Ag.
6. Variable mining cost per bench and type of material was applied. Average cost of 1.94 US$/t for all lithologies, except for cover, where a cost of 1.73 US$/t is applied.
7. Processing cost for all zones is US$22.97/t.
8. Infrastructure, general, and administrative costs amount to US$3.32/ton.
9. The average pit angles range from 37° to 60°, depending on the geotechnical zone domain.
10. The average recovery is estimated at 82.6% for silver and 86.5% for gold.
11. The formula for calculating Ageq is Ag eq oz = Ag oz + Au oz x (Au Price/Ag Price).
12. Mineral Reserves Estimates have been categorized according to CIM Standard definitions (CIM, 2014).
13. A net value per block ("NVB") was used to restrict the Mineral Reserves within the pit shell. The NVB is based on "Profit = Revenue - Costs", being positive, where, Revenue = [(Au Price (US$/oz) - Au Sales Cost (US$/oz) x (Au Grade (g/t)/31.1035))x Au Recovery (%)]+[(Ag Price (US$/oz) - Ag Sales Cost (US$/oz) x (Ag Grade (g/t)/31. 1035) x Ag Recovery (%) and cost as, Cost = Mine Cost (US$/t) + Process Cost (US$/t) + Transportation Cost (US$/t) + General and Administrative Costs (US$/t) + [Royalty Cost (%) x Revenue]. The NVB method matches an equivalent cut-off grade of 46 g/t Ageq.
14. In situ density is read directly from the block model, previously assigned for each domain during the mineral resource estimation process, according to averages of samples from each lithological domain, separated by alteration and oxidation zones.
15. All tonnages reported are in dry metric tons and ounces of gold and silver contained in troy ounces.
16. Mining plan considers 298 Mt of waste rock, corresponding to a waste to ore ratio of 6.7. Waste rock from period -2 is considered CAPEX.
17. Ore is considered to be that which complies with profit greater than zero, measured or indicated resource, is within the designed operating phases, oxidation state is oxide, any lithology except cover.
18. Recoveries were estimated by geometallurgical domain within each block.
19. Figures are approximate due to rounding.
20. Au and Ag metal is considered in situ.

1.10 Mining Method

Being a large, near-surface orebody, the Diablillos Project will be developed as an open pit mining operation. Waste and ore from the JAC and Oculto zones will be drilled and blasted, loaded by hydraulic shovels and loaders, and transported by haul trucks to external waste storage facilities (WSF). Long-term stockpiles, or a run-of-mine (ROM) pad will be used to feed a primary crusher for mineral processing. The colluvium cover over the JAC zone only requires ripping and bulldozing prior to transportation.

An optimal processing throughput rate of 9,000 tonnes per day (tpd) was established in accordance with the raw water availability coming from the Barranquillas drainage system. Opportunities to further increase plant throughput with additional raw water supply will be reviewed during the next stage of study. The plant throughput rate of 9,000 tpd became the basis of all subsequent mine planning with the objective of ensuring consistent processing feed. The project has several stockpile facilities to allow blending and to feed higher grade mineralisation to the mill while stockpiling low-grade for future processing.

The PFS considers only one mineral processing flowsheet based on previous trade-off studies of different process technologies. The processing flowsheet includes comminution and gravity recovery followed by intense cyanidation, tank leaching, Merrill-Crowe recovery and foundry. Below cut-off grade mineralization is treated as waste in this study, although a preliminary internal study indicated that ore with marginal grades could be amenable to other low-cost treatment technologies. This will be confirmed by further test work if warranted by further studies planned at the next stage of the project. The current mine plan calls for grade control only to differentiate waste from ore and direct feed ore from stockpiled ore. The project has provisioned a dump location for marginal ore for future treatment.

1.11 Recovery Methods

The metallurgical test-work program indicated that gold and silver will be recovered primarily through cyanidation followed by the Merrill-Crowe process. The nameplate capacity for the process plant is 9,000 tpd which corresponds to 3.15 million tonnes per year based (tpa) on 350 plant operating days. Based on the latest Mineral Reserve estimate, this results in a mine life of approximately 14 years.

The process plant includes the following individual process circuits:

- Primary crushing: reducing the ROM material to a P80 of 150 microns.
- Coarse ore stockpile: with a live capacity of 13,000 tonnes.
- Grinding circuit: comprised of one SAG mill and one ball mill operating in closed circuit with hydro cyclones, reducing the particle size to approximately 150 microns. The hydro cyclones overflow will be thickened to around 45% solids by weight for the downstream tank leaching.

- Gravity Recovery and Intensive Cyanidation circuit: Two Gravity concentrators will be installed receiving a portion of hydro cyclones underflow, the gravity concentrate will be flushed into an intensive cyanidation circuit, with the gravity tails reporting back to the ball mill. The gold and silver recovered from the intensive cyanidation will be in the solution phase and report to the pregnant solution tank feeding the Merrill-Crowe plant, while the solid tails report back to the ball mill circuit.
- Leaching tanks: a total of eight 15 m x 20 m agitated slurry tanks will be installed to provide a total leaching retention time of 36 hours. Lime and cyanide will be dosed into the leaching tanks to maintain a slurry pH around 10.5 and a cyanide concentration around 1.5 grams per litre in the first of several tanks. Air will be sparged into the slurry tanks to maintain a proper Dissolved Oxygen (DO) level.
- Counter current Decantation (CCD) circuit: A total of six stages of CCD will be installed. The CCD thickeners underflow will be maintained around 55% solids by weight, and the wash ratio will be controlled at 3.0 to optimize the gold and silver recovery. For JAC material, due to the increased slurry viscosity, CCD thickener underflow will be maintained around 50% solids by weight. The overflow from the last stage CCD thickener will report to a clarifier, which further reduces the total suspended solids (TSS) level of the pregnant solution.
- Merrill-Crowe circuit: The solution recovered from the CCD circuit will be stored in a pregnant solution tank which feeds the Merrill-Crowe plant. The pregnant solution will be pumped through four diatomaceous earths (DE) coated solution clarifiers to reduce TSS levels to less than 1 ppm. The clarified solution will flow through two deaeration towers and reduce the solution DO level to approximately 0.5 ppm. This will then be pumped through four precipitation filter presses by an inline booster pump. Zinc powder will be metered into the solution feed pipe to the filter presses to precipitate out gold and silver. The barren solution from the filter presses will be collected in a barren solution tank, then either recycled to the tank leach circuit or to the CCD circuit.
- Foundry: The precipitated cake will be transferred to a retort furnace to remove moisture and mercury, then mixed with flux and placed in a smelting furnace to obtain the Doré. The generated slag will be crushed and recycled back to the grinding circuit for reprocessing.
- Tailings handling: The washed tailings solids from the CCD circuit will be pumped to the cyanide destruction circuit to minimize the cyanide content in the tailings stream. The detoxed tailings will report to the tailings thickener and then to the tailings storage facility (TSF). The tailings thickener overflow and the supernatant from the TSF, if any, will be recovered to the process water circuit.

1.12 Project Infrastructure

Project infrastructure is mostly comprised of construction and operation service facilities to support plant operations. It has been designed to minimise footprint and distances while complying with safety requirements. Service facilities include:

- Construction and Operation camp with corresponding access control facilities to all different project areas, accommodation, canteen, medical station, emergency station, and main site offices.
- The contractor's yard will be established by relocating the current exploration camp, to minimise costs during construction. The yard design will consider the installation of all utilities required for its operation, including water, power, and sewage networks.
- The service hub will be composed of the main maintenance steel building (i.e. truck-shop), main warehouse, lay-down area, plant, mine offices, metallurgical laboratory, chemical laboratory, main fuel farm and fuel dispatch.
- Power to the project will be supplied by a combined diesel-photovoltaic power plant. The diesel generators will be installed in a centralized location and integrated with a solar array. Off-site facilities will be powered by mobile generator sets installed at each of their location.
- A TSF and Waste Rock Facilities (WRF) have been located at the closest possible location to the plant and mine with adequate capacity to store the tailings and waste produced over the LOM. The TSF is a cross-valley type storage facility and will be fully lined and constructed in five phases using the downstream construction method.
- A raw water wellfield with sufficient capacity (Barranquillas district) has been identified, explored, and tested and secured to supply process water to the project.
- Clay and concrete aggregate quarries have been identified and materials suitable for construction have been successfully tested.
- Internal roads have been designed so mine equipment traffic is always segregated.

Figure 1-2 shows a general view of the proposed project facilities and infrastructure.

Figure 1-2: Proposed project facilities general overview

Source: AbraSilver 2024

1.13 Market Studies and Contracts

No relevant market studies were performed, as Diablillos will produce silver and gold Doré bars, which are a readily saleable.

Price assumptions for the economic analysis were 2,050 USD/oz and 25.5 USD/oz for gold and silver respectively.

No contracts have been signed for further project development, but the most important procurement packages were identified and classified as supply, construction, or service packages. This allowed current budgetary quotations to be sought for the capital and operating cost estimation and will serve as a firm basis for future procurement.

1.14 Environmental Studies, Permitting and Social or Community Impact

The detailed list of environmental and permitting requirements are presented in the Chapter 20 of this report. Permits require joint approval the provincial agencies of Salta and Catamarca.

Other sectorial permits that will be required from different government agencies include:

- Work authorization for foreign staff.
- On-site bulk fuel storage.
- Domestic and industrial effluents generation and disposal.
- Explosives storage and use.
- Chemical precursors storage and use.
- Raw water pumping and consumption.
- Mine operations.
- Communications.

On September 4th, 2024, AbraSilver announced the completion of the Environmental Impact Assessment (EIA) Stage Production. This EIA report considers the socio-economic impact, environmental, water management and power supply impacts. The EIA was presented to the government agencies of Salta and Catamarca simultaneously on the September 30th, 2024.

Local communities have expressed support for the development of mining projects in general and for Diablillos in particular.

1.15 Capital and Operating Costs

Capital and operating cost estimates were prepared by Bmining Chile, INSA Consultora, Envis Consulting, and AbraSilver with Mining Plus compiling the study. Unless otherwise noted figures are quoted in United States dollars (USD).

1.15.1 Capital Costs

The capital cost estimate (CAPEX) for the Diablillos Project follows AACE Class 4 standards with an accuracy range of ±25%. While some components deviate slightly, the overall estimate aligns with the expected precision for a PFS.

The total life of mine capital investment including initial and sustaining capital for the Diablillos Project are displayed in Table 1-4.

Table 1-4: Total life - CAPEX Summary

Description	Initial Capital (MUSD)	Sustaining Capital (MUSD)	Total (MUSD)
Mining	128.6	27.1	155.7
Processing plant	111.7	-	111.7
Infrastructure	166.7	49.1	215.8
Owner and Indirect cost	110.2	0.3	110.6
Contingency	26.3	-	26.3
Total capital	543.5	76.5	620.0

*Note: Values may not sum due to rounding.

The project will take 36 months to complete from Final Investment Decision to first silver production.

Budgetary quotations and factored estimates were used in this PFS. Due to the economic situation in Argentina, local quotations were normalized to USD values at the time of quotation and reported as such.

Approximately 80% of the capital costs are based on quotations. Over 60% of equipment, supplies, construction, and service procurement packages will be sourced locally.

The mining closure amount of 26 MUSD and considers the dismantling of the plant, infrastructure, site rehabilitation and monitoring.

1.15.2 Operating Costs

The operating cost estimate is based on an owner-operated truck and shovel mining operation, conventional processing plant, and TSF with power provided from an on-site combined solar-diesel power plant.

Operating cost details are estimated from a combination of direct quotes and first principal calculations. The average unit cost per tonne processed at LOM is 45.4 USD/t with processing cost accounting for 50% of the share, followed by mining cost with 32% and the remainder being G&A, logistics and service costs (see Table 1-5).

Table 1-5: Summary of operating cost

Description	LOM Cost (MUSD)	Unit cost (US$/t milled)
Mining	613.8	14.50
Processing, utilities and maintenance	961.3	22.71
G&A and logistics	165.6	3.91
Camp and service	181.8	4.29
Total OPEX	1,922.5	45.42

1.16 Economic Analysis

AbraSilver and Mining Plus developed the project's economic model using capital and operating cost inputs provided by INSA Consultora, Bmining Chile, Envis Consulting, and AbraSilver. The model adheres to recognized engineering and financial standards, ensuring accuracy. Unless stated otherwise, all monetary values are in US dollars.

The analysis assumes 100% equity financing and incorporates the incentives introduced under Argentina's Large Investment Incentive Regime (“RIGI”), enacted in July 2024. Key benefits include a reduction in the federal corporate income tax rate from 35% to 25%, elimination of export duties on gold (from 8%) and silver (from 4.5%), and accelerated tax depreciation for plant and equipment. Tax reductions under RIGI are effective for a 30-year period, which more than covers the period evaluated for economic evaluation. RIGI is described in detail in Chapter 22.

The evaluation covers a three-year construction and pre-operational stage, followed by a 14-year production period. The net present value (NPV) at a 5% discount rate is calculated from the start of construction. Key financial metrics include NPV, the internal rate of return (IRR), and the payback period, based on annual cash flow projections derived from capital expenditures, production costs, and silver/gold revenues. The Table 1-6 summarizes the financial results.

Table 1-6: Summary of financial result

Item	Unit	Value
Gold price	**$/Oz**	**2,050**
Silver price	**$/Oz**	**25.5**
After-Tax NPV @5%	**M$**	**747**
After-Tax IRR	**%**	**27.60%**
Pre-Tax NPV @5%	M$	1,114
Pre-Tax IRR	%	35.60%
Life of Mine (LOM)	years	14
Average Annual Production - Au (LOM)	oz	71,852
Average Annual Production - Ag (LOM)	Koz	7,613
Average Annual Production - AgEq (LOM)	Koz	13,362
Average Annual Production - Au (Year 1 to 5)	oz	58,740
Average Annual Production - Ag (Year 1 to 5)	Koz	11,694
Average Annual Production - AgEq (Years 1 to 5)	Koz	16,384
Total Production - Au	Koz	962
Total Production - Ag	Koz	103,193
All-In Sustaining Cost (LOM)	$/oz AgEq	12.67
All-In Sustaining Cost (Year 1 to 5)	$/oz AgEq	11.23
All-In Sustaining Cost (LOM)	$/oz AuEq	1,019
All-In Sustaining Cost (Year 1 to 5)	$/oz AuEq	903
Head Grade - Au (LOM)	g/t	0.81
Head Grade - Ag (LOM)	g/t	91
Head Grade - AgEq (LOM)	g/t	159
Recovery Au (LOM)	%	86.80%
Recovery Ag (LOM)	%	83.60%
Head Grade - Au (Year 1 to 5)	g/t	0.71
Head Grade - Ag (Year 1 to 5)	g/t	143
Head Grade - AgEq (Year 1 to 5)	g/t	201
Recovery Au (Year 1 to 5)	%	85.20%
Recovery Ag (Year 1 to 5)	%	83.50%
Initial Capital Expenditure (Contingency included)	M$	544
Sustaining Capital Cost	M$	77
Mine Life Operating Costs	$/t processed	45.4
Payback	years	2

The economic analysis was performed on the following assumptions and basis:

- The financial analysis was performed on Proven and Probable Mineral Reserves.
- The LOM NPV was determined on a pre-tax and after-tax basis.
- Annual cash flows used for NPV calculations are assumed to be realized at year-end.
- All costs and sales do not consider inflation or escalation factors.
- All gold and silver sales are assumed to occur in the period they are produced.
- Details of capital and operating costs are provided in Chapter 21 of this report.
- Cash flows include payment of royalties.
- Final closure costs are included in the period incurred.
- The financial analysis includes working capital.
- Taxes considers the Large Investment Incentive Regime (RIGI).
- After-tax results and royalty payments were provided by Abra Silver.
- Mining Plus has been guided by Lisicki Litvin & Asociados for tax modelling.

1.16.1 Sensitivity Analysis

Mining Plus conducted a sensitivity analysis of the after-tax NPV and IRR based on various parameters of the economic evaluation. The key sensitivities are presented in Table 1-7.

Table 1-7: NPV and IRR sensitivity

Sensitivity Analysis			
	Conservative	Base Case	Spot price*
Silver Price			
Silver Price ($/oz)	23.5	25.5	30.7
NPV@5% after tax (US$ M)	638	747	1031
IRR after tax	24.5%	27.6%	35.5%
Gold Price			
Gold Price ($/oz)	1850	2050	2651
NPV@5% after tax (US$ M)	661	747	1007
IRR after tax	26.0%	27.6%	32.0%
Operating Costs			
Operating Costs	-10%	45.5 $/t ore	10%
NPV@5% after tax	845	747	649
IRR after tax	29.8%	27.6%	25.4%
Capital Costs			
Capital Costs	-10%	647 MUSD **	10%
NPV@5% after tax	803	747	691
IRR after tax	31.3%	27.6%	24.5%
Discount rate			
Discount rate	5%	8%	10%
NPV@5% after tax	747	552	448

* Spot Price as at close on November 29th, 2024, per https://www.lbma.org.uk

** Value considers sustaining capital and mine closure cost

1.17 Project Execution – RIGI Context

The Project Execution Plan ("PEP") includes all the activities for implementing the Diablillos project to first silver and gold production ("First Silver"), including pre-construction planning required to reach an investment decision for the project. The strategy of the PEP is to deliver the project within the timeframe to capture the economic incentives offered under RIGI, the new congressional law for large investments.

The incentives for RIGI are offered for projects with a total investment amount greater than 200 MUSD. The RIGI application window opened in July, 2024 and closes in July, 2026. Upon qualifying for RIGI, 40% of the total investment must be spent within 24 months. The mechanism and benefits of RIGI are described in greater detail in Chapter 22.

The key milestones leading up to FID are as follows:

- EIA approval
- Completion of the DFS
- RIGI approval.

These three key milestones will be complete by Q1, 2026. The PEP allows for up to five months to secure financing to reach FID, which is planned for the end of Q2, 2026. On this basis, the milestone of achieving the 40% investment (24 months after RIGI approval) is Q1, 2028. This can be comfortably met under the current PEP, which achieves the 40% investment milestone by mid Q2, 2027.

1.18 Adjacent Properties

Adjacent properties are mostly focused on developing lithium projects. Centenario-Ratones – Eramine Sudamérica and Sal de Oro – Posco are all under construction. Arcadium Lithium, formerly Livent/FMC, has however been in production since the 1990s. Other lithium projects are in early development stages. Consequently, these projects will not be competing for resources during construction with Diablillos.

A joint venture between Salta Exploraciones and Litio Minera Argentina has a small production from an artesian brine well but is focused on expanding production on the Diablillos Salar. This may compete for resources.

Metallic projects are mostly in early exploration stages and no competition for resources is expected.

A preliminary Project Execution Plan and Procedures Handbook has been outlined. This details execution strategy, procedures, and a milestone schedule to identify the critical paths and key long lead items.

1.19 Conclusions, Recommendations, Opportunities

1.19.1 Conclusions:

The current PFS shows that Diablillos is a well-advanced project that warrants advancement to a Definitive Feasibility Study ("DFS"). This is supported by the following positive factors:

- The robust Mineral Resource estimate described in this report.
- Exploration targets with potential to the expand the Mineral Resource base.
- A high conversion factor from current Mineral Resources into Mineral Reserves of 90%.
- High average recoveries of 83.6% for silver and 86.8% for gold.
- A conventional open pit operation with a mill throughput of 9,000 tpd and a mine life of approximately 13.5 years, and potential for expansion.
- A conventional silver/gold processing plant flowsheet incorporating crushing, grinding, gravity concentration, an intense cyanidation circuit, cyanide leaching with oxygen addition, counter current decantation washing thickeners and Merrill-Crowe precious metal recovery followed by on-site smelting to Doré bars.
- Very positive and supportive relationships with nearby communities.
- A comprehensive Environmental Baseline Study and an Environmental Impact Assessment ("EIA") presented to the local authorities is currently under revision for approval.
- Attractive project economics.

It is the consensus of the authors of this report that this project has sufficient data, technical analysis, planning and design to proceed to a DFS.

1.19.2 Recommendations:

Based on this report the following tasks are recommended:

- Improve the structural knowledge of the deposits with surface mapping of outcrops, and/or with information from oriented drill core or televiewer methods to determine the physical and elastic properties of the identified geotechnical domains.
- Improve the structural knowledge of the deposit based on interpretation of faults and lineaments combined with magnetometry, defining potential areas for exploration.
- Additional geotechnical holes should be drilled to increase open pit slope stability knowledge.
- Water table reconnaissance drilling should be carried out to determine dewatering requirements during mining operations.
- In-fill drilling should continue at Oculto in areas of current Indicated and Inferred Mineral Resources where confidence could be improved.

- Conduct definition drilling in the northeast of Oculto, using both in-fill and step-out holes.
- Definition drilling should be conducted between the Oculto and Fantasma zones, and between the JAC and Alpaca zones, to determine the continuity between the existing zones and potentially add resources.
- Evaluate lower cost processing options that may allow mineralisation currently below cut-off grade to become economic and be included in the Mineral Resource and Reserve estimates. This could include additional bottle roll tests and column leach studies.
- An evaluation of mineralisation in the underlying sulphides could be carried out together with metallurgical test work.

The following tasks are recommended for the Definitive Feasibility Study:

- Review the mine plan in combination with additional geotechnical drilling to reduce the strip ratio and improve the mine plan without compromising open pit stability.
- Based on metallurgical tests, the JAC mineralisation behaves slightly differently from Oculto in the areas of comminution, CCD, solid/liquid separation, and slurry rheology. It is recommended that these differences be further examined to optimise processing through ore blending.
- The plant throughput of 9,000 tpd was based on the current raw water availability granted by the Hydric Resources Secretary. A larger plant throughput has been discussed as possible but will require further exploration for water.
- Power is the second largest process operating cost, and securing a connection to the national grid is recommended.
- Review the Tailings Storage Facility design and perform another more detailed dam break studies commensurate with a DFS.
- Develop Detail Engineering for Bulk Earthworks and Construction Support facilities (i.e. roads and facilities platforms, camp and service hub, raw water supply, etc.) to allow for an immediate construction start after investment decision, while detail engineering for the rest of the plant and facilities can be performed during the first year of construction.

Table 1-8 presents a budget for the recommended tasks to perform:

Table 1-8: Recommended Tasks Budget Summary

Description	Cost in USD
Engineering & Preparation of a DFS Report	6,000,000
Site investigation and water exploration	2,000,000
Metallurgical test work, geotechnical test work, other studies	1,000,000
Total	**9,000,000**

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2 INTRODUCTION

This report was prepared as a National Instrument 43-101 Technical Report for AbraSilver Resources Corporation ("AbraSilver") by a team of consultants contracted by AbraSilver ("the Team") to complete an updated pre-feasibility study (PFS) of the Diablillos Project in conjunction with AbraSilver's geological, mining, process, and environmental consultants. The PFS was prepared in accordance with the Canadian disclosure requirements of National Instrument 43-101 (NI 43-101) and in accordance with the requirements of Form 43-101 F1.

2.1 Purpose of Report

The purpose of this report is to publish an updated Technical Report on the PFS of the Diablillos Property summarizing:

- The land tenures, exploration history, and drilling.
- The Mineral Resource estimates for the Oculto, Laderas, Fantasma and JAC deposits.
- The Mineral Reserve estimates for Oculto and JAC.
- A conceptual mine plan at a level to support a PFS.
- Recovery methods and process design at a level to support a PFS.
- The supporting infrastructure including power, buildings, tailings management, and process plant to support the conceptual mine plan.
- Environmental permitting requirements.
- Capital and operating expenditure estimates.
- An economic analysis.
- Recommendations.

2.2 Terms of Reference

AbraSilver engaged the services of the authors to write an independent NI 43-101 technical report on the Diablillos Property, located in the Puna region of Argentina. This report was prepared following NI 43-101 guidelines, Forms NI 43-101F1, and Companion Policy 43 101CP.

2.3 AbraSilver Resource Corp

AbraSilver's corporate office is located at 220 Bay St., Suite 550, Toronto, ON M5J 2W4. The Company is listed on the (TSX.V:ABTA; OTCQX: ABBRF).

"AbraSilver" or the "Company" is focused on rapidly advancing its 100%-owned Diablillos silver-gold project.

2.4 Qualification of Consultant

The consultants that prepared this Technical Report are specialists in the fields of geology, exploration, Mineral Resource and Reserve estimation, geotechnical engineering, open pit mining, environmental engineering, permitting, metallurgical testing, mineral processing, civil engineering, mechanical engineering, electrical engineering, mineral economics and financial analysis.

None of the Consultants or associates employed in the preparation of this report has any beneficial interest in AbraSilver. The Consultants are not insiders, associates, or affiliates of AbraSilver. The results of this Technical Report are not dependent upon any prior agreements, nor are there any undisclosed or future business dealings between AbraSilver and the Consultants. The Consultants are paid a fee for their work in accordance with a normal professional consulting practice.

2.5 Report Responsibility and Qualified Persons

The following individuals, by virtue of their education, experience, and professional association, are considered Qualified Persons ("QPs") as defined in NI 43-101. Below summarises the membership of the authors in professional institutions:

- Luis Rodrigo Peralta, Senior Resource Geologist, B. Sc., FAusIMM CP (Geo).
- Miguel Fuentealba Vergara, Senior Mining Engineer, MAusIMM.
- Joseph Keane, P.E., Independent Mineral Processing Engineer Consultant.
- Shaida Miranda, B.S. in Mining Engineering, MAusIMM CP. Senior Engineer.

The preceding QPs have contributed to the writing of this report and have provided QP certificates. The information contained in the certificates outlines the sections in this report for which each QP is responsible. Each QP has also contributed figures, tables, and portions of Sections 1 (Summary), 2 (Introduction), 3 (Reliance on other Experts), 25 (Interpretation and Conclusions), 26 (Recommendations), and 27 (References). Table 2-1 outlines the responsibilities for the various sections of the report and the name of the corresponding Qualified Person.

Table 2-1: Report responsibility table

Items	Description	Qualified Person	Company
Item 1	Summary	All QP's	All QP's
Item 2	Introduction	Luis Rodrigo Peralta	INSA
Item 3	Reliance on Other Experts	Luis Rodrigo Peralta	INSA
Item 4	Property Description and Location	Luis Rodrigo Peralta	INSA
Item 5	Accessibility, Climate, Local Resources, Infrastructure and Physiography	Luis Rodrigo Peralta	INSA
Item 6	History	Luis Rodrigo Peralta	INSA
Item 7	Geological Setting and Mineralization	Luis Rodrigo Peralta	INSA
Item 8	Deposit Types	Luis Rodrigo Peralta	INSA
Item 9	Exploration	Luis Rodrigo Peralta	INSA
Item 10	Drilling	Luis Rodrigo Peralta	INSA
Item 11	Sample Preparation, Analyses and Security	Luis Rodrigo Peralta	INSA
Item 12	Data Verification	Luis Rodrigo Peralta	INSA
Item 13	Mineral Processing and Metallurgical Testing	Joseph M. Keane	SGS
Item 14	Mineral Resource Estimates	Luis Rodrigo Peralta	INSA
Item 15	Mineral Reserve Estimates	Miguel Fuentealba Vergara	BMining
Item 16	Mining Methods	Miguel Fuentealba Vergara	BMining
Item 17	Recovery Methods	Joseph M. Keane	SGS
Item 18	Project Infrastructure	Luis Rodrigo Peralta	INSA
Item 19	Market Studies and Contracts	Luis Rodrigo Peralta	INSA
Item 20	Environmental Studies, Permitting and Social or Community Impact	Luis Rodrigo Peralta	INSA
Item 21	Capital and Operating Costs	All QP’s	All QP's
Item 22	Economic Analysis	Shaida Miranda	MP
Item 23	Adjacent Properties	Luis Rodrigo Peralta	INSA
Item 24	Other Relevant Data and Information	Luis Rodrigo Peralta	INSA
Item 25	Interpretation and Conclusions	All QP's	All QP's
Item 26	Recommendations	All QP's	All QP's
Item 27	References	All QP's	All QP's

2.6 Site Visits

The following bulleted list describes the Qualified Persons who visited the Property:

- Luis Rodrigo Peralta, Senior Geologist, B. Sc., Independent Consultant visited the site from October 18th to October 22nd, 2024.
- Joseph Keane, P.E., an Independent Mineral Processing Engineer Consultant, SGS, visited the site from September 13th to September 15th, 2022.
- Miguel Fuentealba Vergara, BME, MAusIMM CP, BMining Chile, visited the site from October 18th to October 22nd, 2024.

2.7 Currency, Units of Measure, and Calculations

Unless otherwise specified or noted, the units used in this report are:

- metric.
- US dollars (USD or $).

This report includes technical information that required subsequent calculations to derive subtotals, totals, and weighted averages. Such calculations inherently involve a degree of rounding and consequently a margin of error.

2.8 Effective Date

The issue date of this report is January 17th,2025. The effective date of the Diablillos Silver-Gold Project Updated PFS is December 3rd, 2024.

As of the effective date of this report, the authors are not aware of any material fact or material change with respect to the subject matter of this Technical Report that is not presented herein, or which the omission to disclose could make this report misleading.

3 RELIANCE ON OTHER EXPERTS

The QP, Mr Luis Rodrigo Peralta, has reviewed and analysed data and reports provided by AbraSilver, together with publicly available data, drawing conclusions.

This report relied on information provided by experts who are not QPs. The QP believes that it is reasonable to rely on these experts, based on the assumption that the experts have the necessary education, professional designation, and relevant experience.

- Mr. Luis Rodrigo Peralta relied upon Envis for matters pertaining to the design, capital, and operating expenditures of the AbraSilver Project tailings storage facility (TSF) as disclosed in Section 18.7.
- Mr. Luis Rodrigo Peralta relied upon data collected, summarized, and presented by AbraSilver for the areas of capital costs and operating costs.
- Mr. Luis Rodrigo Peralta has relied upon information provided by Pacific Rim Mining Corporation Argentina S.A., a wholly owned local subsidiary of AbraSilver and its Environmental Consultants Elisa Cozzi & Asociados for the Environmental Report as disclosed in Section 20.
- Mr. Luis Rodrigo Peralta has relied on land tenure information provided by AbraSilver. This includes two letters of legal opinion regarding the validity of the tenure from the legal firm, Perez Alsina Consultores Mineros, of Buenos Aires (Perez Alsina, November 13th, 2024) and Estudio Jurídico Ponferrada & Vila Melo, of San Fernando del Valle de Catamarca (Ponferrada & Vila Melo, November 11th, 2024).
- Mr. Joseph Keane has relied on the AbraSilver internal report – Diablillos Site Kinetic Humidity Cells test – 2023.

The QPs have assumed that all the information and existing technical documents listed in References Section 27 of this report are accurate and materially complete. While the QPs reviewed the information presented, they cannot guarantee accuracy and completeness. The QPs reserve the right, to revise the report and conclusions, if additional information becomes known after the date of this report.

Except for the purposes legislated under provincial securities laws, any use of this report by a third party is at that party's sole risk.

4 PROPERTY, DESCRIPTION AND LOCATION

The Diablillos property is located in the high Puna and Altiplano region of north-western Argentina (Figure 4-1). It is approximately 160 km southwest of the city of Salta and 375 km northwest of Catamarca, on the border of the Salta and Catamarca Provinces (Figure 4-2).

The property encompasses an area of 11,403 ha (28,177 acres). The geographic coordinates at the centre of the property are 25°18' South latitude and 66°50' West longitude.

4.1 Land tenure.

Mr. Peralta has relied on land tenure information provided by AbraSilver.

The mining concessions ("concesiones mineras" in the Argentine Mining Code) consist of 18 contiguous and overlapping mineral claims. Some are registered as a mining block "Grupo Minero Diablillos" through a different file number including several right of way and water easements. The company additionally has added 2 mining claims for logistics purposes approximately 70 km to the northwest of the main block and 5 new claims near the main block (Table 4-1 and Figure 4-2).

In 2017 AbraSilver acquired and effectively consolidated ownership and control of any and all overlapping or potentially conflicting mineral rights. This was granted by the Mining Judge of Catamarca. With this acquisition AbraSilver eliminated any potential title risks.

The governments of Salta and Catamarca are fully aware of the need to resolve competence issues and establish legal certainty. Due to the construction announcement made by POSCO ARGENTINA S.A.U. regarding its lithium project "Sal de Oro", both Governments reached at an agreement to facilitate project construction. This project lies in the same disputed zone as the Diablillos project. According to this agreement, the Provinces of Salta and Catamarca will share royalties and taxes in equal portions. Mining, environmental and policing of the project will be managed by an Interprovincial Authority integrated by officers of both provinces. This agreement is a good precedent for Diablillos, establishing a mechanism to deal with issues until the border conflict is resolved by the National Congress.

AbraSilver has formally requested a similar agreement for the Diablillos project, which is expected to be executed by both provinces during the first half of 2025.

Table 4-1 lists the concessions granted by both Salta and Catamarca. Figure 4-3 shows the Salta concessions while Figure 4-4 shows the Catamarca concessions. Note there are overlaps so adding the areas would be misleading, the correct overall property area is approximately 11,403 ha as depicted in Figure 4-5.

Table 4-1: Mineral tenure

	Tenement ID		Type	Area (ha)	Date of Grant	Expiry Date
	File N°	Name				
	Diablillos - Catamarca Province					
	629/P/2009	Condor Yacu Este	Exploitation Concession	1880.14	12-03-10	N/A [2, 3]
	408/M/2003	Cerro Bayo	Exploitation Concession	1500.00	10-06-04	N/A [2, 3]
	550/M/2004	Cerro Bayo I	Exploitation Concession	1500.00	30-11-04	N/A [2, 3]
	220/A/2007	Dorotea	Exploitation Concession	718.07	27-02-08	N/A [2, 3]
	139/A/2013	Dorotea I	Exploitation Concession	2673.52	17-05-16	N/A [2, 3]
	Diablillos - Salta Province					
"Grupo Minero Diablillos" File 18,691 [1]	11749	Los Corderos	Exploitation Concession	598.65	13-02-84	N/A [2, 3]
	11750	Pedernales	Exploitation Concession	599.00	14-04-86	N/A [2, 3]
	11751	Renacuajo	Exploitation Concession	600.80	15-02-84	N/A [2, 3]
	11964	Relincho I	Exploitation Concession	624.66	29-04-85	N/A [2, 3]
	11965	Relincho II	Exploitation Concession	430.70	29-04-85	N/A [2, 3]
	11966	Relincho III	Exploitation Concession	668.10	29-04-85	N/A [2, 3]
	16031	Alpaca I	Exploitation Concession	300.00	03-07-98	N/A [2, 3]
	14840	Fantasma [1]	Exploitation Concession	598.42	14-10-94	N/A [2, 3]
	19541	Alpaca [1]	Exploitation Concession	3498.86	15-04-10	N/A [2, 3]
	21384	La Carito	Exploitation Concession	142.59	N/A [7]	N/A [2, 3]
	745705	Alpaca III	Exploitation Concession	3149.54	N/A [5]	N/A [2, 3]
	745714	Alpaca VI	Exploitation Concession	3227.75	N/A [5]	N/A [2, 3]
	745720	Alpaca VII	Exploitation Concession	3426.75	N/A [5]	N/A [2, 3]
	Easements					
	16225	Road and camp easement	Easement	25.00	N/A	N/A
	18927	Road easement	Easement	36.00	N/A	N/A
	19332	Water easement	Easement	1.00	N/A	N/A
	19333	Water easement	Easement	1.00	N/A	N/A
	19334	Water easement	Easement	6.00	N/A	N/A
	752594	Water easement	Easement	4.00	N/A	N/A
	752595	Water easement	Easement	4.00	N/A	N/A

Notes:

[1] Mortgaged in favour of Silver Standard Resources INC. Registered on 11/6/18. For USD 15,050,000. Expiration: 08/08/37

[2] The Mining Concession does not expire, as long as the concessionaire fulfils all maintenance conditions under the regulations.

[3] All Mining Concessions and Discovery Claims are in force.

[4] Acquired recently. Awaiting formal registration in the name of Pacific.

[5] Requested as new Discovery Claims recently. Awaiting formal concession to Pacific.

[6] Pocitos properties are located approx. 70km to the north-northwest of Diablillos and were added for logistics purposes only.

[7] Vacant mine requested by Pacific and awaiting formal concession.

[8] Next canon due on December 31, 2023, for 1st semester 2023.

Argentinian Mining Concessions are granted in perpetuity, under certain conditions, which must be met by the property holder. Among these conditions is the requirement for an annual canon payment to the province, to be paid in two instalments due on June 30 and December 31 of each year. AbraSilver reports that the total annual amount of the canon is approximately US$20,000. A letter of legal opinion stated that the canon had been fully paid for 2024 (Zaballa Carchio, 2024) The next instalment will be due on June 30, 2025.

The surface rights for the concessions are not held by AbraSilver. Under the Argentine Mining Code, a mining concession grants its holder an easement right over the concession area. If the land is fiscal like in the case of Diablillos, no compensation is required according to the Argentine Mining Code.

AbraSilver either has or can readily acquire all required permits to conduct any proposed work on the property. The Biannual Update of the Environmental Impact Report, allowing drilling activities and any other exploration activity related was renewed, and lodged with the provincial authorities of Salta and Catamarca on October 24, 2023. An Environmental Impact Declaration ("DIA") was granted by both provinces, allowing the company to perform any exploration activities for a term of 24 months (2025-2025).

At the time of writing the report, the author was informed that environmental permits are in good standing. Mr. Peralta is not aware of any other significant factors or risks that may affect access, title, or the right or ability to perform the proposed work program on the property.

Figure 4-1: Property location

Source: AbraSilver Resource Corp. 2023

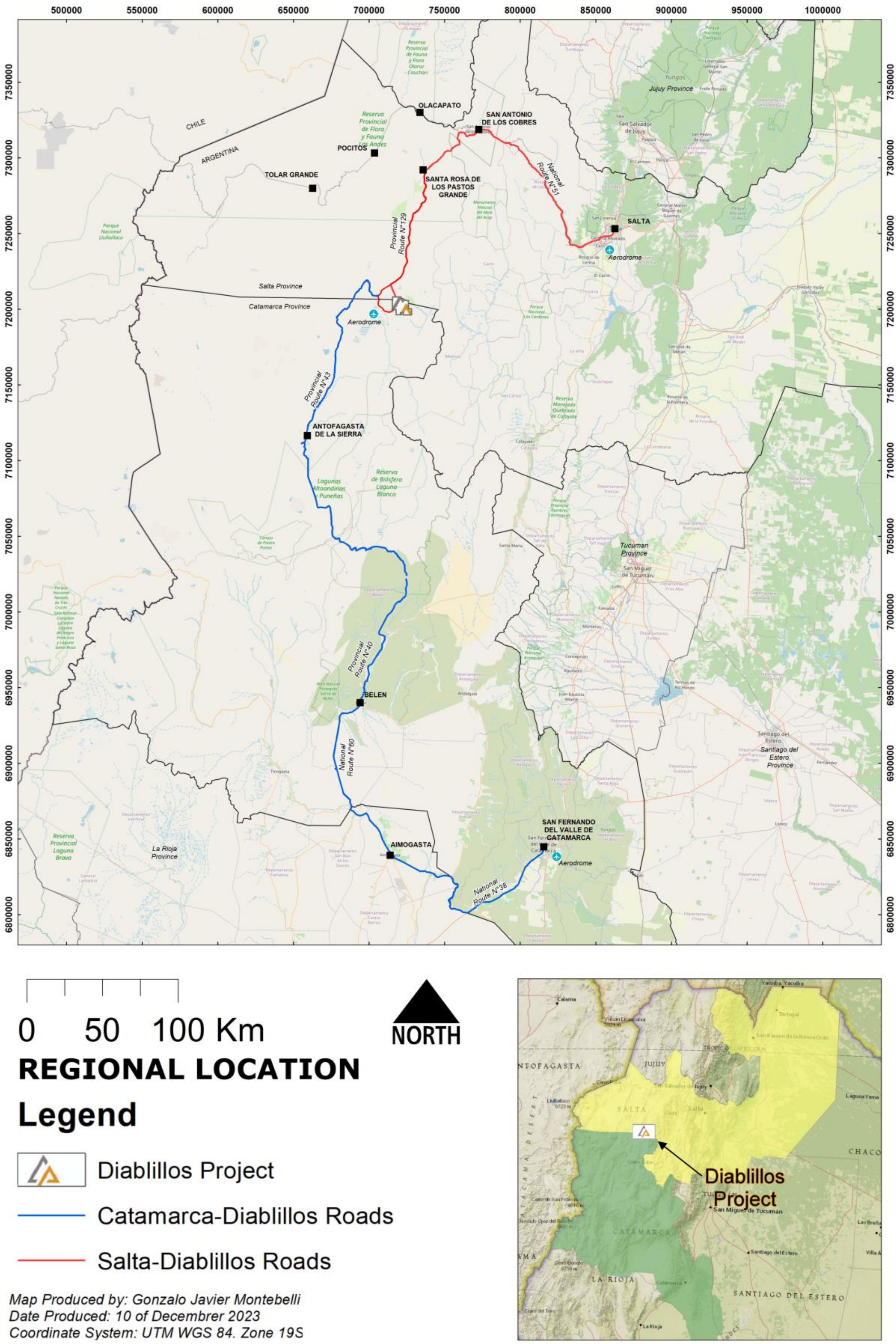


Figure 4-2: Detailed property location

Source: AbraSilver Resource Corp. 2023

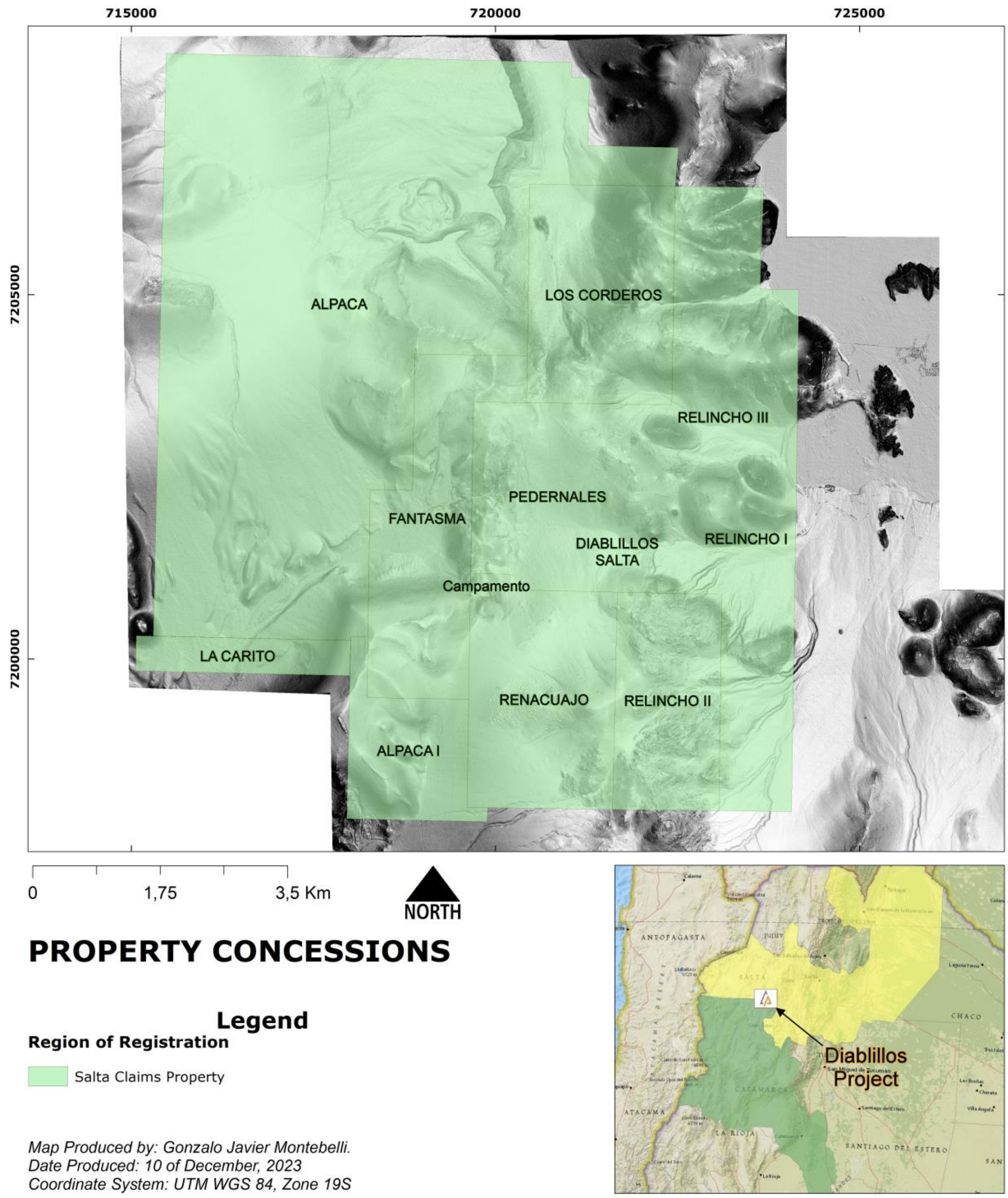


Figure 4-3: Salta property claims

Source: AbraSilver Resource Corp. 2023

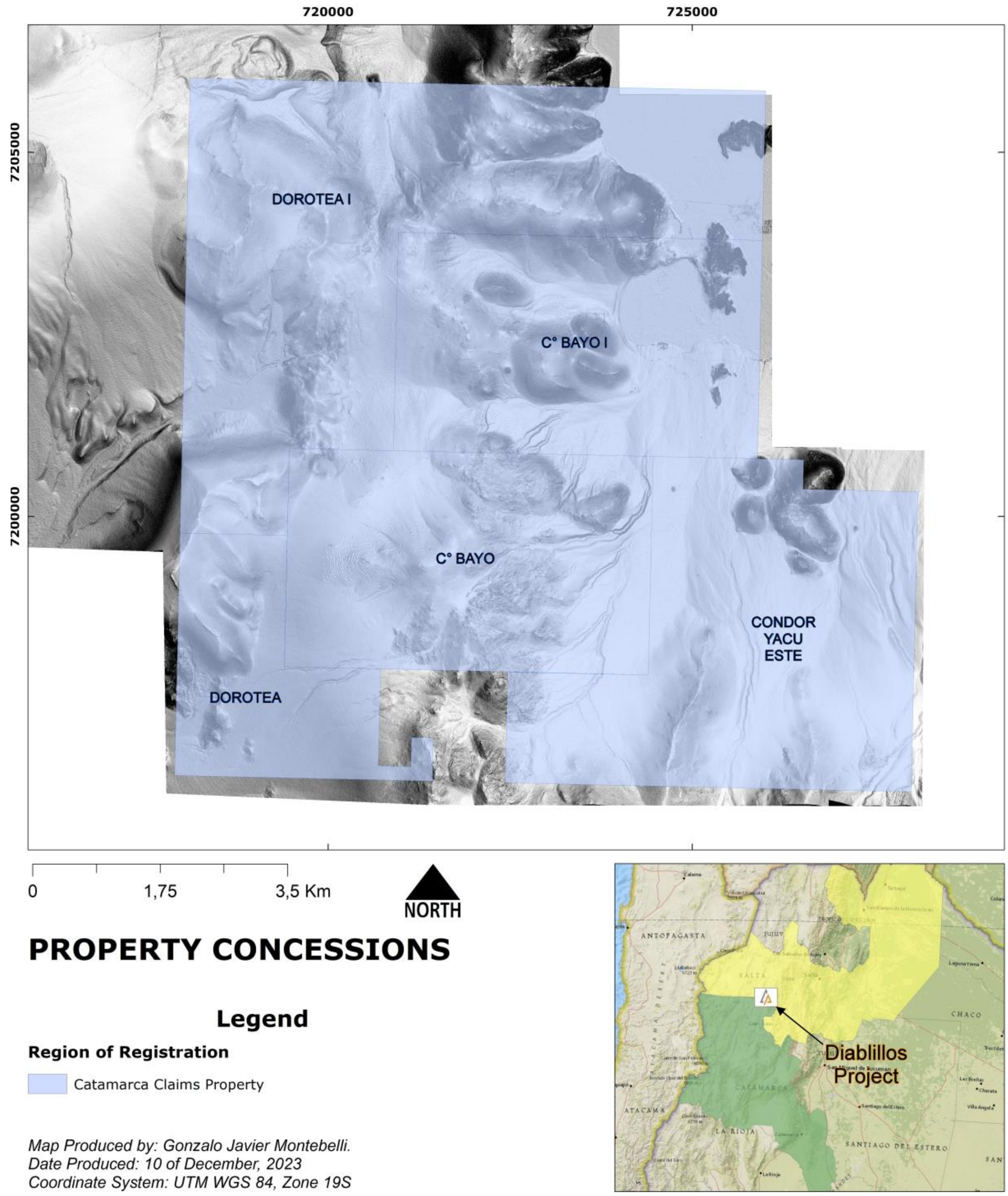


Figure 4-4: Catamarca property claims

Source: AbraSilver Resource Corp. 2023

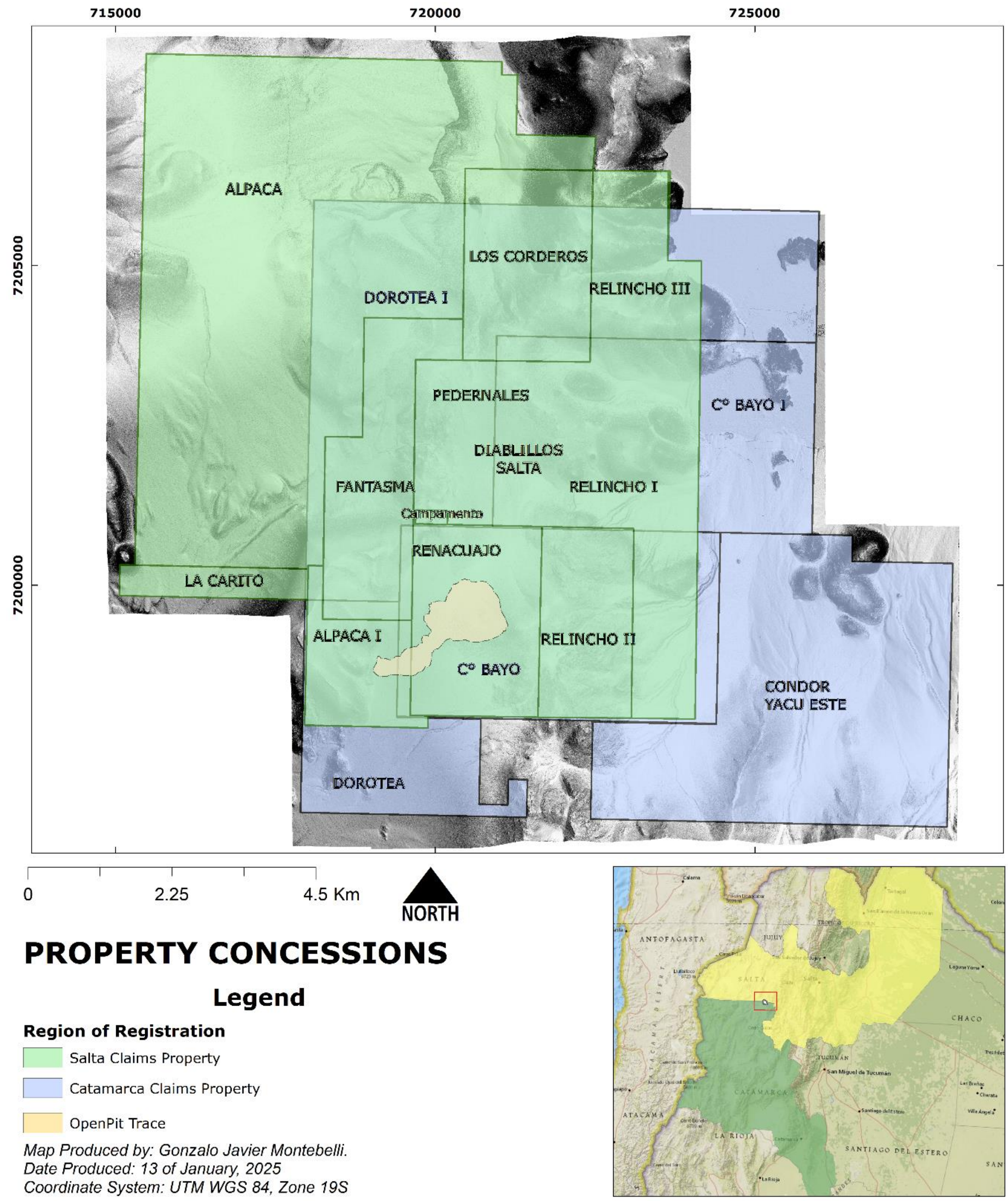


Figure 4-5: Total property claims, Salta & Catamarca provinces

Source: AbraSilver Resource Corp. 2025

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, PHYSIOGRAPHY

5.1 Accessibility

The Diablillos property is accessible from the City of Salta via the Town of San Antonio de Los Cobres along National Highway 51 (Figure 5-1). There is a secondary all-weather gravel road that leads south to Santa Rosa de Los Pastos Grandes and then to the property. The distance from Salta to the property is approximately 320 km, a driving time of five to six hours. An alternate route is via the town of Pocitos on Provincial Route 17. This is the primary road access to the Borax Argentina`s Tincalayu operations, located a few kilometres southwest of the Diablillos property on the northeastern margin of the Salar del Hombre Muerto. A secondary route exists from the city of Catamarca, via Provincial Route 60 to Aimogasta, National Route 40 to Hualfin and finally, Provincial Route 43 to Antofagasta de la Sierra and a gravel road to Diablillos.

Most of the local roads are gravel and can be traversed by two-wheel drive vehicles with high clearances. However, during rainy periods, sections of the access roads are subject to flooding and small landslides. Four-wheel drive vehicles are required to access areas within the property.

Road maintenance is performed by the “Dirección de Vialidad de Salta” (Salta Province Highway Authority). Notably a plan was recently announced to the Pastos Grandes community for provincial road N°129. This road connects San Antonio de Los Cobres with the Salar del Hombre Muerto. The Diablillos project is approximately 19 Km to the south-east of this road. If this project comes to fruition, it will improve site access and reduce the length of road that will need to be maintained.

The existence of good quality airstrips is on the Salar del Hombre Muerto, 10 Km southwest of the property, at the Arcadium Lithium (formerly “Livent Corporation”) Salar del Hombre Muerto lithium mine operations, approximately 40 km west of the Diablillos property and at the Posco lithium mine approximately 15 Km to the Northwest of the property.

It should be noted that the Salta government has expressed an interest in building a “Mining Logistic Centre” in the town of Olacapato. This project seeks to improve local mining infrastructure. The scope includes an airport, industrial area, transportation, processing, service facilities, commercial premises, accommodation, parking facilities and a health centre. While the Diablillos project does not rely on this infrastructure there would be considerable benefits if it progresses. It is also a good sign of continuing commitment to mining projects by the regional authorities.

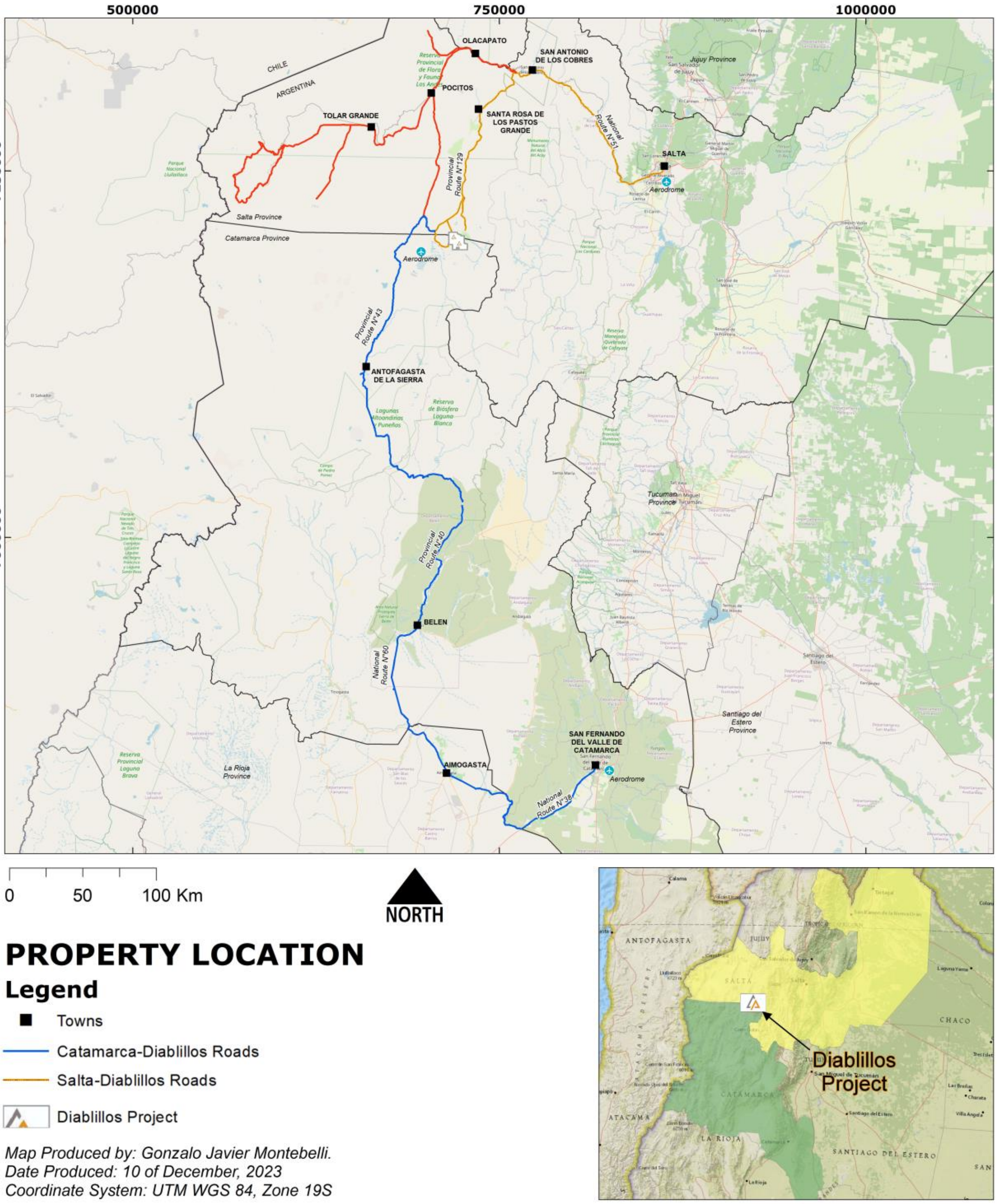


Figure 5-1: Accessibility to the property

Source: AbraSilver Resource Corp. 2023

5.2 Physiography

The property is located within the "Puna" physiographic region, an Andean highland with broad valleys separating mountain ranges exceeding 3,500 masl The Puna extends southwards from central Peru, across the altiplano of Peru and Bolivia, as well as south along the spine of the Andes separating northern Chile and Argentina. Elevations on the property range from 4,100 masl to 4,650 masl Although located at high elevation, local relief is moderate to gentle.

Vegetation is sparse, typically comprising upland grasses and stunted shrubs.

5.3 Climate

The climate is arid, with annual precipitation less than 200mm per year. However, in some years, no precipitation was registered.

The only reliable meteorological data comes from Fenix meteorological station. Owned by Minera del Altiplano S.A., located in the western basin of the Salar del Hombre Muerto, approximately 45 Km SW of the Diablillos Project. According to historical data mean annual precipitation was 82.2 mm / year from 1992 to 2020.

Rain falls mainly during February and March. Temperatures measured in the Project area range from a minimum of -26°C to a maximum of 32°C, with an annual average of 5.1°C. Strong north-western and western winds of more than 45 km/h are common in the area, during winter and spring.

5.4 Local resources

Salta is the largest city in the region, and is serviced by daily commercial flights, major highways, and a narrow-gauge railway to Antofagasta, Chile. It is the principal source of supplies, fuel, and equipment. The nearest permanent communities are San Rosa de Los Pastos Grandes and San Antonio de Los Cobres with estimated populations of 150 and 1,500 inhabitants, respectively. Limited basic supplies and fuel may be purchased in San Antonio de Los Cobres.

The town of Pocitos is located approximately 100 km north of the property and is the nearest access point to the railway and electrical power grid. Two solar plants have opened approximately 130 Km North of the property operated out of Pocitos and Olacapato.

A gas pipeline has recently been completed from Pocitos towards the Salar de Hombre Muerto Lithium mine. A derivation valve has been placed on its trace at a distance 24 Km from the Diablillos property.

Furthermore, a second pipeline is planned by the Government of Salta as per Decree N°248/21 issued on March 23, 2021. Declaring the "GASODUCTO PRODUCTIVO SALTEÑO (“GPS”) (Salta Productive Gas Pipeline) of public interest and empowering Energy and Mining Resources of Salta (Recursos Energéticos y Mineros de Salta SA - “REMSA”). AbraSilver is in close contact with the Government to secure the future use of natural gas from this pipeline if sufficient capacity becomes available.

Recently, a joint venture between Central Puerto and IFC has announce the technical feasibility to build a 140 km line, with 400MW capacity, from Olacapato to San Antonio de Los Cobres and Salar de Pocitos, allowing several mining companies to be connected to it. The project assumes on-site self-generation until the viability of alternate energy sources can assessed.

AbraSilver has identified an aquifer near Oculto in the upper part of the Barranquillas valley basin. It is believed this aquifer holds sufficient water to support operations at the current production rate. Permission has currently been granted for water use for exploration.

5.5 Infrastructure

There is a small exploration camp at Diablillos, with accommodation for approximately 80 people. The property has good access to local resources of power, water, and personnel as mentioned in the previous section.

There are large areas adjacent to the Diablillos deposit that could potentially serve as areas for tailings impoundment, waste rock disposal, and plant facilities.

6 HISTORY

This section builds upon the prior reports MP PEA (2022), RPA (2018), Ronning (1997) and Stein (2001). In the property's exploration history, particularly before 1980, the property extents and locations of work do not appear clearly known. Consequently, it should be noted that some of the work reported from those early years may not have been conducted within the current boundaries of the Diablillos property.

6.1 Prior ownership

Exploration in the area surrounding Diablillos began in the 1960s, when the Directorate General of Military Manufacturing (Dirección General de Fabricaciones Militares), an arm of the Argentine military, evaluated the Argentine Puna for porphyry-style deposits of copper and molybdenum. Exploration directed specifically at Diablillos began in 1971, when the National Mining Secretary (Secretaría de Minería de la Nación "SMN") undertook geological and geochemical reconnaissance work at a scale of 1:50,000. On December 31, 1971, the property was included in a federal government mineral reserve area for copper-molybdenum porphyry deposits. This status however expired in 1984 (Stein,2001).

Ronning (1997) reported that Abra de Mina, an Argentinean prospecting partnership, acquired what now constitutes the Diablillos property in the late 1970s. Stein (2001) and Wardrop (2009), however, report that this occurred in 1984. Stein further reported that, at that time, rights to the adjacent Condor Yacu property were held by Manfredo Arheit, of Buenos Aires.

Shell C.A.R.S.A, a joint venture between Shell and Billiton, explored in the area from 1984 to 1987, and optioned Diablillos in 1985.

The Ophir Partnership Ltd. ("Ophir"), a U.S. limited partnership, optioned the property in early 1987. Minera Utah International Ltd., a subsidiary of Broken Hill Proprietary Ltd. ("BHP"), began preliminary reconnaissance exploration in the area the following year. By late 1989 they concluded agreements with Ophir and Abra de Mina. The property was held by BHP until September 1991, when the option agreement with Abra de Mina was terminated.

In 1992, Pacific Rim optioned the property from Abra de Mina and acquired 100% of the property on July 1, 1997 (Stein, 2001). Pacific Rim conducted exploration work until 1996, when Barrick Exploraciones Argentina S.A., a wholly owned subsidiary of Barrick Gold Corporation ("Barrick"), obtained an option on the shares of Pacific Rim Mining Corporation Argentina S.A. Barrick continued exploration and initiated preliminary environmental impact and metallurgical studies.

SSRM Mining ("SSRM") acquired all assets of Pacific Rim Mining Corporation Argentina S.A. in December 2001, for a staged total of US$3.4 M, paid as a combination of cash and shares.

On November 1st, 2016, AbraSilver Resource Corp. ("AbraSilver'), formerly AbraPlata Resource Corp. ("AbraPlata") and Angel BioVentures Inc. originally acquired the mining concessions granted by the Government of Salta through an agreement with SSRM Mining ("SSRM") and Pacific Rim Mining Corporation Argentina S.A. (an Argentinian company and the registered owner of the Diablillos property). Under this agreement, AbraSilver acquired, through a merger with Huayra Minerals Corporation, certain subsidiaries of SSRM, including Pacific Rim Mining Corporation Argentina S.A.

As consideration for the payment concessions, SSRM received USD 6.35 million in cash payments and 24.15 million in AbraSilver common shares comprising 17.65% of the issued shares at that time.

To fulfil the agreement terms, AbraPlata is required to make a cash payment of USD 7 million to SSRM Mining on construction start-up or at the fifth anniversary. (July 31st, 2025).

In addition to these payments, SSRM is entitled to receive 1.0% net smelter return ("NSR") royalty on production from the project.

As of September 6th, 2017, AbraSilver completed the definitive documentation necessary to acquire a 100% equity interest in Minera Cerro Bayo SA ("Cerro Bayo"). The owner of the conflicting mineral rights granted by the government of Catamarca, thereby indirectly acquiring ownership and control of any conflicting mineral interests. As consideration, AbraSilver will pay US$3.325 million in cash (USD 0.96 million paid) and issue 500,000 (Issued) common shares to the shareholders of Cerro Bayo in instalments over a five-year period.

On September 11, 2019, AbraPlata and Aethon Minerals Corporation ("Aethon") entered into a binding agreement whereby AbraPlata acquired all the issued and outstanding shares of Aethon. The transaction value was approximately $10.9 million on a fully diluted in-the-money basis, and Aethon and AbraPlata shareholders received approximately 46% and 54% of the combined entity, respectively.

On March 4th, 2021, AbraPlata formerly changed its name to AbraSilver Resource Corp.

On July 29,2021 SSRM announced that it had sold their royalty portfolio to EMX Royalties. This transaction includes the 1% NSR on Diablillos as well as the remaining USD 7 Million payment noted above.

On July 29th, 2021, SSRM announced the sale of their royalty portfolio to EMX Royalties. This transaction included the 1% NSR held on Diablillos project as well as the remaining USD 7 million payment which is due in 2025 (or upon commencement of commercial production).

6.2 Exploration and development history

Work completed on the property throughout its history is summarized in Table 6-1.

Table 6-1: Exploration and development work conducted. AbraSilver Resource Corp, 2023

Diablillos Project History		
Year	**Operator**	**Description**
Pre 1983	Secretaría de Minería de la Nación	1,409 rock chip samples (includes 190 outcrop and 271 slope debris samples from Diablillos Sur)
1984-1987	Shell C.A.R.S.A	Rock geochemical survey; three Winkie drill holes
1987	Ophir Partnership	34 rotary drill holes (approximately 30 m deep) in the Corderos, Pedernales, Laderas, and Jasperoide areas
1988-1991	BHP	Geological mapping (1:1,000 to 1:7,500 scale); 380 rock chip samples; 1,200 m of bulldozer trenches; 56 air RC holes (6,972m)
1991	BHP	"Mineral Resource and Reserve Estimate" (see below)
1992-1993	Pacific Rim Mining Corporation	Five diamond drill holes (1,001.8 m) in the Oculto zone
1994	Pacific Rim Mining Corporation	148 km of chain and compass grid; geological mapping; 122 line-km of ground magnetic survey; 34 line-km of induced polarization (IP) survey; 213 hand auger samples; 2.5 km of trenching; 250+ rock chip samples; 12 diamond drill holes (2,016 m)
1996-1999	Barrick Gold Corp.	Geological mapping; surface sampling; RC drilling; CSAMT survey; mag survey; environmental impact study; metallurgical test work
1999	Pacific Rim Mining Corporation	Mineral Resource estimate
2001	D. M. Stein (Barrick)	MSc thesis
2001	Pacific Rim Mining Corporation	Mineral Resource estimate (see below)
2003	Pacific Rim Mining Corporation (for Silver Standard)	20 diamond drill holes (3,046 m)
2005	Pacific Rim Mining Corporation (for Silver Standard)	Five diamond drill holes each at Renacuajo and Alpaca, with a total of 10 diamond drill holes with 1,772m
2007	Pacific Rim Mining Corporation (for Silver Standard)	54 diamond drill holes (10,324 m) on Oculto; one hole (203 m) at Laderas; three holes (unknown length) at Pedernales; five holes (unknown length) at Los Corderos; four HQ-size diamond drill holes sampled for metallurgical tests
2008	Pacific Rim Mining Corporation (for Silver Standard)	52 diamond drill holes (7,971 m), three of these for geotechnical studies; additional metallurgical studies
2009	Silver Standard Resources Inc.	Mineral Resource Estimate
2011-2012	Silver Standard Resources Inc.	Internal Preliminary Economic Assessment, rock chip sampling, 1,679 m diamond drilling (19 holes)
2015	SSR Inc.	Internal Mineral Resource Estimate for Oculto. (Executed by MFW)
2016	SSR Inc.	Mineral Resource Estimate for Oculto. (Executed by RPA, 2016)
2017	AbraSilver	28 drillholes and a total of 3,148.5m (Fantasma), and redefining the geology and mineralization concepts
2018	AbraSilver	Preliminary Economic Assessment (PEA 2018) including updated Mineral Resource Estimate
2019	AbraSilver	Phase I Drilling campaign with 2 diamond drill holes (844 m) (Oculto deposit)

Diablillos Project History		
Year	Operator	Description
2020-2021	AbraSilver	Phase II Drilling campaign of 55 drillholes and a total of 15,143 m expanding the Oculto deposit to the north, west and east
2021	AbraSilver	Preliminary Economic Assessment (MP PEA 2021) including Mineral Resource Estimate
2021-2022	AbraSilver	Phase II - Part B - Drilling campaign of 84 drill holes and a re-logging campaign totalling 106 drill holes. Drilling extended the west and north breccias at the Oculto deposit and drilled the discovery hole at the JAC zone. Infill drilling converted "Indicated" resources to the "Measured" category at Oculto.
2022	AbraSilver	Updated Mineral Resource Estimate (MRE22)
2022-2023	AbraSilver	Phase III - Drilling campaign of approximately 110 drillholes at JAC zone, focused on defining a new high-grade deposit located southwest of Oculto.
2024	AbraSilver	Pre-Feasibility Study in junction with updated Mineral Resource estimate and Mineral Reserve estimate. Start of Phase IV drilling campaign
2024	AbraSilver	Phase IV - Drilling campaign of approximately 48 drillholes at JAC zone, focused on defining its limits and mineral classification. A new cover target was found "Sombra". Some peripherical target were also drill as Laderas, Fantasma, Oculto NE, Alpaca among others. Phase IV has not been included in this report as still in progress.

6.2.1 1970s to 2012

Throughout the Diablillos Project, several prospecting and exploration works have been carried out (Table 6-1). Prospecting was carried out by the National Mining Secretary (Secretaría de Minería de la Nación) and Shell C.A.R.S.A, including geochemical rock sampling and geology mapping.

Various exploration activities were subsequently followed up by Ophir Partnership, BHP, Pacific Rim Mining Corporation, Barrick Gold Corp, and Silver Standard Resources Inc ("SSRI") between 1987 until 2012. This included:

- Geological mapping.
- Rock chip sampling.
- Trenching.
- Geophysical studies: induced polarization (IP) survey, ground magnetic survey, CSAMT survey; mag survey.
- Drilling with diamond drill holes and rotary drill holes.
- Mineral Resource estimation and metallurgical test work.

In 1990, BHP Utah drilled a single RC hole in the Fantasma zone.

In 2010, SSRI commissioned M3 Engineering and Technology Corporation ("M3") to conduct an internal Preliminary Economic Assessment ("PEA") on the Oculto zone. This was completed in June 2011.

In 2011, SSRI re-sampled historical trenches at Fantasma. The following year they then drilled four diamond holes at Fantasma. These holes intersected mineralization, but drilling was not extensive enough to result in a Mineral Resource Estimate for Fantasma.

6.2.2 2015

SSRI retained MFW to update the Mineral Resource estimate for Oculto.

6.2.3 2016

SSRi commissioned to RPA the audit of the estimate and prepared a Technical Report, issued in November 2016 (RPA, 2016). This Technical Report was filed on SEDAR and is publicly available.

6.2.4 2017

AbraPlata executed a drilling campaign that was designed to explore the Fantasma deposit, totalling 28 drill holes and 3,148.5 m.

6.2.5 2018

AbraPlata commissioned RPA to produce a PEA. This Technical Report was filed on SEDAR and is publicly available.

6.2.6 2019 to 2021

A drill campaign was designed to expand the Oculto deposit to the north, west and east. Targets were selected to track mineralized structures identified through geochemical, lithological/alterations analysis and structural maps.

Mineralised areas were re-interpreted based on the relation of vertical feeder structures to sub-horizontal permeability zones. Particular attention was given to the intersection of the Main and Cross breccias. Emphasis was also placed on defining zones of shallow mineralization shown on maps prepared by Nick Tate (2018).

Infill drilling was carried out to increase the confidence level of the Oculto zone enabling an expansion of Mineral Resources in the Measured category.

Overall, the 2019-2021 campaign contributed to advances into the geological model and a better understanding of the areas, behaviour, and continuity of mineralization.

6.2.7 2021 to 2022

An updated Mineral Resource estimate was performed in October 2021 with an effective date of October 28th, 2021. A subsequent PEA was then completed with an effective date of January 13th, 2022. Both Technical Reports were performed by Mining Plus.

A Phase II drilling campaign was designed to extend the North and West breccias and to recategorize the Indicated Mineral Resources to Measured. A total of 143 drillholes were included in Phase II, totalling 35,827 meters, from DDH-20-001 to DDH-22-040. In July 2022, AbraSilver decided to update the Mineral Resource estimate (MRE22) with effective date as November 28th, 2022.

The reports are filed on SEDAR.

6.2.8 2022 to 2023

Phase III drilling campaign was designed to extend some known areas and re-categorize Mineral Resources. As part of this drilling campaign a set of brownfield exploration drillholes were performed in the surrounding area of Oculto. Hole DDH-22-019 was one of those, which lead to the discovery of the JAC zone. The company then decided to concentrate in this zone for the second half of 2022 (Phase III) until July 2023.

A total of 110 drillholes were drilled in the JAC zone. In August, AbraSilver decided to update the Mineral Resources of the Diablillos project and produced a maiden Mineral Resource estimate for the JAC zone.

6.2.9 2024

The company decided to advance to a PFS, incorporating the recent maiden Mineral Resource from JAC and produce a maiden Mineral Reserve for the Diablillos Project. A Technical Report was prepared with an effective date of March 7th, 2024.

In May 2024, a Phase IV 20,000m exploration drilling campaign was started. The results of this drilling, of which 18,285 metres had been completed as of the date of this report, have not been incorporated into this Technical Report as no additional Mineral Resources or Reserves has been estimated to this date.

Phase IV drilling campaign has been designed to define limits of the JAC orebody, as some margins were still open. Also, a few re categorization drillholes were made to migrate inferred resources to indicated or measured. In addition, peripherical targets as Alpaca, Fantasma, Laderas, the junction between Fanstasma were drilled. It’s important to mention that a new zone has been discovered named as “Sombra”, currently under drilling definition.

6.3 Past production

No prior production has been reported from the property.

7 GEOLOGICAL SETTING AND MINERALISATION

7.1 Regional geology

The Diablillos Property is located in the Argentine Puna region. The region is the southern extension of the Altiplano of southern Peru, Bolivia, and northern Chile and a plateau, separating the Cordillera Oriental to the east and the Andean Cordillera (Cordillera Occidental) to the west.

The Cordillera Occidental is a modern volcanic arc formed by the subduction of the Nazca Plate below the continental South American Plate. The Cordillera Oriental, or Precordillera, is an older north-south trending mountain chain extending 1,000 Km from the Argentina-Bolivia borders to Neuquén. These domains are separated by north-south trending regional scale faults (Figure 7-1).

During the mid-Miocene Quechuan Orogeny, the subduction zone beneath the Puna gradually steepened as the South American plate overrode the Nazca plate. Extensive late Miocene to Pliocene volcanic activity occurred along the western margin of the Puna Plateau and along northwest-southeast conjugate structures. Easterly to northwest-southeast directed compression resulted in the creation of reverse fault-bounded intra-arc basins. Uplift began in the Early Miocene accelerating in the Middle Miocene resulting in an elevation change in the order of 2,500 m. The current elevation in southern Puna averages 4,000 masl.

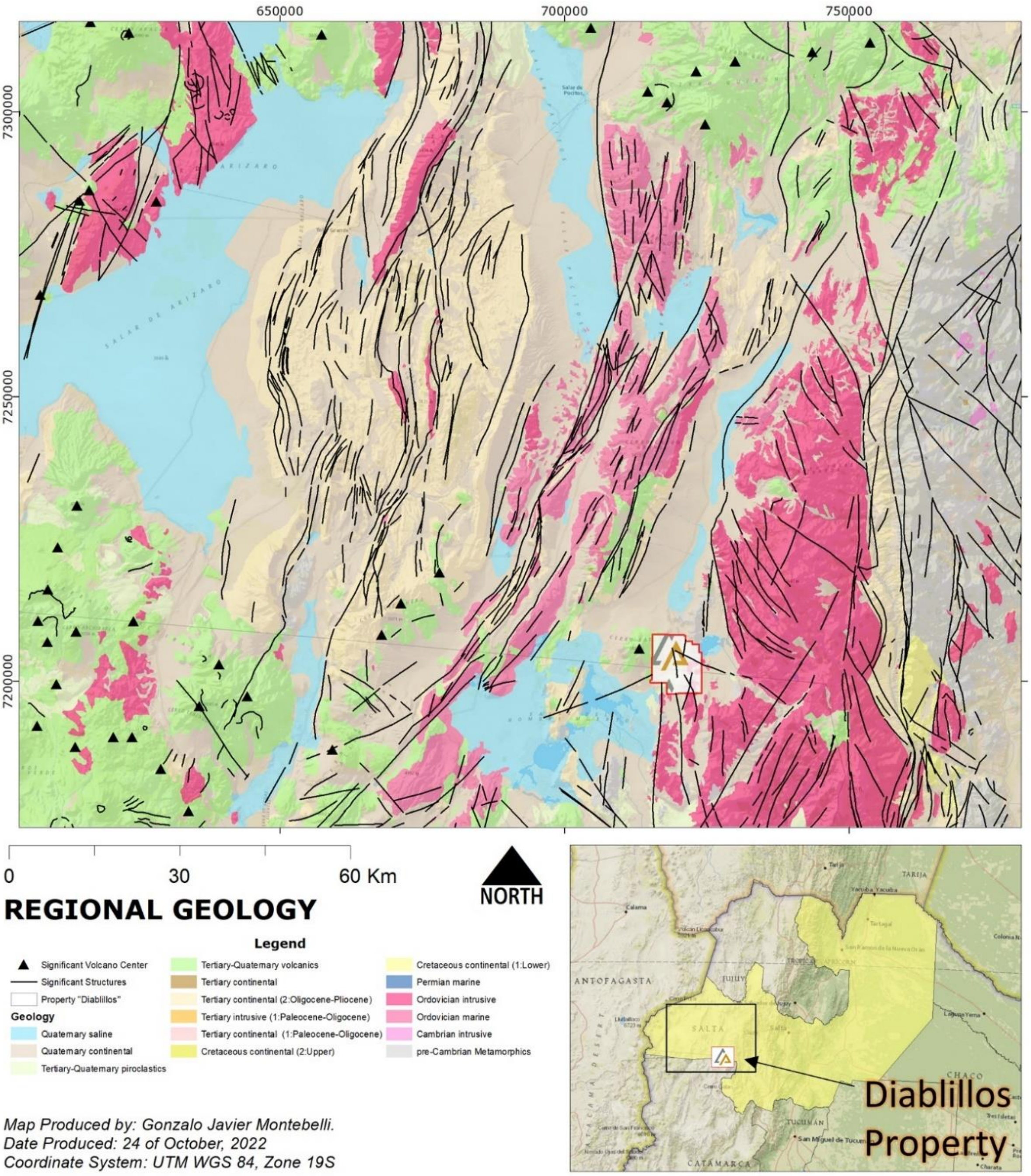


Figure 7-1: Regional geology, including faults

Source: AbraSilver Resource Corp., 2022

7.2 Local geology

The Diablillos deposit lies close to the eastern margin of the Puna and close to the intersection of the north-south trending Diablillos-Cerro Galán fault zone with the north-westerly trending Cerro Ratones lineament (Figure 7-2). The Diablillos-Cerro Galán fault structure is one of several major north south brittles to ductile shear zones in the Puna. These were formed during neoproterozoic and lower Palaeozoic tectonism and then reactivated during the Mesozoic and Cenozoic.

Ronning (1995) lists the following regional lithologic units occurring in the vicinity of the property:

- Stocks and Extrusive Domes:
  - 12 to 15 Ma-old sub-volcanic intrusive and extrusive, frequently associated with tephra deposits from low volume, plinian to phreatomagmatic eruptions. They are generally K_2O-rich dacitic rocks with biotite and occasional amphibole mafic phenocrysts, and accessory apatite, ilmenite, allanite, and tourmaline.

- Cerro Ratones Volcanics:
  - Reportedly of Oligocene age (30 ± 3 Ma), but a recent 40Ar/39Ar age of approximately 7 Ma for biotite from a flank unit at Cerro Ratones indicates a possible wider age range.

- Faja Eruptiva Granitoids:
  - Magmatic rocks of broadly Ordovician age, widespread in north-western Argentina, including a belt known as the Faja Eruptiva de la Puna Oriental, or simply the Faja Eruptiva. This belt extends from approximately 27° South latitude in Argentina to approximately 22° South latitude in southernmost Bolivia. In the Diablillos area, the Faja Eruptiva is spatially coincident with the Diablillos–Cerro Galán fault zone.

  - Rocks of the Faja Eruptiva form large and elongate bodies of porphyritic and equigranular, partly hypabyssal granitoids rich in sedimentary xenoliths. Near Diablillos, rocks assigned to the Faja Eruptiva contain feldspar phenocrysts up to 4 cm long. They follow a calc-alkaline differentiation trend and are peraluminous. Based on five U-Pb age determinations, the igneous rocks of the Faja Eruptiva are believed to be middle Ordovician.

- Ordovician Sediments:
  - The Faja Eruptiva intrudes and is folded with a sequence of Ordovician metasedimentary rocks. Near Diablillos, these rocks are phyllites, metasiltstones, and quartzites. Farther north, the Ordovician metasedimentary rocks contain late Ordovician fossils, in contradiction to the middle Ordovician radiometric ages for the Faja Eruptiva.

- Precambrian Units:
  - The pre-Ordovician basement of the eastern Puna has been termed the Pachamama Igneous-Metamorphic Complex. It consists of three subparallel north south belts 200 km long. The Diablillos property is situated near the western margin of the eastern belt, which comprises metamorphosed pelitic, psammitic, and granitic rocks that have been intruded by younger granitoids of the Faja Eruptiva.

Disseminated and vein occurrences of northern and central Puna are characterized by base metal, gold, silver, tin, and antimony mineralization. They are commonly associated with small, potassic-rich, Tertiary stocks and extrusive domes. These intrusive/extrusive features have been dated at 15 ± 2 Ma (Sillitoe, 1977, in Coira et al., 1993, quoted in Ronning, 1997). Elsewhere, the salars (salt flats) in the vicinity of Diablillos host borate and lithium.

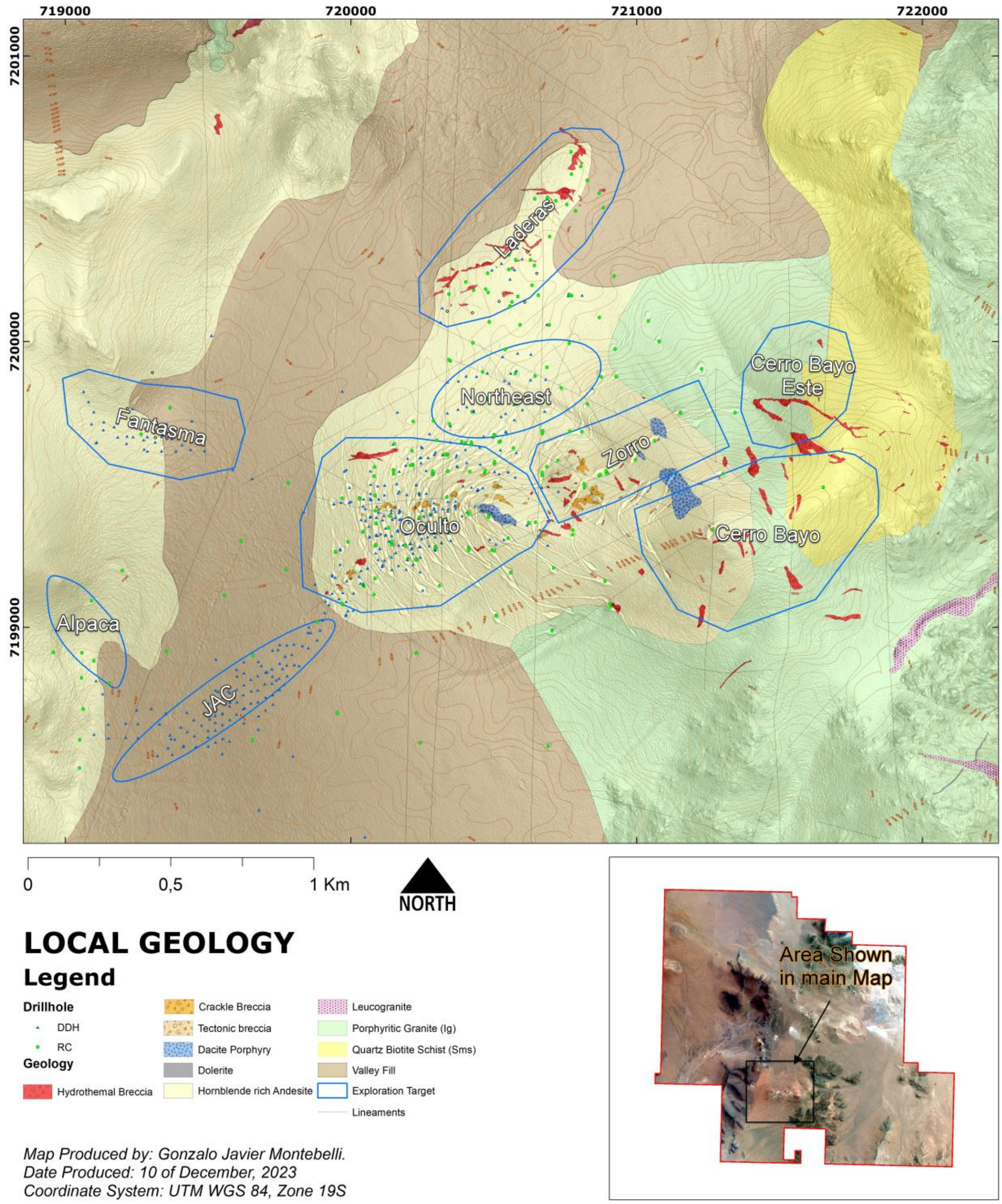


Figure 7-2: Simplified geology of Diablillos Project

Source: Modified by AbraSilver, based on Grosse y Guzmán (2017) and on geology maps from SEGEMAR and Schnurr et al. (2006)

7.3 Lithology Units

The Diablillos Property hosts several zones of high-sulphidation epithermal alteration and mineralization with a strong supergene overprint. The main zone of mineralization, the Oculto zone, is hosted by a subaerial volcanic sequence, ranging in composition from pyroxene–hornblende to biotite-hornblende andesite (Figure 7-3). These volcanic rocks have been age dated by Stein (2001) and assigned to the Middle Miocene Tebequincho Formation. Basement rocks comprise Ordovician-age alkali-feldspar, porphyritic granite of the Complejo Eruptivo Oire and Neoproterozoic to Cambrian age metasedimentary rocks of the Complejo Metamorfico Rio Blanco. Small altered dacitic bodies have also intruded the basement and andesitic sequence (Stein, 2001).

The volcanic rocks are spatially restricted to areas west of the Pedernales Fault. These rocks are divided into two groups by the Jasperoide Fault Younger andesite flows and tuffs to the west, older pyroclastic and apron-bedded breccias to the east. Hydrothermal breccias form pipes and dikes throughout the area from the Jasperoide Fault in the west to the Demonio Fault east of the property boundary. The basement complex is exposed in many areas, except to the west of the Jasperoide Fault.

Basement phyllites are restricted to the far north-western corner of the map area and to the east of the Demonio Fault. The phyllites contain approximately 2% by volume quartz boudinage with molybdenum and iron oxide staining.

The Faja Eruptiva granite of the basement complex occupies a 1.5 km wide north-south strip through the centre of the map area. The granite contains numerous xenoliths of the quartz mica schist and locally is sheared to ultra-mylonite's. Subsequently pervasively silicified and injected with sheeted quartz veins. The largest of these shear zones forms a prominent ridge on Morro Eco, in the vicinity of the Cerro Viejo prospect (Figure 7-3).

The Faja Eruptiva granite is hosted in a quartz mica schist, located primarily west of the Pedernales Fault, east limited by the Demonio Fault. The schist exhibits substantial deformation denoted by tight small-scale folding, enhanced on weathered surfaces by differential weathering. Where altered, the schist changes in appearance. White in colour, with alteration of dark micas to light-coloured clays. In more intensely altered zones, the schist is completely silicified. Imparting a sugary quartzite appearance on broken surfaces, the relic folded texture is however maintained including on weathered surfaces.

The basement complex is intruded by tertiary stocks and dikes and mantled by their extrusive equivalents. The stratigraphically lowest unit of the tertiary volcanic units exposed between the Jasperoide and Pedernales faults consists of fragmental andesites Generally strongly clay altered and not forming natural exposures. The best artificial exposures observed are located at field station (fs) DW 38 on the DAR 6 drill platform. At this location, a fault, oriented at 000°/62°E, limits alteration to the west. This has preserved a pod of fresher andesite fragmental. The fragmental is believed to be overlain by a lithic pyroclastic like on top of the

Oculto zone. This pyroclastic unit is relatively rare and has only been found in outcrop in one locality. Observed resting on top of the andesite fragmental.

The uppermost rocks in the volcanic stratigraphic column are apron breccias. These are heterolytic breccias which form prominent exposures and are locally well bedded. The strike and dip of the bedding ranges from 110°/05°SW at la Trucha to 237°/22°NW at Guanaco. Indicating a source to the east. At least two distinct phreatic eruption events have occurred. The first dominated by clasts of andesite composition, followed by a more heterolytic clast event from the earlier andesite. Locally, the apron breccias exhibit evidence of sedimentary reworking with channels and cross bedding.

Hydrothermal breccias crosscut all lithologies except for the younger andesites west of the Jasperoide Fault and basement phyllites. The clasts in the hydrothermal breccias strongly reflect the host rock into which they were injected. They nearly always contain clasts of Faja Eruptiva porphyritic K-spar granite. It is this cross-cutting of the andesite fragmental that was the primary criterion to originally differentiate the hydrothermal breccias from the apron breccia, which they can closely resemble. The hydrothermal breccias form isolated round to elongate pipes and dike structures. The largest of the exposed pipes measures 70 m by 150 m and is located at the north end of Cerro del Medio (Figure 7-3). The largest of the dike-like hydrothermal breccias is discontinuously exposed over a strike length of 550 m. These dikes form three sub-populations with respect to their orientation including:

a. Striking 076° with strong silica-alunite alteration.
b. Striking 100° with strong silicic alteration.
c. Striking 167° with mixed silica and silica-alunite alteration.

Groups “a” and “b” are concentrated in the lower central part of the property. Group “c” is the least common and is restricted to the east.

The Tertiary intrusives are largely quartz-feldspar porphyry and form small dikes and stocks on Cerro Viejo Este in the south-east. The porphyry exhibits a close spatial relationship to hydrothermal breccia; however, no porphyry clasts have been observed even where enveloped by the porphyry.

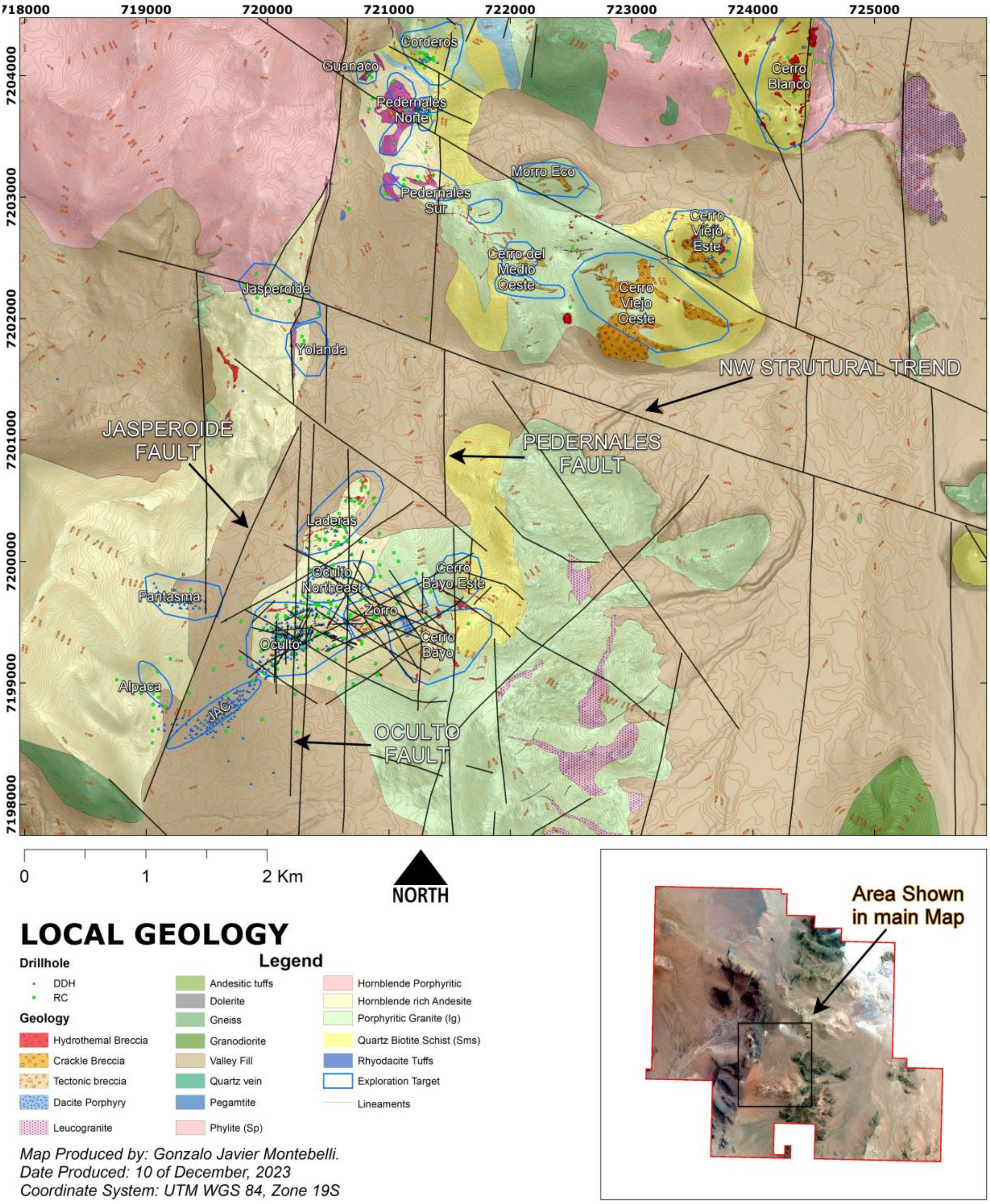


Figure 7-3: Main geologic aspect and lineaments of Diablillos Project

Source: Internal mapping from AbraSilver Resource Corp., 2023

7.4 Structural Features

The Diablillos Property lies near the intersection of two regional structures. Comprising the north south Diablillos-Cerro Galán Fault, and the northwest trending Cerro Ratones lineament. Within the project area there are two north-trending faults, the Pedernales, in the central portion, and the Jasperoid in the west (Figure 7-4). These faults bracket a wedge-shaped graben which hosts most of the altered volcanic rocks. The graben range are 2.7 km wide at Oculto with a maximum of 4.5 km to the north and a minimum at Pedernales where it is 800 m wide.

Numerous east-west and northwest-southeast structures branch from the main Diablillos - Cerro Galán corridor. These structures are considered to have channelled local magmatic and hydrothermal activity. The northwest-trending structures appear to be related to regional movement along the Cerro Ratones lineament.

The Tertiary stratigraphy is generally flat lying with gentle dips. The underlying Ordovician and Precambrian rocks have been strongly deformed and metamorphosed resulting in a wide range of structural orientations.

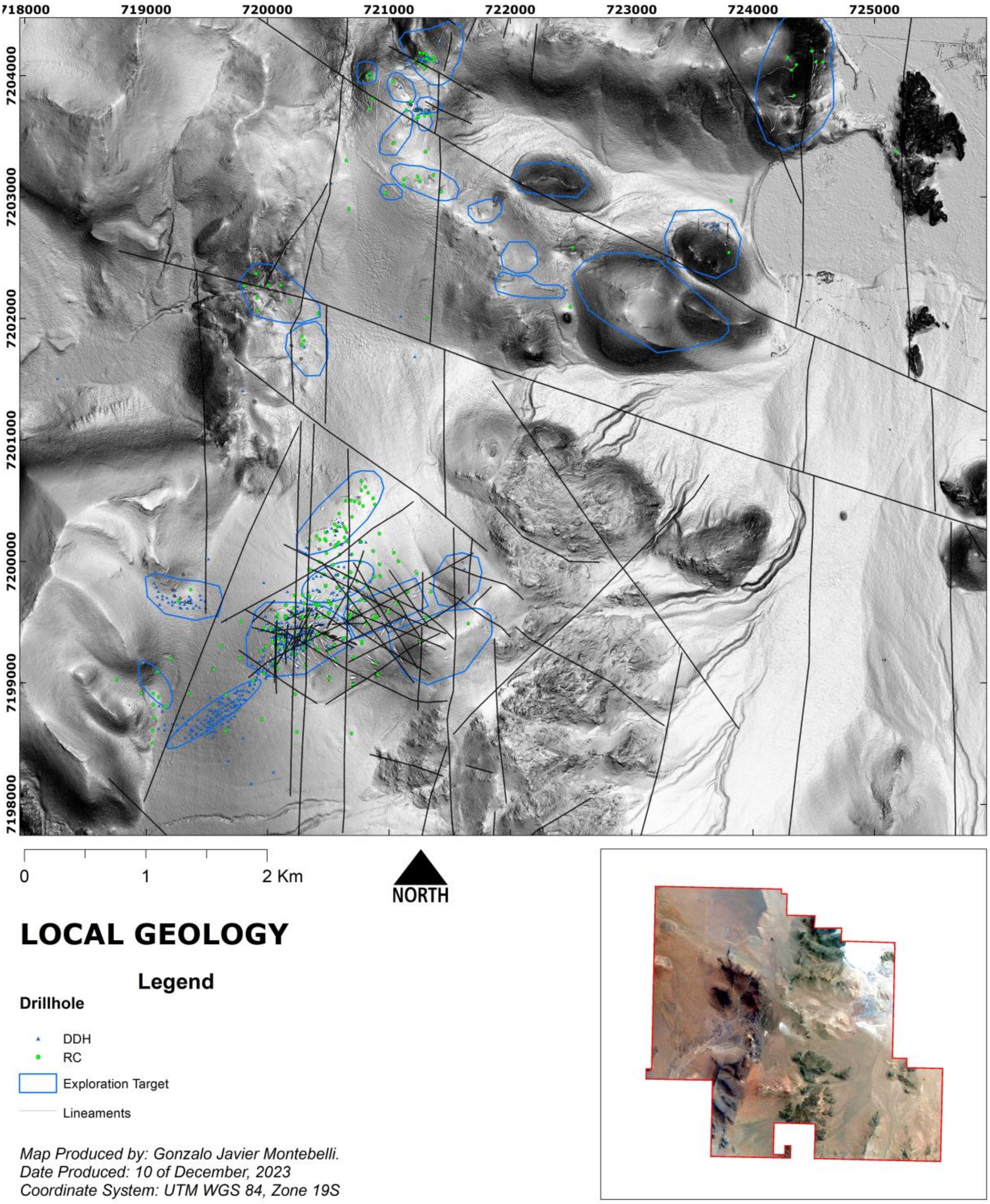


Figure 7-4: Main structural aspects and lineaments of Diablillos Project

Source: Internal mapping from AbraSilver Resource Corp., 2023

7.5 Mineralization

There are several mesothermal, and epithermal precious and base metal occurrences situated along the trend of the Diablillos-Cerro Galán Fault zone. Within the northern and central Puna, including Diablillos, Incahuasi, Cóndor Yacu, Inca Viejo, and Centenario (Figure 7-1 and Figure 7-2). Many of the mineral occurrences are spatially, and probably genetically, related to small Tertiary stocks and extrusive domes. They can be hydrothermally altered with disseminated and vein - hosted lead, zinc, silver, and gold (± tin, antimony, copper, and molybdenum) mineralization (Coira et al., 1993, quoted in Wardrop, 2009 and RPA, 2018).

There are several known mineralized zones on the Diablillos property. Oculto, JAC, JAC North, Fantasma, Laderas and Alpaca zones are the most important known to date (see Figure 7-5). The known mineralized zones are:

1. Oculto (including the Oculto NE and Deep)
2. JAC and JAC North
3. Fantasma
4. Laderas
5. Alpaca
6. Pedernales including the Pedernales Sur subzone (including Truchas and Saddle showings) and Pedernales Norte subzone (including Vicuña, Corderos, Suri, and Guanaco showings).
7. Cerro Bayo
8. Cerro del Medio
9. Cerro Viejo
10. Cerro Viejo Este

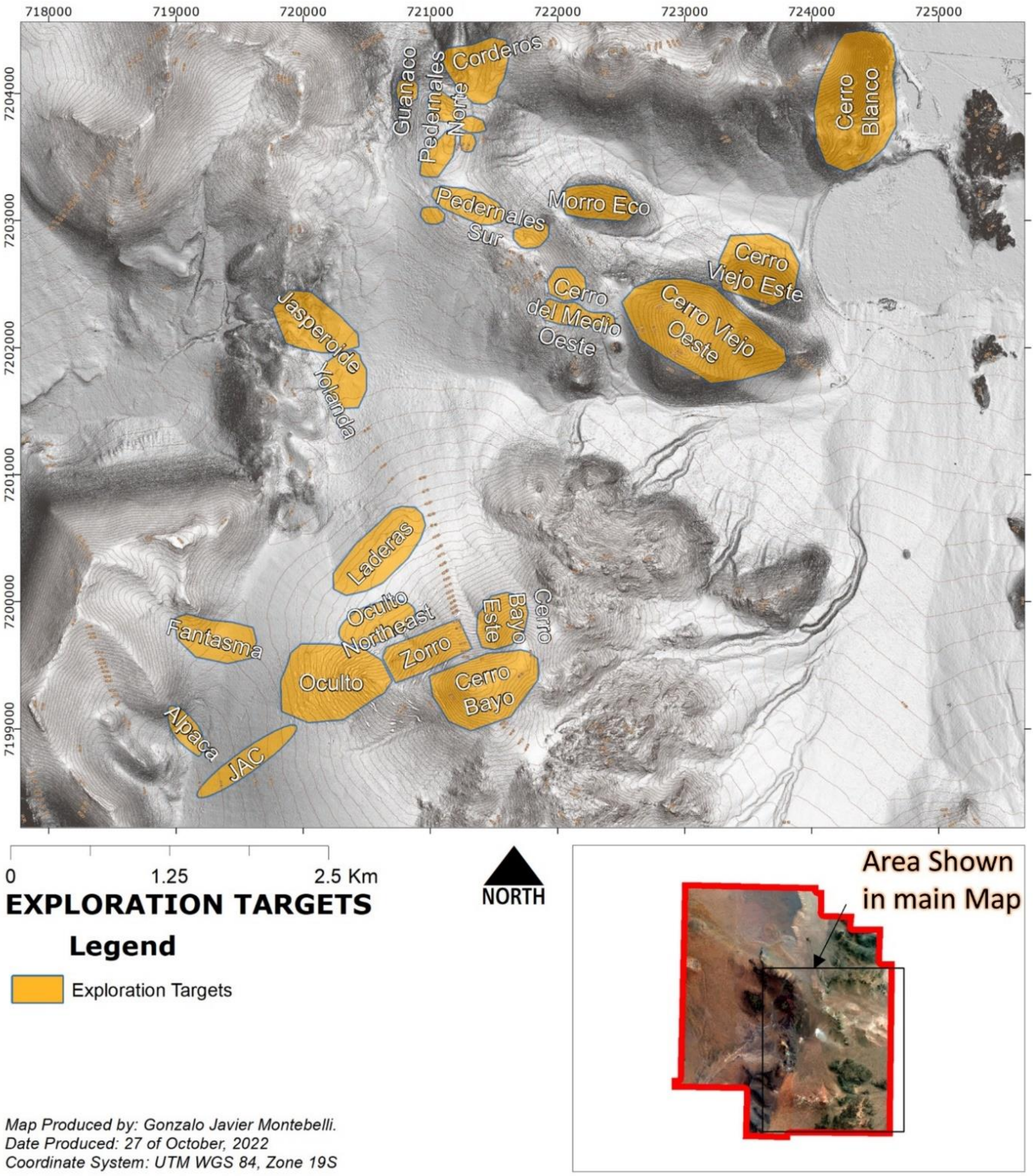


Figure 7-5: Diablillos Project mineral occurrences

Source: Internal mapping from AbraSilver Resource Corp., 2022

The majority of the mineral resources on the Property are hosted by the Oculto and JAC deposits. are the main known deposits on the property and contain most of the present Mineral Resource. They are components of These were formed as high-sulphidation epithermal silver-gold deposits following Tertiary-age local magmatic and volcanic activity. At surface there is a broad zone of intense acid leaching on the flank of Cerro Bayo. However economic mineralization notably does not appear in outcrop. Host rocks at surface are hornblende porphyritic andesite, intruded by a dacite porphyry. Tate (2018) hypothesized these to be the thermal driver for the mineralization. The andesites overlie a basement assemblage of phyllites and granitic rocks. At the contact between the andesite and basement, there is a paleo-surface occupied by a discontinuous breccia unit of widely ranging thickness. Recent drilling review suggests that this unit thickens along a trend corresponding to one of the predominant controlling structures. This zone is coincident with broader lateral extent of mineralization. Tate (2018) suggests that the conglomerate filled a paleo-trough related to that structure. Later reactivating and providing a conduit for ore-forming fluids.

The deposits are strongly oxidized to approximately 300 m to 400 m below surface. In the oxide zone, precious metal mineralization consists of native gold and chlorargyrite. Less common is iodargyrite, and locally common bismuthinite (Stein, 2001). These minerals can be found as fine-grained fracture fillings and vugh linings associated with quartz, jarosite, plumbojarosite, hematite, and goethite. Other accessory minerals include alunite, barite, native sulphur, and bismoclite.

Stein (2001) reported the occurrence of a high-grade zone at Oculto comprised of native gold, native silver, and acanthite. Accessory minerals included chlorargyrite, iodargyrite, and jalpäite in the southwest Oculto extremity. Gangue minerals in this zone included quartz, alunite, jarosite, iron oxide, and intergrowths of barite.

Hypogene mineralization comprises vein or breccia-hosted sulphides underlying the oxide zones. Primary sulphide and sulphosalt minerals include pyrite, galena, enargite, chalcopyrite, sphalerite, tennantite, and matildite. Accessory minerals include barite and alunite. Incipient supergene enrichment was observed by Stein (2001), where covellite partially replaced chalcopyrite and polybasite replaced tennantite. A review of drilling results conducted by Tate (2018) outlined a flat-lying zone of very high silver grades located between 100 and 120 m below surface. This zone has no apparent relationship with any contact or geological unit and is viewed as a possible zone of supergene enrichment.

The precious metal mineralization throughout the mineralized system occurs as extremely fine grains along fractures and in breccias or coating the inside of vugs and weathered cavities. Mineral grains are very difficult to identity in core or hand specimen, and much of the identification of these minerals was done using electron microscope or microprobe.

The main controls on alteration and mineralization are structural with some lithology influence (Figure 7-5, Figure 7-6 and Figure 7-7). Fluid flow propagated along predominantly east-north-easterly and north-easterly trending steep fractures. Flow was nevertheless present along the unconformable contact between basement granites and phyllites and the overlying Tertiary andesitic pile.

Gold-silver mineralization is observed to occur in tabular silica veins, disseminations in wall rocks, and siliceous hydrothermal breccias. Mineralization propagated laterally along the trend of the conglomerate and the Tertiary-Ordovician contact. This has imparted a complex geometry, with a broadly north-easterly trend consisting of steeply dipping, structurally hosted zones and horizontal tabular bodies. Mineralization occurs within a vertical range of 3,965 masl and 4,300 masl, predominantly between elevations of 4,050 masl and 4,250 masl.

The source of the mineralization in the epithermal system at the Oculto and JAC zones is interpreted as being a porphyry copper-gold intrusion at depth. Evidence for this is the occurrence of porphyry intrusive style veining in rock fragments incorporated in silica breccias. Precious metal mineralization in the oxide zone at Oculto includes both silver and gold. At JAC, oxide mineralization is silver-dominant, with very little gold. This zonation of metals is also evident within the underlying copper sulphide mineralization, with copper-gold at the Oculto zone and copper-silver at the JAC zone.

In the central and eastern portions of the property, up to an elevation of approximately 4,350 masl, the upper Tertiary rocks exhibit evidence of a late, shallow steam-heated alteration. This overprints the earlier hypogene alteration (MDA, 2001, quoted in Wardrop, 2009). Late stage altered rocks have a light grey colour and porous texture with abundant kaolinite and white, finely crystalline alunite, minor opal, and occasional native sulphur. Hypogene alteration of the volcanic rocks differs from that of the intrusive rocks at Diablillos, due to the different host mineralogy.

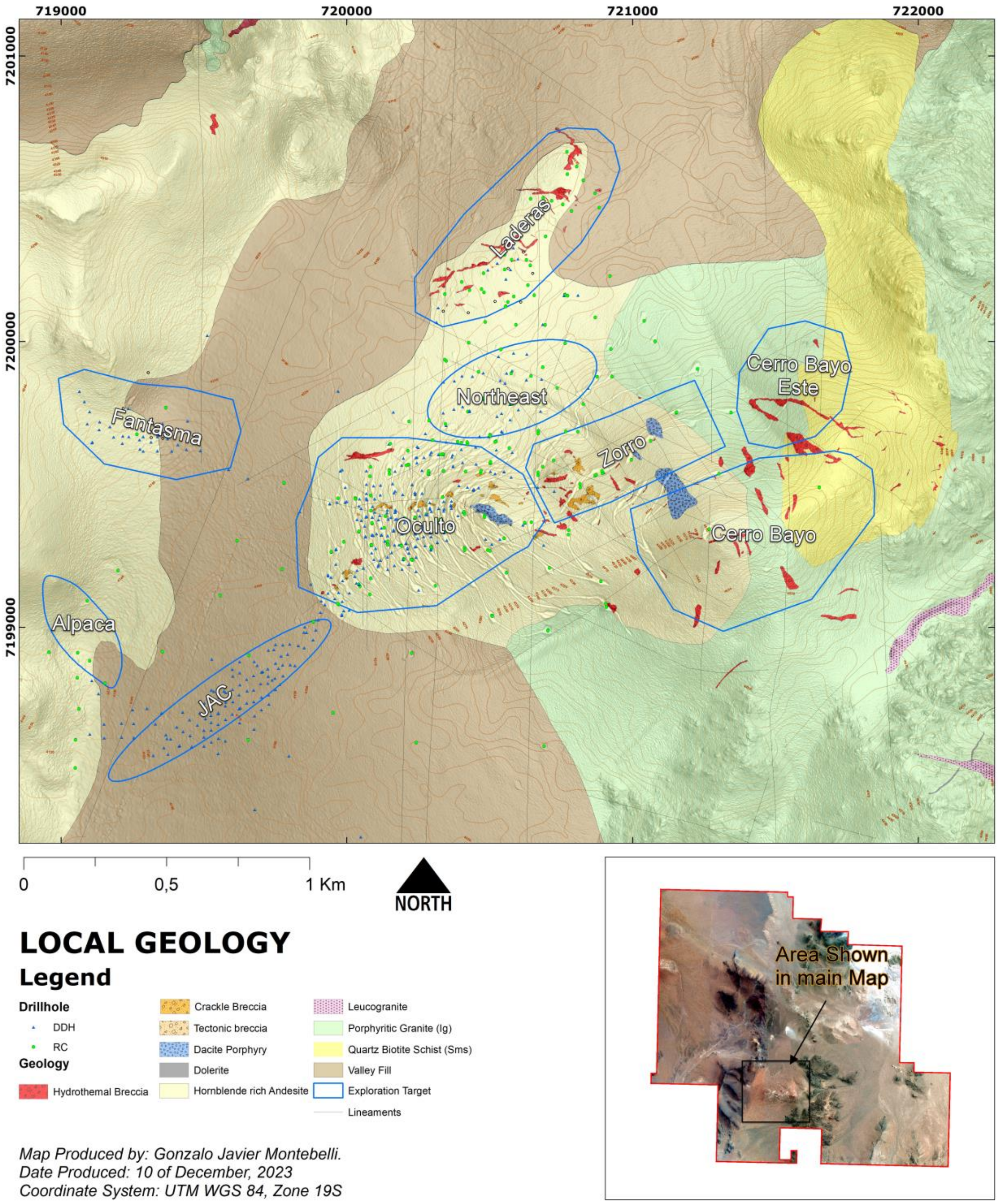


Figure 7-6: Oculto geology map

Source: updated from Ristorcelli and Ronning, 2001, with internal mapping from AbraSilver Resource Corp. 2023

Alteration facies of the volcanic and intrusive rocks mapped at Diablillos include:

- Alteration Facies in Upper Volcanic Rocks
    - Propylitic: Mainly characterized by chlorite, usually with significant development of clay minerals. Propylitic alteration has been observed on the surface at the Pedernales Sur zone and subsurface at Laderas and Oculto zones.
    - Intermediate Argillic: More abundant than propylitic alteration with clay minerals being dominant.
    - Advanced Argillic: Argillic alteration occurs in many mineralized zones and typically comprises clay minerals. At Oculto and Pedernales some alunite is present.
    - Quartz-Alunite: Alunite is typically the dominant or sole alteration mineral, sometimes completely replacing the protolith. Associated minerals identified in PIMA studies include dickite, pyrophyllite, and diaspore.
    - Vuggy Silica: The central core of the Oculto deposit consists of strongly developed vuggy silica, probably temporally related to late stage boiling epithermal fluids and steam alteration. Vughs may be lined or partly filled by pyrophyllite, dickite and diaspore, or by alunite.

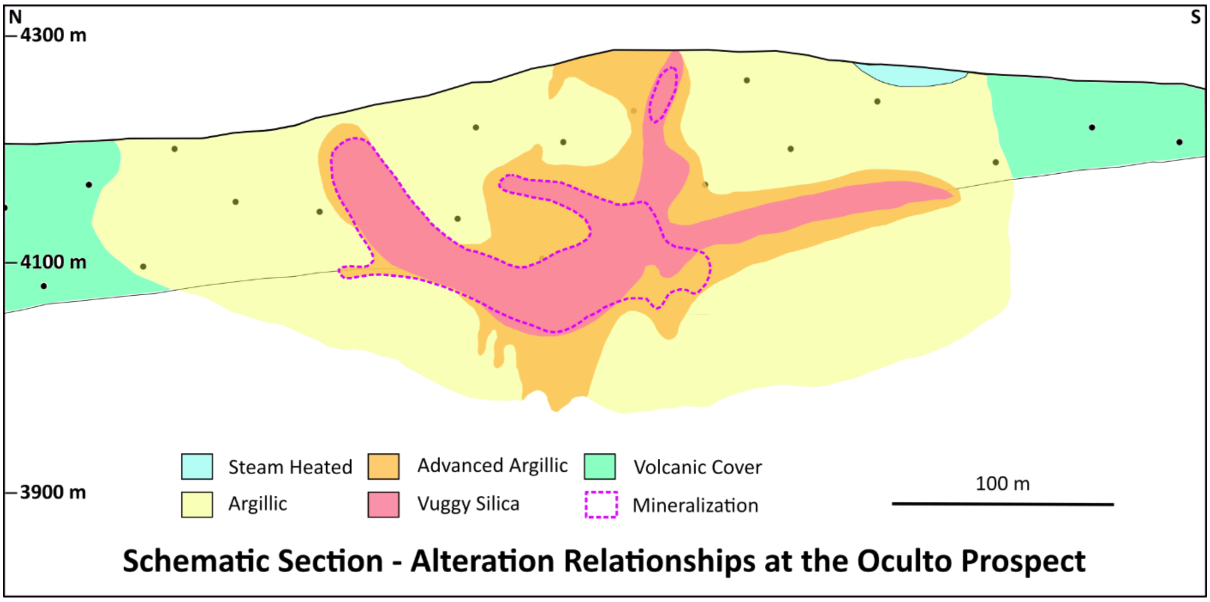


Figure 7-7: Oculto geology map

Source: Ristorcelli and Ronning, 2001

- Alteration Facies in Intrusive Rocks
    - Argillization: Occurs away from the locus of hydrothermal activity as clay alteration of feldspars and biotitization of mafic minerals.
    - Alunitization: Alunite occurs as fine-grained or microcrystalline masses replacing feldspars and mafic minerals in the granitic rocks. Alunite also occurs with quartz as veinlets and occasionally with jarosite.
    - Silicification: Silicification is most pronounced adjacent to main hydrothermal fluid channels. Tabular bodies of silica have the appearance of quartz veins or veinlets but are silicified granitoid rocks.

Figure 7-7 and Figure 7-8 show the conceptual mineralization model and the property-wide distribution of alteration facies.

Alteration at the Oculto deposit is similar in style and mineralogy to many high sulphidation epithermal systems with concentrically zoned assemblages (Figure 7-9). The core of the deposit is predominantly vuggy silica alunite, surrounded by a zone of pervasive alunite and clay alteration. In turn these grades outwards into kaolinite with illite, smectite, and chlorite (Stein, 2001). Pervasive chlorite alteration underlies the mineralization in the southwest. A steam-heated zone of alunite-clay-opal is preserved above 4,330 masl and outcrops in the central portion of the deposit.

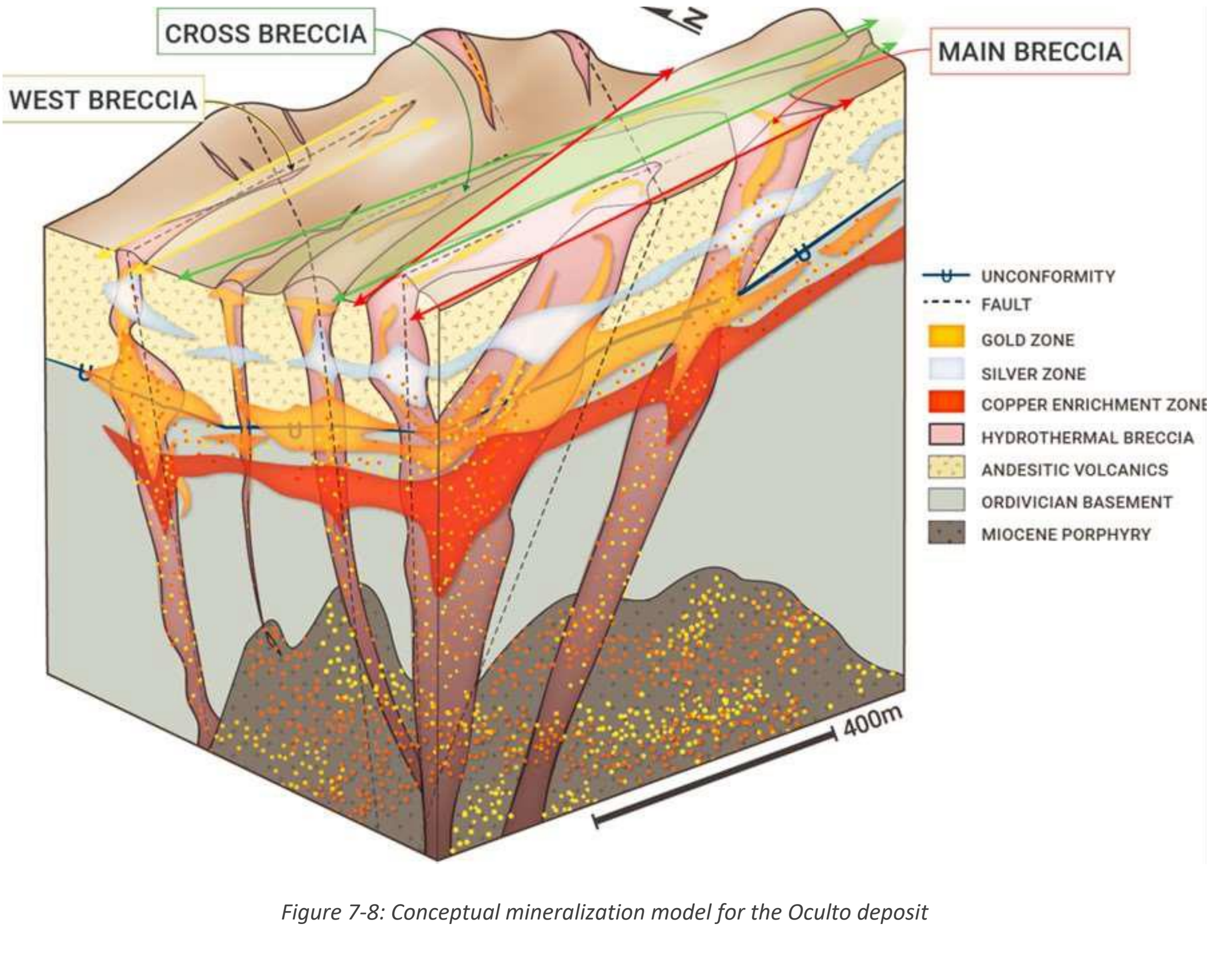


Figure 7-8: Conceptual mineralization model for the Oculto deposit

Source: AbraSilver Resource Corp., David O'Connor, 2019

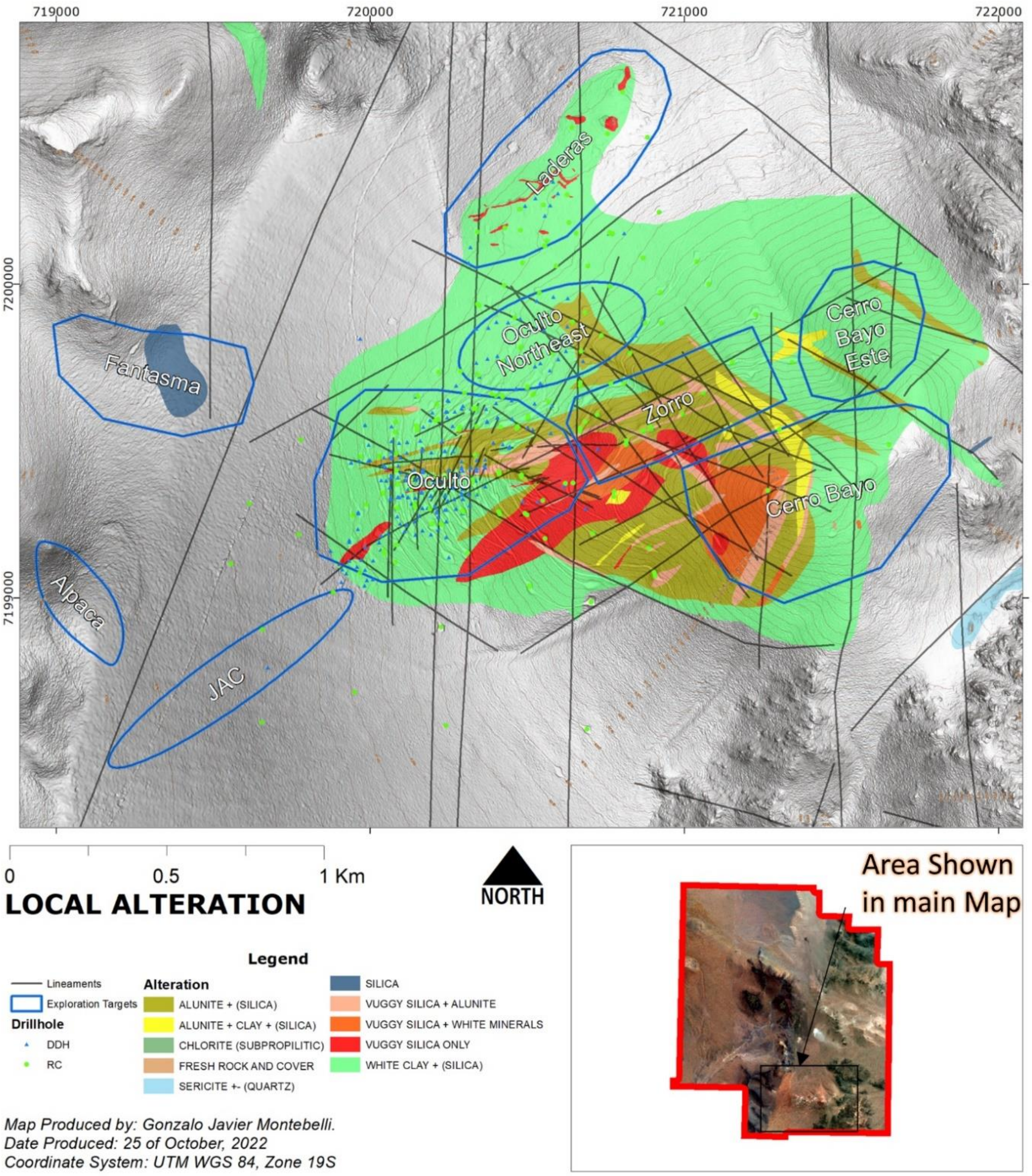


Figure 7-9: Alteration map for the Oculto deposit

Source: Modified from Ristorcelli and Ronning, 2001 with internal mapping of AbraSilver Resource Corp., 2022

8 DEPOSIT TYPES

The Diablillos deposits are examples of high-sulphidation epithermal silver-gold mineralization driven by hydrothermal fluid activity at shallow depth. The principal mineralizing process is by convective flow of meteoric waters driven by remnant heat from intrusive activity at depth and often related to copper porphyry systems. The term "high-sulphidation" refers to the dissociation of magmatic SO_2 in aqueous solution into H_2SO_4 and H_2S resulting in a highly acidic environment responsible for the diagnostic assemblage of alteration facies. Mineral occurrences are structurally and hydrostatically controlled. Deposition occurs as open space filling at or near the level at which boiling occurs or where hydrothermal fluids mix with meteoric waters. They characteristically subtend a limited vertical range, except where cyclical healing and failure of fractures results in up and down migration of the boiling zone.

High-sulphidation epithermal mineral deposits form in subaerial volcanic complexes of intermediate to felsic composition. Often associated with shallow porphyry intrusions in island arc, back arc, or trans tensional tectonic regimes. Volcanic host rocks are typically andesitic to rhyodacitic flows, pyroclastic rocks and their subvolcanic intrusive equivalents. The age of many deposits is close to that of the volcanic rocks and typically ranges from Tertiary to Quaternary, although older examples are known.

Principal economic minerals include native gold, acanthite, electrum, chalcocite, covellite, bornite, and enargite/luzonite. Accessory minerals include pyrite, chalcopyrite, sphalerite, tetrahedrite/tennantite, galena, marcasite, arsenopyrite, silver sulphosalts, and tellurides. Dominant gangue minerals are quartz and pyrite, occasionally with barite. Alteration is characterized by lateral and vertical zonation of silicic, advanced argillic, argillic, sericitic, and phyllitic facies. Rocks typically have a bleached appearance owing to the acidity of the mineralizing solutions. These deposits can encompass a wide range of geometries from large, low-grade variants to smaller, higher-grade narrow vein types.

Following hydrothermal mineralization, the upper 200-300 meters was oxidized by meteoric weathering. Cu and Ag sulphides may be partially remobilized to form a thin silver enriched oxide layer. An enriched copper sulphide layer forms at the base of oxidation, with secondary chalcocite coating and replacing primary pyrite and chalcopyrite mineralization.

Examples of high - sulphidation epithermal deposits from the Andes include Yanacocha (Peru); El Indio (Chile); Lagunas Nortes/Alto Chicama (Peru); Pierina (Peru); Veladero (Argentina); and Filo del Sol (Argentina).

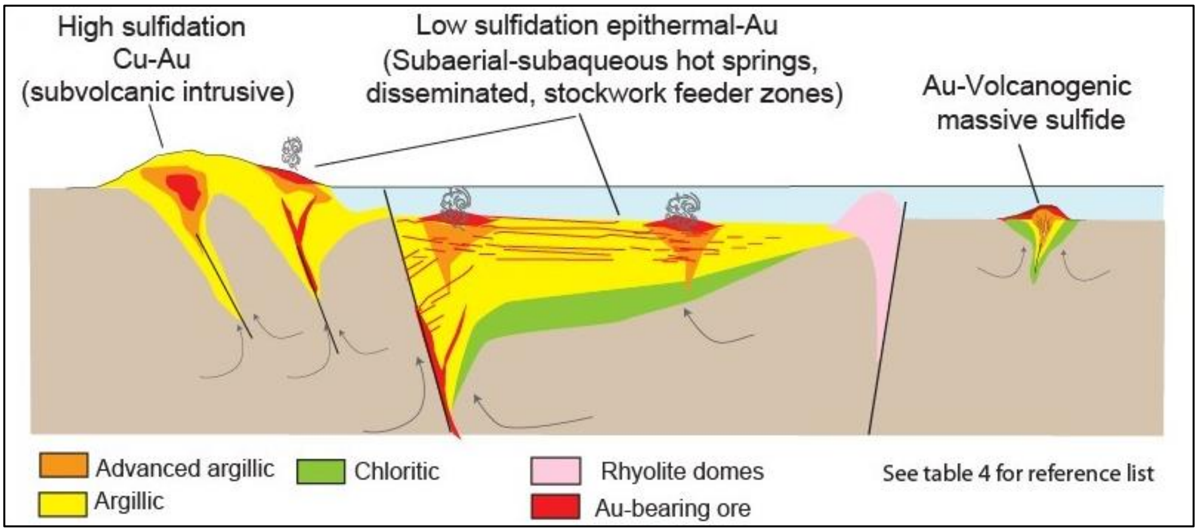


Figure 8-1: schematic cross section of high sulphidation and low sulphidation deposits

Source: Gold deposits, USGS, 2012

9 EXPLORATION

This section builds upon the prior Technical Reports RPA (2018); MP (2021); MP PEA (2022) and LRP MRE (2022) and LRP MRE (2023).

There are several known mineralized areas in the Diablillos Project, with the Oculto and JAC zones the most significant. Mineral Resources were additionally estimated at the Fantasma zone based on historical drilling and on the Laderas zone. A location map of the various exploration targets is shown in Figure 9-1. Many of these targets have been mapped, trenched, and drilled by former operators.

Since acquiring the property, AbraSilver has continued exploration. In 2017 this included reconnaissance, geological mapping, and diamond drilling (at Fantasma). Geological mapping and an overall review of exploration data was carried out by AbraSilver consulting geologist, Nick Tate.

Targets remote from the existing Mineral Resources are considered longer-term exploration projects while closer targets have potential to add resources. Close-range, near-term targets include the Oculto and Fantasma deposits themselves, Laderas, Alpaca and JAC. Most longer-term distal targets, except Yolanda, are aligned along a curving trend collectively known as the Northern Arc zones (Figure 9-1). These zones include Cerro Viejo Este and Oeste, Cerro del Medio Norte, Pedernales, and Corderos. This group of prospects lies three to four kilometres north-northeast of the Oculto deposit. All encompass epithermal silver-gold targets similar in style to Oculto. Cerro Viejo shows potential for porphyry mineralization.

9.1 Extensions to existing Deposits.

The Oculto and JAC deposits have been the most explored prospects in the project area. Further drilling aims to confirm and upgrade classification. Several open zones additionally have the potential for expansion.

Tate (2018) observed that a broad horizontal zone of higher-grade gold mineralization occurs near the contact of Tertiary volcanic rocks and the Ordovician basement assemblage. This Deep Gold zone ("DG") as termed by Tate, is approximately 30 m thick. In parts this correlates with the erosive breccia / conglomerate contact. This contact represents a target for exploration. Recent drilling shows precious metal mineralisation extending beyond the base of the Tertiary volcanic rocks into the underlying Ordovician basement assemblage.

Tate (2018) has also observed that a high-grade zone of silver ("SE") measuring approximately 40 m in thickness occurs at a depth of between 100 m and 140 m. While this zone is not co-incident with a specific stratigraphic horizon, it may represent supergene enrichment close to a paleo water table. This zone represents a target horizon at Oculto.

Two satellite bodies have been intersected in the east (Oculto Northeast) and north-east (Cerro Bayo Este & Zorro) (see Figure 9 2). These zones have limited drilling but are coincident with surface exposures of breccia and the two mineralized horizons proposed by Tate. As such, AbraSilver considers these targets to have significant potential to add Mineral Resources alongside potential expansion to the northeast. Mineral Resources for this Oculto Northeast Zone is currently categorized as Indicated and Inferred, while no Mineral Resources have been modelled for Cerro Bayo Este & Zorro due to limited quantity of drilling.

Tate (2018) also noted potential along strike of two of the principal controlling structures in the Oculto deposit. Potential exists to the southwest (JAC) along the northeast southwest and east-northeast striking fracture zones that traverse the deposit (see Figure 9-2).

The Fantasma zone located one kilometre west of Oculto is silver dominant mineralization with minimal gold. It is interpreted as a distal part of the epithermal system. The westerly-striking fault system at Oculto trends toward Fantasma (Figure 9-2) and has potential to expand the Fantasma deposit eastwards to connect with Oculto.

The recently discovered JAC deposit is located 500 meters to the southwest of the Oculto zone and is also silver dominant. The JAC mineralization strikes parallel to breccia zones at Oculto and is an extension of the epithermal system. Additional drilling is planned to verify an extension.

Drilling completed in the 2024 campaign testing for southwest extensions of the JAC Zone, which was discovered in the 2023 drilling campaign, included the following intercepts: -

Hole DDH 24-003 - 33.0m @ 87.0 g/t Ag
Hole DDH 24-004 - 33.4m @ 245.0 g/t Ag
Hole DDH 24-005 - 26.0m @ 113.0 g/t Ag
Hole DDH 24-014 - 48.8m @ 70.0 g/t Ag
Hole DDH 24-016 - 53.5m @ 110.0 g/t Ag
Hole DDH 24-018 - 31.5m @ 277.0 g/t Ag
Hole DDH 24-020 - 53.0m @ 58.0 g/t Ag
Hole DDH 24-023 - 24.0m @ 76.0 g/t Ag
Hole DDH 24-033 - 50.0m @ 250.0 g/t Ag
Hole DDH 24-038 - 62.0m @ 175.0 g/t Ag
Hole DDH 24-039 - 52.0m @ 42.0 g/t Ag
Hole DDH 24-044 - 37.0m @ 152.0 g(/t Ag
Hole DDH 24-045 – 12.0m @ 107.0 g(/t Ag
Hole DDH 24-046 – 12.0m @ 107.5g/t Ag

The results of these holes will be included in an updated Mineral Resource and Reserve estimate.

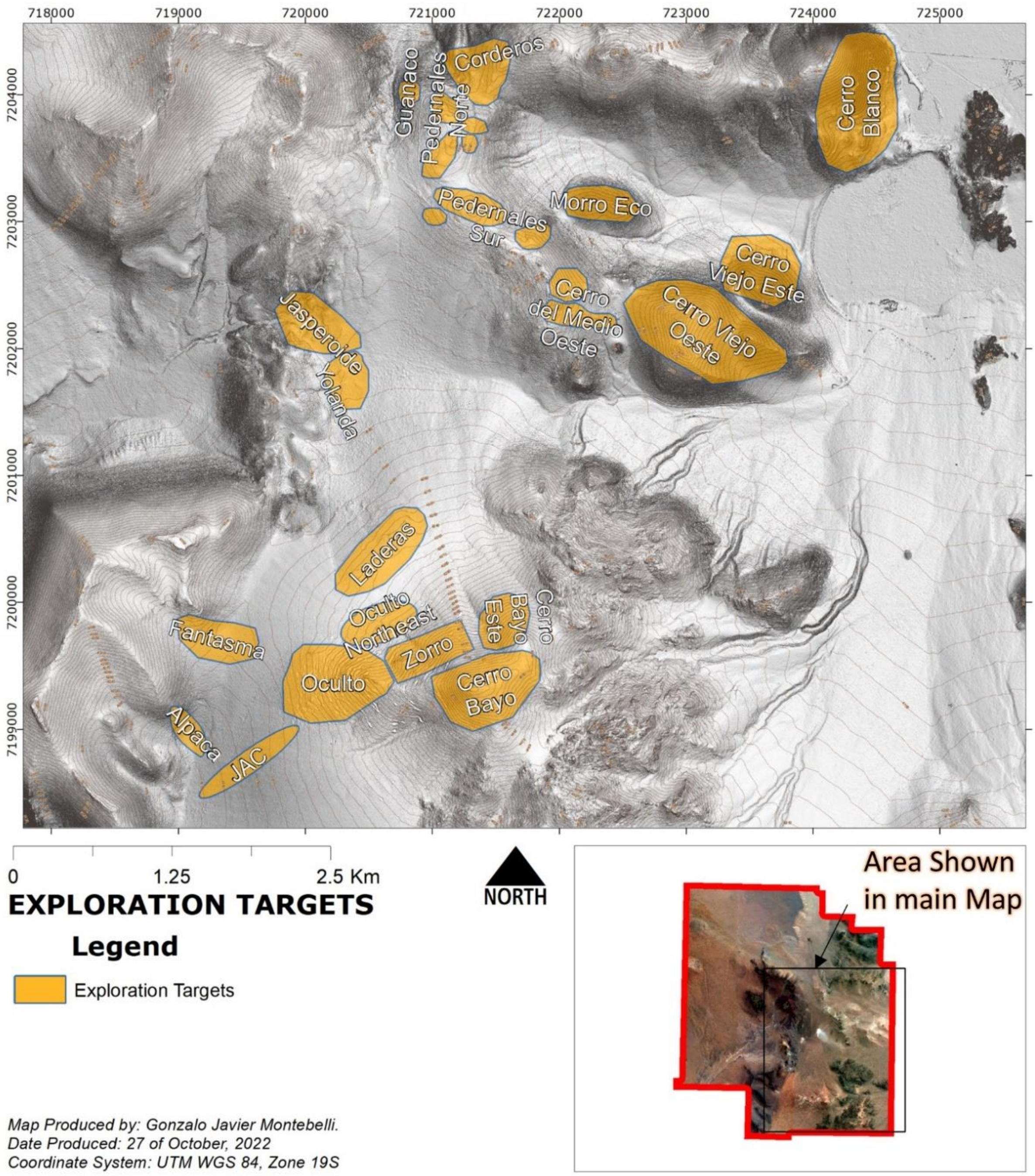


Figure 9-1: Exploration target areas at the Diablillos Project

Source: AbraSilver Resource corp., 2022

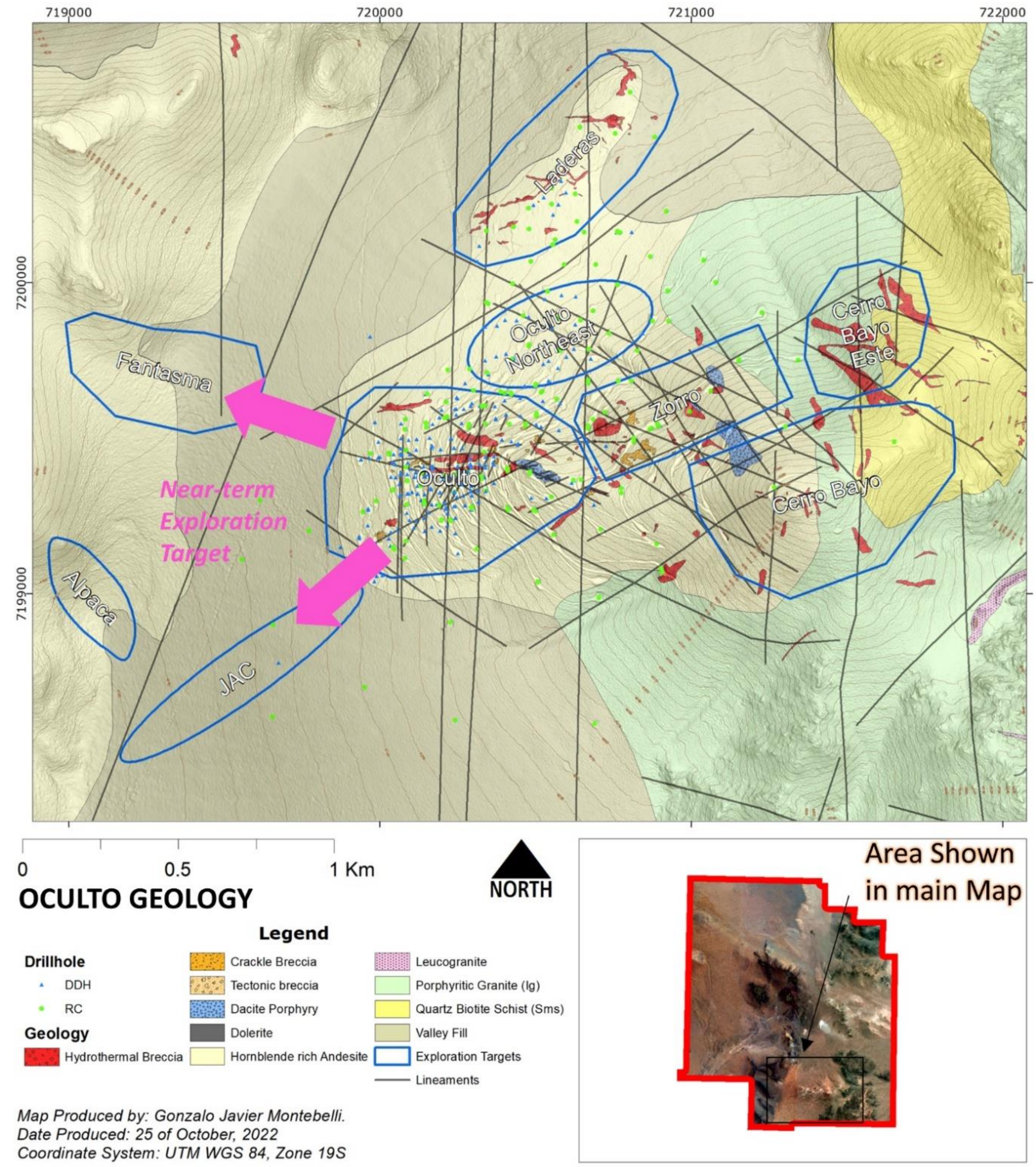


Figure 9-2: Near term exploration targets at the Diablillos Project

Source: AbraSilver Resource Corp., 2022

9.2 Near-Term Exploration Prospects

Drilling has not fully explored potential targets around Oculto. Opportunities may exist to expand the Mineral Resource within existing deposits and explore for new mineralized zones.

AbraSilver has established a priority sequence with a focus on areas close to the Oculto and JAC deposits. Targets include linear zones of low-magnetic intensity interpreted as where hot acidic hydrothermal fluids have destroyed host rock magnetite. This style of target definition led to the discovery of the JAC deposit.

Drilling has shown that the Oculto mineralised system extends both east and north of the margin of the conceptual open pit margin where silver and gold are associated. Intercepts in these areas include: -

Hole DDH 24-011 –21m @ 131.3 g/t Ag and 0.36 g/t Au.
Hole DDH 24-015 – 6m @ 19.9 g/t Ag and 0.31 g/t Au.
Hole DDH 24-017 – 14.5m @ 160.3 g/t Ag.
Hole DDH 24-021 – 5m @ 31.7 g/t Ag and 0.19 g/t Au.
Hole DDH 24-024 – 11m @ 47 g/t and 0.19 g/t Au.
Hole DDH 24-027 – 19m @ 39.9 g/t Ag and 0.14 g/t Au.
Hole DDH 24-031 – 15m @ 495.6 g/t Ag and 0.28 g/t Au.
Hole DDH 24-034 – 5m @ 29.8 g/t Ag and 0.61 g/t Au.
Hole DDH 24-040 – 9m @ 52.3 g/t Ag and 2.10 g/t Au.
Hole DDH 24-043 – 4.3m @ 0.52 g/t Au.

The mineralisation in this area is strongly structurally controlled and a detailed structural map was prepared during 2024 to guide ongoing drilling. The results of ongoing drilling are awaited and the mineralised system is open ended, warranting additional drilling.

The Laderas target lies immediately north of Oculto, along the trend of a prominent east west ridge (Figure 9-2). Geological mapping and review of Laderas drill results conducted in 2017 indicated that gold and silver mineralization occurs where those vertical structures intersect favourable horizons (like the paleo-surface bx). Like Oculto, there is potential for mineralization at depth within structurally controlled breccias hosted in Tertiary sedimentary and volcanic rocks (Tate, 2017). Controlling structures are steeply dipping and strike in various orientations. The northwest, west-northwest, and westerly striking structures dip at 75° to 85° to the south to southwest. The east-northeast and northeast striking structures appear to dip north-westerly. Mineralized zones are accompanied by silica-alunite alteration which rapidly grades outward to alunite at the breccia walls.

At the Fantasma-Oculto zone a small, shallow silver mineralization occurs at the northwest end of a linear zone of low magnetic intensity. This extends for about one kilometre from Oculto. AbraSilver drilled two reconnaissance holes in the centre of this magnetic anomaly and intersected shallow silver mineralization. This demonstrates potential for continuity between the Oculto and Fantasma deposits.

Historical drilling in the Alpaca zone intersected moderate grade silver mineralization (see Figure 9-2). This is located approximately 200 meters northwest of JAC following a northwest trending zone of low magnetic intensity. Whereas the JAC resource follows an east-northeast trending magnetic low, the northwest anomaly extending from JAC to Alpaca is interpreted as being conjugate structures into which hydrothermal fluids migrated. Drilling between Alpaca and JAC intersected broad silver mineralization within granitoid basement rocks. This indicates a possible extension of the mineralizing system beneath andesitic flows.

9.3 Planned Exploration

While there are various exploration targets at Diablillos, priority has been placed on upgrading Inferred Mineral Resources, and on targets considered to have potential to add high-grade mineralization. Target areas for drilling include:

- JAC zone
- Fantasma zone
- Alpaca zone
- Laderas zone
- Extension and Mineral Resource definition of Oculto surroundings
    - Oculto NE (definition)
    - Shallow mineralization (in Fantasma direction)
    - Shallow mineralization (in Alpaca direction)

Planned work includes the re-logging of historical core to maintain consistency with the new geological and alteration model.

In addition to target areas peripheral to the Oculto and JAC zones, there is outcropping porphyry style alteration and veining in the Cerro Blanco and Cerro Viejo areas located approximately 4 km northeast of Oculto, see figure 9.1. A TITAN ground geophysical survey was completed over this porphyry camp to assist in drill target definition. An initial four-hole drilling program was completed in 2024, the analytical results of which are pending.

In the author's opinion exploration targets defined by AbraSilver geologists at Diablillos have been established using sound geological observations and interpretations. The author recommends the planned exploration work to be undertaken.

10 DRILLING

This section builds upon the prior Technical Reports RPA (2018), MP (2021), MP PEA (2022) and LRP MRE (2022) and LRP MRE (2023).

Prior to AbraSilver's acquisition, previous operators had completed 476 RC and diamond drillholes and 26 trenches totalling 87,594.55 meters. BHP Utah drilled a single RC hole in 1990. Details of this drilling can be found in Wardrop (2009), MDA (2001), M3 (2011) and RPA (2018).

Much of the earlier drilling was completed in the Oculto zone. In 2016, AbraSilver completed further drilling at the Oculto and JAC zones. Additional reconnaissance holes were drilled in other areas including Laderas, Fantasma, Alpaca and the Northern Arc. The Figure 10-1 shows the location of drillhole collars while Table 10-1 provides a list of holes by year, type and length.

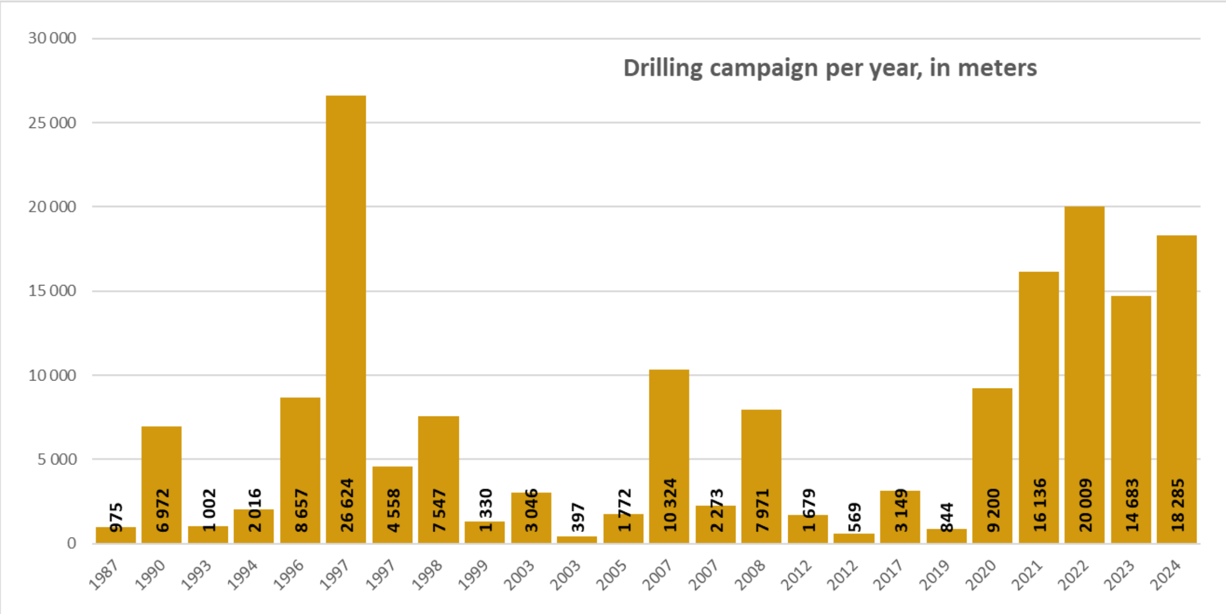


Figure 10-1: Summary of drilling campaign per year at Diablillos Project

Source: AbraSilver Resource Corp., 2024

Table 10-1: Summary of drilling campaign by year, AbraSilver Resource Corp. – Diablillos Project

Drilling Campaign	Type of Hole	Number of Holes	Meters Drilled	Average Meters Drilled	Min Meters Drilled	Max Meters Drilled
1987	RC	34	975	29	3	34
1990	RC	56	6,972	125	50	250
1993	DDH	5	1,002	200	146	254
1994	DDH	12	2,016	168	25	255
1996	RC	32	8,657	271	140	400
1997	RC	102	26,624	261	49	413
1997	DDH	19	4,558	240	31	380
1998	RC	24	7,547	314	220	370
1999	DDH	5	1,330	266	191	450
2003	RC	20	3,046	152	48	282
2003	DDH	6	397	66	46	76
2005	RC	10	1,772	177	101	252
2007	DDH	54	10,324	191	31	365
2007	Trench	20	2,273	114	38	284
2008	DDH	52	7,971	153	40	355
2012	DDH	19	1,679	88	41	126
2012	Trench	6	569	95	47	145
2017	DDH	28	3,149	112	40	327
2019	DDH	2	844	422	380	464
2020	DDH	34	9,200	271	50	610
2021	DDH	69	16,136	233	50	451
2022	DDH	88	20,009	227	22	411
2023	DDH	82	14,683	179	30	245
2024	DDH	85	18,285	211	89	749
Subtotal	RC	278	55,593	190	87	286
Subtotal	Trenches	26	2,841	104	43	214
Subtotal	DDH	475	93,297	201	80	341
Grand total		**779**	**151,732**	**189**	**79**	**313**

The Oculto, JAC, Fantasma and Laderas zones are shown in Figure 10-2 and Figure 10-3 including drilling used in the Mineral Resource estimate.

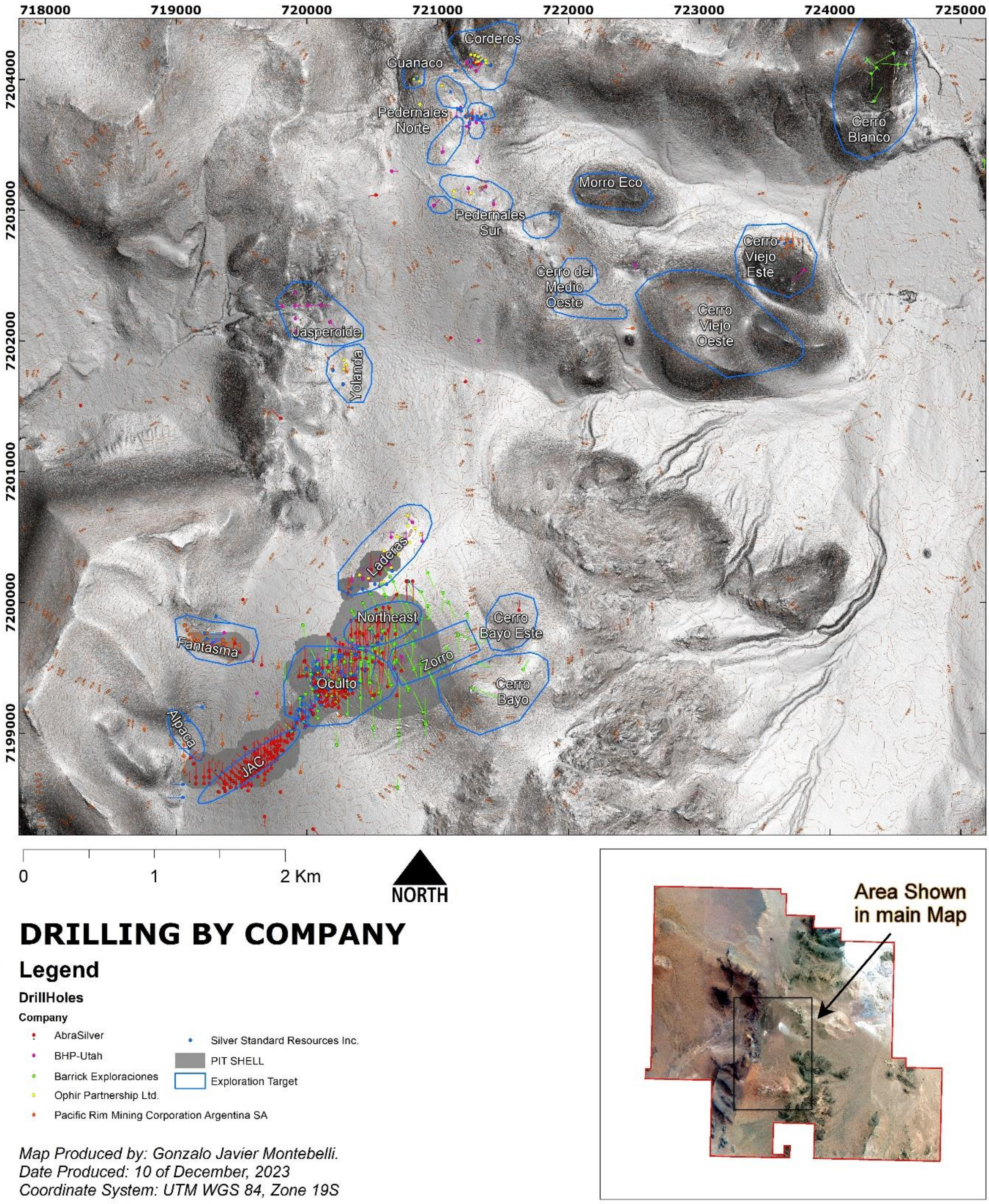


Figure 10-2: Diablillos drill hole locations by company

Source: AbraSilver Resource Corp., 2023

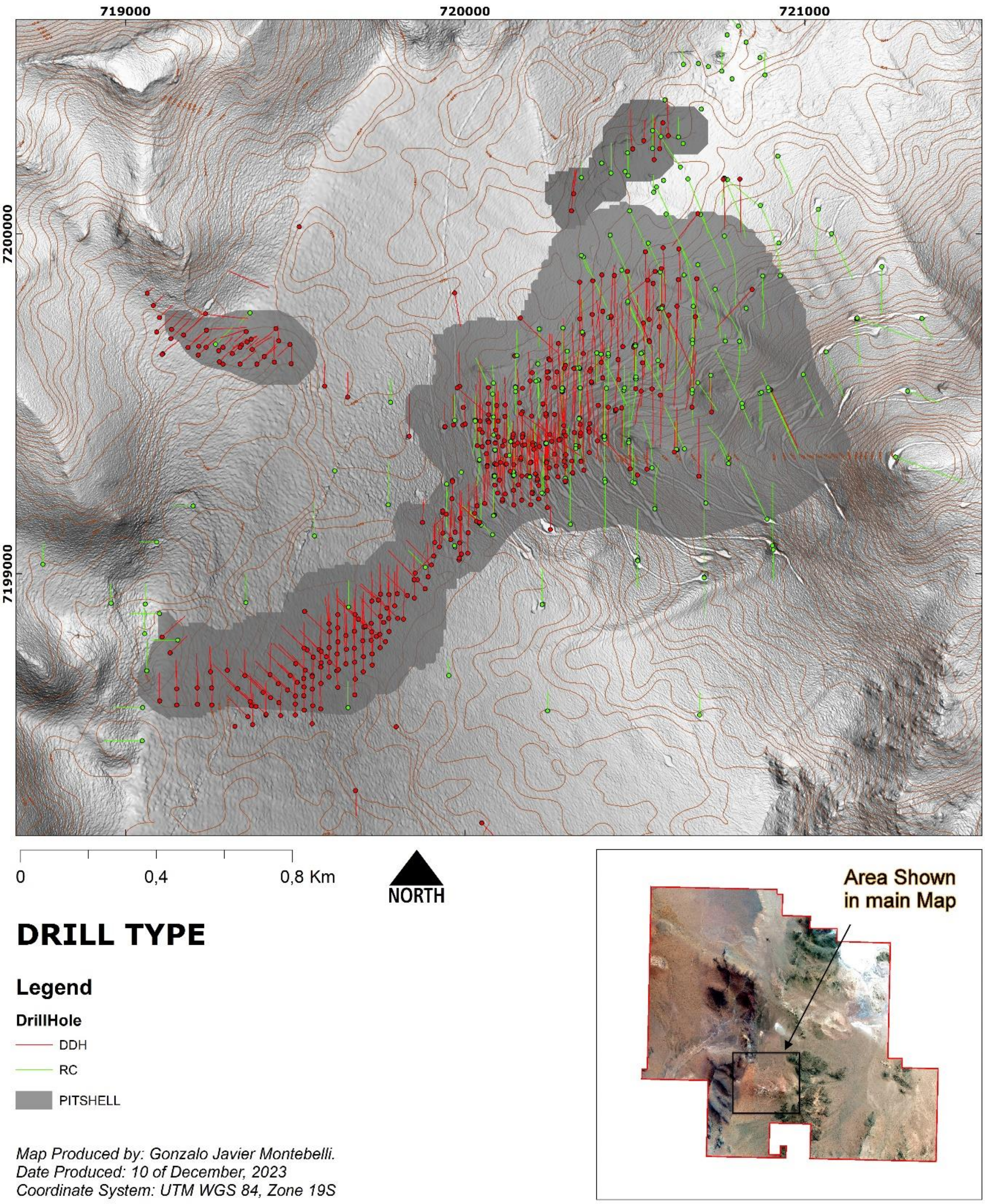


Figure 10-3: Oculto drill hole locations, coloured by type

Source: AbraSilver Resource Corp., 2023

10.1 Drilling Campaigns arranged by Year

10.1.1 Drilling campaign 1987

Ophir drilled 34 shallow RC holes with an aggregate length of 975 m, mostly at the Laderas zone. No drilling was conducted in the Oculto zone. Drilling was carried out by contractor Dresser Atlas. No technical information could be found in the database regarding hole sizes, surveys, or equipment.

10.1.2 Drilling campaign 1990

In 1990, BHP drilled 56 RC holes totalizing 6,972 m, six of which were in or around the Oculto zone. The drilling contractor for this work was also Dresser Atlas.

10.1.3 Drilling campaign 1993 - 1994

During 1993-1994, Pacific Rim contracted Connors Argentina to perform 3,018 m of DDH drilling in 17 holes. Holes were generally collared as HQ and subsequently reduced to NQ. The program was entirely focused on the Oculto zone. Holes were oriented along sections aligned north-south as well as at approximately 155°/335°. All holes were inclined at dips between -45° and -65°. Drilling conditions were reportedly poor, with several holes failing to reach target (Wardrop, 2009). Holes DDH-094-008 and DDH-094-008b were abandoned at 24 m and 57 m, respectively, and holes DDH-094-006 and DDH-094-011 were terminated due to rods twisting off in the holes (M3, 2012). There does not appear to have been routine downhole surveys, although reportedly acid dip tests were performed on holes DDH-094-001 and DDH-094-004.

10.1.4 Drilling campaign 1996 - 1997

Barrick drilled 134 RC holes totalling 35,281 m and 19 diamond drill holes totalling 4,558 m, in the Oculto zone. Drilling was conducted along both north-south and 155° section planes. The program included twinning four RC holes with diamond holes. Boytec Boyles Bros. was the drilling contractor, with RC holes drilled using Drillteck D40K and Ingersoll Rand TH75 machines. Hole diameters were 5 ¼ in. (13.34 cm) and oriented at inclinations ranging from -47° to vertical. Most holes encountered water, which required collection of wet samples. Samples were collected every meter down the hole, while composites were collected every five metres for PIMA analysis. A truck mounted Longyear 44 rig was used for diamond drilling. Holes were collared as HQ and reduced at 200 m downhole to NQ. Downhole surveys were done either with a Reflex Maxibor or simply acid dip tests. Acid tests were conducted every 50 m, while Maxibor readings were every ten meters.

10.1.5 Drilling campaign 1998

Barrick drilled 24 RC holes totalizing 7,547 m. Drilling was conducted along both north-south and 155° section planes. Boytec Boyles Bros. was the drilling contractor, RC holes were drilled using Drillteck D40K and Ingersoll Rand TH75 machines with hole diameters of 5 ¼ in. (13.34 cm).

10.1.6 Drilling campaign 1999

Barrick drilled 5 diamond holes in the Oculto zone totalling 1,330 m. Drilling was aligned both north-south and on 155° section planes. A truck mounted Longyear 44 rig was used.

10.1.7 Drilling campaign 2003

Pacific Rim, on behalf of SSRI, drilled 3,443.2 m in 26 holes, 20 RC holes and 6 diamond holes primarily on the Oculto zone, as well as at Corderos, Alpaca and Pedernales. The drilling contractor was Patagonia Drill Mining Services (Patagonia). Most holes were inclined along north direction. Only 10 RC holes have been included in this Mineral Resource estimation. No information was available in terms of the survey methods.

10.1.8 Drilling campaign 2005

Ten reverse circulation drill holes totalling 1,772 m were drilled by Pacific Rim/SSRI. Five targeted Oculto and the other five Alpaca. The holes were drilled by Patagonia Drilling. All holes were inclined ranging from -60° to -70°, with south direction for Oculto and west for Alpaca.

10.1.9 Drilling campaign 2007

Pacific Rim/SSRI drilled 54 diamond holes, totalling 10,324 meters. Drilling was carried out by Major Drilling. Eight of these holes, the LC and PN series, were not drilled at Oculto. The balance was drilled along north-south oriented section planes, at inclinations ranging from vertical to -45°. The inclined holes were directed both north and south. Four of the Oculto holes provided sample material for metallurgical test work.

Drill collars were surveyed by differential GPS, with downhole surveys taken at 50 m intervals. The downhole survey instrument type was not reported. As both azimuth and dip information were recorded, the author infers that an instrument such as the Maxibor was used.

Eight holes were reportedly abandoned or terminated due to difficult drilling conditions.

10.1.10 Drilling campaign 2009

In 2009, a total of 7,911 m of HQ diamond drilling was completed at Oculto. 52 holes as contracted by Pacific Rim/SSRI to contractor Major Drilling. All but two holes were drilled along the north-south orientation. DDH-08-067 and DDH-08-067A, were however oriented at azimuth 335° (i.e., the 155° section planes). Three holes, the KP series, were drilled for geotechnical purposes. The remainder were intended to further define Oculto. Collar locations for holes DDH-08-063 to DDH-08-071 were surveyed by differential GPS. The balance, DDH-08-072 to DDH-08-108, were surveyed by compass and tape from existing collars. AbraSilver additionally re-measured every hole with differential GPS, updating collar coordinates during the 2020 drilling campaign. Downhole surveys were collected at 50 m intervals, again presumably with a Maxibor or similar instrument.

10.1.11 Drilling campaign 2012

Pacific Rim/SSRI drilled 19 holes, totalling 1,679 m in the Fantasma, Laderas, Cerro Viejo, and Pedernales zones. The work was conducted under contract by CAP S.A. No holes were drilled at Oculto.

10.1.12 Drilling campaign 2017

AbraPlata drilled 28 diamond holes at Diablillos in 2017, totalling 3,149 meters. All were in the Fantasma zone. BHP Utah also drilled a single RC hole in 1990. Barrick excavated six trenches, but the sampling results have been lost. In 2011, SSRI cleaned out and re-sampled the trenches, then drilled four diamond holes (see Table 10-1). These holes intersected mineralization, but the drilling was not extensive enough to permit an estimate of Mineral Resources for Fantasma. The 2017 drilling program was successful in expanding and confirming the extent and tenor of the silver mineralization.

10.1.13 Drilling campaign 2019

AbraSilver drilled 2 diamond holes in Oculto in 2019, totalling 844 meters. A new interpretation of the project was given following Tate's visit to the Diablillos project. These two holes were drilled to test for vertical gold and silver mineralizing fluids migrating laterally.

10.1.14 Drilling campaign 2020

AbraSilver drilled 34 diamond holes in 2020, totalling 9,200 meters. Two at Laderas, three at Oculto Northeast and the remainder in Oculto itself. All were designed to test the conceptual basis of the deposit. The holes were oriented north-south, dipping between 60° to 65°. Almost all holes intercepted mineralization. The first five holes were executed by drilling contractor FORACO, the others Hidrotec Perforaciones. All holes were drilled in HQ core size. Collar locations were surveyed using differential GPS with an RTK system. Collar orientations were determined with a compass. Downhole surveys were conducted at intervals of 20 meters, using a Gyro Champ tool.

10.1.15 Drilling campaign 2021

AbraSilver drilled 69 diamond holes in 2021, totalling 16,136 meters. Two were drilled at Corderos, three at Fantasma, one at Jasperoide, two at Laderas, two at Pedernales and two at the valley geophysics anomaly. The remainder were drilled at Oculto. All were aligned north-south dipping between 60° to 65°. Almost all intercepted economic mineralization. All holes were drilled by drilling contractor Hidrotec Perforaciones. All holes were drilled in HQ core size. Collar locations were surveyed using differential GPS with an RTK system, collar orientations were determined with a compass. Downhole surveys were conducted at intervals of 20 meters, using the Gyro Champ tool.

10.1.16 Drilling campaign 2022

During the first half of 2022 AbraSilver drilled 40 diamond holes, totalling 10,491.2 meters. Five were drilled for Oculto geotechnical purposes, five for condemnation and one (DDH-022-019) discovered the JAC deposit. All other holes were at Oculto and aligned north-south , dipping between 60° to 85°. Almost all holes intercepted mineralization. All holes were drilled by drilling contractor Hidrotec Perforaciones. Holes were drilled in HQ core size. Collar locations were surveyed using differential GPS with an RTK system, with collar orientations determined with a compass. Downhole surveys were conducted at intervals of 20 meters, using the Gyro Champ tool.

During the second half of 2022 AbraSilver drilled 48 diamond holes, totalling 9,536 meters. Two were condemnation, one for water exploration and the balance at JAC. Most were oriented in a north-south orientation, dipping between 60° to 85°. Almost all holes intercepted mineralization. All holes were drilled by drilling contractor Hidrotec Perforaciones. Core size for all holes was HQ. Collar locations were surveyed using differential GPS with an RTK system. Collar orientations were determined with a compass. Downhole surveys were conducted at intervals of 20 meters, using the Gyro Champ tool.

10.1.17 Drilling campaign 2023

AbraSilver drilled 82 diamond holes in 2023, totalling 9,536 meters. All but four were drilled at JAC. Holes DDH-23-076 and DDH-23-077 were drilled at Alpaca, DDH-23-078 and DDH-23-079 were drilled at Fantasma. Most were oriented north-south, dipping between 60° to 85°. Almost all holes intercepted mineralization. All holes were drilled by drilling contractor Hidrotec Perforaciones. Core size for all holes was HQ diameter. Collar locations were surveyed using differential GPS with an RTK system. Collar orientations were determined with a compass. Downhole surveys were conducted at intervals of 20 meters, using the Gyro Champ tool.

10.1.18 Drilling campaign 2024

AbraSilver drilled 85 diamond holes in 2024, totalling 18,285 meters. 46 drillholes were drilled at JAC and 21 drillholes were drilled at Oculto Northeast. The rest of them were drilled at Alpaca, Fantasma and peripherical zones of the known mineralized zones. Most were oriented north-south, dipping between 60° to 85°. Almost all holes intercepted mineralization. All holes were drilled by drilling contractor Hidrotec Perforaciones. Core size for all holes was HQ diameter. Collar locations were surveyed using differential GPS with an RTK system. Collar orientations were determined with a GPS-RTK lining. Downhole surveys were conducted at intervals of 5 meters, using the Gyro Champ tool. The 2024 drill campaign did not contribute to the Mineral Resource estimation stated in this report.

10.2 Discussion and conclusions

The author of this section, Mr. Peralta, visited the site while AbraSilver was drilling at the JAC zone from April 24th to May 03rd and from October 02nd to October 8th, 2023. The author reviewed drilling procedures, core samples and methodologies of collaring, surveying, logging, sampling, and chain of custody for the drilling campaigns from 2020 to 2023.

In the author's opinion, all drilling conducted by AbraSilver was completed in an appropriate manner consistent with common industry practice.

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

Information regarding sample preparation and analysis procedures prior to AbraSilver have been taken from Ristorcelli (1997), Barrick Exploraciones SA (1998), MDA (2001) and an internal Technical Report M3 (2011).

11.1 Pre-1996

The core and chip logging, sampling, and analytical protocols used for holes drilled prior to 1996 were not documented in the information provided.

11.1.1 RC Drilling

Cuttings from every meter was collected, logged and archived.

11.1.2 Diamond drilling

Core was logged on site for lithology, alteration, mineralogy, and geotechnical data. This was then marked by the logging geologist for sampling. Sample intervals were typically 1.0 m and ranged from 0.5 m to 1.5 m in length with breaks for lithology or structure.

Samples comprised half-cores, cut by diamond saw, with the remaining half retained for storage. The core and photograph archive were stored in Salta. In 2017 cores were transported to site and stored in new wooden boxes.

11.1.3 Analyses

Historical reporting by Ristorcelli (1997) indicated original samples were sent to SGS. In 1997, check sampling was carried out to validate the database. Both rejects and pulps were sent to Chemex Labs for the check analysis. The pulp sample results were reported to be 4.5% higher for gold and 2.9% higher for silver.

11.2 1996 – 1999 (Barrick)

11.2.1 RC Drilling

Cuttings were collected every meter, logged and archived. Five metre composite samples were collected and submitted for PIMA scans.

Dry samples were split at the drill with a cyclone, one quarter was sent for analysis and the remainder stored on site. Most holes encountered water, requiring wet sampling. Initially, wet cuttings were split using a wet splitter, however, this was found unsatisfactory due to the volume of sample material collected. Barrick personnel considered samples inadequate if recovery was less than 25% of recovered cuttings or if total recovery was less than 50%.

From hole RC-096-022 onward, if the volume was too low, all cuttings were sent to the laboratory to be split after drying.

11.2.2 Diamond drilling

Core was logged on site for lithology, alteration, mineralogy, and geotechnical data. This was then marked by the logging geologist for sampling. Sample intervals were typically 1.0 m and ranged from 0.5 m to 1.5 m in length with breaks for lithology or structure. Marked core was photographed and sent for sampling. Samples comprised half-cores, cut by diamond saw, with the remaining half retained for storage. The core and photograph archive were stored in Salta. In 2017 cores were transported to site and stored in new wooden boxes.

11.2.3 Analyses

Bondar Clegg Ltda. in Coquimbo, Chile ("Bondar Clegg") analysed samples from drill holes RC-96-001 through RC-97-53 for gold and silver.

Samples from RC-97-54 through RC-97-122 were analysed by SGS, Minerals Division, in Santiago, Chile ("SGS Santiago").

The 1998 samples, RC-98-123 through RC-98-146 were analysed by SGS, in their laboratory in Mendoza, Argentina. Barrick's quality control program uncovered problems with the precision of results from the Mendoza analyses and the majority of the 1998 samples were re-analysed by SGS, Santiago. Corrected data was incorporated into the final database.

At the laboratory, samples were dried at a maximum of 60°C, crushed to 90% passing a Tyler 10 mesh screen, and split to a 1,000 g sub-sample. The entire 1,000 g sample was pulverized to 95% passing a Tyler 150 mesh sieve. The pulp was riffled to a 250 g pulp sample for assay. The remaining 750 g of pulp material was returned to Barrick.

Gold and silver analyses were generally by fire assay ("FA") with a gravimetric finish. Some of the analyses were done by ICP Atomic Emission Spectroscopy ("ICP-AES"). It is not known what accreditations were held by Bondar Clegg or SGS in the period in question. In the author's opinion these laboratories were, and continue to be, recognized in the industry as reputable. Bondar Clegg has since been acquired by ALS Chemex in Mendoza, Argentina ("ALS Chemex"), which has ISO 9001:2000 certification.

11.2.4 Metallurgical sampling

Holes DDH-097-012 to DDH-097-016, inclusive, were sampled in their entirety and sent to Lakefield Research Chile S. A. ("Lakefield") in Santiago, Chile for metallurgical testing.

11.3 2007 – 2008 (Pacific RIM for Silver Standards Resources)

11.3.1 Logging

During 2007, a total of 54 diamond drillholes were completed totaling 10,324.3 meters and an additional 2,272.4 meters of trenches. The data from the trenches was not considered for Mineral Resource estimates.

In 2008, 52 diamond drillholes were drilled, totalling 7,970.95 meters.

For both drilling campaigns core was transported by truck to the onsite logging facility where it was washed and photographed. Digital images were uploaded to the on-site computer.

Core was logged for recovery and RQD. Artificial breaks in the core caused by drilling or handling were ignored for the RQD determination. Marbled sections were lightly tapped with a hammer. If they remained intact, they were included as intact intervals for RQD measurement. Logging was conducted for lithology, structure, alteration, and mineralogy. The data was then transcribed onto spreadsheets for entry into a Gemcom database.

The logging geologist marked core for sampling. Sample intervals were limited to a minimum of 0.5 m and a maximum of 2.0 m with breaks for lithology and mineralization. An attempt was made to constrain the samples to 1.5 meter lengths and extend them to the 2.0 meter maximum only where contacts were encountered.

11.3.2 Sampling

Samples were split using a manual blade splitter. One half was retained for archiving and one half sent for assay. Samples were placed in plastic bags, sealed with plastic straps, and stored within a locked area prior to shipment. Samples remained under the supervision of the project geologist while in storage. Individual sample bags were placed in woven nylon rice bags for shipment by truck to ALS Chemex in Mendoza.

The remaining core was cross stacked in chronological order, then shipped to the SSRI warehouse in Salta. In 2017, cores were moved to site and stored in new boxes if required.

11.3.3 Sample preparation and analyses.

Upon arrival at the ALS Chemex laboratory, core samples were logged into a database, placed into a stainless-steel tray, then dried for four to eight hours at 100°C (depending on moisture content). Samples were processed through primary and secondary crushers to 70% passing a 2 mm (Tyler 10 mesh) screen. Standard crushing practice included cleaning the equipment prior to and after each sample. This was done using coarse quartz material, and air cleaning the crushers after each sample. Crushed material was riffle-split to 250 g to 500 g, depending on the requested analysis, and the remaining coarse reject material was returned to Pacific Rim for storage.

The 250 g to 500 g sub-sample was processed in a disk pulveriser to 85% passing a 75 µm (Tyler 200 mesh) screen. A 250 g pulp sample was collected and sent for analysis. All samples were analysed by ICP mass spectroscopy ("ICP-MS") for 48 elements, after digestion in nitric, perchloric, and hydrofluoric acids.

Gold analyses was conducted by FA on a 30 g aliquot with an atomic absorption finish. For assays above 10 g/t Au, FA with a gravimetric finish was employed. Silver samples with ICP-MS assays greater than 200 g/t Ag were re-run by FA with a gravimetric finish.

11.4 2017-2023 (AbraSilver Resource Corp.)

11.4.1 Logging

Core was delivered daily to the camp logging area. AbraSilver geologists inspected and re-aligned core, photographed each box, and measured the recovery, RQD and PLT(Point Load Test). Logging was conducted for lithology, alteration, and mineralogy. All information logged was captured in spreadsheets.

11.4.2 Sampling

Sampling was conducted at 1.5 meter intervals in weakly mineralized zones, reducing to one metre where mineralization was more intense. Breaks were introduced at obvious contacts. The core was split using a core diamond saw, with one half taken for assay and the other placed back in the box for storage.

The samples were then bagged, placed into larger rice bags with QA/QC materials and shipped to SGS Argentina SA in Salta ("SGS Salta"). Each shipment was accompanied by a manifest listing contents and laboratory instructions. A copy of the manifest was retained at site, another sent to AbraSilver's main office in Buenos Aires. The core and samples were continuously in the custody of AbraSilver personnel.

11.4.3 Sample preparation and analyses.

All samples received at SGS Salta, Campo Quijano were processed to a pulp sachet and directly dispatched to their facility in Lima, Peru for analysis. The samples were dried at 100°C, then passed through a jaw crusher to 90% passing a -10-mesh screen. A 250 g split was processed in a ring and puck pulveriser to 95% passing -140 mesh.

All samples were analysed using a multi-element technique consisting of a four-acid digestion followed by ICP/AES detection. Gold was analysed by 50g Fire Assay with an AAS gravimetric finish. Silver results greater than 100g/t were re-analysed using four acid digestion with an ore grade AAS gravimetric finish.

Lima and Campo Quijano laboratories returned the pulps and the rejects to Diablillos where they are stored.

11.5 Quality assurance/Quality control

Assay precision was assessed by reprocessing duplicate samples. Considering each stage of the analytical process from the primary stage of sample splitting, through sample preparation stages of crushing/splitting, pulverizing/splitting, and assaying.

11.5.1 Pre-AbraSilver QA/QC

The QA/QC programs conducted since the beginning of the project have been reported by Wardrop (2009), AMC Consultants Pty Ltd. in M3 (2011), RPA (2018), MP (2021) and MP PEA (2022). All these reports refer to internal third-party studies, including Bruce Goad (1994), Ristorcelli (1997) and Barrick (1998). This is summarised below.

1993 Drilling Campaign

BHP-Utah implemented a protocol for field duplicates to be taken for ten percent of total population. A selection of high-grade pulp samples was additionally sent to Canada (Chemez Lab, Vancouver). Original and duplicate reject samples were assayed at SGS Chile Ltd.

The entire 1993 drilling campaign was reviewed by Bruce Goad from Inukshuk Exploration Inc. on 18th March 1994. An internal report summarised logging, sampling, and assaying protocols. The report included original certificates for each hole and a comparative table for duplicates. In the author's opinion, the sampling and analytical work for this program was conducted in an appropriate fashion and used industry standard methods. Assaying was done by well-known independent commercial laboratories.

1996 – 1999 Drilling Campaign

Barrick initially implemented a protocol for field duplicates to be taken every ten samples, with selected samples re-assayed at a secondary laboratory. In 1998 revised procedures for the RC drilling were implemented based upon recommendations by Smee and Associates Consulting Ltd. These procedures included the following:

- Every 20 m, a field duplicate was collected, assigned a new sample number, and inserted into the sample stream.
- One standard and one blank were inserted after every 40th sample.

The standard material was obtained from Barrick's Pascua Project in Chile. The blank comprised gneiss from a bulk material supplier. Five samples of the blank material were sent to each of three laboratories to confirm that they were not mineralized.

2007 – 2008 Drilling Campaign

Assay QA/QC protocols were established by Pacific Rim, on behalf of SSRI. One control sample, consisting of either a blank, standard, or field duplicate, was inserted every 20th sample. Check assays were sent to a secondary laboratory, Assayers Canada in Vancouver. These were also conducted at a rate of no less than one in twenty samples.

A total of 6,561 duplicates or repeats, representing 11.54% of the database compiled during the period, were collected up to 2007. A further 600 duplicates representing 7.23% of the database, were taken during 2007 and 2008. During 2007 and 2008, 952 standards and blanks were inserted into the sample stream, representing 11.47% of the total.

Wardrop (2009) reported that C. Vallat reviewed the 2007-08 QA/QC data for SSRI. No concerns were reported, and the database was declared suitable for Mineral Resource estimation.

11.6 Discussion of QA/QC assays prior to AbraSilver

In the QP's opinion, the sampling and analytical work between 1996 and 2008 was conducted in an appropriate fashion. Assaying used conventional, industry standard methods by well-known independent commercial laboratories.

The number of holes, orientation, and sampling methods employed were considered appropriate for the mineralization. Drill cuttings, core, and samples were handled solely by operator personnel or their contractors and securely stored. The site is remote and was attended continuously during the drilling and sampling operations reducing any opportunity for tampering.

The author notes that a manual blade splitter has been used for much of the sampling. These devices, if used properly, can perform satisfactorily. However, a diamond saw is generally superior in producing unbiased samples. A noted risk is that the diamond blade can wash out fine material. The QP recommends that future drilling programs utilise a diamond saw splitter.

The QP considers that the QA/QC protocols for the majority of the drilling meets a suitable standard. The only concern noted was with the precision of some assay results of SGS in Mendoza. The insertion rate for control samples appears adequate, however, detailed reports of QA/QC results should be produced in the future. The information is currently spread in different internal paper documents. It is recommended these reports be retained as a reference for future technical reports and audits.

In the author's opinion, the sampling and analytical work on Oculto prior to AbraSilver is acceptable for use in Mineral Resource estimation.

11.7 AbraSilver QA/QC

11.7.1 Period 2017 to 2021

AbraSilver assay QA/QC protocols included insertion of blanks, standards (two types), and core duplicates into the sample stream. Blanks were inserted at a rate of one for every 25 samples, core duplicates were taken every 25 samples.

Two standards were taken from the 2012 drilling and inserted at a rate of one in 25 samples. Standards PM 1122 SR-I and STRT-04, were commercial reference materials prepared by WCM Minerals, of Burnaby, BC, Canada, and Smee and Associates Consulting Ltd., of North Vancouver, B.C., Canada respectively.

Reference values for these standards has been provided in Table 11-1.

Table 11-1: Certified reference material specifications

Certified Reference Material						
	PM-1122			STRT-04		
Element	Au	Ag	Cu	Au	Ag	Cu
Unit	[g/t]	[g/t]	[ppm]	[g/t]	[g/t]	[ppm]
Expected Value	1.37	168	6,500	0.86	27	24,740
Two Standard deviation	0.08	11	162	0.03	3	480

A total of 926 blanks, representing 5.9%, 450 standards (2.9%), 750 core duplicates (4.8%) and 74 reject duplicates were submitted during the program. From a total of 15,750 samples the overall QA/QC samples represent 13.52% of the total population of samples. Only 4 samples were detected with no description, representing no significant quantity. Industry best practice recommends at least 10% of the total population.

A summary of the QA/QC sample numbers can be found in Table 11-2.

Table 11-2: Summary of AbraSilver QA/QC sample counts

Sample Type	Count	Percentage	STRT-04	PM 1122 (SR-I)	Core	Reject	Pulp
Number of samples	15,750	100%					
Original	13,620	87%					
Blank	926	5.9%					
CRM	450	2.9%	262	188			
Duplicate	750	4.8%			676	74	0
Validation	4	0%					

Analysis detection limits for the ICP-AES method were 0.5 g/t Ag and 5.0 ppb Au. AbraSilver protocol for a blank failure is ten times the detection limit. None of the blanks returned values that met this definition. Only two blank samples returned a gold value greater than five times the detection limit and one blank sample returned a silver value greater than five times the detection limit.

The gold performance and silver performance for blanks has been presented in Figure 11-1 and Figure 11-2.

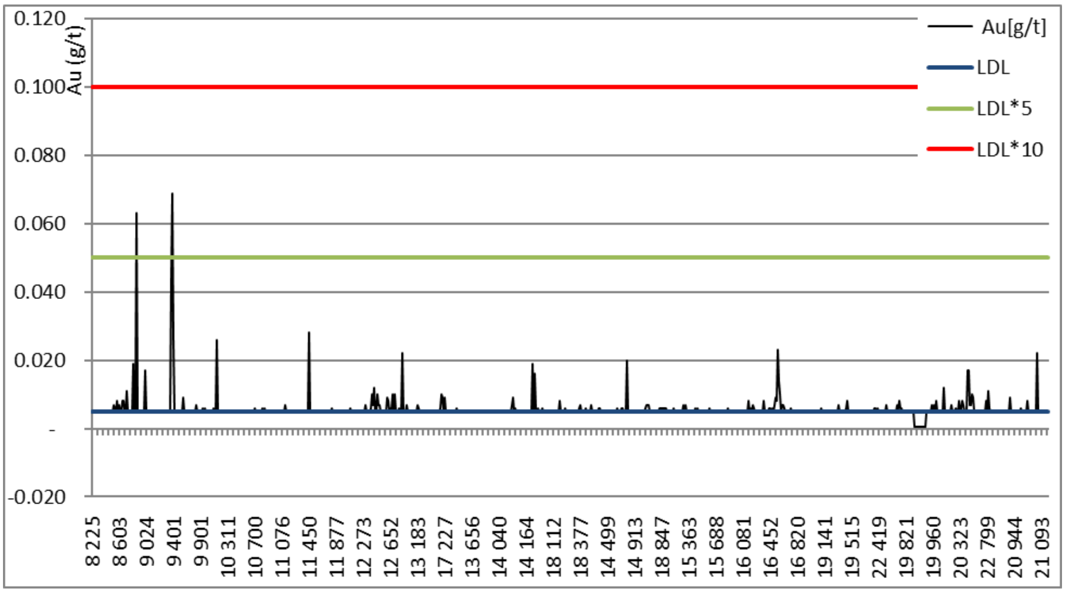


Figure 11-1: Blank sample performance for gold

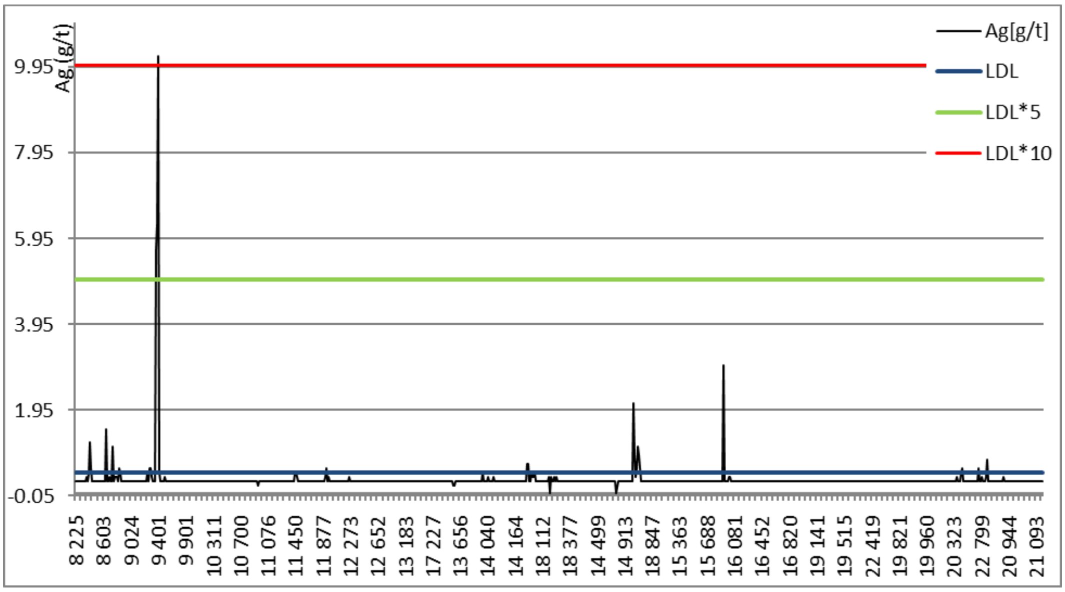


Figure 11-2: Blank sample performance for silver

AbraSilver defines a reference material ("CRM") failure as a value that differs from the recommended value by more than 5%, equivalent to three standard deviations.

Four standards returned values outside this error limit for CRM STRT-04. Three for gold and one for silver. For CRM PM11 all values were within the error limit.

The gold performance and silver performance for CRM STRT-04 can be seen in Figure 11-3 and Figure 11-4. CRM PM 1122 can be seen in Figure 11-5 and Figure 11-6.

Core duplicates were obtained from splitting half cores into two separate samples equivalent to 1/4 core, each one bagged and labelled separately. Core duplicates reflect all levels of errors from its first splitting to analytical error. These features are evidenced in Figure 11-7 and Figure 11-8 which show the moderate to high variability. The core duplicates were observed to agree quite closely with the original assays for gold and silver.

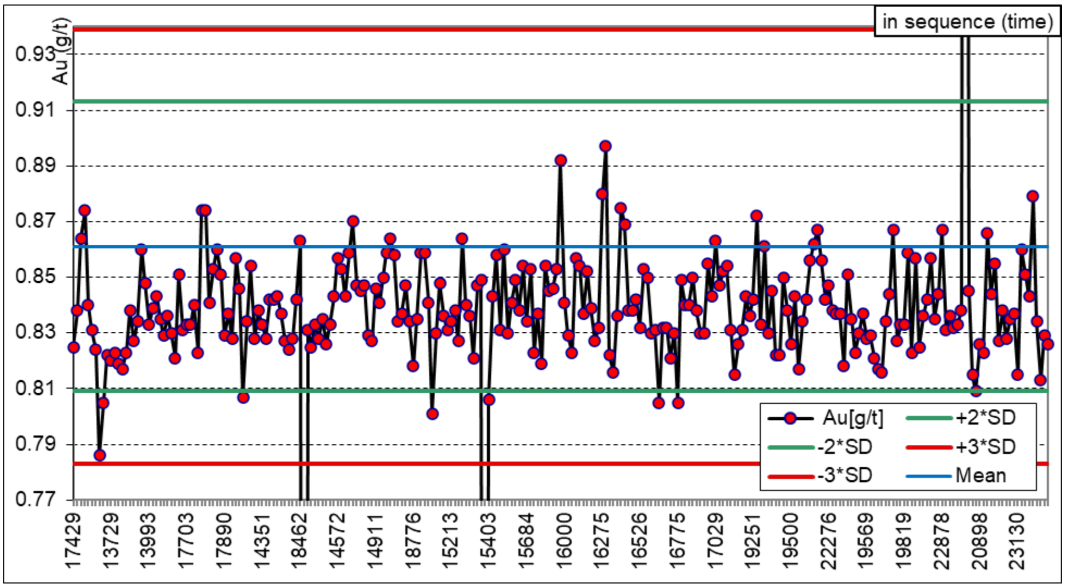


Figure 11-3: Certified reference material STRT-04, gold performance

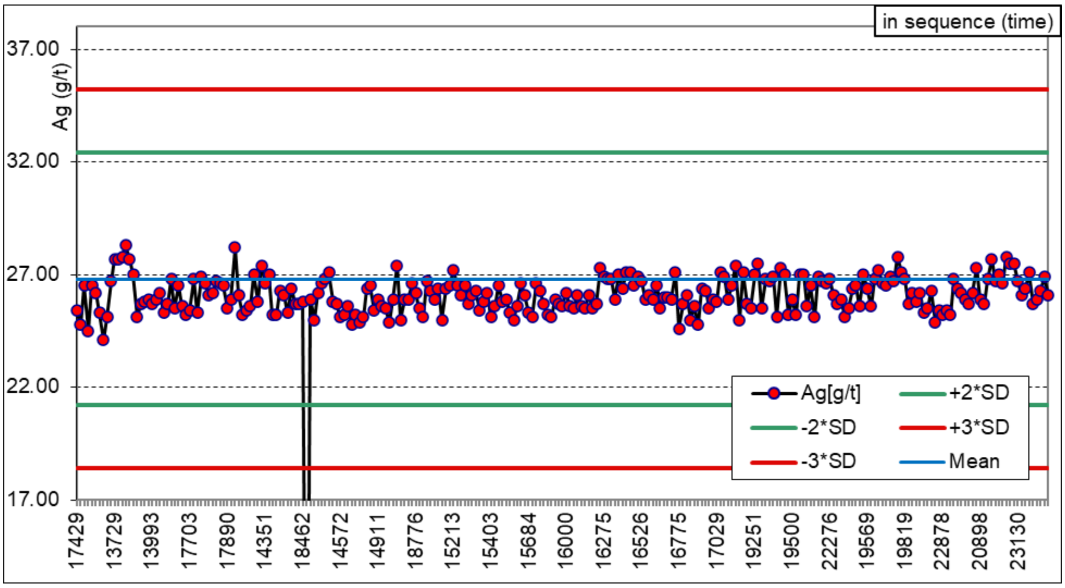


Figure 11-4: Certified reference material STRT-04, silver performance

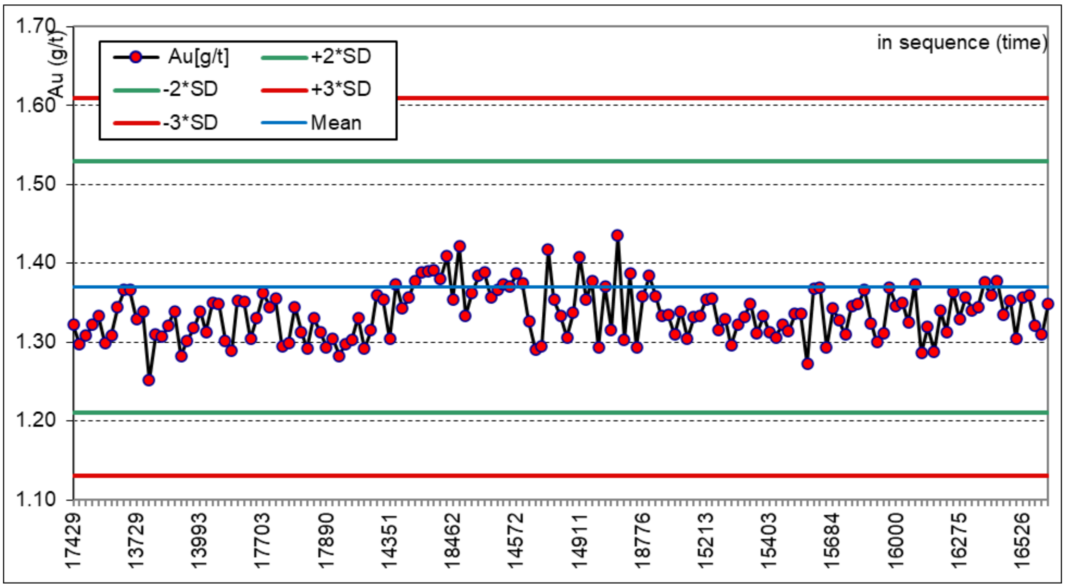


Figure 11-5: Certified reference material PM 1122, gold performance

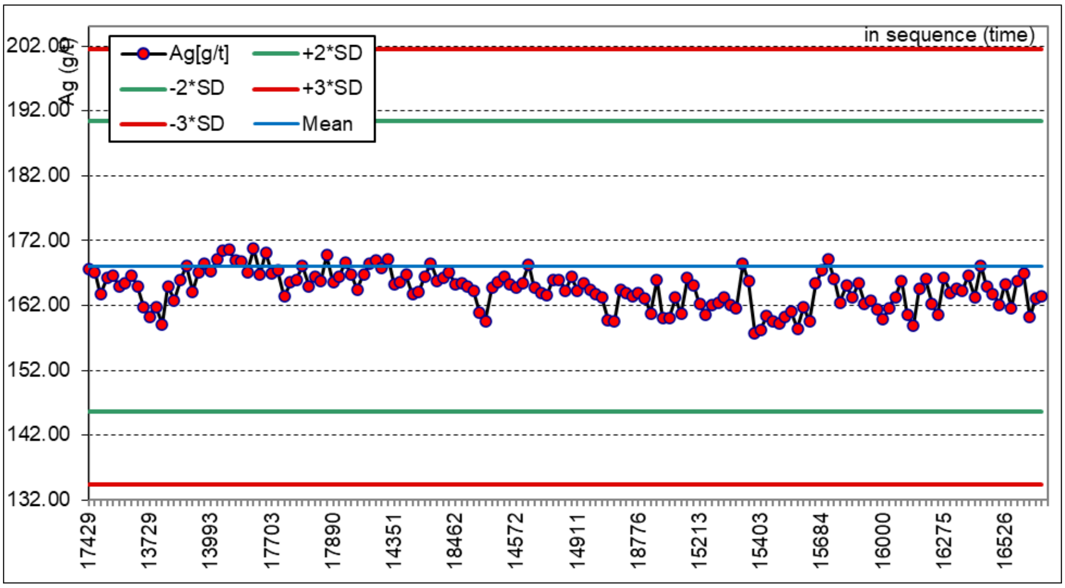


Figure 11-6: Certified reference material PM 1122, silver performance

Core duplicates were obtained from splitting half cores into two separate samples equivalent to 1/4 core with each sample bagged and labelled separately. Scattergrams for gold and silver duplicates have been presented in Figure 11-7 and Figure 11-8. Showing moderate to high variability. Core duplicates were observed to agree quite closely with original assays for gold and silver.

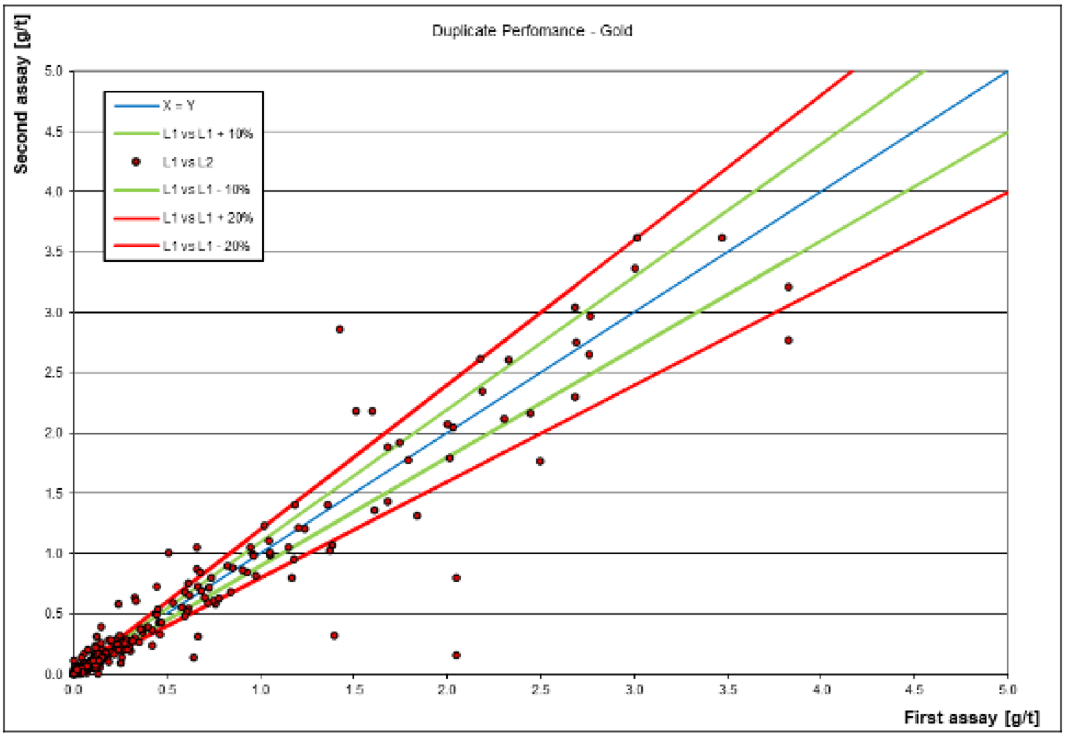


Figure 11-7: RMA Scattergram for duplicate performance of gold

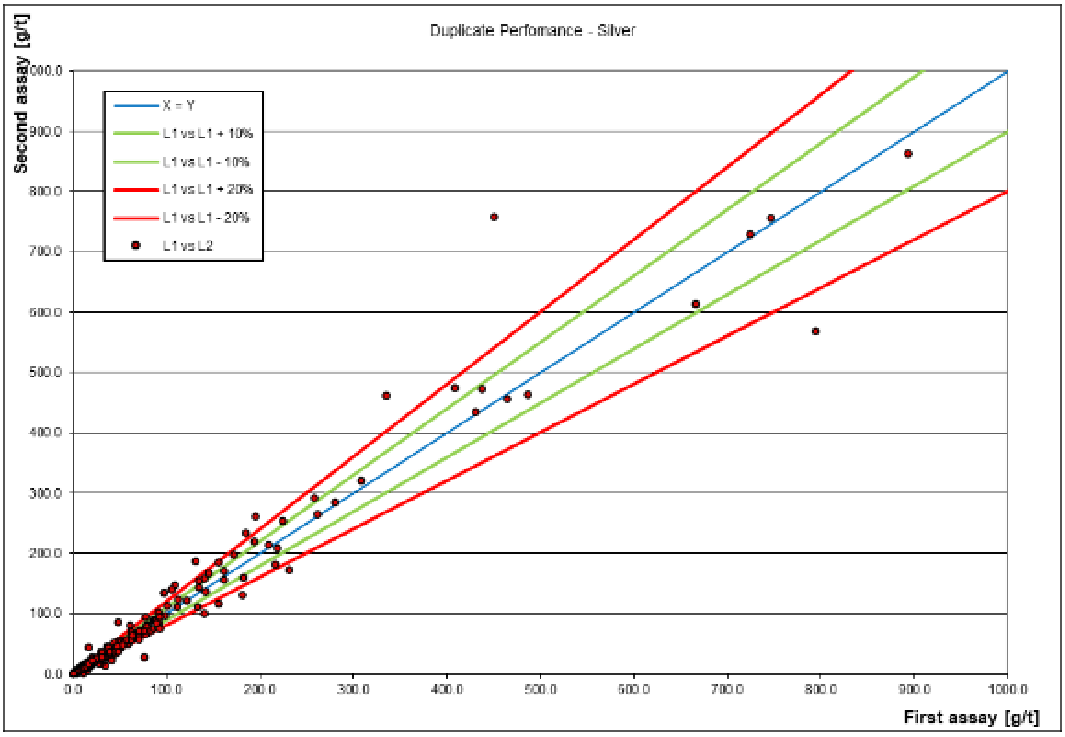


Figure 11-8: RMA Scattergram for duplicate performance of silver

11.7.2 Period 2021 to 2022 (First Semester)

AbraSilver decided to generate its own internal reference material. This was due to problems with the CRM supplier and the complexity of finding a reference material with oxidised matrix over the entire range of gold and silver.

Three types of internal refence material (IRM) were generated to comply with the grade range of the mineralization. IRM was generated based on 50 kg of rejects returned by the SGS laboratory following assay. The reference material was processed in a disk pulveriser to 85% passing a 75 µm (Tyler 200 mesh) screen. Then, the total 50 kg was homogenized and divided into 500 individual sachets of 100-gr aliquots. A total of thirty samples were sent to certified laboratories to carry out round robin testing including ten samples to each of ALS Chemex, Alex Stewart Assayers and SGS. Following the receipt of assays a statistical analysis was performed to determine the expected value and the standard deviation for future use.

The same protocol of insertion for the three types of control samples was continued, as adopted in 2017-2021. This included the insertion of blanks, standards (one of the three types), and core duplicates. IRM were inserted at a rate of one every 25 samples, blanks were inserted at a rate of approximately one every 25 samples, and core duplicates were taken approximately once every 25 samples. Using two IRM for each CRM.

The specifications of the standard are listed in Table 11-3.

Table 11-3: Certified reference materials

Certified and Internal Reference Material								
	STRT-04 (Certified)		ASDBL_Au-Ag_H01 (Internal)		ASDBL_Au-Ag_M01 (Internal)		ASDBL_Au-Ag_L01 (Internal)	
Element	Au	Ag	Au	Ag	Au	Ag	Au	Ag
Unit	[g/t]	[g/t]	[g/t]	[g/t]	[g/t]	[g/t]	[g/t]	[g/t]
Expected Value	0.86	27	3.092	358	0.904	109	0.436	39
Standard deviation	0.03	3	0.12	6	0.068	4	0.040	2

During the 2021 – 2022 program, quality control samples were routinely included in sample batches including Blanks, Standards and Duplicates. Details of the sample counts are provided in Table 11-4. Of the 14,633 samples submitted, QA/QC samples represented 16.51%, exceeding industry best practices recommendations of at least 10% total population.

Table 11-4: Summary of AbraSilver QA/QC sample counts

Sample Type	Count	Percentage	STRT-04	Core	Reject	Pulp
Number of samples	14,633	100%				
Original	12,948	89%				
Blank	959	7.2%				
CRM	219	2.2%	473			
ASDBL_Au-Ag_H01	76	1.2%				
ASDBL_Au-Ag_M01	83	1.3%				
ASDBL_Au-Ag_L01	98	1.4%				
Duplicate	706	5.5%		705	1	0
Validation	7	1%		705	1	0

Lower detection limits for ICP-AES analysis were 0.5 g/t Ag and 5.0 ppb Au. AbraSilver protocol for definition of a blank's failure is ten times the detection limit. All the gold blank samples passed while two silver blank samples exceeded the tolerance.

The gold and silver performance in blanks can be seen in Figure 11-9 and Figure 11-10.

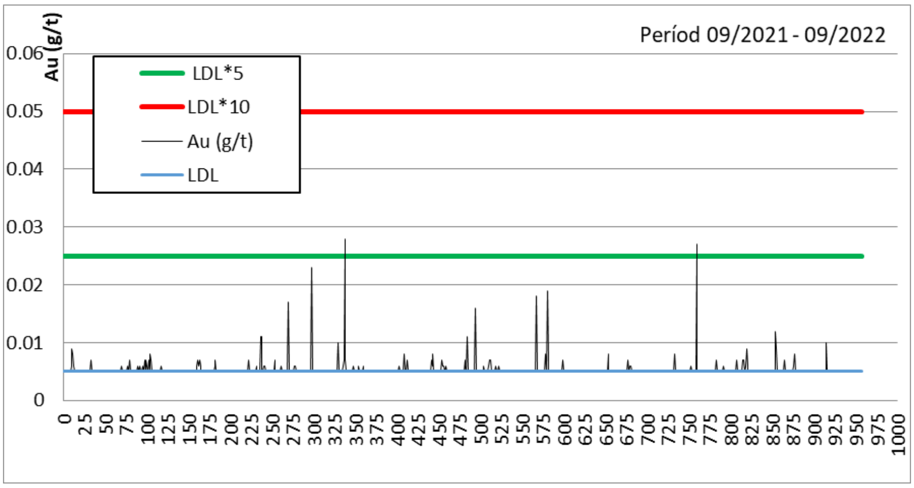


Figure 11-9: Gold performance for Blank samples

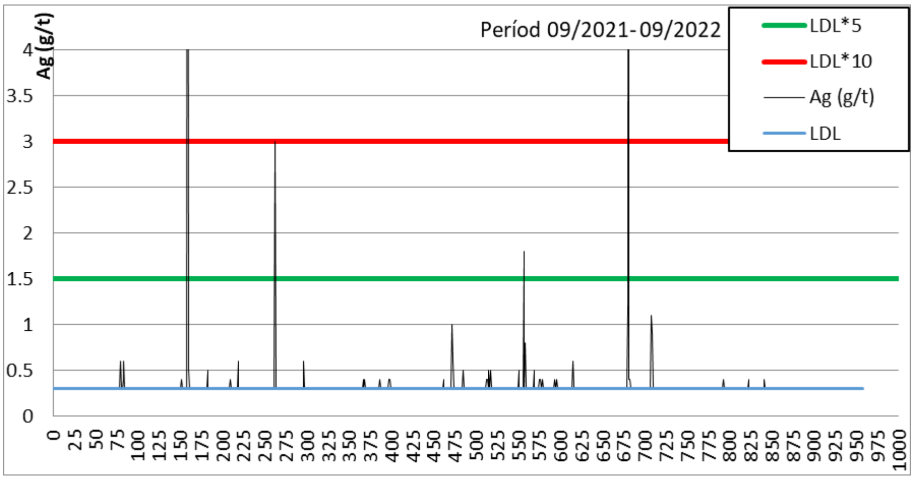


Figure 11-10: Silver performance for Blank samples

AbraSilver defines a reference material failure as differing from the recommended value of more than three times the standard deviation or approximately 5% of the reference value.

For CRM STRT-04, one result was outside this 5% error limit in Gold. No standards exceeded the limit in silver. The gold and silver performance for CRM STRT-04 can be seen in Figure 11-11 and Figure 11-12.

For the analysis of IRM H01, two standards returned a value outside the error limit in gold. Seven standards exceeded the lower limit in silver.

For the analysis of IRM M01, only one standard exceeded the limit for gold and none for silver. Finally for the analysis of IRM L01, one exceeded the limit value for gold and none for silver.

The gold and silver performance for IRM H01, M01 and L01 can be seen in Figure 11-13 to Figure 11-18.

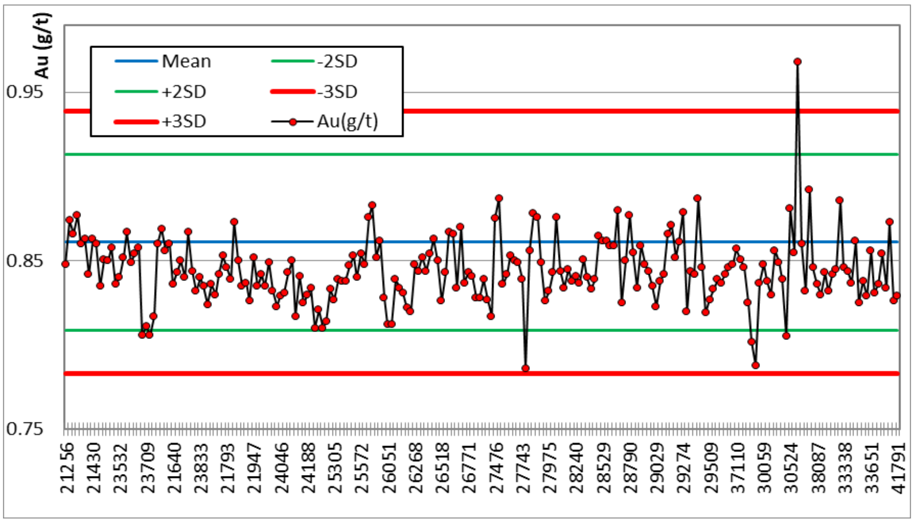


Figure 11-11: Certified reference material STRT-04, gold performance.

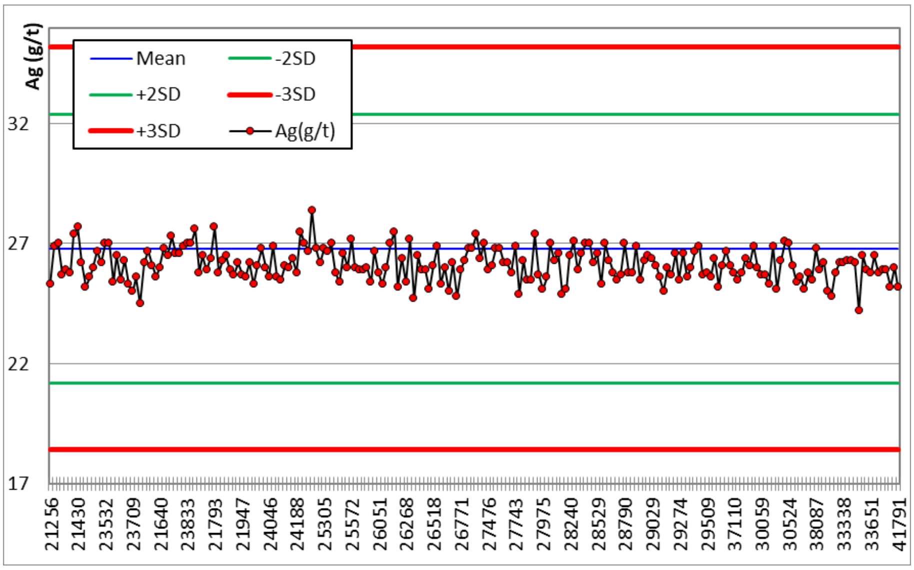


Figure 11-12: Certified reference material STRT-04, silver performance

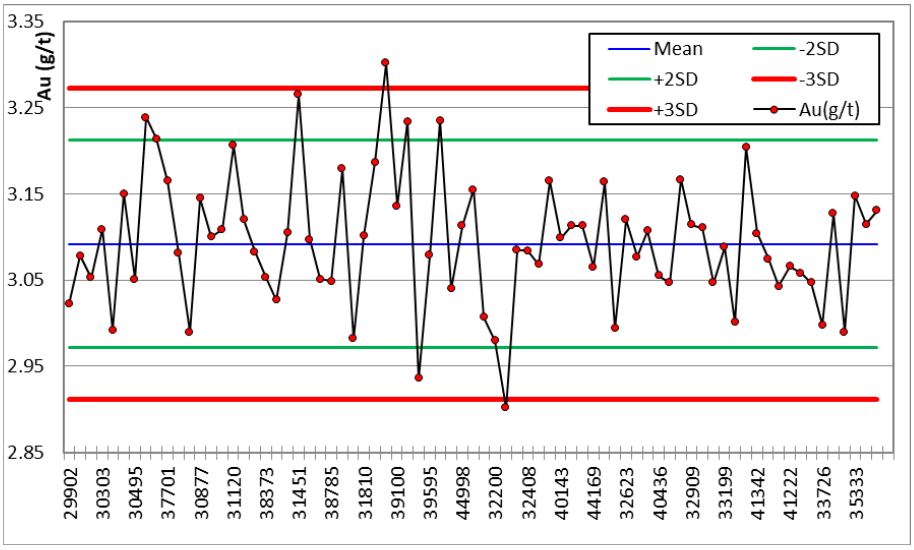


Figure 11-13: Internal reference material H01, gold performance

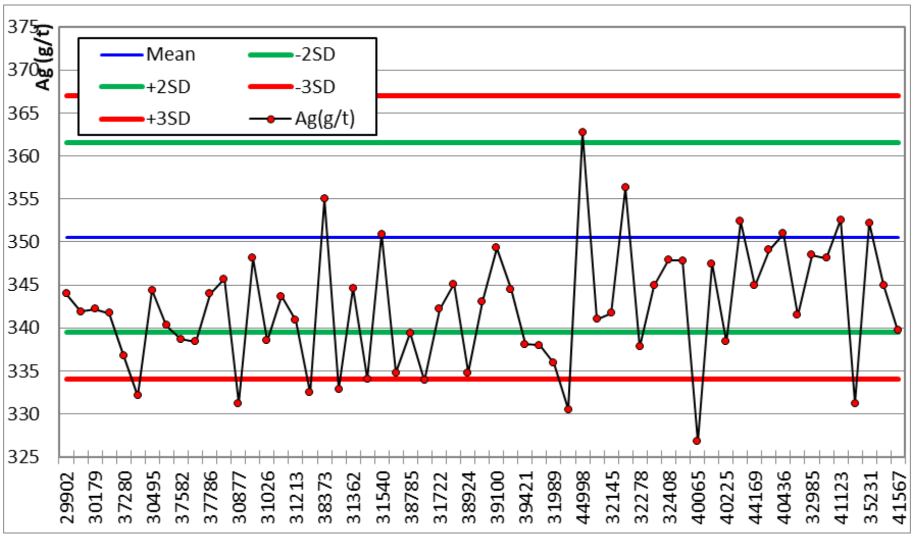


Figure 11-14: Internal reference material H01, silver performance

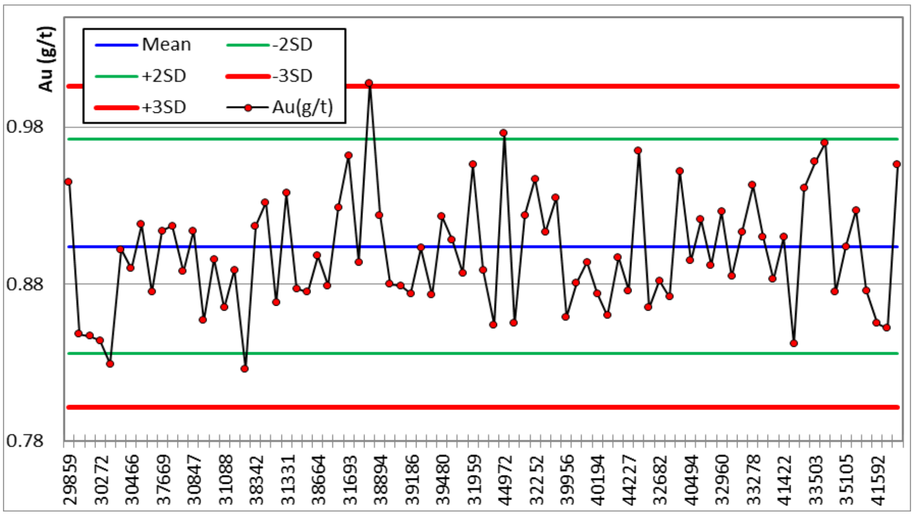


Figure 11-15: Internal reference material M01, gold performance

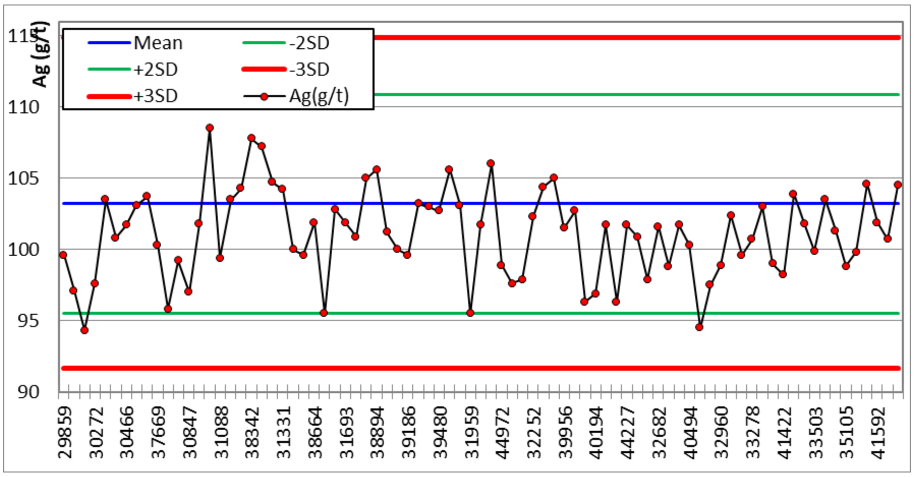


Figure 11-16: Internal reference material M01, silver performance

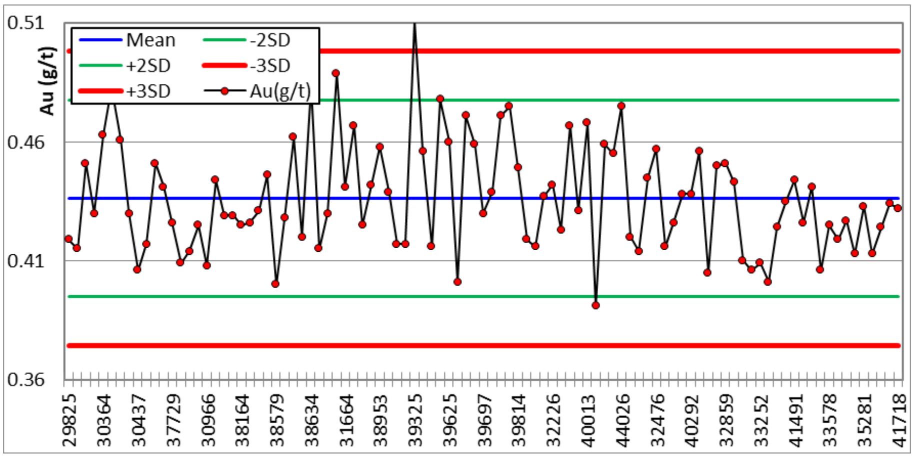


Figure 11-17: Internal reference material L01, gold performance

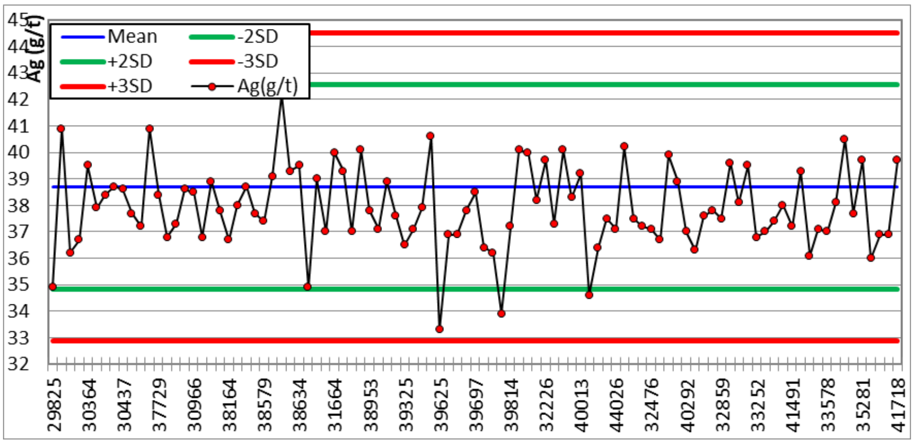


Figure 11-18: Internal reference material L01, silver performance

Core duplicates were obtained by dividing half the core into two separate 1/4 core equivalent samples, bagged and labelled separately. The results are shown in Figure 11-19 and Figure 11-20 with moderate to high variability.

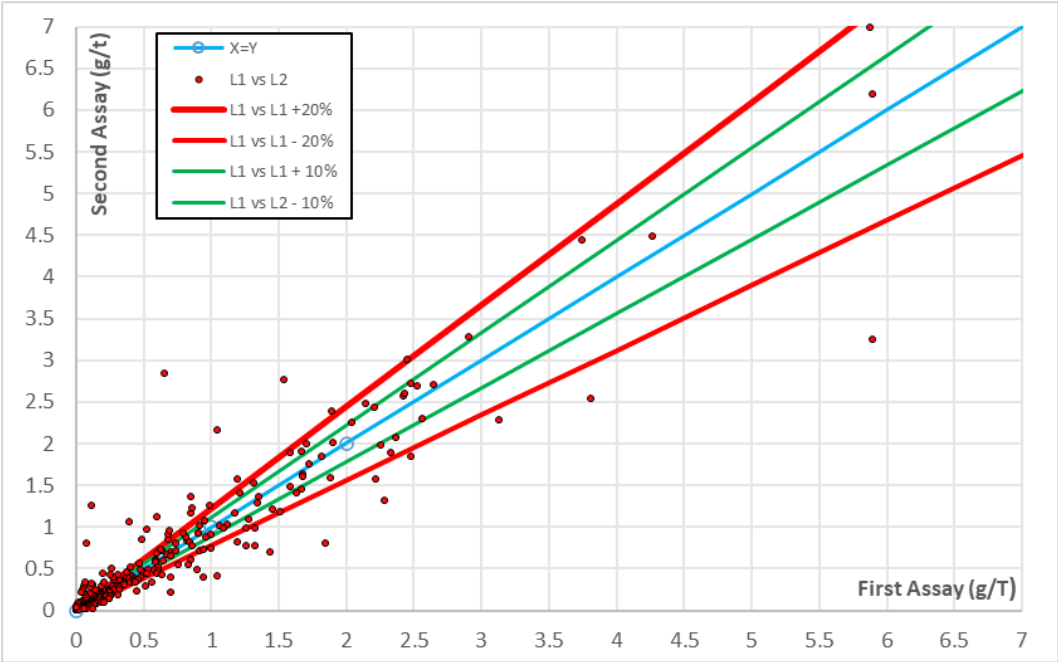


Figure 11-19: RMA Scattergram for duplicate performance of gold

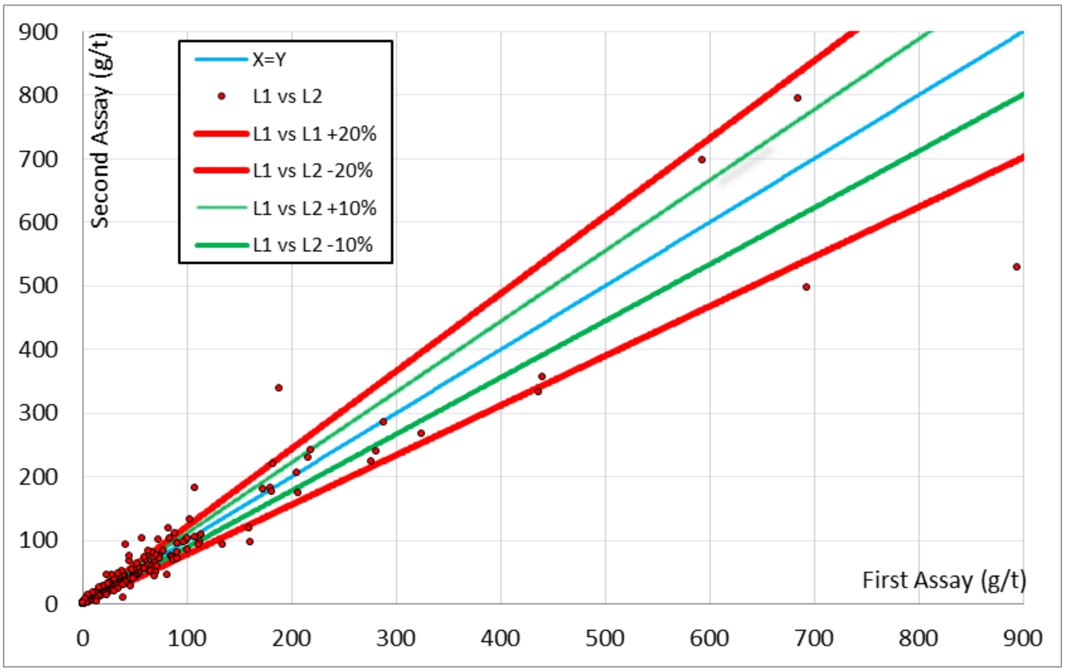


Figure 11-20: RMA Scattergram for duplicate performance of silver

Based on the overall review and data analysis, the QP considers that the gold and silver accuracy during the 2017-2022 drilling campaigns is acceptable. Blank samples were assayed and most yielded values below the five times detection limit. There was no obvious evidence for gold or silver cross contamination during laboratory sample preparation. The RMA scattergram plots for gold and silver show good fit between the check assays and the original assays. A few outliers have however been observed due to high variability in the style of mineralization.

The author has concluded that the assay QA/QC protocols implemented by AbraSilver were consistent and no concerns were evident.

11.7.3 Period 2022 (Second Semester) to 2023

Three types of internal refence material (IRM) were generated to cover the mineralisation grade range. IRM were generated based on 50 kg of rejects returned by assays at the SGS laboratory. The reference material was processed in a disk pulveriser to 85% passing a 75 µm (Tyler 200 mesh) screen. The total 50 kg were then homogenized and divided into 500 individual sachets of 100-gr aliquots. A total of thirty samples were sent to certified laboratories to carry out round robin testing. Ten samples were sent to each of ALS Chemex, Alex Stewart Assayers and SGS. Once assays were received a statistical analysis was performed to determine the expected value and two-standard deviation.

The specifications of the internal reference material standards are listed in Table 11-5.

In addition, five certified reference material (CRM) standards were used. Compromising the range from high to low grade mineralization. The specifications of the standard are listed in Table 11-6.

The same protocol of insertion for the three types of control samples was continued, as applied in 2021-2022. Blanks, standards (one of the three types), and core duplicates were inserted into the sample stream. IRM and CRM were inserted at a rate of one every 25 samples, blanks at a rate of one every 25 samples, and core duplicates once every 25 samples. Using two IRM for each CRM.

Table 11-5: Internal Reference Materials assay specifications

Internal Reference Material						
	ASDBL_Au-Ag_H01		ASDBL_Au-Ag_M01		ASDBL_Au-Ag_L01	
Element	Au	Ag	Au	Ag	Au	Ag
Unit	[g/t]	[g/t]	[g/t]	[g/t]	[g/t]	[g/t]
Expected Value	3.092	358	0.9039	103.21	0.436	38.70
Standard deviation	0.12	4.58	0.034	3.849	0.040	1.935

Table 11-6: Certified reference materials assay specifications

Certified Reference Material										
	STRT-04		AuOx41		PLSUL59		AuOx-18		AuOx-33	
Element	Au	Ag	Au	Ag	Au	Ag	Au	Ag	Au	Ag
Unit	[g/t]	[g/t]	[g/t]	[g/t]	[g/t]	[g/t]	[g/t]	[g/t]	[g/t]	[g/t]
Expected Value	0.861	26.8	0.57	8.30	0.52	2 988	2.88	77.80	1.68	554.00
Standard deviation	0.026	2.8	0.04	0.44	0.05	44.71	0.20	1.93	0.10	16.65

During the 2022-2023 drilling campaign, sample batches included routine quality control samples. The detailed counts for each sample type have been included in Table 11-7. Of the 15,506 samples submitted, quality control samples represented 12.10%. Industry best practices recommend at least 10% of total population.

Table 11-7: Summary of AbraSilver QA/QC sample counts

	Sample Type	Count	Percentage
	Number of samples	15506	100%
	Original	13607	87.75%
	Blank	803	5.18%
	Duplicate	539	3.48%
IRM	ASDBL_AU-AG_H01	99	0.64%
	ASDBL_AU-AG_M01	115	0.74%
	ASDBL_AU-AG_L01	137	0.88%
CRM	AuOx41	34	0.22%
	PLSUL59	29	0.19%
	AuOx-18	50	0.32%
	AuOx-33	53	0.34%
	STRT-04	40	0.26%

Laboratory detection limits for the ICP-AES analyses were 0.5 g/t Ag and 5.0 ppb Au. AbraSilver's procedure for defining the failure of a blank sample is ten times the detection limit. There were no failures for gold or silver values for blank samples.

The gold performance and silver performance in blanks can be seen in Figure 11-21 and Figure 11-22.

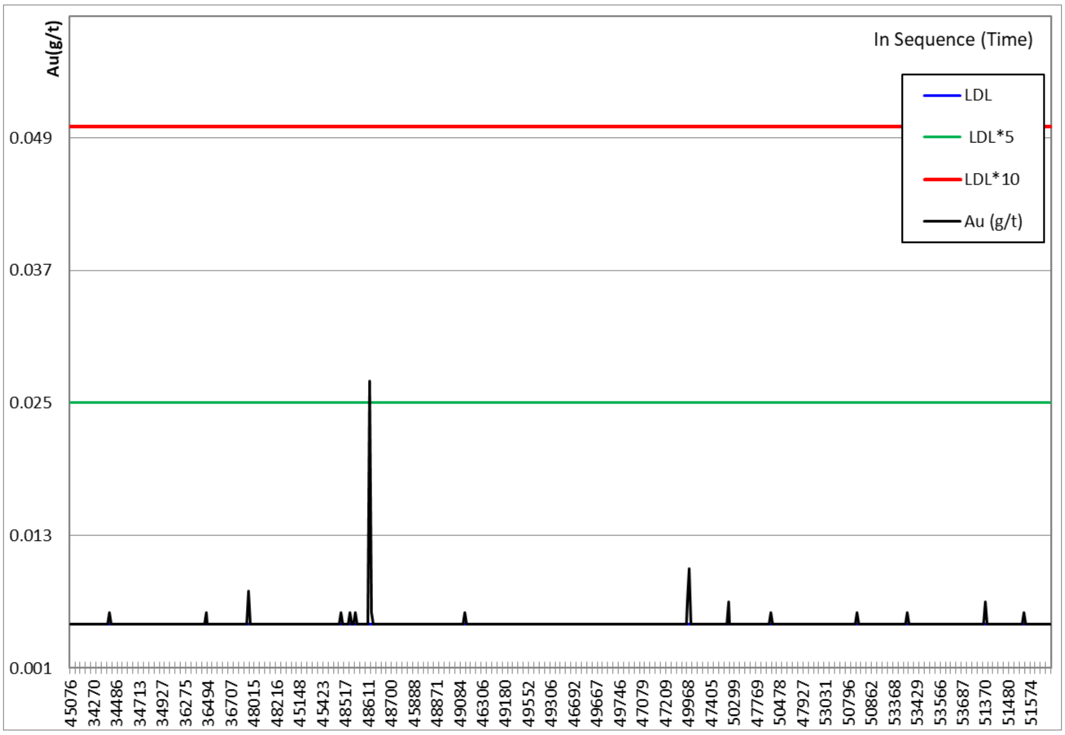


Figure 11-21: Internal reference material, blank, gold performance

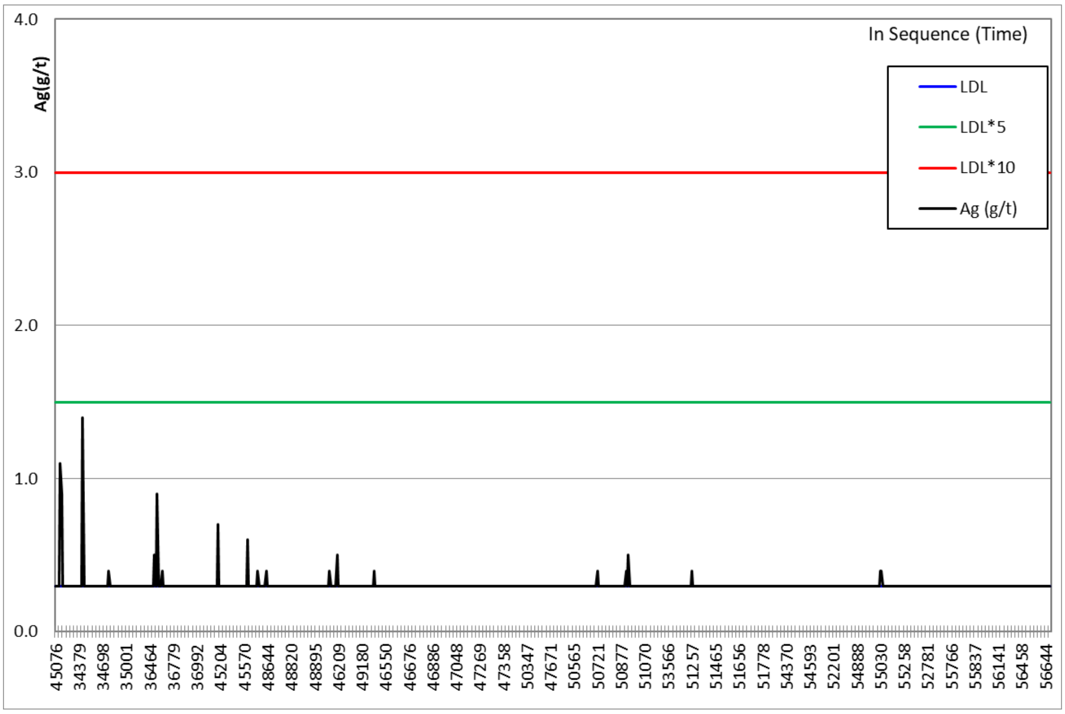


Figure 11-22: Internal reference material, blank, silver performance

AbraSilver defines a reference material ("IRM or CRM") failure as a value that differs from the recommended value by more than 5%. Approximately three times the standard deviation.

For the analysis of CRM STRT-04, no samples returned a value outside the error limit in gold or silver. The gold and silver performance for STRT-04 can be seen in Figure 11-23 and Figure 11-24.

For the analysis of CRM AuOx-41, no samples returned a value outside this 5% error limit in gold and silver. The gold and silver performance for AuOx-41 can be seen in Figure 11-25 and Figure 11-26.

For the analysis of CRM PLSUL59, no samples returned a value outside the error limit in gold and silver. The gold and silver performance for PLSUL59 can be seen in Figure 11-27 and Figure 11-28.

For the analysis of CRM AuOx-18, no samples returned a value outside this 5% error limit in gold and silver. The gold and silver performance for AuOx-18 can be seen in Figure 11-29 and Figure 11-30.

For the analysis of CRM AuOx-33, no samples returned a value outside this 5% error limit in gold and silver. The gold and silver performance for AuOx-33 can be seen in Figure 11-31 and Figure 11-32.

For the analysis of IRM ASDBL_H01, no samples returned a value outside this 5% error limit in gold and silver. The gold and silver performance for ASDBL_H01 can be seen in Figure 11-33 and Figure 11-34.

For the analysis of IRM ASDBL_M01, no samples returned a value outside this 5% error limit in gold and silver. The gold and silver performance for ASDBL_M01 can be seen in Figure 11-35 and Figure 11-36.

For the analysis of IRM ASDBL_L01, no samples returned a value outside this 5% error limit in gold and silver. The gold and silver performance for ASDBL_L01 can be seen in Figure 11-37 and Figure 11-38.

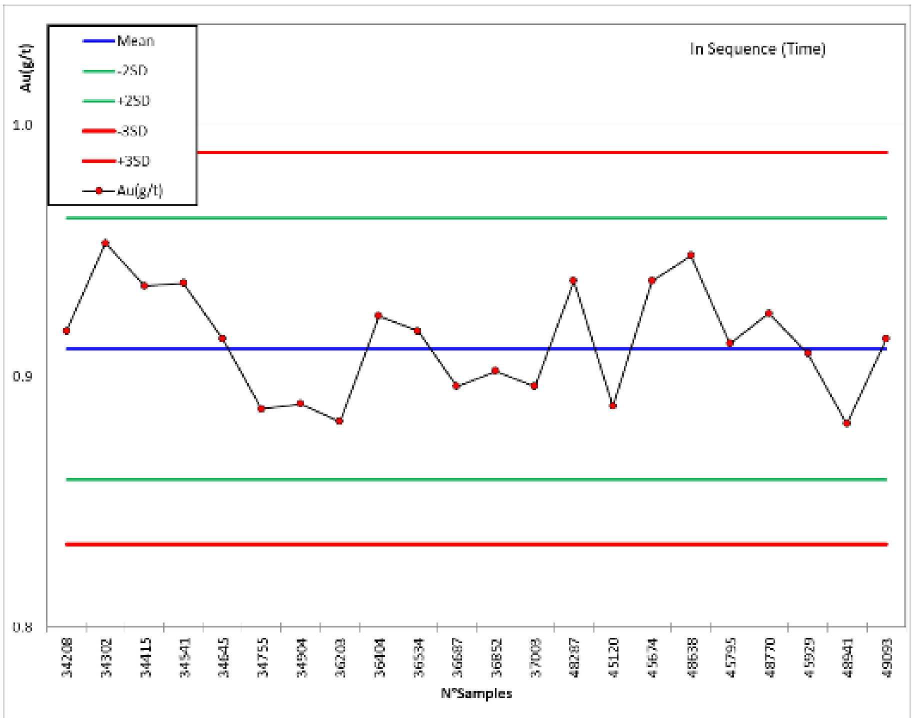


Figure 11-23: Certified reference material STRT-04, gold performance

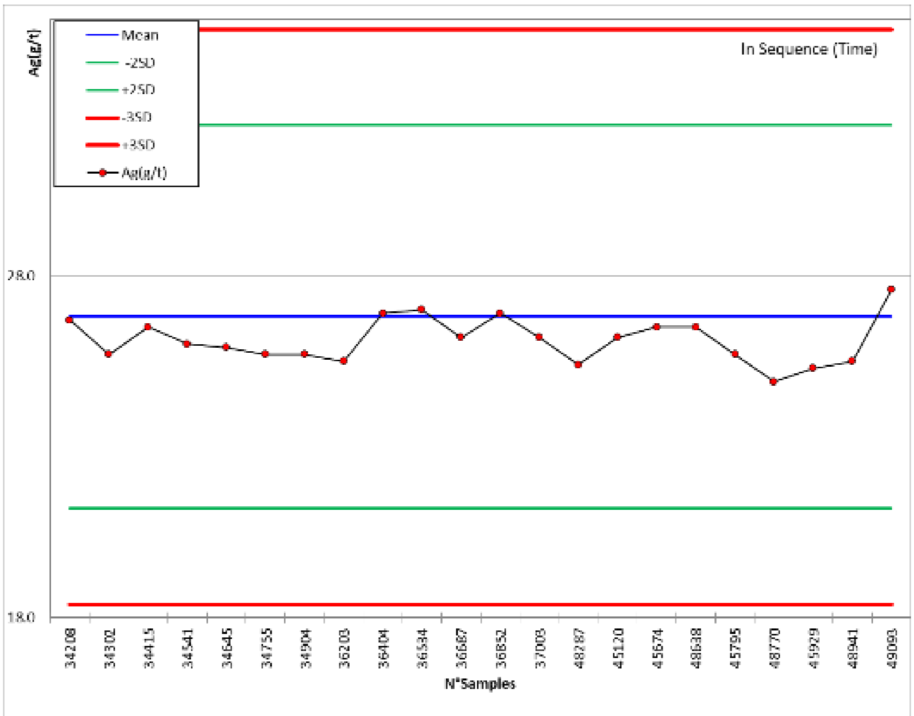


Figure 11-24: Certified reference material STRT-04, silver performance

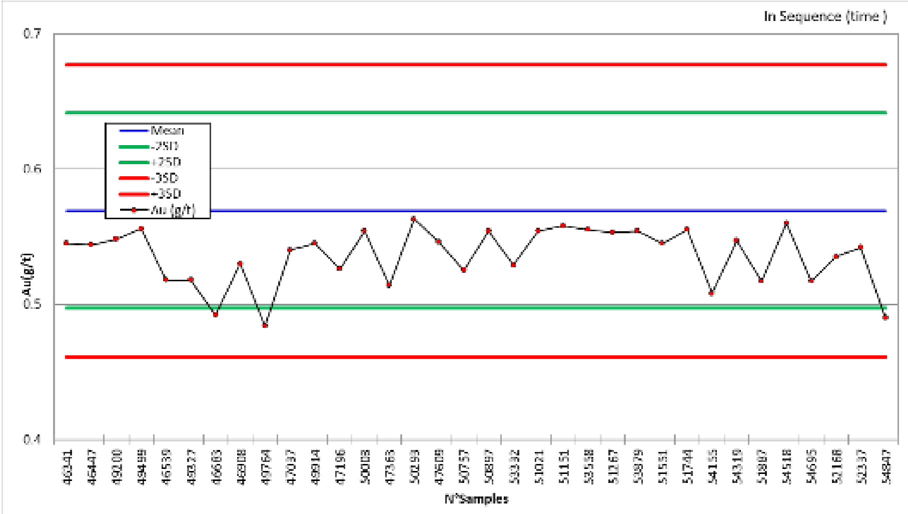


Figure 11-25: Certified Reference Material AuOx-41, gold performance

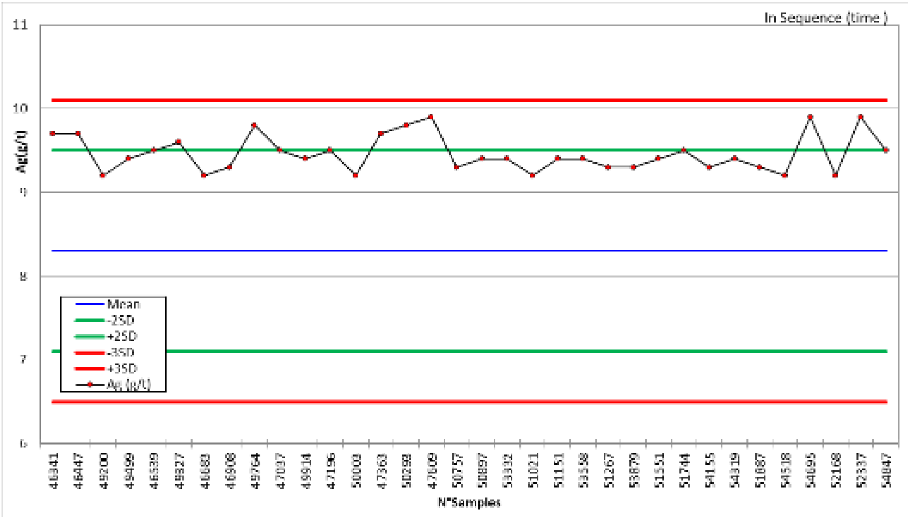


Figure 11-26: Certified Reference Material AuOx-41, silver performance

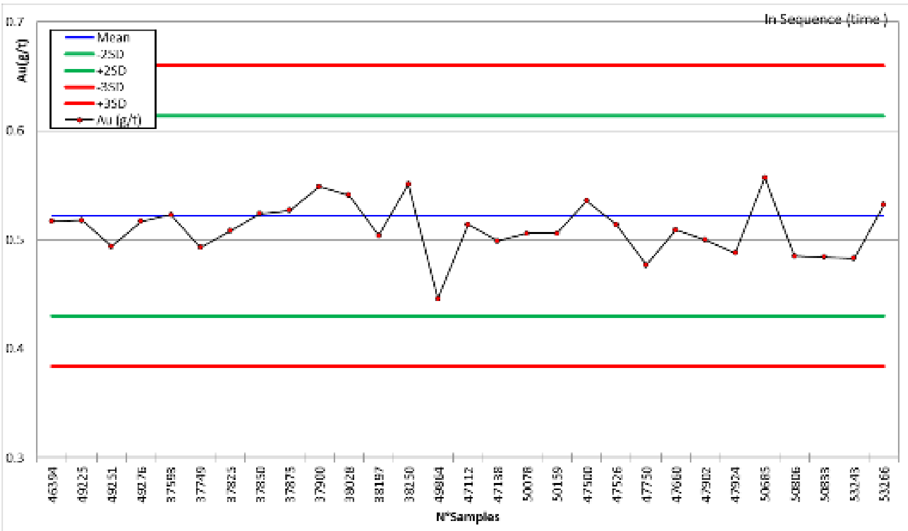


Figure 11-27: Certified Reference Material PLSUL59, gold performance

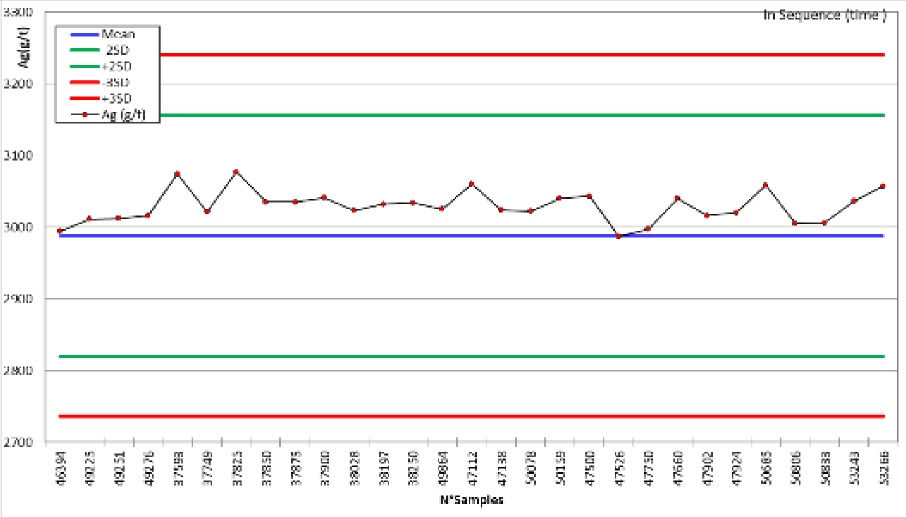


Figure 11-28: Certified Reference Material PLSUL59, silver performance

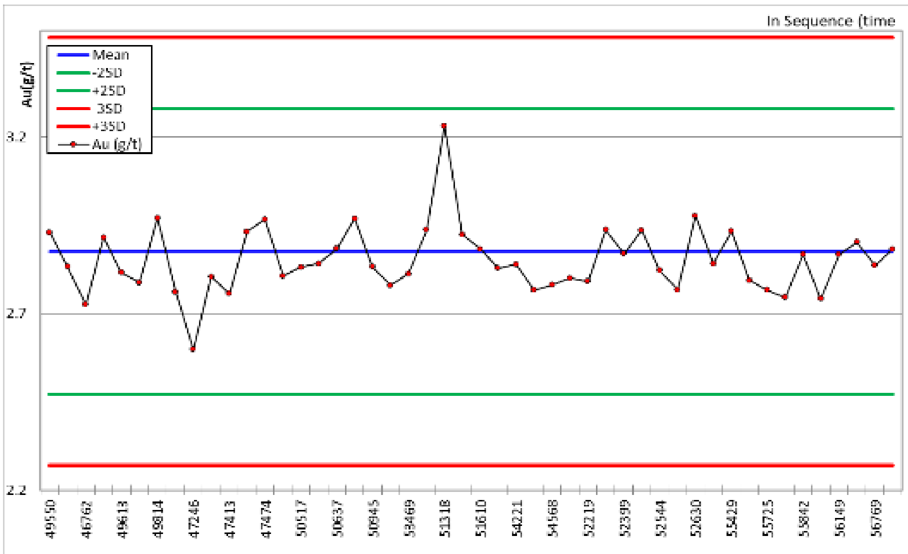


Figure 11-29: Certified Reference Material AuOx-18, gold performance

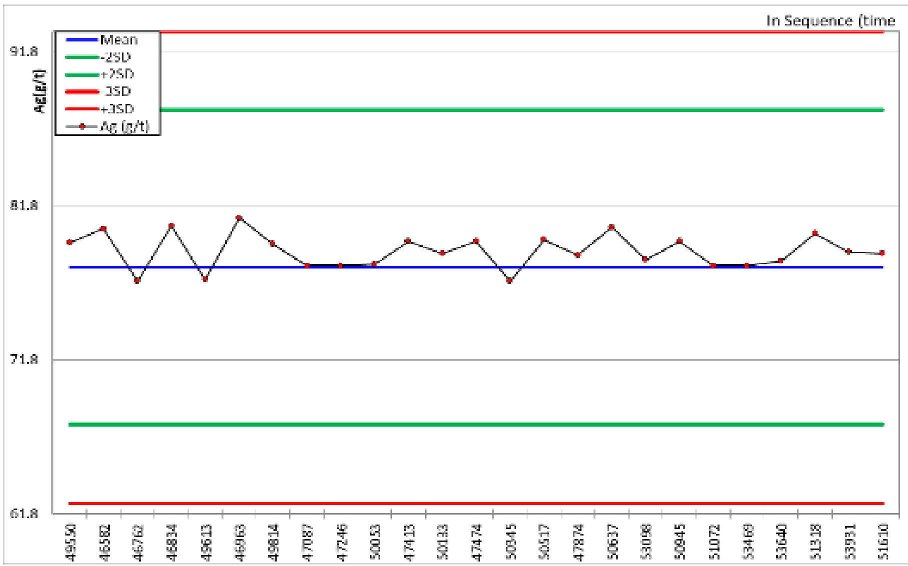


Figure 11-30: Certified Reference Material AuOx-18, silver performance

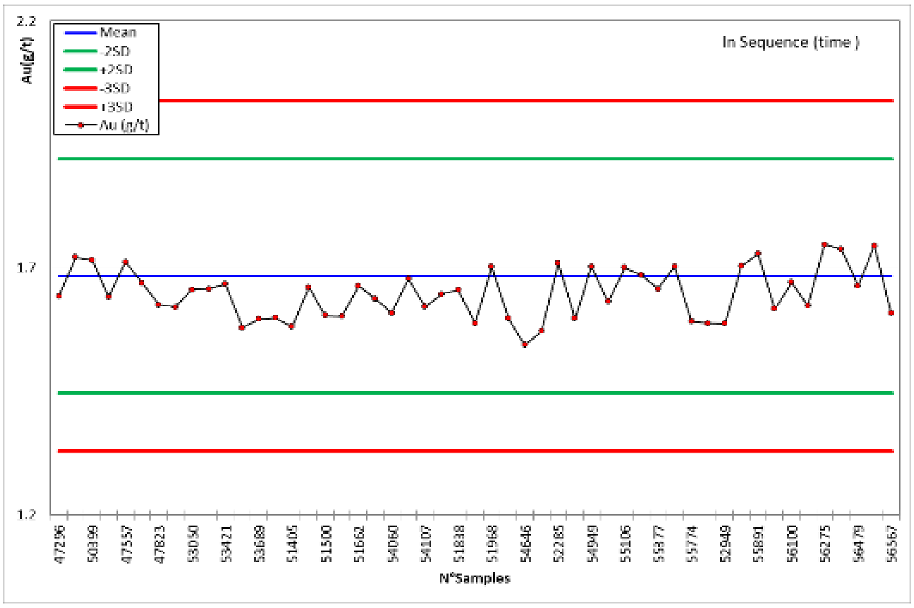


Figure 11-31: Certified Reference Material AuOx-33, gold performance

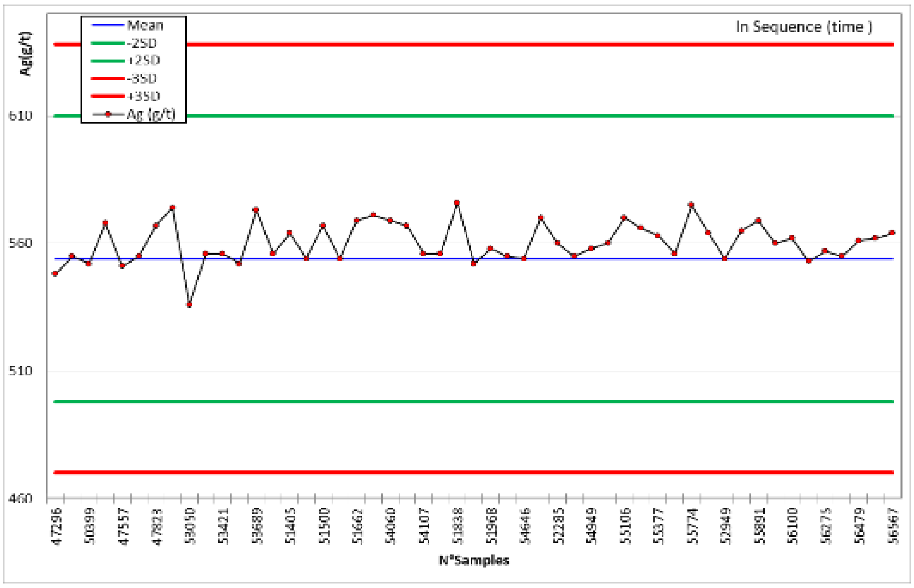


Figure 11-32: Certified Reference Material AuOx-33, silver performance

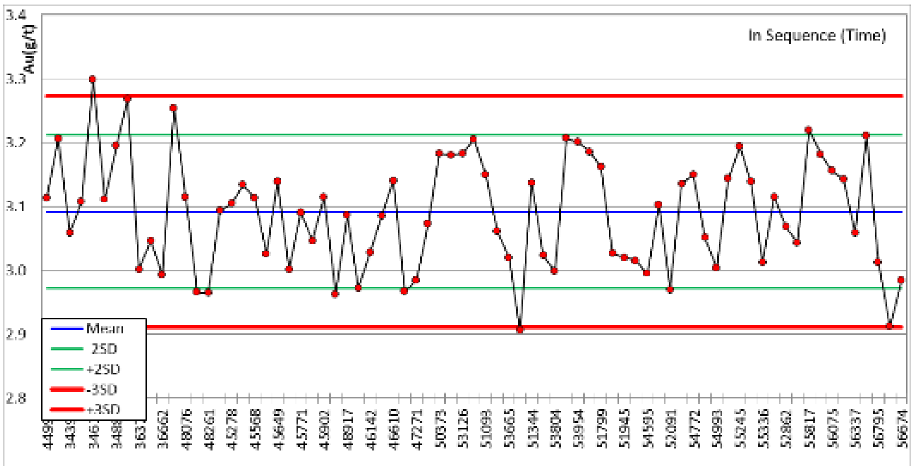


Figure 11-33: Internal Reference Material ASDBL_H01, gold performance

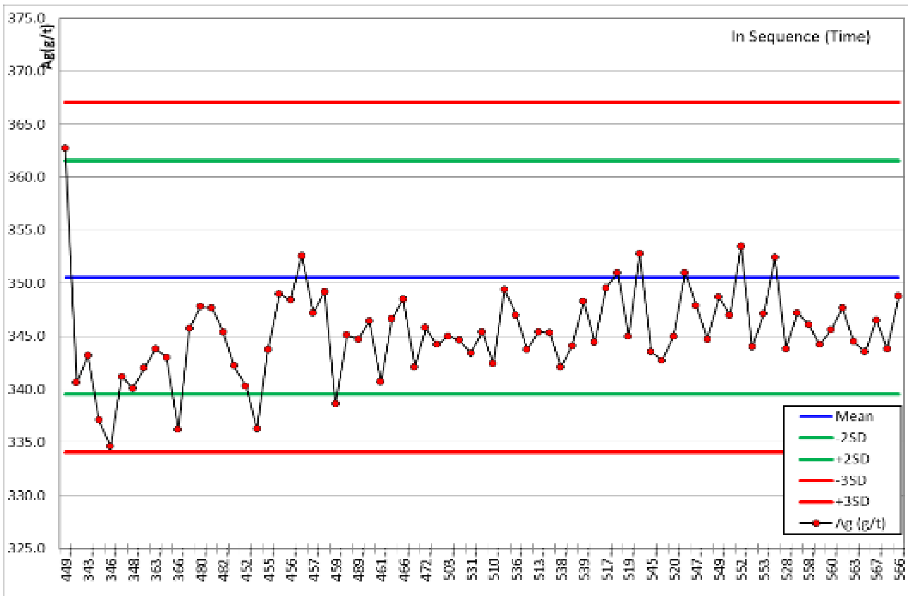


Figure 11-34: Internal Reference Material ASDBL_H01, silver performance

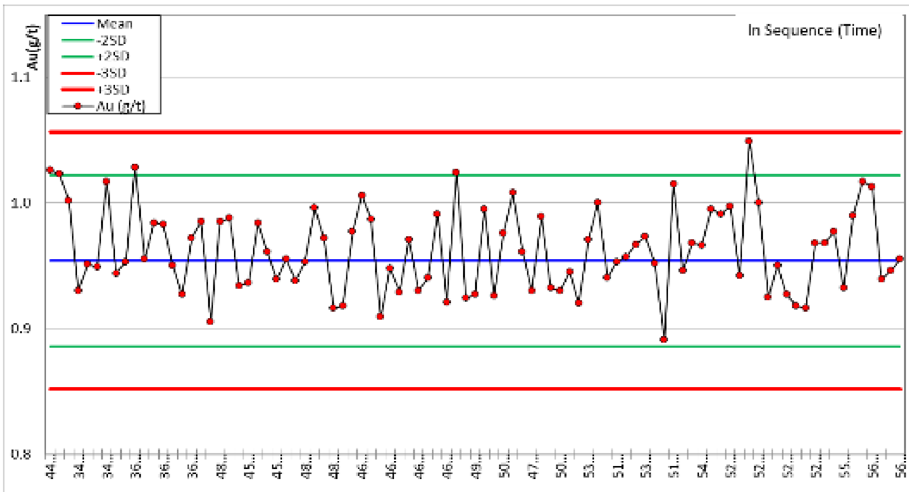


Figure 11-35: Internal Reference Material ASDBL_M01, gold performance

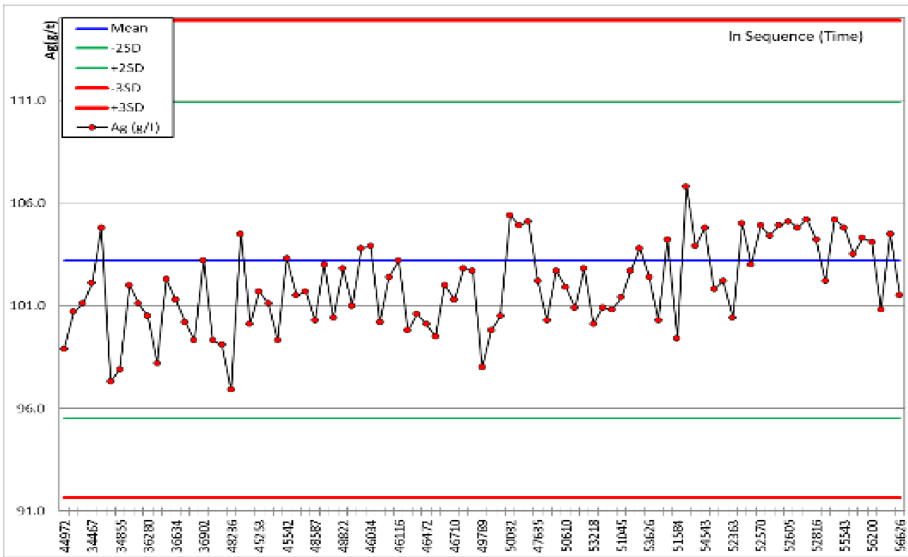


Figure 11-36: Internal Reference Material ASDBL_M01, silver performance

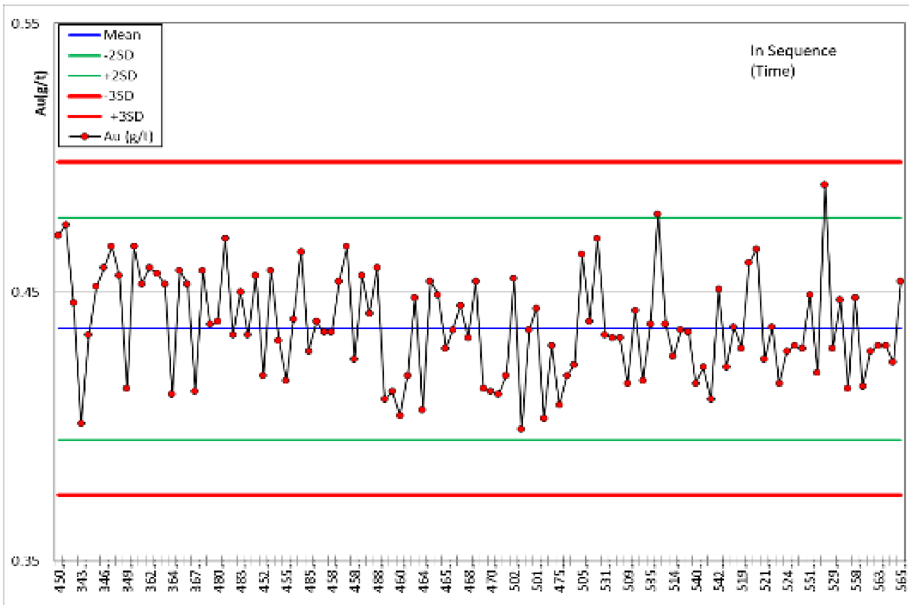


Figure 11-37: Internal Reference Material ASDBL_L01, gold performance

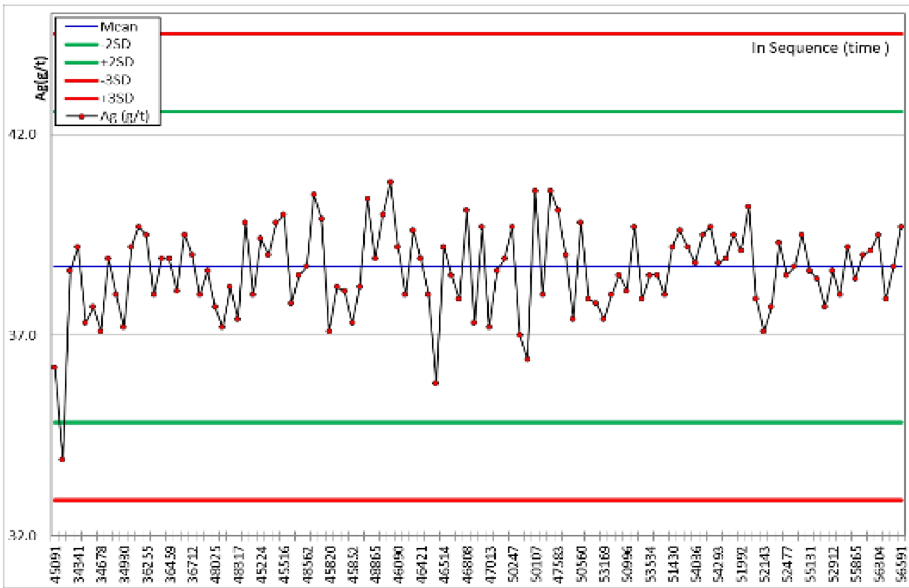


Figure 11-38: Internal Reference Material ASDBL_L01, silver performance

For sample batches that included reference material failures, the laboratory was requested to re-assay samples. The corrected assay data was then loaded to the database.

Core duplicates were obtained by dividing half the core into two separate 1/4 core equivalent samples, bagged and labelled separately. Charts in Figure 11-39 and Figure 11-40 show the relevant RMA scattergrams and the Min-Max vs Hyperbolic Method scattergrams (Figure 11-41 and Figure 11-42). Indicating low to moderate variability.

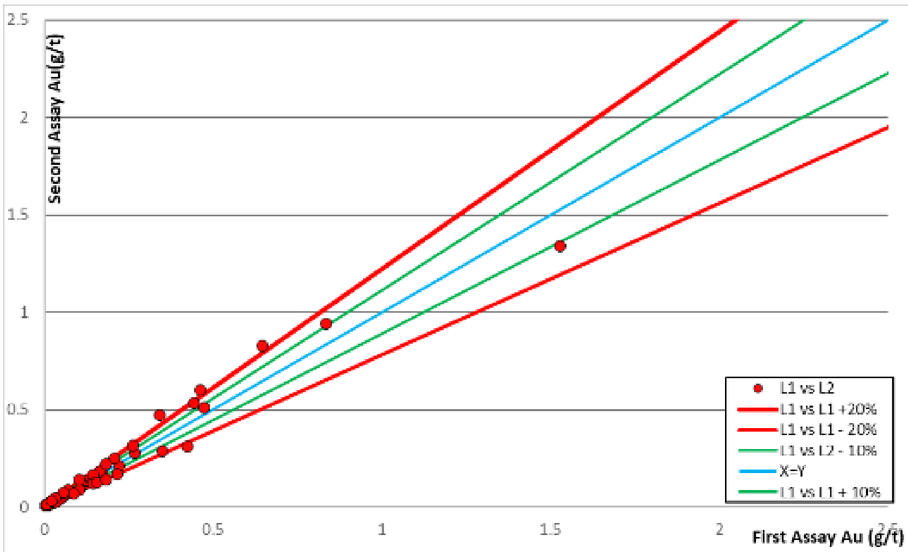


Figure 11-39: RMA Scattergram for duplicate performance of gold

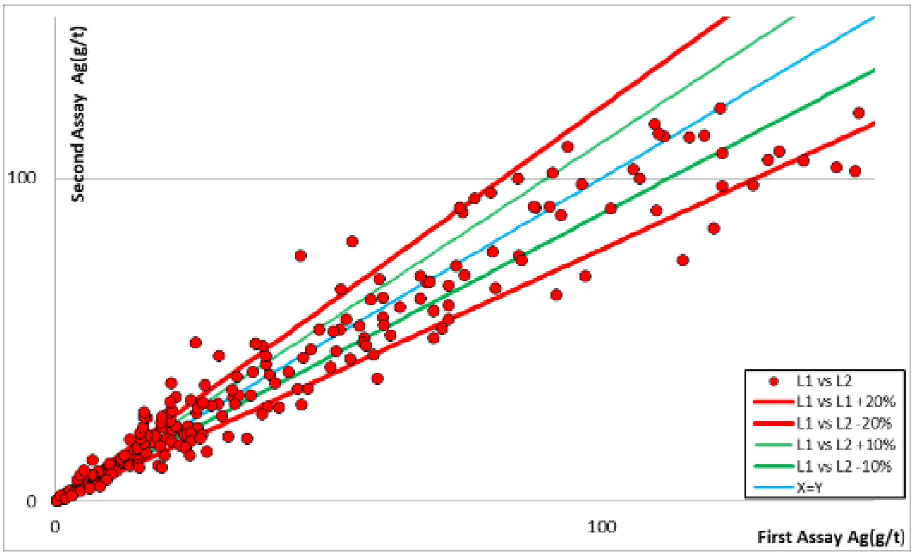


Figure 11-40: RMA Scattergram for duplicate performance of silver

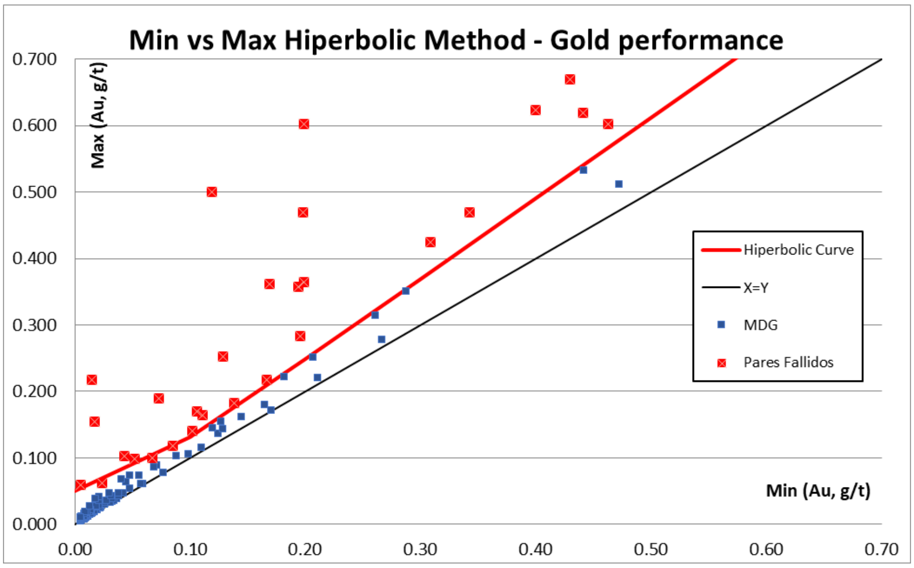


Figure 11-41: Min-Max vs Hyperbolic Method Scattergram for duplicate performance of gold

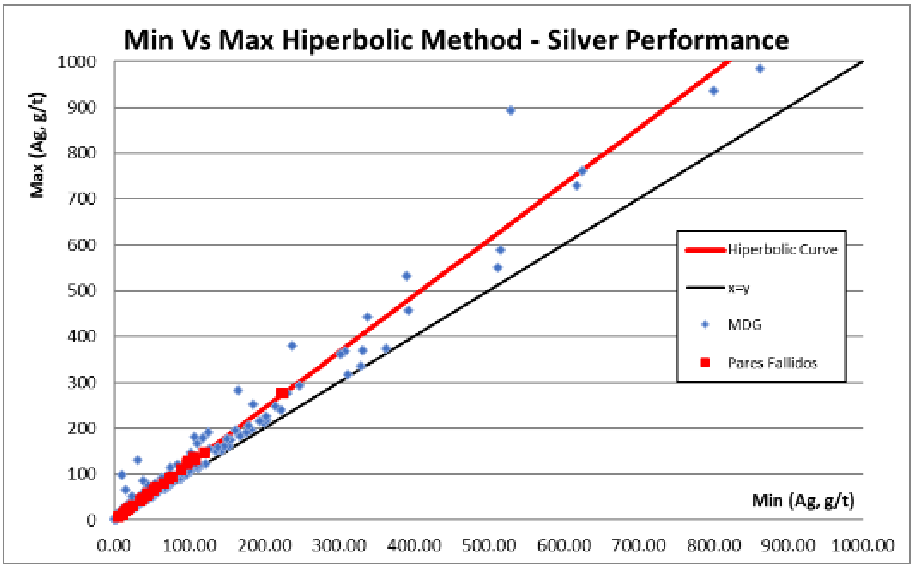


Figure 11-42: Min-Max vs Hyperbolic Method Scattergram for duplicate performance of silver

Based on this review and data analysis, the QP concludes that the gold and silver accuracy was acceptable during the 2022-2023 campaigns. Blank samples were assayed and most yielded values either below detection limits or below the five times detection limit. No obvious gold or silver cross contamination was identified during sample preparation. The RMA and Min-Max vs Hyperbolic Method scattergram plots for gold and silver show good fit between check assays and original assays. A few outliers have however been observed due to high variability in the style of mineralization.

The author has concluded that the assay QA/QC protocols implemented by AbraSilver were adequate for Mineral Resource estimation.

12 DATA VERIFICATION

The QP has reviewed the data compilation and has audited the drill hole database. The audit scope of work included reviewing:

- Collar locations.
- Downhole survey.
- Assays.
- Coincident samples.
- Twin holes.
- Bulk density.

The review also included checking 10% back to source data for collar location, survey, assay, density, and assay comparison analysis.

12.1 Collar review.

12.1.1 Collar location.

The review is based on 606 drillholes with a total depth of 129,647 meters. (see Table 12-1). The average drilling depth is 209 meters with a maximum of 334 meters. There are 203 holes corresponding to reverse circulation (“RC”) with a total of 47,359 meters and 375 holes drilled with diamond (“DDH”) for a total of 65,096 meters.

Drilling campaigns expressed by year can be visualized in Table 12-1.

Table 12-1: Drill campaign summary by year.

Drilling Campaign	Type of Hole	Number of Holes	Meters Drilled	Average Meters Drilled	Min Meters Drilled	Max Meters Drilled
1987	RC	13	378	29	14	31
1990	RC	25	3,483	142	71	250
1993	DDH	5	1,002	200	146	254
1994	DDH	12	2,016	168	25	255
1996	RC	32	8,540	266	113	400
1997	RC	94	24,651	262	49	413
1997	DDH	15	3,514	234	31	380
1998	RC	24	7,547	314	220	370
1999	DDH	5	1,330	266	191	450
2003	RC	10	1,716	171	84	282
2005	RC	5	1,044	209	150	252
2007	DDH	46	9,804	213	31	365
2008	DDH	48	6,941	144	40	355
2012	DDH	7	659	94	41	125
2017	DDH	28	3,149	112	40	327
2019	DDH	2	844	422	380	464
2020	DDH	33	9,144	271	50	610
2021	DDH	59	14,571	246	50	451
2022	DDH	66	15,272	231	101	401
2023	DDH	77	14,043	182	122	245
Subtotal	RC	203	47,359	199	100	285
Subtotal	DDH	375	65,096	226	98	371
Grand total		**606**	**129,647**	**209**	**97**	**334**

12.1.2 Back to source checks.

As the MRE was only executed for Oculto, JAC, Fantasma and Laderas, coordinates consider only holes inside the block model area (described in Section 14). Identified by the “Area” field in the collar table, tagged within the Oculto, JAC, Fantasma and Laderas zones. A perimeter surrounding these zones was used to cross check relevant holes.

This check included topographic survey details of 606 drillholes corresponding to 78% of total collars. The remaining 22% are located outside the Mineral Resource area.

The review confirmed that no drillholes reviewed presented differences between the original log and the database collar survey coordinates.

12.1.3 No transcribed coordinates

All drilling was presented with valid coordinates. No holes had absent data for collar location or final depth.

12.1.4 Maximum depth versus sampling and logging tables

The author carried out a review of the drilling data tables and did not find any discrepancy between maximum depth and the sampling or logging tables.

Table 12-2 shows the number of records per logging table while making the following observations:

- The drillholes have been selectively sampled, not all drilled intervals have been sampled continuously or until the end of the hole.
- Not all drillholes have a geology log until the end of hole depth.
- Some drillholes contain unlogged geology intervals.
- 91% of total meters drilled have been sampled.

Table 12-2: Number of records per logging table

Tables	Number of Holes	Number of Records
Collars	606	606
Surveys	606	8,126
Assays	606	95,913
Lithology	606	8,108
Alteration	606	11,389
Geotech	455	60,789
SG	167	1,897

12.1.5 Comparison of collars and topography surface

A comparison of drillhole collar elevation with respect to the topographic surface was completed. Confirming that less than 1% of drillholes had a difference greater than 2 meters with respect to the topography.

Where the discrepancy was greater than 2m, it was recommended that the drillhole be projected onto topography and to adopt an Inferred classification. Only one historical hole presented such a difference.

12.2 Downhole Surveys

12.2.1 Downhole Surveys station analysis

As part of the data revision of the survey table, drillholes without downhole surveys have been excluded from the final database. The depth, dip and azimuth columns have been used for all selected drillholes. Details of survey records, listed by year are shown in Table 12-3.

The author highlights the following from the review:

- All azimuth values are between 0 and 360.
- All dips are between -90 to -35 degrees.
- 4% of drillholes have 1 station point of downhole survey.
- 28% of drillholes have 2 station points of downhole survey.
- 67% of drillholes have more than 2 station points of downhole survey.
- No duplicate values are presented in the data used for the MRE.

Drillholes with a single measurement and depth greater than 100 meters are not considered for a Measured categorization.

Table 12-3: Summary of collars > 2m above or below topography

Drilling Campaign	Number of Holes	Number of records	Number of holes			% Hole with deviation measurement
			1 Downhole survey	2 Downhole surveys	>2 Downhole surveys	
1987	13	26	0	13	0	
1990	25	50	0	23	0	
1993	5	10	0	5	0	
1994	12	24	0	12	0	
1996	32	373	1	24	7	1
1997	109	1,683	1	67	41	5
1998	24	1,235	0	13	11	
1999	5	293	2	0	3	
2003	10	10	10	0	0	
2005	5	5	5	0	0	
2007	46	228	2	1	43	9
2008	48	172	2	13	33	11
2012	7	145	0	0	3	
2017	28	162	0	0	28	
2019	2	87	0	0	2	5
2020	33	273	0	0	33	
2021	59	869	0	0	56	
2022	66	2,894	0	0	66	
2023	77	1,815	0	0	77	
Grand total	**606**	**10,354**	**23**	**171**	**403**	**31**
Percentage			**4%**	**28%**	**67%**	

12.2.2 Assessing any corrections applied

No global correction is suggested as most data in the downhole survey table is accurate and presents no meaningful deviation. The exception was second decimal place corrections.

It is suggested that holes with only one point station should not be used to categorize at a higher confidence level than Inferred.

The exception being historical holes validated in a recent campaign, or where geological and alteration profile fits with recent models. In those cases, the confidence in hole trace is high.

As rounding issues are not considered material, no correction should be applied. However, it is suggested that original survey measurements are reloaded into the database.

12.3 Assays

12.3.1 Back to Source data checks

There has been changes in ownership and database systems over the last 35 years. Some of the historical data remains incomplete including flagging in the database, certified reference materials, blanks and duplicates. Recent project work over the last twenty years has however used exploration methodologies in line with industry best practice.

Back to source checks have been completed on the 2019 to 2023 drilling campaigns. For the remaining campaigns, gold and silver values have been verified using independent sampling of pulps and cores from historical drillholes. (Refer to NI43101 Technical Report – Mining Plus PEA 2022, Section 12 – Data Verification, Independent sampling check).

The author has checked approximately 2.9% of batch certificates back to source data comprising approximately 1,350 samples out of a total of 46,445.

The following conclusions are noted:

- The assay table includes 46,445 records of which 25,854 have gold values including 20,585 with zero value.
- The assay table includes 46,445 records of which 42,178 have silver values including 4,267 with zero value.
- Zero records have null values.
- No negatives or non-numeric values were identified.
- The detection limit was replaced with a half of the value, however, during the check back to source no data was detected below the detection limit.

The author has observed that there are no duplicate sample codes.

12.3.2 Overlapping intervals

No overlapping samples were detected during the process of auditing the database.

No data entry errors were identified in the intervals.

12.3.3 Coincident samples

No coincident samples were detected.

12.3.4 Kink Analysis

Kink analysis was performed over the 606 drillholes selected to be used in the MRE.

Kink analysis evaluates drillholes per year that have not passed the deviation analysis of survey points. This is when the change in azimuth is greater than 10 degrees, the change in dip limit is greater than 10 degrees or the angle of the drillhole is greater than 10 degrees.

A total of 32 drillhole survey point measurements have a deviation greater than 10 degrees. These 32 deviations represent less than 1% of the 10,354 points of observation.

After a detailed review and verification against the original certificates that did not pass the kink analysis, the conclusion is not to exclude previous holes. The error in all cases was due to mistyping information or vertical holes with misinterpretations. All errors were corrected.

12.3.5 Comparison analysis of different types of data

In this report, no additional comparisons were conducted between data types as this work was previously completed (Mining Plus, 2021). The conclusions of that analysis are transcribed below.

- *The comparison of RC vs DDH was performed within a limited area including the main mineralization. Results indicate that the sample results from RC drilling closely match those from diamond drilling and no bias is evident.*
- *The comparison of the 2008 and 2020 drilling campaigns is shown certain differences, mainly with the 2020 drilling campaign. This was attributed to the intercept of economic mineralization with significant values, causing mean, upper, and lower quartiles to be higher than the 2008 drilling campaign. It was thus concluded this was not evidence of bias.*

The QP concludes from the previous work that no bias is evident between RC and diamond drilling types.

12.3.6 Twinned Drill Holes

No analysis of twin holes has been made for this report as it was done in the previous NI 43.101 report by Mining Plus, MP (2021). However, that study was not conclusive.

12.4 Site Visits

Mr. Peralta visited the Diablillos Project from April 24th to May 3rd and from October 2nd to October 8th, 2023. He conducted a general site inspection, including drill collars, cores, logging facility, logging procedures and camp. Core from several drill holes were reviewed and compared to logs. Collar locations were confirmed by handheld GPS.

In the author's opinion, the site was found to be as described in the Technical Reports, the facilities were well-maintained, and the core storage was orderly.

During the author's second visit, from October 2nd, 2023, to October 8th, 2023, an inspection was made at and around the surface geology of the JAC, Laderas and Fantasma zones as discussed in Section 9. Several core samples were reviewed from Fantasma and Laderas and compared with logs. Additionally, collar locations were confirmed for recent drilling at JAC. Vertical cross sections and plan views with detailed geology, alteration and interpretation were discussed with AbraSilver geologists. Discussions included future exploration targets and near-term objectives.

In the author's opinion, the site continued to be as described in the Technical Reports, with well-maintained facilities and orderly core storage. (see Figure 12-1)

Figure 12-1: Drill core storage facility at site

Source: AbraSilver 2023

12.5 Discussion

In Mr. Peralta's opinion, the database is reasonably free from errors and suitable for use in the estimation of Mineral Resources.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

The Diablillos property owned by AbraSilver Resource Corp is in the Puna region of Argentina, southern part of Salta province, approximately 160 km southwest of the city of Salta. It is a gold and silver deposit which has demonstrated good metal recovery through laboratory-scale cyanidation test work. Previous metallurgical test work has been carried out at a number of different laboratories between 1996 and 2021, and a more thorough metallurgical test work program that conducted by SGS Lakefield has also been completed in 2022 and 2023.

This section summarizes both the previous and the latest test work completed by SGS. The objective of this program is to support the Pre-Feasibility Study (PFS).

13.1 Historical Test Work

Barrick 1996 – 1998

The Initial test program was organized by Barrick and carried out by Lakefield Research in 1996. A series of bottle roll cyanidation tests indicated that the material tested was amenable to cyanidation, with gold recovery ranging from 70% to 99% and silver recovery varying between 50% to 99%.

In 1998, Barrick organized a precious metal recovery program that included both bottle roll studies and column tests. This program confirmed that the sample material being studied was not appropriate for heap leach processing and an additional test program was recommended to study the potential application of cyanide leaching and precious metal doré bullion production by the Merrill-Crowe Process.

Additional testing was conducted in 2007 employing material from the deposit that had a wide range of head grades. In this investigation the gold head grade varied from 0.3 g/t to 10 g/t and the silver head grade varied from 10 to 3,700 g/t. The following relevant conclusions were drawn from this test program:

- All samples tested were amenable to processing by cyanidation with generally acceptable gold and silver extraction levels. Sodium cyanide consumption was in the range of 1 kg/t to 4 kg/t.
- Gold recoveries were typically in the range of 80% to 85%, and silver recoveries averaged around 82%.
- The Bond Work Index for the sample suite tested varied between 11 kwh/t and 17.7 kwh/t.
- Gangue mineralogy did not significantly impact the cyanidation process.
- Gold occurs as metallic grains 3 to 4 microns in size and are typically associated with softer sulphate and iron oxide minerals.
- Silver minerals were coarser in size and consisted of acanthite, chlorargyrite, and iodargyrite.

Silver Standard Resources 2008 - 2009

Five composite core samples were submitted to Process Research Associates for metallurgical studies in May 2008. The first phase test work effort resulted in the following observations and conclusions:

- The sulphide content of the submitted samples ranged between 0.2% to 2.7%.
- The Bond Ball Mill Work Index varied between 12.6 to 19.1 kwh/t.
- Bottle roll testing produced gold recoveries between 69% to 91% and silver recoveries between 73% to 94%. This test series indicated that precious metal recoveries from finely ground samples were relatively insensitive to particle size.
- Bottle roll tests on the crushed coarser samples exhibited considerably lower precious metal recoveries; however, column testing was still recommended for the evaluation of precious metal extraction of low-grade material, possibly by heap leaching.
- Flotation tests indicated that this technique is not applicable to the ore suite tested. Gravity concentration is recommended depending on the grade of the material being processed.
- Site water is recommended for use in additional testing programs.

In 2009, a second phase of test work was conducted, including 48-hour bottle roll tests of 53 samples of Oculto mineralization, bottle roll testing with site water, and two column leach tests using composite samples, which gave the following conclusions.

- The variability tests indicated, on average, a gold recovery of 88% and a silver recovery of 74% after 48 hours of leach can be expected on ball mill ground samples. Most of the precious metals were dissolved during the first 24 hours.
- A cyanide concentration at 2 g/L was used during the variability testing and the cyanide consumption averaged 2.9 kg/mt after 48 hours. It is expected the cyanide consumption will be somewhat lower in an industrial setting.
- Silver was observed to leach more rapidly than gold and to generally reach maximum dissolution within 24 hours. For samples having higher gold grades, the gold dissolution appeared to continue beyond 48 hours. Therefore, it is recommended to consider gravity concentration prior to cyanidation in future studies.
- Site water was used in these leaching studies. Site water did not have an adverse impact upon metal recovery; however, several slurry samples exhibited increased viscosity with site water.
- Two column tests were conducted, one with high grade feed and the other with low grade material. The column tests showed considerably lower precious metal recoveries than bottle roll tests on the same materials. The high-grade material having a head grade of 1.27 g/t Au and 589 g/t Ag had recoveries of 65% for gold and 63% for silver. The low-grade material having a head grade of 0.28 g/t Au and 36.3 g/t Ag had recoveries of 56% for gold and 37% for silver.

Aethon Minerals 2019

In 2019 Aethon Minerals selected eight additional samples which were sent to the ALS metallurgy lab for testing. The samples were from the earlier campaigns in the years of 1997-1999, 2007 and 2008. Average head grades were quite high, at 3.75 ppm of gold and 445 ppm of silver. One sample had a high copper content and was tested by both flotation and cyanidation. The flotation study gave good metal recovery; however, the concentrate had very low copper grade at 2.5% by weight. Additional cleaner flotation significantly reduced the metal recovery in the laboratory test.

For the other seven samples, bottle roll cyanide leaching generally gave very good precious metal recoveries, averaging 87% gold recovery and 91% silver recovery after 24 hours.

AbraSilver 2021

In 2021, AbraSilver sent to the ALS Metallurgy laboratory in Kamloops, British Columbia a total of 56 intercepts samples, which were collected during the drilling program between 2019 and 2020. These samples were all designated as oxide or partial oxide material. The samples collected had an average head grade of 1.17 ppm of gold and 116 ppm of silver, which is an average content somewhat higher than the resource model indicated. The content of copper is quite low averaging around 0.01%. The mineralogy study indicated a very high level of silica present in the whole rock. The geochemical ICP indicated relative high levels of arsenic, antimony, mercury, and lead in the sample.

The SMC (SAG Milling Comminution) test indicated an average Axb value of 58.2, considered to be medium hard material in terms of this SAG milling parameter. The Abrasion Index averaged 0.33. The Bond Work Index (BWI) of the material averaged 15.1 kwh/tonne. The range of the above comminution numbers for the individual samples tested is noted to be quite wide, with Axb values varying between 28 and 127, the Abrasion Index values varying between 0.01 to 0.74, and the BWi observations varying between 9.3 to 21.8 kwh/tonne.

QEMSCAN tests were conducted on all the sample intercepts. It was found that the major mineral component of most samples was quartz. The next abundant mineral is alunite, having a content up to 45% in some intercepts. Overall, the material studied exhibits a large variability in the mineralogical constituents.

Based on the observations from the test work organized by Silver Standard during 2008 and 2009, some test conditions were modified as listed below:

- The grind sizes for bottle roll tests were targeted at P80 values of 100 µm and 150 µm rather than the previous 75 µm.
- The sodium cyanide concentration was controlled at 1 g/L and then allowed to decay to 0.75 g/L.
- A leach time of 24 hours was employed with the solution being sampled and assayed at 1, 2 and 6 hours.

- Oxygen was sparged into the leach bottles at the time intervals of 0, 1, 2 and 6 hours as required in order to consider high-altitude effects.

The leach test results indicated that there was no significant difference in metal recovery between grind sizes of 100 µm and 150 µm. Silver recovery appears to have more variation than gold, possibly due to the large variation in silver head grade of the individual samples. The sedimentation tests indicated that this material exhibited fast settling and produced a clear liquid overflow.

An effort was made to predict the metal recovery based on the head grade of the material; however, the regression equation comparing the head grade with metal recovery had a low R-Squared value.

13.2 Sample Selection and Preparation

In July 2022, a total of forty-two ore samples were received by SGS Lakefield from the AbraSilver Resource Diablillos project for a PFS testing program. Sixteen comminution composite samples were prepared representing four different rock types and were labelled Shallow Gold, Silver Enrichment, Deep Gold, and Northeast. Sample locations can be seen in Figure 13-1.

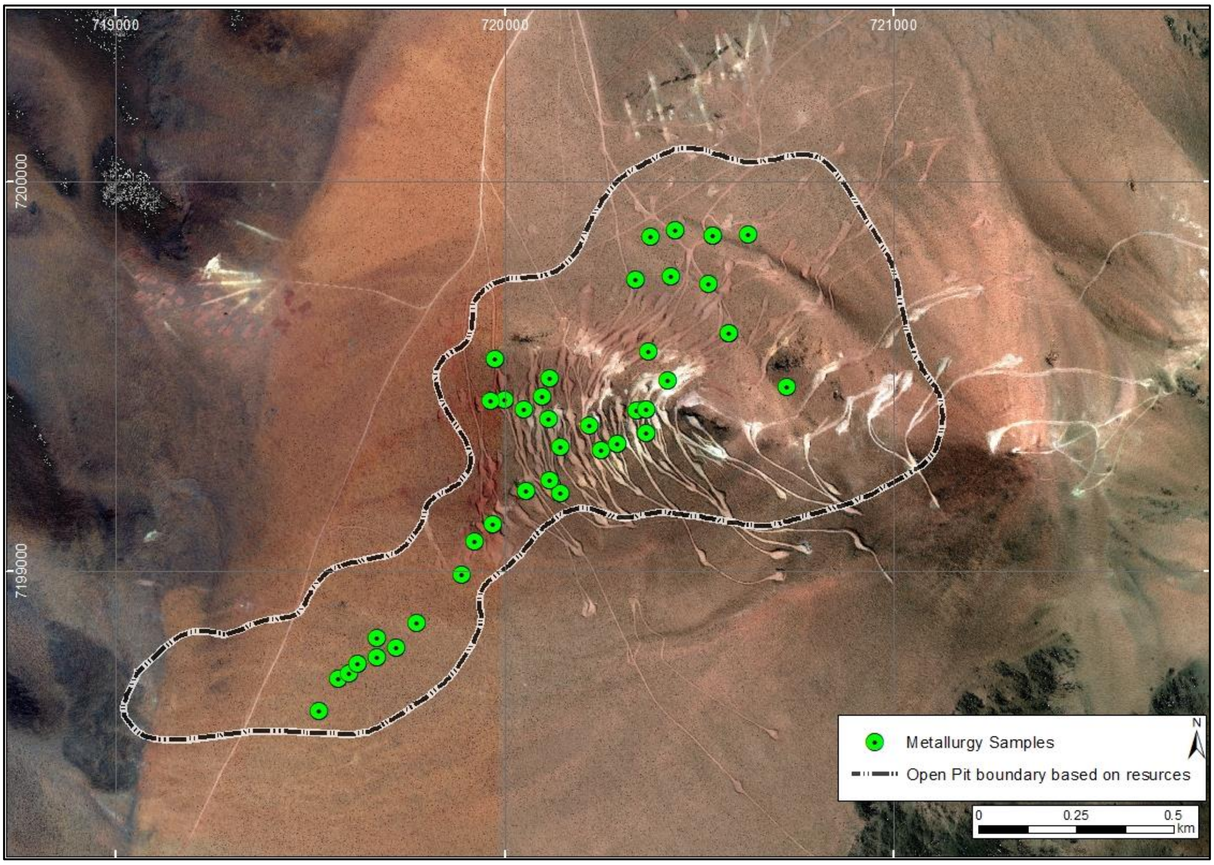


Figure 13-1: -Metallurgy Samples

Source: AbraSilver Resource Corp., 2022

Each of the 42 variability samples was crushed to 30 mm, and a certain amount of each sample was collected to form the 16 comminution composite samples. After removing the required amount of material for each composite sample for the SMC test, the remaining material from each composite sample was further crushed to 19 mm. Material having a size distribution between 12.5 mm to 19 mm was subjected to Abrasion Index testing and the remaining sample was further crushed to 6 mesh (3.4) mm for Ball Mill Bond Work Index tests.

The sample remaining after comminution testing was crushed to minus 10 mesh (2mm) to form the composite sample and variability samples to be used for the metallurgical tests. The details of sample selection and management are listed in Table 13-1.

In 2023, an additional fourteen samples were received from AbraSilver representing the JAC Fantasma deposit for a PFS level testing program. Each of the twelve JAC and two of the Fantasma samples as received were subjected to comminution tests. Each individual sample was crushed to 30 mm and a single 17 kg sample was removed from each of the JAC and Fantasma samples for comminution tests. From the 17 kg of sample material, the required number of larger fragments were removed for SAG Mill Comminution (SMC) tests and the remaining sample in each composite was crushed to -19 mm and screened at 12.5 mm. 1.6 kg of -19 mm/+12.5 mm material was removed from each sample for abrasion index testing. The remaining sample was combined, crushed to -6 mesh for Bond Ball Mill Index testing.

After removing comminution test samples, the remaining material was crushed to through 10 mesh and then riffled into various test charges for subsequent metallurgical testing. The JAC and Fantasma sample preparation summaries are presented in Table 13-2 and Table 13-3 below.

Table 13-1: Sample preparation summary

Variability Sample ID	Total Weight kg	Weight to Remove for Comminution kg	Comminution Composite ID	Weight to Remove for Master Composite kg	Weight Remaining for Variability Sample kg
ME0077	10.4	1.1	Shallow Gold Comp #1	1.0	10.0
ME0091	12.1	6.0		2.0	10.0
ME0092	18.0	0.4		0.0	10.0
ME0094	13.6	2.0		1.6	10.0
ME0095	13.0	2.0		1.0	10.0
ME0097	14.7	3.0		1.7	10.0
ME0111	15.5	3.0		2.5	10.0
ME0072	14.1	2.0	Silver Enrichment Comp #1	2.1	10.0
ME0073	9.6	0.6		0.0	9.0
ME0081	16.6	4.0		2.6	10.0
ME0093	24.8	12.0		2.8	10.0
ME0101	9.5	0.5	Silver Enrichment Comp #2	0.0	9.0
ME0104	12.4	2.0		0.4	10.0
ME0105	18.7	7.7		1.0	10.0
ME0106	14.3	3.0		1.3	10.0

Variability Sample ID	Total Weight kg	Weight to Remove for Comminution kg	Comminution Composite ID	Weight to Remove for Master Composite kg	Weight Remaining for Variability Sample kg
ME0107	15.5	3.5		2.0	10.0
ME0074	11.4	1.0	Tesoro Gold Comp #1	0.4	10.0
ME0082	10.4	10.0		3.3	10.0
	12.9				
ME0110	20.9	6.0		4.9	10.0
ME0078	24.4	10.0	Tesoro Gold Comp #2	4.4	10.0
ME0079	25.7	7.0		8.7	10.0
ME0080	23.0	23.0	Tesoro Gold Comp #3 & Tesoro Gold Comp #4	5.6	10.0
	15.6				
ME0103	21.0	6.0		5.0	10.0
ME0108	17.0	5.0		2.0	10.0
ME0083	10.8	0.8	Tesoro Gold Comp #5	0.0	10.0
ME0084	17.2	4.0		3.2	10.0
ME0096	15.6	2.5		3.1	10.0
ME0102	24.6	7.0		7.6	10.0
ME0109	15.3	2.5		2.8	10.0
ME0112	14.9	17.0	Tesoro Gold Comp #6	2.8	10.0
	14.9				
ME0075	15.8	5.0	North East Comp #1	0.8	10.0
ME0076	15.5	5.0		0.5	10.0
ME0085	19.8	5.0		4.8	10.0
ME0089	14.8	2.4		2.4	10.0
ME0086	24.7	9.0	North East Comp #2	5.7	10.0
ME0099	20.0	8.0		2.0	10.0
ME0087	17.0	17.0	North East Comp #3	2.4	10.0
	12.4				
ME0090	20.3	17.0	North East Comp #4	8.8	10.0
	15.3				
ME0098	17.2	17.0	North East Comp #5	2.0	10.0
	11.8				
ME0100	16.5	10.0	North East Comp #6	6.6	10.0
	10.1				
ME0113	23.9	7.0		6.9	10.0
ME0114	7.1	17.0	North East Comp #6	6.3	10.0
	13.3				
	12.9				

Table 13-2: JAC sample preparation summary

Sample ID	Box #	Weights kg	Remove for Comminution (SMC, BWI, AI) kg	Remove for JAC Master Composite kg	Remaining for Individual Met/Min Sample kg
ME0115	1	11.6	17.0	8.0	13.5
	2	11.4			
	3	15.5			
ME0116	1	17.0	17.0	8.0	9.0
	2	17.0			
ME0117	1	12.3	17.0	8.0	37.9
	2	11.4			
	3	15.5			
	4	12.2			
	5	11.5			
ME0118	1	13.8	17.0	8.0	5.5
	2	16.7			
ME0119	1	14.5	17.0	8.0	16.2
	2	12.8			
	3	14.0			
ME0120	1	18.0	17.0	8.0	11.0
	2	18.0			
ME0121	1	13.3	17.0	8.0	5.0
	2	16.7			
ME0122	1	15.0	17.0	8.0	8.3
	2	18.3			
ME0123	1	14.7	17.0	8.0	5.7
	2	16.0			
ME0124	1	17.8	17.0	8.0	6.8
	2	14.0			
ME0125	1	17.6	17.0	80.0	7.6
	2	15.0			
ME0126	1	20.0	17.0	80.0	13.5
	2	18.5			
JAC Master Composite Total Weight				96.0	

Table 13-3: Fantasma sample preparation summary

Sample ID	Box #	Weights kg	Remove for Comminution (SMC, BWI, AI) kg	Remaining for Individual Met/Min Sample kg
ME0127	1	18.0	17.0	26.2
	2	11.7		
	3	13.5		
ME0128	1	18.5	17.0	34.0
	2	19.3		
	3	13.2		

13.3 Mineralogy

All 42 variability samples and the Master Composite sample from Oculto material received in 2022 were subjected to Quantitative Evaluation of Materials by Scanning Electron Microscopy (QEMSCAN) and Particle Mineral Analysis (PMA). The 42 variability samples were also subjected to TESCAN Integrated Mineral Analyzer (TIMA) analysis.

The master composite sample was split into five size fractions for QEMSCAN-PMA analysis, which were +150 µm, -150/+106 µm, -106/+45 µm, -45/+10 µm, and -10 µm. The overall results for the Master composite sample showed a weight percent distribution grouped into a major amount of 76.3% for quartz, a moderate amount of 10.2% for alunite, minor amount of 4.48% for jarosite and 2.96% for iron oxides, as well as trace amounts of minerals less than 2%. There is a minor amount of pyrite in the material present in the form of free pyrite and pyrite associated with silicates.

All 42 variability samples were subjected to QEMSCAN-PMA employing one size fraction, -300/+3 µm. Most of variability samples had quartz as the major component (>30% by weight), with six samples having alunite as the major component and only one sample having muscovite as the major mineral. Moderate amounts (10-30%) of alunite, iron oxides, jarosite and clay minerals were present in the variability samples. The major percentage of pyrite (>30%) was in the form of free pyrite (30 samples), pyrite associated with silicates (8 samples), and complex mineral assemblages (15 samples).

The TIMA analysis performed on the variability samples indicated that most of gold grains are in the form of native gold averaging approximately 82% by weight, followed by electrum averaging around 18% by weight. The major silver minerals were iodargyrite (averaging around 42.4%) and chlorargyrite (averaging around 31.8%). Other silver minerals present were acanthite and oxidized acanthite (averaged 18.8%) and silver/oxidized silver (averaged around 6.3%). The TIMA analysis also indicated the major silver mineral associations were in the form of quartz/feldspar, complex and liberated silver.

In 2023, additional mineralogy tests were performed on the fourteen variability samples together with a JAC composite sample. QEMSCAN and PMA analysis indicated that the major non-sulphide minerals are quartz, alunite, and iron oxides. Based on the five size fractions (+150 µm, -150/+106 µm, -106/+45 µm, -45/+10 µm, and -10 µm), the overall reconciliated results for the JAC composite indicated a weight percent distribution grouped into a major amount of 64% for quartz, a moderate amount of 10.5% for iron oxides, minor amount of 2.26% for muscovite, 3.98% for kaolinite, 3.04% for ilmenite/rutile and 7.88% for alunite, as well as trace amounts of several other minerals less than 2%.

For the sulphide minerals, based on the five size fractions of the JAC composite sample, the overall reconciliated results indicated a weight percent distribution grouped into a major amount of 38.7% for free pyrite, a moderate amount of 25.8% for pyrite and silicates and 22.6% complex pyrite, minor amounts of 6.02% for liberated pyrite, 2.39% for pyrite-sulphates and 2.43% for pyrite-oxides, as well as trace amounts of other minerals.

The QEMSCAN-PMA mineralogical examination was completed on each of the fourteen variability samples at the single size fraction of -300/+3 µm. All individual samples except two had quartz as the major component (>30% by weight). Moderate amounts (10-30%) of alunite, kaolinite, iron oxides and muscovite are also present in these variability samples. The major percentage of pyrite (>30%) was in the form of free pyrite (four samples), pyrite and silicates (four samples), and complex pyrite assemblages (ten samples).

The TIMA analysis of the fourteen samples with respect to silver deportment determined that the major silver minerals (>30%) were silver/oxidized silver for two samples, chlorargyrite for five samples, and iodargyrite for nine samples.

13.4 Sample Characterization

Head sample analyses were completed on the Master Composite sample and 42 variability samples to determine the precious metal concentration as well as the content of other key elements. Assays performed include gold and silver fire assay, sulphur speciation by LECO, copper by atomic absorption, and ICP scan analysis.

The composite sample had an average gold grade of 2.06 ppm and a silver content of 119 ppm. The 42 variability samples had a much larger variation in the gold and silver head grade, with gold varying between 5.54 ppm down to below detection limit, and silver varying between 882 ppm to less than 2 ppm.

The sulphur speciation analysis performed on the Master Composite sample indicated that the total sulphur is 2.73% and sulphide sulphur is 0.86%. The total carbon was 0.05% and total organic carbon was less than the detection limit of 0.05%. The mercury content averaged 1.4 ppm. Between the 42 variability samples, most of samples had low organic carbon content below the detection limit. The content of sulphide sulphur varied between 0.06% and 4.47%, and the mercury content varied between 8.2 ppm to below the detention limit of 0.3ppm. The characterization studies indicated that this material is not preg robbing; however, ore horizons may exhibit refractory characteristics.

The whole rock analysis on the Master Composite sample indicated that most of the material was SiO_2 with average content of 74.2%, followed by iron oxide averaging 5.9% and aluminium oxide averaging 4.5%. The ICP scan performed on the Master Composite sample indicated 1080 ppm of arsenic, 280 ppm of bismuth, and 2820 ppm of lead.

In 2023, the additional fourteen variability samples and the JAC composite sample were tested to determine the gold and silver concentration as well as the content of other key elements. The gold fire assay of the JAC composite sample was 0.11 g/t and the fourteen variability samples ranged from below detection limit to 0.55 g/t gold. The silver grade analysis was performed by both the fire assay method and acid digestion/atomic absorption analysis. The JAC composite sample had a silver head grade of 148 g/t and the fourteen variability samples ranged from less than 6 g/t to 353 g/t silver.

The sulphur speciation analysis performed on the JAC Composite sample indicated that the total sulphur is 1.98% and sulphide sulphur is 1.50%. This sulphide level may indicate that the material possesses some refractory characteristics. The total carbon was 0.02% and total organic carbon was less than the detection limit of 0.05% indicating this material is unlikely to be preg robbing. The samples were dried at 40°C to avoid volatilization of the mercury content of the JAC composite sample, with 3.9 ppm of Hg.

The whole rock analysis confirmed that most of the mineral in the material is SiO2. The JAC composite sample contains 64.7% SiO2, followed by 11.9% of Fe2O3 and 6.53% Al2O3. Semi-quantitative ICP scan analysis was performed on both the JAC composite and the fourteen variability samples. For the JAC composite, ICP indicated 838 ppm of Arsenic, 161 ppm of copper, 4,880 ppm of lead, and 105 ppm of zinc. For the variability samples, the arsenic level ranged from 58 to 4,270 ppm, copper ranged from 15 to 1160 ppm, lead ranged from 144 to 15,300 ppm, and zinc ranged from 9 to 585 ppm.

13.5 Comminution

A total of sixteen composite samples from the Oculto zone as received in 2022 were prepared for the comminution testing program, including SAG Mill Comminution (SMC), Bond Ball Mill Index (BWI), and Bond Abrasion Index (AI) tests.

The Axb parameters for the SMC tests performed on the sixteen composite samples ranged from 42.8 to 77.2, with an average value of 56.2. This value indicated that this material is medium hard with respective to SAG milling. The detailed comminution test results are summarized in the Table 13-4 as below.

The Bond Ball Mill Work Index test showed that the BWI of the material varied between 12.4 to 19.1 kWh/mt, with an average value of 15.80 kwh/mt, which equates to medium hard in terms of ball mill grinding. The abrasion index (AI) of the material varies between 0.2 to 1.2, with an average value of 0.66. The comminution studies conducted to date are sufficient for sizing of comminution equipment.

In 2023, additional comminution tests were completed on the JAC material. Based on the test results of fourteen variability samples, the Axb parameters from the SMC tests ranged from 29.4 to 210.5, with an average value of 126.8. This value indicated that this material is very soft with respective to SAG milling. The detailed comminution test results are summarized in Table 13-5.

The Bond Ball Mill Work Index test showed that the BWI of the JAC material varied between 10 to 22.5 kWh/mt, with an average value of 15.1 kwh/mt, which equates to medium hard in terms of ball mill grinding. The abrasion index (AI) of the material varies between less than 0.02 to 0.46, with an average value of 0.10. This material on average is much softer than Oculto material and also much less abrasive, therefore, the mill sizing based on Oculto material is still appropriate for the current study.

Table 13-4: Comminution test result summary

Sample Name	A x b	DWI (kWh/m^3)	SCSE (kWh/t)	Relative Density	BWi, kwh/mt	Ai, g
Shallow Gold Comp #1	77.226	3.06	7.56	2.36	14.0	0.235
Silver Enrichment Comp #1	57.760	4.11	8.34	2.39	13.8	0.497
Silver Enrichment Comp #2	53.947	4.29	8.64	2.32	18.1	0.817
Deep Gold Comp #1	51.359	4.94	8.69	2.53	15.0	
Deep Gold Comp #2	52.920	4.73	8.58	2.51	16.6	1.171
Deep Gold Comp #3	66.420	3.67	7.89	2.44	15.5	
Deep Gold Comp #4	75.152	3.29	7.53	2.49	15.2	0.624
Deep Gold Comp #5	42.824	5.77	9.36	2.48	16.1	
Deep Gold Comp #6	68.306	3.66	7.79	2.5	12.4	0.195
North-East Comp #1	43.470	5.63	9.31	2.44	16.0	0.506
North-East Comp #2	45.832	5.31	9.1	2.44	16.9	0.770
North-East Comp #3	44.578	5.62	9.21	2.52	16.4	0.993
North-East Comp #4	60.372	4	8.18	2.42	18.0	0.736
North-East Comp #5	45.079	5.42	9.16	2.46	19.1	0.987
North-East Comp #6	55.132	4.34	8.49	2.39	17.0	0.625
North-East Comp #7	59.075	4.05	8.27	2.39	12.7	0.452
Average	56.200		8.51		15.8	0.66

Table 13-5: Comminution test result summary – JAC

Sample Name	A x b	DWI (kWh/m^3)	SCSE (kWh/t)	Relative Density	BWi, kwh/mt	Ai, g
ME-0115	122.0	2.2	6.41	2.63	13.6	0.063
ME-0116	137.4	1.6	6.75	2.15	16.3	0.085
ME-0117	181.4	1.1	6.62	2.03	12.2	0.028
ME-0118	73.6	3.0	7.88	2.23	16.4	0.077
ME-0119	116.6	1.7	7.40	2.01	16.3	0.042
ME-0120	106.0	1.9	7.59	2.01	16.9	0.059
ME-0121	90.1	2.1	8.33	1.90	10.0	0.053
ME-0122	210.5	0.9	6.59	1.97	16.0	0.020
ME-0123	184.5	1.1	6.52	2.06	12.3	0.076
ME-0124	185.8	1.2	6.16	2.22	11.7	0.033
ME-0125	166.0	1.3	6.43	2.16	10.6	0.000
ME-0126	65.9	3.4	8.11	2.27	17.8	0.273
ME-0127	59.4	3.7	8.49	2.23	22.5	0.459
ME-0128	75.4	2.9	7.93	2.18	18.2	0.121
Average	126.8	2.02	7.23		15.1	0.099

13.6 Gravity Concentration Test

The test work conducted in 2009 implied that coarse gold may be present for some higher gold grade material. Therefore, a three stage Extended Gravity Recoverable Gold (E-GRG) separation test was conducted on the Master Composite sample as prepared in 2022. The grind sizes for each stage were 605 µm, 215 µm and 82 µm respectively. The gravity test results are summarized in Table 13-6 and Table 13-7 as below.

Table 13-6: E-GRG Test Au results summary for Oculto material

Grind Size	Product	Mass		Assay Au (g/t)	Units Au	Dist'n %
		g	%			
P_{80} = 605 µm	Stage 1 Conc	94.10	0.47	37.90	3,568	9.30
	Sampled Tails	302.70	1.51	1.72	521	1.36
P_{80} = 215 µm	Stage 2 Conc	100.30	0.50	28.60	2,866	7.50
	Sampled Tails	307.90	1.54	1.65	509	1.33
P_{80} = 82 µm	Stage 3 Conc	76.50	0.38	27.40	2,093	5.50
	Final Tails	19,119.00	95.60	1.51	28,792	75.10
	Totals (Head)	20,000.00	100.00	1.92	38,349	100.00
	Knelson Conc	271.00	1.35	31.50	8,527	22.20

Table 13-7: E-GRG Test Ag results summary

Grind Size	Product	Mass		Assay Ag (g/t)	Units Ag	Dist'n %
		g	%			
P_{80} = 605 µm	Stage 1 Conc	94.1	0.47	2,743.5	258,163	10.20
	Sampled Tails	302.7	1.51	105.5	31,937	1.26
P_{80} = 215 µm	Stage 2 Conc	100.3	0.50	3,417.1	342,739	13.50
	Sampled Tails	307.9	1.54	98.35	30,282	1.19
P_{80} = 82 µm	Stage 3 Conc	76.5	0.38	626.6	47,933	1.90
	Final Tails	19,119	95.6	95.74	1,830,494	72.00
	Totals (Head)	20,000	100.0	127	2,541,548	100.00
	Knelson Conc	271	1.35	2,395	648,835	25.50

These GRG numbers of 22.2 for gold and 25.5 for silver indicate that a gravity gold recovery circuit is necessary and therefore recommended for the process design. For the process design, a recommendation is made to include a gravity concentrator treating 50% or more of the cyclone underflow at a grind size at 150 µm. The precious metal recovery is expected to be around 10.1% for gold and 7.8% for silver.

In 2023, a three stage E-GRG separation test was also conducted on the JAC composite sample, with the grind sizes at each stage of 619 µm, 249 µm and 64 µm respectively. The gravity test results are summarized in Table 13-8 below.

Table 13-8: E-GRG Test results summary for JAC composite

P_{80} Grind Size µm	Product ID	Mass		Gold			Silver		
		g	%	Assay g/t	Units mg	Dist'n %	Assay g/t	Units mg	Dist'n %
619	Stage 1 Conc	79.90	0.40	3.44	275.00	10.30	7,494	598,747	17.8
	Sampled Tails	262.20	1.31	0.15	38.40	1.40	123	32,242	1.0
249	Stage 2 Conc	97.00	0.49	1.81	176.00	6.60	5,369	520,745	15.5
	Sampled Tails	300.00	1.50	0.09	25.70	1.00	109	32,604	1.0
64	Stage 3 Conc	85.60	0.43	2.49	214.00	8.00	441	37,760	1.1
	Final Tails	19,175	95.90	0.10	1,935	72.70	111	2,137,051	63.6
	Totals (Head)	20,000	100.00	0.13	2,663	100.00	168	3,359,149	100.0
	Knelson Conc	262.50	1.31	2.53	664.00	24.90	4,409	1,157,252	34.5

The GRG numbers of 24.9% for gold and 34.5% for silver indicate that a gravity recovery circuit will be beneficial to the metals recoveries and is therefore recommended in the process flowsheet. Additional gravity Knelson concentrator testing was conducted, which resulted in 17.3% of gold recovery and 9.1% silver recovery, based on a concentrate mass pull of 0.06%.

13.7 Bulk Cyanide Leach Test

13.7.1 Cyanidation Testing on the Master Composite Sample

Cyanidation testing was performed on the Master Composite sample from Oculto to determine the optimum operational conditions. The test conditions that were explored include grind size, pulp density, reagent dosage, pre-aeration, leach time, and the impact of site water.

The gold recoveries were all in a very similar range during the optimization tests, with the gold recovery varying between 82% and 87%, and silver recovery varying between 79% to 87%. The sodium cyanide consumption ranged from 0.29 to 2.39 kg/mt, and the lime consumption ranged from 0.51 to 1.57 kg/mt. The site water was used to repeat the optimum test conditions, and it was found that the site water, which was more brackish than tap water and had a pH around 5.5, did not impact either gold or silver recovery. From the optimization test work, it was determined that the following test parameters will be recommended as the optimal:

- Grind size P80 of 150 µm.
- Pulp density of 45% solids by weight in the tank leach.
- Pulp pH between 10.5 to 11.
- Leach aeration with air sparging throughout the test.
- Total leach retention time of 48 hours.
- Initial sodium cyanide concentration of 1.5 g/L.

Based on the above test conditions, the bulk cyanidation test performed on this Master Composite sample had approximately 85% of gold recovery and 82-84% of silver recovery at the end of 48 hours of leaching. The cyanide consumption averaged at 1.68 kg/t and lime consumption averaged at 0.55 kg/t.

In 2023, additional cyanidation optimization tests and bulk cyanidation tests were repeated on the JAC composite sample. All optimization tests were conducted with four hours of pre-aeration before cyanide leach due to the presence of sulphide material. There are several tests having Dissolved Oxygen (DO) below 4 ppm and above 3 ppm during pre-aeration. Although not ideal, industry experience has indicated that this level of DO may not have significant negative impact on the leaching kinetics. Optimization tests explored the impact of grind size, cyanide concentration, pulp density, and leaching time. The gold recovery varied between 81% to 88%, while the silver recovery varied between 84% to 88%. The cyanide consumption ranged from 0.73 to 1.81 kg/t, and the lime consumption ranged from 2.73 to 3.16 kg/t, and averaged 2.94 kg/t. The leaching parameters established through optimization tests are the same as those of the bulk leach test conducted on the Oculto composite sample as above described.

13.7.2 Cyanidation Test on Variability Samples

Using the optimal test conditions from the cyanidation tests on the Master Composite sample, cyanidation tests were repeated on the variability samples. The metal recoveries and reagent consumptions for each ore zone are summarized in the Table 13-9 below.

Table 13-9: Oculto variability samples cyanidation test result summary

Ore Zone	Au Rec. %			Ag Rec. %			NaCN Kg/mt			CaO Kg/mt		
	Ave	Max	Min	Ave	Max	Min	Ave	Max	Min	Ave	Max	Min
Shallow Gold	74	97	29	45	89	24	0.51	0.85	0.21	1.26	2.50	0.47
Silver Enrichment	83	93	71	72	95	35	0.92	1.24	0.40	2.00	6.43	0.92
Tesoro Gold	84	97	69	82	90	68	1.21	2.26	0.39	1.59	3.27	0.46
North-East	84	93	51	76	89	37	0.79	1.34	0.30	0.93	1.68	0.28

The above table reveals that a large variability in cyanidation results exists for the individual samples that constitute the Ore Zone composite samples. Likewise, a wide variation in the cyanide consumption is apparent. Though a total 48 hours of leaching duration was used during the variability tests, statistical analysis indicated that a total 36 hours of leaching time would be sufficient to provide maximum metals recovery.

In 2023, additional fourteen variability sample from JAC and Fantasma zone were tested based on the same testing condition recommended from the JAC composite optimization tests. The metal recoveries and reagent consumption from each variability sample are summarized in the Table 13-10 below.

Table 13-10: JAC & Fantasma variability samples cyanidation test result summary

Deposit	Sample	CN Residue P80	Reagent Consumption kg/t of CN Feed		% Au Extraction	% Ag Extraction
			NaCN	CaO	Hours	Hours
ID	ID	µm	kg/t	kg/t	48	48
JAC	ME0115	142	1.08	6.01	78	70
	ME0116	143	2.99	2.83	78	64
	ME0117	134	1.14	3.79	78	56
	ME0118	155	0.84	2.46	78	92
	ME0119	141	0.75	2.05	89	72
	ME0120	146	0.79	2.47	78	72
	ME0121	152	0.77	3.30	85	93
	ME0122	164	0.87	2.63	78	63
	ME0123	149	1.10	2.59	88	88
	ME0124	137	0.50	2.37	87	78
	ME0125	163	0.61	3.19	78	60
	ME0126	151	1.43	1.72	79	89
Fantasma	ME0127	136	0.82	3.07	77	54
	ME0128	161	0.84	3.28	77	60

13.7.3 Cyanidation Tests on Gravity Tails Samples

The gravity tailings produced from the gravity separation tests performed on the Oculto Master Composite sample were subjected to cyanidation tests. A total of nine gravity tailings cyanidation tests were conducted, with eight tests directed toward optimization of the leach conditions and the last test repeating the optimum test conditions using site water. The gold recovery ranged from 82% to 85%, and the silver recovery ranged from 78% to 82%. The cyanide consumption was between 0.29 and 1.7 kg/mt, and the lime consumption varied between 0.7 and 1.53 kg/mt. The optimization testing did not indicate any significant impact upon metal extraction of grind size, nor the elevated DO level or pre-aeration. The leaching conditions as developed based on the whole ore cyanidation optimization testing of Oculto composite samples are still valid for gravity tailings cyanidation, with a total leaching time at 36 hours.

As the gravity tailings cyanidation will be more representative of the future plant operation, the gold and silver recovery of the tank leach circuit to be installed in the plant is estimated based on the gravity tailings cyanidation tests, which gave 83% gold recovery and 79.8% silver recovery at 36 hours leach retention time. The average cyanide consumption of this test is 0.78 kg/mt of plant feed, and the lime consumption is 0.79 kg/mt, which will be used to predict the cyanide and lime consumption in the plant.

For the JAC composite, after gravity separation tests, a total of seven gravity tailings cyanidation tests were conducted to optimize the leaching conditions. By the end of 48 hours of leaching time, the gold recoveries ranged from 78% to 89%, while the silver recoveries ranged from 84% to 93%. The cyanide consumption varied between 0.76 to 1.88 kg/t, and lime consumption varied between 2.09 to 2.47 kg/t. This set of tests did seem to indicate that a finer grind size can improve the metal recoveries, however based on the leaching kinetics this apparent recovery increase may not be statistically significant. The elevated cyanide concentration tests seem result in a better gold recovery but a lower recovery for silver. The elevated DO with injection of oxygen did not appear to improve the metal recoveries, however it did reduce the cyanide consumption, likely due to the oxidation of sulphide and sulphur material in the ore. The addition of lead nitrate did not appear to improve the metal recovery. The leaching duration of 36 hours seems sufficient for JAC composite gravity tailings. The leaching conditions for the JAC gravity tailings are to be similar to Oculto gravity tailings leaching, under which conditions the gold recovery is expected to be around 83.8% and silver recovery around 84.9%. The associated cyanide consumption is around 1.52 kg/t and lime consumption around 2.19 kg/t. Compared to the Oculto material, the increased cyanide consumption is mostly due to the much higher silver content in the material, and the increased lime consumption may be due to the higher sulphide content.

13.8 CCD Test

A CCD circuit will be installed to recover the pregnant solution from the leached slurry after cyanidation. To estimate the requirements for the CCD circuit design, the CCD process has been simulated using a METSIM model, with the following operational parameters:

- Slurry density of fresh feed at 45% solids by weight.
- CCD thickener underflow density at 55% solids by weight.
- The CCD stage efficiency is assumed to be 85%.
- Various numbers of CCD stages.
- Several selected CCD wash ratios.

With an increase in the number of CCD stages and/or an increase in the wash ratio, the metal recoveries will increase; however, the associated capital cost will also increase. Therefore, there is a trade-off between maximizing the metal recoveries and the increase in capital cost. A high-level optimization of the CCD design has been performed, based on a high-level estimation of the capital cost associated with CCD and Merrill-Crowe plant at a constant ore head grade and cyanidation circuit recovery. Based on the optimization study, six stages of CCD with a wash ratio of 3 is recommended based on the estimated pregnant solution tenor produced from Oculto material.

A similar exercise was also conducted for the JAC material. The only operational parameter that differed from Oculto material is the CCD thickener underflow density, which will be controlled around 50% solids by weight rather than 55%. Based on expected solution tenor from CCD feed, and associated capital cost, a total of seven stages of CCD with a wash ratio of 3.0 is recommended for JAC material.

13.9 Merrill-Crowe Test

A Merrill-Crowe test was conducted to confirm the efficiency of the Merrill-Crowe process. The pregnant solution obtained from the gravity tailings bulk leach in the laboratory was diluted with water in a ratio of 3:1 to simulate the pregnant solution recovered from the CCD circuit. The solution tenor produced in the laboratory has similar chemical characteristics to the METSIM fluid flow simulation.

Based on the solution tenor, zinc dust was added to the solution at various ratios of the calculated stoichiometric amount. The solution was sparged with nitrogen for 30 minutes to minimize the dissolved oxygen (DO) level in the solution before adding zinc dust. The metal recoveries are summarized in Table 13-11 below.

Table 13-11: Merrill-Crowe Test Result Summary – Oculto Material

Product ID	Zinc Stoichiometric Addition Times	Test Volume L	Assays, mg/L		Extraction	
			Au mg/L	Ag mg/L	Au %	Ag %
MC-1 Barren	1	2	<0.05	0.48	100	97.8
MC-2 Barren	3	2	<0.05	0.16	100	99.3
MC-3 Barren	5	2	<0.05	0.05	100	99.8
MC-4 Barren	10	2	<0.05	<0.03	100	100
MC-5 Barren	15	2	<0.05	<0.03	100	100
BL-1A Diluted PLS	-	-	0.37	21.60	-	-

Based on the laboratory test, the pregnant solution acquired from this ore was amenable to treatment by the Merrill-Crowe process and can attain very high metal recovery by the zinc dust precipitation procedure. Based on the test results and industry standard practices, a zinc dust stoichiometric ratio for precipitation of 5 is recommended. Consequently, for every unit weight of combined gold and silver, a 1.5-unit weight of zinc dust will be required.

For JAC composite, additional Merrill-Crowe testing was conducted on the pregnant leach solution (PLS) obtained from the bulk leach test. The PLS was diluted with water simulating a wash ratio of 3:1 from the CCD circuit, then clarified and de-aerated before adding the zinc dust. The zinc addition was added to the diluted PLS at stoichiometric ratio of 1, 3, 5, 10 and 15, the lead nitrate was also added at a quarter of the amount of zinc dust. The metal recoveries associated with each zinc dust addition are summarized in Table 13-12 below.

Table 13-12: Merrill-Crowe test result summary – JAC material

Product ID	Zinc Stoichiometric Addition Times	Test Volume L	Assays, mg/L		Extraction	
			Au mg/L	Ag mg/L	Au %	Ag %
MC-1 Barren	1	2	<0.05	13.00	100	50.6
MC-2 Barren	3	2	<0.05	4.32	100	83.6
MC-3 Barren	5	2	<0.05	0.98	100	96.3
MC-4 Barren	10	2	<0.05	0.12	100	100
MC-5 Barren	15	2	<0.05	<0.03	100	100
BL-3 Diluted PLS	-	-	<0.05	26.30	-	-

For the PLS obtained from JAC material, the required zinc stoichiometric addition to achieve satisfactory metal recovery is somewhere between 5 and 10, slightly higher than that of the Oculto material. This is likely due to the effect of elevated copper in the PLS from JAC material.

13.10 Cyanide Destruction Test

Cyanide destruction testing was performed on the leach tailings slurry obtained from the laboratory test program, with the purpose of minimization of the Weak Acid Dissociable (WAD) cyanide in the plant effluent slurry to below 1 ppm. The cyanide destruction method used in the test was the INCO process, which utilizes sulphur dioxide or sodium metabisulfite, copper sulphate and air to oxidize the WAD cyanide. The key parameters of the process are reagent dosage and retention time.

The test indicated that approximately 4.7 grams of equivalent sulphur dioxide will be required for every gram of WAD cyanide (CNWAD) in the solution to reduce final WAD cyanide concentration below 1 ppm and roughly one hour of retention time will be required. The copper addition was not essential to minimize the WAD cyanide during the test.

The same cyanide destruction test was also performed on the simulated CCD tailings produced from the JAC composite sample. The test used 45% solids slurry and a retention time of one hour. Due to the elevated copper naturally occurring in the solution, no copper was added. The test indicated between 4 and 5 grams of equivalent sulphur dioxide for every gram of WAD cyanide will be sufficient to reduce the WAD cyanide concentration below 10 ppm.

13.11 Sedimentation and Rheology Tests

To provide the design basis for the CCD and the sedimentation processes, solid/liquid separation and rheology tests were performed on the leached slurry tails and detoxed slurry. The particle size of the test sample was measured at 150 µm, and the particle specific gravity was 2.75. The slurry pH from the detoxed tailings was 8.5 and that of the leached tails was 10.5.

The preliminary static settling studies indicated utilization of a 15 g/t of flocculant dosage at a unit area of 0.03 m^2/tpd for detoxed tailings, and 11 g/t of flocculant dosage at a unit area of 0.05 m^2/tpd for leached tailings.

Both detoxed tailings and leached tails were further subjected to the dynamic thickening tests. For detoxed tailings, with the increase of unit area from 0.05 to 0.1 m^2/tpd, the underflow density increased from 57.8% to 63.2% solids by weight. This indicated that with an increase in thickener diameter the thickener underflow density can reach 60% solids by weight or above.

For the slurry coming from the tank leach, the dynamic thickening test indicated that at a unit area of 0.05 m^2/tpd, the thickener underflow can achieve 64% solids by weight. At a unit area of 0.05 m^2/tpd and a flocculant dosage of 15 g/t, the thickener overflow TSS can achieve 50-70 ppm. As the thickener overflow Total Suspended Solids (TSS) is critical to the Merrill-Crowe process, an additional clarifier after CCD circuit is recommended in the process design to further reduce the solution TSS.

The Critical Solids Density (CSD) of both detoxed tailings and leached tailings are very similar, between 67% to 68% solids by weight, which also confirms that 60% solids thickener underflow will be readily achieved assuming proper thickener design.

Sedimentation and rheology tests were also repeated on the leach slurry tails and detoxed slurry from JAC material. The particle size of the sample was measured at 162 µm, with the specific gravity around 2.6. The slurry pH varied between 9 and 10. The static settling test indicated a 0.08 m^2/tpd unit area with 20 g/t of flocculant for leached tailings and a 0.05 m^2/tpd unit area with 76 g/t of flocculant for detoxed tailings. The flocculant used was Magnafloc 338, the same as the sedimentation testing for Oculto material.

For the leached tailings, the indicated unit areas were between 0.06 to 0.08 m^2/tpd with the dynamic thickening test, with the flocculant dosage maintained at 30 g/t. The overflow TSS were between 42 to 130 mg/L, and the underflow density varied between 31.2% to 61.1%. At an underflow density at 61.1%, the slurry was difficult to pump, and the yield stress reached 228 Pa.

For the detoxed tailings slurry, the indicated unit areas were between 0.06 to 0.10 m^2/tpd with the dynamic thickening test, with the flocculant dosage maintained at 50 g/t. The overflow TSS was between 110 to 221 mg/L, and the underflow density varied between 36.2% to 50.6%. With extended thickening for 30 minutes, the underflow density can be increased from 46.2% to 54.4%, corresponding to a yield stress from 4 Pa to 34 Pa respectively. The Critical Solids Density (CSD) of both detoxed tailings and leached tailings are in a similar range, between 55% to 60% solids by weight. In the process design, it is recommended that the underflow density being controlled around 50% solids by weight.

13.12 Additional Metallurgical Tests on Samples of Four Zones of the Oculto Deposit

In late 2023, per a request from AbraSilver, SGS Lakefield prepared four master composite samples representing four different zones of the Oculto deposit identified as Shallow Gold, Silver Enrichment, Tesoro Gold and North-East. Head assays and sulphur speciation of these four zones were measured and are summarized in Table 13-13 below.

Table 13-13: Head assays and sulphur specification of four Oculto zones

Element	Shallow Gold	Silver Enrichment	Tesoro Gold	North-East
Au, g/t	1.10	1.45	2.60	1.91
Ag, g/t	54.0	151.0	124.0	76.9
Total Sulphur, %	3.94	3.61	3.33	2.10
Sulphide sulphur, %	2.05	1.57	1.21	0.57

Only a single gravity test and a single gravity tailings cyanidation test were conducted for each composite sample. The test report was completed by Lakefield on October 6, 2023. This test report was also used as the basis for the AbraSilver Mineral Resource Estimate (MRE) report issued by AbraSilver on December 10, 2023. The zone of “Deep Gold” in AbraSilver MRE report refers to Tesoro Gold as noted in the Lakefield Test Report.

The laboratory scale gravity concentration tests were performed on the four master composite samples employing a Knelson MD-3 concentrator and a Mozley mineral separator. The Mozley concentrate was used to represent the field gold and silver recovery. All gravity tests were conducted employing a single grind size of approximately 150 microns. The gravity tests result is summarized in Table 13-14 below.

Table 13-14: Gravity tests summary of four Oculto zones

Sample ID	Grind Size (µm)	Mozley Concentrate			Metal Recovery		Tailing Assay		Head Grade (calc'd)	
		Mass pull (%)	Au (g/t)	Ag (g/t)	Au (%)	Ag (%)	Au (g/t)	Ag (g/t)	Au (g/t)	Ag (g/t)
Shallow Gold	150	0.10	247	26,247	16.2	16.4	1.27	132.0	1.51	158.0
Silver Enrichment	142	0.09	152	2,776	12.3	5.4	1.02	45.4	1.16	48.0
Tesoro Gold	151	0.10	235	4,407	8.6	3.3	2.46	126.0	2.69	130.0
North-East	160	0.12	149	5,237	10.1	5.2	1.58	76.0	1.75	82.1

The tailings from each of the gravity tests were then subjected to cyanidation tests employing the optimum leaching conditions developed from Lakefield Test report 1 which was based on the Master Composite Sample representing the whole Oculto material. The following test conditions were employed for individual gravity tailings cyanidation tests.

- Grind size P80 approximately 150 microns.
- Pulp density of 45% solids by weight.
- Pulp pH between 10.5 to 11.
- Initial sodium cyanide concentration of 1.5 g/L.
- Four hours of pre-aeration and continuing aeration throughout the leaching test.
- Total leach retention time of 48 hours.

The gravity tailings cyanidation test results for each Oculto zone are summarized in Table 13-15 below.

Table 13-15: Gravity tailings cyanidation test summary of four Oculto zones

Test Sample	Grind Size P80 (µm)	Reagent Consumption kg/t of CN Feed		Metal Recovery (48 hours)		Head Grade (calc'd)	
		NaCN (kg/t)	CaO (kg/t)	Au (%)	Ag (%)	Au (g/t)	Ag (g/t)
Shallow Gold	156	1.12	1.62	83.5	82.8	1.27	127.0
Silver Enrichment	143	0.79	1.34	86.6	54.3	1.08	50.0
Tesoro Gold	150	1.72	1.30	82.2	82.0	2.69	129.0
North-East	156	0.92	0.71	88.1	80.2	1.69	77.2

The gravity tailings recoveries do show a modest amount of gold extraction variability between the four different zones. It is noted that the overall the silver recoveries are generally in a similar range with the metal extractions experienced with the Oculto Master Composite sample with the exception of the silver extraction of the Silver Enrichment sample.

13.13 Environmental Testing

Modified Acid-Base Accounting (ABA) test, Net Acid Generation (NAG) test, and Toxicity Characteristic Leaching Procedure (TCLP) analysis were conducted on the leached tailings, cyanide destructed tailings, and 24 tailings samples from cyanidation variability tests.

The modified ABA test indicated that the material is acid generating and will have a net acid producing potential as evidenced by the NP/AP ratios all being less than one, ranging from 0.02 to 0.74. The Net Neutralization Potential, which is calculated by subtracting the Acid Potential (AP) from the Neutralization Potential (NP), ranged from -0.8 to -304.7 ton of $CaCO_3$ per 1000 tons of material. The NAG test indicated that the acidity level ranged from 4 to 325 mg/L as $CaCO_3$, while the alkalinity level was generally less than detection limit (< 2mg/L as $CaCO_3$) to 15 mg/L as $CaCO_3$. These results further indicated that the solids are acid generating. However, to evaluate the potential acid generating impact of leached tailings at the mine site, a more thorough testing and studies are recommended, including the kinetic humidity cell test, and the consideration of other factors including local precipitation at the mine site.

TCLP testing was completed on the same sample suite to determine the mobility of inorganic contaminants present in the material. The results are listed in Table 13-16, Table 13-17, and Table 13-18 as below.

For the JAC composite sample and JAC variability samples, the modified ABA static tests indicated that this material is acid generating, the net acid producing potential all being less than one, ranging from -0.01 to 0.47. The Net NP ranged from -9.3 to -164 ton of $CaCO_3$ per 1000 tons of material.

The NAG test for JAC material indicated that the acidity level ranged from 7 to 495 mg/L as $CaCO_3$, while the alkalinity level was generally less than detection limit (< 2mg/L as $CaCO_3$). TCLP testing was completed on the same sample to determine the mobility of inorganic contaminants present in the material. The results are listed in Table 13-19, and Table 13-20 below.

During 2023, AbraSilver performed kinetic humidity cell tests on site, to evaluate the potential acid generating impact of waste rocks for all six geometallurgical domains equivalent to 25 years under site conditions. The test work confirmed that only one single domain (i.e. Deep Gold) produces ARD (Refer to AbraSilver internal report – Diablillos Site Kinetic Humidity Cells Test 2023).

Table 13-16: Toxicity characteristics leaching procedure summary #1 – Oculto

Measurement ID	Unit	MC Leach Tailing	MC CND Tailing	ME0072 CN-23 Tailing	ME0073 CN-24 Tailing	ME0074 CN-25 Tailing	ME0075 CN-26 Tailing	ME0076 CN-27 Tailing	ME0077 CN-28 Tailing	ME0078 CN-29 Tailing
Sample Weight	g	100	100	100	100	100	100	100	100	100
Ext Fluid	#1 or #2	1	1	1	1	1	1	1	1	1
Ext Volume	mL	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Final pH	no unit	5.00	5.00	4.97	5.04	4.99	4.97	4.98	4.97	4.98
Hg	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Al	mg/L	0.846	0.775	1.120	0.452	0.339	0.456	0.943	1.280	0.497
As	mg/L	0.0096	0.0131	0.0018	0.0242	0.0011	0.0019	0.0011	0.0009	0.0015
Ag	mg/L	< 0.00005	0.00006	< 0.00005	< 0.00005	0.00180	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Ba	mg/L	2.82	0.818	2.53	0.0642	0.436	3.18	1.55	2.11	2.85
Be	mg/L	0.00057	0.00043	0.00010	0.00008	0.00008	0.00007	0.00010	0.00004	0.00009
B	mg/L	0.064	0.058	0.055	0.090	0.074	0.058	0.065	0.087	0.074
Bi	mg/L	0.00782	0.00675	0.00007	< 0.00001	0.00014	0.00012	< 0.00001	< 0.00001	0.26200
Ca	mg/L	39.8	45.4	30.2	107.0	40.4	20.9	23.4	16.4	28.8
Cd	mg/L	0.00029	0.00032	0.00022	0.00115	0.00099	0.00069	0.00069	0.00034	0.00036
Co	mg/L	0.00318	0.00314	0.00075	0.22600	0.00413	0.00352	0.00783	0.00147	0.00169
Cr	mg/L	0.00518	0.00545	0.00322	0.00196	0.00185	0.00610	0.00281	0.00643	0.00479
Cu	mg/L	0.0082	0.3280	0.0021	0.0039	0.0474	0.0097	0.0042	0.0028	0.0083
Fe	mg/L	4.020	0.660	0.130	0.260	0.380	1.250	0.060	0.480	0.520
K	mg/L	2.43	3.11	1.44	6.53	4.08	1.30	3.30	2.08	1.38
Li	mg/L	0.0200	0.0129	0.0130	0.0120	0.0133	0.0058	0.0132	0.0130	0.0032
Mg	mg/L	2.700	2.980	0.910	3.040	1.570	0.580	0.600	0.670	0.590
Mn	mg/L	7.340	7.870	0.738	0.412	0.329	0.370	0.685	0.188	0.368
Mo	mg/L	0.00010	0.00004	0.00029	0.00011	0.00011	0.00006	0.00009	0.00005	< 0.00004
Na	mg/L	1,318	1,327	-	-	-	-	-	-	-
Ni	mg/L	0.0140	0.0095	0.0049	0.0551	0.0088	0.0079	0.0100	0.0068	0.0112
P	mg/L	< 0.003	0.0100	< 0.0003	< 0.0003	< 0.0003	< 0.0003	0.0100	< 0.0003	< 0.0003
Pb	mg/L	0.0688	0.0533	0.01987	0.00257	0.00836	0.0161	0.0062	0.1430	0.5140
Sb	mg/L	0.0070	0.0134	< 0.0009	< 0.0009	< 0.0009	0.0052	< 0.0009	< 0.0009	< 0.0009
Se	mg/L	0.00012	0.00023	0.00008	0.00024	0.00007	< 0.00004	< 0.00004	0.00017	< 0.00004
Sn	mg/L	0.00027	0.00013	0.00013	0.00015	0.00011	0.00019	0.00020	0.00010	0.00009
Sr	mg/L	0.127	0.0981	0.0543	0.0789	0.0655	0.147	0.295	0.101	0.167
Ti	mg/L	0.00991	0.00239	0.00028	0.00766	0.00199	0.00049	0.00248	0.00089	0.00074
Tl	mg/L	0.00085	< 0.000005	0.00019	0.00696	0.00036	0.00089	0.00234	0.00068	0.00133
U	mg/L	0.00113	0.00141	0.00080	0.00576	0.00113	0.00155	0.00955	0.00075	0.00259
V	mg/L	0.00024	0.00012	0.00006	0.00016	0.00008	0.00016	0.00008	0.00009	0.00010
W	mg/L	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Y	mg/L	0.00221	0.00255	0.00070	0.00857	0.00138	0.00112	0.00119	0.00046	0.00132
Zn	mg/L	0.296	0.380	0.032	0.086	0.039	0.041	0.034	0.028	0.012

Table 13-17: Toxicity characteristics leaching procedure summary #2 – Oculto

Measurement ID	Unit	ME0080 CN-31 Tailing	ME0081 CN-32 Tailing	ME0082 CN-33 Tailing	ME0083 CN-34 Tailing	ME0086 CN-37 Tailing	ME0089 CN-39 Tailing	ME0091 CN-41 Tailing	ME0093 CN-43 Tailing	ME0094 CN-44 Tailing
Sample Weight	g	100	100	100	100	100	100	100	100	100
Ext Fluid	#1 or #2	1	1	1	1	1	1	1	1	1
Ext Volume	mL	2000	2000	2000	2000	2000	2000	2000	2000	2000
Final pH	no unit	4.98	4.98	4.97	4.99	4.95	5.02	5.02	5.01	5.00
Hg	mg/L	0.000370	0.000030	< 0.00001	0.000550	< 0.00001	< 0.00001	0.000010	0.000010	0.000150
Al	mg/L	0.707	0.948	0.630	1.060	0.284	0.626	4.480	1.080	0.830
As	mg/L	0.0651	0.0014	0.0195	0.0023	0.0028	0.0009	0.0032	0.0012	0.0006
Ag	mg/L	0.00040	< 0.00005	< 0.00005	0.00520	0.00007	< 0.0005	0.00072	< 0.0005	0.00054
Ba	mg/L	1.93	2.67	3.23	1.03	2.20	0.499	1.88	1.43	1.68
Be	mg/L	< 0.000007	< 0.000007	< 0.000007	0.000043	< 0.000007	0.000060	0.000170	0.000070	0.000060
B	mg/L	0.106	0.223	0.611	0.146	0.080	0.103	0.282	0.119	0.118
Bi	mg/L	0.00195	0.00010	0.00009	0.00156	0.00023	0.00004	0.00012	0.03179	0.00026
Ca	mg/L	38.0	33.5	22.3	42.3	12.0	29.7	62.2	31.2	31.0
Cd	mg/L	0.000269	0.000047	0.000131	0.000038	0.000140	0.000072	0.000240	0.000210	0.000130
Co	mg/L	0.001740	0.000875	0.000962	0.000905	0.001800	0.000720	0.001100	0.000920	0.000740
Cr	mg/L	0.00268	0.00298	0.00410	0.00401	0.00426	0.00343	0.00539	0.00509	0.00469
Cu	mg/L	0.0063	0.0005	0.0076	0.0019	0.0079	0.0015	0.0064	0.0015	0.0012
Fe	mg/L	1.350	0.075	0.254	0.110	0.542	0.090	1.760	0.210	0.110
K	mg/L	4.45	1.85	2.27	6.74	1.52	4.99	7.29	3.61	3.25
Li	mg/L	0.0094	0.0116	0.0123	0.0090	0.0154	0.0051	0.0117	0.0041	0.0068
Mg	mg/L	0.694	0.753	0.783	0.880	0.393	0.650	3.420	0.680	0.820
Mn	mg/L	0.226	0.114	0.303	0.135	0.393	0.119	0.09917	0.161	0.110
Mo	mg/L	0.00049	0.00007	0.00030	0.00010	< 0.00004	0.00020	0.00026	0.00014	0.00020
Na	mg/L	1511	1483	1477	1467	1486	1480	1370	1430	1440
Ni	mg/L	0.0068	0.0034	0.0055	0.0037	0.0062	0.0047	0.0067	0.0054	0.0057
P	mg/L	0.027	0.040	0.029	0.022	0.007	0.020	0.040	0.030	0.020
Pb	mg/L	0.171	3.420	0.00597	0.212	0.00651	0.01076	1.290	0.401	1.110
Sb	mg/L	0.0014	0.0011	0.0013	< 0.0009	0.0014	0.0014	0.0027	0.0011	0.0015
Se	mg/L	< 0.00004	< 0.00004	< 0.00004	< 0.00004	< 0.00004	0.00070	0.00177	0.00163	0.00065
Sn	mg/L	0.00040	0.00010	0.00021	0.00019	0.00011	0.00031	0.00044	0.00039	0.00037
Sr	mg/L	0.0811	0.2490	0.0747	0.1070	0.1710	0.08461	0.3640	0.2290	0.2750
Ti	mg/L	0.00785	0.00123	0.00123	0.00121	0.00092	0.00095	0.04663	0.00360	0.00394
Tl	mg/L	0.000696	0.000646	0.000172	0.001120	0.000757	0.000460	0.000860	0.003960	0.004890
U	mg/L	0.000841	0.000468	0.001270	0.001240	0.000703	0.000590	0.001210	0.001240	0.001180
V	mg/L	0.00037	0.00008	0.00015	0.00011	0.00005	0.00009	0.01347	0.00024	0.00021
W	mg/L	0.00011	0.00003	0.00004	< 0.00002	< 0.00002	< 0.00002	0.00004	0.00008	0.00005
Y	mg/L	0.00027	0.00076	0.00045	0.00052	0.00037	0.00024	0.00114	0.00041	0.00035
Zn	mg/L	0.013	0.005	0.015	0.003	0.012	< 0.002	0.011	0.012	0.012

Table 13-18: Toxicity Characteristics Leaching Procedure Summary #3 – Oculto

Measurement ID	Unit	ME0095 CN-45 Tailing	ME0097 CN-47 Tailing	ME0099 CN-49 Tailing	ME0102 CN-52 Tailing	ME0105 CN-55 Tailing	ME0110 CN-60 Tailing	ME0112 CN- 62 Tailing	ME0113 CN-63 Tailing
Sample Weight	g	100	100	100	100	100	100	100	100
Ext Fluid	#1 or #2	1	1	1	1	1	1	1	1
Ext Volume	mL	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Final pH	no unit	5.01	4.97	4.99	4.97	5.01	5.01	5.03	5.01
Hg	mg/L	0.00008	< 0.00001	0.00003	< 0.00001	0.00002	0.00001	0.00074	0.00003
Al	mg/L	1.370	0.729	0.991	0.332	0.968	0.640	2.790	1.220
As	mg/L	0.00060	0.00250	0.00590	0.00560	0.00330	0.01500	< 0.002	< 0.002
Ag	mg/L	0.00016	0.00011	0.00040	0.00013	0.00011	< 0.0005	0.00240	0.00080
Ba	mg/L	1.48	3.44	2.36	2.70	1.94	2.75	0.408	2.40
Be	mg/L	0.00012	0.00023	0.00012	0.00031	0.00004	0.00009	< 0.00007	< 0.00007
B	mg/L	0.102	0.105	0.099	0.086	0.126	0.110	0.160	0.130
Bi	mg/L	0.00015	0.00022	0.00088	0.00036	0.00007	0.01042	0.00016	0.00015
Ca	mg/L	24.8	15.1	30.1	18.9	34.3	34.4	42.4	32.8
Cd	mg/L	0.00009	0.00053	0.00150	0.00118	0.00067	0.00008	0.00013	0.00022
Co	mg/L	0.00065	0.00149	0.00123	0.00184	0.00203	0.00159	0.00101	0.00126
Cr	mg/L	0.00510	0.00758	0.00815	0.01100	0.00595	0.00670	0.00740	0.00590
Cu	mg/L	0.0019	0.0096	0.0029	0.0064	0.0044	0.0170	0.0050	0.0040
Fe	mg/L	0.1700	0.6500	0.0800	0.4600	0.0800	0.2700	0.2100	0.2200
K	mg/L	3.02	1.27	1.84	2.07	4.02	1.69	6.70	2.10
Li	mg/L	0.0083	0.0119	0.0103	0.0018	0.0071	0.0040	0.0040	0.0220
Mg	mg/L	0.860	0.690	0.800	0.580	0.840	0.680	0.770	0.810
Mn	mg/L	0.121	0.260	0.211	0.379	0.236	0.472	0.157	0.268
Mo	mg/L	0.00021	0.00098	0.00097	0.00095	0.00054	0.00050	< 0.0004	< 0.0004
Na	mg/L	1,400	1,500	1,400	1,400	1,400	1,450	1,450	1,490
Ni	mg/L	0.0039	0.0092	0.0086	0.0092	0.0104	0.0130	0.0050	0.0100
P	mg/L	0.030	0.090	0.280	0.260	0.150	< 0.030	0.030	0.030
Pb	mg/L	0.2870	0.1020	0.00633	0.0049	3.3200	0.03347	0.2540	0.0906
Sb	mg/L	0.0013	0.0034	0.0018	0.0026	0.0014	< 0.009	< 0.009	< 0.009
Se	mg/L	0.00049	0.00502	0.01210	0.01130	0.00112	0.00050	0.00090	0.00150
Sn	mg/L	0.00032	0.00064	0.00033	0.00046	0.00028	< 0.0006	< 0.0036	< 0.0006
Sr	mg/L	0.112	0.0703	0.116	0.090	0.0946	0.06093	0.05853	0.197
Ti	mg/L	0.00292	0.00801	0.01970	0.01460	0.02280	0.00220	0.01190	0.00220
Tl	mg/L	0.00216	0.00034	0.00080	0.00170	0.00189	0.00111	0.00119	0.00175
U	mg/L	0.00259	0.00089	0.00166	0.00066	0.00072	0.00132	0.00090	0.00220
V	mg/L	0.00027	0.00039	0.00093	0.00076	0.00040	0.00020	0.00010	0.00010
W	mg/L	0.00003	0.00038	0.00012	0.00024	0.00007	< 0.0002	< 0.0002	< 0.0002
Y	mg/L	0.00033	0.00075	0.00063	0.00040	0.00073	0.00051	0.00028	0.00043
Zn	mg/L	< 0.002	0.016	0.024	0.036	0.014	< 0.02	< 0.02	< 0.02

Table 13-19: Toxicity Characteristics Leaching Procedure Summary #1 - JAC

Measurement ID	Unit	JAC Comp Leach BL-3 Tailing	JAC Comp CND-BL-3 Tailing	ME0115 CN-86 Tailing	ME0116 CN-87 Tailing	ME0117 CN-88 Tailing	ME0118 CN-89 Tailing	ME0119 CN-90 Tailing	ME0120 CN-91 Tailing
Sample Weight	g	100	100	100	100	100	100	100	100
Ext Fluid	#1 or #2	1	1	1	1	1	1	1	1
Ext Volume	mL	2000	2000	2000	2000	2000	2000	2000	2000
Final pH	no unit	5.00	5.01	5.08	5.00	5.01	5.02	4.99	5.03
Hg	mg/L	0.00010	0.00100	< 0.00001	0.00010	0.00010	0.00181	0.00002	0.00044
Al	mg/L	0.560	0.726	0.230	0.110	0.230	0.090	0.120	0.140
As	mg/L	0.012	0.0144	< 0.002	0.0080	< 0.002	0.0020	0.0170	0.0210
Ag	mg/L	< 0.0005	0.00117	0.00	< 0.0005	< 0.0005	< 0.0005	0.00	< 0.0005
Ba	mg/L	1.890.	0.834.	1.340.	0.480.	1.840.	2.030.	2.200.	3.160.
Be	mg/L	0.00014	0.00011	0.001520	0.001830	0.001590	0.001640	0.001700	0.001650
B	mg/L	0.140	0.214	0.130	0.110	0.090	0.120	0.050	0.080
Bi	mg/L	0.133	0.268	0.00021	0.070	0.02920	0.00076	0.310	0.070
Ca	mg/L	90.0	76.1	115.0	55.0	83.0	60.8	58.6	72.4
Cd	mg/L	0.00151	0.00241	0.00031	0.00333	0.00228	0.00061	0.00240	0.00071
Co	mg/L	0.06450	0.05270	0.00192	0.17800	0.08680	0.00983	0.06800	0.01500
Cr	mg/L	0.0035	0.00344	0.00430	0.00210	< 0.0008	0.00210	0.00280	0.01990
Cu	mg/L	0.0180	0.6310	0.0030	0.0280	0.0170	0.0480	0.0050	0.0150
Fe	mg/L	0.960	1.780	0.350	0.840	1.120	0.370	1.080	3.150
K	mg/L	4.94.	4.10.	3.77.	1.52.	6.12.	3.12.	1.81.	2.19.
Li	mg/L	0.0160	0.0106	0.0030	0.0030	0.0070	0.0060	0.0030	0.0070
Mg	mg/L	2.82.	2.05.	2.62.	0.99.	2.53.	1.430.	1.000.	1.060.
Mn	mg/L	0.898	0.778	0.979	0.351	0.357	0.323	0.285	0.498
Mo	mg/L	0.0004	0.0004	0.00070	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004
Na	mg/L	1540	1510	1460	1340	1290	1250	1260	1290
Ni	mg/L	0.045	0.044	0.0100	0.0990	0.0590	0.0120	0.0390	0.0250
P	mg/L	0.05	0.04	0.06	0.07	< 0.03	< 0.03	< 0.03	< 0.03
Pb	mg/L	0.717	0.594	0.142	10.400	0.071	0.151	3.010	0.523
Sb	mg/L	0.014	0.0129	< 0.009	0.06	< 0.009	< 0.009	0.03	0.01
Se	mg/L	0.00090	0.00077	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004
Sn	mg/L	< 0.0006	0.01110	0.00110	0.00180	0.00080	0.00160	0.00270	0.00140
Sr	mg/L	0.1520	0.1370	0.1480	0.0471	0.0968	0.1050	0.0720	0.0940
Ti	mg/L	0.04930	0.06070	0.00200	0.00880	0.00610	0.00900	0.01920	0.02260
Tl	mg/L	0.00428	0.00358	0.00256	0.03410	0.00225	0.00154	0.00373	0.00211
U	mg/L	0.00251	0.00269	0.00148	0.00321	0.00328	0.00153	0.00296	0.00138
V	mg/L	0.00110	0.00171	0.00070	0.00050	0.00060	0.00050	0.00070	0.00090
W	mg/L	0.00120	0.00144	0.00	0.00	0.00	0.00	0.00	0.00
Y	mg/L	0.00146	0.00149	0.00171	0.00085	0.00188	0.00102	0.00167	0.00084
Zn	mg/L	0.05	0.089	< 0.02	0.090	0.040	0.040	0.050	0.030

Table 13-20: Toxicity Characteristics Leaching Procedure Summary #2 - JAC

Measurement ID	Unit	ME0121 CN-92 Tailing	ME0122 CN-93 Tailing	ME0123 CN-94 Tailing	ME0124 CN-95 Tailing	ME0125 CN-96 Tailing	ME0126 CN-97 Tailing	ME0127 CN-98 Tailing	ME0128 CN-99 Tailing
Sample Weight	g	100	100	100	100	100	100	100	100
Ext Fluid	#1 or #2	1	1	1	1	1	1	1	1
Ext Volume	mL	2000	2000	2000	2000	2000	2000	2000	2000
Final pH	no unit	5.05	5.04	4.98	5.01	5.03	5.02	5.03	5.04
Hg	mg/L	0.00033	0.00006	0.02659	0.00003	0.00002	0.00168	0.00008	0.00003
Al	mg/L	0.100	0.980	0.200	0.100	0.490	0.960	0.380	0.280
As	mg/L	0.0090	0.0120	< 0.002	0.0040	0.0030	0.0030	< 0.002	< 0.002
Ag	mg/L	< 0.0005	< 0.0005	0.03850	< 0.0005	0.00150	< 0.0005	< 0.0005	< 0.0005
Ba	mg/L	2.85	2.71	2.49	2.76	0.51	1.84	2.56	2.14
Be	mg/L	0.00150	0.00162	0.00149	0.00171	0.00168	0.00157	0.00171	0.00205
B	mg/L	0.130	0.520	0.120	0.160	0.120	0.070	0.320	0.160
Bi	mg/L	0.13600	0.29200	0.74700	0.22400	0.00264	0.02100	0.00072	0.00082
Ca	mg/L	85.4	82.3	56.8	62.0	102.0	48.7	88.8	90.3
Cd	mg/L	0.000480	< 0.00003	0.000480	0.001150	0.001700	0.000080	0.000650	0.001640
Co	mg/L	0.01740	0.003560	0.002060	0.015800	0.003860	0.001120	0.01170	0.01130
Cr	mg/L	0.0040	0.00200	0.00120	0.00410	0.00400	0.00550	0.00330	< 0.0008
Cu	mg/L	0.0100	0.0070	0.0020	0.0160	0.0050	0.0030	0.0050	0.0030
Fe	mg/L	1.630	1.520	< 0.07	0.130	0.190	0.140	3.120	1.170
K	mg/L	2.32	3.82	2.99	3.53	4.92	4.78	3.61	4.69
Li	mg/L	0.0090	0.0170	0.0090	0.0130	0.0150	0.0050	0.0150	0.0120
Mg	mg/L	1.500	3.050	0.960	1.240	4.180	0.770	3.700	4.340
Mn	mg/L	0.345	0.236	0.191	0.571	0.814	0.167	0.618	1.360
Mo	mg/L	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	0.00050
Na	mg/L	1280	1250	1260	1360	1320	1310	1330	1290
Ni	mg/L	0.0270	0.0080	0.0060	0.0120	0.0070	0.0120	0.0180	0.0180
P	mg/L	0.030	0.100	< 0.03	0.100	0.090	< 0.03	0.090	0.100
Pb	mg/L	0.3870	0.2610	1.9000	0.2830	0.0200	0.5140	0.0166	0.0143
Sb	mg/L	< 0.009	0.0150	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009
Se	mg/L	< 0.0004	< 0.0004	< 0.0004	< 0.0004	0.00100	< 0.0004	< 0.0004	< 0.0004
Sn	mg/L	0.00180	0.00170	0.00080	0.00080	0.00110	0.00120	0.00060	0.00060
Sr	mg/L	0.087	0.345	0.107	0.148	0.327	0.083	0.278	0.171
Ti	mg/L	0.02570	0.02030	0.00610	0.01860	0.00680	0.00260	0.00160	0.00580
Tl	mg/L	0.002460	0.001070	0.002490	0.002610	0.000380	0.001690	0.001400	0.003500
U	mg/L	0.002500	0.006270	0.001490	0.002010	0.000890	0.001430	0.002880	0.001840
V	mg/L	0.00060	0.00240	0.00050	0.00060	0.00120	0.00040	0.00030	0.00060
W	mg/L	0.00050	0.00000	0.00040	0.00040	0.00030	0.00050	0.00040	0.00100
Y	mg/L	0.00098	0.00126	0.00093	0.00160	0.00227	0.00037	0.00472	0.00441
Zn	mg/L	< 0.02	< 0.02	< 0.02	< 0.02	0.060	< 0.02	< 0.02	< 0.02

13.14 Additional Tests Conducted by AbraSilver

During 2022, AbraSilver also tested an alternative leaching reagent other than cyanide, as suggested by Clean Mining in Australia. The test was based on two identical samples, pulverized at a P80 size of 75 microns. The sample head grade was 2.29 g/t of gold and 379 g/t of silver. The slurry concentration was controlled at 40% solids by weight, and the solution was sampled and assayed at different time intervals to evaluate the leaching kinetics. This alternative leaching reagent was rejected by AbraSilver due to following two observations.

- Compared to 90% gold recovery and 80% silver recovery with cyanide leaching, the alternative reagent only achieved 78% gold recovery and 54% - 65% of silver recovery at best.
- More critically, the alternative reagent appeared to be not stable during the leaching procedure. Without replacing the solution after 24 hours of leaching, both gold and silver recovery drastically dropped after 24 hours, which implied that the precious metals extracted may have precipitated out during the process. This instability of the reagent makes the field application unrealistic.

AbraSilver also organized coarse bottle roll and column tests in Peru in 2022, with the objective to evaluate the possibility of applying a heap leach process. A total four samples were tested, each with different head grade in terms of gold and silver content. For the coarse bottle rolls test, the crush size was 3/8” and ½” respectively, each bottle roll study utilized 4 kg of sample and the slurry density was 50% solids by weight. The cyanide concentration was controlled at 2,000 ppm and the total leach time was 96 hours. There were no significant extraction differences between the two crush sizes; however, the metal recovery varied significantly between the different sample test materials. Between the four samples tested, the gold recovery ranged from 43% to 78%, and silver recovery ranged from 8% to 69%.

For the column tests, the crush sizes employed were 3/8” and ½” respectively. All four sample materials were agglomerated with 0.5% of cement by weight and a specified amount of lime was added. The columns used for the test were all 4” in diameter. The cyanide concentration in the leach solution was controlled at 1,000 ppm and irrigation rate was controlled at 12 liter/hour/m^2. The total leach cycle in the lab was 60 days. At the end of the leach cycle, the solids were washed, and metallurgical balance was calculated. The gold recoveries were mostly in the range of 62% to 69%, except that sample 4 had a gold recovery around 72% for the ½” crush size and 86% for the 3/8” crush size. The silver recoveries varied significantly between the samples, and were between 50-52% for sample 1, around 9% for sample 2, between 32-38% for sample 3, and 70-75% for sample 4.

When comparing the coarse bottle roll tests to the column tests, the column tests on average gave better metal recoveries. However, even considering the column tests, the metal recoveries were still significantly lower than the metal recoveries experienced on the ground samples. Based on the metal recovery differences, AbraSilver elected to employ grinding and CCD rather than heap leaching as the process design for this project.

13.15 Metals Recovery

The gravity gold recovery, intensive cyanidation, and tank leach will be employed in this process. Therefore, the overall metal recovery of the process will depend on the performance of the following three-unit operations:

- Gravity recovery circuit
- Tank leach circuit on gravity tails
- CCD circuit

The metal recoveries were estimated using the test work conducted on the Master Composite sample, which is considered to be more representative of the orebody. The cyanidation tests on the tailings from the gravity test conducted on the Master Composite sample indicated that the average recovery is around 83.0% for gold and 79.8% for silver. The gravity test indicated that approximately 10.1% gold and 7.8% of silver can be recovered to the gravity concentrate. The gravity concentrate will report to an intense cyanidation circuit, which typically has very high leach recovery. The metal recovery from the intense cyanidation circuit is assumed to be 99% for gold and 97% for silver, which is supported by test work and is in line with industry benchmarks.

Based on the recommended CCD circuit design, approximately 99.6% of gold and silver in the pregnant solution after tank leach will be recovered to the Merrill-Crowe process. Though the Merrill-Crowe process will not achieve 100% of dissolved metal recovery, the barren solution will be recycled to the leach tanks as makeup water or to the CCD circuit as wash water. Consequently, the minor amount of dissolved gold and silver not captured in the Merrill-Crowe will eventually report to the precipitate.

The metal recoveries at each process unit operation were incorporated into the METSIM simulation, and the total metal recovery is estimated at 84.7% for gold and 81.2% for silver.

For the JAC material, the cyanidation tests conducted on the JAC composite gravity tailings sample indicated an average gold recovery of 83.8% and silver recovery of 84.9% specifying 36 hours retention time, with a grind size around 150 µm. The gravity tests indicated that 17.3% of gold and 9.1% silver can be recovered to the gravity concentrate. Based on the CCD circuit simulation employing seven stages of CCD with a wash ratio of 3, approximately 99.8% of gold and silver in the pregnant solution in the CCD feed can be recovered to the Merrill-Crowe process feed solution. Based on these metal recoveries at each step, the overall metal recovery for JAC material is estimated at 86.6% for gold and 86.2% for silver.

13.16 Conclusions and Recommendations

An extensive test program was performed on the test sample sent by AbraSilver team, including both Oculto and JAC material. The sample was collected from different ore zones and deemed representative to the orebody under study. Overall, most of the orebody is oxide material and amenable to cyanidation and has a satisfactory metal recovery for both gold and silver.

The mineralogy test performed on both Oculto and JAC samples indicated that major components of the material are quartz, alunite, jarosite, and iron oxides. Pyrite minerals present are mainly free pyrite, liberated pyrite, or pyrite associated with hard silicates and complex pyrite. The gold was either in the form of native gold or electrum, and silver was mainly in the form of iodargyrite and chlorargyrite. There was a minor amount of sulphur; however, the quantity of sulphide minerals present was relatively low, approximately 0.86% sulphide sulphur for Oculto composite sample and 1.5% for JAC composite sample. The total carbon and organic carbon were below the analytical detection limits, indicating this material is unlikely to display any “preg-robbing” characteristics during processing.

The comminution tests conducted on Oculto indicated the test material is medium to medium hard in terms of SAG and ball mill grinding characteristics and is relatively abrasive which may result in elevated steel consumption in the comminution circuit. The JAC material is very soft with perspective of SAG mill grinding, media hard for ball mill grinding, and much less abrasive compared to Oculto material.

The gravity test performed on both the Oculto material and JAC material indicated the presence of gravity recoverable gold. The Oculto Master Composite sample indicated that approximately 10% of gold and 7.8% of silver can be recovered in a gravity concentrate, while the JAC composite sample indicated that around 17.3% of gold and 9.1% of silver can be recovered to the gravity concentrate. If the gravity gold and silver is not captured and reports to the tank leach, it is possible that a portion of the gravity recoverable gold and silver may be lost to the tailings. Therefore, a gravity gold recovery circuit and intensive cyanidation circuit are recommended to optimize precious metal recovery.

Due to a very high silver to gold ratio, Merrill-Crowe is the most economical process option for this orebody. The Merrill-Crowe test conducted on the diluted pregnant solution acquired from the cyanidation test further confirmed that Merrill-Crowe process was very efficient in recovering the gold and silver from the solution. Due to the high silver to gold ratio, carbon adsorption is not recommended for the project.

The reagent consumption was moderate; based on the cyanidation test conducted on the gravity tailings from Oculto Master Composite sample, the cyanide consumption is approximately 0.78 kg/mt of material, and the lime consumption was about 0.79 kg/mt of the material. JAC material has much higher reagent consumption, approximately 1.52 kg/t of cyanide and 2.19 kg/t of lime. The residual cyanide in the slurry tailings will be destroyed with the INCO process, which utilizes sulphur dioxide as the effective component to minimize the WAD cyanide. Based on the cyanide destruction test on a simulated barren leach slurry, approximately 4.7 grams of equivalent sulphur dioxide is recommended for every gram of WAD cyanide in the solution, leading to less than one ppm of WAD cyanide in the Oculto detoxed tailings or less than 10 ppm of WAD cyanide in the JAC detoxed tailings.

The sedimentation test and rheology test indicated that Oculto and JAC material are quite different in term of sedimentation and rheology. For the Oculto material, the thickener underflow can readily achieve 60% solids by weight. To effectively conserve the water and maximize the CCD metals recovery, the tailings thickener underflow is recommended at 60% solids by weight and the CCD underflow density at 55% solids by weight. The JAC material not only requires a much higher flocculant dosage, and the maximum thickener underflow density is also much lower. To maintain the required flowability, the thickener underflow density for JAC material is recommended at 50% solids by weight.

Based on the test work, following process conditions are recommended:

- Primary grind size of 150 microns.
- Incorporation of gravity gold recovery circuit and intensive cyanidation for the gravity concentrate.
- The retention time of cyanide leach is recommended at 36 hours with a slurry density of 45% solids by weight.
- Six stages of CCD with a wash ratio of three is recommended to recover the pregnant solution from the leached slurry. If the plant will process JAC material only, seven stages of CCD with a wash ratio of three will be recommended.
- One hour of retention time for cyanide destruction in the tailings using 4.7 grams of sulphur dioxide per gram of WAD cyanide.

In the next stage of study, the following test work and considerations are recommended:

- Additional tests on the transitional ore and sulphide ore to estimate the metallurgical performance.

Cyanidation tests based on grade are recommended to develop a recovery algorithm to further define and optimize the ore resource model.

14 MINERAL RESOURCE ESTIMATES

14.1 Summary

Mr. Luis Rodrigo Peralta, FAusIMM, CP (Geo), Senior Geologist and independent external consultant for AbraSilver Resource Corp. (AbraSilver), is responsible for the Mineral Resource estimate ("MRE") for the Oculto, JAC, Fantasma and Laderas zones of the Diablillos Project. This MRE incorporates revised metal prices and metallurgical recoveries for the Oculto zone, a review of historical data of the Fantasma and the Laderas zones and a maiden MRE for the JAC and Laderas zones.

All holes not drilled by AbraSilver are referred to as historical drillholes. AbraSilver completed diamond drill holes between 2017 to 2023. This totalled 265 drill holes and 57,022 m. The cut-off date for the diamond drill holes is July 30th, 2023.

The MRE has been based on a subset of drilling data as detailed in Section 10. Drill holes have been excluded that were outside of the Diablillos block model limit and drill holes without assay results have been excluded from the MRE. The subset of drilling data included 606 drill holes (both diamond and reverse circulation) of which 341 were historical drillholes and 265 were AbraSilver drillholes. This totalled 129,647 meters of drilling.

Verification of drill data was summarised in Section 12 and the QP was satisfied that drill data was collected in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Mineral Exploration Best Practice Guidelines (CIM, 2018) and Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (CIM, 2019). It was deemed suitable for use in a Mineral Resource estimate.

Diablillos is a high sulphidation epithermal silver-gold deposit with strong supergene overprinting. The principal controls to alteration and mineralization are predominantly structural with a mixed influence imparted by lithology. The combination of structural and alteration control has generated a steeply dipping and shallowly dipping control considered in the Mineral Resource estimate. The estimation domains were defined using a combination of alteration domains and lithology domains. A subset of mixed domains was defined for each lithology and alteration type.

Based on the drill hole database a new 3D Model of lithology and alteration domains was created. The block model was generated in MS MinePlan mining software. A statistical study of the gold and silver behaviour ~~over~~ for each domain was used to support block model grade interpolation. Gold and silver grades were estimated using Ordinary Kriging ("OK") and potential bias was reviewed using an Inverse Distance method ("ID2"). Drill hole intervals have been composited to a length of 1 meter, which is the most common sample length. Grade capping has been applied to composited grade intervals on a case-by-case basis in each domain.

A new SG model has been built and applied to the block model, based on measurements from 7,178 core samples. Bulk density was assigned to the block model as averages for each lithology and alteration domain, including oxidation / sulphide zone subsets. The average bulk density is 1.82 t/m^3 for cover material, 2.32 t/m^3 for mineralized material and 2.23 t/m^3 for waste material.

Mr. Peralta (“QP”) has performed a visual comparison of block model sections against drill traces; a review of comparison statistics; and undertaken check estimates. He is satisfied that the MRE is consistent with the CIM best practice guidelines (CIM, 2019).

The MRE for the Diablillos deposit, with an effective date of November 22nd, 2023, has been constrained by an optimised Whittle open pit shell. It is reported at an equivalent cut-off grade of 45 g/t AgEq. The MRE has been categorized in accordance with the CIM Definition Standards (CIM, 2014) and comprises Measured, Indicated and Inferred Mineral Resources as summarised in Table 14-1.

To define the cut-off grade, a methodology was used based on a Net Value per Block (“NVB”) calculation. The NVB was based on "Benefits = Revenue-Cost" being positive, where,

Revenue = [(Au Selling Price (USD/oz) - Au Selling Cost (USD/oz)) x (Au grade (g/t)/31.1035)) x Au Recovery (%)] + [(Ag Selling Price (USD/oz) - Ag Selling Cost (USD/oz)) x (Ag grade (g/t)/31.1035)) x Ag Recovery (%)]

Cost = Mining Cost (USD/t) + Process Cost (USD/t) + Transport Cost (USD/t) + G&A Cost (USD/t) + [Royalty Cost (%) x Revenue].

The NVB method assumed a total mine operating cost of USD 28.23/t which resulted in an average equivalent cut-off grade of 45g/t AgEq.

Table 14-1: Mineral Resource Estimate for the Diablillos Project by mineral zone and category - As of November 22nd, 2024

Deposit	Zone	Category	Tonnes (000 t)	Ag (g/t)	Au (g/t)	AgEq (g/t)	Contained Ag (koz Ag)	Contained Au (koz Au)	Contained AgEq (koz AgEq)
Oculto	Oxides	Measured	12,170	101	0.95	178	39,519	372	69,523
		Indicated	34,654	64	0.85	133	71,306	947	147,748
		Measured & Indicated	***46,824***	***74***	***0.88***	***145***	***111,401***	***1,325***	***218,335***
		Inferred	3,146	21	0.68	76	2,124	69	7,677
JAC	Oxides	Measured	1,870	210	0.17	224	12,627	10	13,452
		Indicated	3,416	198	0.12	208	21,744	13	22,808
		Measured & Indicated	***5,286***	***202***	***0.13***	***212***	***34,329***	***22***	***36,191***
		Inferred	77	77	-	77	190	-	190
Fantasma	Oxides	Measured	-	-	-	-	-	-	-
		Indicated	683	105	-	105	2,306	-	2,306
		Measured & Indicated	***683***	***105***	***-***	***105***	***2,306***	***-***	***2,306***
		Inferred	10	76	-	76	24	-	24
Laderas	Oxides	Measured	-	-	-	-	-	-	-
		Indicated	464	16	0.91	89	239	14	1,334
		Measured & Indicated	***464***	***16***	***0.91***	***89***	***239***	***14***	***1,334***
		Inferred	55	43	0.57	89	76	1	157
Total	Oxides	Measured	14,040	116	0.85	184	52,146	382	82,975
		Indicated	39,217	76	0.77	138	95,594	974	174,196
		Measured & Indicated	***53,257***	***87***	***0.79***	***151***	***148,275***	***1,360***	***258,087***
		Inferred	3,288	23	0.66	76	2,415	70	8,049

Notes for Mineral Resource Estimate:

1. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
2. The formula for calculating AgEq is as follows: Silver Eq oz = Silver oz + Gold oz x (Gold Price/Silver Price) x (Gold Recovery/Silver Recovery).
3. The Mineral Resource model was populated using Ordinary Kriging grade estimation within a three-dimensional block model and mineralized zones defined by wireframed solids, which are a combination of lithology and alteration domains. The 1m composite grades were capped where appropriate.
4. The Mineral Resource is reported inside a conceptual Whittle open pit shell derived using US$ 24.00/oz Ag price, US $1,850/oz Au price, 82.6% process recovery for Ag, and 86.5% process recovery for Au. The constraining open pit optimization parameters used were US $1.94/t mining cost, US $22.97/t processing cost, US $3.32/t G&A cost, and average 51-degree open pit slopes.
5. The MRE has been categorized in accordance with the CIM Definition Standards (CIM, 2014).
6. A Net Value per block ("NVB") cut-off was used to constrain the Mineral Resource with the conceptual open pit. The NVB was based on "Benefits = Revenue-Cost" being positive, where, Revenue = [(Au Selling Price (US$/oz) - Au Selling Cost (US$/oz)) x (Au grade (g/t)/31.1035)) x Au Recovery (%)] + [(Ag Selling Price (US$/oz) - Ag Selling Cost (US$/oz)) x (Ag grade (g/t)/31.1035)) x Ag Recovery (%)] and Cost = Mining Cost (US$/t) + Process Cost (US$/t) + Transport Cost (US$/t) + G&A Cost (US$/t) + [Royalty Cost (%) x Revenue]. The NVB method resulted in an average equivalent cut-off grade of 45g/t AgEq.
7. The Mineral Resource is sub-horizontal with sub-vertical feeders and has reasonable prospects for eventual economic extraction by open pit methods.
8. In-situ bulk density was assigned to each model domain, according to sample averages for each lithology domain, separated by alteration zones and subset by oxidation.
9. All tonnages reported are dry metric tonnes and ounces of contained gold and silver are troy ounces.
10. Mining recovery and dilution factors have not been applied to the Mineral Resource estimates.
11. The Mineral Resource was estimated by Mr. Luis Rodrigo Peralta, B.Sc., FAusIMM CP (Geo), Independent Qualified Person under National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101").
12. Mr. Peralta is not aware of any environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues that could materially affect the potential development of the Mineral Resource.
13. All figures are rounded to reflect the relative accuracy of the estimates. Minor discrepancies may occur due to rounding to appropriate significant figures.

14.2 Drilling Data

The MRE has been based on a subset of the drill hole database reported in Section 10 of the Technical Report. The subset included 606 drill holes, with 375 diamond drill holes ("DDH") for 82,287m and 203 reverse circulation drill holes ("RC") for 47,359m. In total 129,647 meters of drilling for the Oculto, Laderas, Fantasma and JAC zones.

Drill holes used in the MRE have been summarized in Table 14-2. Table 14-3 shows a summary of excluded holes. Figure 14-1 and Figure 14-2 show the location of holes used in the MRE by drilling type and company.

Table 14-2: Summary of Drill Holes used in the Mineral Resource estimate

Drilling Campaign	Type of Hole	Number of Holes	Meters Drilled	Average Meters Drilled	Min Meters Drilled	Max Meters Drilled
1987	RC	13	378	29	14	31
1990	RC	25	3,483	142	71	250
1993	DDH	5	1,002	200	146	254
1994	DDH	12	2,016	168	25	255
1996	RC	32	8,540	266	113	400
1997	RC	94	24,651	262	49	413
1997	DDH	15	3,514	234	31	380
1998	RC	24	7,547	314	220	370
1999	DDH	5	1,330	266	191	450
2003	RC	10	1,716	171	84	282
2005	RC	5	1,044	209	150	252
2007	DDH	46	9,804	213	31	365
2008	DDH	48	6,941	144	40	355
2012	DDH	7	659	94	41	125
2017	DDH	28	3,149	112	40	327
2019	DDH	2	844	422	380	464
2020	DDH	33	9,144	271	50	610
2021	DDH	59	14,571	246	50	451
2022	DDH	66	15,272	231	101	401
2023	DDH	77	14,043	182	122	245
Subtotal	RC	203	47,359	199	100	285
Subtotal	DDH	375	82,287	226	98	371
Grand total		**606**	**129,647**	**209**	**97**	**334**

Table 14-3: Summary of drill holes excluded from the Mineral Resource estimate

Zone / Holes	N° Holes	Reason
Alpaca	12	Outside Diablillos Block Model
Cerro Blanco	8	
Cerro Viejo Este	10	
Cerro Viejo Oeste	2	
Corderos	24	
Jasperoide	9	
Northern Arc Valley Fill	3	
Pedernales Norte	32	
Pedernales Sur	9	
Yolanda	7	
Oculto zone	8	Outside of block model limit
Condemnation and other purpose drillholes	50	Outside of block model limit
Total Excluded	**174**	

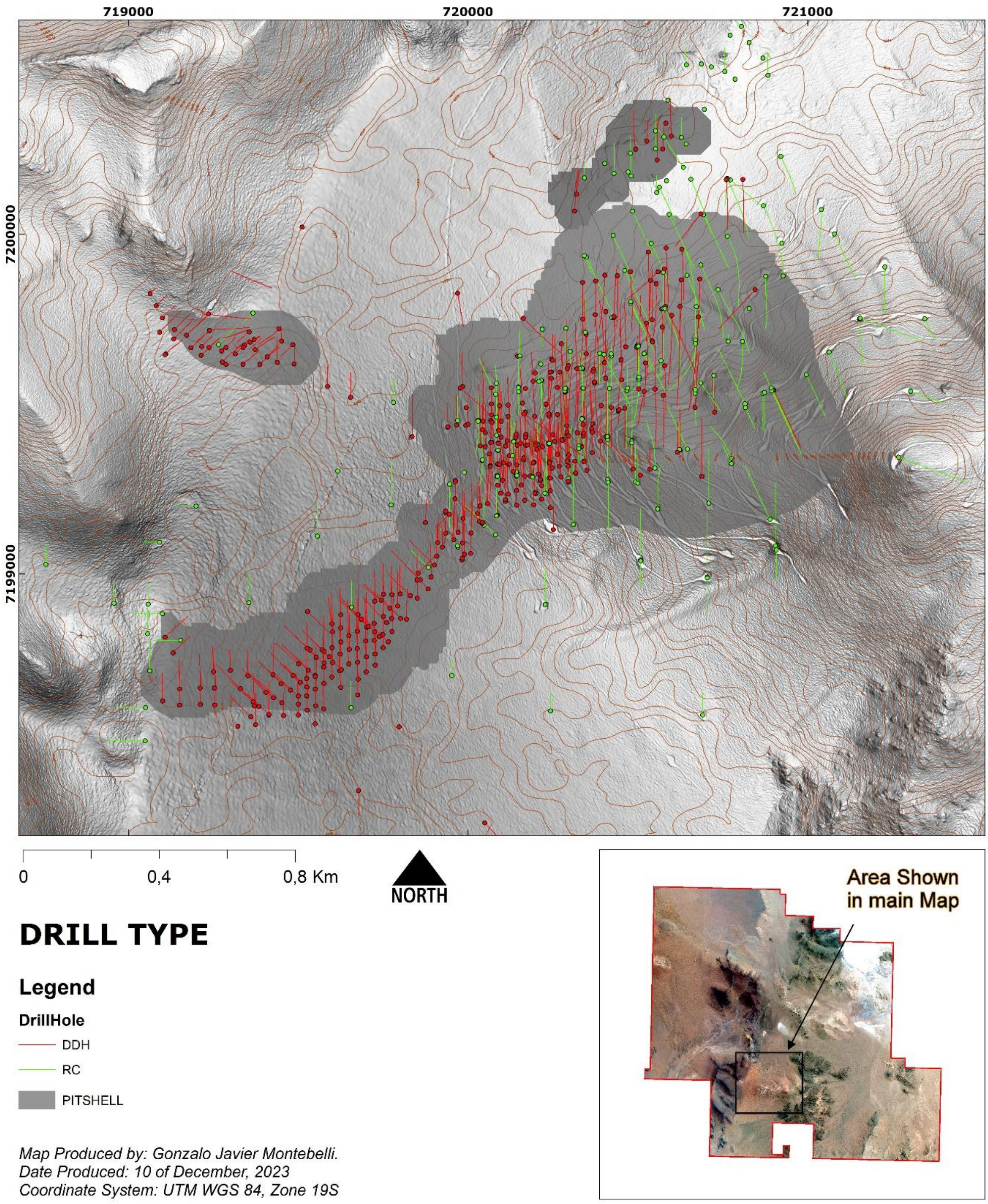


Figure 14-1: Plan view of drill holes used in the estimation of Mineral Resources coloured by drill type

Source: AbraSilver Resource Corp., 2023

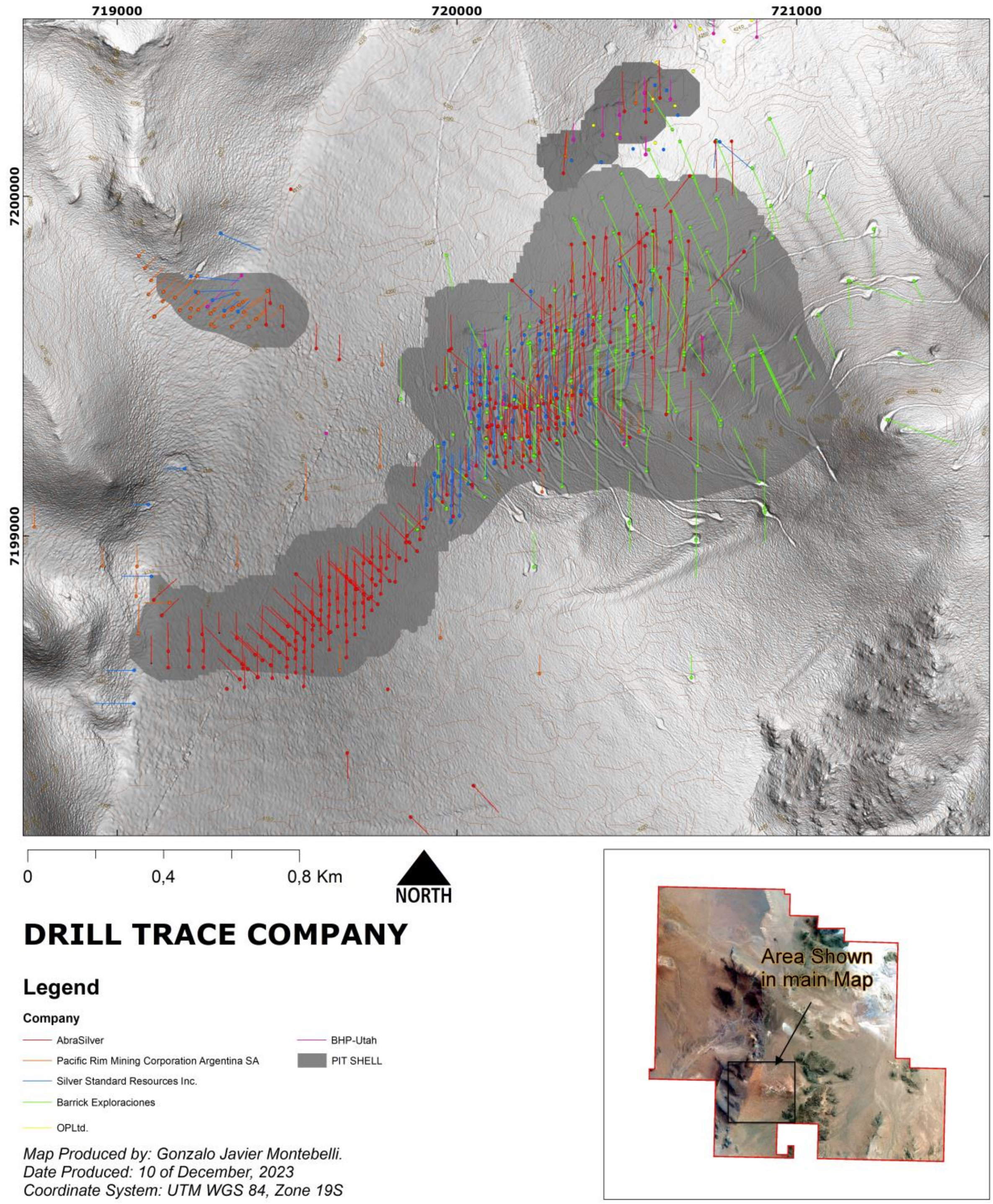


Figure 14-2: Plan view of drill holes used in the estimation of Mineral Resources

Source: AbraSilver Resource Corp., 2023

14.3 Geological Model

The Diablillos deposit is an epithermal silver-gold deposit with complex mineralization that has strong alteration and structural stratigraphic control. The structures (main direction N 45°E and cross direction N 85°E) are steeply dipping feeders where the mineralizing fluids ascended and migrated laterally along permeable horizons. Fluid flow was primarily at the contact zone between the volcanic rock and underlying basement rocks. The Oculto zone is strongly oxidized to depths of 300 m to 400 m. Beneath which this mineralization grades into a transitional zone of oxide and sulphide. At the Oculto and JAC deposits the oxide/sulphide interface has been well defined by drilling.

A high-grade zone of silver mineralisation approximately 20 m thick occurs at around 100m depth and is believed to be a supergene enrichment zone. A broadly horizontal zone of higher-grade gold mineralization occurs at or near the contact between the volcanic rock and the underlying basement rock. This zone is approximately 30 m thick. In places it correlates well with an erosion over the basement, described as a regolith.

Relogging was completed for historical 2007 – 2008 drilling to ensure consistency in lithology, alteration, and oxidation state codes. This was developed in conjunction with Mr Peralta (“QP”) and covers the highest density of recent drilling and re-logging of nearby historical drill holes. The uncertainty of the model outside this zone is increased and mineralization controls are based only on geological components. The QP defined the estimation domains primarily based on a combination of alteration and lithology. Subdomains are based on the oxidization level, as are a subset between oxide and sulphide. As no correlation between lithology and alteration types was found for the JAC zone, a simple grade shell of 5 g/t AgEq cut-off defined most of the mineralized zones.

The boundary between oxide and sulphide zones was constructed using relogged historical and recent drilling.

The three main lithologies present in the Diablillos Project are volcanic rocks, metasediments rocks and granitic intrusions. As described in section 7, hydrothermal alteration types include argillic, silica and vuggy silica. The applied domain coding has been detailed in Table 14-4. Oxidized rock was coded (1) and deep sulphides (2). For the JAC zone, domains were coded inside the grade shell (51-61) and outside the grade shell as 52.

Table 14-4: Estimation domains and coding used

Lithology (L)	Code	Alteration (A)	Code	Lithology + Alteration (LA)	Code	Oxide / Sulphide	(LA2)	Code
Cover	1		0		10		Cover	10
Volc (Vc)	2	Argillic (Ar)	1	Vc + Ar	21	Su	Vc+Ar+Su	211
						Ox	Vc+Ar+Ox	212
		Silica (Si)	2	Vc + Si	22	Su	Vc+Si+Su	221
						Ox	Vc+Si+Ox	222
		Vuggy silica (Vg)	3	Vc + Vg	23	Su	Vc+Vg+Su	231
						Ox	Vc+Vg+Ox	232
Meta sediments (Mt)	3	Argillic	1	Mt + Ar	31	Su	Mt+Ar+Su	311
						Ox	Mt+Ar+Ox	312
		Silica	2	Meta + Silica	32	Su	Mt+Si+Su	321
						Ox	Mt+Si+Ox	322
		Vuggy silica	3	Meta + Vuggy	33	Su	Mt+Vg+Su	331
						Ox	Mt+Vg+Ox	332
Granite (Gr)	4	Argillic	1	Granite + Arg	41	Su	Gr+Ar+Su	411
						Ox	Gr+Ar+Ox	412
		Silica	2	Granite + Silica	42	Su	Gr+Si+Su	421
						Ox	Gr+Si+Ox	422
		Vuggy silica	3	Granite + Vuggy	43	Su	Gr+Vg+Su	431
						Ox	Gr+Vg+Ox	432
JAC	5	IGS	1	Volc + IGS	51	Su	Vc+IGS+Su	511
						Ox	Vc+IGS+Ox	512
		OGS	2	Volc + OGS	52	Su	Vc+OGS+Su	521
						Ox	Vc+OGS+Ox	522
Fantasma	6	IGS	1	Volc + IGS	61	Ox	Vc+IGS	611
		OGS		Volc + OGS		Ox	Vc+OGS	612

Cross sections showing the estimation domains are shown in Figure 14-3 and Figure 14-4.

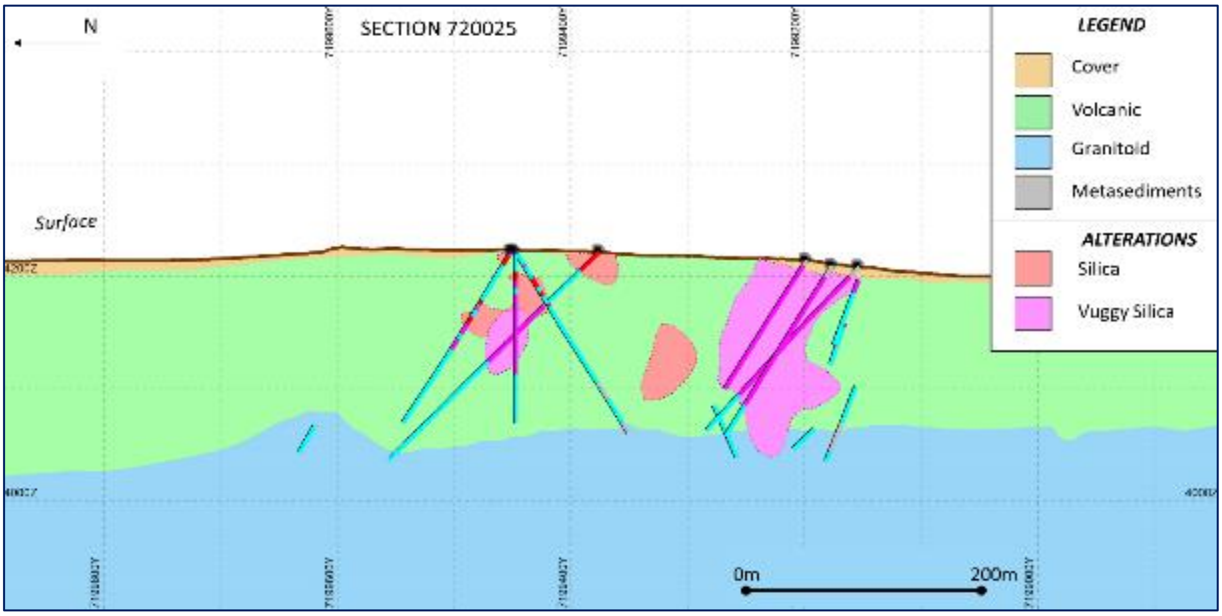


Figure 14-3: Vertical cross section N-S 720025, showing the lithology domains with superimposed alteration domains. (JAC Deposit).

Source: AbraSilver Resource Corp., 2023

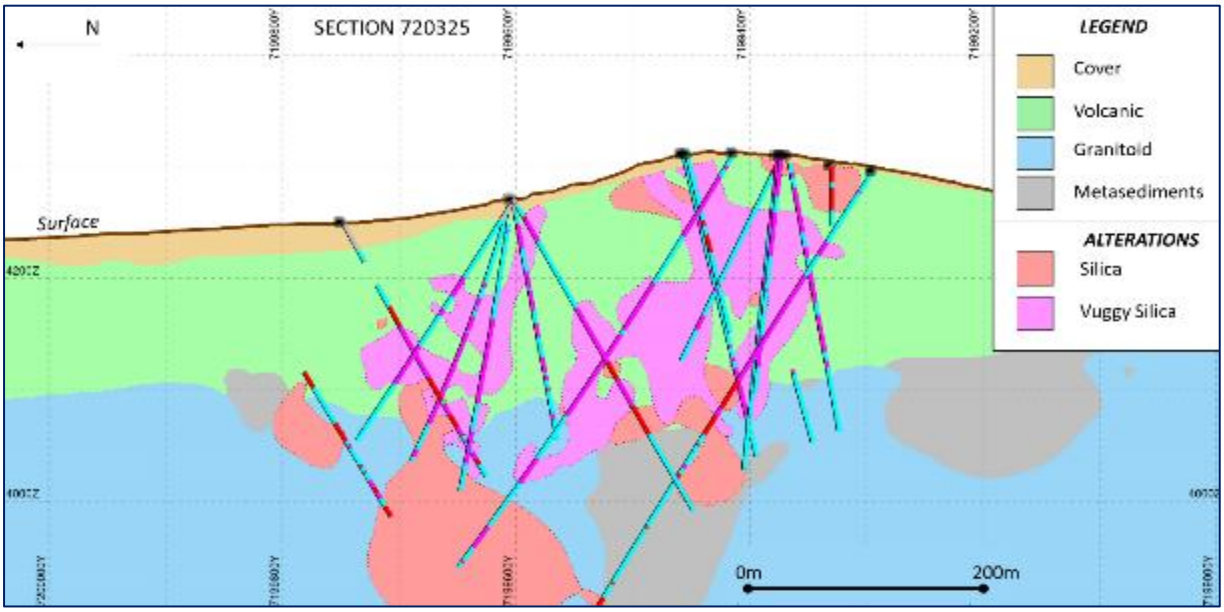


Figure 14-4: Vertical cross section N-S 720325, showing the lithology domains with superimposed alteration domains. (Oculto deposit)

Source: AbraSilver Resource Corp., 2023

14.4 Exploratory Data Analysis

Gold and silver assay statistics and plots were examined in relation to lithology and alteration. Domains were classified to determine the most suitable approach for grade estimation.

Gold and silver grade statistics by lithology and alteration are presented in Table 14-5 and Table 14-6.

The table includes the coefficient of variation as a measure of grade variability. As a rule-of-thumb, CVs of composited samples should be ≤ 2 for typical linear estimation techniques, while CVs will be reduced slightly by compositing and treatment of the extreme high grade (top cut). In certain domains the CV is higher than 2 because the CV is strictly related to the arithmetic mean. When the arithmetic mean is close to zero or at zero, the CV loses meaning. It can give very large values which do not necessarily imply a large dispersion of data.

Table 14-5: Gold grade statistics by lithological and alteration combination

Statistics / Code	211	212	221	222	231	232
Valid Data	711	26799	27	5919	9	14444
Total Data	714	26821	27	5921	9	14447
Minimum	0.01	0.00	0.01	0.00	0.01	0.00
Maximum	41.61	42.40	1.07	10.36	3.00	54.71
Mean	0.14	0.08	0.06	0.14	0.78	0.62
Variance	2.50	0.22	0.04	0.24	1.25	3.29
Standard Deviation	1.58	0.47	0.20	0.49	1.12	1.81
Coefficient Of Variation	11.6	5.7	3.6	3.4	1.4	2.9
Code	**311**	**312**	**321**	**322**	**331**	**332**
Valid Data	3518	3705	1221	1510	20	1049
Total Data	3520	3711	1221	1510	20	1049
Minimum	0.01	0.01	0.00	0.00	0.05	0.00
Maximum	31.60	21.48	116.00	31.19	3.63	23.34
Mean	0.37	0.36	0.45	0.64	0.62	0.79
Variance	1.07	0.85	12.26	2.88	0.76	2.54
Standard Deviation	1.47	0.92	3.50	1.70	0.87	1.59
Coefficient Of Variation	8.0	2.5	7.8	2.7	1.4	2.0
Code	**411**	**412**	**421**	**422**	**431**	**432**
Valid Data	6270	6402	631	914	217	890
Total Data	6285	6410	631	914	217	890
Minimum	0.00	0.01	0.01	0.01	0.00	0.01
Maximum	41.28	90.74	27.80	10.68	26.80	29.56
Mean	0.22	0.31	0.37	0.26	1.35	1.20
Variance	1.75	2.35	2.44	0.49	12.36	6.68
Standard Deviation	1.32	1.53	1.56	0.70	3.52	2.59
Coefficient Of Variation	5.9	5.0	4.3	2.7	2.6	2.2
Code	**511**	**512**	**521**	**522**	**611**	**612**
Valid Data	400	4892	2417	3538	1430	857
Total Data	400	4892	2417	3538	1688	862
Minimum	0.01	0.01	0.01	0.01	0.00	0.00
Maximum	4.45	44.49	0.17	0.34	0.10	0.04
Mean	0.09	0.09	0.01	0.01	0.00	0.00
Variance	0.12	0.56	0.00	0.00	0.00	0.00
Standard Deviation	0.35	0.75	0.00	0.01	0.00	0.00
Coefficient Of Variation	4.1	8.0	0.8	1.2	1.0	0.9

Table 14-6: Statistics for silver by combined Lithological and Alteration domain

Statistics / Code	211	212	221	222	231	232
Valid Data	711	26800	27	5919	9	14427
Total Data	714	26821	27	5921	9	14447
Minimum	0.05	0.05	0.30	0.05	0.30	0.05
Maximum	652.00	11304.50	81.70	2266.90	50.00	13437.00
Mean	9.41	16.44	10.12	21.89	15.21	86.82
Variance	1384.18	24547.87	435.48	7108.05	414.09	117412.24
Standard Deviation	37.20	156.68	20.87	84.31	20.35	342.65
Coefficient Of Variation	4.0	9.5	2.1	3.9	1.3	4.0
Code	**311**	**312**	**321**	**322**	**331**	**332**
Valid Data	1759	3702	1221	1510	20	1046
Total Data	1760	3711	1221	1510	20	1049
Minimum	0.05	0.25	0.05	0.25	3.70	0.25
Maximum	893.00	770.00	327.00	170.00	28.20	1656.00
Mean	6.08	11.15	7.76	14.18	9.90	19.86
Variance	778.68	557.53	219.09	349.98	33.58	3800.98
Standard Deviation	27.90	23.61	14.80	18.71	5.79	61.65
Coefficient Of Variation	4.6	2.1	1.9	1.3	0.6	3.1
Code	**411**	**412**	**421**	**422**	**431**	**432**
Valid Data	6264	6397	631	914	217	883
Total Data	6285	6410	631	914	217	890
Minimum	0.01	0.05	0.05	0.30	0.05	0.10
Maximum	2700.00	1968.00	312.80	780.30	3245.00	1734.30
Mean	6.98	11.86	6.63	15.14	83.71	105.84
Variance	2790.04	2555.64	318.43	2479.77	71511.58	24408.89
Standard Deviation	52.82	50.55	17.84	49.80	267.42	156.23
Coefficient Of Variation	7.6	4.3	2.7	3.3	3.2	1.5
Code	**511**	**512**	**521**	**522**	**611**	**612**
Valid Data	400	4892	2417	3538	1430	857
Total Data	400	4892	2417	3538	1688	862
Minimum	0.30	0.30	0.25	0.25	0.10	0.70
Maximum	3637.00	32480.50	114.00	132.20	136.00	1237.00
Mean	133.24	125.69	0.85	1.69	1.76	50.22
Variance	102522.60	345835.90	15.60	22.80	44.87	9183.36
Standard Deviation	320.10	588.08	3.95	4.77	6.70	95.83
Coefficient Of Variation	2.4	4.7	4.6	2.8	3.8	1.9

The QP concluded that gold and silver grade domains based on modelled geologic variables was the most representative way to define and evaluate the deposit. Factors considered included metal content, specific gravity, geotechnical characteristics, metallurgical characteristics, and other mining parameters related to the host rocks or hydrothermal alteration.

The definition of estimation domains was carried out based on a combination of alteration and lithology, depending on the number of samples. These domains more adequately capture different populations of grades in relation to the two main structural deposit orientations.

Some domains with few samples have been merged with the closest domain in terms of geological characteristics. Domain 221 has been merged to 222, 231 to 232, 331 to 332 and 431 to 432.

14.5 Treatment of Missing / Absent Samples

Table 14-7 shows the percentage of sampled intervals (within the limits of the block model) separated by the lithology domains and cover material (10 and 211 to 612 respectively). Most of the domains have a high proportion of sampling, ranging from 77% of the meters drilled to 100% in the most relevant domains.

Unsampled intervals normally occur outside of mineralized zones or in unaltered host rocks. The impact of these unsampled intervals is not significant for the Mineral Resource estimation. Table 14-7 shows the sampling percentage versus total meters drilled by domain.

Table 14-7: Sampling percentage summary by domain

Domain	Total Sampled	Total Drilled	Proportion of sampling
10	2,553.13	5,704.63	45%
211	818.55	917.90	89%
212	32,377.41	38,759.78	84%
221			
222	7,374.23	7,955.89	93%
231			
232	18,196.89	23,562.28	77%
311	1,852.04	1,897.57	98%
312	4,189.77	4,480.88	94%
321	1,814.04	1,854.04	98%
322	1,828.32	1,994.35	92%
331			
332	1,543.97	1,649.41	94%
411	7,759.64	9,229.00	84%
412	7,010.71	7,035.10	100%
421	767.57	849.60	90%
422	1,049.15	1,077.75	97%
431			
432	1,544.75	1,815.13	85%
511	467.50	467.50	100%
512	5,234.60	5,234.60	100%
521	3,499.10	3,499.10	100%
522	4,375.15	4,375.15	100%
611	2,045.20	2,521.50	81%
612	1,015.87	1,025.87	99%

14.6 Compositing

The drill hole database has been coded with the estimation domains (Lith+Alt domain from 211 to 612) The drill hole intervals were composited to 1 meter down hole while honouring the estimation domain boundary.

A residual retention routine has been used where residuals are added back to the next adjacent interval. (Figure 14-5 to Figure 14-10).

Summary statistics for global population non-composite and composite are presented in Table 14-8, Table 14-9 and Table 14-10.

Table 14-8: Summary statistics, global population for non-composite and composite data. Oculto and Laderas zones

Statistics	Length	
	Non-composited	Composited
Valid Data	85,508	104,630
Total Data	85,508	104,630
Minimum	0.08	0.03
Maximum	9	1
Mean	1.135	0.999
Variance	0.075	0
Standard Deviation	0.274	0.02
Coefficient Of Variation	0.242	0.02

Table 14-9: Summary statistics, global population for non-composite and composite data. JAC zone

Statistics	Length	
	Non-composited	Composited
Valid Data	11,422	20,795
Total Data	11,422	20,795
Minimum	0.5	0.7
Maximum	4	1.003
Mean	1.212	1
Variance	0.082	0
Standard Deviation	0.286	0.002
Coefficient Of Variation	0.236	0.002

Table 14-10: Summary statistics, global population for non-composite and composite data. Fantasma zone

Statistics	Length	
	Non-composited	Composited
Valid Data	2,573	3,889
Total Data	2,573	3,889
Minimum	0.5	1
Maximum	3	1.005
Mean	1.391	1
Variance	0.398	0
Standard Deviation	0.631	0.001
Coefficient Of Variation	0.454	0.001

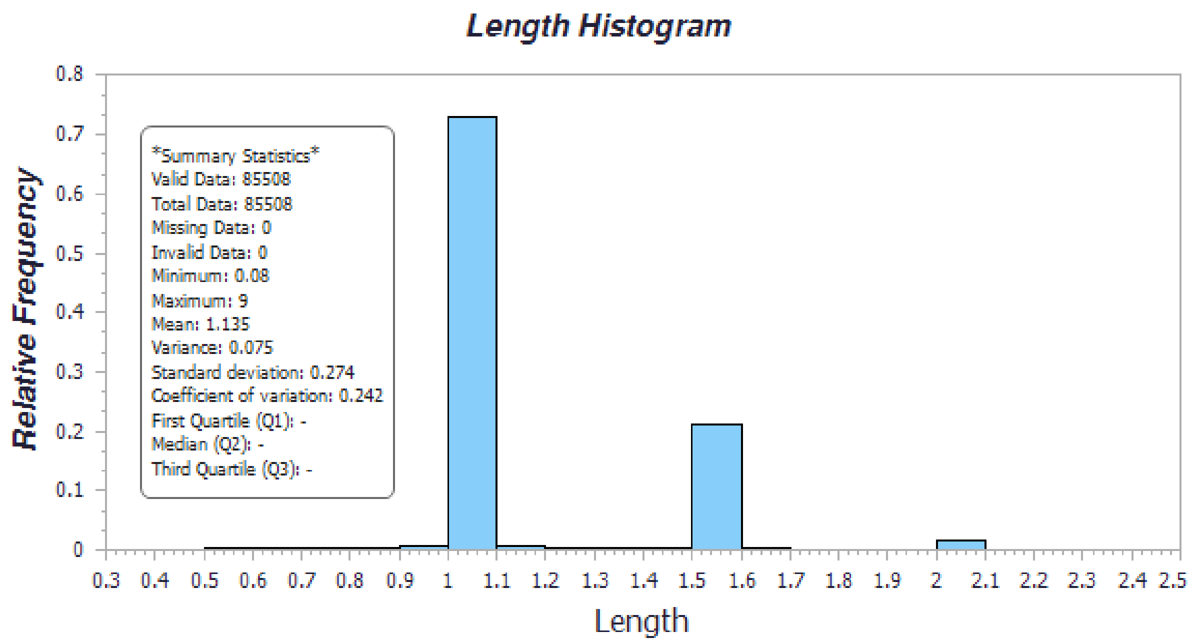


Figure 14-5: Non-composited Sample Data - Samples length. Oculto and Laderas zones

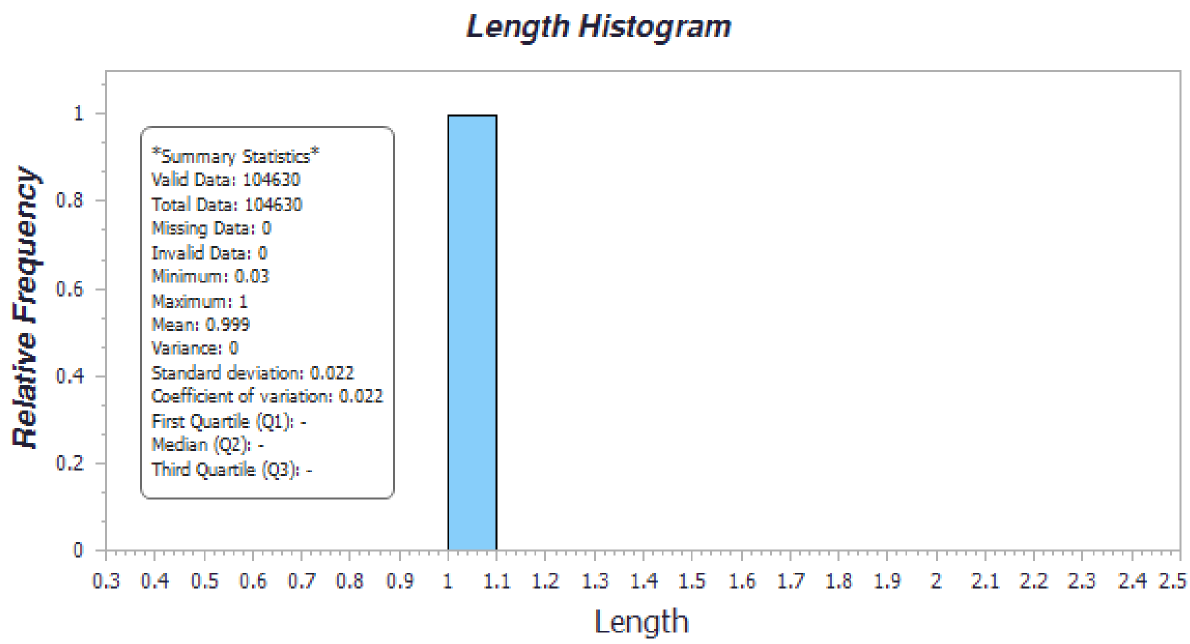


Figure 14-6: 1 m Composite Data - Sample intervals. Oculto and Laderas zones

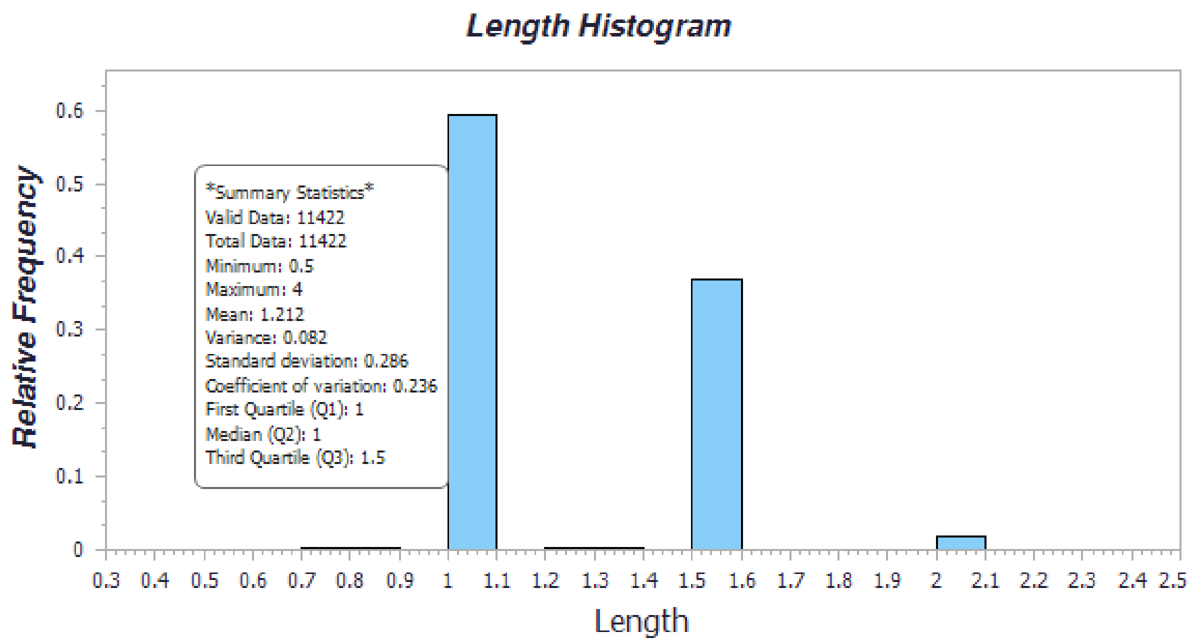


Figure 14-7: Non-composited Sample Data - Samples length. JAC zone

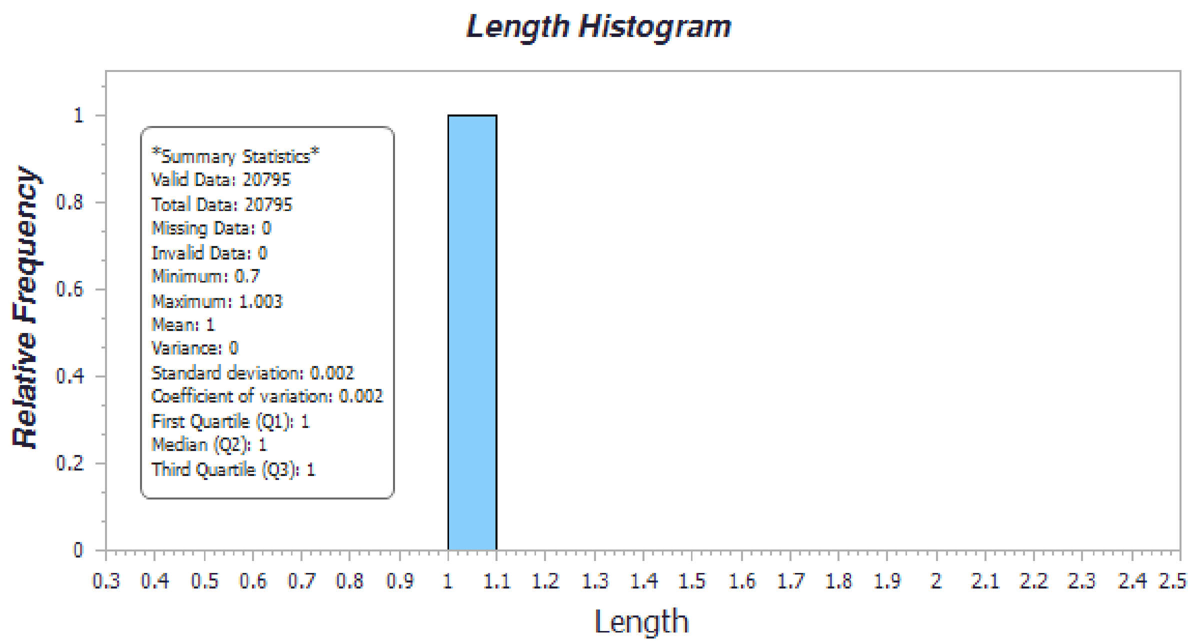


Figure 14-8: 1 m Composite Data - Sample intervals. JAC zone.

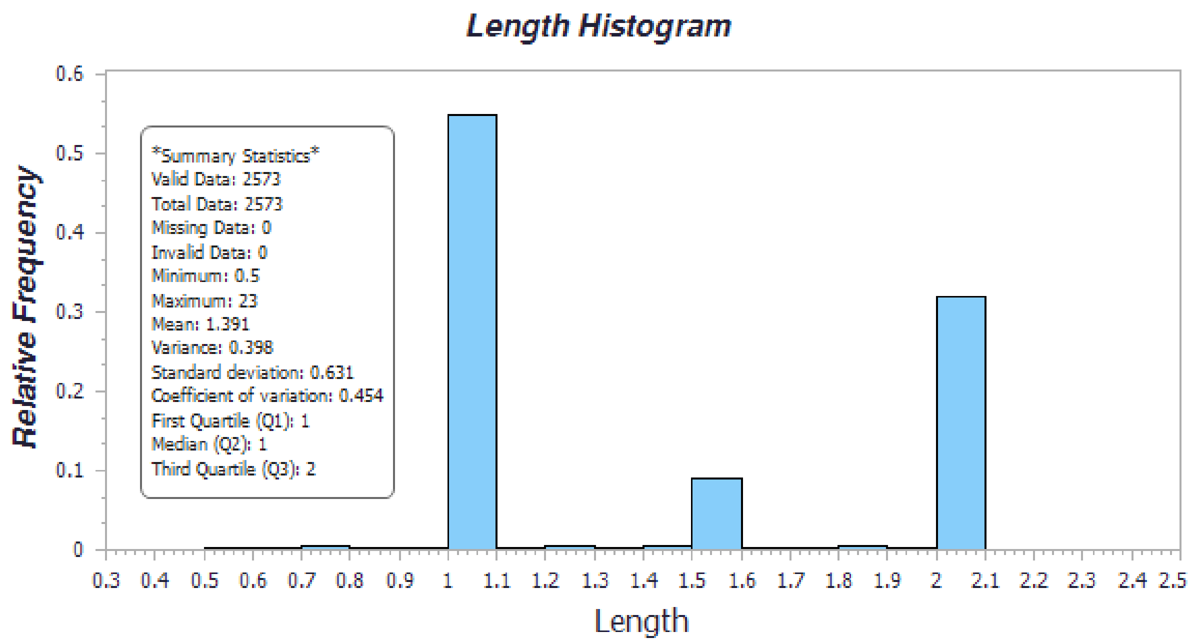


Figure 14-9: Non-composited Sample Data - Samples length. Fantasma zone

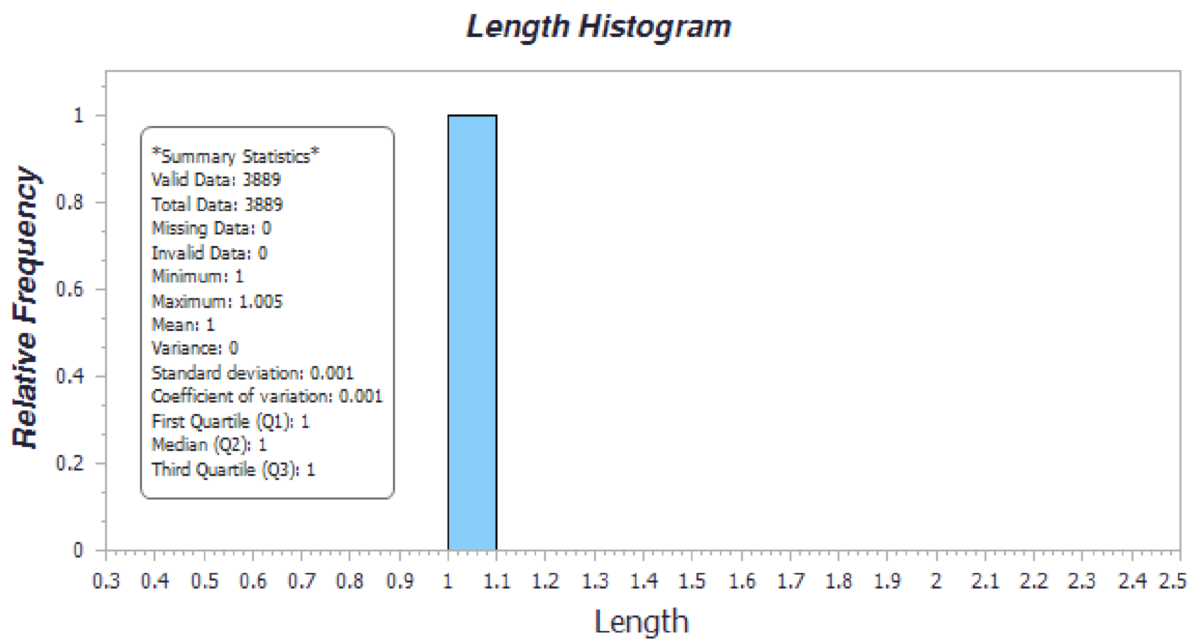


Figure 14-10: 1 m Composite Data - Sample intervals. Fantasma zone.

Summary statistics for raw data weighted by length (non-composited or raw) and composited sample intervals by estimation domains are presented in Table 14-11 and Table 14-12.

Table 14-11: Summary statistics for each gold domain of composite - Au g/t

Au Domain	Number of samples		Mean grade			Std Dev		Coeff Variation	
	Raw	Compos	Raw	Compos	Diff	Raw	Compos	Raw	Compos
211	711	871	0.14	0.11	-0.02	1.58	1.43	11.67	12.55
212	26,799	29,402	0.08	0.08	0.00	0.47	0.45	5.67	5.65
222	5,919	6,761	0.14	0.14	-0.01	0.49	0.47	3.45	3.45
232	14,444	16,310	0.62	0.57	-0.04	1.81	1.57	2.94	2.73
311	1,759	1,855	0.18	0.18	-0.01	0.73	0.71	3.99	3.99
312	3,705	3,798	0.36	0.37	0.01	0.92	0.92	2.55	2.50
321	1,221	1,281	0.45	0.46	0.01	3.50	3.43	7.80	7.48
322	1,510	1,641	0.64	0.64	0.00	1.70	1.65	2.66	2.59
332	1,049	1,025	0.79	0.82	0.03	1.59	1.64	2.01	2.00
411	6,270	7,214	0.22	0.21	-0.02	1.32	1.25	5.91	6.09
412	6,402	6,463	0.31	0.30	-0.01	1.53	1.38	4.99	4.60
421	631	660	0.37	0.33	-0.03	1.56	1.46	4.26	4.39
422	914	949	0.26	0.26	0.01	0.70	0.71	2.72	2.67
432	890	937	1.20	1.21	0.01	2.59	2.53	2.15	2.10
511	400	468	0.09	0.10	0.01	0.35	0.38	4.09	3.98
512	4,892	5,253	0.09	0.09	0.00	0.75	0.73	7.98	7.90
521	2,417	3,841	0.01	0.01	0.00	0.00	0.00	0.76	0.71
522	3,538	4,394	0.01	0.01	0.00	0.01	0.01	1.25	1.05
611	1,430	1,933	0.00	0.00	0.00	0.00	0.00	1.01	0.93
612	857	927	0.00	0.00	0.00	0.00	0.00	0.87	0.90

Table 14-12: Summary statistics for each silver domain of composite - Ag g/t

Ag Domain	Number of samples		Mean grade			Std Dev		Coeff Variation	
	Raw	Compos	Raw	Compos	Diff	Raw	Compos	Raw	Compos
211	650	826	6.98	6.32	-0.66	25.28	24.52	3.62	3.88
212	28,013	32,592	15.85	14.97	-0.88	139.95	130.62	8.83	8.72
222	6,259	7,393	22.06	21.66	-0.40	88.38	82.07	4.01	3.79
232	15,561	18,058	86.20	83.66	-2.54	338.15	306.48	3.92	3.66
311	1,866	2,054	5.51	5.26	-0.25	14.87	14.20	2.70	2.70
312	3,921	4,181	10.97	11.05	0.08	18.35	18.25	1.67	1.65
321	1,551	1,809	7.37	7.07	-0.30	13.29	12.67	1.80	1.79
322	1,735	1,926	14.90	14.99	0.09	19.98	19.98	1.34	1.34
332	1,420	1,540	18.09	18.19	0.10	44.50	20.05	2.46	1.34
411	6,574	7,785	6.89	6.24	-0.65	44.97	41.39	6.53	6.64
412	6,817	6,863	11.64	11.76	0.12	42.78	42.68	3.67	3.63
421	666	761	7.13	6.58	-0.55	17.98	16.85	2.52	2.56
422	979	1,047	14.72	14.93	0.21	45.66	44.90	3.10	3.01
432	1,383	1,522	84.09	81.25	-2.84	148.38	142.62	1.76	1.76
511	400	468	133.24	140.47	7.23	320.19	342.94	2.40	2.44
512	4,892	5,253	125.69	125.31	-0.38	588.08	572.77	4.68	4.57
521	2,417	3,841	0.85	0.80	-0.05	3.95	3.67	4.64	4.59
522	3,538	4,349	1.69	1.64	-0.05	4.78	4.50	2.84	2.75
611	1,430	1,933	1.76	1.38	-0.38	6698.00	4.89	3.82	3.55
612	857	932	50.22	53.28	3.06	95.83	96.25	1.91	1.81

14.7 Top Cutting

Top cutting, or capping of outlier grades, was determined for each estimation domain. The top cutting assessment considered the following:

- Review of the composite data by examining the cumulative distribution.
- Comparison of the percentage of metal and data of the Coefficient of Variation ("CV") affected by top cutting.
- Visual 3D review to assess the clustering of the high-grade composite data.
- Based on the assessment, appropriate top cuts were determined for each estimation domain. The application of top cuts resulted in minor reductions in the mean gold and silver grades.

Table 14-13 and Table 14-4 summarize uncut and top cut gold and silver statistics of composites for each estimation domain. Examples of top cut analysis have been provided in Figure 14-11 to Figure 14-14.

Table 14-13: Top cut statistics by gold domain – Au g/t composite data

Au Domain	Number of samples		Mean grade			Top-cut value	Std Dev		Coeff Variation		Max Un-cut value	Top cut %ile
	Un-cut	Top-cut	Un-cut	Top-cut	% Diff		Un-cut	Top-cut	Un-cut	Top-cut		
211	836	2	0.11	0.07	-36.4%	5.00	1.46	0.33	13.43	4.99	41.61	7.2%
212	32,317	12	0.07	0.07	0.0%	12.00	0.41	0.33	5.60	4.61	42.40	1.6%
222	7,358	8	0.13	0.13	0.0%	8.00	0.46	0.45	3.46	3.41	10.36	0.3%
232	17,882	5	0.56	0.56	0.0%	27.00	1.57	1.50	2.77	2.67	54.71	0.5%
311	2,008	12	0.18	0.17	-5.6%	12.00	0.69	0.61	3.92	3.55	15.80	2.1%
312	4,074	4	0.38	0.37	-2.6%	12.90	0.98	0.91	2.59	2.45	21.48	1.0%
321	1,725	1	0.44	0.40	-9.1%	60.00	2.99	1.81	6.84	4.46	116.00	7.4%
322	1,914	2	0.71	0.70	-1.4%	21.00	1.71	1.59	2.42	2.27	31.19	1.2%
332	1,426	2	0.79	0.78	-1.3%	15.00	1.58	1.49	2.01	1.90	23.34	1.1%
411	7,788	2	0.21	0.21	0.0%	27.00	1.26	1.20	6.03	5.81	41.28	1.0%
412	6,866	2	0.31	0.30	-3.2%	31.00	1.37	1.11	4.41	3.68	58.32	2.3%
421	700	1	0.37	0.37	0.0%	25.00	1.60	1.53	4.30	4.17	27.80	1.1%
422	1,035	2	0.26	0.26	0.0%	7.50	0.69	0.64	2.67	2.51	10.68	1.5%
432	1,543	4	1.04	1.03	-1.0%	21.00	2.44	2.29	2.34	2.23	27.66	1.4%
511	468	4	0.10	0.09	-10.0%	2.67	0.38	0.34	3.98	3.70	2.67	5.0%
512	5,253	1	0.09	0.09	0.0%	21.18	0.73	0.49	7.90	5.57	21.18	4.8%
521	3,481	2	0.01	0.01	0.0%	0.10	0.00	0.00	0.71	0.55	0.10	0.5%
522	4,394	2	0.01	0.01	0.0%	0.12	0.01	0.00	1.05	0.78	0.12	8.0%
611	1,933	0	0.01	0.01	0.0%	0.10	0.01	0.01	0.83	0.83	0.10	0.0%
612	932	0	0.01	0.01	0.0%	0.04	0.01	0.01	0.81	0.81	0.04	0.0%

Table 14-14: Top cut statistics by silver domain – Ag g/t composite data

Au Domain	Number of samples		Mean grade			Top-cut value	Std Dev		Coeff Variation		Max Un-cut value	Top cut %ile
	Un-cut	Top-cut	Un-cut	Top-cut	% Diff		Un-cut	Top-cut	Un-cut	Top-cut		
211	836	1	7.02	6.81	-3.0%	475	31.86	27.89	4.54	4.09	31.86	3.0%
212	32,331	3	15.09	14.88	-1.4%	6800	143.9	130.9	9.54	8.80	11,305	1.4%
222	7,358	1	21.81	21.50	-1.4%	2497	93.50	80.81	4.29	3.76	4,754	1.4%
232	17,879	6	81.61	80.47	-1.4%	6100	264.6	262.1	3.61	3.26	11,269	1.4%
311	2,008	2	5.78	5.33	-7.8%	300	26.18	14.33	4.53	2.69	893.0	7.7%
312	4,074	2	11.40	11.21	-1.7%	300	22.88	18.30	2.01	1.63	770.0	1.7%
321	1,725	2	7.46	7.30	-2.1%	200	15.80	12.92	2.12	1.77	345.3	2.1%
322	1,914	2	15.24	15.09	-1.0%	200	22.16	20.33	1.45	1.35	348.0	1.0%
332	1,426	1	18.36	17.98	-2.1%	1125	54.41	44.00	2.96	2.45	1,656	2.0%
411	7,782	2	6.39	6.26	-2.0%	1800	47.82	41.41	7.48	6.61	2,700	2.0%
412	6,865	2	12.31	12.12	-1.5%	1250	50.67	44.33	4.11	3.66	1,968	1.6%
421	700	1	6.86	6.75	-1.6%	240	18.93	17.37	2.76	2.57	312.8	1.5%
422	1,035	2	15.41	15.17	-1.6%	650	48.87	45.40	3.17	2.99	780.3	1.5%
432	1,539	2	82.52	81.27	-1.5%	1529	160.6	142.2	1.95	1.75	3,245	1.5%
511	468	2	140.5	137.6	-2.1%	2500	343.3	317.8	2.44	2.31	3,637	2.1%
512	5,253	3	125.3	119.1	-4.9%	7000	572.8	336.0	4.57	2.82	32,481	4.9%
521	3,481	2	0.80	0.78	-2.5%	70	3.67	3.24	4.59	4.14	114.0	2.1%
522	4,394	2	1.64	1.62	-1.2%	76	4.50	4.05	2.75	2.50	132.2	1.2%
611	1,933	2	1.38	1.36	-1.4%	90	4.89	4.89	3.56	3.56	114.0	1.5%
612	932	1	53.28	53.03	-0.5%	1000	96.30	93.39	1.81	1.76	1,237	50.0%

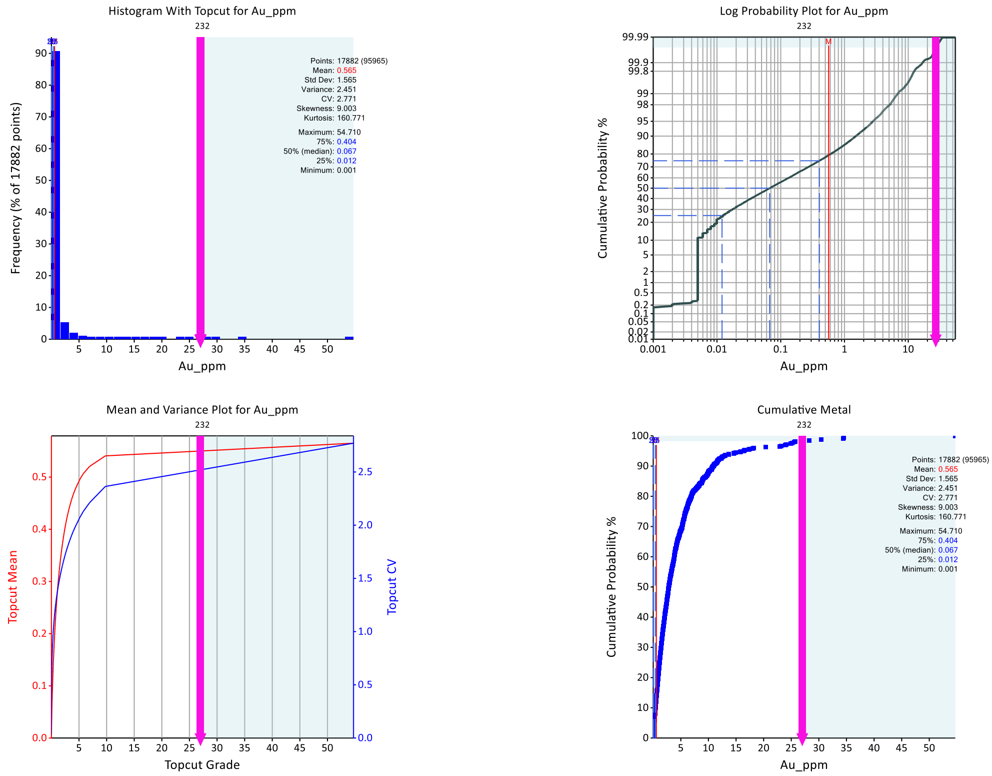


Figure 14-11: Example of the top cut analysis – Gold domain 232

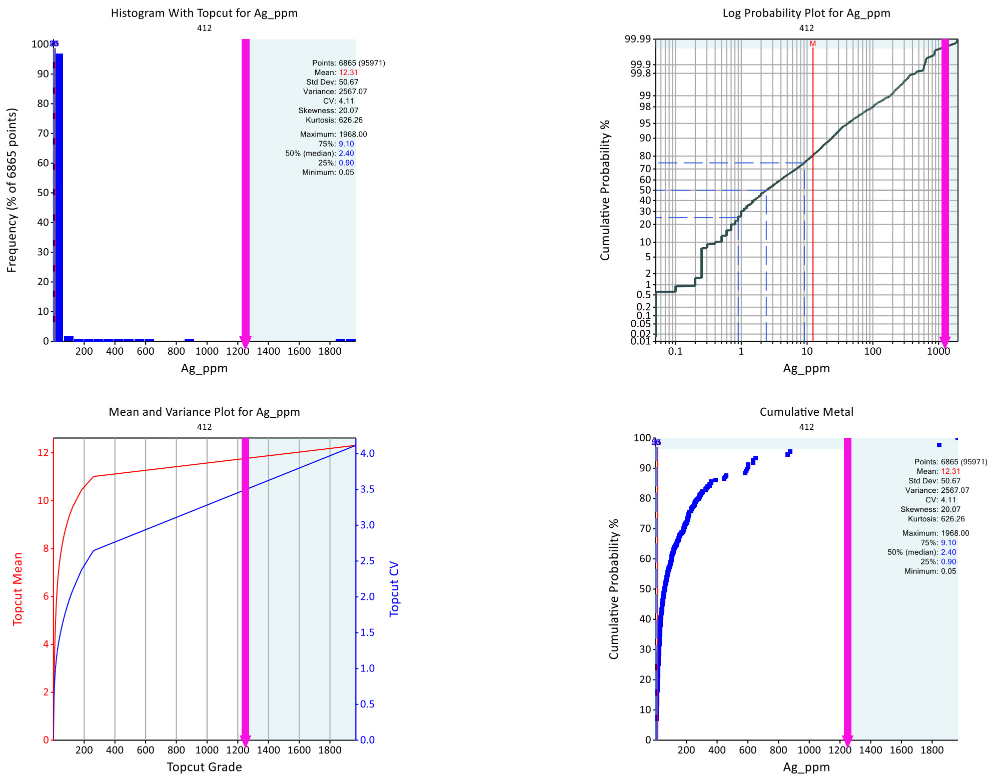


Figure 14-12: Example of the top cut analysis – Silver domain 412

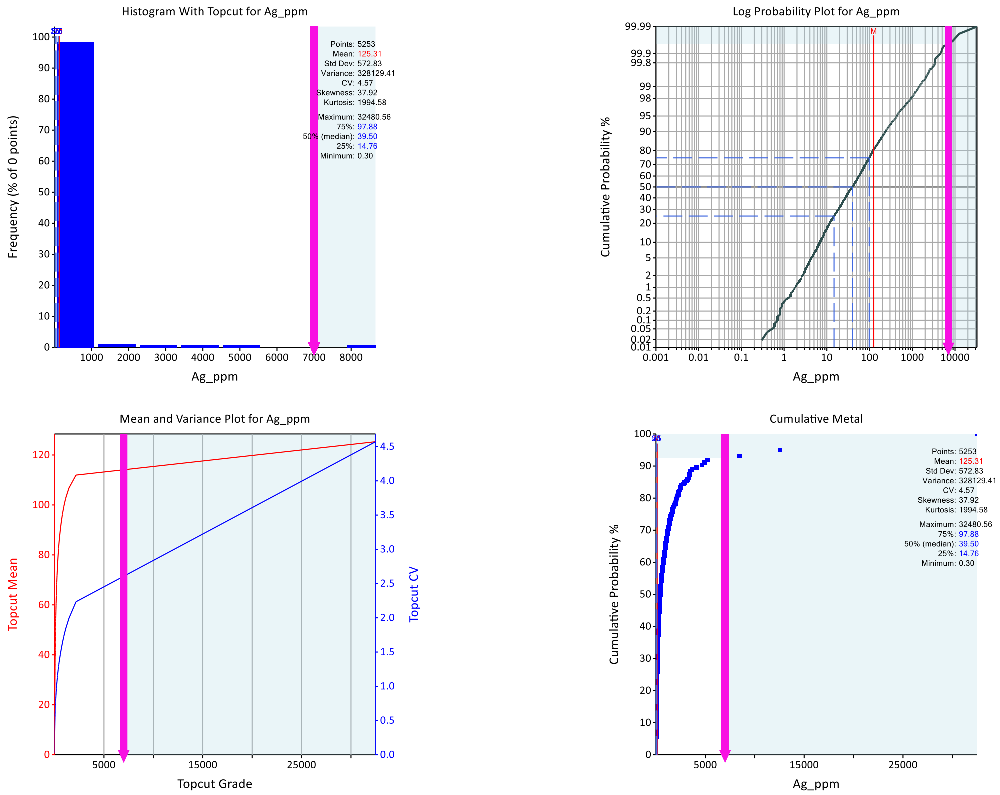


Figure 14-13: Example of the top cut analysis – Silver domain 512

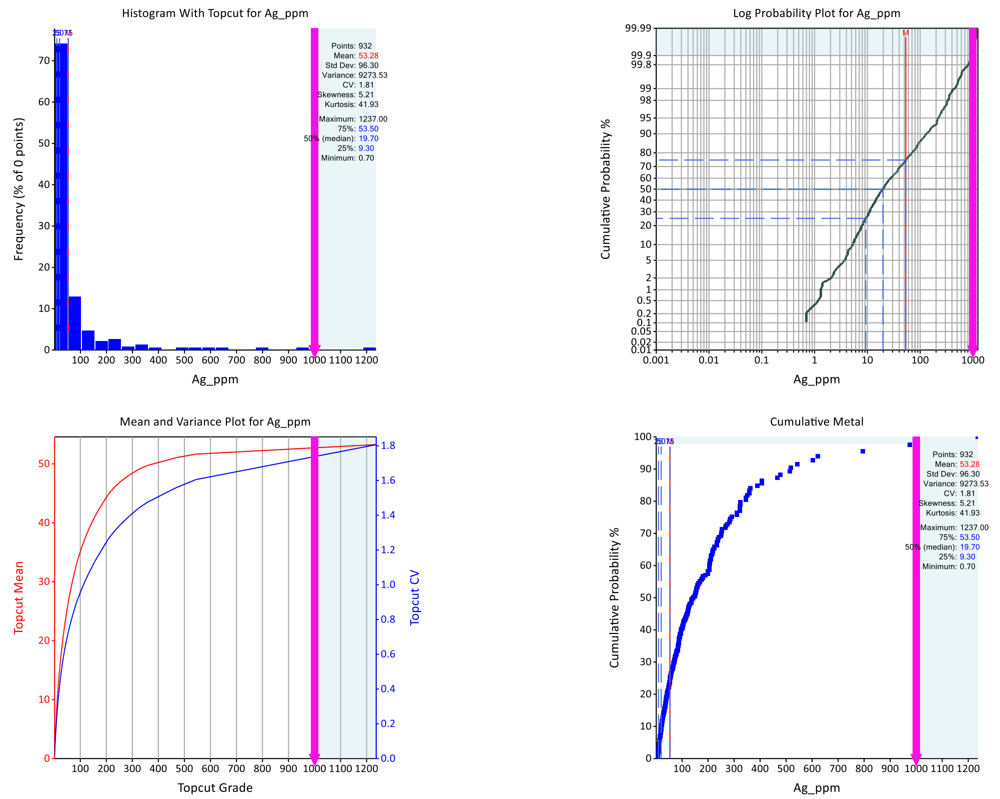


Figure 14-14: Example of the top cut analysis – Silver domain 612

14.8 Bulk Density Determination

A revised dry bulk density model was constructed using 7,178 samples taken over drilling performed from 2019 – 2023. This was measured at site by AbraSilver geologists and performed by the unwrapped core method.

Previous work completed for the PEA (Mining Plus, 2022) compared the Unwrapped Core method versus Waxed Core method. Conclusions from the report included the following summary:

> *Comparisons between Waxed Core and Unwrapped Core methods by ALS have shown that each method has similar results with a difference of 1%. Demonstrating that the Unwrapped Core method is an acceptable method for determining in-situ bulk density.*

The updated model was based on measurements preformed on 6,807 core samples by using the Unwrapped Core method (performed by AbraSilver) to determine the in-situ bulk density. The samples were selected every 5 meters from the 2019 to 2021 drilling campaign database and from the 2021 to 2023 drilling campaign logs.

This Unwrapped Core method is outlined below:

1. Dry sample is weighed in air (Mdry).

2. Dry sample is weighed immediately upon submersion in water (Mini).

3. The sample is left submerged and weighed again sometime later (Msat in water).

4. The sample is removed from the water and immediately weighed (Msat).

The in-situ bulk density is determined from the following formula:

Mass of contained water (Mwater) = *Msat - Mdry*

Volume of contained water (Vwater) = *Mwater / Density of water* (ρ_W)

Volume of sample (Vsamp) = *Vwater + ((Mdry – Msat in water) /* ρ_W*)*

Bulk Density = Mdry / Vsamp

The QP considers that the sample sets selected are appropriate to determine the in-situ bulk density of the Diablillos mineralisation. A summary of the bulk densities applied to each code domain are shown in Table 14-15.

Table 14-15: In-situ bulk density applied into the block model.

Statistics / Code Domain	211	212	221	222	231	232
Valid Data	67	1671	19	643	4	2094
Total Data	67	1671	19	643	4	2094
Minimum	1.57	1.50	2.16	1.63	2.25	1.60
Maximum	2.74	3.04	2.82	2.74	2.79	3.39
Variance	0.07	0.05	0.02	0.04	0.04	0.03
Standard Deviation	0.27	0.22	0.15	0.19	0.20	0.17
Coefficient Of Variation	0.12	0.10	0.07	0.08	0.08	0.07
Range	1.17	1.54	0.66	1.11	0.54	1.79
Mean	**2.22**	**2.19**	**2.35**	**2.30**	**2.57**	**2.30**
Code Domain	**311**	**312**	**321**	**322**	**331**	**332**
Valid Data	86	147	214	98	8	233
Total Data	86	147	214	98	8	233
Minimum	2.36	1.98	2.23	1.89	2.36	1.46
Maximum	3.27	2.74	3.43	3.19	2.74	2.70
Variance	0.03	0.02	0.04	0.03	0.01	0.02
Standard Deviation	0.17	0.15	0.19	0.18	0.11	0.14
Coefficient Of Variation	0.06	0.06	0.07	0.07	0.04	0.06
Range	0.91	0.76	1.20	1.30	0.38	1.24
Mean	**2.66**	**2.42**	**2.70**	**2.53**	**2.60**	**2.41**
Code Domain	**411**	**412**	**421**	**422**	**431**	**432**
Valid Data	380	99	37	85	15	127
Total Data	380	99	37	85	15	127
Minimum	1.76	1.80	2.42	1.94	2.04	1.84
Maximum	2.84	2.68	2.85	2.80	2.82	2.64
Variance	0.03	0.02	0.01	0.02	0.05	0.02
Standard Deviation	0.16	0.13	0.09	0.15	0.23	0.14
Coefficient Of Variation	0.06	0.06	0.03	0.06	0.09	0.06
Range	1.08	0.88	0.43	0.86	0.78	0.80
Mean	**2.51**	**2.41**	**2.64**	**2.49**	**2.47**	**2.30**
Code Domain	**511**	**512**	**521**	**522**	**611**	**612**
Valid Data	19	312	160	185	34	70
Total Data	19	312	160	185	34	70
Minimum	1.71	1.29	1.48	1.53	1.83	1.9
Maximum	5.14	2.92	3.04	4.48	2.45	2.63
Variance	0.53	0.05	0.08	0.14	0.03	0.02
Standard Deviation	0.73	0.23	0.28	0.37	0.16	0.15
Coefficient Of Variation	0.31	0.11	0.12	0.16	0.07	0.06
Range	3.43	1.63	1.56	2.95	0.62	0.73
Mean	**2.33**	**2.05**	**2.39**	**2.33**	**2.30**	**2.20**

14.9 Variography

Traditional Variograms or Correlogram Variograms were chosen to model the gold and silver grade continuity as they were found to give better structures. The correlogram variogram considers both the distance between sample pairs and the local means of the head and tail values. Meaning that for each set of data pairs, it takes all the head values, calculates mean and takes all the tail values and calculates mean. Correlograms were used when traditional variogram were found to be noisy.

The Snowden Supervisor and MS Sigma software were employed to generate variogram maps and traditional or correlogram variograms. Considering a 2 or 3 structured spherical model and nugget effect, recreating the spatial continuity and knowledge of the deposit geology. The nugget effect and sill contributions were derived from down-hole experimental variograms followed by final model fitting on directional variogram plots.

The traditional variogram or correlogram for gold and silver was modelled for each estimation domain. Table 14-16 and

Table 14-17 show the variograms modelled. Example of variogram maps is shown in Figure 14-15 through to Figure 14-18.

An example of the variogram models (gold domain 232, silver domain 232, silver domain 512 and silver domain 612) (Figure 14-19 to Figure 14-22) with their respective 3D view are presented from Figure 14-23 to Figure 14-26.

Table 14-16: Variogram models used for gold domains – Summary

Gold domains	Y (Az)	X (Az)	Z (Az)	Dip Y	Dip X	Dip Z	A1	A2	A3
211	151.10	106.80	51.70	-24.30	57.70	-19.80	151.12	-24.31	111.87
212	214.00	125.00	101.00	-6.00	13.00	-76.00	-145.40	-5.68	166.90
222	232.80	146.20	90.60	-15.90	11.50	-70.10	-127.12	-15.95	168.00
232	220.00	133.20	93.80	-11.70	15.10	-70.70	-139.99	-11.68	164.55
311	193.30	103.30	-63.40	-0.20	-0.70	-89.30	-166.74	-0.16	-179.33
312	187.70	98.50	58.10	-6.10	7.30	-80.50	-172.27	-6.08	172.71
321	203.30	113.30	-89.30	0.20	-0.50	-89.40	-156.67	0.22	-179.48
322	207.30	118.50	75.60	-7.80	8.50	-78.40	-152.65	-7.75	171.40
332	-16.10	265.80	-0.20	59.30	-7.00	-29.70	-16.05	59.30	-166.26
411	196.80	107.40	-80.00	1.90	-15.70	-74.10	-163.17	1.93	-164.24
412	179.30	91.90	81.70	-4.50	30.50	-59.10	179.26	-4.49	149.42
421	119.30	103.40	200.80	46.50	-42.40	-8.00	119.33	46.52	-101.69
422	58.10	240.90	148.70	-26.10	-63.90	-1.10	58.13	-26.11	-91.20
432	216.60	127.10	113.80	-2.40	10.50	-79.30	-143.37	-2.41	169.52
511	20.00	211.50	118.70	60.00	29.50	5.00	61.00	101.00	109.00
512	130.00	56.10	359.10	67.00	92.00	54.00	67.00	92.00	54.00
521	340.00	232.50	137.20	60.00	9.80	28.00	21.00	43.00	34.00
522	300.00	39.40	310.60	70.00	3.40	-19.70	25.00	29.00	49.00

Gold domains	Y (Az)	X (Az)	Z (Az)	Dip Y	Dip X	Dip Z	A1	A2	A3
611	110.00	20.00	290.00	50.00	0.00	40.00	40.00	40.00	40.00
612	200.00	111.80	65.40	10.00	-9.80	75.90	28.00	50.00	51.00

Table 14-17: Variogram models used for silver domains – Summary

Silver domains	Y (Az)	X (Az)	Z (Az)	Dip Y	Dip X	Dip Z	A1	A2	A3
211	262.50	172.60	155.20	-1.50	4.70	-85.00	-97.51	-1.47	175.27
212	214.90	126.20	101.70	-5.70	13.00	-75.80	-145.09	-5.70	166.94
222	232.30	145.70	90.40	-16.10	11.80	-69.80	-127.74	-16.11	167.69
232	220.00	133.20	93.80	-11.70	15.10	-70.70	-139.99	-11.00	164.55
311	193.30	103.30	-63.40	-0.20	-0.70	-89.30	-166.74	-0.16	-179.33
312	187.70	98.50	58.10	-6.10	7.30	-80.50	-172.27	-6.08	172.71
321	203.30	113.30	-89.30	0.20	-0.50	-89.40	-156.67	0.22	-179.48
322	207.30	118.50	75.60	-7.80	8.50	-78.40	-152.65	-7.75	171.40
332	-16.10	265.80	-0.20	59.30	-7.00	-29.70	-16.05	59.30	-166.26
411	196.80	107.40	-80.00	1.90	-15.70	-74.10	-163.17	1.93	-164.24
412	179.30	91.90	81.70	-4.50	30.50	-59.10	179.26	-4.49	149.42
421	119.30	103.40	200.80	46.50	-42.40	-8.00	119.33	46.52	-101.69
422	58.10	240.90	148.70	-26.10	-63.90	-1.10	58.13	-26.11	-91.20
432	216.70	127.10	114.20	-2.40	10.50	-79.30	-143.34	-2.36	169.48
511	285.00	187.30	92.00	50.00	6.40	39.30	59.00	52.00	185.00
512	50.00	203.30	45.70	10.00	-58.50	-29.50	50.00	71.00	110.00
521	280.00	17.70	293.00	50.00	6.40	-39.30	30.00	71.00	99.00
522	340.00	170.60	79.40	70.00	19.70	3.40	112.00	123.00	94.00
611	100.00	167.80	26.00	20.00	-46.00	-37.20	40.00	40.00	40.00
612	10.00	107.70	23.00	50.00	6.40	-39.30	20.00	35.00	14.00

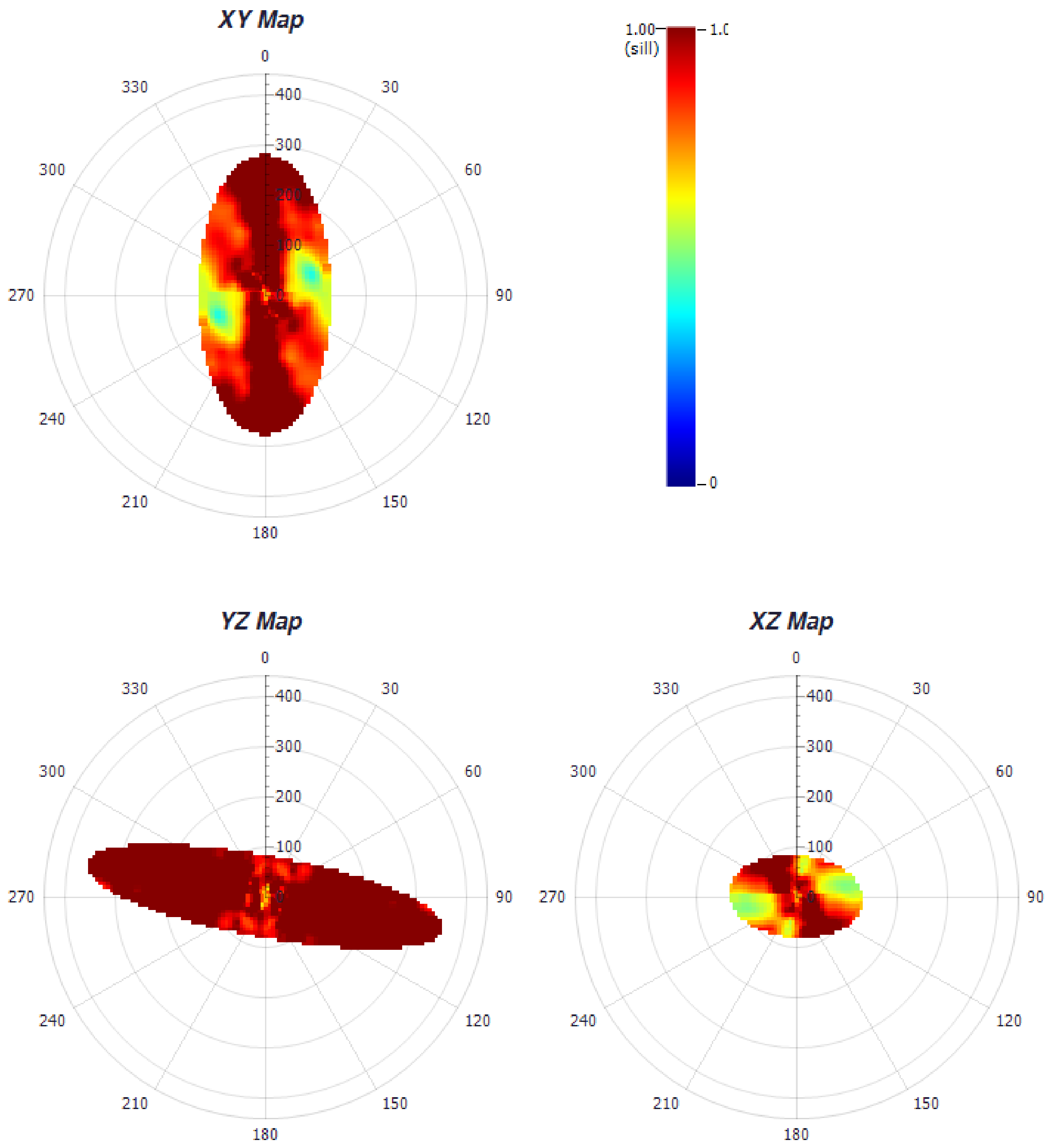


Figure 14-15: Gold domain 232 – Variogram map

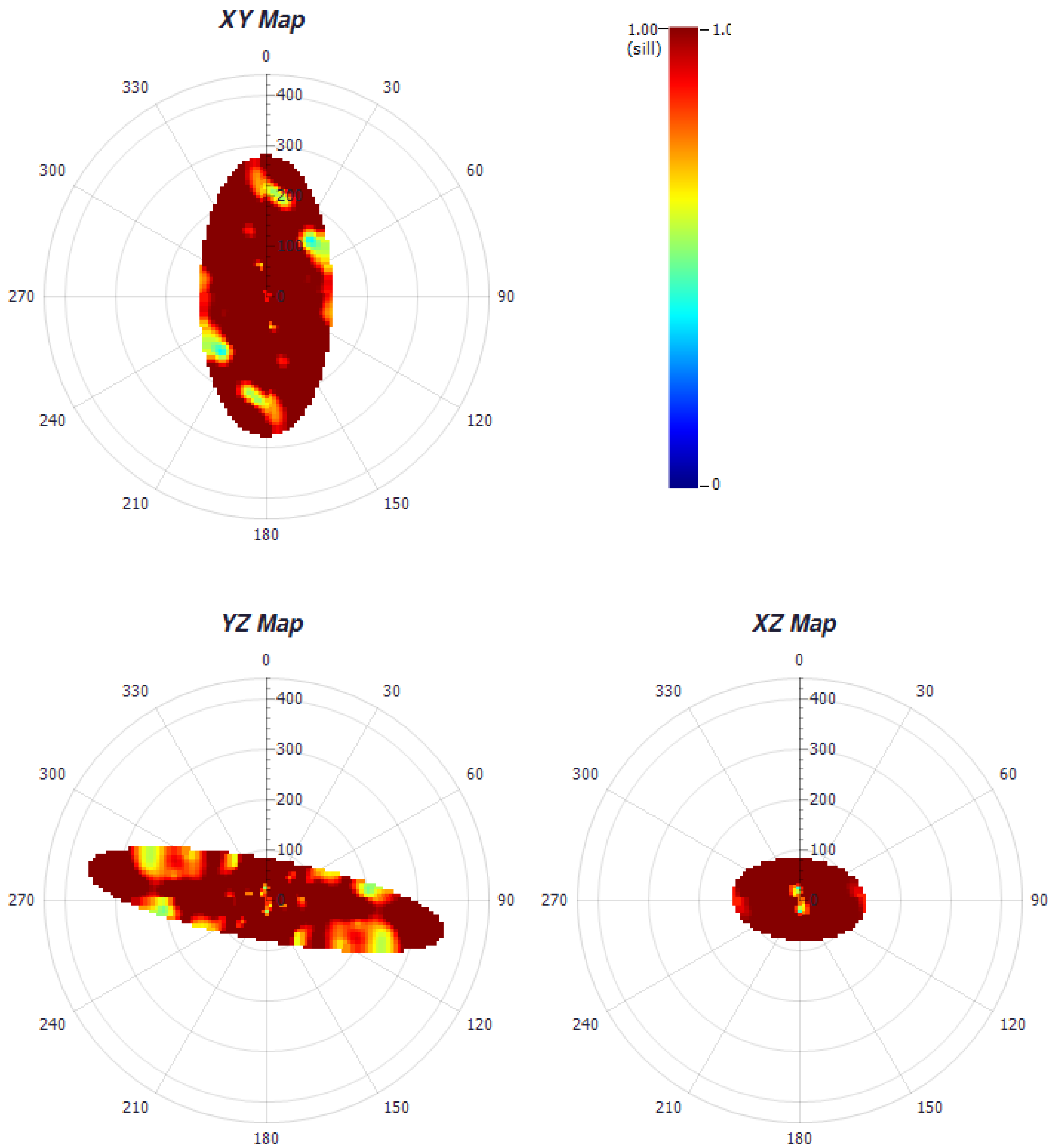


Figure 14-16: Silver domain 232 –Variogram map

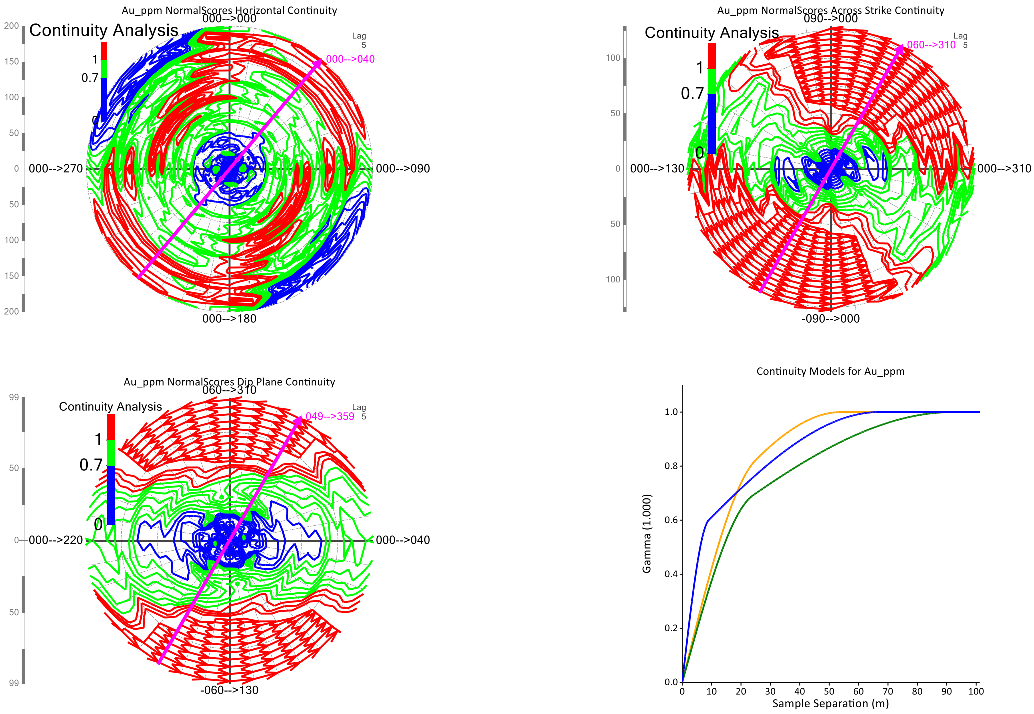


Figure 14-17: Silver domain 512 –Variogram map

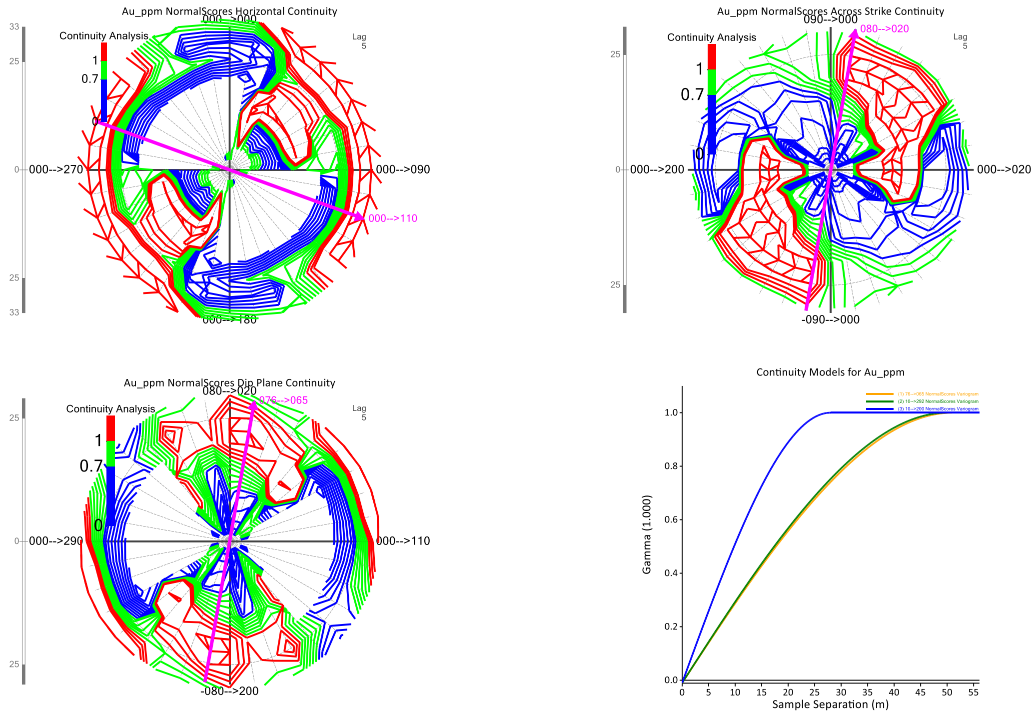


Figure 14-18: Silver domain 612 –Variogram map

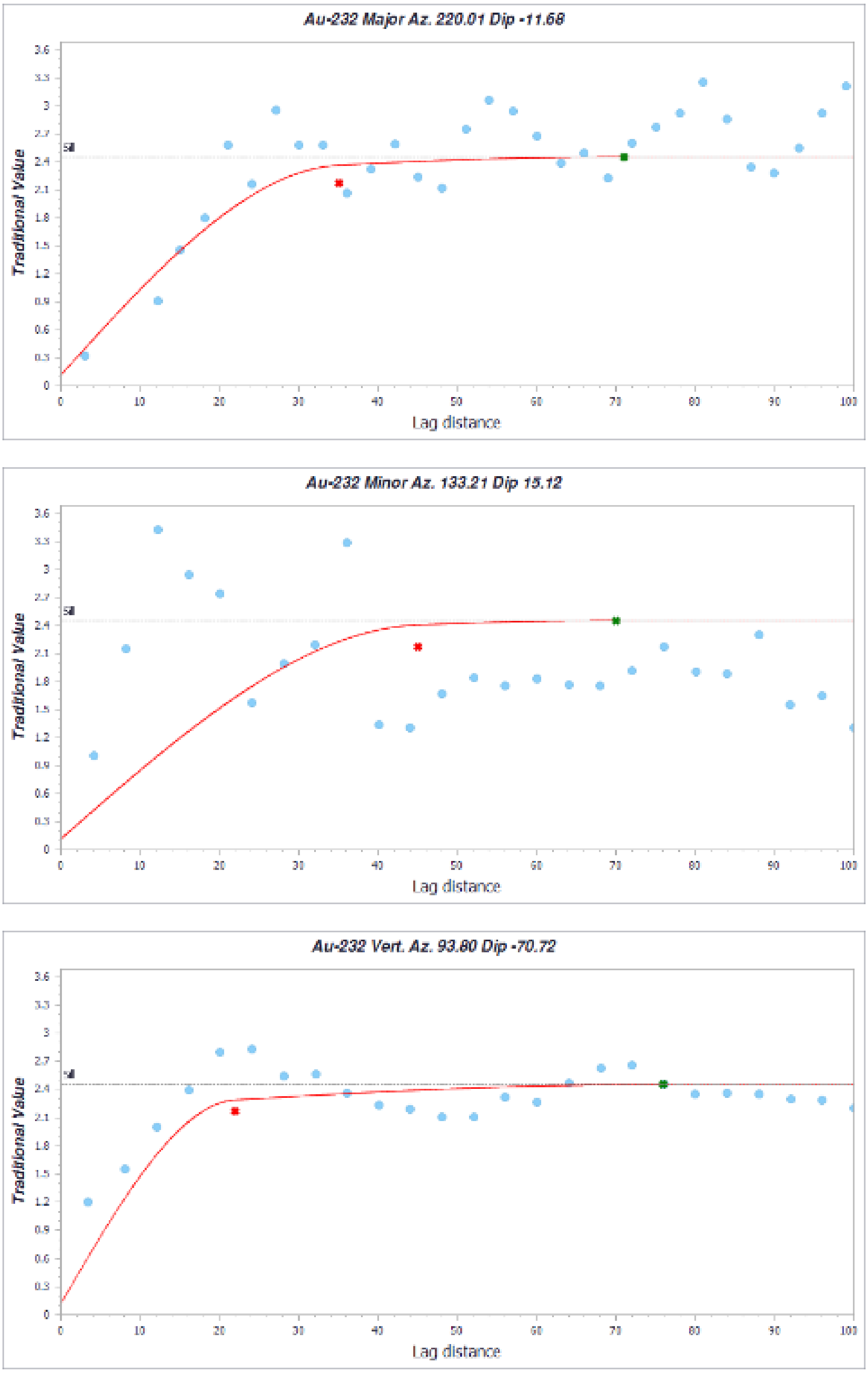
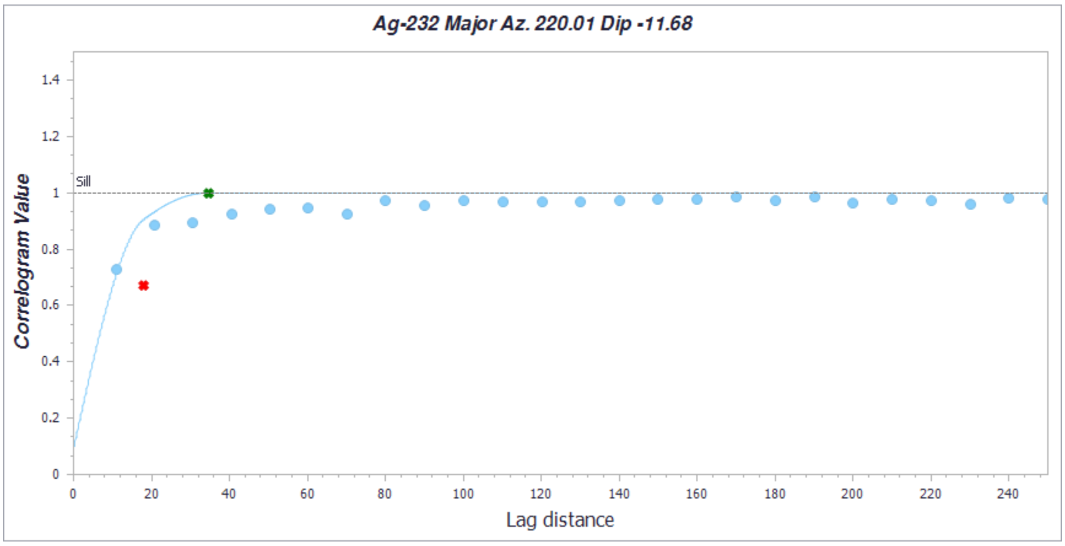
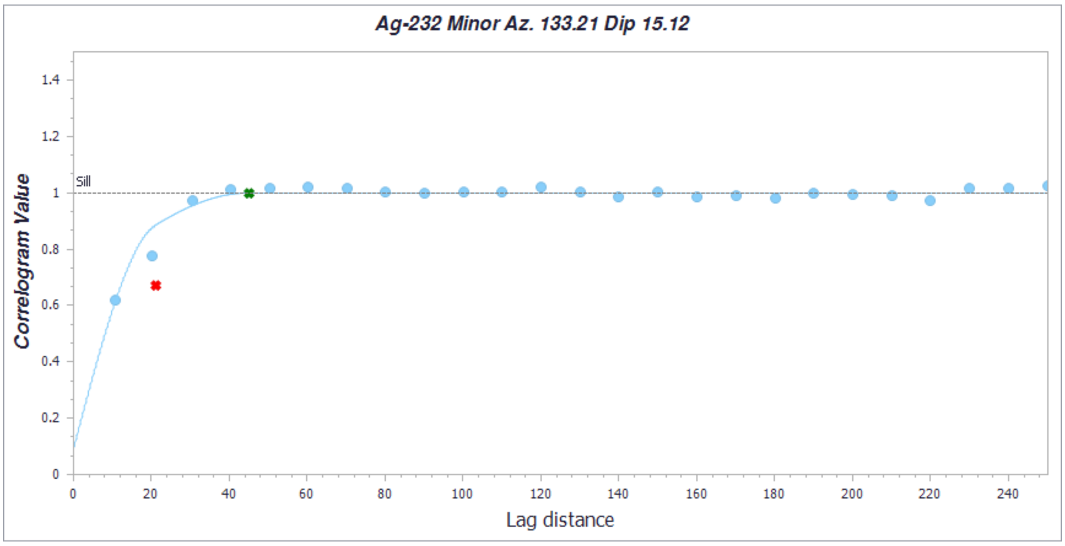


Figure 14-19: Gold domain 232 – Traditional variogram model for gold





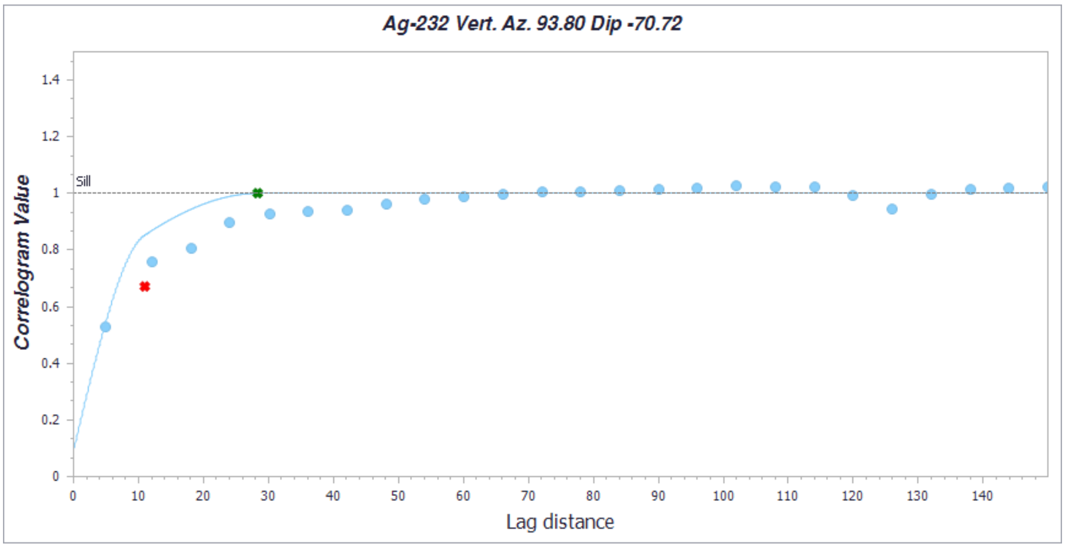


Figure 14-20: Silver domain 232 – Correlogram variogram model for silver

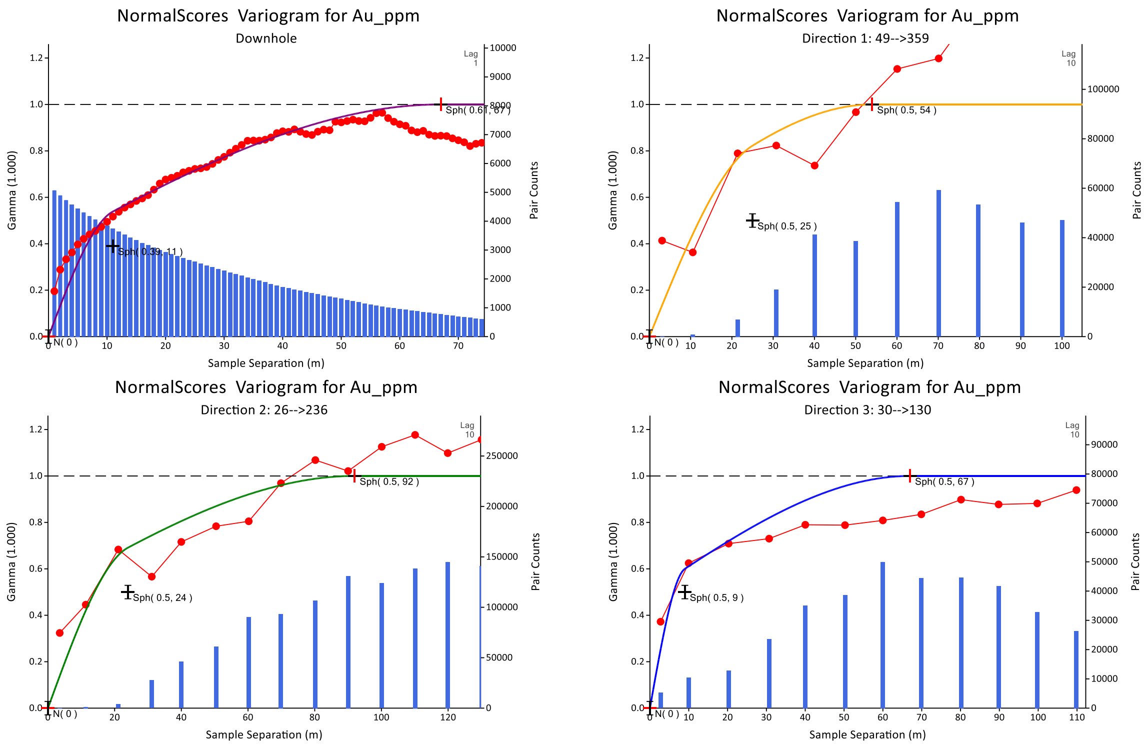


Figure 14-21: Domain 512 – Normal score variogram model for silver

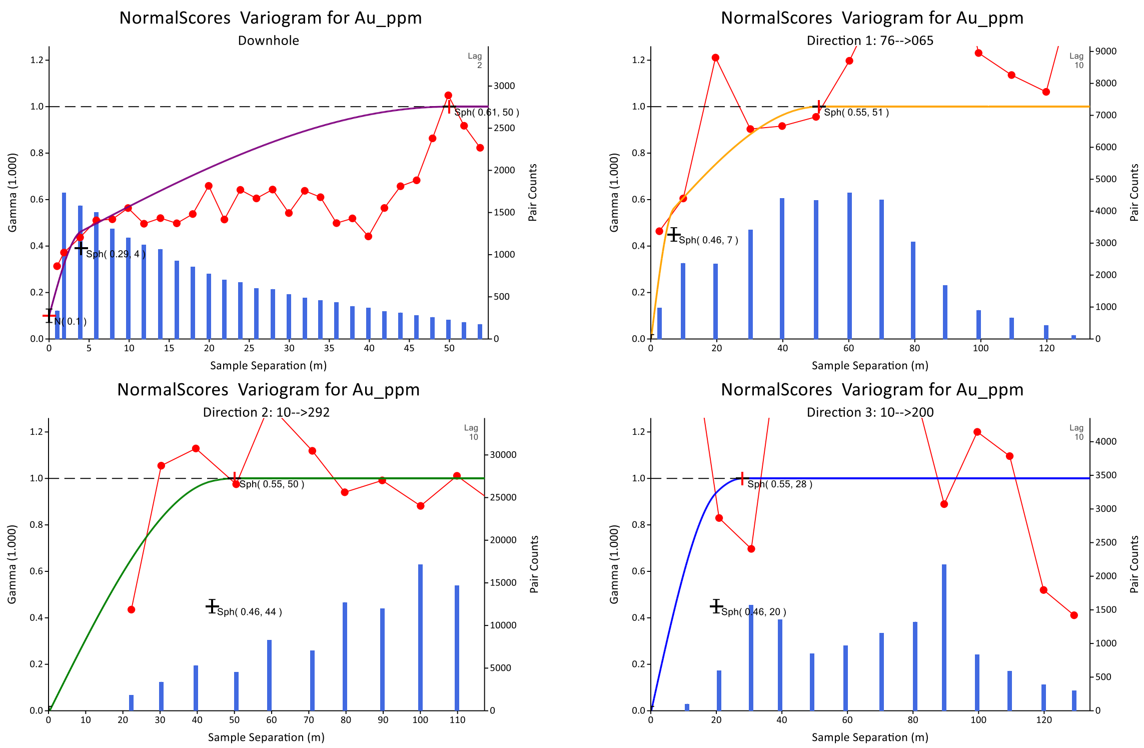


Figure 14-22: Domain 612 – Normal score variogram model for silver

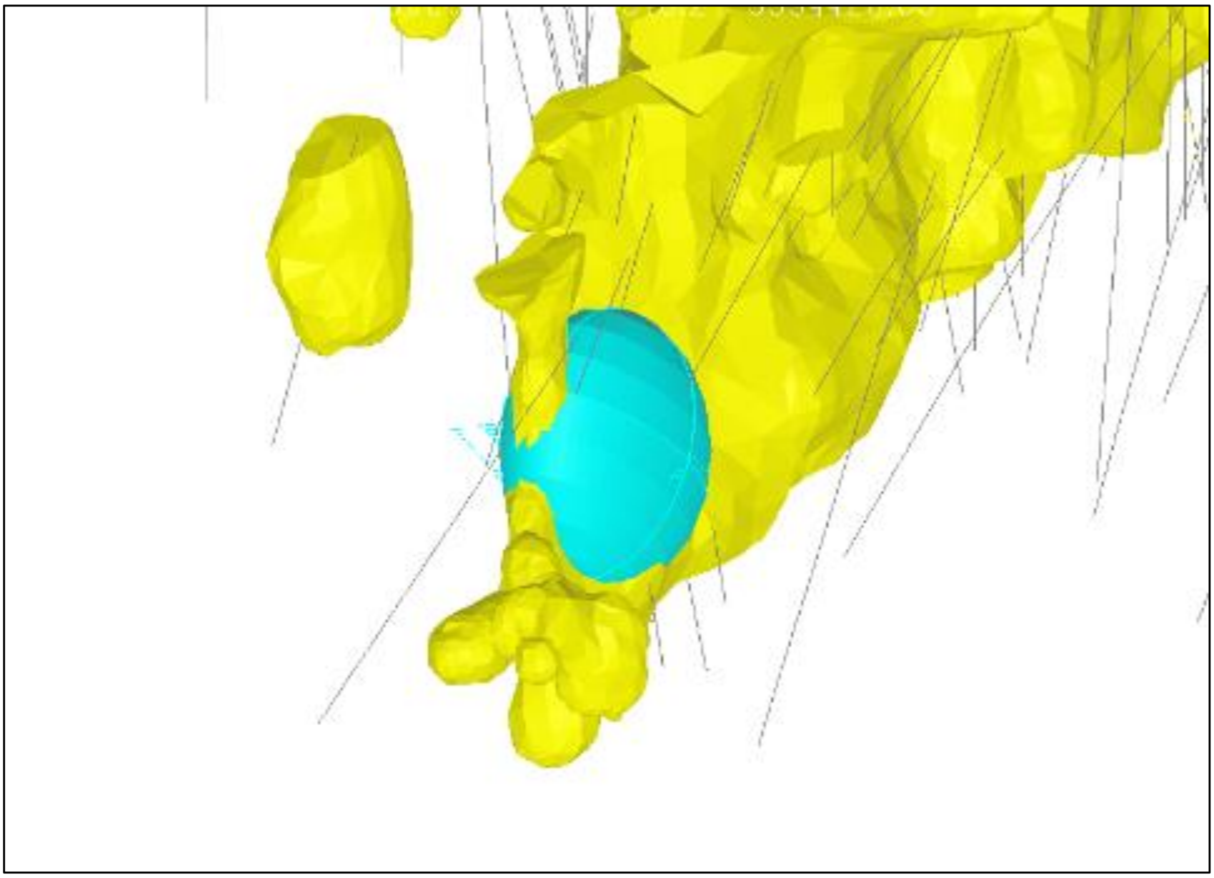


Figure 14-23: Domain 232 – 3D view of traditional variogram model for gold

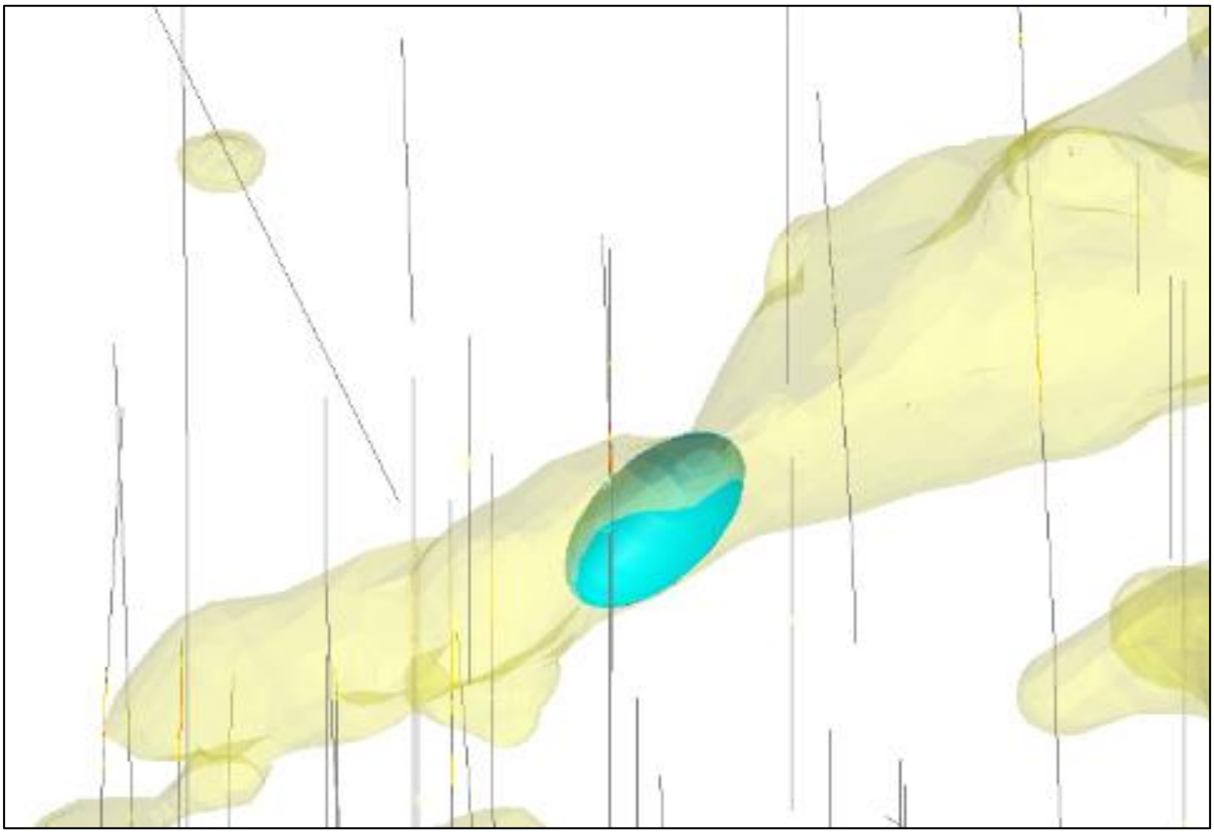


Figure 14-24: Domain 232 – 3D view of correlogram variogram model for silver

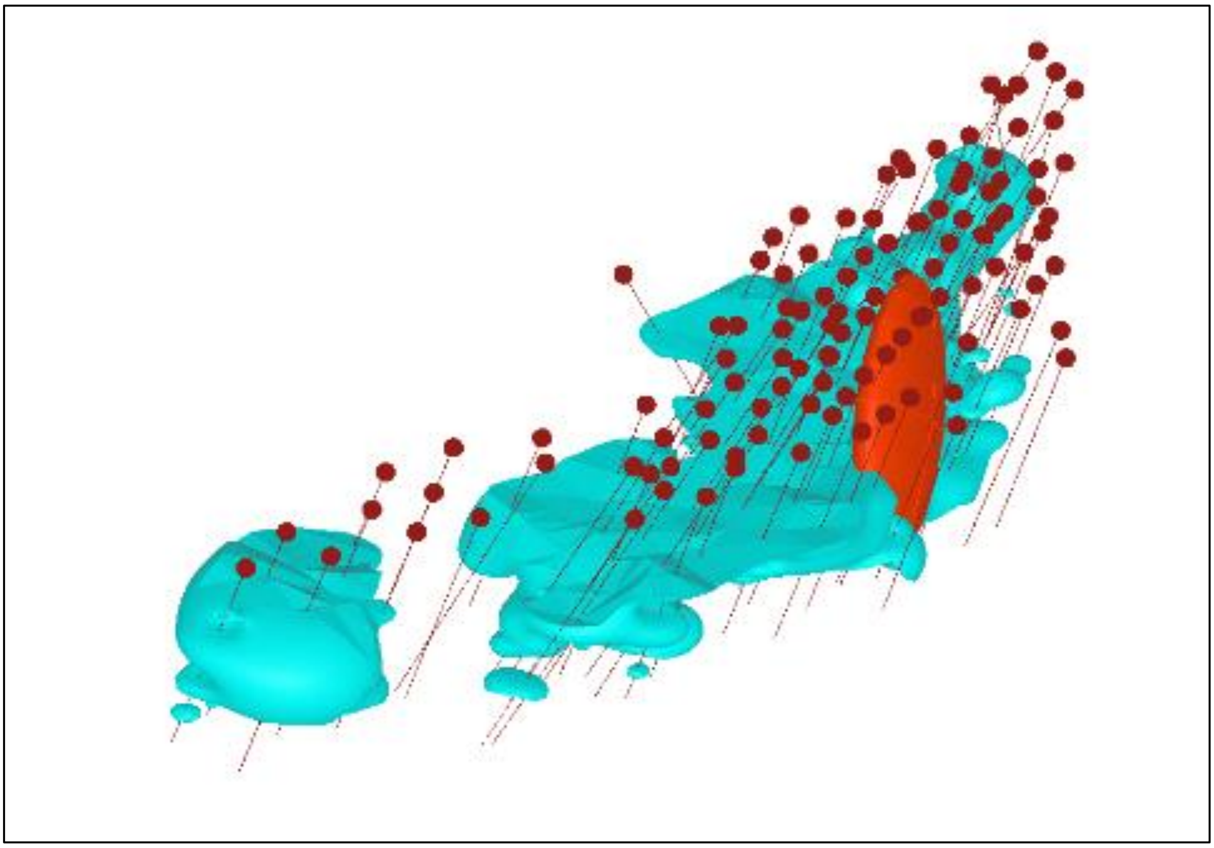


Figure 14-25: Domain 512 – 3D view of normal score search ellipse model for silver

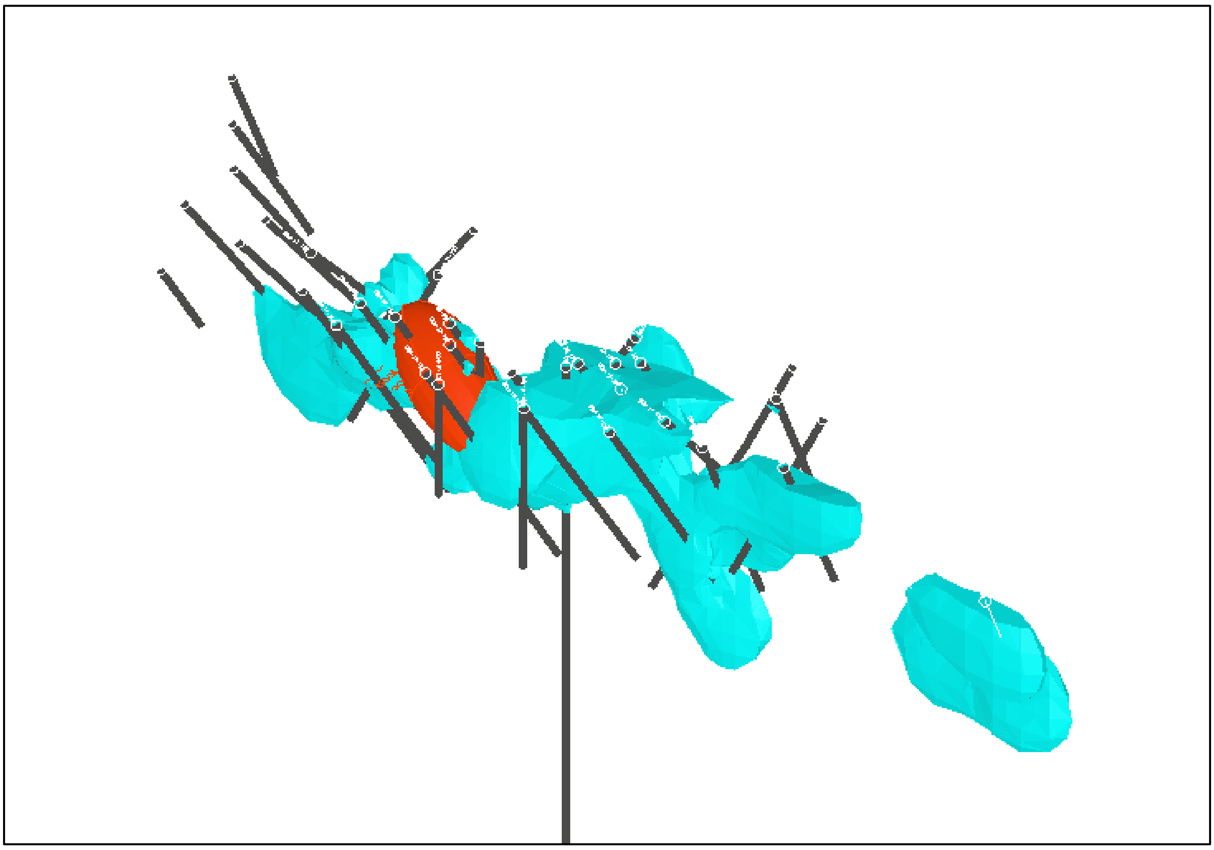


Figure 14-26: Domain 611 – 3D view of normal score search ellipse model for silver

14.10 Block Model

A three-dimensional block model was constructed, covering all interpreted mineralized zones. The model dimensions included waste material and topsoil material to aid any future optimisation studies.

14.11 Model Construction and Parameters

The MS MinePlan commercial mining software package was used for block model construction. The selected block size was based on the geometry of interpreted domains, data configuration and expected mining method. A parent cell size of 10 mE x 10 mN x 10 mRL was selected with no sub-blocking. Sufficient variables were included in the block model *(DBL-23.dat)* construction to enable grade estimation. No block rotation was used.

The block model was considered suitable for reporting estimated Mineral Resources. A topographic surface was used to constrain the upper extent of the block model. The block model construction parameters are displayed in Table 14-18:

Table 14-18: Block model parameters

Item	X	Y	Z
Block Model Origin	718,710	7,197,840	3,800
Block Model Maximum	722,020	7,201,010	4,750
Total Extents (m)	3,310	3,170	950
Block Size	10	10	10
Number of blocks	331	317	95

14.12 Grade Estimation

Grade estimation was performed using the Ordinary Kriging (“OK”) function provided with MS MinePlan.

The block model was coded from geological solids with codes assigned to each estimation domain. The average distance to composites, Kriging Variance and Estimation Pass was stored in the block model to aid Mineral Resource classification.

14.13 Estimation Methods

The sample search strategy was based upon analysis of the variogram model anisotropy, mineralisation geometry and data distribution.

The first pass range was calculated based on the ratios 2.5 : 2 : 1, of average range of sill 0.7 (close to 28m in the strike). This was obtained as the average of the major range in all domain models of the combined mineralized domain. The QP Mr. Peralta considers that 30 meters is a common range in this type of precious metal deposit.

- The search strategy used in the block model is described in Table 14-19 and Table 14-20, additionally the following is noted:
- For all estimated domains, no octant search was applied.
- For all estimated domains, no coordinate transformation was applied.
- A minimum of 1 composite per block was used.
- A maximum of 4 composites per drill hole were used.
- A high-grade restriction in the second and third pass was applied, restricting the number of composites to be used per block to 14 composites.
- In the case of the cover domain (10), some economic grades were presented that are part of the mineralized structure. However, this was interpreted as loose material without transport, so no estimation was performed for this domain.

Table 14-19: Gold domains search parameters

Gold domains	Rotation 1st	Rotation 2nd	Rotation 3rd	Nugget Effect	First Pass			Second Pass			Third Pass		
					Major Range	Minor Range	Vertical range	Major Range	Minor Range	Vertical range	Major Range	Minor Range	Vertical range
211	151.10	106.80	51.70	0.07	28	16	27	56	32	54	70	40	68
212	214.00	125.00	101.00	0.09	25	80	20	50	160	40	63	200	50
222	232.80	146.20	90.60	0.08	16	22	22	32	44	44	40	55	55
232	220.00	133.20	93.80	0.13	35	45	22	70	90	44	88	113	55
311	193.30	103.30	-63.40	1.13	30	30	16	60	60	32	75	75	40
312	187.70	98.50	58.10	2.13	44	50	12	88	100	24	110	125	30
321	203.30	113.30	-89.30	3.13	24	36	7	48	72	14	60	90	18
322	207.30	118.50	75.60	4.13	60	30	20	120	60	40	150	75	50
332	-16.10	265.80	-0.20	5.13	28	11	7	56	22	14	70	28	18
411	196.80	107.40	-80.00	6.13	12	17	11	24	34	22	30	43	28
412	179.30	91.90	81.70	7.13	10	16	5	20	32	10	25	40	13
421	119.30	103.40	200.80	8.13	60	20	26	120	40	52	150	50	65
422	58.10	240.90	148.70	9.13	12	18	25	24	36	50	30	45	63
432	216.60	127.10	113.80	10.13	20	25	11	40	50	22	50	63	28
511	20.00	211.50	118.70	0.00	76	80	60	152	160	120	190	200	150
512	130.00	56.10	359.10	0.00	25	24	9	50	48	18	63	60	23
521	340.00	232.50	137.20	0.38	32	27	9	65	54	18	81	68	23
522	300.00	39.40	310.60	0.10	35	25	12	70	50	24	88	63	30
611	110.00	20.00	290.00	0.00	20	20	20	40	40	40	50	50	50
612	200.00	111.80	65.40	0.57	51	50	28	102	100	56	128	125	70

Table 14-20: Silver domains search parameters

Silver domains	Rotation 1st	Rotation 2nd	Rotation 3rd	Nugget Effect	First Pass			Second Pass			Third Pass		
					Major Range	Minor Range	Vertical range	Major Range	Minor Range	Vertical range	Major Range	Minor Range	Vertical range
211	262.50	172.60	155.20	0.10	40	20	6	80	40	11	100	50	14
212	214.90	126.20	101.70	0.00	30	7	20	60	14	40	75	18	50
222	232.30	145.70	90.40	0.17	18	14	40	36	28	80	45	35	100
232	220.00	133.20	93.80	0.13	18	21	11	36	42	22	45	53	28
311	193.30	103.30	-63.40	0.00	11	35	9	22	70	18	28	88	23
312	187.70	98.50	58.10	0.17	33	42	8	66	84	16	83	105	20
321	203.30	113.30	-89.30	0.09	11	24	8	22	48	16	28	60	20
322	207.30	118.50	75.60	0.08	41	50	12	82	100	24	103	125	30
332	-16.10	265.80	-0.20	0.00	8	8	10	16	16	20	20	20	25
411	196.80	107.40	-80.00	0.16	12	27	14	24	54	28	30	68	35
412	179.30	91.90	81.70	0.00	19	24	4	38	48	8	48	60	10
421	119.30	103.40	200.80	0.17	65	39	32	130	78	64	163	98	80
422	58.10	240.90	148.70	0.15	114	32	48	228	64	96	285	80	120
432	216.70	127.10	114.20	0.15	62	40	20	124	80	40	155	100	50
511	285.00	187.30	92.00	0.00	55	51	15	110	102	30	138	128	38
512	50.00	203.30	45.70	0.60	47	36	17	94	72	34	118	90	43
521	280.00	17.70	293.00	0.24	19	26	16	38	52	32	48	65	40
522	340.00	170.60	79.40	0.63	89	52	33	179	104	66	223	130	83
611	100.00	167.80	26.00	0.00	5	20	23	10	40	46	13	50	58
612	10.00	107.70	23.00	0.10	3	34	1	6	68	2	8	85	3

14.14 Metal Risk Review

No metal risk analysis was performed to evaluate the impact of metal loss due to the capping of extreme gold and silver grades. The capping average for all estimation domains was performed simultaneously with the analysis. The metal loss calculated over the composite represents no more than 2.5 %.

14.15 Parent Cell size sensitivity

No parent cell size sensitivity was performed at this time since it was completed in the previous NI43-101 (Mining Plus, 2022). The author considers that the conclusion of that analysis was correct. It is important to mention that the dilution impact of a 10 mE x 10 mN x 10 mRL block model for MRE is acceptable for an open pit and is similar to other projects with similar characteristics.

14.16 Model Validation

14.16.1 Visual Inspection

Block grades were compared visually with supporting drill data on section and plan maps. A good fit with the composites was observed. An example section of block grades and composites is included in Figure 14-27 to Figure 14-30.

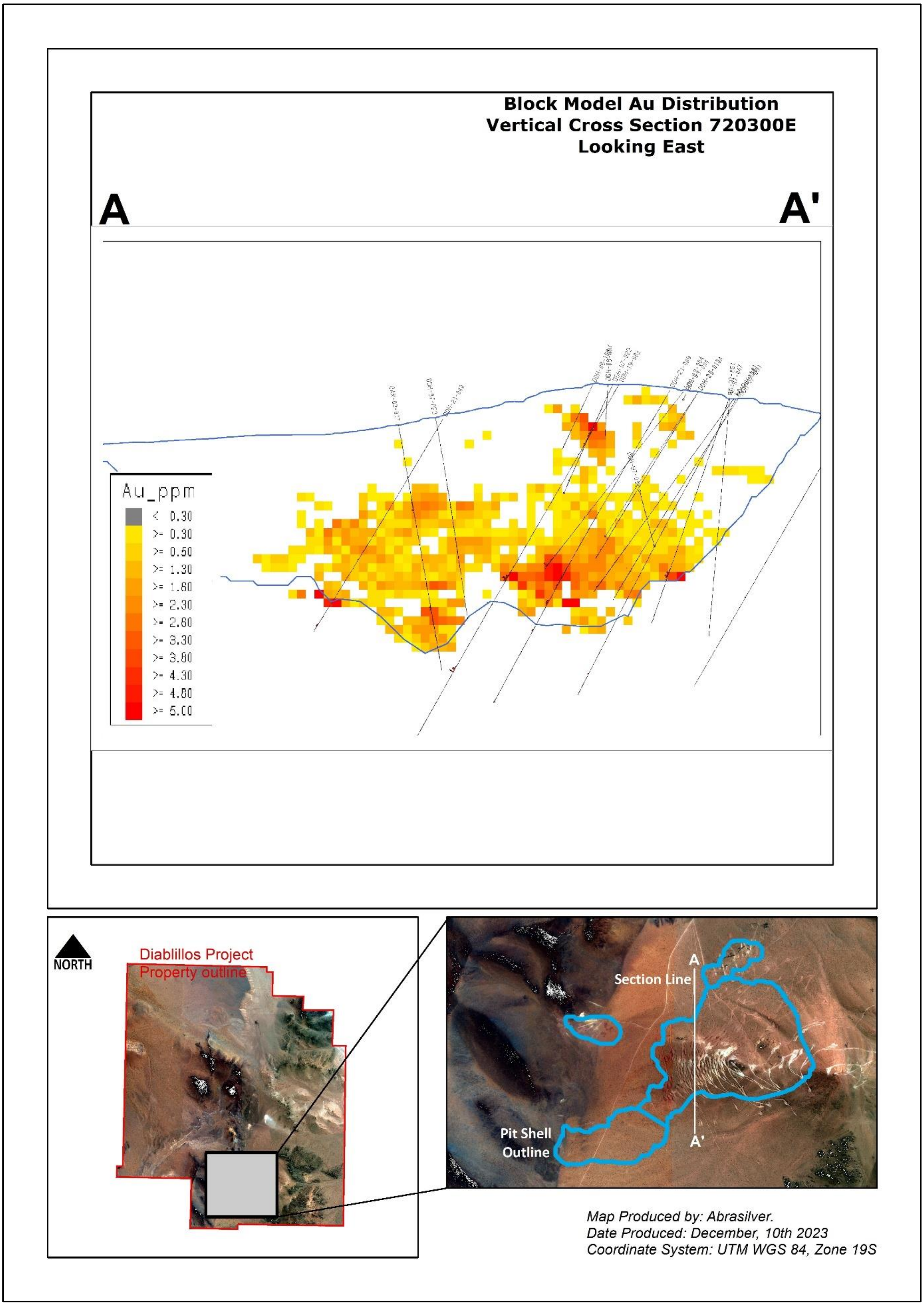


Figure 14-27: Section 720300- E with Block model 10 mE x 10 mN x 10 mRL and composite for gold

Source: AbraSilver Resource Corp., 2023

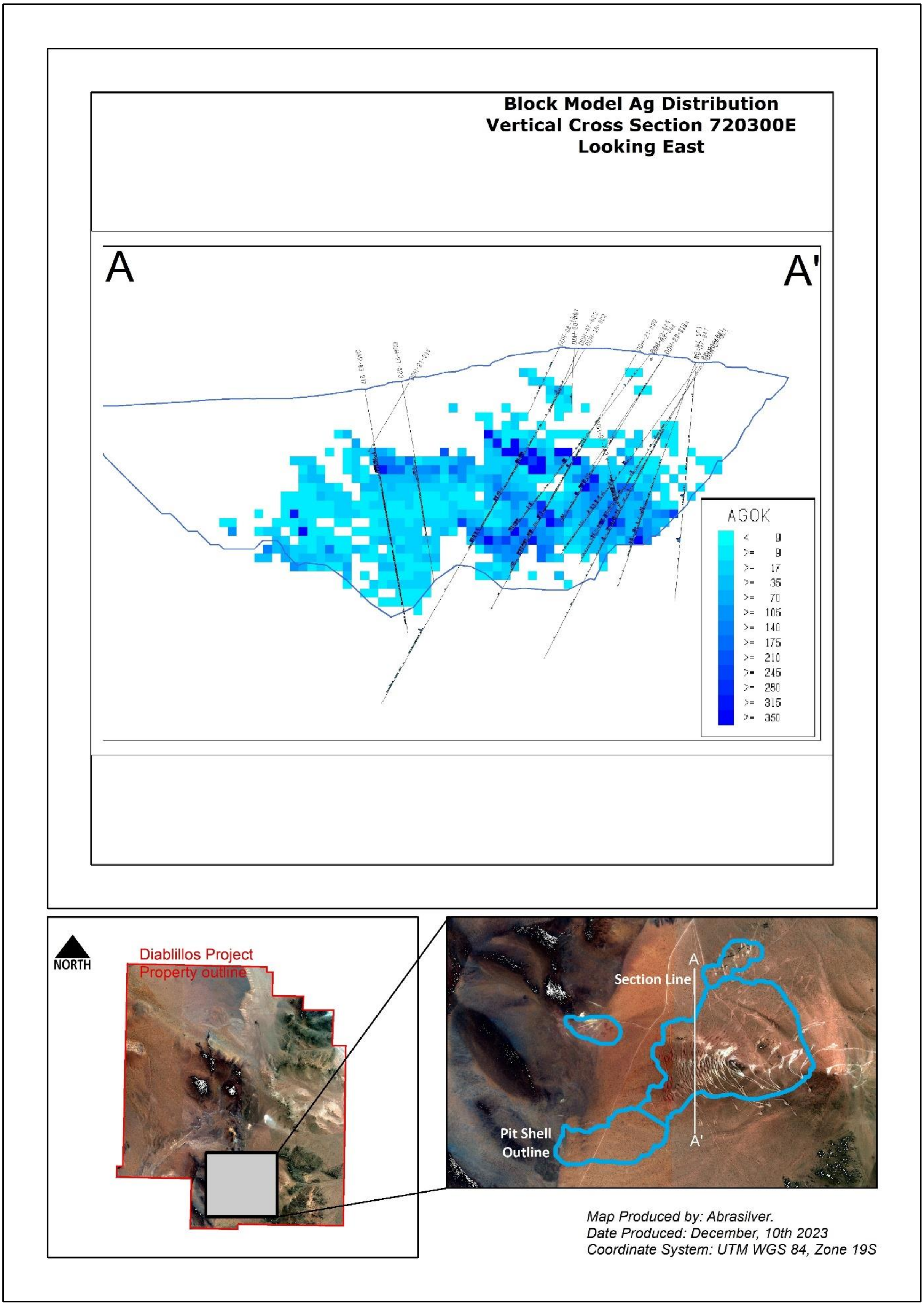


Figure 14-28: Section 720300- E with Block model 10 mE x 10 mN x 10 mRL and composite for silver

Source: AbraSilver Resource Corp., 2023

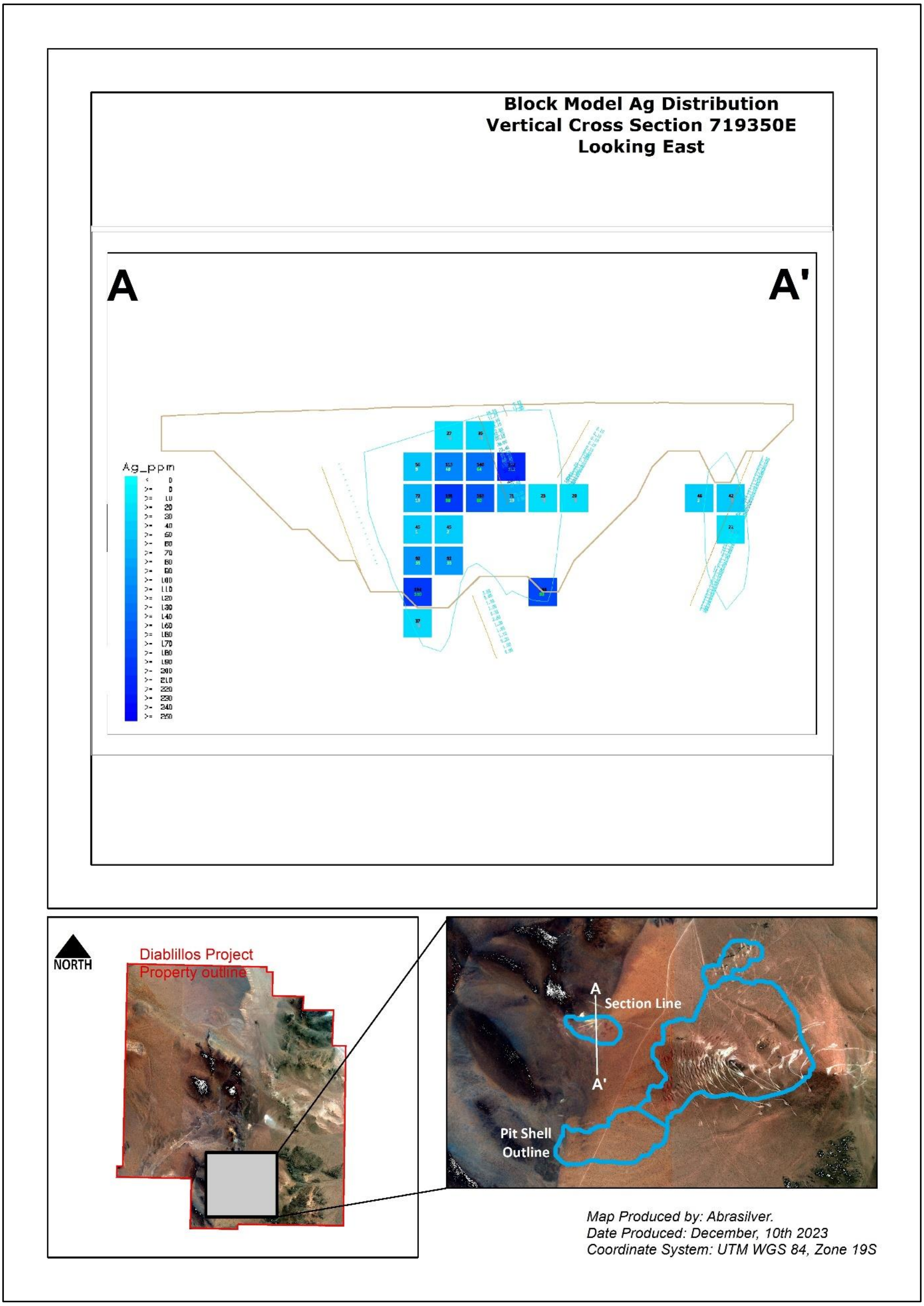


Figure 14-29: Section 719350-E with Block model 10 mE x 10 mN x 10 mRL and composite for silver

Source: AbraSilver Resource Corp., 2023

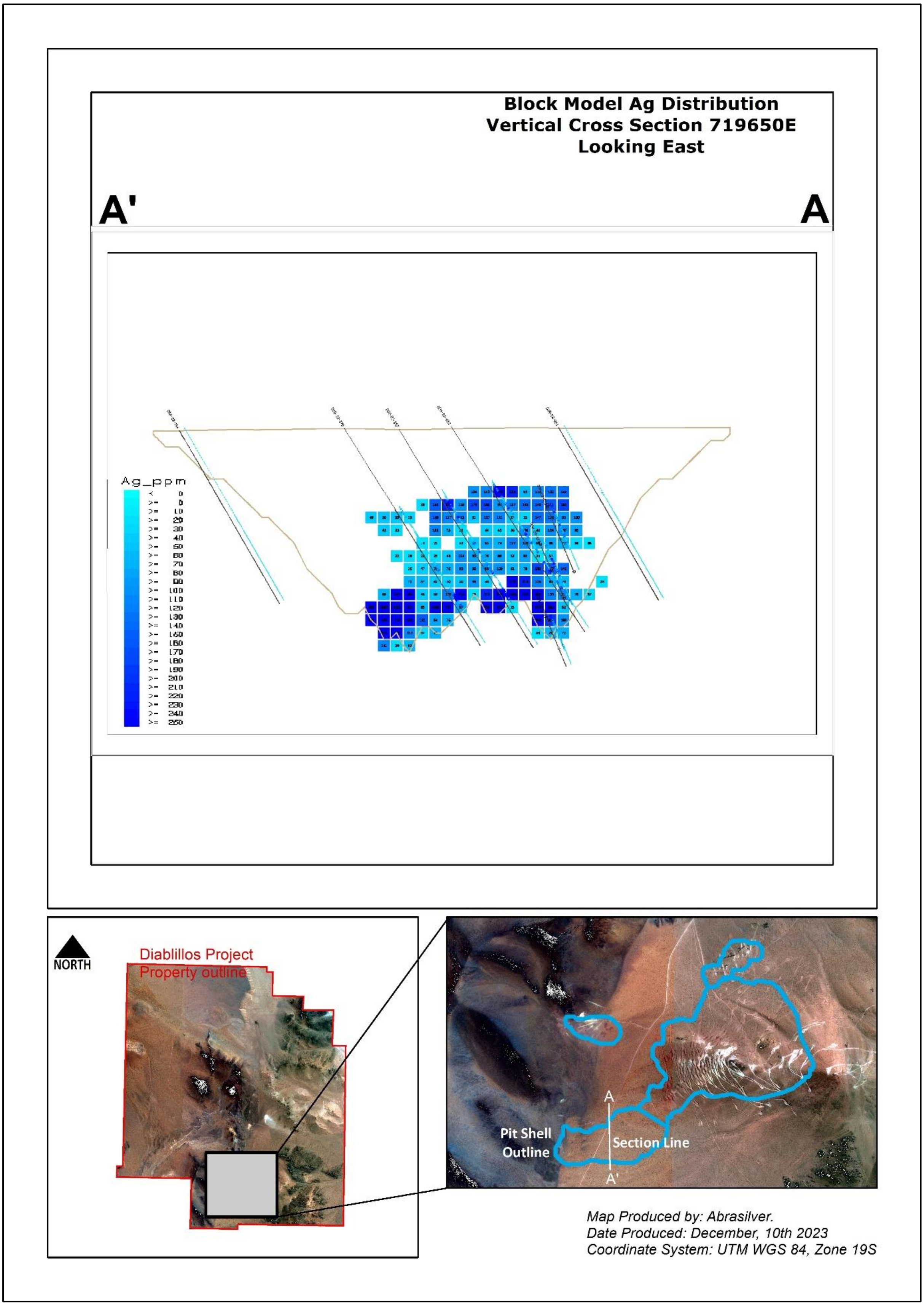


Figure 14-30: Section 719650-E with block model 10 mE x 10 mN x 10 mRL and composite for silver

Source: AbraSilver Resource Corp., 2023

14.16.2 Trend plots validation

Validation trend plots or swath plots are presented to graphically display a comparison of the mean grade of the estimate compared with the composites. Block model slices were aligned on Easting, Northing and RL with average grade calculated for the various domains.

Figure 14-31 shows the Ordinary Kriged estimate compares favourably to the native composite data.

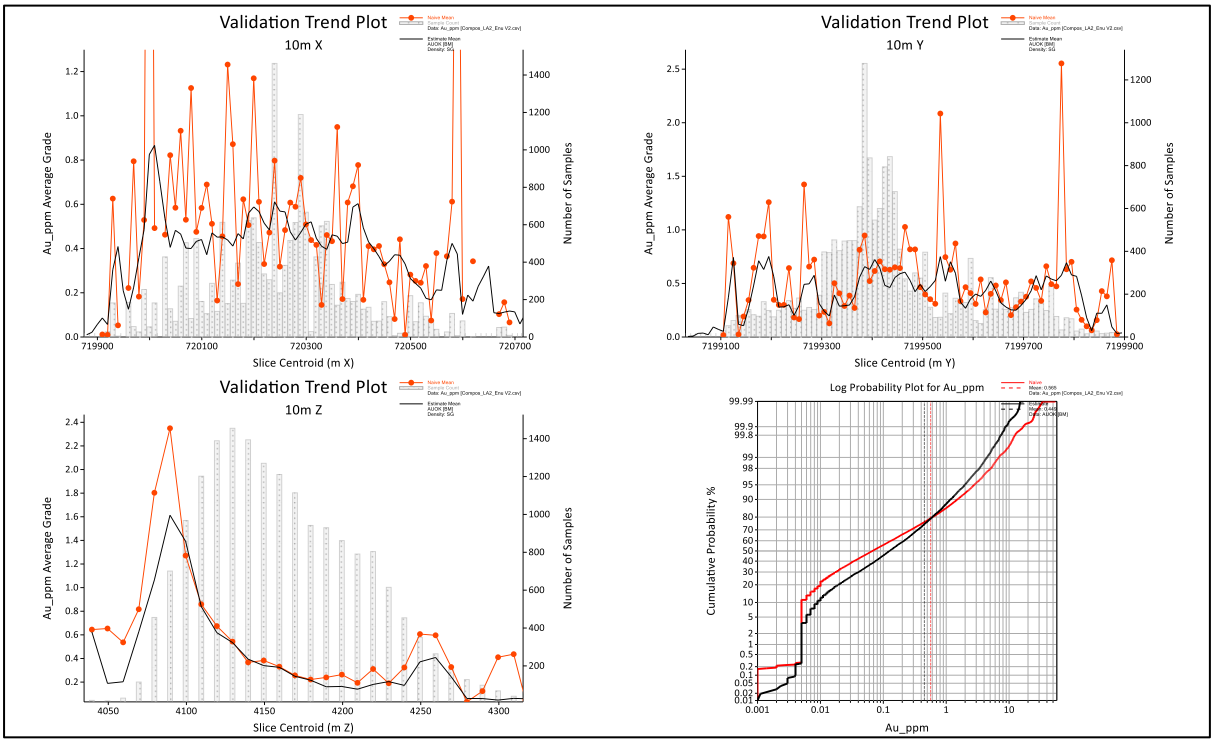


Figure 14-31: Swath Plots comparing native data versus estimated data. Estimates for gold in the domain 212

14.17 Mineral Resource Classification and Criteria

The Mineral Resource has been categorised into Measured, Indicated and Inferred, reflecting uncertainty in geological evidence, hole spacing, and data quality. Mineral Resources were classified considering the following information:

- Confidence of the geological information.
- QA / QC results, hole deviation measurements for historical and recent holes.
- Hole spacing.
- Estimate search passes.
- Wireframe to restrict the estimation passes.

After visual inspection of these models, a set of solids were built to code the block model. A smoothing step then allowed classification as:

- Measured: Blocks within a halo of 30 m around the AbraSilver holes and relog holes that contain more than 3 downhole survey records. These blocks are seen in recent drilling by AbraSilver. A good proportion of historical holes have deviation measurements.
- Indicated: Blocks within a halo of 70 m around AbraSilver holes and relog holes that contain more than 3 downhole survey records. These blocks are also well seen in recent drilling by AbraSilver, but the nominal drill spacing exceeds 30m.
- Inferred: Blocks within a halo of 120m around the AbraSilver holes. Some mineralized areas are seen in recent drilling by AbraSilver, but the nominal drill spacing exceeds 70m.
- Blocks based on isolated holes, broadly spaced holes at depth, and blocks beyond the end of the hole were classified as geological exploration potential (outside of wireframes) and are not included in the reported Mineral Resources.

Figure 14-32 shows the wireframe used to restrict the classification of Mineral Resources in vertical cross section. Figure 14-33 shows an overall 3D view of the wireframe used in the classification. Note: red colour represents Measured, light blue colour represents Indicated and yellow colour represents Inferred.

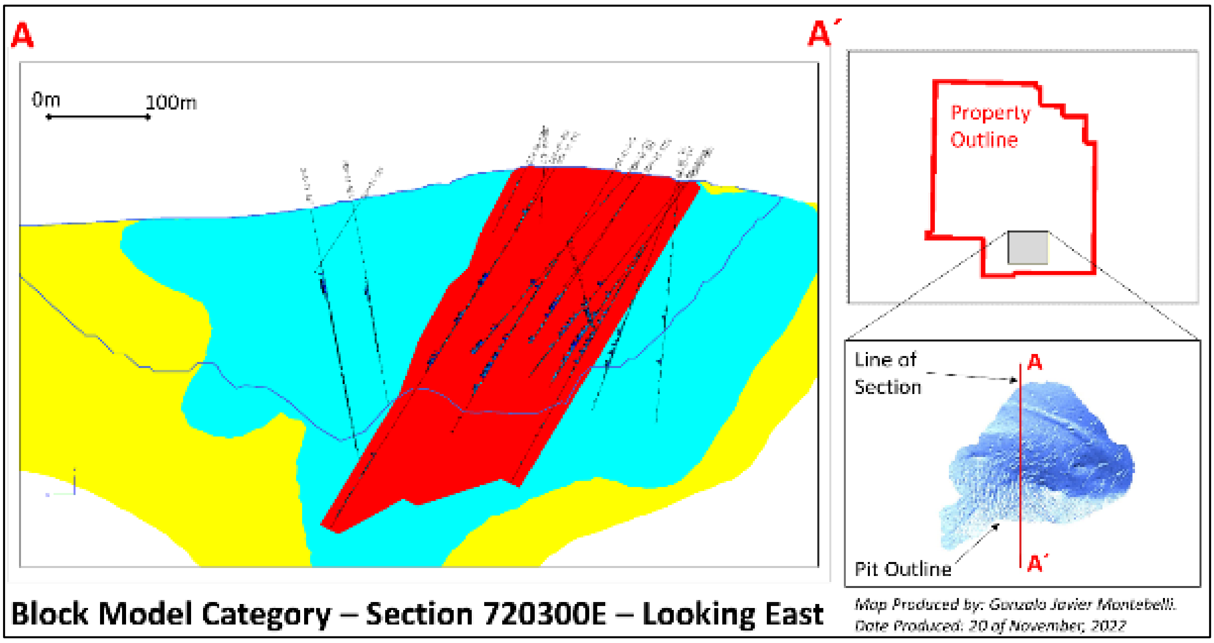


Figure 14-32: Vertical cross section 720300- E showing the wireframe used to categorize the block model

Source: AbraSilver Resource Corp., 2022

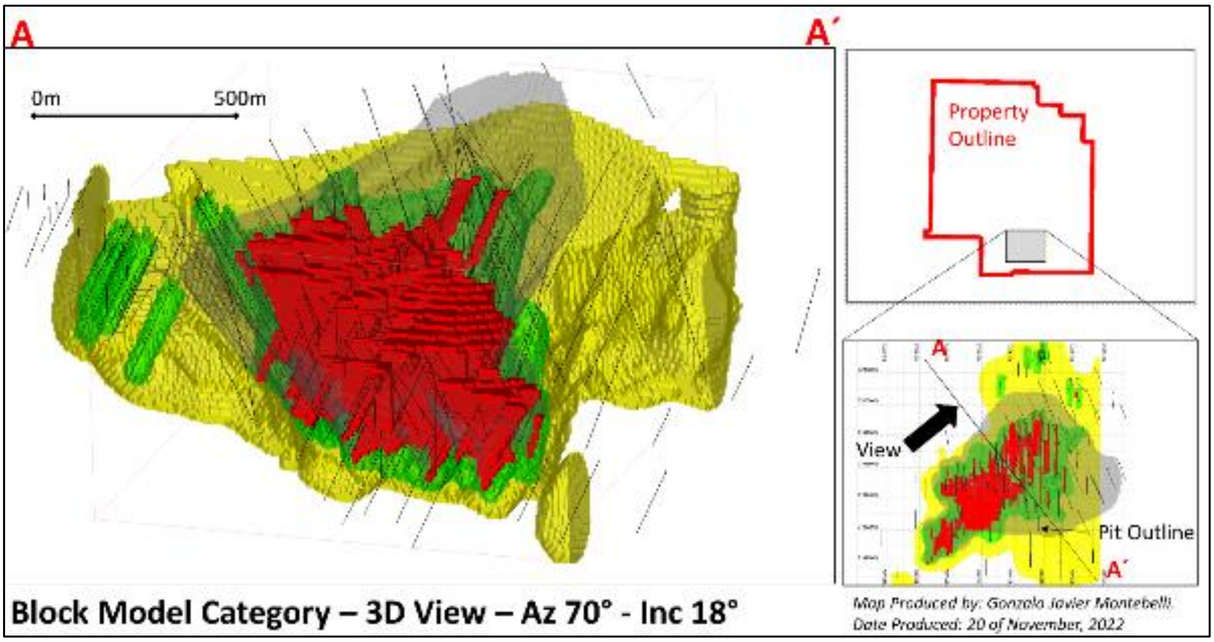


Figure 14-33: Perspective view showing the wireframe used to categorize the block model

Source: AbraSilver Resource Corp., 2022

14.18 Mineral Resource Statement

The MRE for the Diablillos Project, with an effective date of November 22, 2023, has been estimated and classified based on the CIM's Estimation of Mineral Resource and Mineral Reserves Best Practices Guidelines (CIM, 2019) and is reported in accordance with the Canadian Securities Administrators' National Instrument 43-101 ("NI 43-101").

Mineral Resources at the Diablillos Project are considered as potentially mineable by an open pit method. They are estimated based on drilling conducted prior to AbraSilver and more recent drilling by AbraSilver between 2019 and 2023. The Mineral Resource includes the Oculto, Laderas, Fantasma and JAC zones. The Mineral Resource is reported inside a Whittle open pit shell based on a Net Value per Block valuation method. The average cut-off grade is 45 g/t silver equivalent, based on a gold price of US$1,850/oz and a silver price of US$24/oz. Mining costs and metallurgical recoveries were provided by AbraSilver.

The Qualified Person ("QP") for the MRE is Mr. Luis Rodrigo Peralta, B.Sc., FAusIMM CP (Geo), Independent Qualified Person under NI 43-101.

The following is a summary of the estimation process:

- Grades for diamond and reverse circulation drill holes (606 drill hole) were composited to 1.0 meter.
- Estimation domains were defined using a combination of alteration and lithology domains, defining a subset domain for gold and silver.
- Grade capping has been applied to composited grade intervals for each domain.
- The traditional or correlogram variograms for gold and silver were modelled for estimation domains with sufficient data.

The Mineral Resource was estimated with Ordinary Kriging ("OK") and bias was reviewed using Inverse Distance squared (ID2) for comparison.

The estimation used a block model constructed in MS MinePlan mining software.

- Grade was estimated for parent cells of 10 mE x 10 mN x 10 mRL.
- Bulk density applied to the block model was based on 6,807 drill core samples. The average of the samples contained in each domain, have been assigned to each wireframe and the block model.
- The final block model is 10 mE x 10 mN x 10 mRL for Mineral Resource optimization and reporting.

The MRE comprises Measured, Indicated and Inferred Mineral Resources as summarised in Table 14-21. The block model "DBL-23.dat" was used to report with constraints fields: "ORE = 1", "P22OX = 1", and "CLASS = 1, 2 and 3" with the proportion of the model below the topographical surface.

Table 14-21: Diablillos Project Mineral Resource estimate, by mineral zone and classification - As of November 22nd, 2023

Deposit	Zone	Category	Tonnes (000 t)	Ag (g/t)	Au (g/t)	AgEq (g/t)	Contained Ag (koz Ag)	Contained Au (koz Au)	Contained AgEq (koz AgEq)
Oculto	Oxides	Measured	12,170	101	0.95	178	39,519	372	69,523
		Indicated	34,654	64	0.85	133	71,306	947	147,748
		Measured & Indicated	***46,824***	***74***	***0.88***	***145***	***111,401***	***1,325***	***218,335***
		Inferred	3,146	21	0.68	76	2,124	69	7,677
JAC	Oxides	Measured	1,870	210	0.17	224	12,627	10	13,452
		Indicated	3,416	198	0.12	208	21,744	13	22,808
		Measured & Indicated	***5,286***	***202***	***0.13***	***212***	***34,329***	***22***	***36,191***
		Inferred	77	77	-	77	190	-	190
Fantasma	Oxides	Measured	-	-	-	-	-	-	-
		Indicated	683	105	-	105	2,306	-	2,306
		Measured & Indicated	***683***	***105***	***-***	***105***	***2,306***	***-***	***2,306***
		Inferred	10	76	-	76	24	-	24
Laderas	Oxides	Measured	-	-	-	-	-	-	-
		Indicated	464	16	0.91	89	239	14	1,334
		Measured & Indicated	***464***	***16***	***0.91***	***89***	***239***	***14***	***1,334***
		Inferred	55	43	0.57	89	76	1	157
Total	Oxides	Measured	14,040	116	0.85	184	52,146	382	82,975
		Indicated	39,217	76	0.77	138	95,594	974	174,196
		Measured & Indicated	***53,257***	***87***	***0.79***	***151***	***148,275***	***1,360***	***258,087***
		Inferred	3,288	23	0.66	76	2,415	70	8,049

Notes for Mineral Resource Estimate:

1. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
2. The formula for calculating AgEq is as follows: Silver Eq oz = Silver oz + Gold oz x (Gold Price/Silver Price) x (Gold Recovery/Silver Recovery).
3. The Mineral Resource model was populated using Ordinary Kriging grade estimation within a three-dimensional block model and mineralized zones defined by wireframed solids, which are a combination of lithology and alteration domains. The 1m composite grades were capped where appropriate.
4. The Mineral Resource is reported inside a conceptual Whittle open pit shell derived using US$ 24.00/oz Ag price, US $1,850/oz Au price, 82.6% process recovery for Ag, and 86.5% process recovery for Au. The constraining open pit optimization parameters used were US $1.94/t mining cost, US $22.97/t processing cost, US $3.32/t G&A cost, and average 51-degree open pit slopes.
5. The MRE has been categorized in accordance with the CIM Definition Standards (CIM, 2014).
6. A Net Value per block ("NVB") cut-off was used to constrain the Mineral Resource with the conceptual open pit. The NVB was based on "Benefits = Revenue-Cost" being positive, where, Revenue = [(Au Selling Price (US$/oz) - Au Selling Cost (US$/oz)) x (Au grade (g/t)/31.1035)) x Au Recovery (%)] + [(Ag Selling Price (US$/oz) - Ag Selling Cost (US$/oz)) x (Ag grade (g/t)/31.1035)) x Ag Recovery (%)] and Cost = Mining Cost (US$/t) + Process Cost (US$/t) + Transport Cost (US$/t) + G&A Cost (US$/t) + [Royalty Cost (%) x Revenue]. The NVB method resulted in an average equivalent cut-off grade of 45g/t AgEq.
7. The Mineral Resource is sub-horizontal with sub-vertical feeders and has reasonable prospects for eventual economic extraction by open pit methods.
8. In-situ bulk density was assigned to each model domain, according to sample averages for each lithology domain, separated by alteration zones and subset by oxidation.
9. All tonnages reported are dry metric tonnes and ounces of contained gold and silver are troy ounces.
10. Mining recovery and dilution factors have not been applied to the Mineral Resource estimates.
11. The Mineral Resource was estimated by Mr. Luis Rodrigo Peralta, B.Sc., FAusIMM CP (Geo), Independent Qualified Person under National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101").
12. Mr. Peralta is not aware of any environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues that could materially affect the potential development of the Mineral Resource.
13. All figures are rounded to reflect the relative accuracy of the estimates. Minor discrepancies may occur due to rounding to appropriate significant figures.

14.19 Reasonable Prospects for Eventual Economic Extraction Requirement

An open pit optimization was conducted using the MS MinePlan Pit Optimizer module. This was used to constrain the MRE and demonstrate "reasonable prospects for eventual economic extraction", satisfying the requirement of NI 43-101 and the Mineral Resource and Mineral Reserves Best Practices Guidelines (CIM, 2019).

The oxide material has reasonable prospects of economic extraction based on Net Value per Block. This assumes mine operating costs of USD 28.23/t and an average cut-off grade of approximately 45 g/t AgEq. The "Net Value per Block" methodology used the single next formula below:

Net Value per Block (NVB) *= Income - Cost*

Being positive where:

Income *= [(Au Selling Price (USD/oz) - Au Selling Cost (USD/oz)) x (Au grade (g/t)/31.1035)) x Au Recovery (%)] + [(Ag Selling Price (USD/oz) - Ag Selling Cost (USD/oz)) x (Ag grade (g/t)/31.1035)) x Ag Recovery (%)]*

And

Cost *= Mining Cost (USD/t) + Process Cost (USD/t) + Transport Cost (USD/t) + G&A Cost (USD/t) + [Royalty Cost (%) x Revenue]*

Inputs for the formula are listed in Table 14-22.

Table 14-22: Optimization parameters

OP Optimization Parameters	Unit	Value (9,000 tpd)
Overall Pit Slope Angle - Oculto	Degrees	51
Mining cost	USD per tonne	1.94
Processing cost	USD per tonne	22.97
G&A cost	USD per tonne	3.32
Mining Recovery	%	100
Mining Dilution	%	0
Gold metal price	USD / oz	1,850
Silver metal price	USD / oz	24
Cut-off grade (based on Net Value per Block)	AgEq	Approx 45
Transport cost	USD per tonne	0.25
Metallurgical Recovery for Gold	%	86.5
Metallurgical Recovery for Silver	%	82.6
Royalties (over incomes)	%	3
Block size		10 x 10 x10

Metallurgical recoveries used in the open pit optimization are based on the metallurgical model described in the report section **¡Error! No se encuentra el origen de la referencia.**. The average silver recovery was 78.9% and an average gold recovery was 86.3%.

AbraSilver has conducted a detailed analysis of metallurgy to have confidence in the estimation domains. Mr. Peralta agrees that for this stage of study, the confidence, and the level of information of metallurgical testing is enough. However, with the new information a detailed geo-metallurgical model could be developed.

14.20 Mineral Resource Estimate Sensitivity

The QP also evaluated the optimised open pit constrained Measured & Indicated Mineral Resource estimate for Oculto, JAC, Laderas and Fantasma at a range of operational costs. This ranged from +25% and -25%, and an approximate cut-off grade between 33 g/t AgEq and 55 g/t AgEq. (Table 14-23, Figure 14-34 and Figure 14-35).

Table 14-23: NVB and cut-off grade sensitivity of Measured & Indicated Mineral Resources

Delta	OPEX ($/Tn)	Approx Cut-Off Grade (g/t AgEq)	Tonnes (000 t)	Ag (g/t)	Au (g/t)	Silver Metal Contained (M. Oz)	Gold Metal Contained (M. Oz)
-25%	21.17	33	65,217	74.78	0.68	156.80	1.44
-20%	22.58	35	62,404	77.23	0.71	154.95	1.42
-15%	24.00	37	59,877	79.56	0.73	153.16	1.40
-10%	25.41	39	57,392	82.01	0.75	151.33	1.39
-5%	26.82	42	55,192	84.35	0.77	149.67	1.37
0%	28.23	45	53,256	86.53	0.79	148.16	1.35
5%	29.64	46	51,326	88.84	0.81	146.60	1.34
10%	31.05	48	49,414	91.27	0.83	145.00	1.32
15%	32.46	50	47,654	93.64	0.85	143.48	1.30
20%	33.88	52	45,997	96.01	0.87	141.99	1.29
25%	35.29	55	44,427	98.33	0.89	140.46	1.27

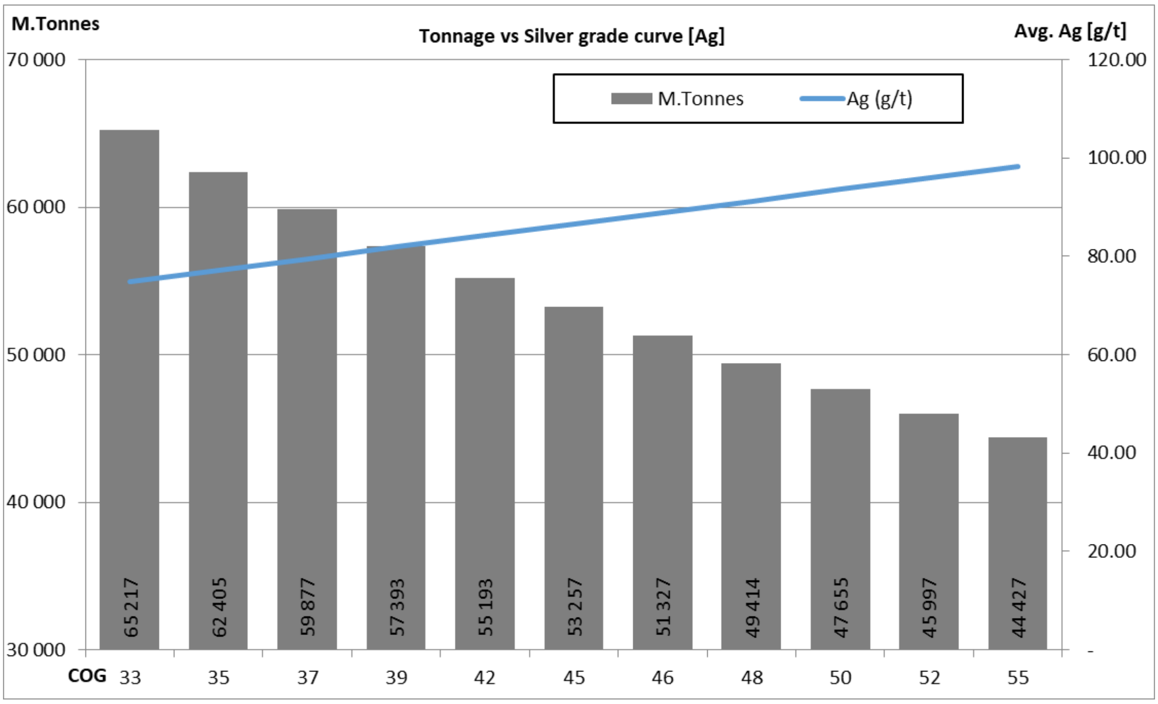


Figure 14-34: Cut-off sensitivity analysis for Measured & Indicated category, silver grade

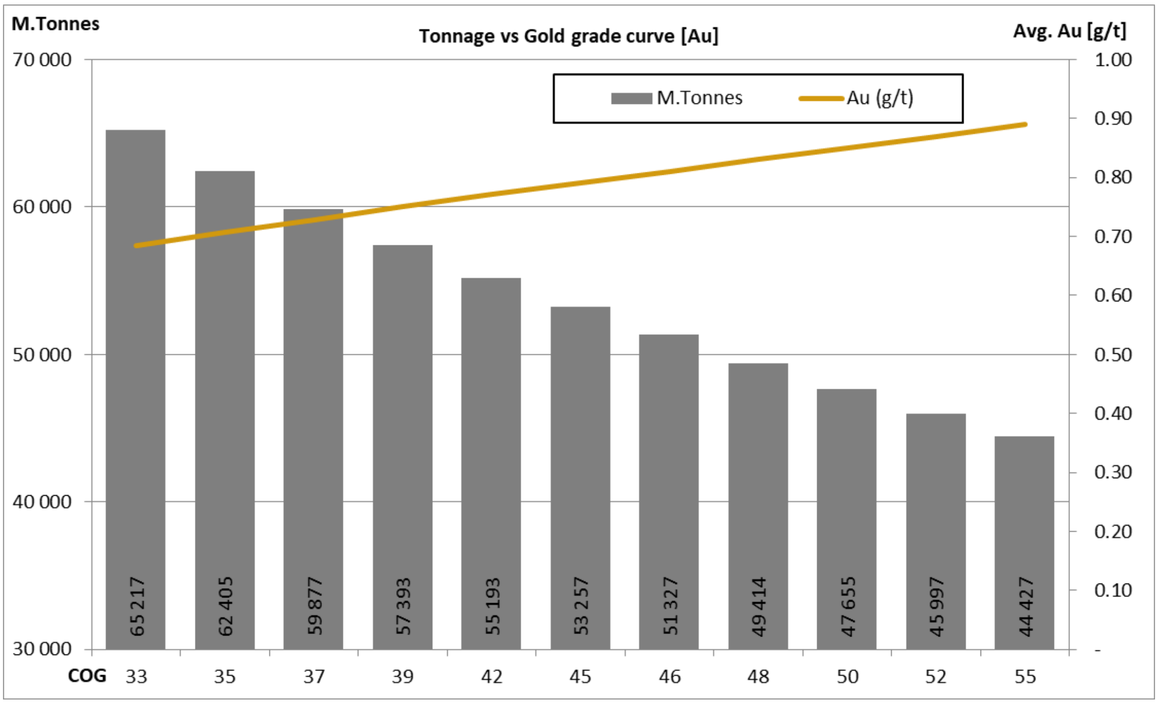


Figure 14-35: Cut-off sensitivity analysis for Measured & Indicated category, gold grade

The sensitivity tables presented above demonstrate that changes to key parameters such as operating costs have a limited effect on the contained metal in the Mineral Resource. A 20% increase in the NVB operating costs and cut-off grades results in a less than 5% loss of contained silver and gold metal. This demonstrates the robust and high-grade mineralisation present at Diablillos. The base case employs an operating cost estimate of USD 28.23/tonne, resulting in a cut-off grade of approximately 45 g/t AgEq and it is believed that at all the sensitivities presented a significant Mineral Resource with reasonable prospects for eventual economic extraction exists.

14.21 Comparison with previous Oculto Mineral Resource Estimate

The current Oculto, JAC, Fantasma and Laderas MRE is not directly comparable to the previous Mineral Resource estimate by this author (MRE22) due to:

- New holes in the JAC zone intercepting a new Mineral Resource.
- New drillholes corroborating previously estimated mineralization allowing Measured classification.
- A new methodology ore and waste definition. "Net Value per Block, (NVB), which incorporates metal prices, metallurgical recoveries, and all related operational costs such as mining cost, processing cost and G&A. This contrasts with a fixed cut-off grade for the entire project.
- This Mineral Resource estimate includes the Fantasma Laderas zones.
- This Mineral Resource estimate represents an extension of the old Oculto pit shell to the southwest.
- Different metal price assumptions, in 2022 MRE: silver price at USD 25.00/oz & gold price at USD 1,750/oz compared to 2023 MRE: silver price at USD 24.00/oz & gold price: USD1,850/oz.

Mr. Peralta compared both Mineral Resources, directly and mathematically. The result of this comparison is detailed in Table 14-24.

In Mr. Peralta's opinion, the primary cause for the change has been the new drilling that has determined new Mineral Resources with economic grades (low to moderate grades) of silver in the NE zone of the open pit shell.

Table 14-24: Difference between previous Mineral Resources estimate 2022 and current Mineral Resource estimate

Item	Category	Tonnes (000 t)	Ag (g/t)	Au (g/t)	Contained Ag (k oz Ag)	Contained Au (k oz Au)
Current MRE Nov. 2023	***Measured & Indicated***	***53,257***	***87***	***0.79***	***148,275***	***1,360***
	Inferred	3,288	23	0.66	2,415	70
Prior MRE Oct. 2022	***Measured & Indicated***	***51,314***	***66***	***0.79***	***109,370***	***1,297***
	Inferred	2,216	30	0.51	2,114	37
Variance (%)	***Measured & Indicated***	***4%***	***32%***	***0%***	***36%***	***5%***
	Inferred	48%	-23%	29%	14%	89%

14.22 Mineral Resource Risk Assessment

Mr. Peralta has not detected any significant risks that could impact the Mineral Resources in a material way. However, the following minor risks are mentioned:

- Historical drilling does not have logs consistent with the current drilling which generates imprecision in areas with little or no recent drilling.
- The lithology and alteration models may undergo adjustment due to vertical and horizontal controls that exist in the deposit. This is currently not fully modelled due to complexity.
- It is recommended that work is conducted on copper in the transition zone to understand its potential impact on metallurgical recovery. The presence of copper in the transition zone from oxidized levels to sulphides levels needs to be reviewed. Particularly to understand the impact on metallurgical recoveries and potentially recoverable Mineral Resources.
- Other elements such as arsenic, bismuth, and antimony, are present. Their impact should continue to be reviewed in future metallurgical studies.

The price of metals and variation in production costs is considered a risk inherent to any mining project.

15 MINERAL RESERVE ESTIMATES

This section provides details of the Mineral Reserve estimation methodology for the Diablillos Property. Dated January 2024, based on the updated Mineral Resources Estimate with effective date November 22nd, 2023. Adjustments were made to account for updated metallurgical test work, a new geo-metallurgical model, geotechnical evaluation, mining and processing operating costs.

Mr. Fuentealba, on behalf of Bmining, was contracted by AbraSilver to conduct the mine engineering and Mineral Reserve estimation for the Diablillos Project. Mr Fuentealba adopted standard mine planning processes to perform a Mineral Reserve estimate for this surface mining project. The following describes the processes, inputs, and the Mineral Reserve estimate.

Mineral Resources considered the three categories of Measured, Indicated, and Inferred. The Mineral Reserve estimate has reported only Measured and Indicated Mineral Resources given sufficient geological confidence in line with CIM, 2014 definitions. Measured Mineral Resources can be converted into Proven Mineral Reserves, while Indicated Resources can be converted into Probable Reserves.

15.1 Introduction

The Diablillos project is at PFS stage based on conventional open pit, truck and loader operation feeding a silver/gold concentrator. The Mineral Reserve is supported by the PFS Study, and the Project is progressing to Feasibility Stage. To support the Mineral Reserve evaluation within the PFS a Whittle open pit optimisation evaluation was completed with no value given to the inferred classified material within the mineral resource for all deposits. Following this a PFS level mine design, mine scheduling, mining costing and over economic evaluation was completed to confirm positive economic outcomes from the Mineral Reserve.

This report is based on information gathered by the QP during a site visit conducted from October 19 – 21, 2024. The following information was noted:

- Discussions with Abra Silver personnel.
- Inspection of the Diablillos Project area including drill core sheds, current roads and future infrastructure locations.
- Weekly meetings with the Whittle Consulting team to modify the prior mining sequence.
- Weekly meetings with the Mining Plus team to update mine OPEX and CAPEX.

15.2 Mine Design Input Parameters

This section remains unchanged in comparison with the previously developed pre-feasibility study dated May 29th, 2024. It describes the pit optimization and mine design input parameters, considering that ore is an estimate of the tonnage mined and processed from stockpiles.

15.2.1 Metal Prices

Metal sales prices used for the pit optimization stage correspond to US$1,750 (one thousand seven hundred and fifty US dollars) per ounce for gold and US$22.5 (twenty-two point five US dollars) per ounce for silver. It should however be noted that price forecasting has elements of uncertainty due to global economic fluctuations. Historical prices can be found below in Figure 15-1 and Figure 15-2.

Figure 15-1: Gold price

Source: Goldprice.com

Figure 15-2: Silver price

Source: Goldprice.com

Sales prices have the greatest impact on the estimation process. Income from gold sales corresponds to 42% and income from silver sales accounts for the remaining 58%.

15.2.2 Mineral Resource Model

A resource block model in *.csv format was received from QP Rodrigo Peralta, called "DBL23-BM-.csv". It is a regular, non-rotated model with the following characteristics in Table 15-1:

Table 15-1: Block model dimensions

Item	Unit	X	Y	Z
Block Model Origin	m	718,710	7,197,840	3,800
Block Model Maximum	m	722,020	7,201,010	4,750
Parent Block Size	m	10	10	10

The model contains relevant information such as densities, lithology, alteration, grades, metallurgical recovery, and other fields necessary to estimate Mineral Resources (Table 15-2).

Table 15-2: Block model fields

Variable	Description	Min	Max	Precision
XC	X coordinate			
YC	Y coordinate			
ZC	Z coordinate			
AU	Final gold in g/t	0	999	0.001
AUOK	Gold estimate with OK, capping applied	0	999	0.001
AUID	Gold estimate with ID, capping applied	0	999	0.001
AG	Final silver in g/t	0	99999	0.01
AGOK	Silver estimate with OK, capping applied	0	99999	0.01
AGID	Silver estimate with ID, capping applied	0	99999	0.01
AGEQ	Silver Equivalent (AU*70+AG)	0	99999	0.01
AUEQ	Gold Equivalent (AG/70+AU)	0	999	0.001
SG	Bulk density	0	50	0.01
CUOK	Copper estimate with OK, no capping applied			
CLASS	Category: 1=Measured, 2=Indicated and 3=Inferred 4=Uncathegorized	0	5	1
P22OX	0=Outside Oxide Pit Shell, 1=Inside Oxide Pitshell 2=Transition 3=Sulphide	0	5	1
P22OS	0=Oxide, 1=Sulphide	0	10	1
LITW	Lithological Code 1=Cover 2=Volcanic 3=Metasedi 4=Granitoides	0	10	1
ALTW	Alteration Code: 1=Argillic 2=Silica 3=Vuggy	0	10	1
OX_ST	Oxidation State: 1=Oxide 2=Transition 3=sulphides	0	10	1
NSAM	Number of samples used for estimation	0	25	1
ORE	ORE: 0=waste 1=ore; if NVBR1>0	0	10	1
WASTY	Waste type: 1=A 2=B 3=C	0	10	1
RQD	Rock Quality	0	100	1
RMR	Rock Mass rating	0	100	1
SMR	Slope Mass Rating	0	100	1
GEOT	Final Wall: -30:20 Default value set to 10	0	100	1
GEOTS	Geotech Sector: S1=1 S2=2 S3=3 S4=4 S5=5 S6=6	0	100	1
LAW	Combination of Lith_Code +Alt_Code	0	100	1
LA2W	Combination of Lith_Code +Alt_Code + Oxidation State	0	1000	1
KVAU	Block variance (AUOKC)	0	25	0.01
KVAG	Block variance (AGOKC)	0	25	0.01
TOPO	Topo			
RCOD	Recovery domain Shallow=1Silver=2 Deep=3 NE=4 JAC=5 Fan=6	0	10	1
DEST	Destiny Waste=1 Tank Leach Process Plant=2 Heap Leach=3	0	10	1
NVBR1	Net Value per Block for Resources	0	100000	0.01
INC	Income	0	99999	0.01
COST	Mining Cost+Processing Cost+G&A+ Etc.	0	99999	0.01
AUREC	Gold metal recovery, based on Geomet domain.	0	99999	0.01
AGREC	Silver metal recovery, based on Geomet domain.	0	99999	0.01

An inspection of the block model was conducted by plotting sections with the estimated Mineral Resource categories, grades and drill holes in the vicinity. According to this general review, the model is suitable for use. An isometric view of the block model with the Mineral Resource categories is shown in Figure 15-3. Green cells represent Measured Mineral Resources, red cells represent Indicated Mineral Resources, and light blue cells represent Inferred Mineral Resources.

The density variable corresponds to the SG field shown in Table 15-2 and ranges from 0 to 2.7 depending on the type of rock. In the case of air block density is 0.

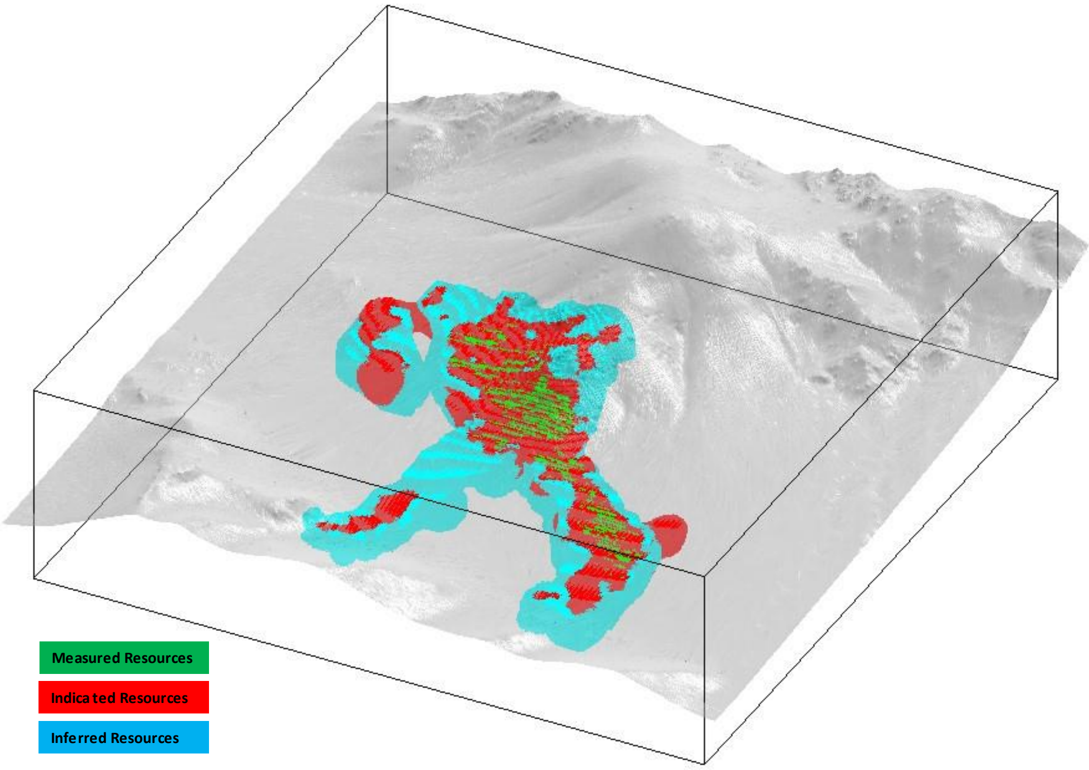


Figure 15-3: Overview of the block model

Source: AbraSilver Resource Corp., 2023

15.2.3 Topography

The initial topography of the project remains unchanged with regard to the previous pre-feasibility study. There was no material movement during the current year. It is the file “DTM-5m.msr” dated 09/13/2023. The topography is shown in Figure 15-4.

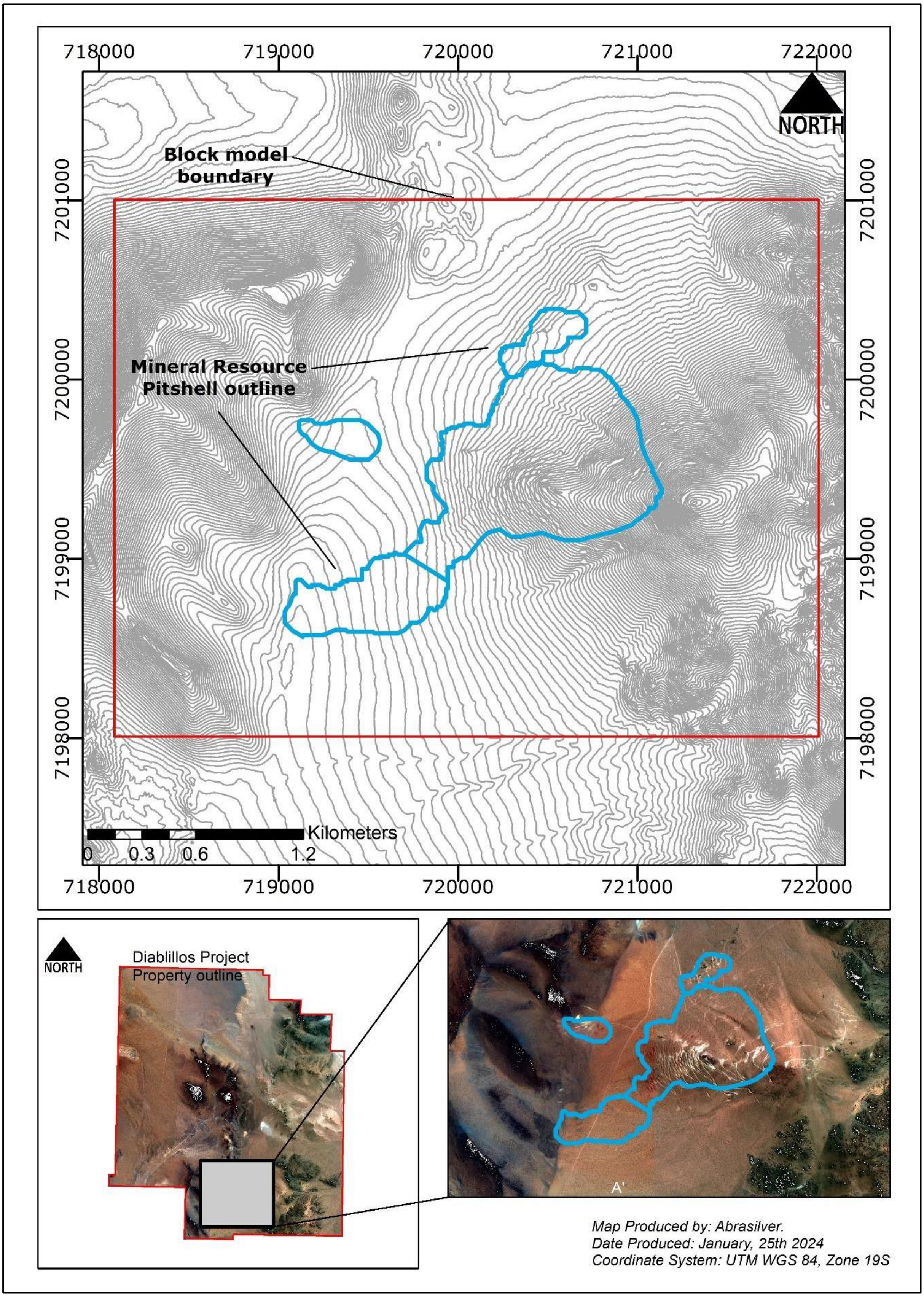


Figure 15-4: Starting topography of the Project

Source: AbraSilver Resource Corp., 2024

* Note: The red rectangle delimits the boundaries of the block model

15.2.4 Geotechnical Pit Slope Assessment and Design Guidance

Geotechnical information was received from AbraSilver which includes geotechnical rock testing as well as geotechnical logs gathered simultaneously with geological core logging. This information was used to compile a recommendation of overall slope angles to be used in the open pit optimization process. The working area has been divided into 8 geotechnical domains by AbraSilver. Each of these areas incorporates different structural, lithological and alteration characteristics.

Figure 15-5 details these geotechnical domains. It should be noted that blocks lacking geotechnical zone coding were coded as code 11. In addition, an overall angle of 53° is assigned to this geotechnical zone as the hard rock assumption for the Mineral Resource open pit optimization. More conservative angles were in cover material. The overall angles for each geotechnical zone are presented in Table 15-3.

Table 15-3: Overall slope angle by geotechnical domain

Geotechnical Zone	Overall Angle (°)
1	60
2	49
3	54
4	53
5	53
6	53
7	60
8	53
10	37
11 (No data)	53

The open pit shell generated during the Mineral Resource estimate was reviewed in conjunction with Mr. Peralta and AbraSilver personnel. It was observed that certain geotechnical domains present a height greater than 350 meters (domains S2 and S3). As per the recommendation of Mr. Fuentealba and a geotechnical expert, it was recommended that at least one ramp passes through each pit wall.

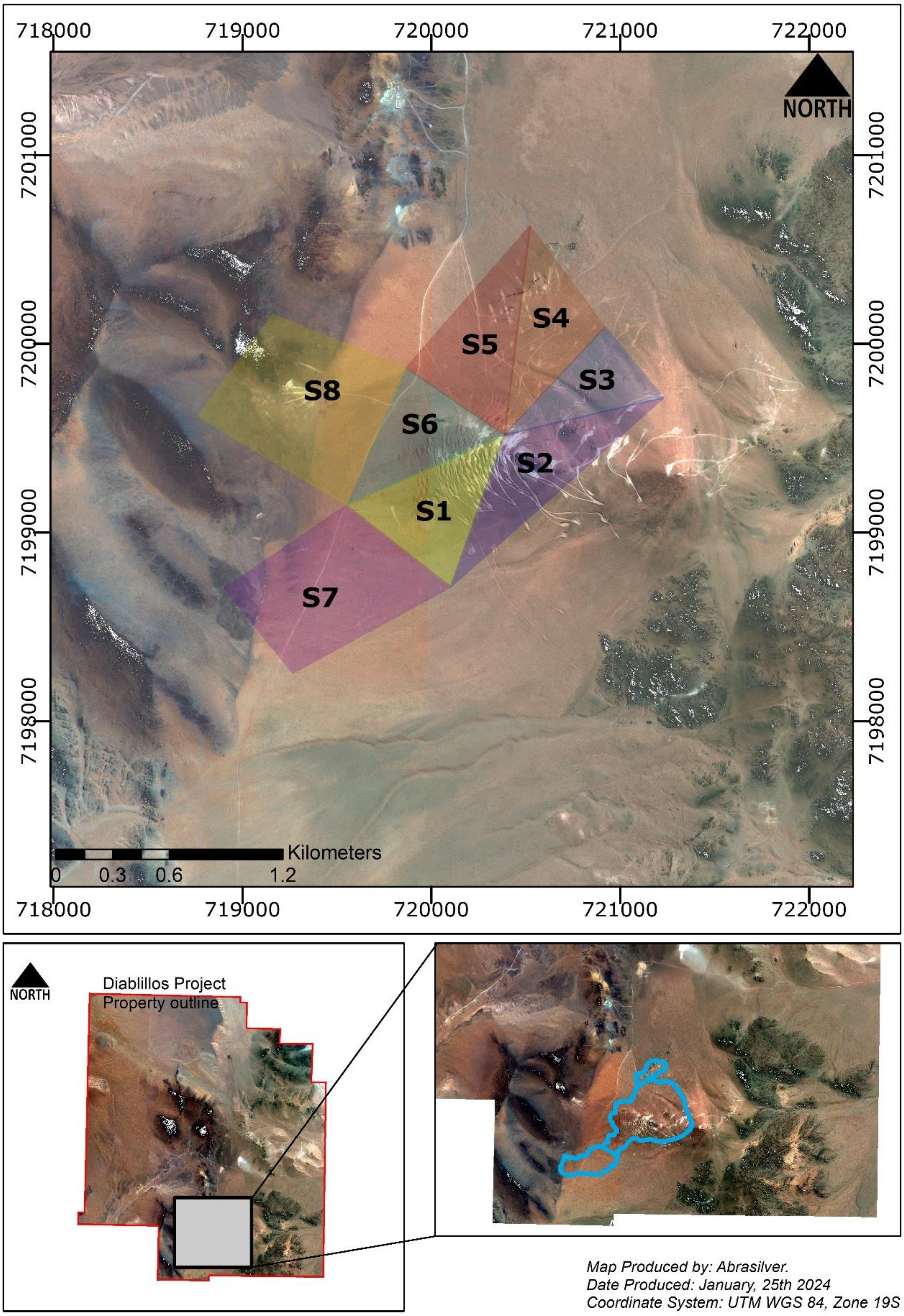


Figure 15-5: Geotechnical domains

Source: AbraSilver Resource Corp., 2024

The general parameters used for the open pit design are shown schematically in Figure 15-6. Table 15-4 shows the detail design parameters.

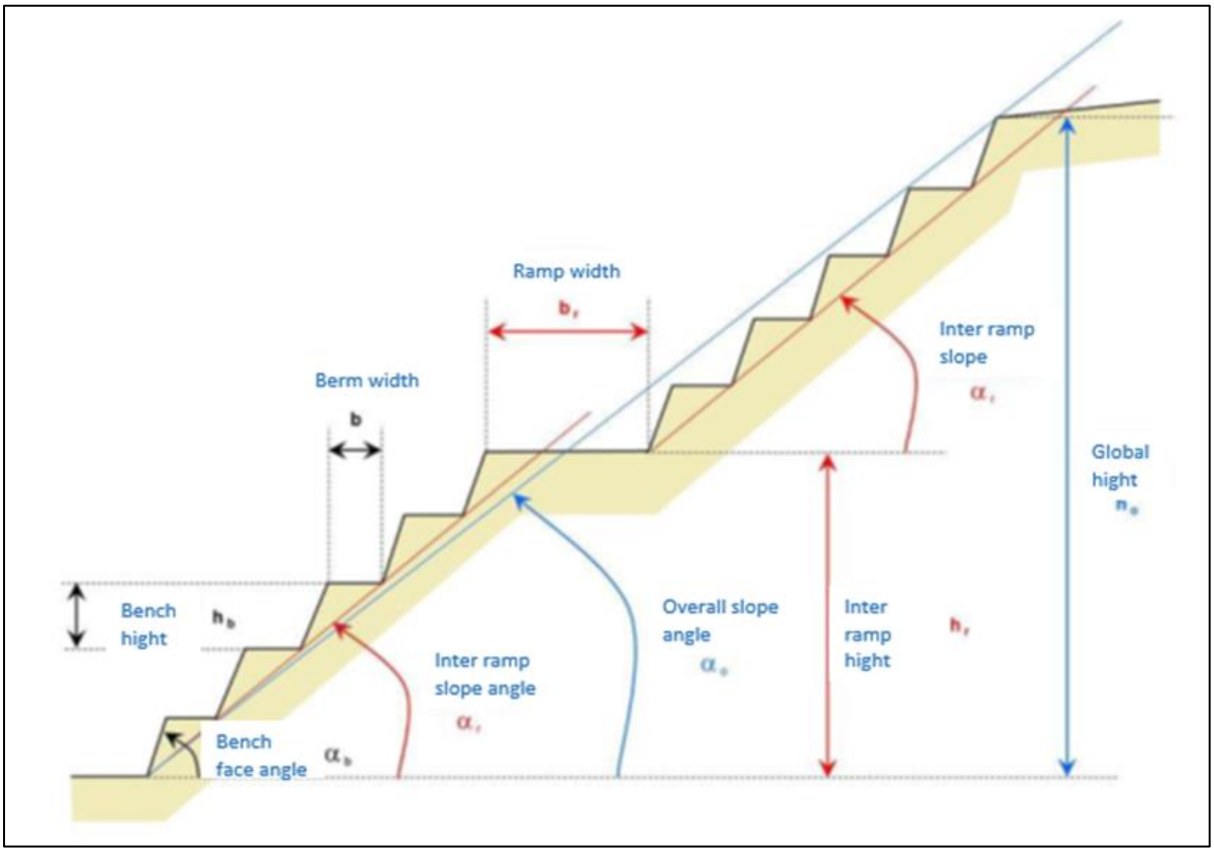


Figure 15-6: Schematic open pit design parameters

Source: AbraSilver Resource Corp., 2024

Table 15-4: Open pit design parameters

Geotechnical Zone	Bench height (m)	Bench face angle (°)	Ramp width (m)	Slope ramp (%)	Geotechnical berm (m)	Berm width (m)	Inter-ramp slope angle (°)	Geotechnical height (m)
S1	10	80	22	10%	12	4.5	57.6	120
S2	10	60	22	10%	13	5	45.0	120
S3	10	75	22	10%	12	4.5	54.5	120
S4	10	75	22	10%	12	4.5	53.4	120
S5	10	75	22	10%	12	4.5	53.4	120
S6	10	75	22	10%	12	4.5	53.4	120
S7	10	75	22	10%	12	4.5	57.8	120
S8	10	75	22	10%	12	4.5	53.4	120
10	10	75	22	10%	12	11.76	34.7	120
11 (No information)	10	80	22	10%	12	4.5	53.4	120

According to the stability analysis described in section 16.9.2, the overall slope angles could be higher in some areas. More geotechnical tests are recommended to validate these assumptions.

Some phases were designed to the final pit wall, in cover material. It will be necessary to validate this with assays from a geotechnical campaign.

15.2.5 Mineral Processing Methods

The background of the process was obtained from the document "DSP-PFS-GEN-0000-DC-009-B - Criterio de Diseño – Proceso.docx". All metallurgical tests indicate that gold and silver can utilise the Merrill-Crowe zinc precipitation process. The process begins with the size reduction of the ore using a primary jaw crusher and a semi-autogenous grinding (SAG) mill. A pebble crusher and a ball mill circuit to reduce the ore size 80 percent down to size I (P80 of 150 microns).

The treatment capacity will be 9,000 metric tonnes per day. The design itself however could allow for a significant increase in treatment capacity. This however would require a second process, such as heap leaching or an increase of current throughput (currently limited by water availability).

Ore will be leached with cyanide in a series of eight hammer tanks. The rich solution will be recovered through a countercurrent decant (CCD) circuit and then processed through the Merrill-Crowe process.

The average recoveries over life of mine are 83.6% for silver and 86.8% for gold.

15.2.6 Operating Cost Used for Block Value

The economic parameters to define the final operating limit were provided by AbraSilver. They are presented in the Table 15-5 below:

Table 15-5: Economics parameters for optimization

Variable	Value	Unit
Mine Cost		
Base	1.94	USD/t
Cover*	1.73	USD/t
MCAF	MB Variable	-
Plant Cost		
Process	22.97	USD/t min
G&A	3.32	USD/t min
Metals Price		
Au	1,750	USD/toz
Ag	22.5	USD/toz
Other Parameters		
Au Recovery	MB Variable	%
Ag Recovery	MB Variable	%
Royalty	3%*Revenues	USD

* Note: The "cover" mine cost refers to a type of material characterized in the block model. This will not require drilling and blasting operations and therefore, has a lower mining cost.

To capture the effect of increasing mine cost with depth, an adjustment factor (MCAF) was applied as a function of elevation.

The factors to be used in the MCAF calculation equation are based on a base elevation of 4,280 masl (if above or below this elevation). The calculation is shown in Table 15-6:

Table 15-6: Incremental mine cost

Elevation	Mine Cost
>4.280	Mine Cost*(((Elevation – 4,280) /10) *0.008+1)
4,280	Mine Cost
<4,280	Mine Cost*(((4,280 - Elevation) /10) *0.005+1)

15.2.7 Mining Dilution

Diablillos Project is a disseminated orebody with relatively clear ore/waste contacts. In consideration of blast movement and ore boundary, the shape of the deposit and the structurally constrained grade distribution for each lithology and sector (Oculto, JAC, Fantasma, Laderas) large dilutions are not expected in the opinion of Mr. Fuentealba; however, a dilution factor has been applied using a methodology in conjunction with Mr. Peralta considering 7.5% dilution for each face ore block in contact with face waste block.

For this PFS, the following methodology has been developed to estimate the dilution (Figure 15-7).

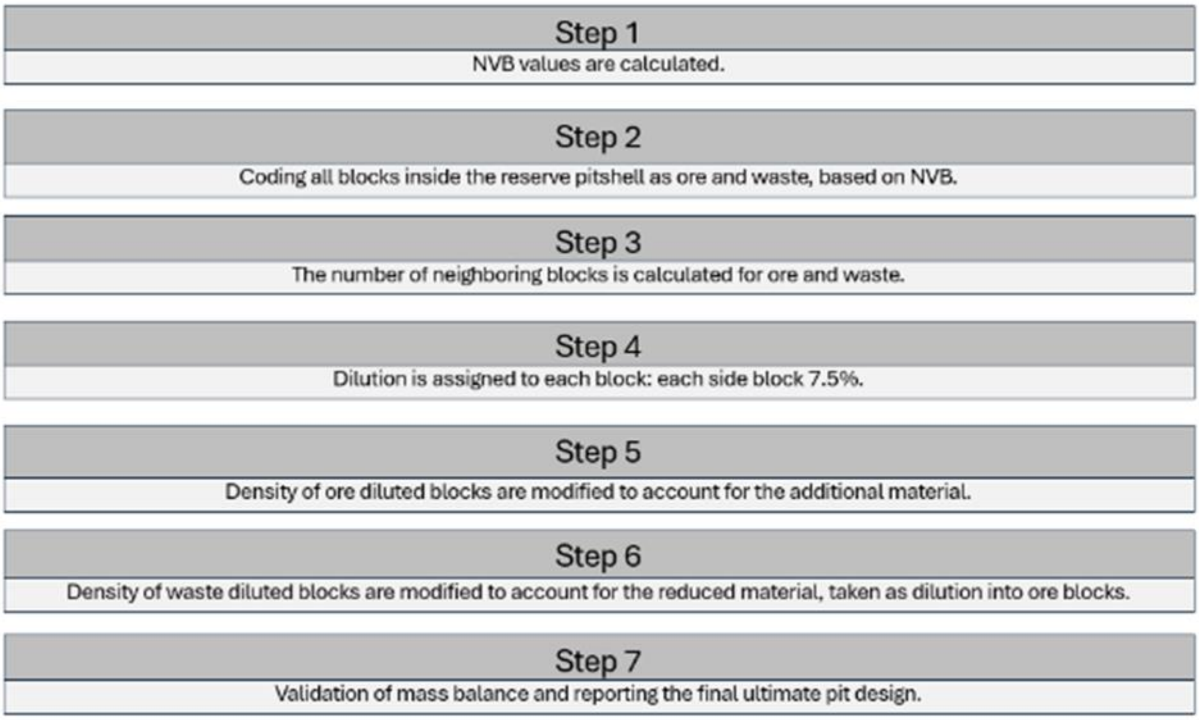


Figure 15-7: Dilution methodology

15.2.8 Ore Loss

This engineering stage has considered full mining recovery of 100%. Future work should consider the application of losses due to operational deviations and human error.

15.2.9 Gold and Silver Recovery

The recovery of Gold and Silver for the current stage of the project is defined by the "recovery domain" (RCOD) variable of the block model.

The following are the recovery values for each domain:

Table 15-7: Gold (Au) and Silver (Ag) recovery

RCOD	Variable	Value	Unit
1 (Shallow gold domain)	Au Recovery	88.25	%
	Ag Recovery	56.77	%
2 (Silver Enrichment domain)	Au Recovery	86.17	%
	Ag Recovery	85.62	%
3 (Deep Gold domain)	Au Recovery	83.73	%
	Ag Recovery	82.59	%
4 (Northeast domain)	Au Recovery	89.30	%
	Ag Recovery	81.69	%
5 (JAC domain)	Au Recovery	84.29	%
	Ag Recovery	88.18	%
6 (Fantasma domain)	Au Recovery	84.29	%
	Ag Recovery	88.18	%

In addition, a recovery value of 0% Gold and Silver is considered for all blocks that have no RCOD set.

15.2.10 Block Valuation and Cut-off Grade

Prior to determining the variable that will define the blocks that can be processed and those that cannot, each block must be valued to differentiate blocks that provide a positive profit.

The valuation of each block is explained below:

Revenue:

$$Revenues = \frac{(P_{Au} - CV_{Au}) * G_{Au} * R_{Au} + \left(P_{Ag} - CV_{Ag}\right) * G_{Ag} * R_{Ag}}{31.1035}$$

Where:

- PAu: Price of Gold (US$/toz)
- CVAu: Gold Cost of Sales (US$/toz)
- GAu: Gold Grade (g/t)
- RAu: Gold Recovery (Decimal)
- PAg: Silver Price (US$/toz)
- CVAg: Silver Cost of Silver (US$/toz)
- GAg: Silver Grade (g/t)
- RAg: Silver Recovery (Decimal)

Cost:

$$Cost = CM + CP + G\&A + Royalty * Revenue$$

Where:

- MC: Min Cost (US$/t)
- PC: Plant Cost (US$/t min)
- G&A: Administrative Cost (US$/t min)
- Royalty: 3%

Profit:

$$Profit = Revenue - Cost$$

Profit Considerations:

Negative block profit is defined as overburden, in the following cases described in Table 15-8:

Table 15-8: Blocks classified and costed as waste rock

Case	Profit
Block with Inferred category or no data	Negative mining cost
Blocks with no data	Negative mining cost
Block classified as sulphide	Negative mining cost
Block coded as "Cover" type	Negative mining cost

A reference cut-off grade of 53 gr/t AgEq can be determined as the minimum grade to send for processing.

General Cut-Off Grade Formula:

$$Cut\text{-}off\ Grade = \frac{Operating\ Cost\ per\ Ton\ of\ Ore\ (\frac{USD}{ton})}{Metal\ Price\ per\ Unit\ of\ Metal\ x\ Metallurgical\ Recovery\ (\%)}$$

Ag	g/t	28.2
Au	g/t	0.32
AgEQ	**g/t**	**53**
Silver Price	USD/oz	22.5
Gold Price	USD/oz	1,750
Silver Selling	USD/oz	15
Gold Selling	USD/oz	0.45
Silver Recovery	%	75.00%
Gold Recovery	%	80.00%
Net Revenue	**USD/t ore**	**29.27**
Net Revenue	**USD/g**	**0.55**
Mining Cost	USD/t ore	1.94
Processing Cost	USD/t ore	22.97
Royalti	%	3%
G&A Cost	USD/t ore	3.35
Operating Cost	**USD/t ore**	**29.13**
CoG Marginal AgEq	**g/t**	**53**

In addition, for reporting purposes, a marginal cut-off grade of 15 gr/t AgEq was used to identify and stockpile material that could be treated in the future.

15.3 Open Pit Optimization

The process of defining the final extraction limit is carried out using Whittle Four X software, and the Lerchs & Grossman algorithm. This software generates a set of three-dimensional envelopes (nested pits) using Revenue Factors (RF), associated to increasing prices of the elements of interest (Silver and Gold).

The ultimate pit was calculated by considering the category, oxidation state, recovery domain, lithology, and profit. This is presented in Table 15-9:

Table 15-9: Optimization variable definition (OREW)

OREW	Category	Oxidation State	RCOD	Lithology	Block Profit
1	Meas + Ind	Oxide	1 – 6	All except cover	>0
0	Block that fails to meet at least 1 of the above conditions to be sent for processing.				

The results of the Resource Optimization are presented in Table 15-10.

Table 15-10: Pit optimization results

Pit	Minimum RF	Maximum RF	Total Rock (000 t)	Ore (000 t)	Au (g/t)	Ag (g/t)	AgEq (g/t)
1	0.11	0.12	2,387	26	0.16	3343	3356
2	0.13	0.13	2,389	28	0.15	3116	3128
3	0.14	0.14	12,960	456	1.43	978	1100
4	0.15	0.15	22,984	1,039	1.15	772	866
5	0.16	0.16	27,993	1,469	1.32	660	767
6	0.17	0.17	36,610	2,149	1.52	577	699
7	0.18	0.18	46,674	2,857	1.52	535	659
8	0.19	0.19	47,046	3,061	1.48	512	634
9	0.20	0.20	48,688	3,383	1.48	483	604
10	0.21	0.21	49,223	3,583	1.46	466	586
11	0.22	0.22	49,731	3,756	1.44	453	571
12	0.23	0.23	52,425	4,050	1.38	441	555
13	0.24	0.24	63,588	5,173	1.46	390	509
14	0.25	0.25	64,788	5,464	1.44	377	495
15	0.26	0.26	65,208	5,696	1.41	367	483
16	0.27	0.27	68,277	6,126	1.36	356	468
17	0.28	0.28	71,478	6,498	1.30	349	456
18	0.29	0.29	73,864	6,951	1.28	336	441
19	0.30	0.30	76,114	7,206	1.25	331	434
20	0.31	0.31	78,148	7,610	1.24	320	422
21	0.32	0.32	79,306	7,943	1.21	312	412
22	0.33	0.33	79,953	8,177	1.19	307	405
23	0.34	0.34	83,979	8,682	1.19	296	394
24	0.35	0.35	88,662	9,257	1.16	288	383
25	0.36	0.36	90,042	9,674	1.13	280	373
26	0.37	0.37	94,059	10,262	1.12	270	364
27	0.38	0.38	100,280	10,964	1.13	260	353
28	0.39	0.39	101,159	11,315	1.11	255	347
29	0.40	0.40	101,904	11,619	1.09	251	341
30	0.41	0.41	102,205	11,917	1.08	247	336
31	0.42	0.42	119,232	13,677	1.13	224	317
32	0.43	0.43	119,822	14,010	1.12	220	312
33	0.44	0.44	157,586	17,853	1.24	181	285
34	0.45	0.45	159,340	18,388	1.23	178	280
35	0.46	0.46	165,637	19,398	1.19	174	273
36	0.47	0.47	167,070	19,997	1.17	171	268
37	0.48	0.48	168,560	20,582	1.16	168	264
38	0.49	0.49	169,626	21,138	1.14	164	260
39	0.50	0.50	180,936	22,602	1.14	157	252
40	0.51	0.51	181,193	23,057	1.13	155	249
41	0.52	0.52	182,491	23,572	1.12	153	246
42	0.53	0.53	183,687	24,152	1.11	150	243
43	0.54	0.54	183,957	24,662	1.09	148	239
44	0.55	0.55	187,141	25,500	1.08	145	235

Pit	Minimum RF	Maximum RF	Total Rock (000 t)	Ore (000 t)	Au (g/t)	Ag (g/t)	AgEq (g/t)
45	0.56	0.56	188,063	26,014	1.07	143	232
46	0.57	0.57	195,979	27,029	1.07	139	228
47	0.58	0.58	197,928	27,709	1.06	137	225
48	0.59	0.59	199,215	28,357	1.05	134	222
49	0.60	0.60	199,294	28,772	1.04	133	220
50	0.61	0.61	202,986	29,470	1.03	131	217
51	0.62	0.62	206,594	30,311	1.02	129	214
52	0.63	0.63	206,827	30,783	1.01	128	212
53	0.64	0.64	207,503	31,311	1.00	126	210
54	0.65	0.65	208,374	31,822	0.99	125	208
55	0.66	0.66	209,074	32,305	0.98	124	206
56	0.67	0.67	209,467	32,763	0.97	123	204
57	0.68	0.68	210,409	33,235	0.97	121	202
58	0.69	0.69	211,503	33,756	0.96	120	200
59	0.70	0.70	212,197	34,277	0.95	119	198
60	0.71	0.71	212,620	34,661	0.94	118	197
61	0.72	0.72	214,673	35,290	0.94	116	195
62	0.73	0.73	215,090	35,751	0.93	115	193
63	0.74	0.74	215,306	36,201	0.92	114	191
64	0.75	0.75	215,490	36,606	0.92	113	190
65	0.76	0.76	238,262	38,923	0.92	108	185
66	0.77	0.77	238,693	39,374	0.91	107	184
67	0.78	0.78	239,790	39,874	0.91	106	182
68	0.79	0.79	240,632	40,390	0.90	105	181
69	0.80	0.80	250,363	41,357	0.90	104	179
70	0.81	0.81	250,845	41,826	0.90	103	178
71	0.82	0.82	251,215	42,249	0.89	102	176
72	0.83	0.83	251,358	42,684	0.88	101	175
73	0.84	0.84	251,649	43,140	0.88	100	174
74	0.85	0.85	252,130	43,572	0.87	100	173
75	0.86	0.86	252,360	43,983	0.87	99	172
76	0.87	0.87	253,637	44,513	0.86	98	170
77	0.88	0.88	255,995	45,103	0.86	97	169
78	0.89	0.89	260,863	45,905	0.85	96	167
79	0.90	0.90	260,949	46,306	0.85	96	166
80	0.91	0.91	261,388	46,769	0.84	95	165
81	0.92	0.92	261,562	47,181	0.84	94	164
82	0.93	0.93	261,833	47,587	0.83	94	163
83	0.94	0.94	263,854	47,922	0.83	93	163
84	0.95	0.95	264,829	48,017	0.83	93	163
85	0.96	0.96	264,966	48,071	0.83	93	162
86	0.97	0.97	267,703	48,217	0.83	93	162
87	0.98	0.98	268,381	48,289	0.83	93	162
88	0.99	0.99	268,993	48,383	0.83	93	162
89	1.00	1.00	269,368	48,450	0.83	93	162

*Note: Tonnages and grades reported are cumulative and do not represent the incremental contribution of each pit.

The pit-by-pit graph for each nested pit and its corresponding cash flow is shown in Figure 15-8.

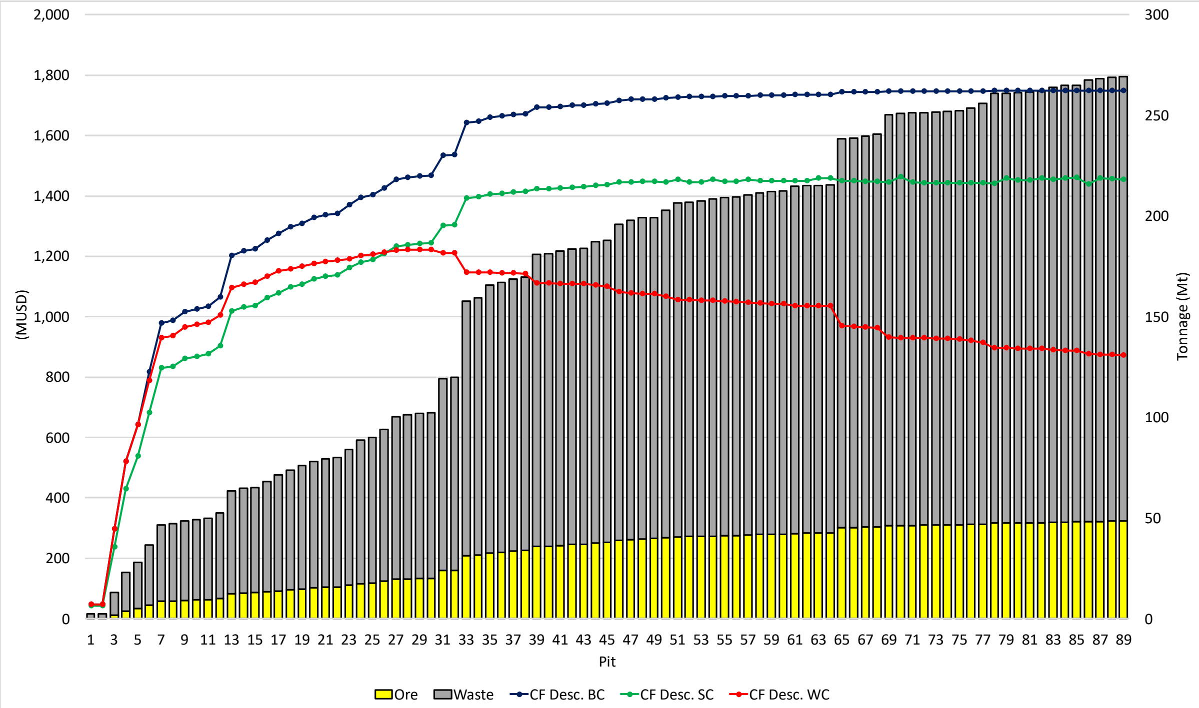


Figure 15-8: Pit by pit optimization

Measured and Indicated Mineral Resources within the economic pitshell (using Revenue Factor 1) amount to 48.5 Mt grading 0.83 g/t Au and 93.2 g/t Ag, while contained ounces are 3.1 M Ozt AuEq and 253 M Ozt AgEq as shown below in Table 15-11.

Table 15-11: Measured and Indicated Resources in optimal pitshell

Resources	Tonnage (000 t)	Au (g/t)	Ag (g/t)	AgEq (000 Oz)
Measured	13,557	0.87	119	83,837
Indicated	34,894	0.81	82	169,086
Measured + Indicated	**48,450**	**0.83**	**93**	**252,924**

As can be seen in cyan line in Figure 15-9, only material from the Oculto, Ladera, and JAC sectors lies within the economic envelope.

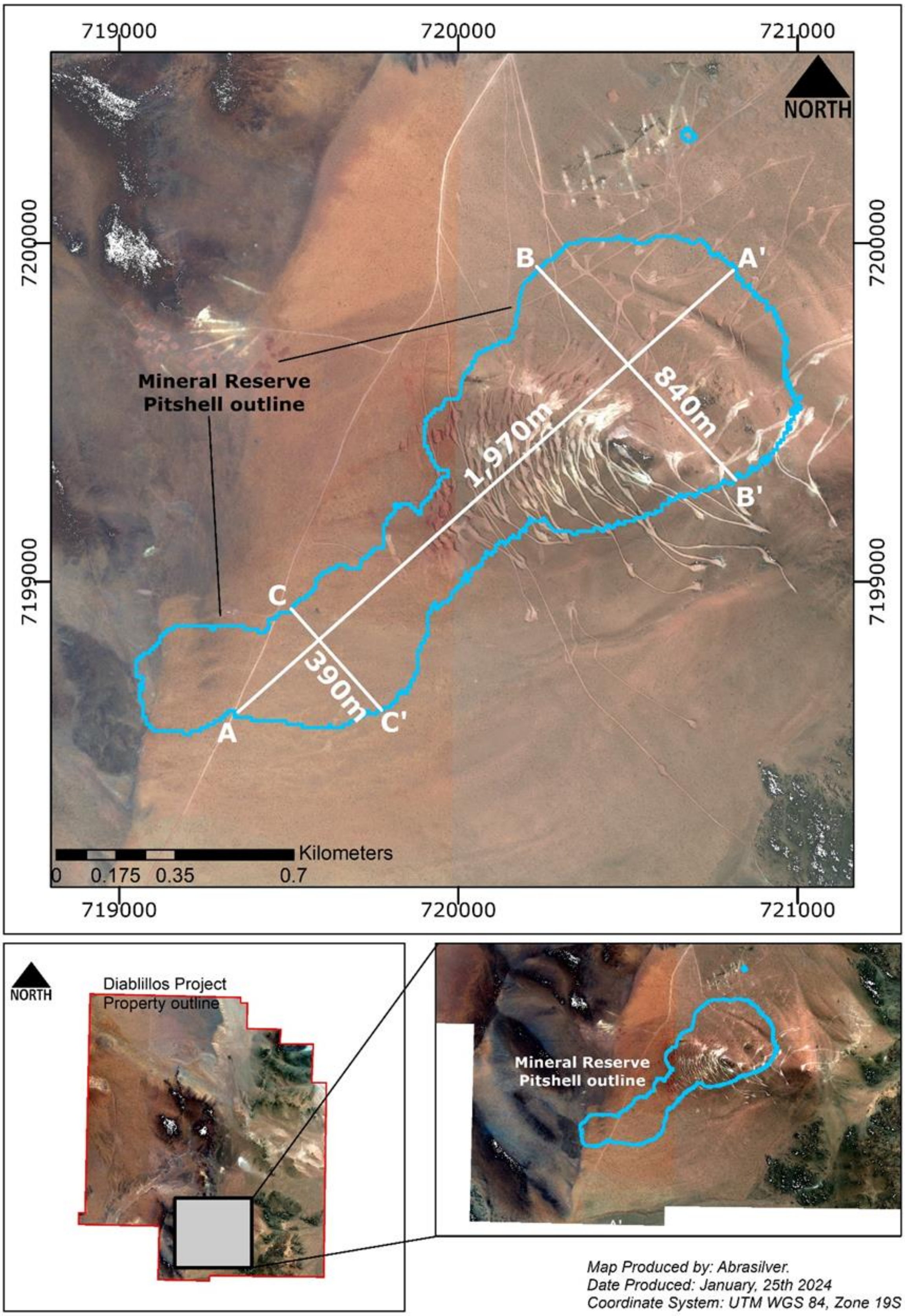


Figure 15-9: Solid used for cubic capacity estimates of Meas + Ind resources

Source: AbraSilver Resource Corp., 2024

Section AA' in Figure 15-10 shows that the ultimate pit is deeper towards A'.

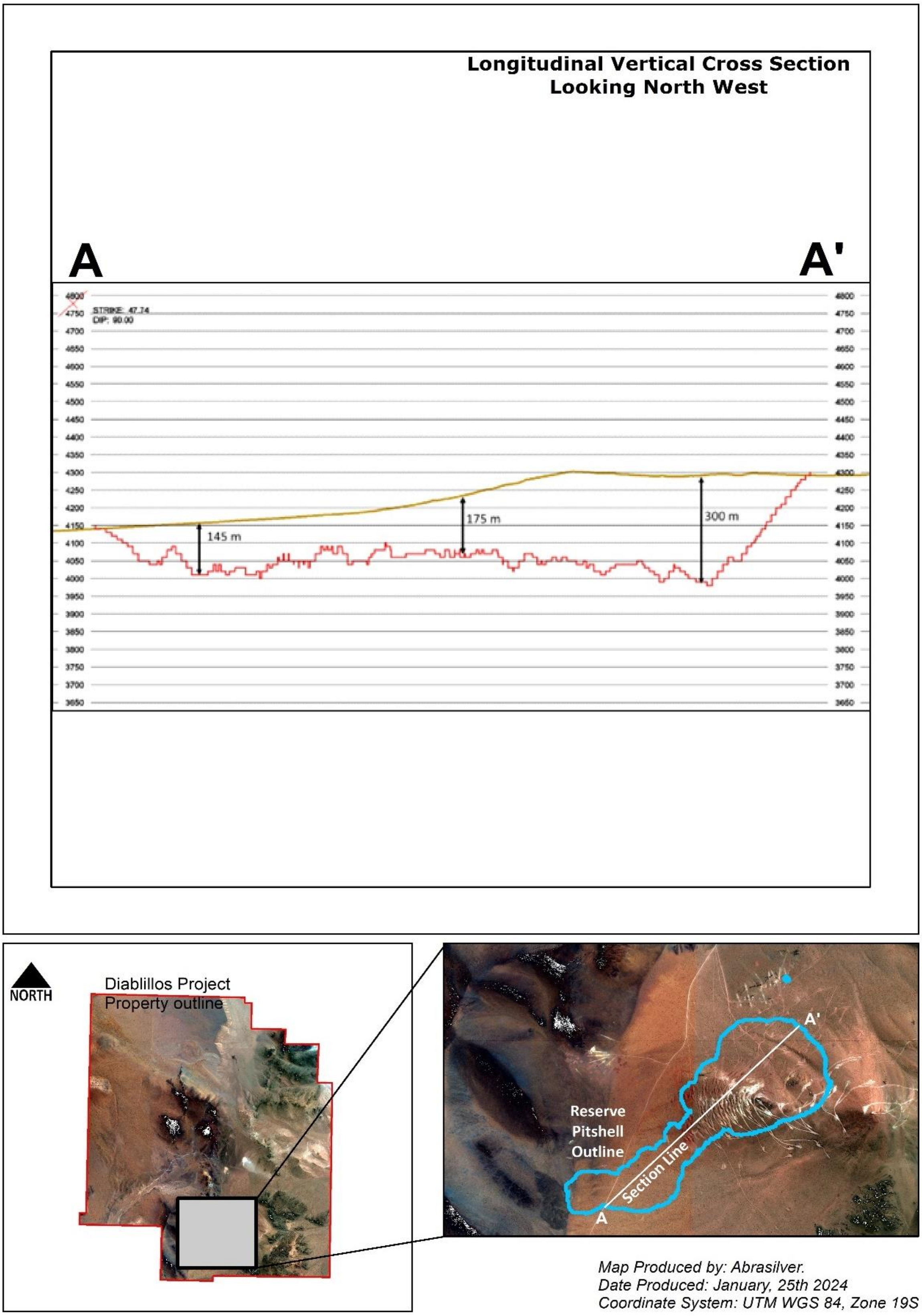


Figure 15-10: Final pit Section AA'

Source: AbraSilver Resource Corp., 2024

Section BB' in Figure 15-11 shows that the ultimate pit is deeper towards B'.

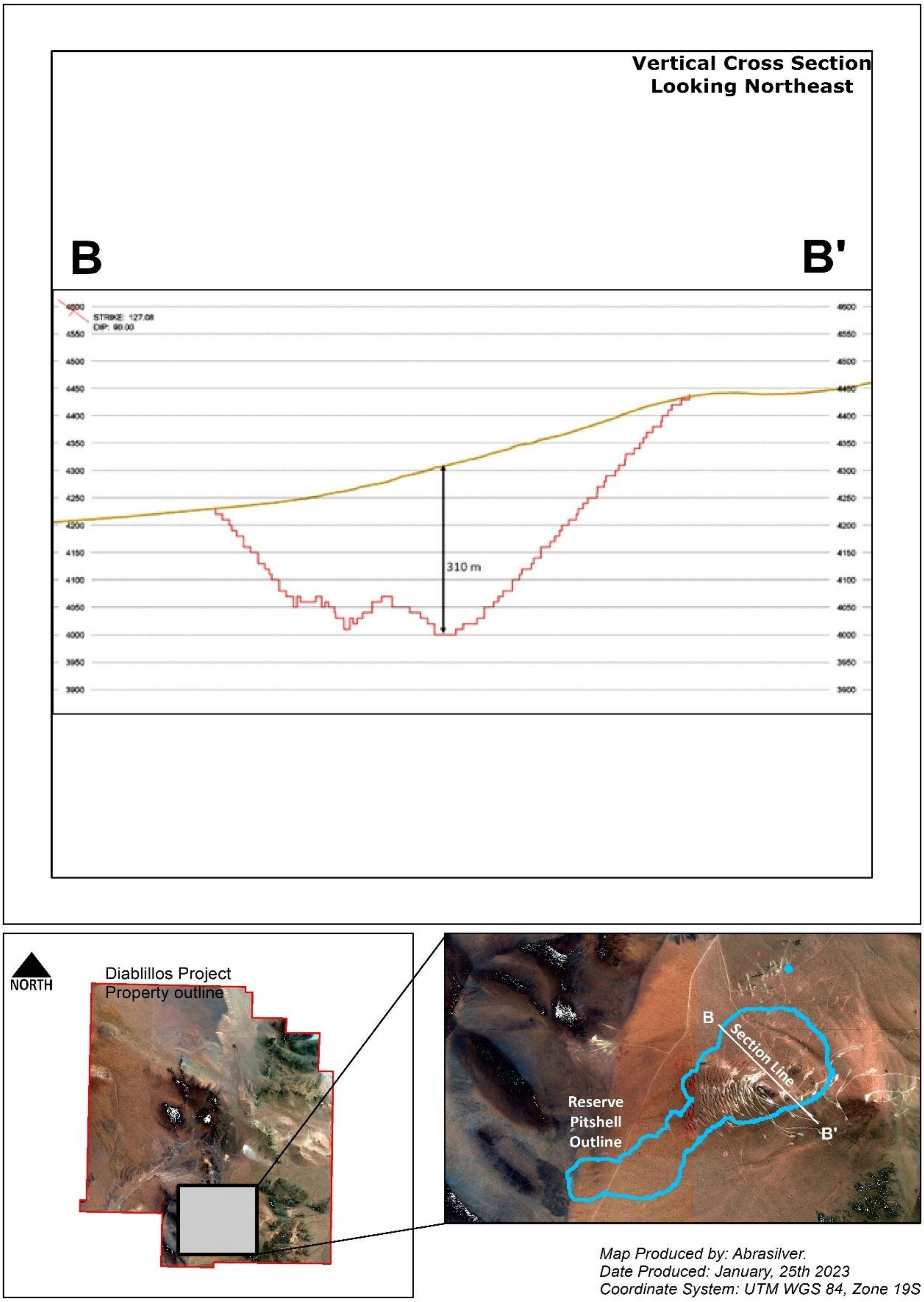


Figure 15-11: Final pit Section BB'

Source: AbraSilver Resource Corp., 2024

Section CC' in Figure 15-12 shows that the ultimate pit has constant depth.

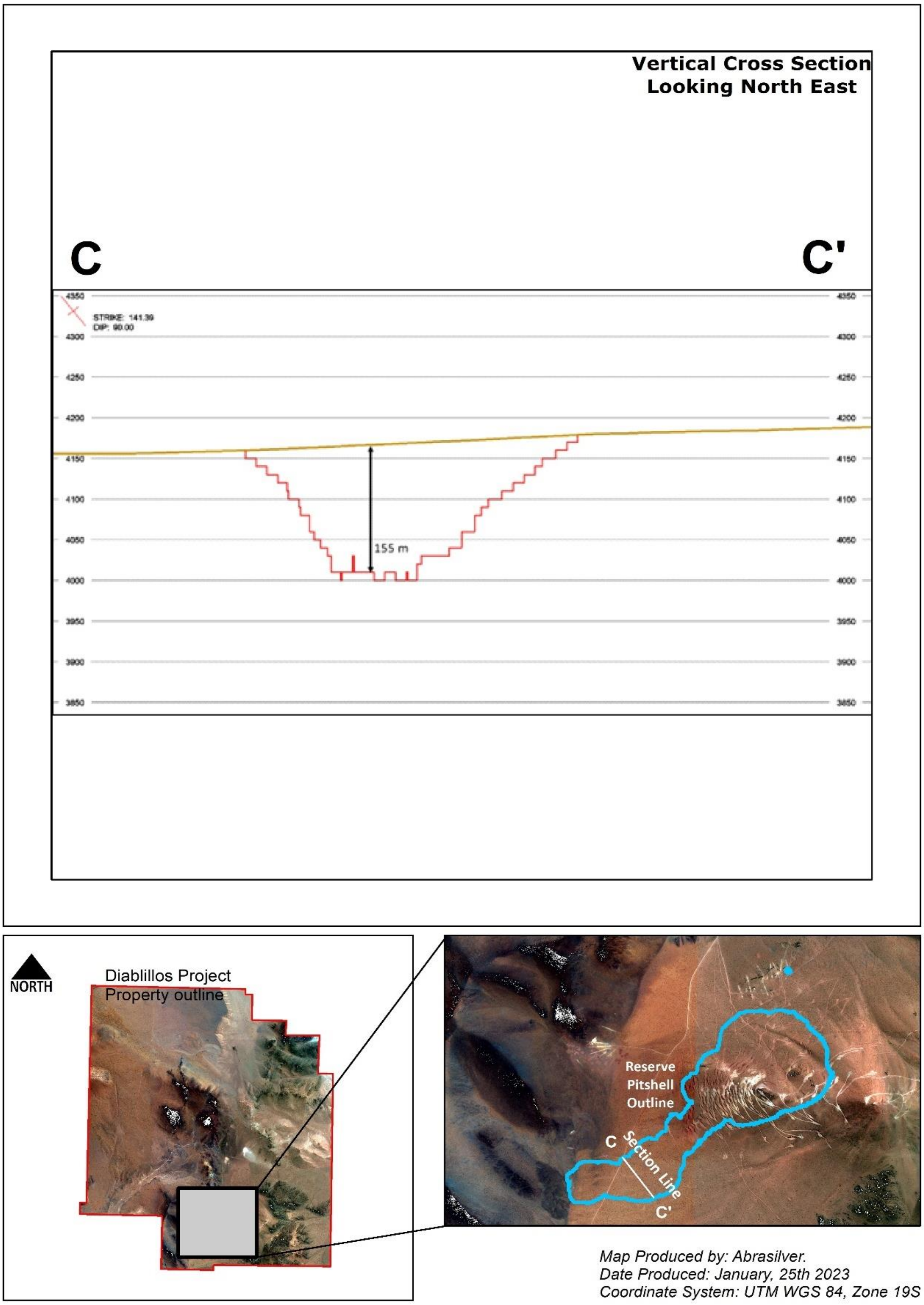


Figure 15-12: Final pit Section CC'

Source: AbraSilver Resource Corp., 2024

15.4 Mineral Reserve Pit Design

15.4.1 Parameters Relevant to Mine Design

15.4.1.1 Selective Mining Unit Size

During the 2020 PEA, Mining Plus conducted a heterogeneity study on drill core data to assess the impact of block size/mining scale on dilution. The conclusion of the study was that the Diablillos Project was relatively insensitive to mining scale, with at most 6% waste in ore at a bench height of 15 meters. Smaller benches reduced dilution, but only by two to four percent. Aligning with the productivity necessary for a medium to large operation like Diablillos.

This study was not repeated at the PFS stage, but the results were reviewed. A bench height of 10 m has been selected.

15.4.1.2 Geotechnical Pit Wall Design

The PFS pit wall design criteria was provided above in Section 15.2.4 and Figure 15-6. These criteria have been followed in open pit design.

15.4.1.3 Haul Road Design

Haul roads within the open pit were designed according to international mine design standards for safe and productive haulage. The road is 3.0 times the width of the widest vehicle. A safety berm on the downslope side of the road is designed to be 75% of the height of the tire of the largest vehicle. An additional allowance is left on the upslope side of the road for a drainage ditch, utility lines and potential pit dewatering pipes. The parameters used in haul road design are summarized in Table 15-12. A typical road cross section is illustrated in Figure 15-13. Haul roads are designed at a maximum gradient of 10% throughout most of the pit.

Table 15-12: Two-way haul road design parameters

Parameter	Units	Value
Haul truck model	-	CAT 777B
Haul truck width	Meters	5.5
Tire specifications	-	27.00R49
Tire outer diameter	Meters	2.7
Berm height	Meters	2.2
Safety Berm width	Meters	4.7
Ditch width	Meters	1.0
Safety Margin	Meters	1.3
Central Spacing	Meters	2.7
Total design width	Meters	22.0

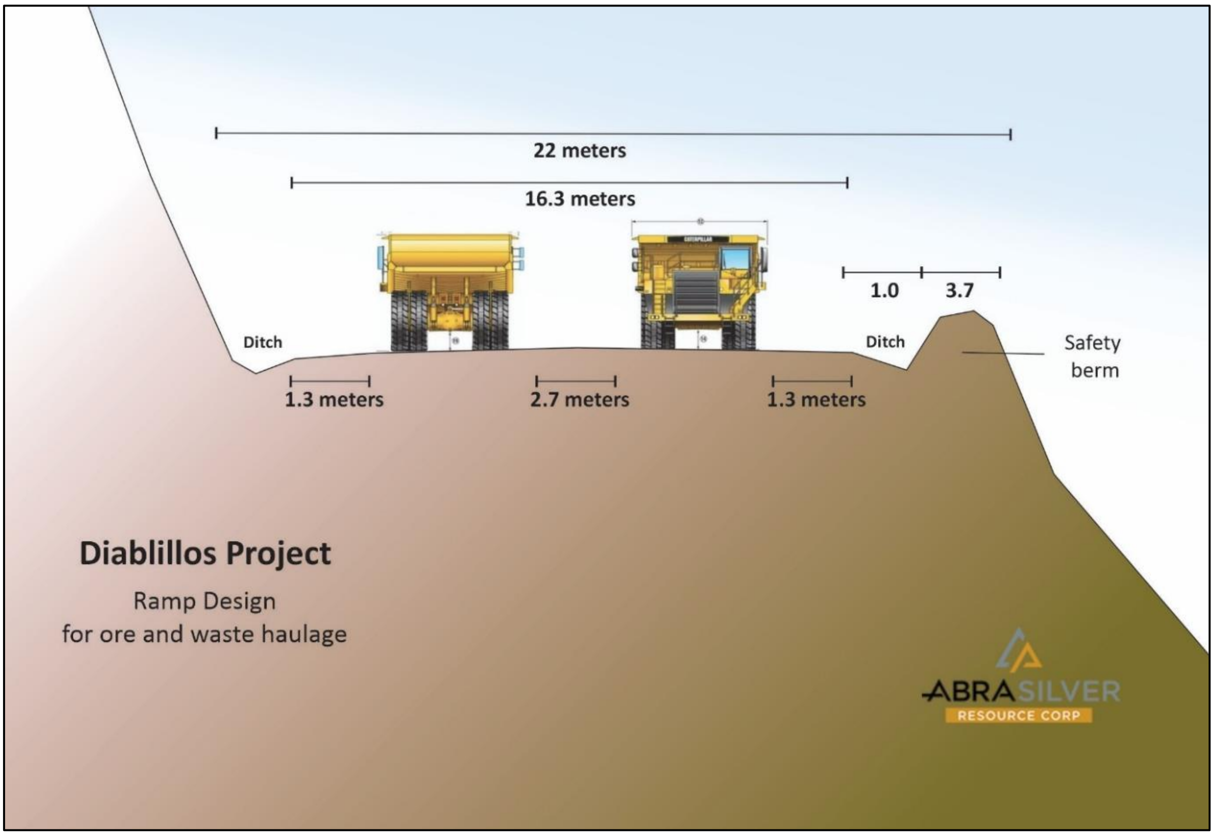


Figure 15-13: Typical haul road cross-section

Source: AbraSilver Resource Corp., 2023

15.4.2 Mineral Reserve Pit Design

Mr. Fuentealba designed the ultimate open pit for Diablillos Project Mineral Reserves in alignment with pit shell 89 from the open pit optimization analysis. The design is provided in Figure 15-14.

Compared to pit shell #89 (RF = 1), the ultimate open pit design has 17% less contained silver equivalent metal (Table 15-13). This is considered an acceptable variance in such design. The main reason for the decrease was the incorporation of ramps in the operational phase designs.

Table 15-13: - Mineral Resources Measured + Indicated

Resources Measured + Indicated	Tonnage (000 t)	Au (g/t)	Ag (g/t)	AgEq (t oz)
Pitshell 89 (RF=1)	48,450	0.83	93.00	252,294
Operatives Phase Designs	42,294	0.81	90.81	209,619
Difference				-17%

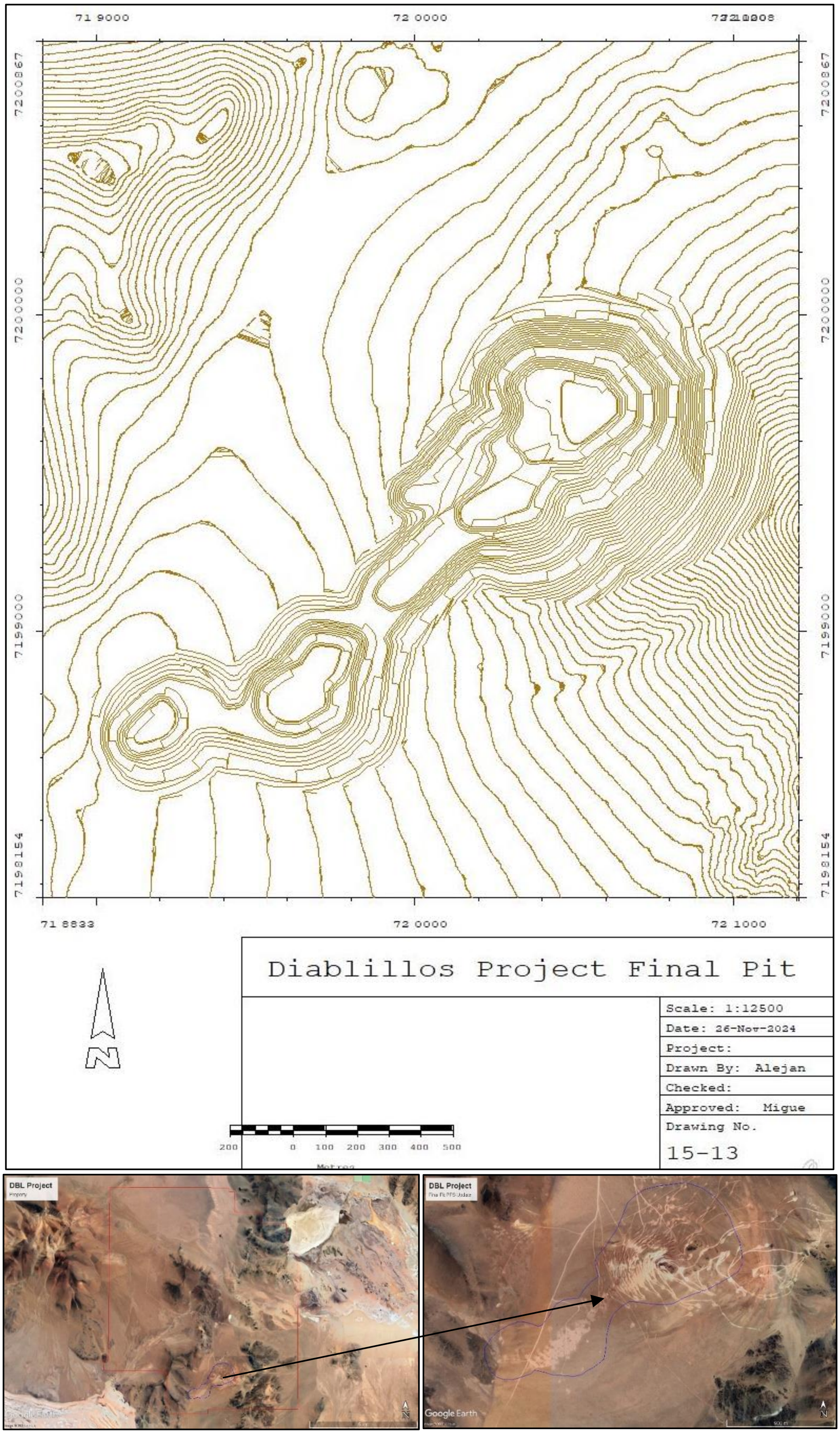


Figure 15-14: Diablillos Project Ultimate pit design

Source: AbraSilver Resource Corp., 2024

15.5 Mining Reserve Estimate

15.5.1 Strategic Mine Planning

The same ultimate pit was used as in the previous stage, however an optimization of the mining sequence was performed using Whittle's SIMO (Simultaneous Optimization) module.

SIMO optimizes a schedule for a given mining operation from resource through to market, including mining schedule, cut-off grades, blending, stockpiling, processing, product and logistics. It integrates Activity-Based cost drivers to estimate the real costs and constraints mining, processing and product to ensure the optimization results are practical.

This uses the ProberB engine developed by Whittle Consulting to identify an optimal mining sequence as expressed below and illustrated in Figure 15-15:

- Add blocks in pushbacks, panels, and stockpiles to reduce problem size.
- Express the sequence to be solved by linear programming and use an iterative approach to optimise.
- Iterate semi-randomly through the solution space to ensure the sequence obtained is close to the optimal solution.

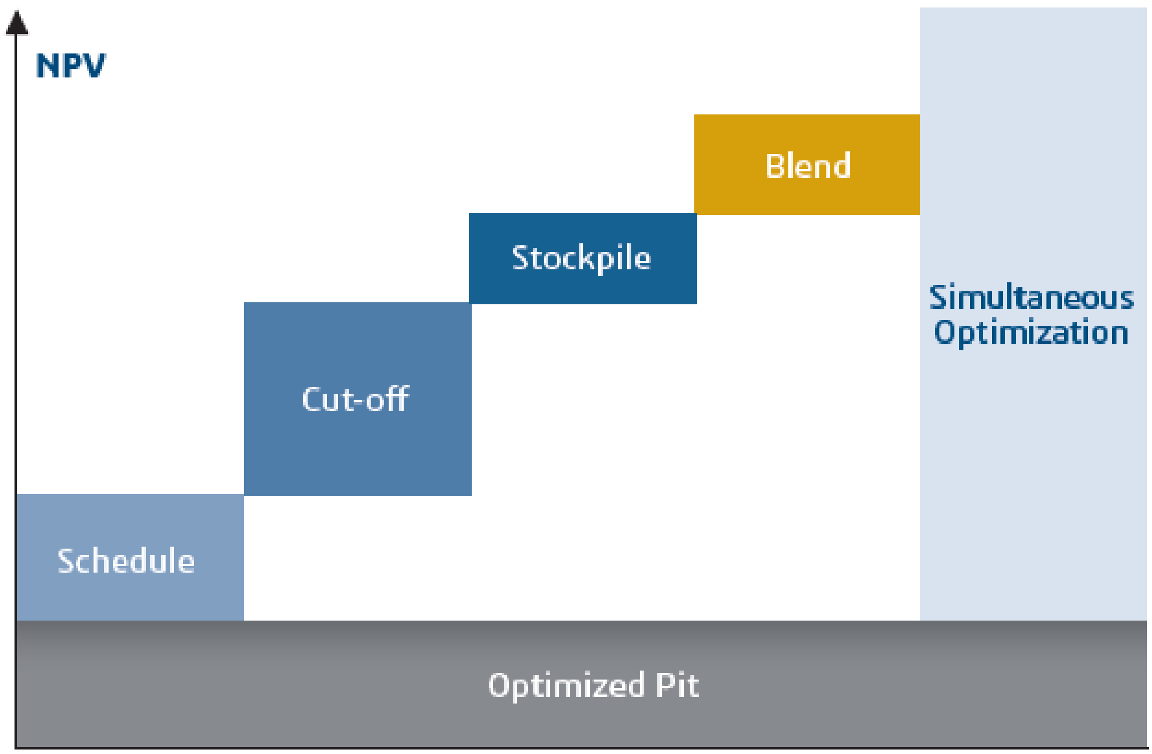


Figure 15-15: Simultaneous optimization

Source: Whittle Consulting., 2024

Several strategic mine planning scenarios were developed to meet cover material needs during construction of infrastructure such as the ROM pad, TSF wall, camp, truck shop, and process plant. In addition, construction of the road to the waste dump and main roads will use cover material and waste rock.

Finally, preference was given to stockpiling below cut-off grade mineralisation that could be processed in the future. A stockpile was designed to store approximately 20 million metric tonnes separate it from the rest of pure waste material. Further studies are required to determine if below cut-off grade mineralisation can be treated economically.

15.5.2 Selection of Theoretical Phases

The selection of theoretical phases was made based on a proposed processing capacity of 9,000 tpd or 3,150,000 tonnes per year. This considers an assumption of 350 plant operating days per year.

The criterion adopted was for each phase to contain enough ore to feed the plant for 2-3 years. A minimum loading width of 25 meters was selected according to the smallest space necessary to carry out efficient loading. Corresponding to the sum of the distances for manoeuvring equipment. The ends of the benches have smaller widths, so excavation in these sectors will be carried out by smaller equipment such as hydraulic excavators.

The Table 15-10 corresponds to the ore tonnage contained in each nested open pit considering the price of the elements multiplied by the pit Revenue Factor.

The Table 15-14 shows the adjusted tonnage capacity estimate of the nested pits:

Table 15-14: Nested pit tonnage capacity estimates at planning prices

Pit	Total Rock (000 t)	Ore (000 t)	Waste (000 t)	Strip Ratio	Au (g/t)	Ag (g/t)	AgEq (g/t)
1	2,387	81	2,306	28.46	0,20	1123	1139
2	2,389	83	2,306	27.71	0,20	1104	1120
3	12,961	1,698	11,263	6.63	0,90	309	395
4	22,986	3,728	19,257	5.17	0,60	275	329
5	27,995	4,967	23,027	4.64	0,66	254	311
6	36,612	6,783	29,829	4.40	0,76	237	302
7	46,676	8,627	38,049	4.41	0,79	230	298
8	47,047	8,712	38,335	4.40	0,79	229	298
9	48,690	9,174	39,515	4.31	0,80	225	294
10	49,225	9,332	39,892	4.27	0,80	224	292
11	49,732	9,528	40,204	4.22	0,79	222	290
12	52,427	9,980	42,446	4.25	0,78	221	287
13	63,589	12,450	51,139	4.11	0,80	203	270
14	64,789	12,735	52,054	4.09	0,80	201	269
15	65,210	12,856	52,353	4.07	0,80	200	268
16	68,278	13,464	54,814	4.07	0,78	199	264

Pit	Total Rock (000 t)	Ore (000 t)	Waste (000 t)	Strip Ratio	Au (g/t)	Ag (g/t)	AgEq (g/t)
17	71,480	13,789	57,691	4.18	0,77	199	264
18	73,866	14,415	59,451	4.12	0,77	195	259
19	76,116	14,551	61,565	4.23	0,77	195	260
20	78,150	15,226	62,924	4.13	0,76	191	255
21	79,308	15,529	63,779	4.11	0,76	189	253
22	79,955	15,649	64,305	4.11	0,75	189	252
23	83,981	16,689	67,292	4.03	0,75	182	245
24	88,664	17,367	71,296	4.11	0,74	180	242
25	90,044	17,700	72,343	4.09	0,74	178	240
26	94,061	18,554	75,506	4.07	0,74	174	237
27	100,283	19,581	80,702	4.12	0,75	169	233
28	101,161	19,790	81,371	4.11	0,75	169	232
29	101,907	19,964	81,942	4.10	0,75	168	231
30	102,208	20,095	82,112	4.09	0,75	167	230
31	119,235	23,834	95,401	4.00	0,78	149	214
32	119,825	24,012	95,812	3.99	0,78	148	213
33	157,588	31,360	126,228	4.03	0,86	121	193
34	159,343	31,707	127,636	4.03	0,86	120	193
35	165,640	32,749	132,891	4.06	0,84	120	191
36	167,073	33,010	134,063	4.06	0,84	120	190
37	168,563	33,439	135,124	4.04	0,84	119	189
38	169,629	33,843	135,785	4.01	0,84	118	188
39	180,939	35,931	145,007	4.04	0,84	113	184
40	181,196	36,039	145,156	4.03	0,84	113	184
41	182,494	36,327	146,166	4.02	0,84	112	183
42	183,690	36,765	146,924	4.00	0,84	112	182
43	183,960	36,878	147,082	3.99	0,84	111	182
44	187,143	37,580	149,563	3.98	0,84	110	180
45	188,066	37,921	150,144	3.96	0,84	109	180
46	195,982	39,051	156,930	4.02	0,84	107	178
47	197,931	39,399	158,531	4.02	0,84	106	177
48	199,218	39,722	159,496	4.02	0,84	106	176
49	199,297	39,763	159,533	4.01	0,84	106	176
50	202,989	40,191	162,797	4.05	0,84	105	176
51	206,597	40,683	165,913	4.08	0,83	105	175
52	206,830	40,764	166,066	4.07	0,83	105	175
53	207,506	40,892	166,614	4.07	0,83	104	175
54	208,377	41,030	167,347	4.08	0,83	104	174
55	209,077	41,238	167,839	4.07	0,83	104	174
56	209,470	41,340	168,129	4.07	0,83	104	174
57	210,412	41,505	168,906	4.07	0,83	104	173
58	211,506	41,773	169,733	4.06	0,83	103	173
59	212,200	41,936	170,264	4.06	0,83	103	172
60	212,623	42,031	170,591	4.06	0,83	103	172
61	214,676	42,337	172,339	4.07	0,83	102	172
62	215,093	42,449	172,643	4.07	0,82	102	171

Pit	Total Rock (000 t)	Ore (000 t)	Waste (000 t)	Strip Ratio	Au (g/t)	Ag (g/t)	AgEq (g/t)
63	215,310	42,528	172,781	4.06	0,82	102	171
64	215,493	42,613	172,879	4.06	0,82	102	171
65	238,265	45,182	193,083	4.27	0,83	97	167
66	238,696	45,322	193,373	4.27	0,83	97	167
67	239,793	45,443	194,350	4.28	0,83	97	167
68	240,635	45,565	195,070	4.28	0,83	97	166
69	250,366	46,231	204,135	4.42	0,83	96	166
70	250,848	46,294	204,553	4.42	0,83	95	166
71	251,218	46,360	204,858	4.42	0,83	95	165
72	251,361	46,405	204,956	4.42	0,83	95	165
73	251,653	46,466	205,186	4.42	0,83	95	165
74	252,133	46,569	205,564	4.41	0,83	95	165
75	252,363	46,644	205,719	4.41	0,83	95	165
76	253,641	46,789	206,851	4.42	0,83	95	165
77	255,999	47,004	208,994	4.45	0,83	95	164
78	260,866	47,395	213,471	4.50	0,83	94	164
79	260,952	47,430	213,522	4.50	0,83	94	164
80	261,391	47,524	213,867	4.50	0,83	94	164
81	261,566	47,580	213,986	4.50	0,83	94	163
82	261,837	47,636	214,201	4.50	0,83	94	163
83	263,857	47,922	215,935	4.51	0,82	93	163
84	264,833	48,017	216,815	4.52	0,82	93	163
85	264,970	48,071	216,898	4.51	0,82	93	162
86	267,706	48,217	219,489	4.55	0,82	93	162
87	268,385	48,289	220,096	4.56	0,82	93	162
88	268,997	48,383	220,613	4.56	0,82	93	162
89	269,372	48,450	220,921	4.56	0,82	93	162

**Note: Tonnages and grades reported are totals, i.e., cumulative and do not represent the incremental contribution of each open pit.*
***Note: All figures are rounded to reflect the relative accuracy of the estimates. Minor discrepancies may occur due to rounding to appropriate significant figures.*

Based on the tonnage estimate and the phase selection criteria, the open pits chosen as theoretical phases can be visualized in Table 15-15.

Table 15-15: Tonnage capacity estimate of theoretical phases

Pit	Total Rock (000 t)	Ore (000 t)	Overburden (000 t)	Feed Years	Au (g/t)	Ag (g/t)	AgEq (g/t)
6	36,612	6,783	29,829	2.2	0.77	237	302
17	34,867	7,006	27,861	2.2	0.78	162	227
31	47,754	10,044	37,710	3.2	0.79	80	145
36	47,838	9,176	38,662	2.9	1.00	44	128
60	45,549	9,021	36,528	2.9	0.79	41	107
89	56,748	6,418	50,330	2.0	0.80	27	94

A series of vertical cross sections have been prepared to display their extents. Found below in Figure 15-16 to Figure 15-19.

The first theoretical phase is observed to have 2 independent cones. The mining growth trend of the following phases is towards the northeastern sector of mineralization.

In section AA', horizontal growth of the theoretical phases is observed in greater proportion than vertical growth in Oculto and JAC. In section BB', horizontal and vertical growth of the theoretical phases is observed in Oculto. No significant horizontal and vertical mining growth of theoretical phases is observed in section CC' in JAC.

It is important to mention that theoretical phases are a guide for the operationalization of the open pit. However, the boundaries of each theoretical phase may not coincide with the operational phase. Primarily due to required widths for operation.

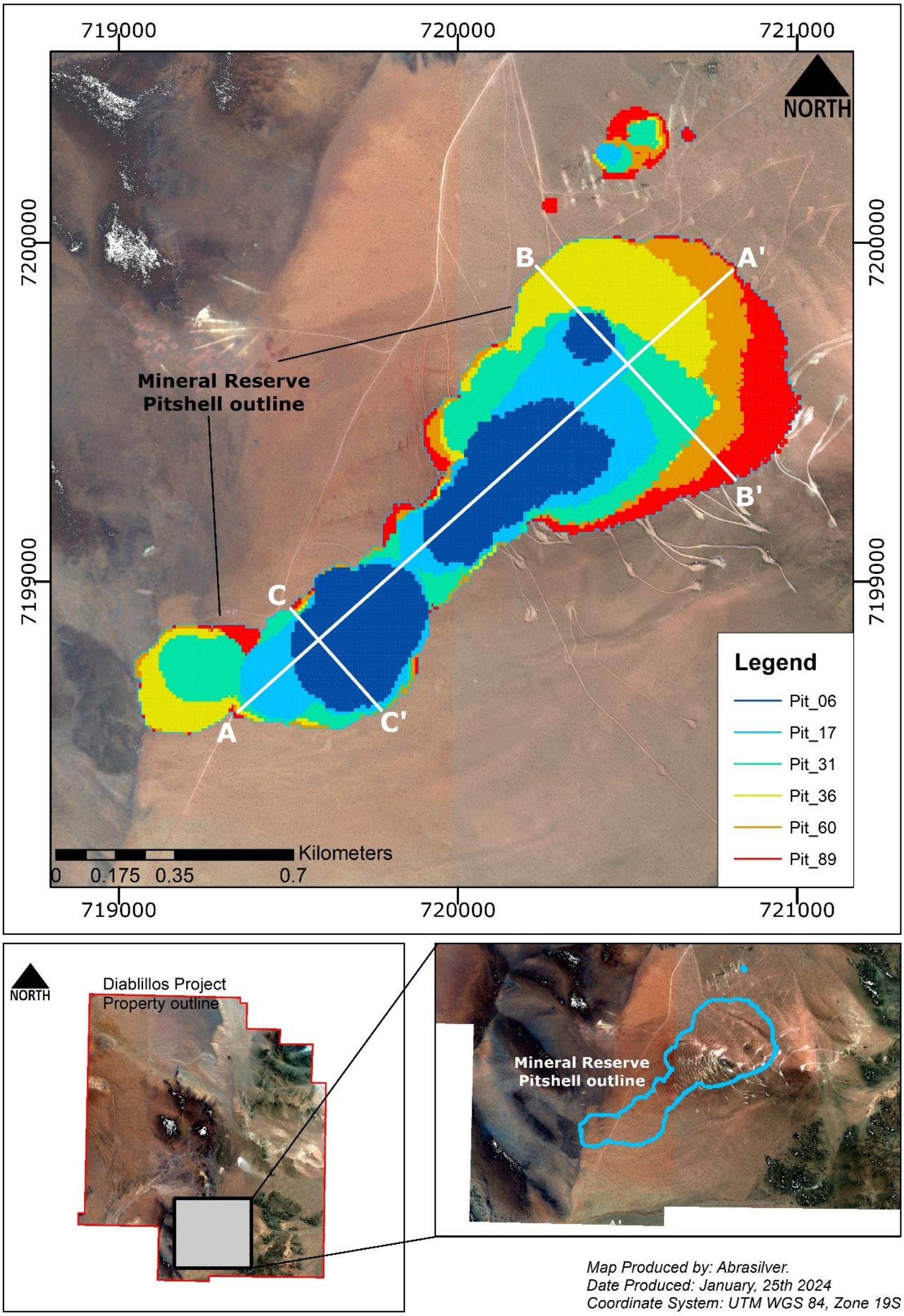


Figure 15-16: Theoretical phases.

Source: AbraSilver Resource Corp., 2024

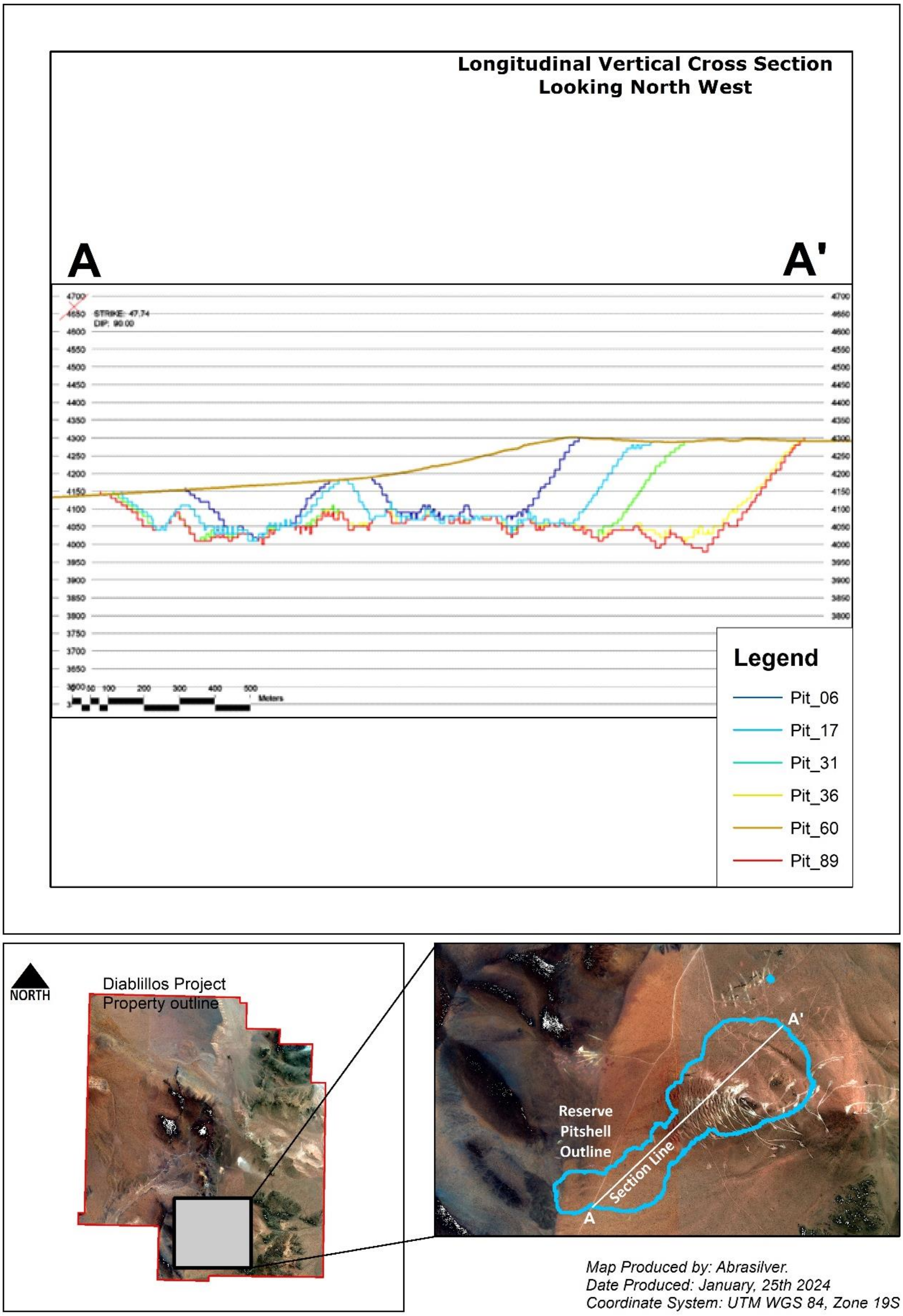


Figure 15-17: Theoretical phases, vertical section AA'

Source: AbraSilver Resource Corp., 2024

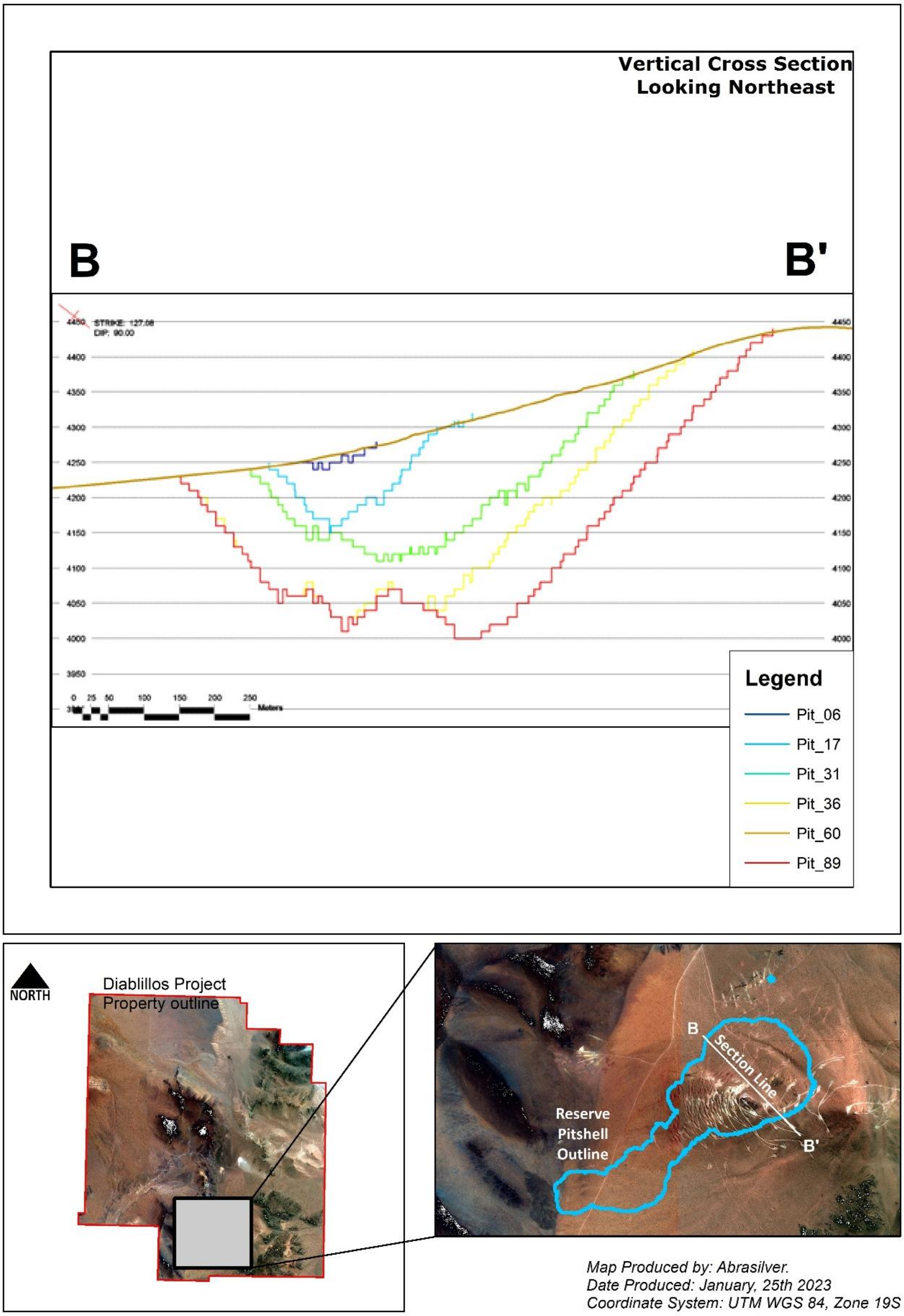


Figure 15-18: Theoretical phases, vertical section BB'

Source: AbraSilver Resource Corp., 2024

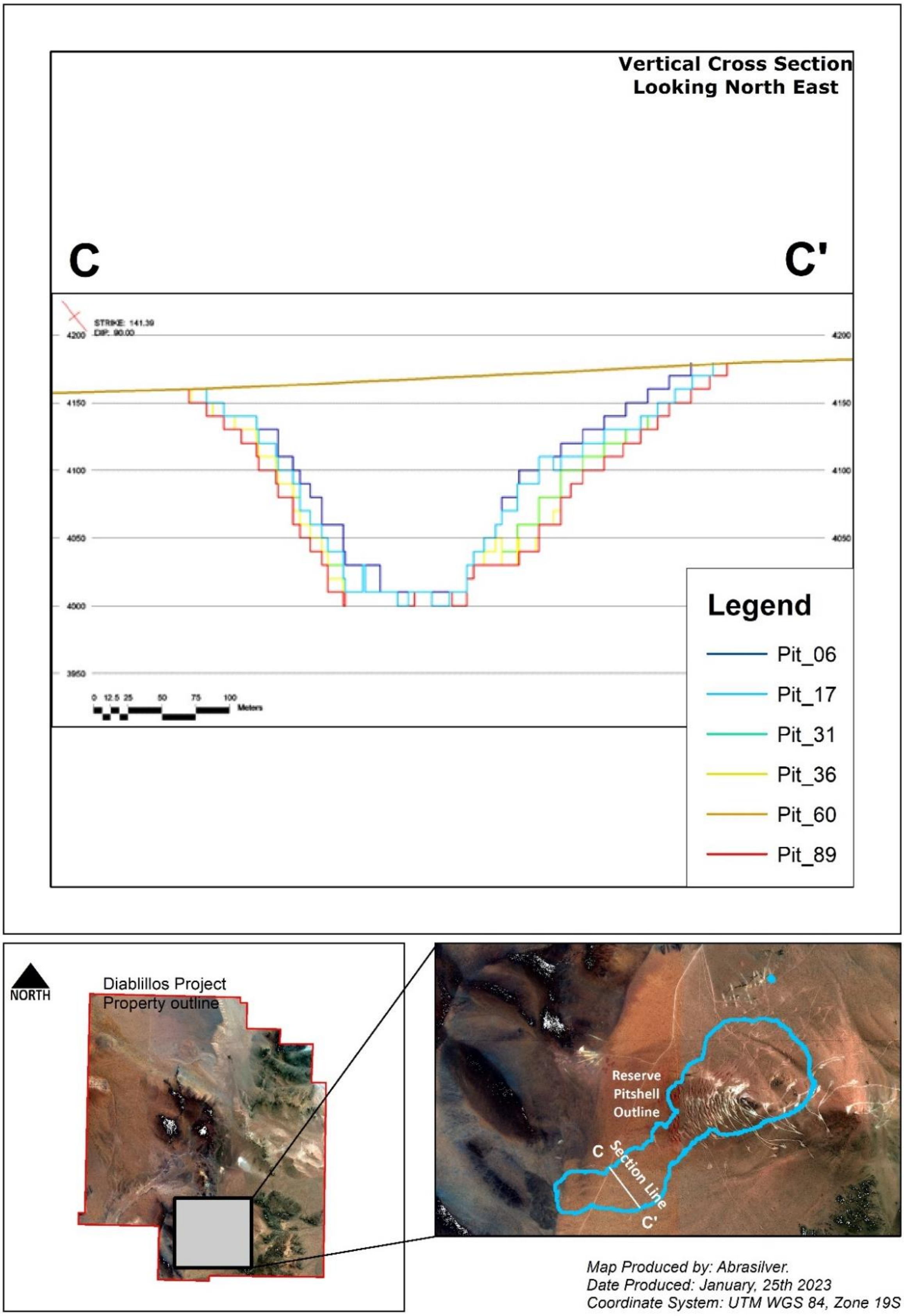


Figure 15-19: Theoretical phases, vertical section CC'

Source: AbraSilver Resource Corp., 2024

15.6 Mineral Reserve Statement

The Mineral Reserve estimate for the Diablillos Project shown in Table 15-16 has been estimated by Mr. Miguel Fuentealba, MAusIMM, P. Eng (QP). It is based on the Mineral Resource block model documented in Section 14 of this report, entitled “Mineral Resource Estimates”.

The Mineral Reserve estimate is calculated using a combination of the final pit (Section 15.4.2) and the production plan (Section 16.2).

The following Table 15-16 shows a summary of the estimated Mineral Reserves as of March 7, 2024.

Table 15-16: Proved and Probable Mineral Reserves as of March 7th, 2024

Mineral Reserve (all domains)	Tonnage (Mt)	Au (g/t)	Ag (g/t)	AgEq (g/t)	Contained Ag (000 oz Ag)	Contained Au (000 oz Au)	Contained AgEq (000 oz AgEq)
Proven	12.4	0.86	118	185	46,796	341	73,352
Probable	29.9	0.80	80	142	76,684	766	136,267
Total Proven and Probable	**42.3**	**0.81**	**91**	**154**	**123,480**	**1,107**	**209,619**

Notes for Mineral Reserve Estimate:

1. The Mineral Reserves have an effective date of March 07, 2024.
2. The Qualified Person for the Mineral Reserves Estimate is Mr. Miguel Fuentealba, P. Eng.
3. Mineral Reserves were estimated using the Canadian Code of the Canadian Institute of Mining, Metallurgy, and Petroleum (CIM), Definition of Standards for Mineral Resources and Mineral Reserves, prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.
4. The Mineral Reserves are based on a pit design which is aligned with the ultimate pit selected during the optimization process performed at Whittle.
5. Estimated reserves at a sale price of US$1,750 per ounce of Au and US$22.5 per ounce of Ag.
6. Variable mining cost per bench and type of material was applied. Average cost of 1.94 US$/t for all lithologies, except for cover, where a cost of 1.73 US$/t is applied.
7. Processing cost for all zones is US$22.97/t.
8. Infrastructure, general, and administrative costs amount to US$3.32/ton.
9. The average pit angles range from 37° to 60°, depending on the geotechnical zone domain.
10. The average recovery is estimated at 82.6% for silver and 86.5% for gold.
11. The formula for calculating Ageq is Ag eq oz = Ag oz + Au oz x (Au Price/Ag Price).
12. Mineral Reserves Estimates have been categorized according to CIM Standard definitions (CIM, 2014).
13. A net value per block (“NVB”) was used to restrict the Mineral Reserves within the pitshell. The NVB is based on “Profit = Revenue - Costs”, being positive, where, Revenue = [(Au Price (US$/oz) - Au Sales Cost (US$/oz) x (Au Grade (g/t)/31.1035))x Au Recovery (%)]+[(Ag Price (US$/oz) - Ag Sales Cost (US$/oz) x (Ag Grade (g/t)/31. 1035) x Ag Recovery (%) and cost as, Cost = Mine Cost (US$/t) + Process Cost (US$/t) + Transportation Cost (US$/t) + General and Administrative Costs (US$/t) + [Royalty Cost (%) x Revenue]. The NVB method matches an equivalent cut-off grade of 46 g/t Ageq.
14. In situ density is read directly from the block model, previously assigned for each domain during the mineral resource estimation process, according to averages of samples from each lithological domain, separated by alteration and oxidation zones.
15. All tonnages reported are in dry metric tons and ounces of gold and silver contained in troy ounces.
16. Mining plan considers 298 Mt of waste rock, corresponding to a waste to ore ratio of 6.7. Waste rock from period -2 is considered CAPEX.
17. Ore is considered to be that which complies with profit greater than zero, measured or indicated resource, is within the designed operating phases, oxidation state is oxide, any lithology except cover.
18. Recoveries were estimated by geometallurgical domain within each block.
19. Figures are approximate due to rounding.
20. Au and Ag metal is considered in situ.

15.7 Factors Affecting Mineral Reserve Estimates

Various technical and economic factors can affect a Mineral Reserve estimate. These include dilution, metal prices, off-site costs, metallurgical recoveries, open pit slope designs, capital, and operating cost estimates. In the opinion of Mr. Fuentealba (QP), the factors affecting the Mineral Reserve have been adequately considered. The main factors affecting the Mineral Reserve reported in this section are:

- Metal sales prices, particularly silver price, accounting for a 58% share of total revenues.
- Open pit design parameters that should be validated by a future geotechnical study. This will reduce risk of a decrease in strip ratio.

The Mineral Reserve estimate has considered all known legal, political, environmental, or other risks that could materially affect potential development as discussed in this Technical Report.

15.8 Comments on Section 15 from the QP

This document represents technical and economic conditions based on the data received and generated during the prefeasibility stage of the Project. This document is valid as of December 31, 2024. Given the nature of the mining business, the aforementioned conditions may be change due to advances in technology and/or the global economic situation. In this case the results of the study may vary significantly.

A margin of error must also be considered due to the rounding of figures used in the process; however, in the opinion of the QP, these are negligible.

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The project has many possibilities to expand its Mineral Reserves by investing in geotechnical testing, exploration and in-fill campaigns. There are sectors of the pit that can be modified with a higher overall slope angle, potentially improving strip ratio.

There is the possibility of converting some marginal resources by exploring blending or other processes such as heap leaching.

16 MINING METHODS

Being a large, near-surface orebody, the Diablillos Project will be developed as an open pit mining operation. Waste and ore will be drilled, blasted, loaded by hydraulic shovels/loaders, and transported by haul trucks. Either to external waste storage facilities (WSF), long-term stockpiles, or a run-of-mine (ROM) pad to feed a primary crusher for mineral processing.

An optimal processing throughput rate of 9,000 tonnes per day (tpd) was established on raw water availability from the explored Barranquillas district. This plant throughput rate became the basis of all subsequent mine planning. The project has several stockpile facilities to allow processing of higher-grade material while stockpiling low-grade material.

Ore control technicians will oversee grade control; this is the procedure to differentiate ore from waste. In the Diablillos Project, this will require the sampling of blast holes and the classification of bench materials. Being primarily classified as ore, low-grade ore or waste. In some cases, grade control could also involve the sampling of truck or loader to ensure material is assigned to the correct stockpile or waste dump. The objective is to ensure mining closely follows the mineralized zone and that overbreak is kept to a minimum.

The PFS considers only one mineral processing flowsheet, which is comminution, gravity recovery followed by intense cyanidation, tank leaching, Merrill-Crowe recovery and foundry. Below cut-off grade marginal mineralization is currently being treated as waste. A preliminary internal study suggested it may be amenable to other low-cost processing technologies, which could be confirmed by further test work. The current PFS calls for grade control to only differentiate waste from ore and direct feed ore from stockpiled ore. Given insufficient data to define another extraction process at this stage, a specific waste rock dump area has been reserved to stockpile low grade mineralization for future use.

16.1 Introduction

This section describes the operational design of the mining phases, and mine planning that underpins the Mineral Reserves of the Diablillos Project. The Diablillos ore bodies are feasible to mine through open pit mining and the Merrill-Crowe method is suitable for processing.

16.2 Mine Design Criteria

Benches in each phase will be mined to a height of 10 meters for all types of material. A 22-meter-wide transport ramp with a 10% slope will be used to allow off-road trucks of 100 metric tonnes to travel in both directions (double track). This width considers safety berms, rainwater ditches, and minimum centre separation.

Figure 16-1 shows the profile of the internal mine haulage ramp and Figure 16-2 shows the diagram for the directional turns. A 13-meter decoupling berm is considered every 90 meters of slope height when no ramp passes through the wall. The average inter-ramp angles for the different pit walls range from 33 to 54 degrees. A summary of the pit design parameters is shown in Table 16-1.

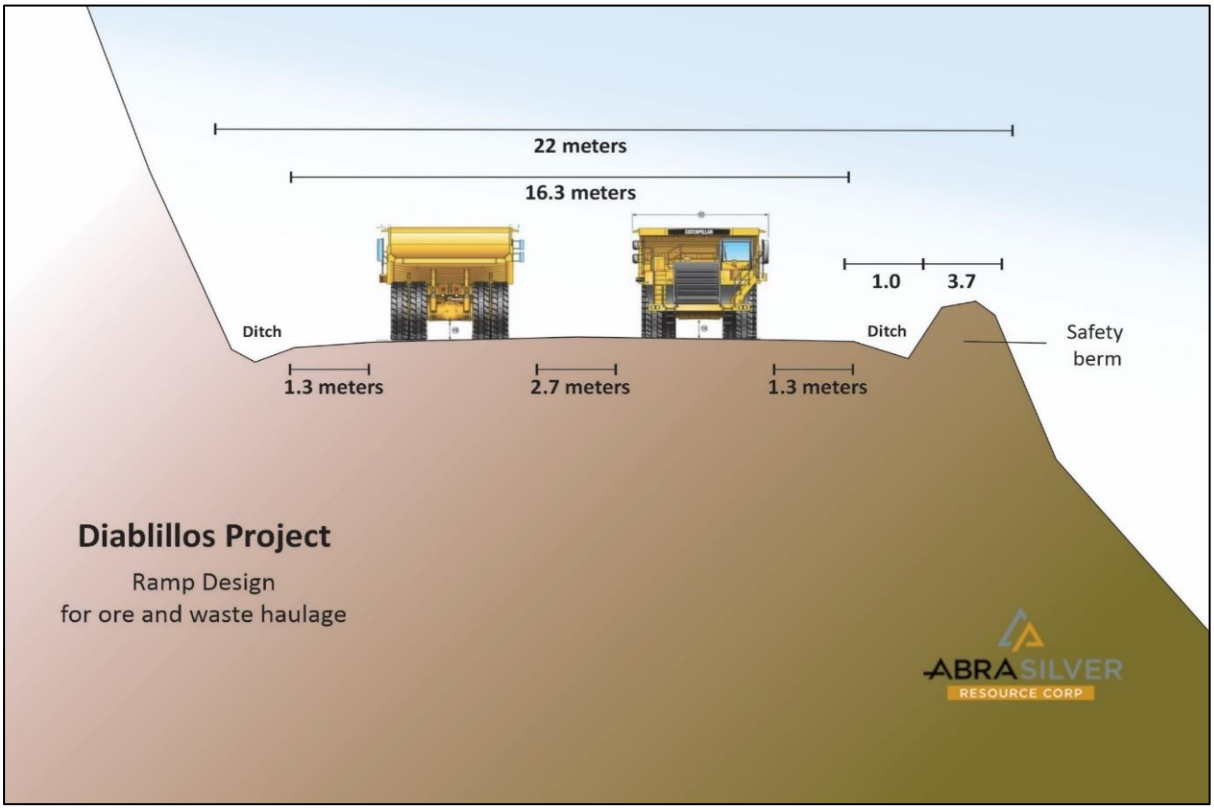


Figure 16-1: Haulage ramp design parameters

Source: AbraSilver Resource Corp., 2023

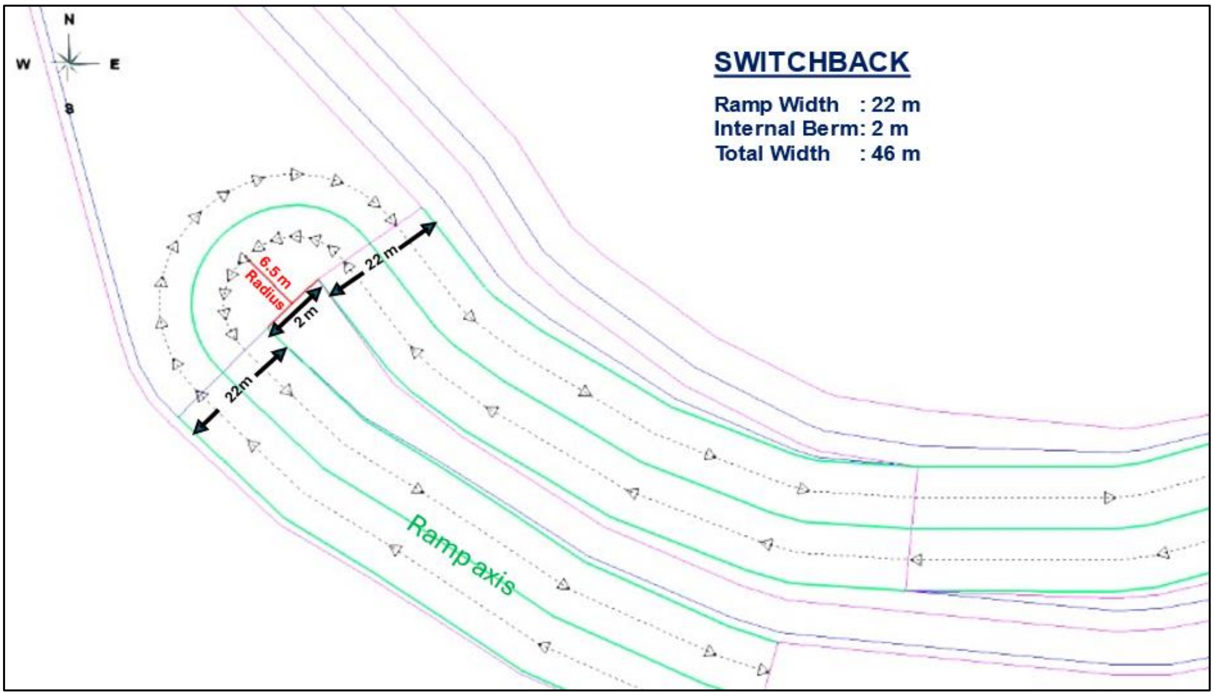


Figure 16-2: Haulage ramp turning radius

Source: AbraSilver Resource Corp., 2023

Table 16-1: Pit design parameters

Parameter	Units	Value	Comments
Bench height	Meters	10	
Bench face angle	Degrees	60-80	According to geotechnical zone
Berm width	Meters	4.5-11.76	According to geotechnical zone
Geotechnical berm	Meters	12-13	Each 120m of high
Inter ramp slope angle	Degrees	34.7-57.8	
Ramp width	Meters	22	Allows for double lane traffic
Maximum slope	%	10	

16.2.1 Final Open Pit Design

The ultimate designed operational pit has an approximate azimuth of 49 degrees in a southwest to northeast direction. Its dimensions are 2,360 meters long by 1,005 meters wide. Its deepest part reaches 4,000 masl (meters above sea level) in the sector known as Oculto, followed in depth by the JAC sector at 4,020 masl. The highest part of the slope is found at approximately 600 meters. The ultimate pit, shown in Figure 16-3, also considers a minimum of two pit exits in any period to comply with local legislation.

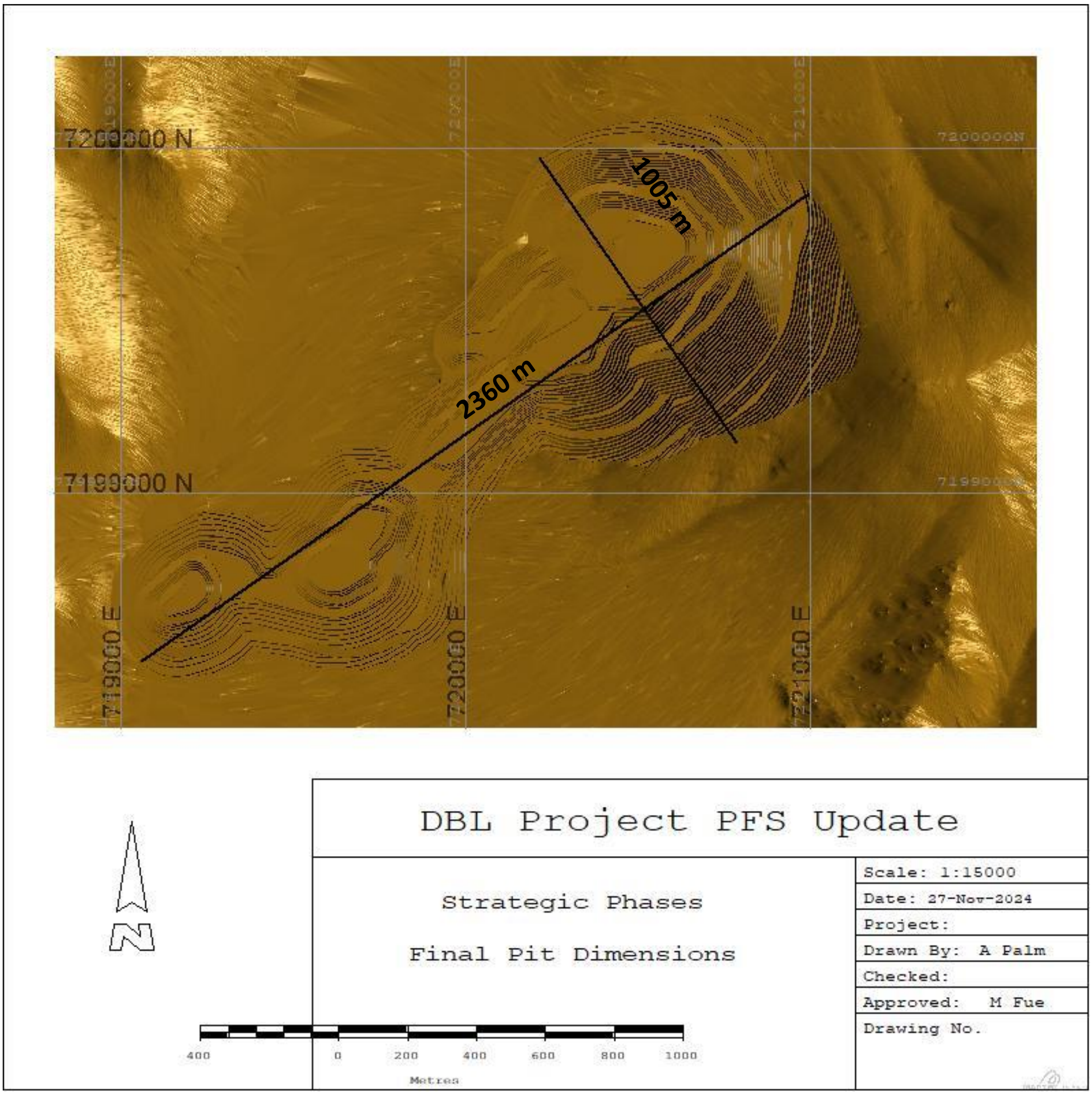


Figure 16-3: Final pit dimensions

Source: AbraSilver Resource Corp., 2023

Figure 16-4 shows the Oculto sector, which, due to its height, involves 6 geotechnical decoupling berms and 5 ramp passes. The highest wall contains a total of 64 benches.

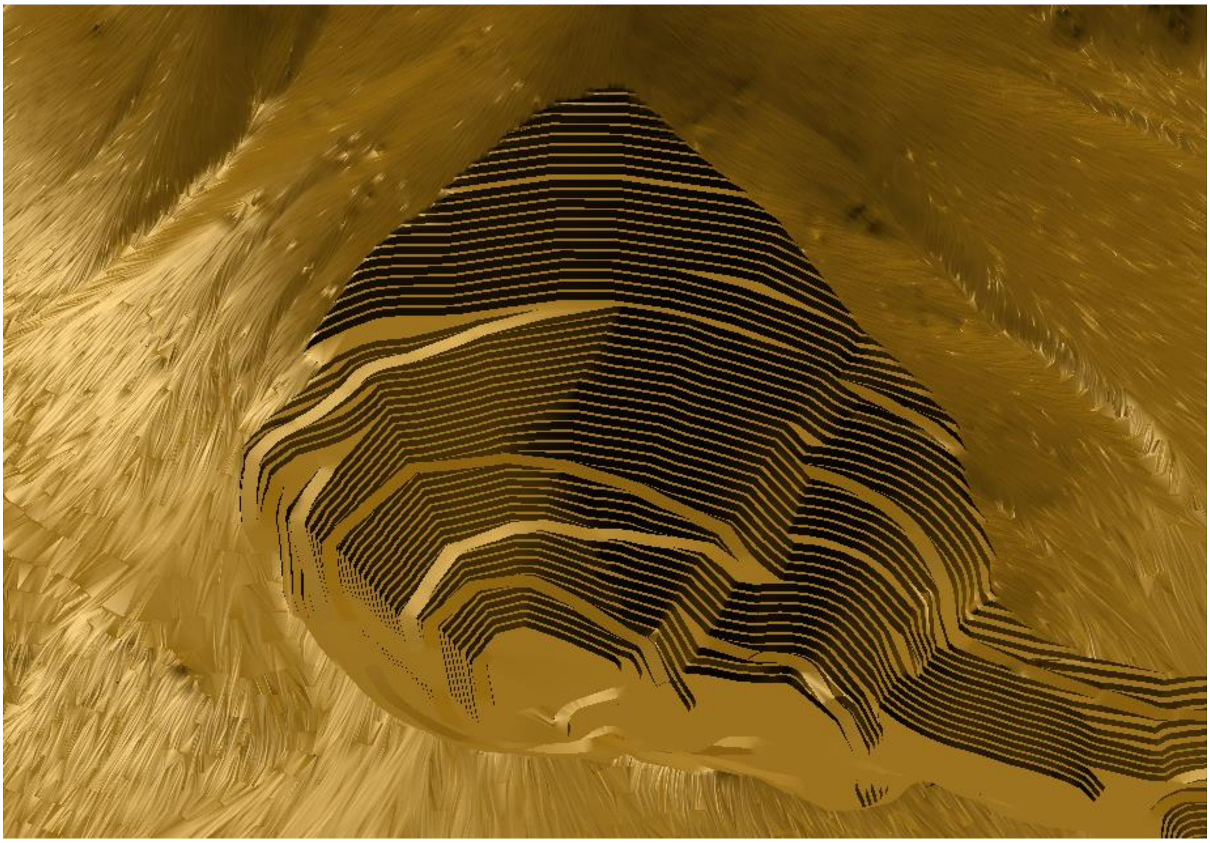


Figure 16-4: Oculto sector

Source: AbraSilver Resource Corp., 2023

16.2.2 Operating Phase Design

As mentioned in Chapter 15, after selecting theoretical phases ten operating phases of the project were designed. The first phases were made to align with the construction plan and to have necessary material to build platforms for main infrastructure. The operating phases are shown in Figure 16-5 below.

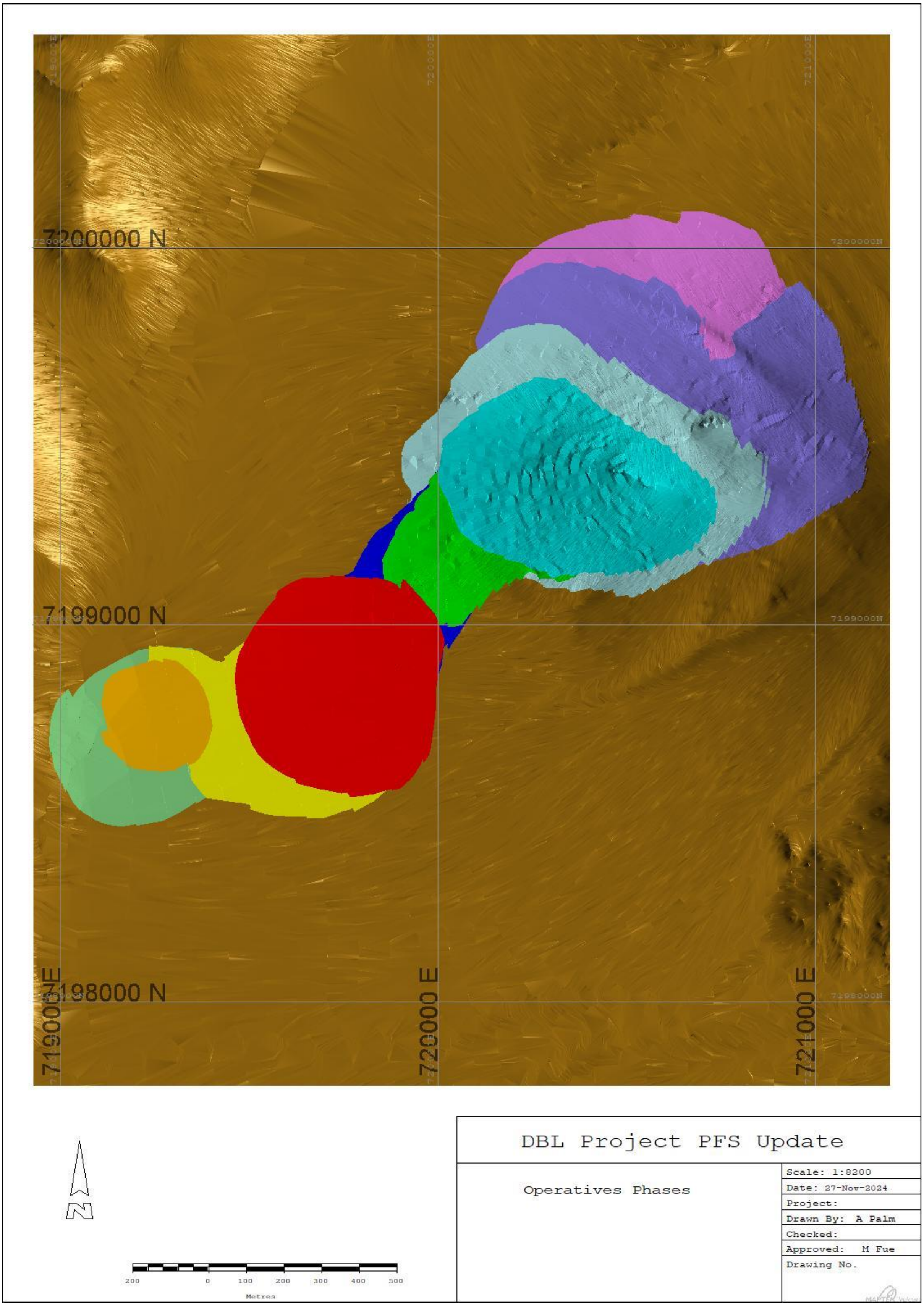


Figure 16-5: Operating Phases

Source: AbraSilver Resource Corp., 2024

The cubic capacity estimates of material that meets the conditions set forth in Table 15-9 of Chapter 15 are the proven reserves plus probable reserves of the project shown in Table 16-2. Table 16-3 shows the waste rock of each phase. Figure 16-6 shows the sinking ratio.

Table 16-2: Proven and probable reserves by phase

Proven Reserves						
Phase	Ore tonnes (kt)	Au (g/t)	Ag (g/t)	Aueq (g/t)	Ageq (g/t)	Ageq (toz)
F02_108	2,978	0.84	171	3.03	236	22,592
F04_101	831	0.98	173	3.20	249	6,647
F05_120	1,451	0.19	220	3.02	235	10,966
F06_140	286	0.09	171	2.29	178	1,639
F08_160	3,148	0.92	92	2.10	163	16,504
F09_170	1,736	1.02	48	1.63	127	7,078
F10_180	1,827	1.26	24	1.58	123	7,200
F11_114	108	0.44	175	2.68	209	725
Total Proven Reserves	12,364	0.86	118	2.37	185	73,352

Probable Reserves						
Phase	Ore tonnes (kt)	Au (g/t)	Ag (g/t)	Aueq (g/t)	Ageq (g/t)	Ageq (toz)
F02_108	2,738	0.82	150	2.74	213	18,780
F03_130	1	0.05	357	4.65	361	9
F04_101	1,529	0.70	158	2.74	213	10,463
F05_120	1,634	0.15	219	2.97	231	12,137
F06_140	507	0.10	218	2.90	226	3,680
F07_150	646	0.03	133	1.74	135	2,811
F08_160	7,102	0.71	85	1.80	140	32,023
F09_170	7,346	0.84	47	1.45	113	26,615
F10_180	8,233	1.08	24	1.39	108	28,672
F11_114	195	0.38	142	2.20	172	1,076
Total Probable Reserves	29,930	0.80	80	1.82	142	136,267

Proven + Probable Reserves						
Phase	Ore tonnes (kt)	Au (g/t)	Ag (g/t)	Aueq (g/t)	Ageq (g/t)	Ageq (toz)
F02_108	5,716	0.83	161	2.89	225	41,372
F03_130	1	0.05	357	4.65	361	9
F04_101	2,359	0.80	163	2.90	226	17,110
F05_120	3,085	0.17	220	3.00	233	23,103
F06_140	793	0.10	201	2.68	209	5,319
F07_150	646	0.03	133	1.74	135	2,811
F08_160	10,250	0.78	87	1.89	147	48,528
F09_170	9,082	0.87	47	1.48	115	33,694
F10_180	10,059	1.11	24	1.43	111	35,872
F11_114	303	0.40	154	2.38	185	1,801
Total Proven + Probable	42,294	0.81	91	1.98	154	209,619

Table 16-3: Waste by phase

Phase	Waste		
	Cover (kt)	Waste Other (kt)	Total (kt)
F02_108	5,987	42,272	48,259
F03_130	3,633	10	3,642
F04_101	1,999	11,612	13,611
F05_120	18,054	14,128	32,182
F06_140	8,004	5,667	13,670
F07_150	5,774	5,107	10,881
F08_160	4,278	54,111	58,389
F09_170	9,600	64,075	73,674
F10_180	5,551	76,333	81,884
F11_114	654	3,840	4,494
Total	63,534	277,153	340,687

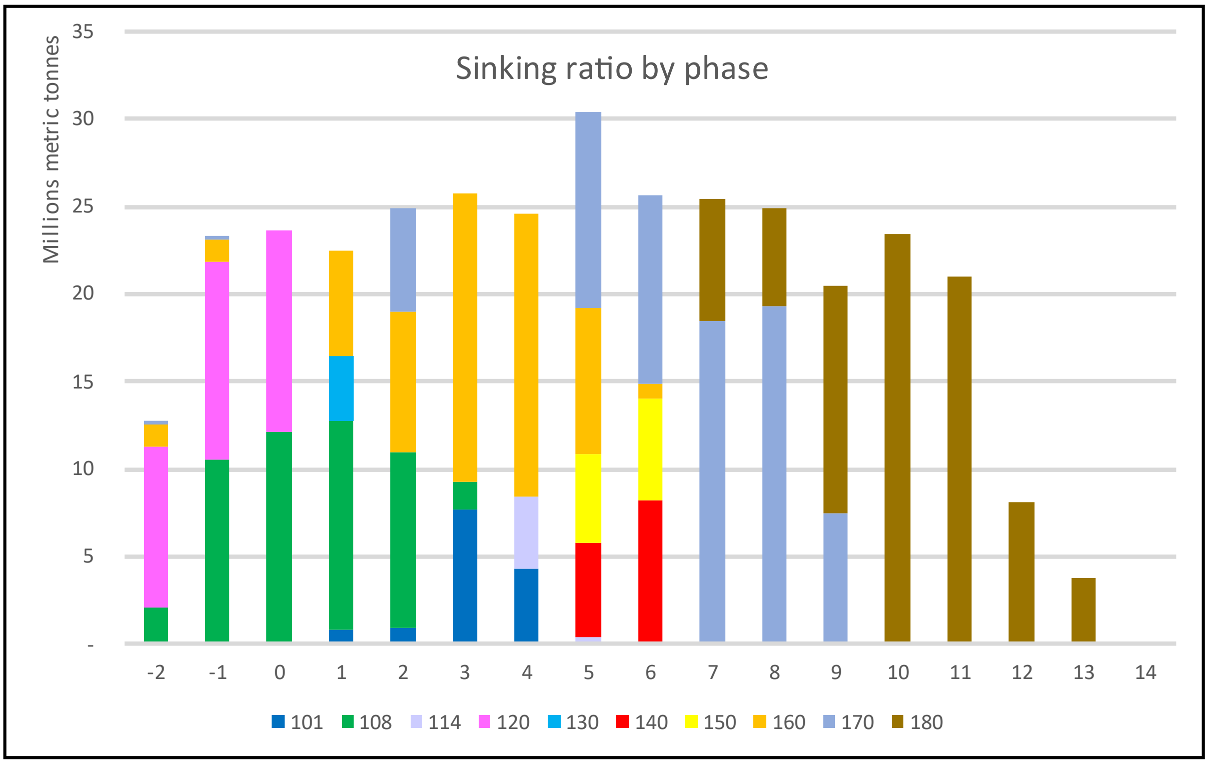


Figure 16-6: Sinking ratio by phase

Source: AbraSilver Resource Corp., 2024

16.3 Mining Plan

The useful life of the mine will be 17 years, including 2 pre-production years called the -2 and -1 periods. Feed to the process plant will begin during period -1 beginning a ramp up to full production. An average mining rate of between 20 and 25 million metric tonnes is considered over the mine life.

16.3.1 Pre-Production Activities

During the pre-production stage, main infrastructure platforms for the camp, contractor's yard, truck shop platform north dump road, tailings dam road and ore stockpile platform for primary crushing will be built (Figure 16-7).

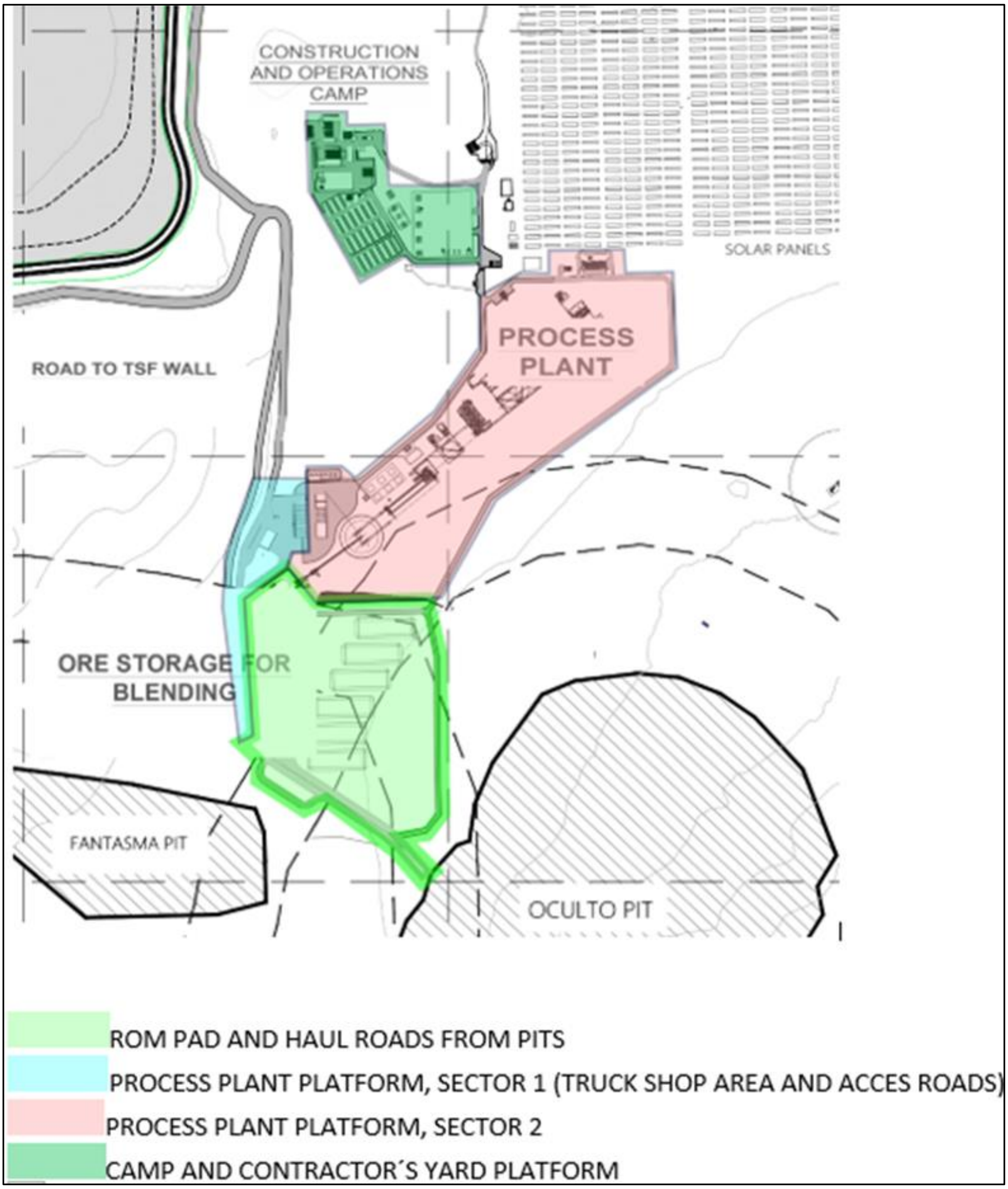


Figure 16-7: Platforms for facilities, infrastructure and roads

Source: AbraSilver Resource Corp., 2023

Cover material requirements:

- Contractors' camp and yard 88,000 m3
- Truck shop and main access road 310,000 m3
- Road to north waste dump and tailings dam wall 2,819,504 m3
- Rom pad platform 1,880,000 m3
- Process plant platform 915,000 m3

The demand for cover material for the pre-production stage is largely covered by the cover material present in the phases of the southwest sector of the deposit (Figure 16-8).

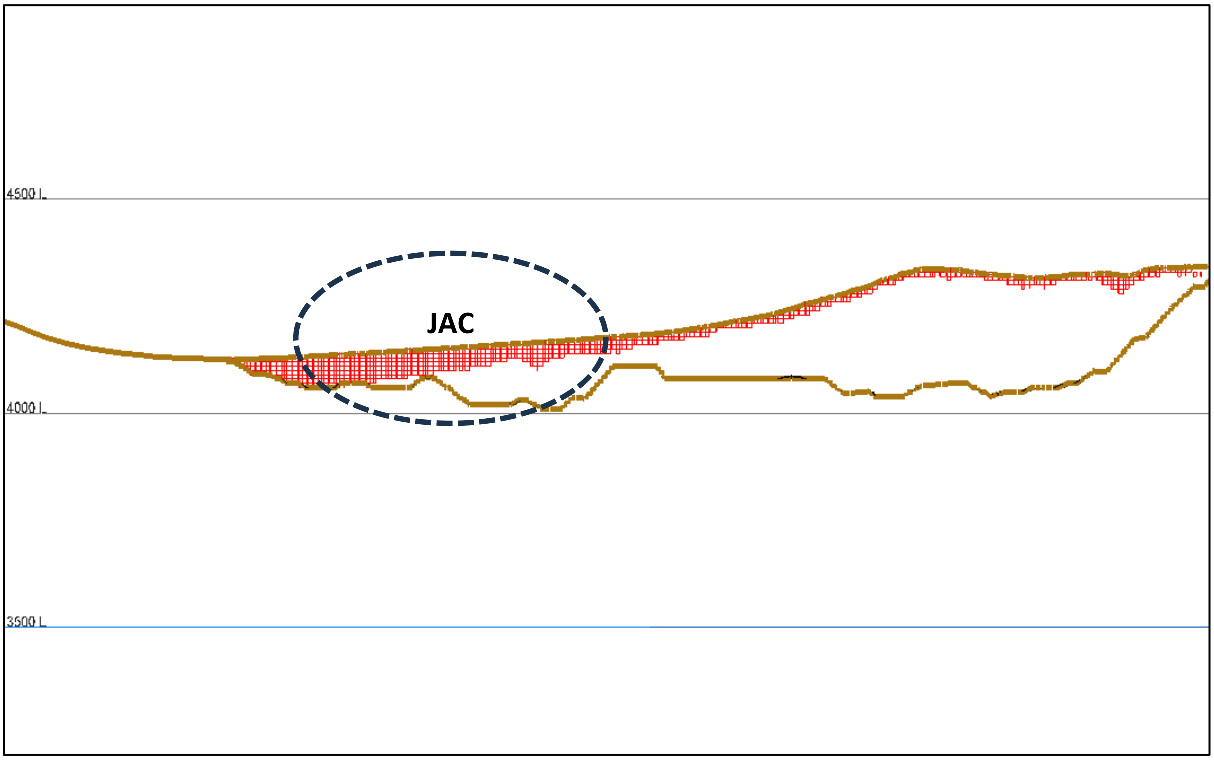


Figure 16-8: Cover in final pit increase in JAC

Source: AbraSilver Resource Corp., 2024

16.3.2 Mine Plan

The production plan considers a strategy that generates sufficient cover material during the first two years. Period -2 will be purely for uncovering waste rock. Ore will be sent to the plant towards the end of period -1 for commissioning. There will then be a ramp up to maximum plant capacity. Figure 16-9 shows the material moved by period while Figure 16-10 shows the material excavated by period.

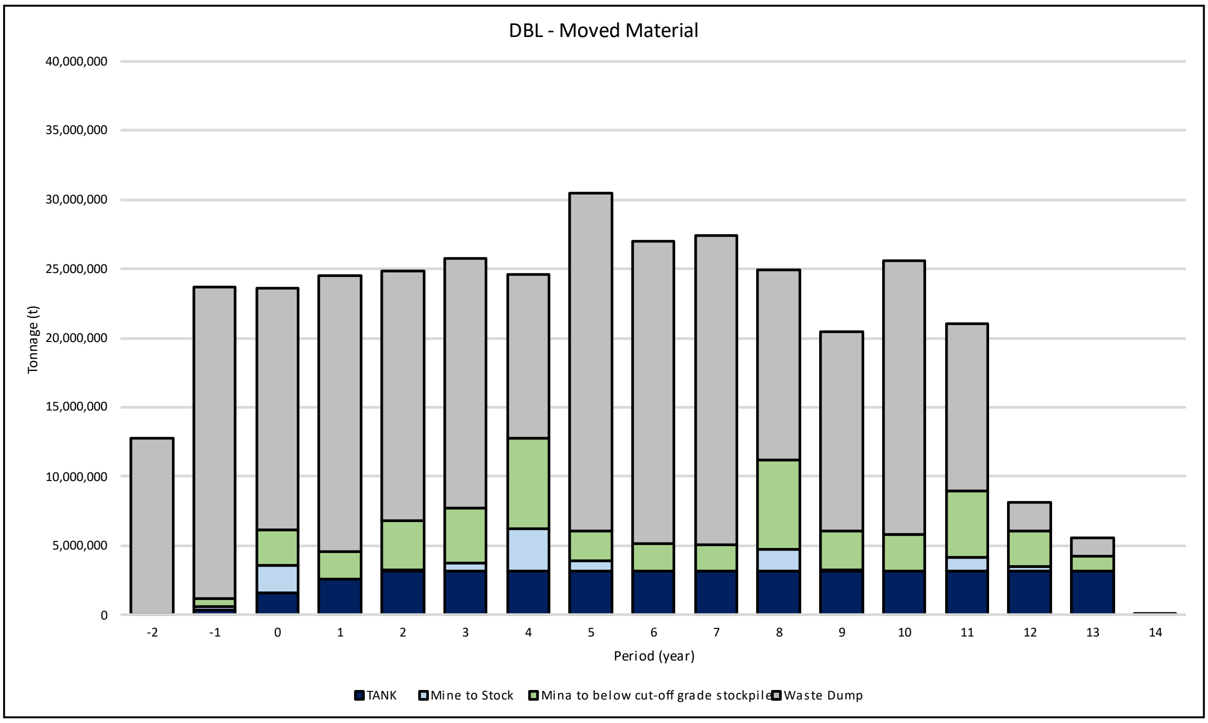


Figure 16-9: Movement material by period

Source: AbraSilver Resource Corp., 2024

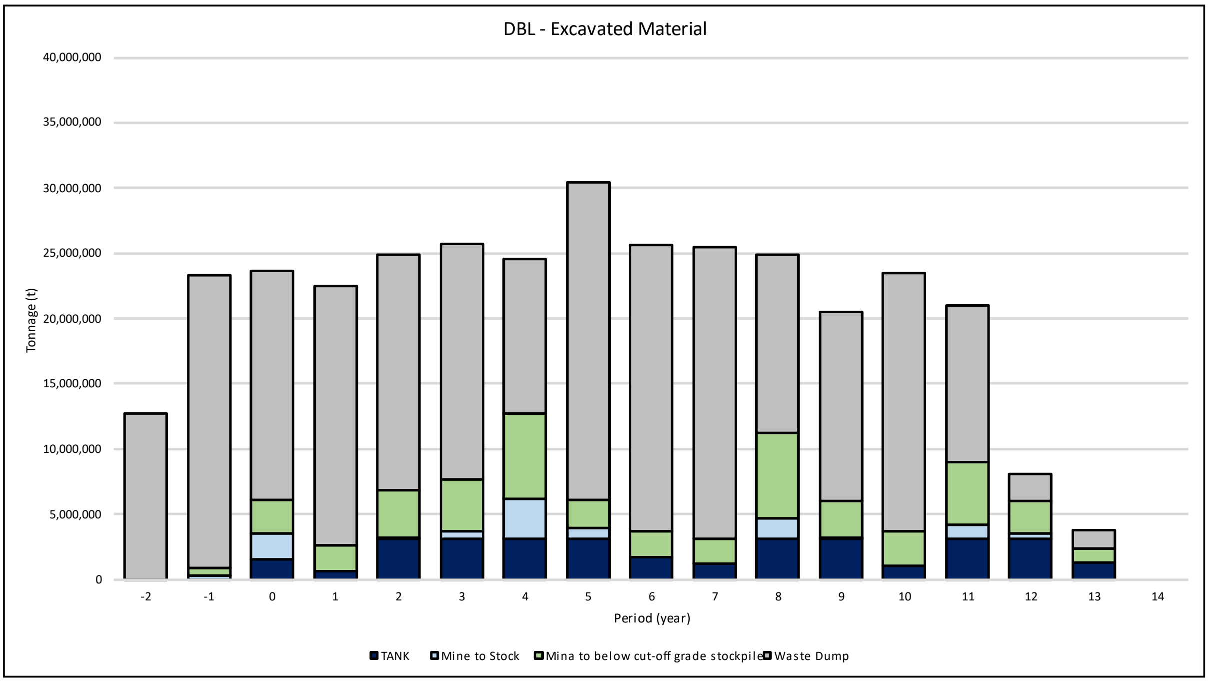


Figure 16-10: Mined material by period

Source: AbraSilver Resource Corp., 2024

The feed to the process plant is generally sent from the mine. However, there are years in which it will be necessary to stockpile ore to maintain maximum plant capacity. Figure 16-11 shows that in periods 1, 6, 7, 10, 13, and 14 it will be necessary to utilise stockpiles.

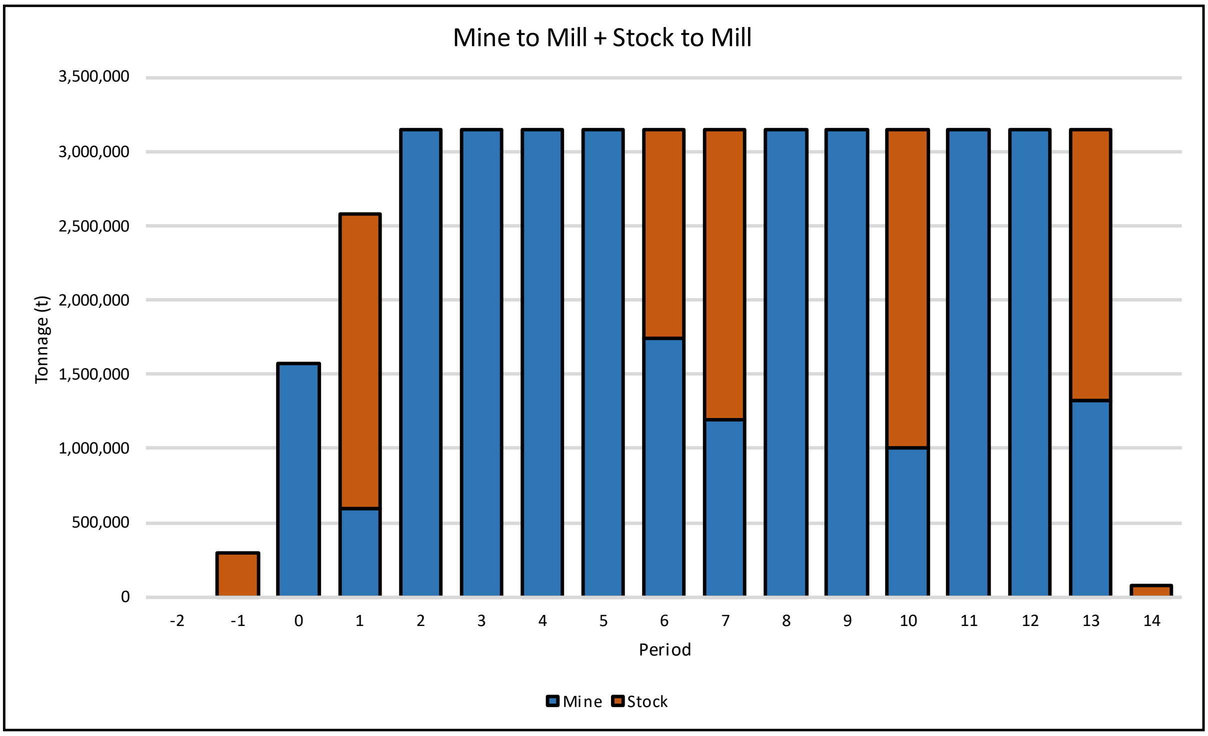


Figure 16-11: Source of plant feed

Source: AbraSilver Resource Corp., 2024

Table 16-4 shows total movement per period while Table 16-5 shows the production plan in detail. The ore from the different geometallurgical domains is shown separately due to differing metallurgical recoveries for gold and silver.

Table 16-4: Movement by period

Period	TANK			Mine to Stock	Mine to Marginal Stockpile	Stock to TANK	Waste Dump	Total Rock
	Tonnage (Mt)	Au (g/t)	Ag (g/t)	Tonnage (Mt)	Tonnage (Mt)	Tonnage (Mt)	Tonnage (Mt)	Tonnage (Mt)
-2	-	-	-	-	0.0	-	12.7	12.8
-1	0.3	0.67	77	0.3	0.6	0.3	22.5	23.6
0	1.6	0.49	90	2.0	2.6	-	17.5	21.7
1	2.6	0.34	229	-	2.0	2.0	19.9	26.5
2	3.1	0.47	204	0.1	3.6	-	18.0	24.8
3	3.2	0.85	126	0.6	4.0	-	18.0	25.1
4	3.2	0.58	88	3.1	6.5	-	11.8	21.5
5	3.1	1.23	82	0.8	2.2	-	24.4	29.7
6	3.2	0.50	153	-	2.0	1.4	21.9	28.4
7	3.2	0.61	123	-	1.9	2.0	22.3	29.4
8	3.2	0.58	53	1.5	6.5	-	13.7	23.4
9	3.2	1.33	26	0.1	2.8	-	14.4	20.4
10	3.2	0.64	56	-	2.7	2.1	19.8	27.7
11	3.2	1.01	29	1.0	4.8	-	12.0	20.0
12	3.1	1.35	18	0.4	2.5	-	2.1	7.7
13	3.2	1.15	20	-	1.1	1.8	1.4	7.4
14	0.1	1.24	22	-	-	0.1	0.0	0.2
Total	**42.3**	**0.81**	**91**	**9.7**	**45.8**	**9.7**	**252.6**	**350.4**

The "Mine to Marginal Stockpile" column shows material with marginal grade. A sector to the west of Jac will be available for stockpiling, with a capacity of 22 million metric tonnes. The waste rock to ore ratio is 8.28, which could decrease if a secondary heap leach process was to materialize. Stability studies may also increase overall angles on some walls.

Table 16-5: Mine movement

Material/Period	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Total
Ore Total to Plant (Mt)	-	0.30	1.57	2.58	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	0.08	**42.33**
Au (g/t)	-	0.67	0.49	0.34	0.47	0.85	0.58	1.23	0.50	0.61	0.58	1.33	0.64	1.01	1.35	1.15	1.24	**0.81**
Ag(g/t)	-	77	90	229	204	126	88	82	153	123	53	26	56	29	18	20	22	**91**
Mine to Plant (Mt)	-	-	1.6	0.6	3.2	3.2	3.2	3.2	1.7	1.2	3.2	3.2	1.0	3.2	3.2	1.3	-	**32.6**
Au (g/t)	-	-	0.49	0.68	0.47	0.85	0.58	1.23	0.27	0.45	0.58	1.33	0.48	1.01	1.35	1.06	-	**0.84**
Ag(g/t)	-	-	90	55	204	126	88	82	151	107	53	26	49	29	18	15	-	**80**
Stock to Plant (Mt)	-	0.3	-	2.0	-	-	-	-	1.4	2.0	-	-	2.1	-	-	1.8	0.1	**9.7**
Au (g/t)	-	0.67	-	0.24	-	-	-	-	0.78	0.71	-	-	0.72	-	-	1.22	1.24	**0.72**
Ag(g/t)	-	77	-	281	-	-	-	-	155	133	-	-	59	-	-	24	22	**127**
Ore Mine to Stock (Mt)	-	0.3	2.0	-	0.1	0.6	3.1	0.8	-	-	1.5	0.1	-	1.0	0.4	-	-	**9.7**
Au (g/t)	-	0.67	0.24	-	0.68	0.35	0.70	0.95	-	-	0.88	0.89	-	1.46	1.04	-	-	**0.72**
Ag(g/t)	-	77	281	-	31	86	147	99	-	-	32	25	-	20	13	-	-	**127**
Waste to Waste Dump (Mt)	12.8	23.1	20.1	21.9	21.6	22.0	18.4	26.5	23.9	24.3	20.2	17.3	22.4	16.8	4.6	2.4	-	**298.4**
SR	-	79.2	14.4	9.3	8.0	8.2	7.9	9.1	8.2	8.3	8.5	6.4	8.0	6.9	2.3	1.1	-	**8.1**
Total Movement (Mt)	**12.8**	**23.6**	**23.6**	**24.5**	**24.9**	**25.7**	**24.6**	**30.5**	**27.0**	**27.4**	**24.9**	**20.5**	**25.6**	**21.0**	**8.1**	**5.6**	**0.1**	**350.4**

16.4 Waste Dumps

Two waste rock dumps were considered. The main one will be in the southeast sector of the Property while the secondary one will be in the north, after the tailings dam. The mining plan shows a total dump requirement of 298 million metric tons including marginal material. The capacity would be covered with a design of both dumps totalling 326 Mt. Table 16-6 shows the design parameters used.

Table 16-6: Waste Dump Design Parameters

Waste Dump Design Parameter	Value	Unit
Capacity	326	Mt
Hight Lift	20	m
Slope Angle Lift	37	degrees
Overall Slope Angle	27	degrees
Berm Width	40	m
Ramp Width	30	m
Density	1.8	t/m3
Slope Ramp	4 a 10	%

16.4.1 East Main Dump

The East Main Dump has a capacity of 309 million metric tons which assures 100% of the required capacity (Figure 16-2). The road from the mine to this dump will be built during the pre-production stage. 9.7 Mt of waste rock is considered for construction. The main dump will receive waste rock until period 13, filling its capacity to 96%. At a later stage, a stability analysis should be performed.

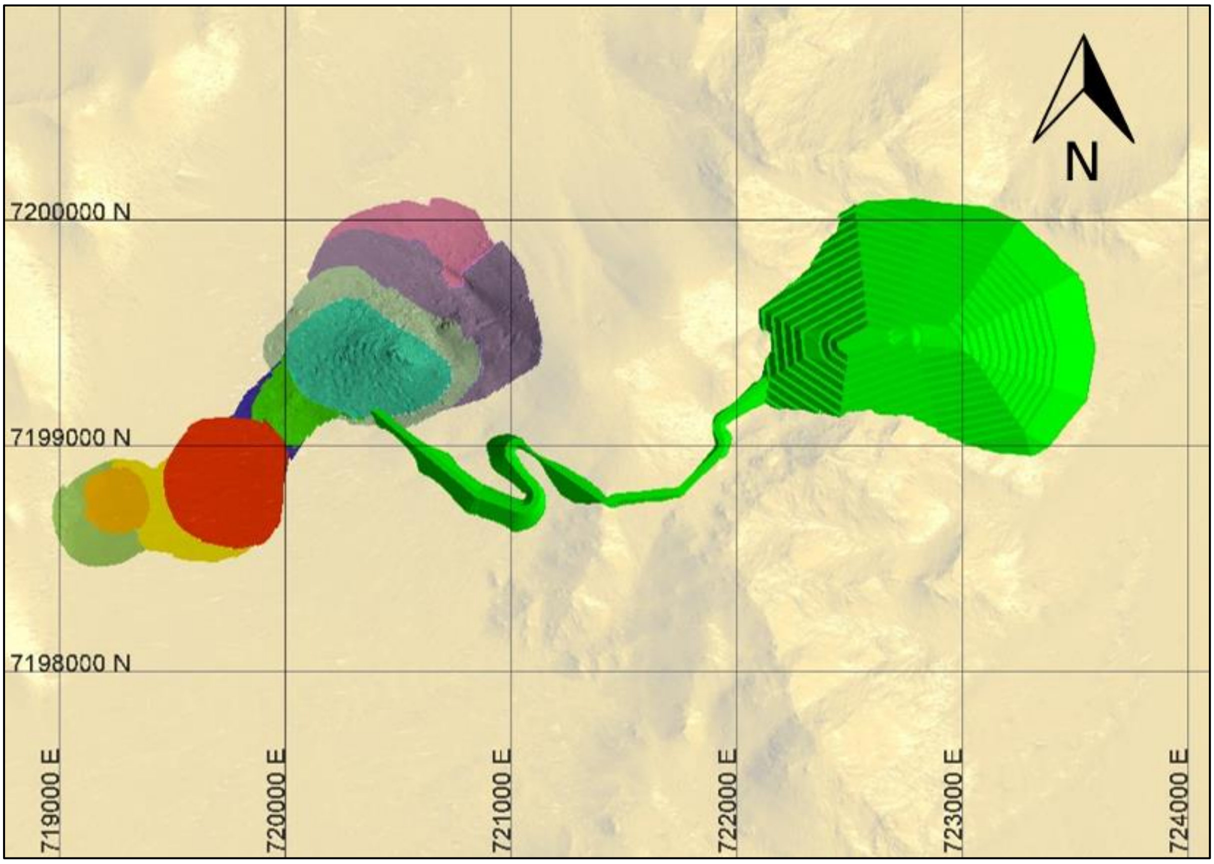


Figure 16-12: East main waste dump

Source: AbraSilver Resource Corp., 2023

16.4.2 North Secondary Waste Dump

The North Secondary Dump has a capacity of 17 Mt, or 3% of the required capacity (Figure 16-13). At a later stage, a stability analysis should be performed.

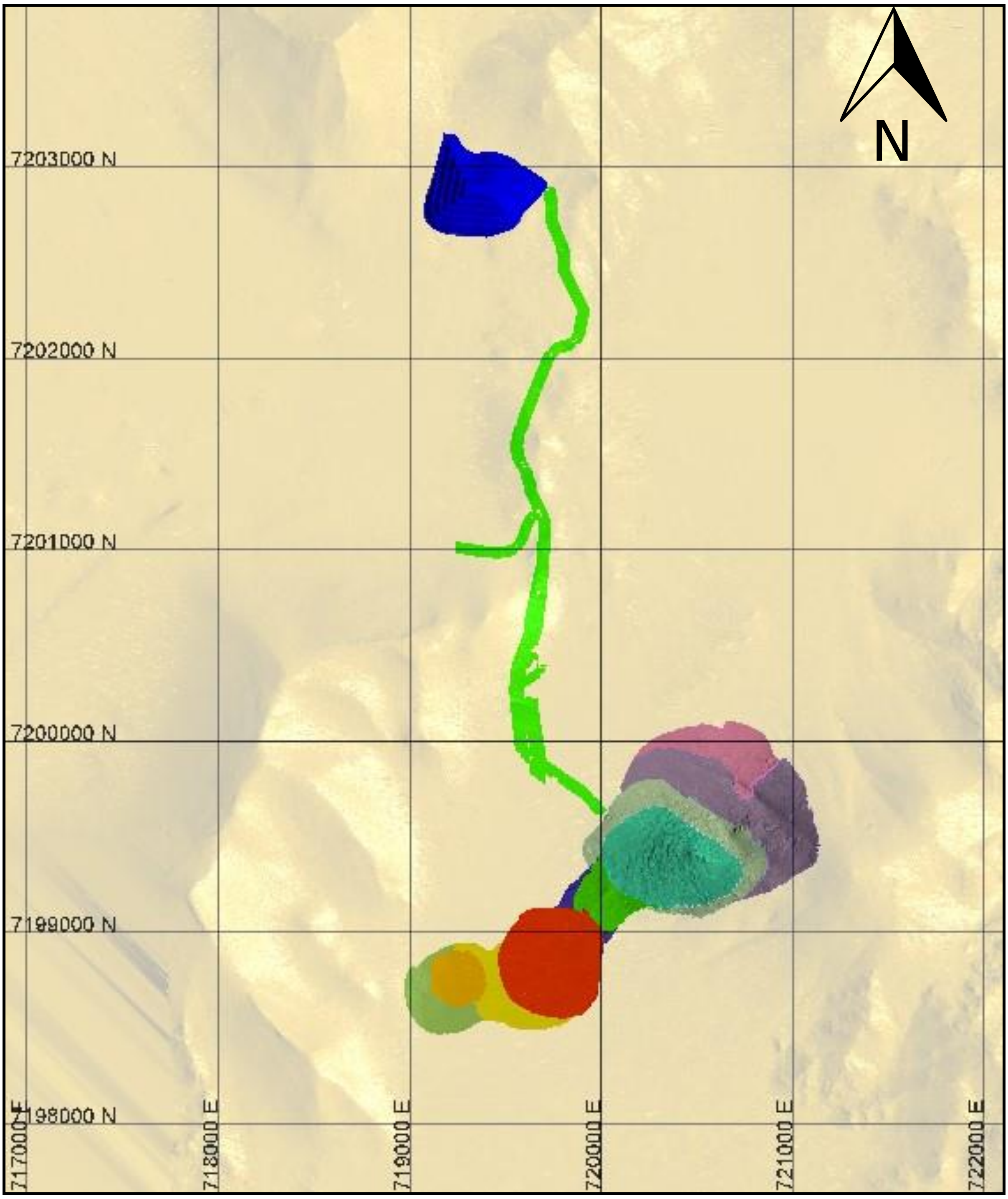


Figure 16-13: North Auxiliary Waste Dump

Source: AbraSilver Resource Corp., 2023

16.5 Stocks

Two stockpiles are considered, one for stockpiling high-grade ore called "Stock Rom Pad" and the other for stockpiling low grade marginal material called "Stock Marginal".

16.5.1 Rom Pad Stock

This stockpile will be used to stockpile ore to be fed to the tank in leach (TIL) process. Figure 16-14 shows the design considering six 10-meter-high rectangular stockpiles with a capacity of 720,00 tons of ore.

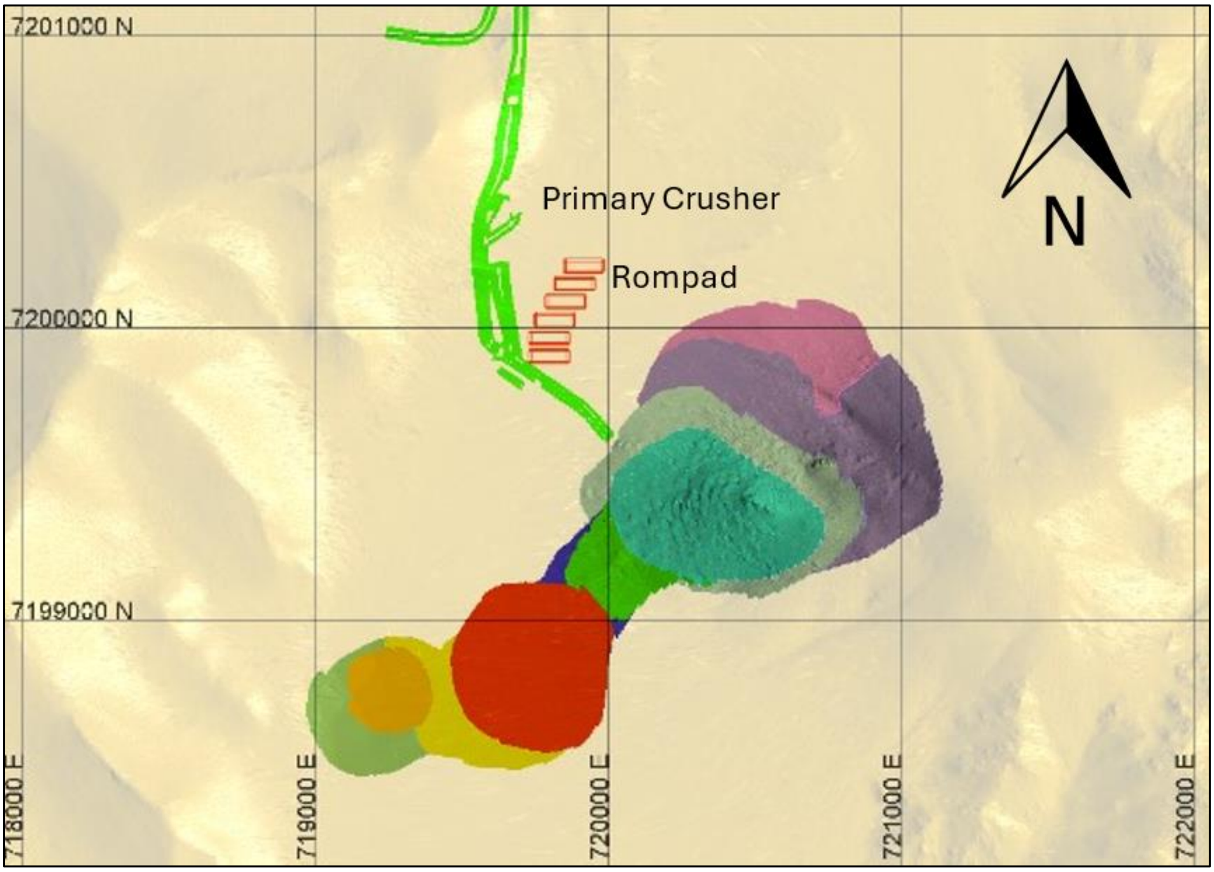


Figure 16-14: Stock Rom Pad

Source: AbraSilver Resource Corp., 2023

16.5.2 Marginal Stock

A stockpile of marginal grade mineralized material will be located in the southwest sector of the Property and the west side of JAC. It will have a total capacity of 22.28 million metric tonnes and this location was chosen so that it will not increase transport distance to the main landfill and will not be far from the crushing plant. The location can be seen in Figure 16-15.

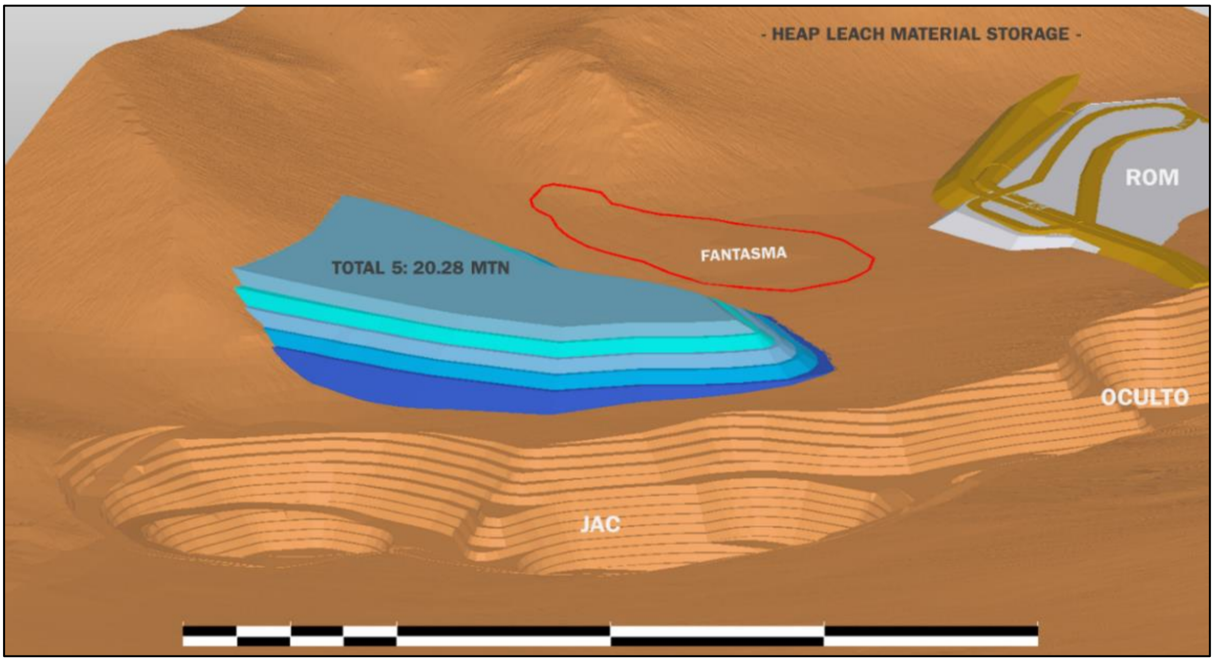


Figure 16-15: Stock marginal

Source: AbraSilver Resource Corp., 2023

The strategy for moving this stock is to receive marginal material until period 4 or 5, filling its 20 Mt capacity. It is assumed any process strategies will be understood by that time.

The stock balance is shown in Table 16-7 and Figure 16-16. Showing that although from year 6 onwards this material continues to be mined. If a second process methodology began it would no longer require greater stock capacity.

Table 16-7: Balance marginal stock

Period	Mine to marginal Stockpile Tonnage (000 t)	Cumulative Marginal Stockpile Tonnage (000 t)
-2	2	2
-1	579	582
0	2,564	3,145
1	2,007	5,152
2	3,594	8,746
3	3,964	12,710
4	6,550	19,260
5	2,159	21,419
6	1,957	23,376
7	1,942	25,317
8	6,509	31,827
9	2,836	34,663
10	2,686	37,349
11	4,823	42,172
12	2,528	44,701
13	1,071	45,772
Total	45,772	

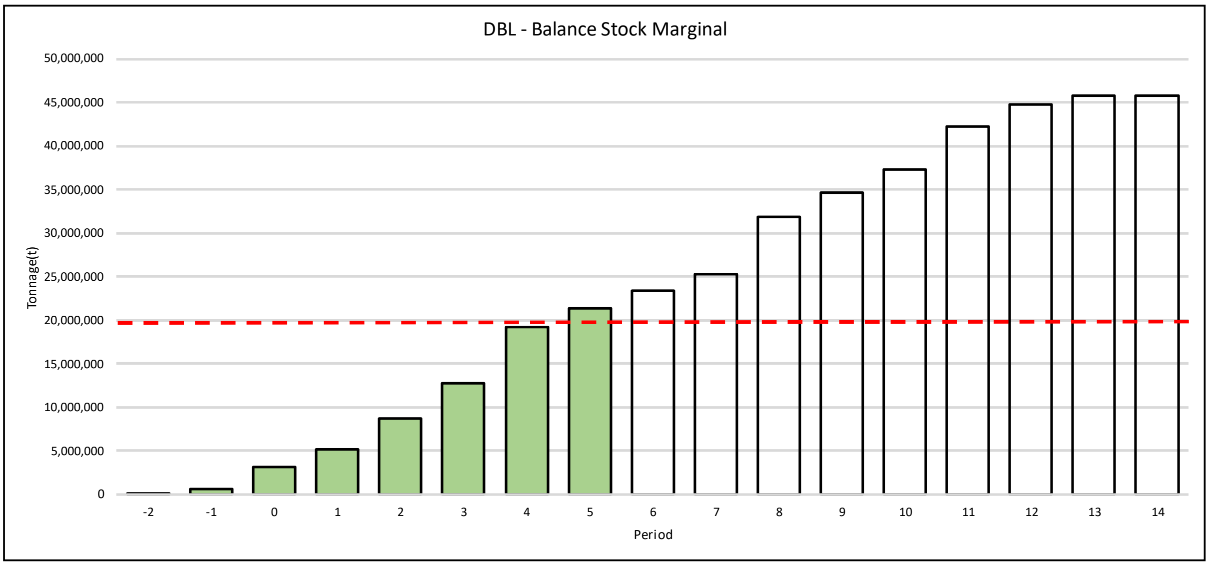


Figure 16-16: Need for marginal stockpile

Source: AbraSilver Resource Corp., 2024

16.6 Fleet Estimation

The project schedule indicates that the mine will operate 360 days of the year with two 12-hour shifts. Below is the fleet estimate calculated using haulage roads carried out in MineHaul to determine the flat, uphill, and downhill distances considering origin and destinations. This includes the contour perimeters of each phase and bench to determine the required pre-cut.

The following Table 16-8 shows a summary of the baseline information used to estimate the fleet.

Table 16-8: Input for fleet estimation

MINE PLAN AND MAIN REQUIREMENTS

PERIOD	MATERIAL	FROM-TO	TONNAGE (kt)	DISTANCES - 10% (m)	DISTANCES +10% (m)	DISTANCES HZ EXPIT (m)	PERIMETERS
PER-2	Waste	Mina a Dump	2,119.22	1,080.90	2,477.20	1,032.30	6,839.79
PER-2	Waste	Mina a Dump	10,631.95	1,080.90	2,477.20	1,032.30	
PER-2	Ore	Mina a HL	2.19	2,327.30	100.50	1,301.40	
PER-1	Waste	Mina a Dump	12,688.21	1,077.10	2,456.60	1,043.70	15,963.43
PER-1	Waste	Mina a Dump	9,784.14	1,077.10	2,456.60	1,043.70	
PER-1	Ore	Mina a HL	579.37	1,107.50	351.20	829.60	
PER-1	Ore	Mina a Stock	298.32	672.30	664.20	1,020.90	
PER-1	Ore	Stock a Proceso	298.32	136.36	113.77	722.55	
PER00	Waste	Mina a Dump	14,965.12	1,049.40	2,868.90	998.00	13,586.07
PER00	Waste	Mina a Dump	2,552.29	1,049.40	2,868.90	998.00	
PER00	Ore	Mina a HL	2,563.58	828.70	867.20	823.10	
PER00	Ore	Mina a Stock	1,988.17	155.80	1,656.30	1,024.50	
PER00	Ore	Mina a Proceso	1,575.00	652.60	969.80	1,270.90	
PER01	Waste	Mina a Dump	14,237.82	1,085.70	2,429.50	1,100.20	14,136.02
PER01	Waste	Mina a Dump	5,685.34	1,085.70	2,429.50	1,100.20	
PER01	Ore	Mina a HL	2,006.59	632.40	108.00	891.10	
PER01	Ore	Mina a Proceso	592.23	359.80	181.30	1,035.70	
PER01	Ore	Stock a Proceso	1,988.17	136.36	113.77	722.55	
PER02	Waste	Mina a Dump	14,951.91	1,321.90	2,031.60	1,349.60	16,279.56
PER02	Waste	Mina a Dump	3,097.76	1,321.90	2,031.60	1,349.60	
PER02	Ore	Mina a HL	3,594.49	676.50	438.80	863.80	
PER02	Ore	Mina a Stock	72.25	346.60	78.50	774.40	
PER02	Ore	Mina a Proceso	3,150.00	332.10	720.80	1,023.20	
PER03	Waste	Mina a Dump	15,333.44	1,139.50	2,756.00	1,542.80	15,393.46
PER03	Waste	Mina a Dump	2,700.68	1,139.50	2,756.00	1,542.80	
PER03	Ore	Mina a HL	3,964.07	593.10	255.10	981.70	
PER03	Ore	Mina a Stock	571.43	368.70	496.20	829.00	
PER03	Ore	Mina a Proceso	3,150.00	339.90	525.50	1,113.80	
PER04	Waste	Mina a Dump	1,254.00	1,107.70	3,238.60	2,020.40	16,670.97
PER04	Waste	Mina a Dump	10,580.34	1,107.70	3,238.60	2,020.40	
PER04	Ore	Mina a HL	6,549.64	571.30	692.30	920.20	
PER04	Ore	Mina a Stock	3,051.93	315.00	1,139.80	897.60	
PER04	Ore	Mina a Proceso	3,150.00	347.70	626.80	1,044.20	
PER05	Waste	Mina a Dump	19,509.80	1,173.80	2,518.70	1,313.70	17,496.13
PER05	Waste	Mina a Dump	4,879.21	1,173.80	2,518.70	1,313.70	
PER05	Ore	Mina a HL	2,158.95	632.20	1,251.30	942.20	
PER05	Ore	Mina a Stock	756.96	319.10	1,635.00	861.40	
PER05	Ore	Mina a Proceso	3,150.00	349.20	1,299.30	1,069.90	
PER06	Waste	Mina a Dump	20,058.38	1,400.30	3,191.80	1,214.00	18,244.38
PER06	Waste	Mina a Dump	1,858.73	1,400.30	3,191.80	1,214.00	
PER06	Ore	Mina a HL	1,956.73	488.60	948.80	1,476.40	
PER06	Ore	Mina a Proceso	1,739.49	293.80	1,507.20	2,087.50	
PER06	Ore	Stock a Proceso	1,410.51	136.36	113.77	722.55	
PER07	Waste	Mina a Dump	15,987.64	2,135.60	3,285.30	1,998.10	12,048.31
PER07	Waste	Mina a Dump	6,356.59	2,135.60	3,285.30	1,998.10	
PER07	Ore	Mina a HL	1,941.79	758.70	159.50	933.60	
PER07	Ore	Mina a Proceso	1,193.97	502.30	210.70	1,089.90	
PER07	Ore	Stock a Proceso	1,956.03	136.36	113.77	722.55	
PER08	Waste	Mina a Dump	11,556.80	2,032.20	3,678.90	1,955.70	11,739.45
PER08	Waste	Mina a Dump	2,157.13	2,032.20	3,678.90	1,955.70	
PER08	Ore	Mina a HL	6,509.33	696.80	887.90	1,317.30	
PER08	Ore	Mina a Stock	1,546.23	825.40	1,710.50	2,532.90	
PER08	Ore	Mina a Proceso	3,150.00	516.10	960.70	1,517.90	
PER09	Waste	Mina a Dump	11,906.60	2,177.00	3,677.70	2,458.30	10,166.81
PER09	Waste	Mina a Dump	2,541.21	2,177.00	3,677.70	2,458.30	
PER09	Ore	Mina a HL	2,836.37	892.90	1,593.10	2,293.60	
PER09	Ore	Mina a Stock	51.98	825.40	1,710.50	2,532.90	
PER09	Ore	Mina a Proceso	3,150.00	860.60	2,019.30	2,873.10	
PER10	Waste	Mina a Dump	19,539.46	1,923.20	1,946.90	3,062.30	9,577.95
PER10	Waste	Mina a Dump	212.92	1,923.20	1,946.90	3,062.30	
PER10	Ore	Mina a HL	2,685.91	835.90	653.30	1,171.40	
PER10	Ore	Mina a Proceso	1,002.89	531.00	652.00	1,244.50	
PER10	Ore	Stock a Proceso	2,147.11	136.36	113.77	722.55	
PER11	Waste	Mina a Dump	12,016.71	2,141.60	4,630.30	2,688.70	9,171.91
PER11	Ore	Mina a HL	4,823.06	787.70	1,295.50	1,181.50	
PER11	Ore	Mina a Stock	1,010.23	457.20	1,636.50	972.50	
PER11	Ore	Mina a Proceso	3,150.00	516.50	1,303.80	1,288.90	
PER12	Waste	Mina a Dump	2,065.56	2,240.70	5,374.30	2,884.10	3,681.40
PER12	Ore	Mina a HL	2,528.48	787.70	1,868.90	1,232.80	
PER12	Ore	Mina a Stock	355.96	457.20	2,080.30	1,075.10	
PER12	Ore	Mina a Proceso	3,150.00	516.50	1,875.90	1,347.00	
PER13	Waste	Mina a Dump	1,358.67	2,240.70	5,735.20	2,994.50	2,766.14
PER13	Ore	Mina a HL	1,071.39	787.70	2,201.20	1,330.90	
PER13	Ore	Mina a Proceso	1,322.90	516.50	2,201.90	1,439.20	
PER13	Ore	Stock a Proceso	1,827.10	136.36	113.77	722.55	
PER14	Ore	Stock a Proceso	76.23	136.36	113.77	722.55	

16.6.1 Haulage (Ore & Waste)

The mine loading equipment selected for the project is the CAT992G. The Table 16-9 shows the loading equipment requirements for the life of mine.

Simulation of travel times per period was performed using the MineHaul software (Figure 16-17). The software is loaded with operational phase designs, the project production plan, and the characteristics of the equipment (speed vector, capacity). For each phase – bench, the path followed by the truck from inside the mine to its possible destination (dump, stockpile, process plant) is traced until the phase is mined in full.

Performing the process for each phase yields travel times that can be combined with fixed times to determine the cycle time. This estimates the fleet required to execute the production plan.

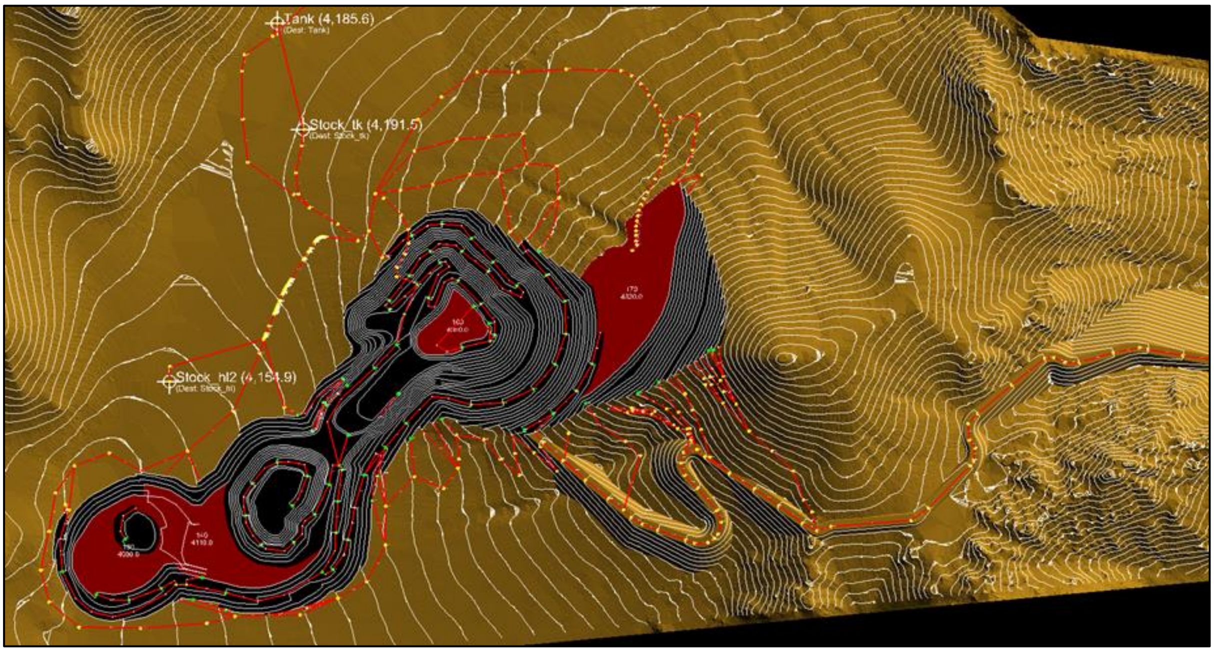


Figure 16-17: Routes in Minehaul

Source: AbraSilver Resource Corp., 2024

The mine haulage equipment selected for the project is a CAT777D. A business case using autonomous trucks (Autonomous Haulage System, AHS) is intended to be developed in later engineering stages. Table 16-10 shows the life-of-mine haulage equipment requirements and the parameters used.

Table 16-9: Loading requirements

bm

LOADERS REQUERIMENT

			PER-2A01 PER-2 A01	PER-1A01 PER-1 A01	PER00A01 PER00 A01	PER01A01 PER01 A01	PER02A01 PER02 A01	PER03A01 PER03 A01	PER04A01 PER04 A01	PER05A01 PER05 A01	PER06A01 PER06 A01	PER07A01 PER07 A01	PER08A01 PER08 A01	PER09A01 PER09 A01	PER10A01 PER10 A01	PER11A01 PER11 A01	PER12A01 PER12 A01	PER13A01 PER13 A01	PER14A01 PER14 A01
Ldr1																			
Operational Hours Req	hrs		14,997	27,458	27,804	26,484	29,241	30,244	28,911	35,813	30,119	29,963	29,303	24,090	27,565	24,694	9,525	2,858	
Efectives Hours Req	hrs		14,997	27,458	27,804	26,484	29,241	30,244	28,911	35,813	30,119	29,963	29,303	24,090	27,565	24,694	9,525	2,858	
Calendar Hours	hrs		8,664	8,640	8,640	8,640	8,664	8,640	8,640	8,640	8,664	8,640	8,640	8,640	8,664	8,640	8,640	8,640	8,664
Mechanical Availability	%		85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
Maintenance	hrs		1,300	1,296	1,296	1,296	1,300	1,296	1,296	1,296	1,300	1,296	1,296	1,296	1,300	1,296	1,296	1,296	1,300
Available Hous	hrs		7,364	7,344	7,344	7,344	7,364	7,344	7,344	7,344	7,364	7,344	7,344	7,344	7,364	7,344	7,344	7,344	7,364
Production Delays	hrs																		
Hours Used	hrs		7,364	7,344	7,344	7,344	7,364	7,344	7,344	7,344	7,364	7,344	7,344	7,344	7,364	7,344	7,344	7,344	7,364
Operational Factor	%		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Utility	%		85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
Times of Inefficiency	hrs		1,105	1,102	1,102	1,102	1,105	1,102	1,102	1,102	1,105	1,102	1,102	1,102	1,105	1,102	1,102	1,102	1,105
Productive Hours	hrs		6,260	6,242	6,242	6,242	6,260	6,242	6,242	6,242	6,260	6,242	6,242	6,242	6,260	6,242	6,242	6,242	6,260
Units Req	un		2.4	4.4	4.5	4.2	4.7	4.8	4.6	5.7	4.8	4.8	4.7	3.9	4.4	4.0	1.53	0.5	
Units On Site	un		3.0	5.0	5.0	5.0	5.0	5.0	5.0	6.0	5.0	5.0	5.0	4.0	5.0	4.0	2.0	1.0	
Smooth	un		3.0	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0	4.0	2.0	1.0	
Usefull Life	hrs																		
Max Equipments	un	6																	

Table 16-10: Hauling requirements

bm

HAULAGE REQUIREMENTS

			PER-2A01 PER-2 A01	PER-1A01 PER-1 A01	PER00A01 PER00 A01	PER01A01 PER01 A01	PER02A01 PER02 A01	PER03A01 PER03 A01	PER04A01 PER04 A01	PER05A01 PER05 A01	PER06A01 PER06 A01	PER07A01 PER07 A01	PER08A01 PER08 A01	PER09A01 PER09 A01	PER10A01 PER10 A01	PER11A01 PER11 A01	PER12A01 PER12 A01	PER13A01 PER13 A01	PER14A01 PER14 A01
Trk1																			
Operational Hours Req	hrs		92,006	166,155	163,416	157,917	157,165	174,620	160,474	215,806	214,531	251,053	207,204	210,812	209,695	203,404	66,195	40,802	202
Efectives Hours Req	hrs		92,006	166,155	163,416	157,917	157,165	174,620	160,474	215,806	214,531	251,053	207,204	210,812	209,695	203,404	66,195	40,802	202
Total Efectives Hours Req	hrs		92,006	166,155	163,416	157,917	157,165	174,620	160,474	215,806	214,531	251,053	207,204	210,812	208,646	202,387	65,864	40,598	201
Calendar Hours	hrs		8,664	8,640	8,640	8,640	8,664	8,640	8,640	8,640	8,664	8,640	8,640	8,640	8,664	8,640	8,640	8,640	8,664
Mechanical Availability	%		85%	85%	85%	85%	85%	90%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
Maintenance	hrs		1299.6	1296	1296	1296	1299.6	864	1296	1296	1299.6	1296	1296	1296	1299.6	1296	1296	1296	1299.6
Available Hous	hrs		7,364	7,344	7,344	7,344	7,364	7,776	7,344	7,344	7,364	7,344	7,344	7,344	7,364	7,344	7,344	7,344	7,364
Production Delays	hrs																		
Hours Used	hrs		7,364	7,344	7,344	7,344	7,364	7,776	7,344	7,344	7,364	7,344	7,344	7,344	7,364	7,344	7,344	7,344	7,364
Operational Factor	%		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Utility	%		85%	85%	85%	82%	78%	90%	85%	85%	85%	85%	85%	85%	85%	91%	85%	85%	85%
Times of Inefficiency	hrs		1,105	1,102	1,102	1,351	1,605	778	1,102	1,102	1,105	1,102	1,102	1,102	1,105	661	1,102	1,102	1,105
Productive Hours	hrs		6,260	6,242	6,242	5,993	5,759	6,998	6,242	6,242	6,260	6,242	6,242	6,242	6,260	6,683	6,242	6,242	6,260
Units Req	un		14.7	26.6	26.2	26.4	27.3	25.0	25.7	34.6	34.3	40.2	33.2	33.8	33.3	30.3	10.6	6.5	0.0
Units On Site	un		15.0	27.0	27.0	27.0	28.0	25.0	26.0	35.0	35.0	41.0	34.0	34.0	34.0	31.0	11.0	7.0	1.0
Smooth	un		15.0	27.0	27.0	27.0	28.0	25.0	26.0	35.0	35.0	41.0	34.0	34.0	34.0	31.0	11.0	7.0	1.0
Operational Factor	%		85%	85%	85%	82%	78%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
Usefull Life	hrs																		
Max Eq On site	un	41																	

16.6.2 Drilling

The drilling fleet will consist of two types of machines. One for production and another for pre-cutting. For production and contour drilling, the Sandvik DR412i2 drill will be used with a distribution of 70% for production and 30% for contouring. The Sandvik DI650i drill will be used for pre-cutting. The drill and blast assumptions considered can be seen in Table 16-11.

Table 16-11: Drilling parameters

DRILL & BLAST - OPERATIONAL PARAMETERS

			Production	Buffer	Pre-split
1	**Equipment**		**Prf1**	**Prf2**	**Prf7**
2	Model		DR412i2	DR412i2	DI650i
3	Type		Prod	Prod	Sopo
4	Grid Type		Medio	Medio	PS
5	Profile	%	70%	30%	100%
6	Diámeter	inch	7	7	5
7	Diámeter	mm	177.8	177.8	127.0
8	UGT				
9	Higth Bench	m	10.0	10.0	10.0
10	Sub-Drilling	m	1.0	1.0	
11	Total Length	m	11.0	11.0	10.0
12	Stemming	m	3.5	3.5	3.5
13	Burden	m	7.0	7.0	7.0
14	Spacing	m	8.0	8.0	8.0
16	Drill product	m/hr	23	23	17
17	Hole Volume	m3	560.0	560.0	560.0
18	Rock Volume	m3/m	50.9	50.9	56.0
19	Blasted Volume by Blast	m3	100,000	100,000	50,000
20	Holes by Blast	un	178.6	178.6	89.3
21	Insitu Density	t/m3	2.18	2.18	2.18
22	Rock Type	-			
23	Explosive Type	-			
24	Explosive Density	gr/m3	1,300,000	1,300,000	
81					
82	Drills Operational Parameters				
83	Avalability	%	80%	80%	75%
84	Utitlity	%	75%	70%	100%
85	Operational Factor	%	100%	100%	50%
87	Usefull Life Equipment	hr	60,000	60,000	60,000
88	Diesel Consume	l/hr	107.00	107.00	105.00

Table 16-12, Table 16-13 and Table 16-14 show the drilling equipment requirements per period in line with requirements for production, contouring, and pre-cutting. During the -2-pre-production period, no drilling equipment is required because all the excavated material is cover.

Table 16-12: Production drilling requirements

bm

DRILL & BLAST REQUIREMENT

			PER-2A01 PER-2 A01	PER-1A01 PER-1 A01	PER00A01 PER00 A01	PER01A01 PER01 A01	PER02A01 PER02 A01	PER03A01 PER03 A01	PER04A01 PER04 A01	PER05A01 PER05 A01	PER06A01 PER06 A01	PER07A01 PER07 A01	PER08A01 PER08 A01	PER09A01 PER09 A01	PER10A01 PER10 A01	PER11A01 PER11 A01	PER12A01 PER12 A01	PER13A01 PER13 A01
Medium Type Rock	kt		2,121	13,566	21,092	16,837	21,769	23,019	14,006	25,576	23,755	19,123	22,762	17,945	23,228	21,000	8,100	3,753
Production Drill																		
Operational Hours Req	hrs		579	3,703	5,758	4,596	5,942	6,284	3,823	6,982	6,485	5,220	6,214	4,899	6,341	5,733	2,211	1,024
Efective Hours Req	hrs		579	3,703	5,758	4,596	5,942	6,284	3,823	6,982	6,485	5,220	6,214	4,899	6,341	5,733	2,211	1,024
Drilled	m		13,319	85,174	132,426	105,710	136,675	144,525	87,935	160,578	149,144	120,067	142,914	112,668	145,840	131,849	50,856	23,563
Holes	un		1,211	7,743	12,039	9,610	12,425	13,139	7,994	14,598	13,559	10,915	12,992	10,243	13,258	11,986	4,623	2,142
Tonnage	kt		1,485	9,496	14,764	11,786	15,238	16,113	9,804	17,903	16,628	13,386	15,934	12,561	16,260	14,700	5,670	2,627
Calendar Hours	hrs		8,664	8,640	8,640	8,640	8,664	8,640	8,640	8,640	8,664	8,640	8,640	8,640	8,664	8,640	8,640	8,640
Mechanical Availability	%		80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
Maintenance	hrs		1,733	1,728	1,728	1,728	1,733	1,728	1,728	1,728	1,733	1,728	1,728	1,728	1,733	1,728	1,728	1,728
Available Hours	hrs		6,931	6,912	6,912	6,912	6,931	6,912	6,912	6,912	6,931	6,912	6,912	6,912	6,931	6,912	6,912	6,912
Production Delays	hrs		1,733	1,728	1,728	1,728	1,733	1,728	1,728	1,728	1,733	1,728	1,728	1,728	1,733	1,728	1,728	1,728
Used Hours	hrs		5,198	5,184	5,184	5,184	5,198	5,184	5,184	5,184	5,198	5,184	5,184	5,184	5,198	5,184	5,184	5,184
Utility	%		75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
Operational Factor	%		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Productives Hours	hrs		5,198	5,184	5,184	5,184	5,198	5,184	5,184	5,184	5,198	5,184	5,184	5,184	5,198	5,184	5,184	5,184
Units Req	un		0.1	0.7	1.1	0.9	1.1	1.2	0.7	1.3	1.2	1.0	1.2	0.9	1.2	1.1	0.4	0.2
On Site Units	un		1.0	1.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0	1.0	1.0
Smoot	un		1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0
Usefull Life	hrs	60,000																
Max Eq	un	2																
In/Out Eq																		
1	un		1															
Usefull Life by Eq																		
1	hrs		579	4,282	7,161	9,459	12,430	15,572	17,484	20,975	24,217	26,827	29,934	32,383	35,554	38,420	40,631	41,656
Start Mechanical Avalabilit	%	80%																
Operative Units		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
In/Out		1	1															

Table 16-13: Buffer drilling requirements

DRILL & BLAST REQUIREMENT

			PER-2A01 PER-2 A01	PER-1A01 PER-1 A01	PER00A01 PER00 A01	PER01A01 PER01 A01	PER02A01 PER02 A01	PER03A01 PER03 A01	PER04A01 PER04 A01	PER05A01 PER05 A01	PER06A01 PER06 A01	PER07A01 PER07 A01	PER08A01 PER08 A01	PER09A01 PER09 A01	PER10A01 PER10 A01	PER11A01 PER11 A01	PER12A01 PER12 A01	PER13A01 PER13 A01
Medium Type Rock	kt		2,121	13,566	21,092	16,837	21,769	23,019	14,006	25,576	23,755	19,123	22,762	17,945	23,228	21,000	8,100	3,753
Buffer Drill																		
Operational Hours Req	hrs		248	1,587	2,468	1,970	2,547	2,693	1,639	2,992	2,779	2,237	2,663	2,099	2,718	2,457	948	439
Efective Hours Req	hrs		248	1,587	2,468	1,970	2,547	2,693	1,639	2,992	2,779	2,237	2,663	2,099	2,718	2,457	948	439
Drilled	m		5,708	36,503	56,754	45,304	58,575	61,939	37,686	68,819	63,919	51,457	61,249	48,286	62,503	56,507	21,795	10,098
Holes	un		519	3,318	5,159	4,119	5,325	5,631	3,426	6,256	5,811	4,678	5,568	4,390	5,682	5,137	1,981	918
Tonnage	kt		636	4,070	6,328	5,051	6,531	6,906	4,202	7,673	7,126	5,737	6,829	5,383	6,968	6,300	2,430	1,126
Calendar Hours	hrs		8,664	8,640	8,640	8,640	8,664	8,640	8,640	8,640	8,664	8,640	8,640	8,640	8,664	8,640	8,640	8,640
Mechanical Availability	%		80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
Maintenance	hrs		1,733	1,728	1,728	1,728	1,733	1,728	1,728	1,728	1,733	1,728	1,728	1,728	1,733	1,728	1,728	1,728
Available Hours	hrs		6,931	6,912	6,912	6,912	6,931	6,912	6,912	6,912	6,931	6,912	6,912	6,912	6,931	6,912	6,912	6,912
Production Delays	hrs		2,079	2,074	2,074	2,074	2,079	2,074	2,074	2,074	2,079	2,074	2,074	2,074	2,079	2,074	2,074	2,074
Used Hours	hrs		4,852	4,838	4,838	4,838	4,852	4,838	4,838	4,838	4,852	4,838	4,838	4,838	4,852	4,838	4,838	4,838
Utility	%		70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%
Operational Factor	%		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Productives Hours	hrs		4,852	4,838	4,838	4,838	4,852	4,838	4,838	4,838	4,852	4,838	4,838	4,838	4,852	4,838	4,838	4,838
Units Req	un		0.1	0.3	0.5	0.4	0.5	0.6	0.3	0.6	0.6	0.5	0.6	0.4	0.6	0.5	0.2	0.1
On Site Units	un		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Smoot	un		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Usefull Life	hrs	60,000																
Max Eq	un	1																
In/Out Eq 1	un		1															
Usefull Life by Eq 1	hrs		248	1,835	4,303	6,273	8,819	11,512	13,151	16,143	18,922	21,159	23,822	25,922	28,639	31,096	32,044	32,483
Start Mechanical Avalabilit	%	80%																
Disponibilidad Mecánica por Equipo	%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
Disponibilidad Mecánica por Flota	%		80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
Operative Units		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
In/Out		1	1															

Table 16-14: Pre-split drilling requirements

bm

DRILL & BLAST REQUIREMENT

	Unit		PER-2A01 PER-2 A01	PER-1A01 PER-1 A01	PER00A01 PER00 A01	PER01A01 PER01 A01	PER02A01 PER02 A01	PER03A01 PER03 A01	PER04A01 PER04 A01	PER05A01 PER05 A01	PER06A01 PER06 A01	PER07A01 PER07 A01	PER08A01 PER08 A01	PER09A01 PER09 A01	PER10A01 PER10 A01	PER11A01 PER11 A01	PER12A01 PER12 A01	PER13A01 PER13 A01
Medium Type Rock	kt		2,121	13,566	21,092	16,837	21,769	23,019	14,006	25,576	23,755	19,123	22,762	17,945	23,228	21,000	8,100	3,753
Pre Split Drill																		
Operational Hours Req	hrs		4,023	9,390	7,992	8,315	9,576	9,055	9,806	10,292	10,732	7,087	6,906	5,980	5,634	5,395	2,166	1,627
Efective Hours Req	hrs		2,012	4,695	3,996	4,158	4,788	4,527	4,903	5,146	5,366	3,544	3,453	2,990	2,817	2,698	1,083	814
Drilled	m		34,199	79,817	67,930	70,680	81,398	76,967	83,355	87,481	91,222	60,242	58,697	50,834	47,890	45,860	18,407	13,831
Holes	un		3,420	7,982	6,793	7,068	8,140	7,697	8,335	8,748	9,122	6,024	5,870	5,083	4,789	4,586	1,841	1,383
Tonnage	kt																	
Calendar Hours	hrs		8,664	8,640	8,640	8,640	8,664	8,640	8,640	8,640	8,664	8,640	8,640	8,640	8,664	8,640	8,640	8,640
Mechanical Availability	%		75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
Maintenance	hrs		2,166	2,160	2,160	2,160	2,166	2,160	2,160	2,160	2,166	2,160	2,160	2,160	2,166	2,160	2,160	2,160
Available Hours	hrs		6,498	6,480	6,480	6,480	6,498	6,480	6,480	6,480	6,498	6,480	6,480	6,480	6,498	6,480	6,480	6,480
Production Delays	hrs																	
Used Hours	hrs		6,498	6,480	6,480	6,480	6,498	6,480	6,480	6,480	6,498	6,480	6,480	6,480	6,498	6,480	6,480	6,480
Utility	%		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Operational Factor	%		50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Tiempo de Ineficiencia	hrs		3,249	3,240	3,240	3,240	3,249	3,240	3,240	3,240	3,249	3,240	3,240	3,240	3,249	3,240	3,240	3,240
Productives Hours	hrs		3,249	3,240	3,240	3,240	3,249	3,240	3,240	3,240	3,249	3,240	3,240	3,240	3,249	3,240	3,240	3,240
Units Req	un		0.6	1.4	1.2	1.3	1.5	1.4	1.5	1.6	1.7	1.1	1.1	0.9	0.9	0.8	0.3	0.3
On Site Units	un		1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0
Smoot	un		1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0
Usefull Life	hrs	60,000																
Max Eq	un	2																
In/Out Eq																		
1	un		1								-1							
2	un		1															
Usefull Life by Eq																		
1	hrs	18,000	21,249	25,944	29,940	34,098	38,886	43,413	48,316	53,462								
2	hrs	18,000	21,249	25,944	29,940	34,098	38,886	43,413	48,316	53,462	58,828	62,372	65,825	71,805	77,439	82,835	85,000	86,627
Start Mechanical Avalabilit	%	75%																
Desgaste Mecánico Anual	%																	
Disponibilidad Mecánica por Equipo																		
1	%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%							
2	%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
Disponibilidad Mecánica por Flota	%		75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
Operative Units In/Out		2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1

16.6.3 Support Services

Support equipment consists of all equipment required for the mining operation. Bulldozers or crawler tractors provide the services of unclogging blasting, maintaining an adequate unloading point and cutting in non-rock terrain such as cover. The wheel dozer performs similar functions to the bulldozer but has the advantage of traveling at higher speeds without the need for a low bed. Excavators will play a fundamental role in the operation since they are in charge of profiling slopes to reach design lines and avoid rock falls. The motor grader performs the function of maintaining an optimal road surface for haulage. It will work-in conjunction with the roller and water truck. A CAT950 loader was considered to eventually feed from the rom pad stock to the primary crusher. Finally, tire handler and lowboy trucks are considered to move tracked equipment.

The Caterpillar line was considered for support and production support due to its massive use and good availability in Argentina. The estimation criteria for each support team are shown in Table 16-15.

Table 16-15: Support equipment criterion

Equipment	Model	Criterion
Bulldozer	CAT D8	0.5 equipment by active phase + 1 equipment by active waste dump.
Wheeldozer	CAT 834T	0.5 equipment by active phase
Motorgrader	CAT 160H	1 equipment each 10 trucks
Water Truck	CAT 777WT	2 equipments
Excavator	CAT 374	0.5 equipment y active loader.
Loader	CAT 950	1 equipment
Tire Handler	CAT TM	1 equipment
Lowboy Truck	Cama Baja	1 equipment
Compactor Roller	CAT CS79	1 equipment

16.7 Mine Personnel

The staffing required for the mining operation was estimated based on the fleet estimation. An absenteeism factor of 25% was considered only for operators; this factor was not applied to staff personnel. Detailed staffing numbers can be found below in Table 16-16.

Table 16-16: Required mine staffing

ABRASILVER RESOURCE CORP

DIABLILLOS SILVER - GOLD PROJECT

INVESTMENT COST ESTIMATION BREAKDOWN FOR OPERATIONAL EXPENDITURE (OPEX) - 9.000 ton/p.d. PLANT THROUGHPUT

DESCRIPTION	UNIT	STAFFING (PAYROLL) PER YEAR																
		CONSTRUCTION		COMMISSIONING RAMP-UP	OPERATIONS													
		-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
HUMAN RESOURCES																		
Mining		**115**	**157**	**158**	**166**	**166**	**166**	**166**	**166**	**166**	**166**	**166**	**166**	**166**	**166**	**166**	**166**	**166**
Mine Superintendant	Staff/year	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Deputy Mine Superintendant	Staff/year	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Drilling Shift Supervisor	Staff/year	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Drilling - Operators	Staff/year	4	6	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Drilling - Assistance, helpers	Staff/year	12	18	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Blasting - Shift Supervisor	Staff/year	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Blasting - Operators	Staff/year	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Blasting - ANFO truck driver	Staff/year	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Blasting - Powder magazine supervisor	Staff/year	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Blasting - Nitrate preparation field - Operator	Staff/year	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Blasting - Nitrate preparation field - Helper	Staff/year	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Fleet management - Fleet dispatcher	Staff/year	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Excavation & Hauling - Shift Supervisor	Staff/year	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Excavation & Hauling - Excavator - Operator	Staff/year	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Excavation & Hauling - Front end loader - Operator	Staff/year	6	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Excavation & Hauling - 100 ton Hauling truck driver	Staff/year	30	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
Excavation & Hauling - Wheel Bulldozer Operator	Staff/year	4	4	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Excavation & Hauling - Bulldozer Operator	Staff/year	8	8	6	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Waste & Ore rehandling - Shift Supervisor	Staff/year	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Waste & Ore rehandling - Bulldozer Operator	Staff/year	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Waste & Ore rehandling - Front end loader Operator	Staff/year	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Mine support & maintenance - Grader - Operator	Staff/year	4	8	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Mine support & maintenance - Front end loader - Operator	Staff/year	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mine support & maintenance - Backhoe - Operator	Staff/year	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mine support & maintenance - Bobcat Operator	Staff/year	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mine support & maintenance - Fuel truck driver	Staff/year	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mine support & maintenance - 100 ton Water truck driver	Staff/year	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Mine support & maintenance - 26 ton Water truck driver	Staff/year	2	2	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Mine support & maintenance - Low boy truck driver	Staff/year	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

16.8 General Mine Layout

Figure 16-18 shows the general layout of the main mine infrastructure. Highlighting is the TSF (Tailings Storage Facility), ROM pad, process plant, camp, east and north dumps and marginal material stockpile.

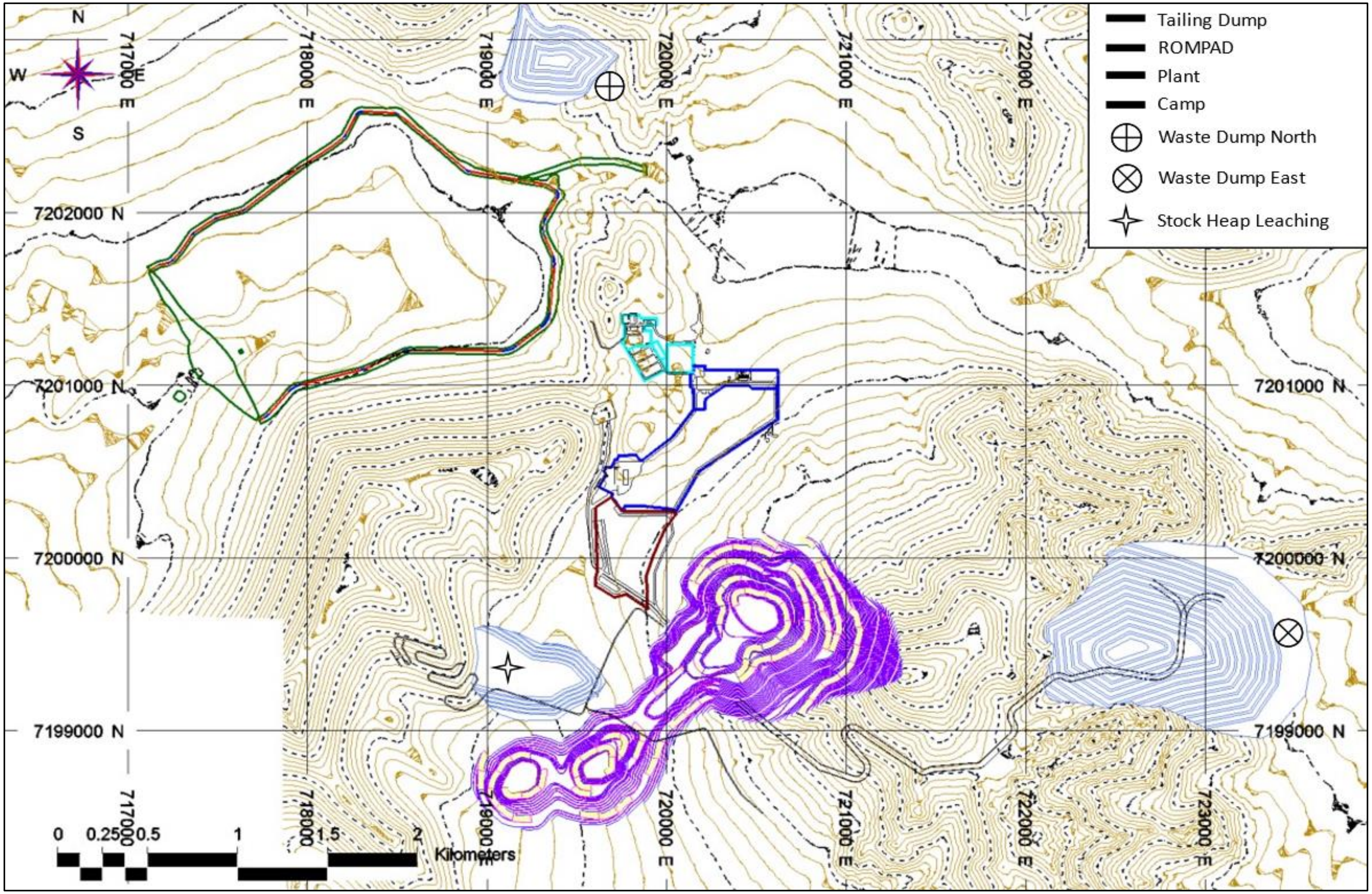


Figure 16-18: General Mine Layout

Source: AbraSilver Resource Corp., 2023

16.9 Stability Open Pit Analysis

During the 2022 drilling campaign, AbraSilver drilled 6 geotechnical wells as part of its exploration campaign. Six core-oriented HQ size holes were developed and geotechnically logged to support future mine designs. During December 2023 and January 2024, the author processed this background information with the assistance of a geomechanical specialist. The results and conclusions are presented in the following subsection.

16.9.1 Geotechnical Units

Geotechnical information provided by lithology allowed the definition of 6 Geotechnical Units (GU). These have been used for stability analysis.

The Rock Mass Rating (RMR) for each lithology was determined with the data provided by borehole logging every meter. The location of the boreholes is shown in Figure 16-19 and the RMR established by lithology that each drillhole intercepts are shown in Figure 16-20 to Figure 16-22.

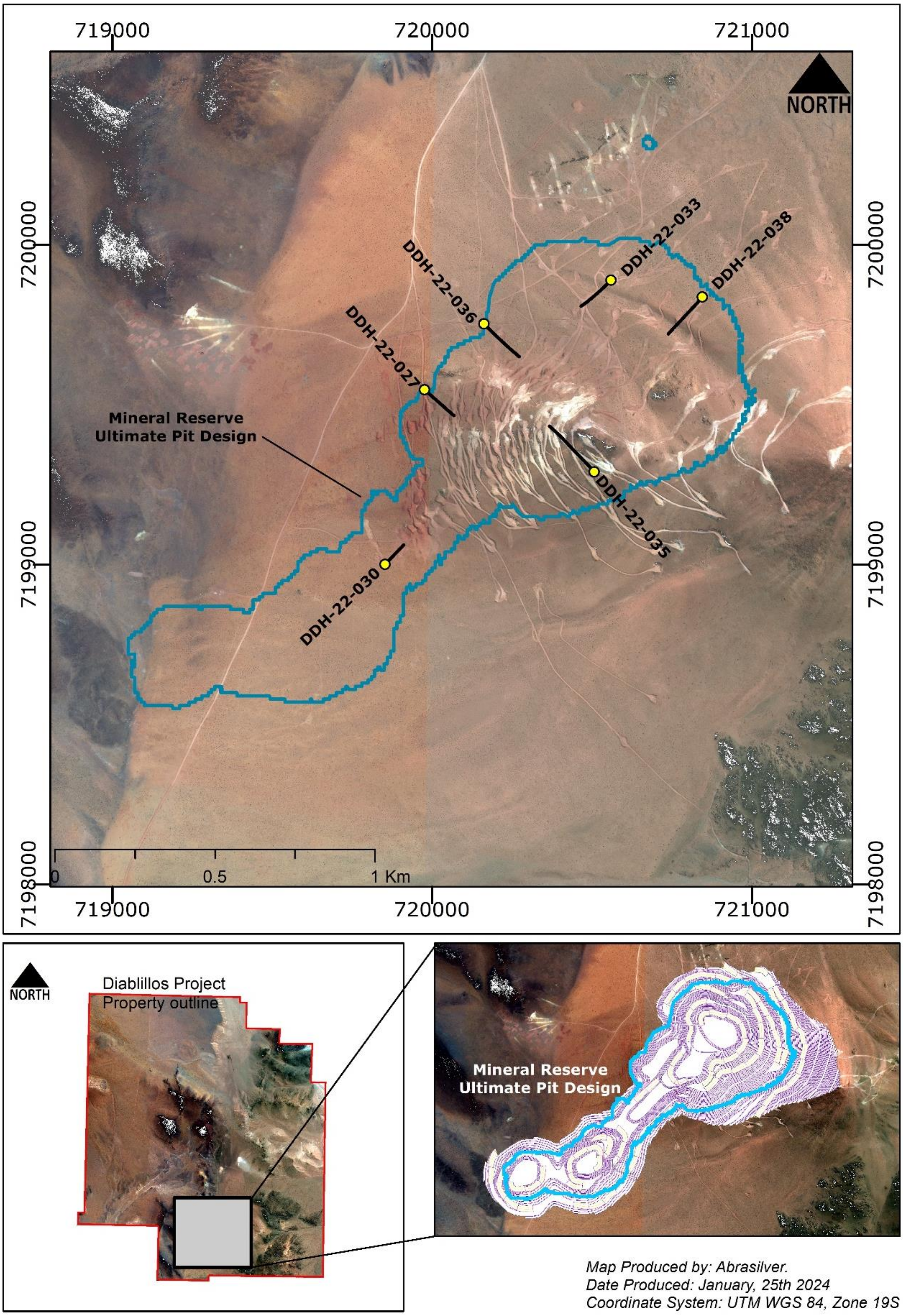


Figure 16-19: Location of boreholes

Source: AbraSilver Resource Corp., 2023

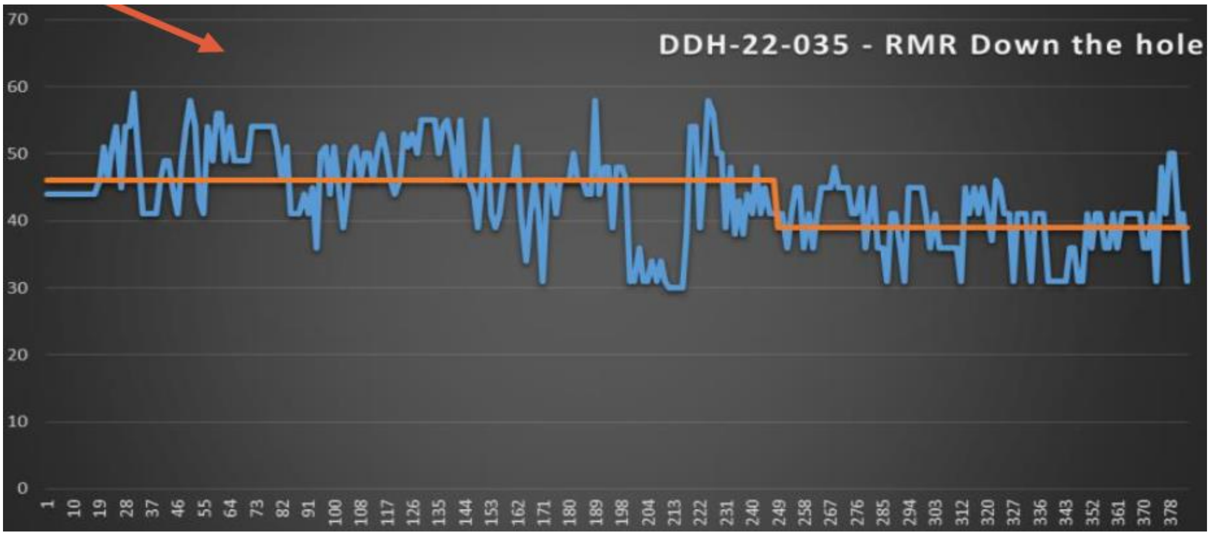


Figure 16-20: RMR According to depth for Metasediment lithology

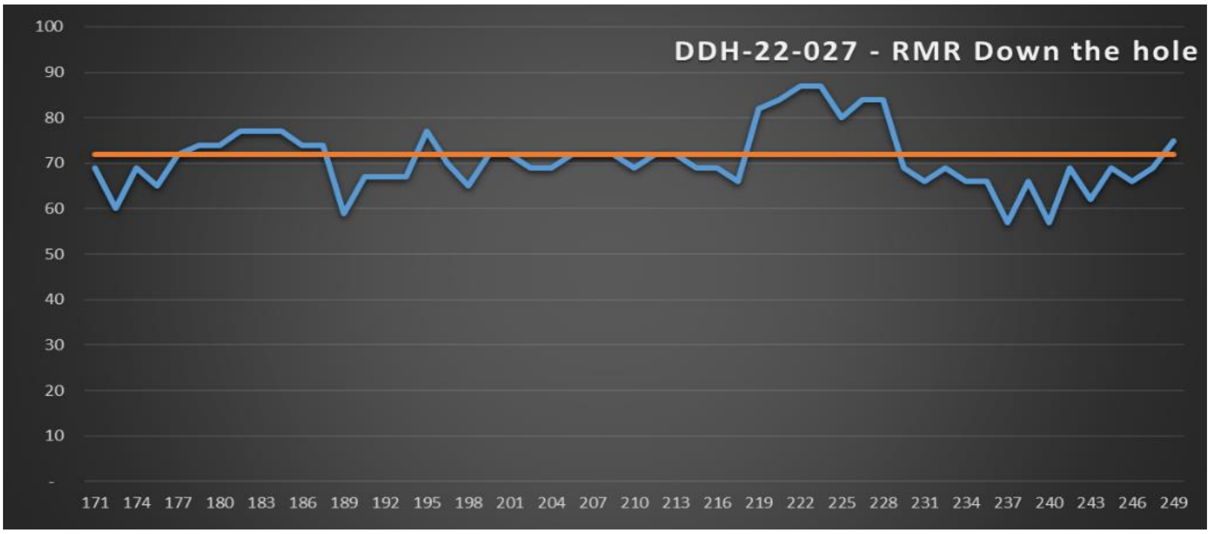


Figure 16-21: RMR According to depth for Granite lithology

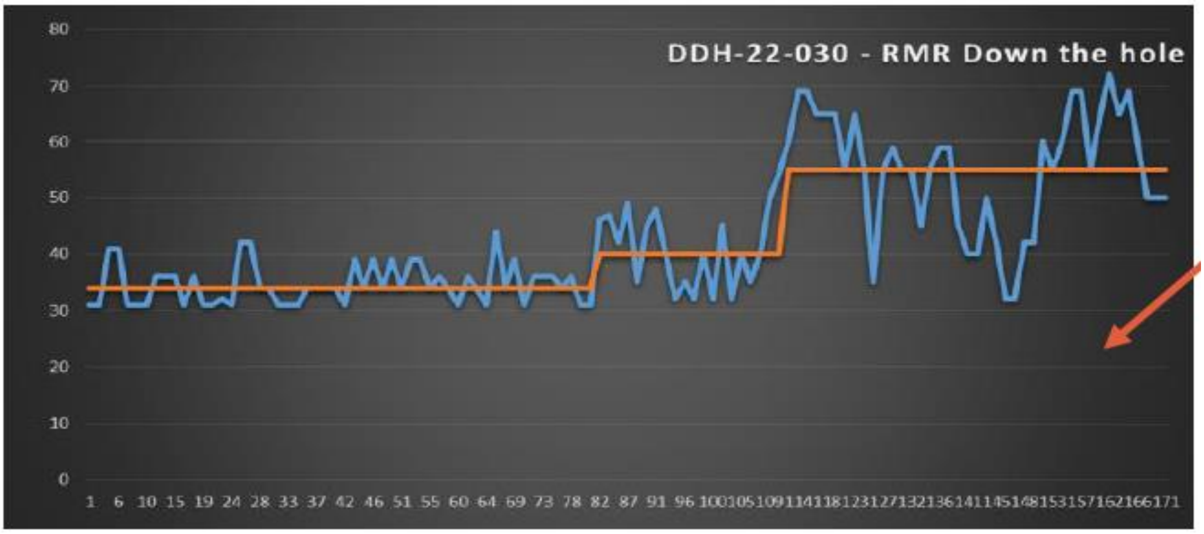


Figure 16-22: According to depth for Wall Rock-Andesite lithology

Source: AbraSilver Resource Corp., 2023

The UCS at different depths by lithology was also determined from the data provided by the boreholes, see Figure 16-23.

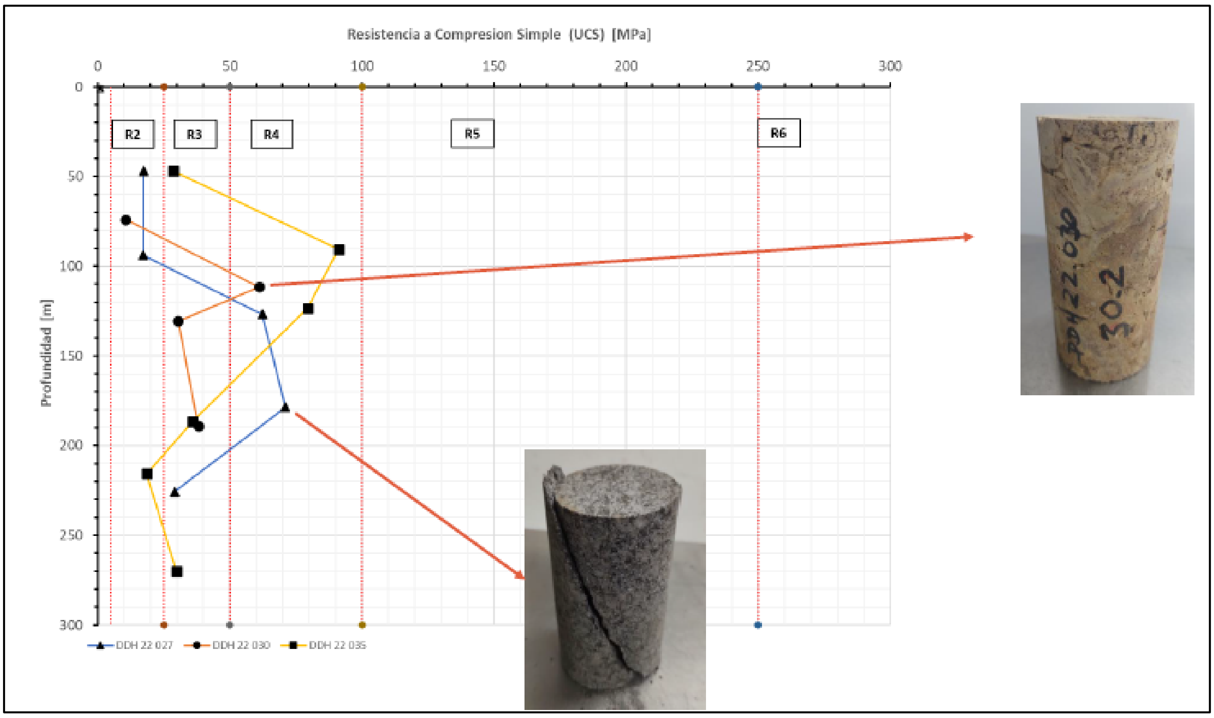


Figure 16-23: UCS at different depths

Source: AbraSilver Resource Corp., 2023

The following parameters are obtained from the above information. The parameter for each type of rock present in the study area is shown in Table 16-17:

Table 16-17: Geotechnical parameters by lithology

Lithology	Depth [m]	UCS [Mpa]	mi	RMR	GSI
Metasediment	50	26	20	47	42
	100	85	20	47	42
	150	80	20	47	42
	200	30	20	47	42
	250	25	20	39	34
	300	25	20	39	34
	350	25	20	39	34
	400	25	20	39	34
	450	25	20	39	34
	Typical	25	20	43	40
Granite	50	27	19	71	66
	100	27	19	71	66
	150	27	19	71	66
	200	27	19	71	66
	250	27	19	71	66
	Typical	27	19	52	47
Andesite	50	18	6	34	29
	100	18	6	40	35
	150	67	6	55	50
	200	50	6	55	50
	230	30	6	55	50
	Typical	67	6	48	43

According to the model provided, there is a layer of surface material composed of semi-consolidated gravel-type backfill. The typical properties for this type of material C= 1.8 MPa and ϕ=12°.

Given the uncertainty of the available geotechnical data, a 40% variation in the established parameters will be assumed. This translates into a coefficient of variation of 15%. This condition will be considered in failure probability analysis for the different scenarios simulated below.

The National Institute for Seismic Prevention (INPRES) of the Ministry of Public Works of Argentina proposes a seismic zoning. This is associated with seismic hazard and places the deposit in moderate seismic hazard “Zone 2” (Figure 16-24). There are no destructive earthquakes with a Mercalli intensity of at least VI in the historical seismic record for the years 1692–2021.

The events recorded in this region correspond to intraplate earthquakes. Caused by rupture within the South American tectonic plate from thrust produced by the subduction of the Nazca plate from the west.

The affected area corresponds to the Metán basin. A tectonic depression filled by sediments and volcanites since the Lower Cretaceous and structured by faults and folds. The seismogenic potential of these faults is evidenced in the morphologies of the terrain as fault scarps (steps in the surface). This affects alluvial levels of Quaternary age deposits. These structures are linked to growth of the easternmost sierras of the Andes (Santa Barbara System), forming the active orogenic front of the mountain range. The earthquakes that have occurred respond to the reactivation of some of these faults or other associated structures with little expression in the terrain.

Considering these conditions, a preliminary static stability analysis for the pit walls of the project is sufficient.

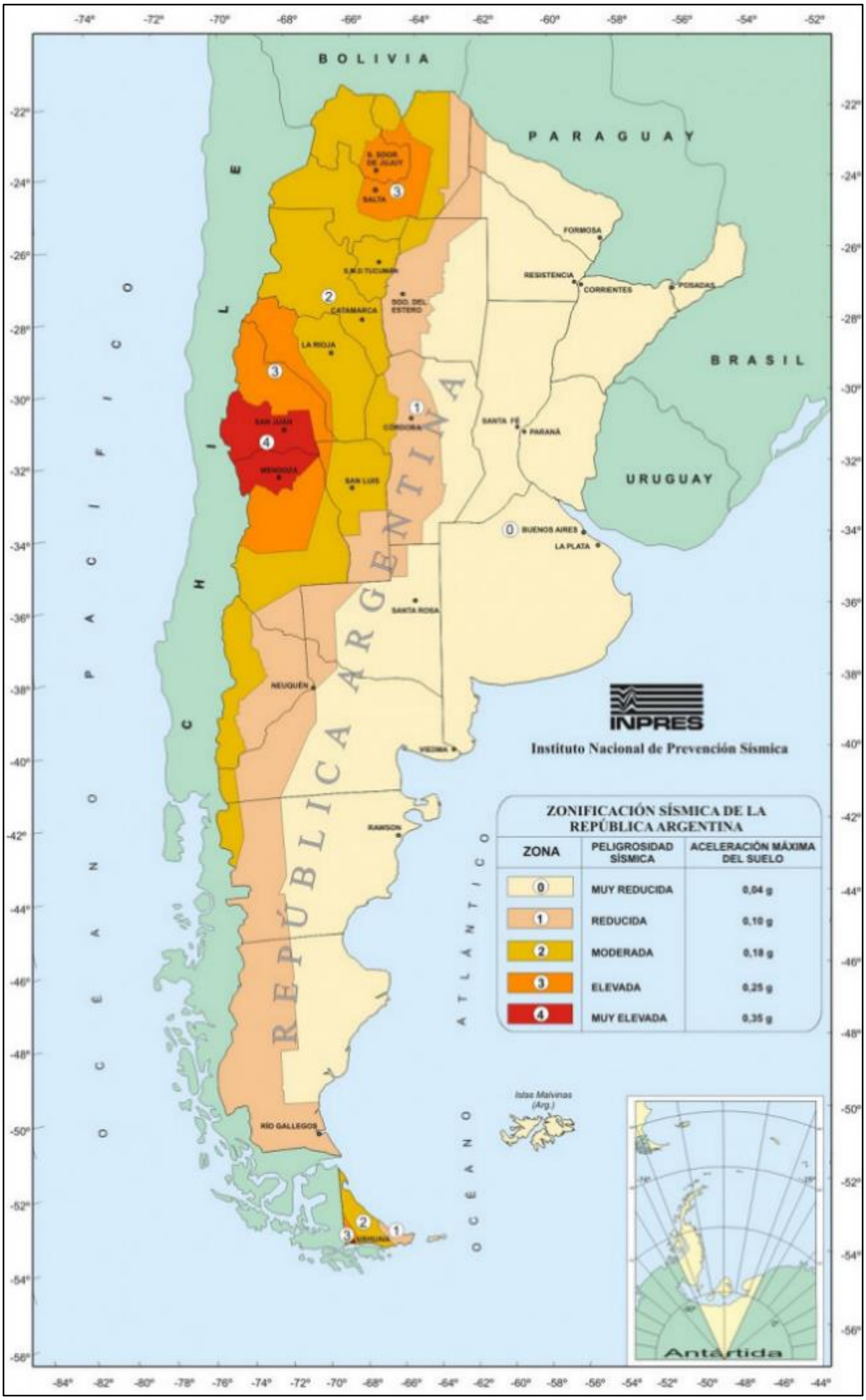


Figure 16-24: Argentine Seismic Zoning

Source: INPRES

16.9.2 Diablillos Final Pit Stability

The stability analysis was performed using Slide software, which allows us to obtain the static stability of the walls that comprise an open pit mine. but does not allow us to simulate the dynamic behaviour of the design. By using this methodology, stability factors and the possibility of failure that may exist in the field can be established.

The Diablillos project consists of 10 mining phases, starting in the centre of the deposit, continuing an expansion towards the northeast and southwest, ending later with the high phases in the northeast sector as a final wall. Given this growth and individualization of the phases, the ultimate pit stability can be defined by combining the walls of F04_101, F05_120, F06_140, F07_150, F08_160, F09_170 and F10_180, F11_114, as shown in the figure below.

Five profiles were established on which the stability analysis of the final pit geometry was performed, as shown in Figure 16-25 and Figure 16-26.

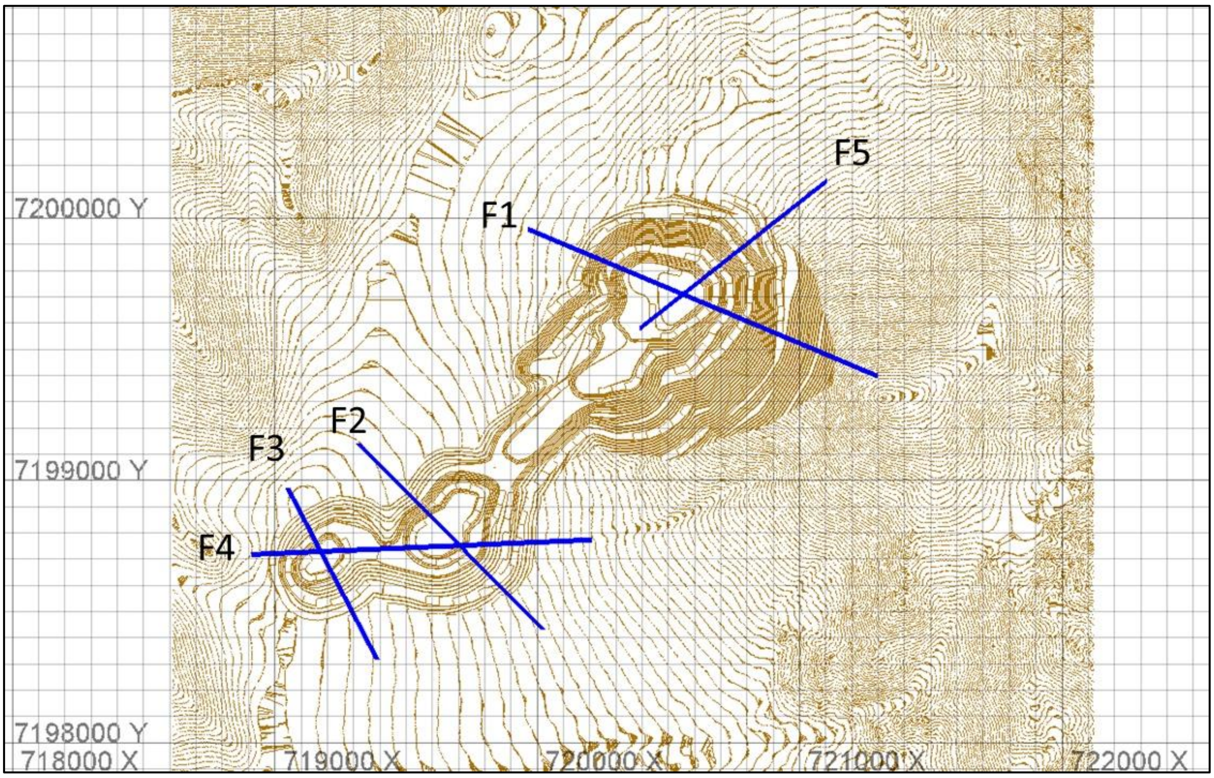


Figure 16-25: Sections for stability analysis

Source: AbraSilver Resource Corp., 2024

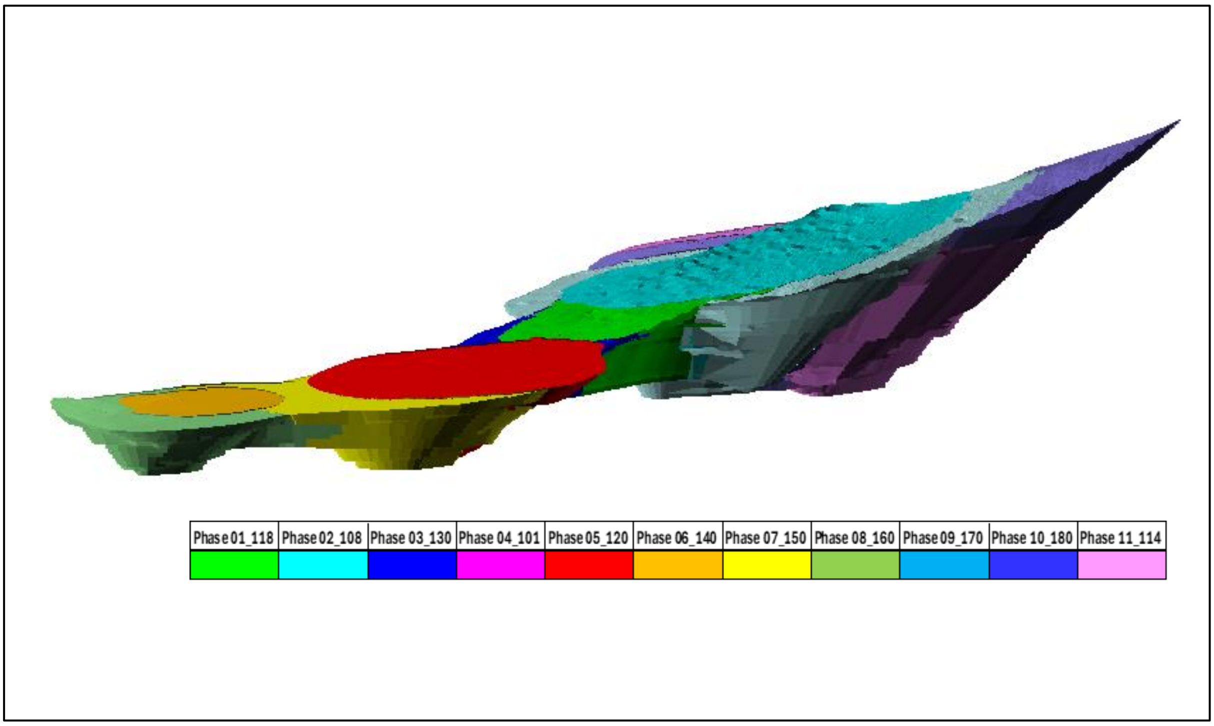


Figure 16-26: Final pit

Source: AbraSilver Resource Corp., 2024

Each line represents a section view with its number, indicating the phase to which the profile belongs, starting from the left (L) to the other end of the line, which we will call right (R).

The walls defined to estimate the ultimate pit stability are shown in Table 16-18, which also includes the safety factor and probability of failure for that profile and wall.

Table 16-18: Summary with SF and PF values for final pit

Profile	Wall Side			
	Right (R)		Left (L)	
	SF	PF	SF	PF
F1	1.39	1.00%	1.71	0.00%
F2	2.35	0.00%	2.70	0.00%
F3	1.86	0.00%	2.75	0.00%
F4	2.49	0.00%	3.73	0.00%
F5	-	-	1.36	2.00%

From the analyzed profiles, we can observe that there are 2 walls with a safety factor close to the minimum acceptable of 1.3, but their probability of failure is quite low. These critical cases are shown in the Figure 16-27 to Figure 16-35.

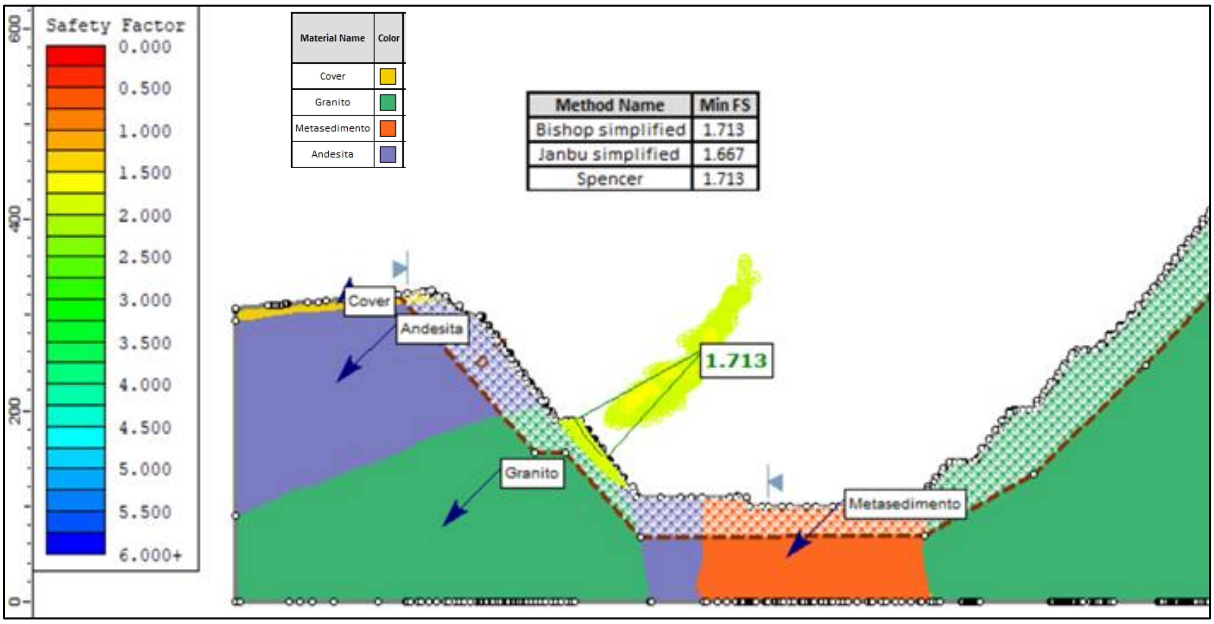


Figure 16-27: Section F1 left stability analysis

Source: AbraSilver Resource Corp., 2024

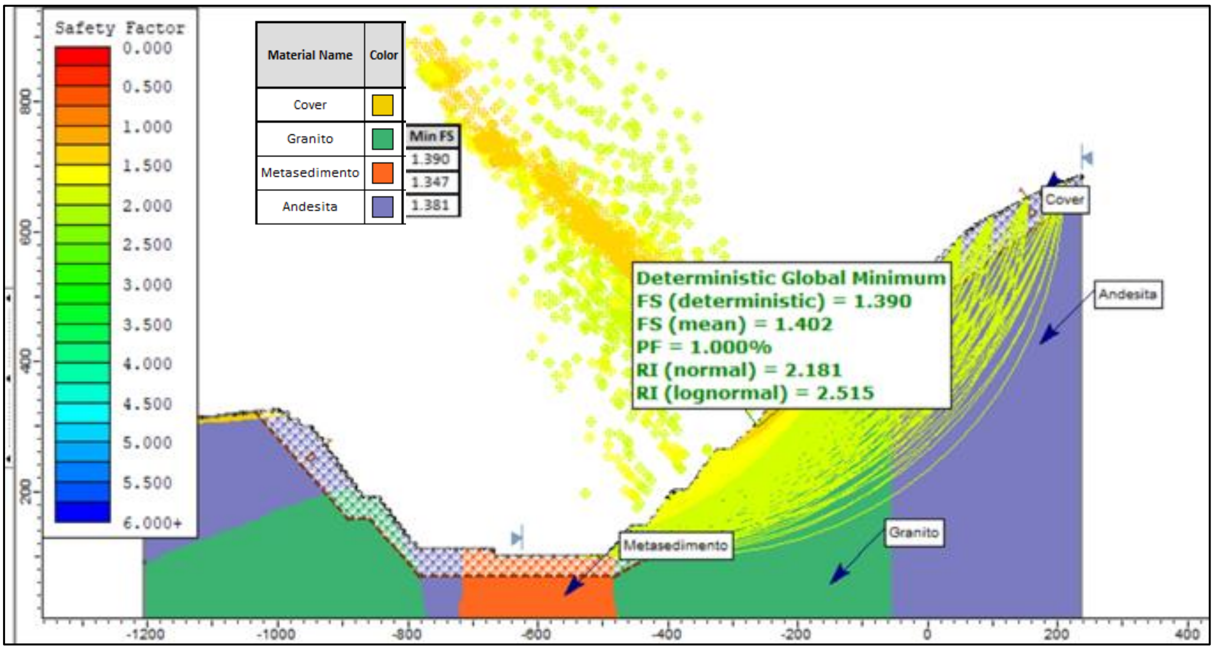


Figure 16-28: Section F1 right stability analysis

Source: AbraSilver Resource Corp., 2024

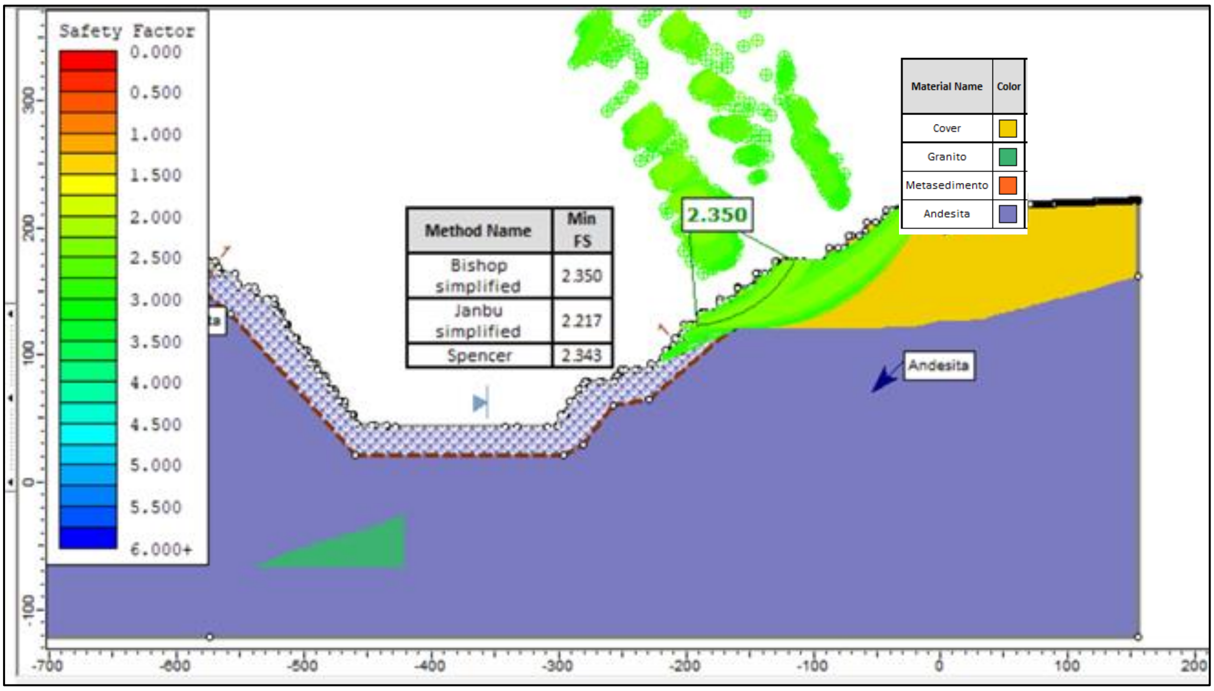


Figure 16-29: Section F2 left stability analysis

Source: AbraSilver Resource Corp., 2024

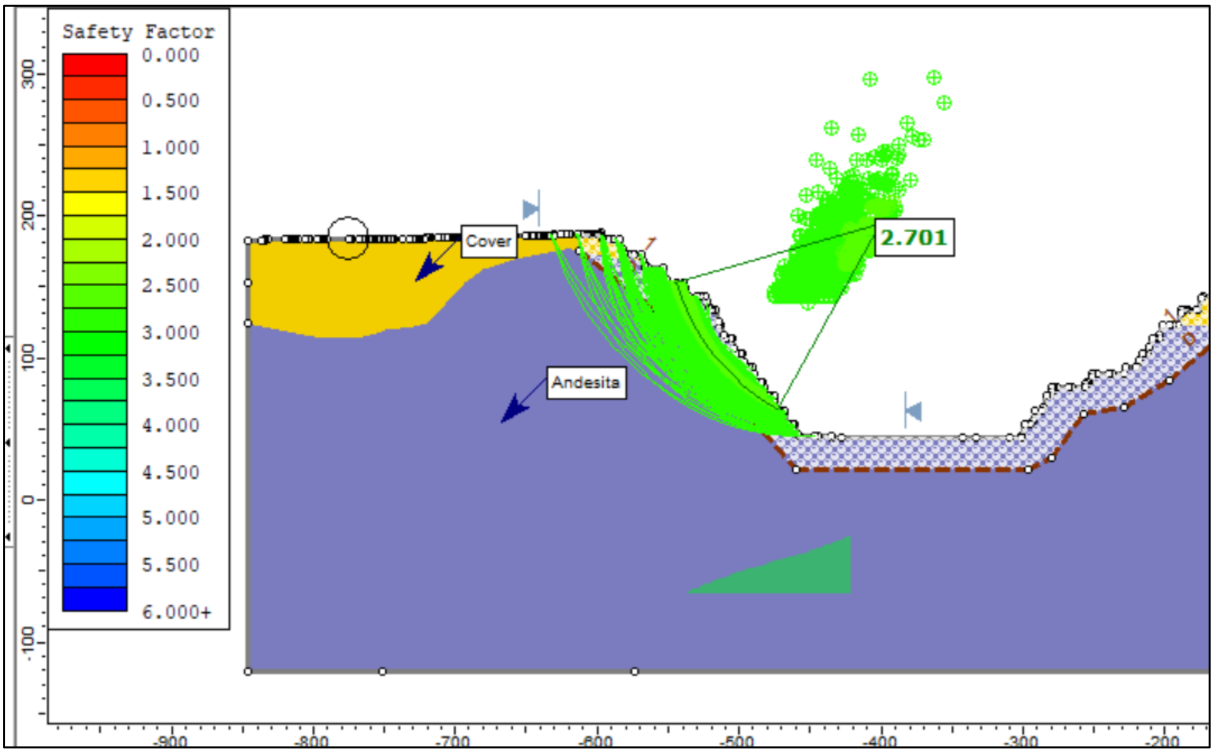


Figure 16-30: Section F2 right stability analysis

Source: AbraSilver Resource Corp., 2024

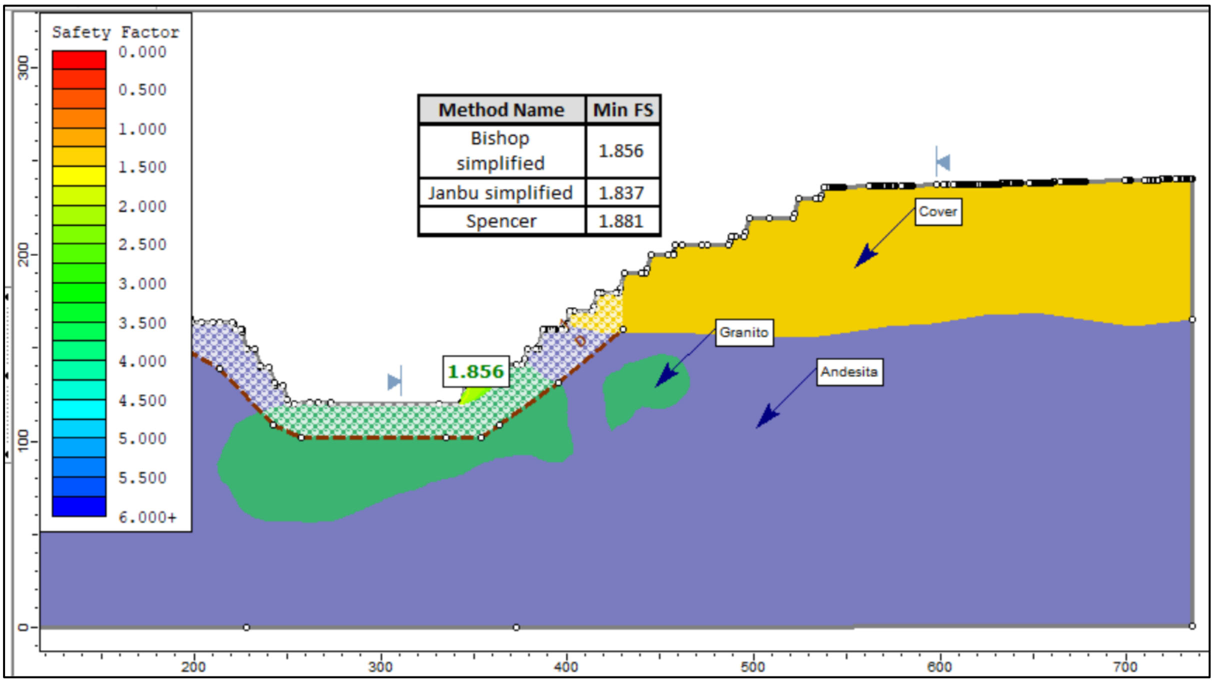


Figure 16-31: Section F3 left stability analysis

Source: AbraSilver Resource Corp., 2024

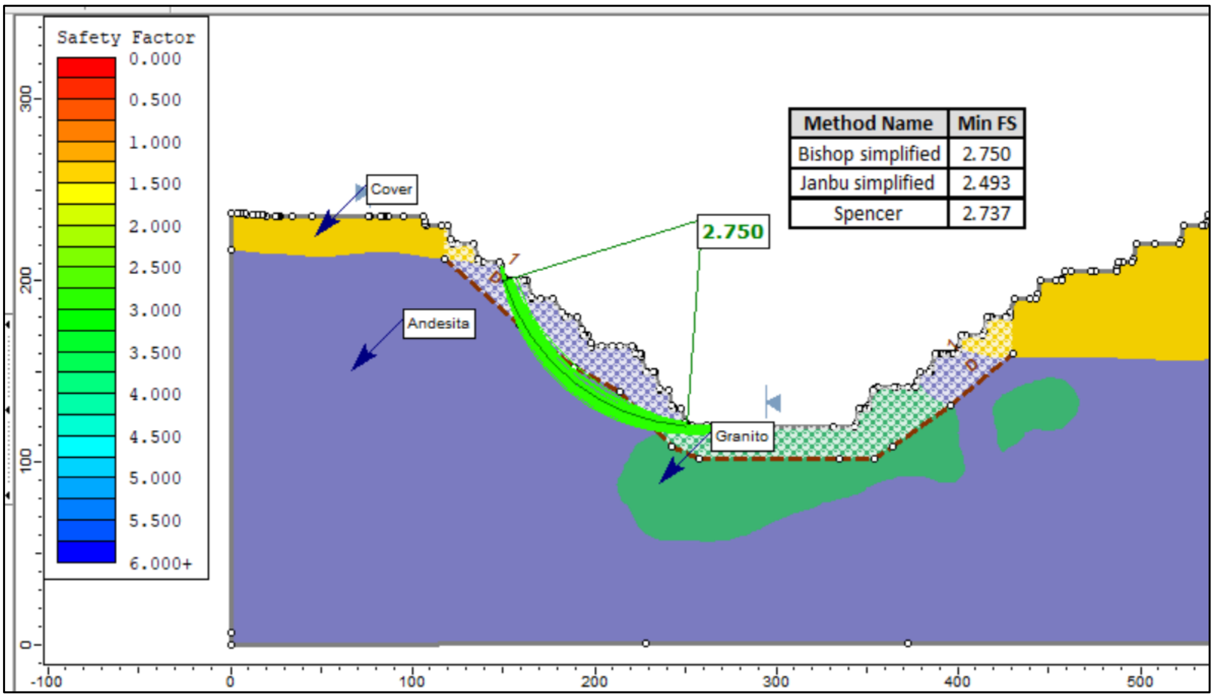
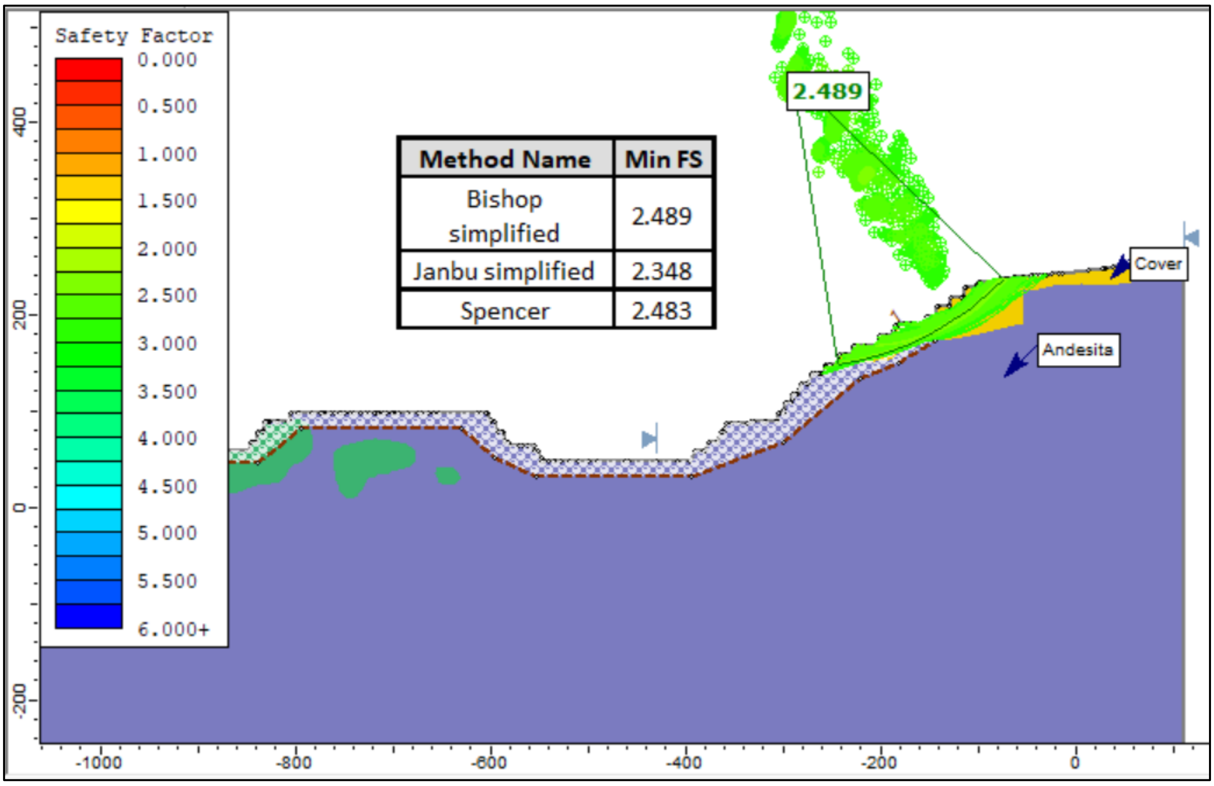


Figure 16-32: Section F3 right stability analysis

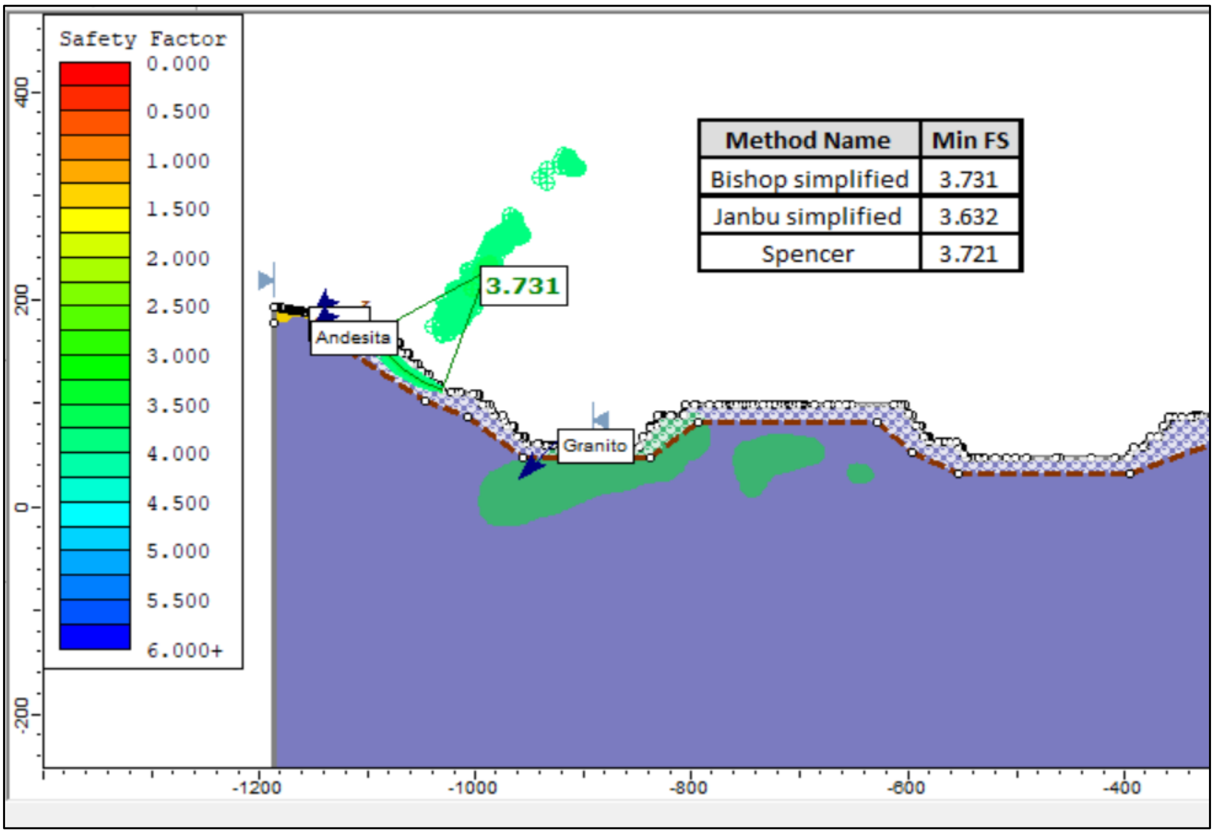
Source: AbraSilver Resource Corp., 2024



Method Name	Min FS
Bishop simplified	2.489
Janbu simplified	2.348
Spencer	2.483

Figure 16-33: Section F4 left stability analysis

Source: AbraSilver Resource Corp., 2024



Method Name	Min FS
Bishop simplified	3.731
Janbu simplified	3.632
Spencer	3.721

Figure 16-34: Section F4 right stability analysis

Source: AbraSilver Resource Corp., 2024

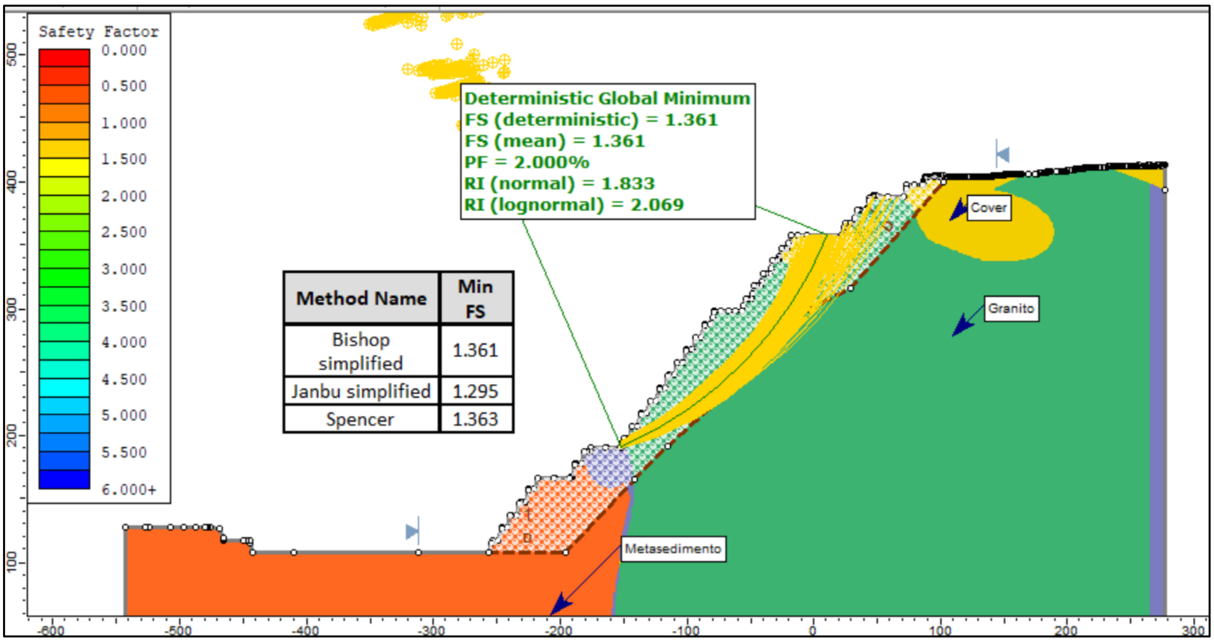


Figure 16-35: Section F5 left stability analysis

Source: AbraSilver Resource Corp., 2024

16.9.3 Summary of Results

- There are 2 walls with a factor of safety close to the limit of 1.3.
- All other walls are stable or very stable by mining standards.
- Walls with a safety factor greater than 2 have design parameters that can be optimized.
- In order to reduce the possible overestimation of rock and cover properties consider common operating practices and the inclusion of a damage zone of D=0.8.

16.9.4 Acceptability criterion

Based on the results obtained in the stability analysis performed, the recommended acceptability criterion for the execution of the proposed design in the Diablillos open pit mine is to comply with a Safety Factor equal to **1.3** with a maximum Probability of Failure of **10%**.

In addition, in order to ensure the stability of the work, it is necessary to:

- Perform ongoing monitoring, measuring displacements of the mine slopes.
- Ongoing bench-to-bench topographic control. Whenever possible, considering a global monitoring system for the mine under normal operating conditions (robotic system; prism-station-total monitoring software).
- Perform daily geomechanical inspections in the different phases of the mine and generate effective interaction with mine operations personnel.

During operation, it is also recommended to generate the following geotechnical products that are key to good slope control performance:

a) Geomechanical risk map.
b) Structural prediction map.
c) Weekly and monthly recommendations.
d) Slope rehabilitation plan.
e) Geotechnical reconciliation.
f) Recommendation for perimeter blasting.
g) Training for mine operations personnel.
h) Geotechnical procedures.

16.9.5 General Recommendations

- Since the stability evaluation presented is an ultimate pit evaluation, post-operating degradation of the material must be considered to ensure stability over time.
- Given the level of uncertainty of the geomechanical information used for this study, a safety factor of 1.7 is not recommended. Close to this value the PF value is very close to 0.0%.
- The study of rock and fill qualities should be improved to update models and reduce uncertainty. This allows a lower SF to be used in the design, close to 1.3.
- Previous documents have mentioned the possible presence of water. This should be studied to incorporate it in the design definition and stability determination. Consider the proximity to areas with salt flats.
- It is highly recommended to improve the characterization of the surface called cover in order to obtain reliable results, since this zone is the one with the highest probability of failure.

16.9.6 Design Recommendations

Considering that walls with a low probability of failure have high SFs, we recommend optimizing the design parameters. Mainly seeking to adjust the ramp width to the real needs of the project (22 m).

Considering the above, it is possible to increase the overall angle in the best geomechanical performance zones to about 45°, with an SF of 1.7.

16.10 Water Management

Since most of the drilling was done to define mineralization, a precise definition of the water table was not established. A theoretical logging exercise during the reverse circulation program (dry and wet split) from 1996 to 1997 found the water table to be at level 4005.

Considering this water table and plotting it with the depth for each pit period, a dewatering system should be installed in period 5 and towards the end of the life of mine to avoid water in the mining level.

In the future it is necessary to incorporate some dynamic test drilling to specifically determine the water table in the next drilling campaign; however, the knowledge presently available does not suggest a risk to the current state of reserves.

Figure 16-36 shows the level reached per period with regard to the water table, while Table 16-19 shows the specific level for each period.

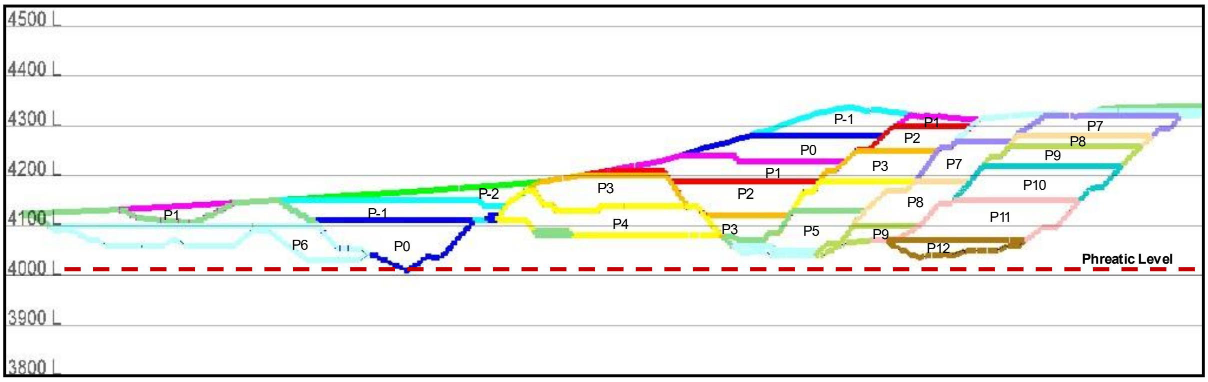


Figure 16-36: Phreatic level vs open pit level

Source: AbraSilver Resource Corp., 2024

Table 16-19: Level of open pit period

Period	Min MASL Level
-2	4,140
-1	4,110
0	4,010
1	4,105
2	4,120
3	4,070
4	4,080
5	4,050
6	4,030
7	4,190
8	4,100
9	4,040
10	4,150
11	4,070
12	4,040
13	4,000

16.11 QP Comments about Section 16

In future drilling campaigns, tests of the cover sector should be carried out and a hydrogeological model built. In this way some slopes of the open pit could be increased.

Strategic planning with variable cut-off grades over time and a marginal phase analysis is additionally recommended for a later engineering stage.

A trade off study should be early 2025 to see different options of size equipment, such as CAT785 vs CAT777, autonomous haulage system.

17 RECOVERY METHODS

17.1 General Description

The results of the metallurgical test work described in Section 13, together with industry standard practices, were used to develop process design criteria, which in turn were used to design the process flowsheet, develop the mass balance and equipment design parameters selected for this project. This section describes the process recovery method selected mainly based on the metallurgical test on Oculto material as completed in 2022. The JAC material as tested in 2023, representing approximately 15% of the total resource, has a somewhat different metallurgical performance. Whenever the process design is different between JAC and Oculto material, it will also be mentioned in the section below.

The Diablillos deposit of AbraSilver is a gold and silver mineralized material which from laboratory test work has demonstrated economic metal recovery through cyanidation. Based on the gold and silver head assays of the mineralized material together with their respective laboratory testing recoveries through gravity concentration and cyanidation, a combination of centrifugal treatment and the Merrill-Crowe process have been selected as the most economic process options. Based upon a throughput stipulation by AbraSilver, a processing plant with a daily capacity of 9,000 metric tons of material will be designed. The total nominal operating days is 360 days at mine site, however considering the equipment downtime and required maintenance, 350 plant operating days are assumed per year, which results in a yearly throughput of 3.15 million metric tons. According to the resource model, the average head grade of the Oculto material is 0.88 ppm of gold and 74 ppm of silver; and the JAC material has an average grade of 0.13 ppm of gold and 202 ppm of silver. The plant will consist of the following unit operations:

- Crushing – The primary jaw crushing station will operate in open circuit producing a final product 80 precent passing size (P80) of 150 mm or below. The crushed ore will be transferred to an enclosed coarse ore stockpile and then further conveyed to the grinding circuit.
- Grinding – Grinding size reduction is accomplished in a typical Semi Autogenous Grinding (SAG) and ball mill circuit with SAG oversize pebble crushing. The final grinding product after cyclone classifying has a (P80) size of 150 µm.
- Gravity Concentration and Intensive Leaching - Gravity concentration will treat 50 weight percent of the cyclone underflow or more, to produce a gold rich gravity concentrate. The gravity concentrates will be dissolved with an Intensive Leach reactor for gold and silver recovery. The pregnant solution will report to the pregnant solution tank. The Intensive Leach residue will be fed by gravity to the ball mill feed.
- Tank Leach – The slurry after gravity concentration will report to a tank leach at 45% solids density, facilitated by air injection. The total retention time will be 36 hours and will be followed by the counter current decantation (CCD) circuit.

- Counter Current Decantation – The slurry after cyanide leach will be washed by the CCD circuit, which has a total of six stages and has a wash ratio of 3. The pregnant solution will report to the Merrill-Crowe plant and the washed slurry will report to the cyanide destruction circuit. If the plant will process JAC material only, a total of seven stages of CCD will be employed with a wash ratio of 3.0.
- Merrill-Crowe circuit – The pregnant solution recovered from the CCD circuit will be further purified by pressure filtration to remove the Total Suspended Solids (TSS), de-aerated, and then the gold and silver will be precipitated by zinc dust. The barren solution will be recycled as either the CCD wash water or the process makeup solution.
- Foundry – the precipitate produced from the Merrill-Crowe plant will be transferred to the refinery to produce the final Doré bullion. The Doré production process includes retorting to remove mercury, flux mixing, and smelting. The slag will be crushed and recycled back to the grinding circuit for re-processing.
- Cyanide Destruction and Tailings Handling – The washed slurry from CCD will report to cyanide destruction tanks to reduce the Weak Acid Dissociable (WAD) cyanide to the required level. The process will use the industrially proven INCO process. The detoxed tailings will be further thickened by the tailings thickener and then report to the tailings pond.

The overall flowsheet is depicted in Figure 17-1 below.

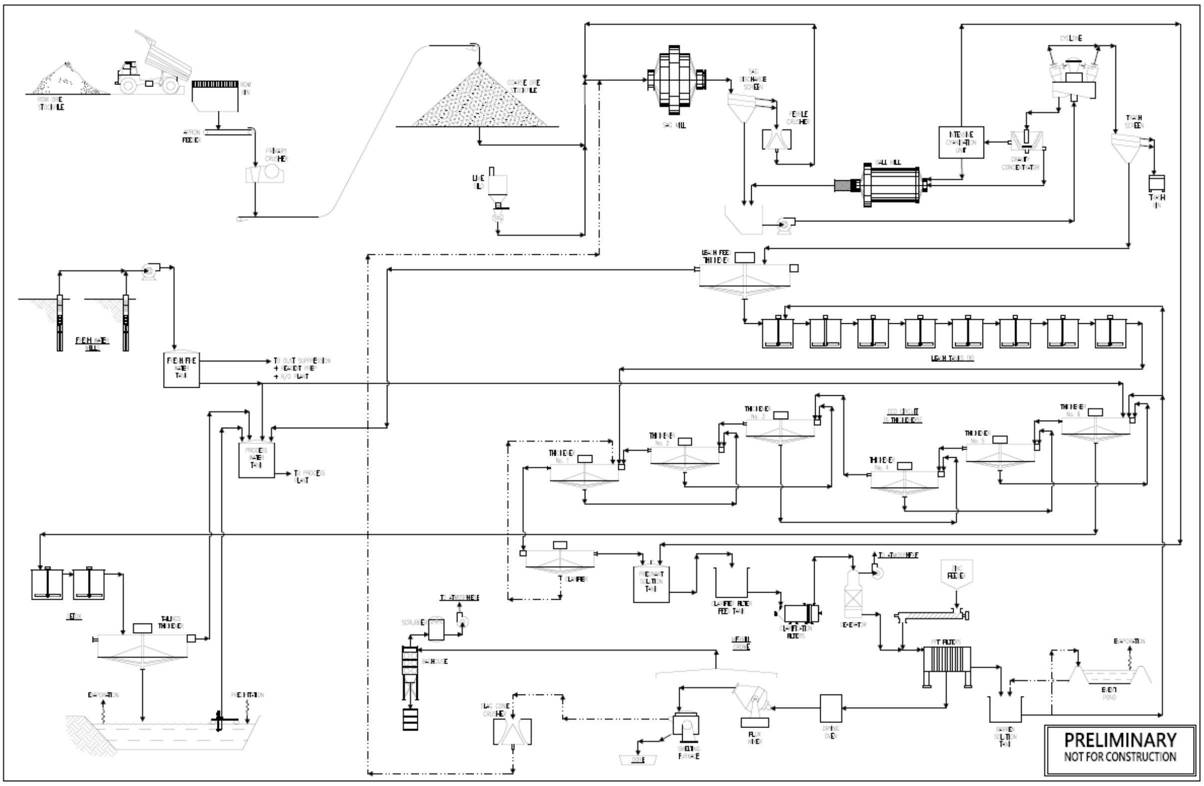


Figure 17-1: Overall flowsheet

Source: AbraSilver Resource Corp., 2023

17.2 Process Design Criteria

The following Process Design Criteria (PDC) and mass balance details the annual mineralized material and product quantities, major mass flows and capacities, major equipment information and reagent consumption for both Oculto and JAC material (Table 17-1). The reagent consumptions and consumables can be found in the operating cost estimate in Section 21.

Table 17-1: Process design criteria

Area	Criteria	Unit	Oculto	JAC
General	Daily Throughput	mtpd	9,000	
	Operating days per year	days/year	350	
	Annual Throughput	mtpy	3,150,000	
	Oxide head grade, Au, ppm	ppm	0.88	0.13
	Oxide head grade, Ag, ppm	ppm	74	202
	JK Axb value		56.2	126.8
	Bond Grinding Work Index	kwh/mt	15.8	15.1
	Bond Abrasion Index	g	0.66	0.1
	Crushing Circuit Utilization and Availability	%	75%	
	Grinding and Downstream Circuit Utilization and Availability	%	92%	
	Design factor for Equipment Sizing		1.15	
	Design Factor for Conveyors, Pumps		1.25	
Comminution	Crushing Nominal Feed Rate	mt/hr	479	
	Type of Primary Crusher		Jaw	
	Crusher Open Side Setting	mm	150	
	Coarse Ore Stockpile Type		Enclosed, Conical	
	Stockpile Live Capacity	mt	13,000	
	Stockpile, Total Capacity,	mt	52,000	
	Grinding Circuit and Downstream Nominal Rate	mtph	391	
	SAG Size (Diameter x EGL)	m	7.92 x 3.66	
	Mill Slurry Solids Concentration	%, w/w	75%	
	Pebble Screen Aperture	mm	10.0	
	Pebble Recycle Rate	%	15-35%	
	Pebble Crusher Type		Cone Crusher HP-100 or equivalent	
	Ball Mill Size	m	5.49 x 8.53	
	Ball Mill Circulating Load	%	250%	
	Final Grind Size	micron	150.0	
	Cyclone Feed Slurry Solid Concentration	%, w/w	55%	
Tank Leach and Gravity Concentration	Leaching Tanks Feed Slurry Solids Concentration	%, w/w	45%	
	Leaching Retention Time	hr	36.0	
	Leaching pH		10.5	
	Gold Recovery	%	83.0%	83.8%
	Silver Recovery	%	79.8%	84.9%
	Gravity Concentrator feed		Cyclone underflow	

Area	Criteria	Unit	Oculto	JAC
	Percent of Cyclone Underflow treated	%	50% or above	
	Gravity Concentrator		Two of Falcon SB5200 or equivalent	
	Intense Cyanidation Unit		One of Falcon SLR6000	
	Gold Recovery	%	10.1%	17.3%
	Silver Recovery	%	7.8%	9.1%
CCD	CCD Stage		six	seven
	CCD Thickener Underflow Solids Concentration	%, w/w	55%	50%
	CCD Wash ratio		3.0	
	Final CCD Overflow Total Suspended Solids (TSS)	ppm	No more than 100	
Merrill-Crowe	Merrill-Crowe Nominal Solution Feed Rate	m^3/hr	1125	1,273
	Clarified Solution TSS	ppm	1 or below	
	Dissolved Oxygen (DO) after De-aeration	ppm	0.5 or below	
Cyanide Destruction and Tailings Handling	Cyanide Destruction Method		INCO process	
	Total Residence Time	hr	1.0	
	Detox Slurry Solids Concentration	%, w/w	55%	45%
	Tailings Thickener Underflow Solid Concentration	%, w/w	60%	55%
Major Reagent Consumption	Sodium Cyanide Consumption	kg/mt	0.83	1.79
	Lime Consumption	kg/mt	0.93	2.19
	Diatomaceous Earth Consumption	mt/day	1.4	2.7
	Flocculant Consumption	g/mt	45	95
	Zinc Dust Consumption	kg/hr	34	102
	Sodium Metabisulfite, g/g of WAD CN	g/g WAD CN	4.7	

The above process design Criteria is based on the plant feed of Oculto or JAC respectively, which will lead the equipment size difference in the metal recovery circuit, particularly Merrill-Crowe plant, CCD, and tailings handling circuit. However, considering the potential ore blend in the future plant feed, the requirement of equipment size change will be minimal, which in turn implies a minimal impact on the process CAPEX. However, process OPEX for these ore types should be considered in ore blending for cash flow analysis.

17.3 Process Description

17.3.1 Crushing Circuit

The ore will be trucked from the mine to the ROM stockpile near the jaw crusher station. A front-end loader will convey the material from the ROM stockpile to the jaw crusher dump pocket. The dump pocket will be covered by a stationary grizzly to retain any oversize boulders from entering the jaw crusher. The dump pocket has a live capacity of 200 metric tons of material, which is twice the material the recommended mining truck can contain per individual load. A hydraulic rock breaker is installed near the dump pocket to break the larger oversize boulders retained by the grizzly.

The material is conveyed to the jaw crusher through an apron feeder from the dump pocket. The crusher product reports directly to the jaw crusher discharge conveyor, which further transfers the material to the coarse ore stockpile feed conveyor. A magnet will be installed at the discharge end of jaw crusher discharge conveyor to remove any tramp metal. A metal detector is also installed to alarm the presence of any metals on the conveyor. The jaw crusher has an open side setting (OSS) of 152 mm (equals 6 inches). The jaw crusher product is expected to have a P80 around 152 mm and top size of 254 mm. The crushing production rate will be monitored by a belt scale mounted on the conveyor. A lime silo will be installed at the stockpile feed conveyor and will meter the pebble lime onto the conveyed material to establish an alkaline environment in the grinding circuit.

Due to the high wind velocity at the mine site, the coarse ore stockpile will be enclosed. The coarse material stockpile is designed to have a live volume of 13,000 metric tons of the plant feed. When required, the material will be moved from the “dead” storage zone to the “live” storage zone by a front-end loader. The total stockpile capacity is estimated around 52,000 metric tons. This translates a stockpile of 67 m in diameter and in 25.2 m height. The material will be reclaimed by two variable speed belt feeders, one operating and one standby. The feeders transfer the material to a SAG mill feed conveyor reporting to the grinding circuit. The reclaim rate will be monitored by a belt scale mounted on the SAG mill feed conveyor.

Dust control will be controlled in the dump pocket, transfer conveyors, and coarse ore stockpile. Dust control in the stockpile area will be achieved using two wet type dust collector systems. One of the two dust collector systems will be installed to control dust at the discharge end of the stockpile feed conveyor, and the other one will be installed to control the dust in the reclaim tunnel.

17.3.2 Grinding Circuit

The material reclaimed from the coarse ore stockpile will be initially ground in a SAG mill. Dilution water will be added into the SAG mill feed chute to maintain the slurry density inside the SAG mill at approximately 75% solids by weight. The SAG mill has a diameter of 7.92 m (26 ft) and effective grinding length of 3.66 m (12 ft) and is equipped with a 4,500-kW variable speed drive. The ball charge is typically controlled between 8% to 15% by volume. The SAG mill discharge will be screened by a vibrating screen (pebble screen) installed with spray bars to rinse the fines from the oversize pebble material. The screen aperture will be 10 mm. The screen oversize will be transferred to a cone crusher through two transfer conveyors, to further reduce the pebble size down to P80 of 12 mm (½ inch) or below. The crushed pebble material will be recycled back to the SAG mill feed conveyor and then to the SAG mill for further grinding. The pebble recycle rate is typically 15% to 35% of SAG fresh feed rate, a HP 100 short head cone crusher or equivalent will be sufficient for this duty. The close side setting (CSS) is around 9 mm or smaller. When the pebble recycle rate falls below 10%, the pebble crusher can be stopped.

The pebble screen undersize will be discharged to a pump box, which also receives the ball mill discharge. The ball mill will have a diameter of 5.49 m (18 ft) and effective grinding length of 8.53 m (28 ft), with an installed power of 4,500 kW. The ball mill will be rubber lined and is operated at 76% of the mill critical speed. The maximum ball charge is assumed to be 33 volume percent. Dilution water will be added into the pump box to maintain the cyclone feed slurry density around 55% solids by weight. The slurry in the pump box will be pumped to a cyclone cluster. Two cyclone feed pumps will be installed, one operating and one standby. The cyclone overflow will be the final grinding product with a particle size of approximately 150 microns. The ball mill circulating load is assumed to be 250%. A portion of the cyclone underflow will be fed to the gravity gold recovery circuit to recover the coarse gold, while the other portion of the underflow reports directly to the ball mill. The cyclone overflow will be sampled by primary samplers and analysed for metallurgical control prior to cyanidation. An online particle size analyser is installed to monitor the particle size distribution of the grinding circuit product.

Grinding balls will be added to the SAG mill and ball mill by ball bins. Air compressors and instrument air will provide the required service for the mill operation and for maintenance. Both SAG mill and ball mill will have their dedicated mill liner handling machines. An overhead crane will be installed for the maintenance of the grinding circuit.

17.3.3 Gravity Concentration and Intensive Cyanidation Circuit

Two gravity concentrators, Falcon SB5200 or equivalent, will be installed receiving a portion of the cyclone underflow. Fluidization water will be injected into the two gravity concentrators keeping the solids in the slurry better fluidized. The mass pull from these two gravity concentrators will be approximately 190 kg per hour. Each gravity concentrator has an operating cycle of approximately one hour. At the end of each operating cycle, the concentrate from the gravity concentrator will be flushed out to an intensive cyanidation circuit (alternative name Inline Leach Reactor or ILR). An intensive cyanidation system (SLR6000 unit manufactured by Sepro Mineral Systems or equivalent) will be installed to treat the gravity concentrate. The gravity tails will continuously report back to the ball mill feed during the operating cycle.

Based on the laboratory gravity testing, it is estimated that 10.1% gold and 7.8% silver will be recovered to the gravity concentrate for Oculto material, and 17.3% gold and 9.1% silver can be recovered to the concentrate for JAC material. The gravity concentrate will be leached in the ILR circuit with sodium cyanide solution and air to recover the gold and silver from the solids to the pregnant solution. The intensive cyanidation typically has a very high metal recovery, it is assumed that 99% gold and 97% silver will be recovered to the pregnant solution. The pregnant solution from the ILR circuit will be periodically pumped to the pregnant solution tank at the Merrill-Crowe circuit. The solid tails from the ILR circuit will be flushed back to the ball mill circuit. The gravity gold recovery circuit will be isolated and monitored for security purposes within the grinding circuit area.

17.3.4 Cyanide Leach Circuit

The cyclone overflow will report to a 34 m diameter pre-leach thickener, for the purpose of increasing the leach tank slurry density so that the tank volume required can be optimized. The overflow from the pre-leach thickener will report to the process solution tank. The thickener underflow will be approximately 60% solids by weight and will be pumped to the leaching tanks. If the plant will process the JAC material only, the required pre-leach thickener size will be 40 m in diameter and its underflow density will be controlled around 50% by weight.

Based on the cyanidation test work, the leach retention time is specified as 36 hours. Additional barren solution will be added to dilute the leach slurry density to 45% solids by weight. Milk of lime, if needed, will be added to the leaching tank to control the slurry pH at 10.5 for both optimization of leaching kinetics and conservation of the free cyanide in the process. There will be a total of eight leach tanks (diameter of 15 m and height of 20 m) in series, with each tank equipped with an agitator and an air injection mechanism. The slurry will flow through leach tanks by gravity and then will be pumped to the downstream Counter Current Decantation (CCD) circuit. Sodium cyanide solution will be dosed at the leach tanks to maintain the free cyanide concentration of approximately 1.5 grams per liter and the cyanide concentration will be allowed to decay in the last two leach tanks.

Based on the laboratory testing, the expected gold recovery will be approximately 83% and silver recovery will be approximately 80%. For JAC material, the gold recovery will be around 84% and silver recovery will be around 85%. The leaching tanks will be open to the air and will be equipped with an overhead crane for maintenance.

17.3.5 Counter Current Decantation Circuit

The leached slurry will report to a CCD circuit to recover the pregnant solution. There will be a total of six stages of CCD thickeners (all high-rate thickeners with added flocculant) which will recover most of dissolved gold and silver to the pregnant solution phase feeding the Merrill-Crowe circuit. The CCD wash ratio, defined as the ratio of wash water to the aqueous phase of CCD thickener underflow, will be controlled at 3.0. The CCD thickener underflow density will be approximately 55% solids by weight. The stage mixing efficiency of each CCD thickener is assumed to be 85%. The Figure 17-2 below illustrates the CCD circuit flow streams.

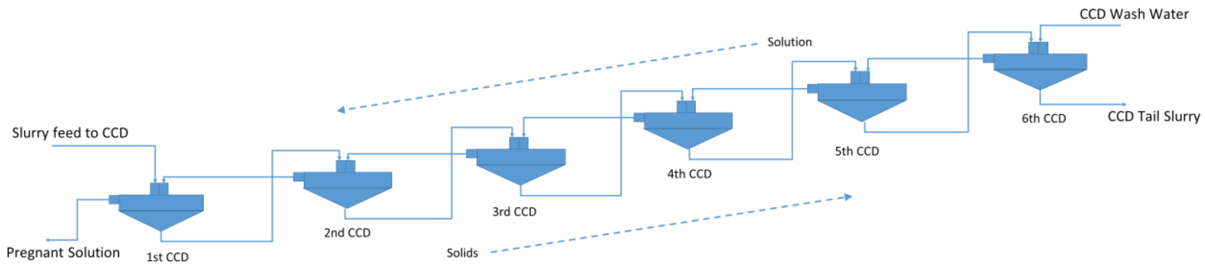


Figure 17-2: CCD circuit flow streams

Source: AbraSilver Resource Corp., 2023

Due to a higher volumetric feed to the first CCD thickener compared to following thickeners, the first CCD thickener will have a diameter of 32 meters, while all the rest of the CCD thickeners will have a diameter of 30 meters. Based on the METSIM simulation, around 99.6% of gold and silver in the solution can be recovered to the pregnant solution for downstream Merrill-Crowe processing.

The overflow from the last CCD stage will be fed to an additional thickener for clarification, which will be installed to minimize the Total Suspended Solids (TSS) in the pregnant solution. The TSS in the pregnant solution is directly linked to the Diatomaceous Earth (DE) consumption and the duration of the downstream DE clarifier operation cycle. The clarifier underflow will be periodically recycled back to the CCD thickener. To minimize the solution TSS, the additional thickener for clarification will have diameter of 32 m.

For JAC material, the slurry will be more viscous and more difficult to settle based on the sedimentation and rheology tests. In addition, the contained value in the pregnant solution will be higher for JAC material compared to the Oculto material. Consequently, if the plant will process JAC material only for a certain period, a total of seven stages of CCD thickening will be required to optimize the project economics. The required CCD thickeners size will be 40 m in diameter for the first one and 38 m in diameter for the rest of the six CCD thickeners. Approximately 99.8% of gold and silver in the CCD feed can be recovered to the Merrill-Crowe plant.

17.3.6 Merrill-Crowe Circuit

The gold and silver in the pregnant solution will be recovered by the Merrill-Crowe process, which includes DE coated clarifiers, two de-aeration towers, and zinc cementation filter presses. This equipment in the Merrill-Crowe circuit will be supplied by a vendor as a package.

The pregnant solution recovered from the CCD circuit will be stored in a pregnant solution tank (diameter of 15 m and height of 20 m), which is to provide a buffer capacity of over two hours for the cyclic operation of the Merrill-Crowe circuit. The nominal solution flowrate through the circuit is 1,145 metric tons per hour. The maximum solution TSS is recommended to be below 100 ppm. The pregnant solution will first be pumped through a DE coated clarifier. There will be a total of four units of DE coated clarifiers, with three units operating and one unit on standby.

Each DE coated clarifier typically has an operating cycle of approximately twelve hours. Before each operating cycle, the DE slurry will be prepared at 2% solids by mixing the dry DE powder and raw water. The DE slurry will be pumped through the DE clarifier for precoating. The water recycled from DE precoating returns to the DE precoat preparation tank. Typically, the thickness of the DE precoat on the filter cloth needs to be 3 mm (1/8 inch) for efficient clarifier operation. Once the precoat application operation is complete, the pregnant solution can be filtered through the clarifier. During solution filtration, additional DE slurry will be metered into the clarifier which is proportional to the pregnant solution flow rate and contained TSS level. This process is called DE body feed. The DE slurry used for body feed is typically 7% solids by weight. Once the pressure drop through the clarifier builds up and the flow rate declines to a certain level, the clarifier will be taken offline for back wash and the spent DE will be sluiced off. The spent DE will be collected in the area sump and then pumped to the CCD circuit. The time duration offline including backwash, sluice, and filter cloth cleaning should be no more than two hours.

The clarified solution produced by the DE clarifier typically has TSS level less than 1 ppm, which is a clear solution. This solution will flow through two deaeration towers (diameter of 3.2 m and height of 6.3 m) to remove dissolved oxygen (DO) to below 0.5 ppm. Both deaeration towers will be operating units. Three vacuum pumps will be installed, with two operating and one on standby, which will provide sufficient vacuum to reduce the DO to the target level.

The solution from the deaeration towers will be pumped to the cementation filter presses through inline booster pumps. A total of four units of filter presses are included, with three operating units and one standby unit. Before bringing each individual filter press online, the cementation filter also needs to be precoated with DE, similar to the operation of DE clarifier. After DE precoating, the cementation filter can be brought online, and the pregnant solution will be pumped through the cementation filter.

Zinc dust will be added to the pregnant solution at the filter feed pipe through a zinc feed cone covered with water to eliminate the entrainment of any oxygen into the solution. Zinc metal in the form of zinc dust has a higher affinity for cyanide and causes the precipitation of gold and silver as metals. The precipitation of gold and silver using zinc dust is almost instantaneous and by the time when the pregnant solution reaches the cementation filter chamber virtually all precious metal precipitate has already formed and will be retained inside the filter chamber. Depending on the cyanide concentration in the pregnant solution, additional cyanide may be required to be added to the pregnant solution to induce more efficient precipitation. In the event of low ambient temperature which may lead to slower precipitation kinetics, lead nitrate can be added to expedite the precipitation and potentially improve the precious metal recovery.

Both the pregnant solution before the cementation filter and the barren solution after cementation will be sampled. There will be solution samplers installed both at the cementation filter feed pipe and discharge pipe which will continuously collect the solution sample, typically one composite sample for every shift. These samples will be used for metallurgical accounting purposes. Spot solution samples will also be collected periodically to check the performance of the Merrill-Crowe unit operation. If needed, required operational adjustments will be implemented.

Once the pressure drop through a cementation filter increases to a certain level or flow rate declines to a certain level, the cementation filter needs to be taken offline and precipitate will be recovered. The typical operation cycle of the cementation filter usually requires several days depending on the precoat efficiency and filterability of the precipitate cake. The cake coming out of the filter press typically includes gold and silver, impurity metals, DE, and moisture. The cake will be collected in a transfer bin which will be manually transferred to the foundry for further processing.

Both the DE precoat tank and the DE body feed tank will be installed inside the Merrill-Crowe plant. The DE precoat is a batch process in which the DE clarifier or cementation filter is coated with a required amount of DE before each operation cycle. DE body feed is a continuous process which is employed to capture the TSS in the pregnant solution and improve the performance of the DE clarifier.

The Merrill-Crowe Process typically has a very high precious metal recovery. Based on the test work performed, it is expected that 99.5% gold and 98.5% silver recoveries can be achieved through the Merrill-Crowe Process. With most of the barren solution recycled back to either CCD or the leach tanks, the actual gold and silver recovery through the circuit is usually slightly higher than the test work indications.

For JAC material, the solution flow to the Merrill-Crowe plant will be slightly higher, which will require a slighter larger capacity of Merrill-Crowe plant, however this does not change the number of clarifiers or filter presses, only a slightly larger unit will be required.

17.3.7 Foundry Circuit

Preliminary assay results indicated that the plant feed contains mercury. A portion of the mercury is expected to be dissolved during the cyanide leaching unit operation and eventually will report to the Merrill-Crowe Process precipitate. The retort unit will remove both mercury and moisture from the wet precipitate.

The mercury will be collected by the gas chiller of the retort unit and the cooled mercury liquid flows for collection to a flask. The mercury collected in the flasks will be periodically shipped out to an appropriate external sales or disposal facility. Both wet precipitate and dry precipitate will be sampled for the purpose of generating a metallurgical balance and developing performance statistics.

The dry precipitate will be mixed with fluxes in a flux mixer based on an appropriate recipe. The mixed charge will be placed into a fuel fired smelting furnace, and the smelting furnace will separate the doré bullion from the slag. The solidified slag will still contain a minor amount of entrained gold and silver, and it will be crushed by a small crusher in the foundry and then recycled back to the grinding mill for further processing.

The off gases from the retort unit and smelting furnace will be collected in their respective gas scrubber units to capture any fugitive dust. The gas scrubbers are highly efficient and off gas emission will conform to the industry standards.

17.3.8 Tailings Detoxification and Handling

The washed slurry from the last stage CCD thickener will have a slurry density of approximately 55% solids by weight. This slurry will report to two cyanide destruction tanks arranged in series to eliminate the remaining Weak Acid Dissociable (WAD) cyanide in the slurry. Both tanks will be equipped with agitators which induce strong agitation of the tailing's slurry and the detox reagents. Air will be injected in both cyanide destruction tanks to facilitate the cyanide decomposition reactions.

Sodium metabisulfite and copper sulphate will be dosed into the two detox tanks based on a certain ratio related to the WAD cyanide content of the slurry feed. Air will also be injected to the detox tank to expedite the oxidation of WAD cyanide. The total required retention time is one hour. The slurry after detox will contain less than 1 ppm WAD cyanide, which will meet the environmental requirement of the mining industry.

Due to the scarcity of water resource of the mine site, it is preferred to conserve as much raw water as possible. Therefore, a larger thickener (diameter of 40 m) is designed so the tailings thickener underflow can achieve at least 60% solids by weight. The tailings thickener overflow will be recovered to the process solution tank, and the underflow will flow by gravity to the tailings pond. The supernatant from the tailings pond, if any, will be recovered back to the process solution tank for re-use.

As JAC material will produce a slurry with a much higher viscosity, a slurry density of 45% solids by weight is recommended for cyanide destruction process. Therefore, larger detox tanks with more air flow will be required for JAC material. The final tailings thickener will still be 40 m in diameter, but the underflow density will be controlled around 55% solids by weight.

17.3.9 Reagents

The reagents used in the process plant include:

- Pebble lime and milk of lime.
- Sodium cyanide.
- Sodium hydroxide.
- Diatomaceous earth.
- Zinc dust.
- Flocculant.
- Fluxes.
- Sodium metabisulfite.
- Copper sulphate.
- Lead nitrate (optional).

17.3.9.1 Pebble Lime and Milk of Lime

As the cyanide leach needs to be conducted in an alkaline environment with pH of 10.5 or higher, lime addition will be required for the process. A lime silo installed at the SAG mill feed conveyor will provide most of the lime required for the process. The lime silo will be sized to hold 100 metric tons of pebble lime. The pebble lime will be metered onto the SAG mill feed conveyor in a rate proportional to the ore feed rate, which can be read from the weight meter installed on the conveyor.

Milk of Lime (MOL) will be required to dose the leaching tanks and maintain the pH at or above 10.5, which is taken as the optimum pH for the cyanide leach. The cyanide destruction circuit also requires milk of lime (MOL) to destroy the remaining WAD cyanide in the tailings before discharging the tailings slurry to the tailings pond. A lime slaker will be installed onsite, converting the pebble lime to the MOL. The combined lime consumption as MOL is estimated at 3.4 mtpd, including the expected dosing at the leach tanks and the cyanide destruction tanks. With the additional pebble lime used at the SAG mill feed, the total lime consumption is estimated at 10 mtpd.

MOL is assumed to have a concentration of 15% calcium hydroxide and will be stored in an agitated tank (diameter of 3.5 m and height of 5.0 m), which will provide a retention time in excess of one day. The MOL will be delivered through a pump system and a recycled MOL pipeline loop. The lime consumption for JAC material will be much higher, roughly 20 mtpd.

17.3.9.2 Sodium Cyanide

Due to the remote location of the mine site, sodium cyanide in the form of dry briquettes is recommended for the convenience of transportation and storage. The whole ore cyanidation, based on the laboratory testing program conducted on the gravity tailings for the 150 µm grind size, requires on average 0.71 kg of sodium cyanide per metric ton of solid feed. The intensive cyanidation unit operation is estimated to consume 0.13 kg of cyanide per metric ton of plant feed. Based on the plant throughput, the daily sodium cyanide consumption is taken as 7.8 mt. Assuming 7 days of onsite storage is required, approximately 58 metric tons of sodium cyanide will be stored onsite, assuming 95% purity of the sodium cyanide briquette.

The sodium cyanide solution is recommended to be diluted to 25% concentration by weight. The sodium cyanide briquettes will be delivered onsite in bags (Super Sacks). The sodium cyanide briquettes will be dissolved with barren solution in an agitated mixing tank (diameter of 5 m and height of 8 m), together with sodium hydroxide solution to provide sufficient alkalinity for the sodium cyanide solution, both to conserve the sodium cyanide and prevent cyanide evolution for operation safety considerations. The mixed cyanide solution will be pumped to the sodium cyanide day tank (diameter of 5 m and height of 8 m), which will provide a retention time close to five days. The cyanide solution will be delivered to the leaching tanks, the intensive cyanidation circuit, and the Merrill-Crowe pregnant solution tank or the ball mill by a pumping system.

As JAC material has much higher silver content, the sodium cyanide consumption is also significantly higher. On average 1.52 kg of sodium cyanide will be required for tank leach and 0.27 kg of sodium cyanide will be required for intensive cyanidation for every metric ton of plant feed. This corresponds to daily sodium cyanide consumption of around 16.8 mt.

17.3.9.3 Sodium Hydroxide

To eliminate the cyanide volatilization that could potentially occur when mixing sodium cyanide briquettes directly with barren solution, sodium hydroxide solution will be added into the cyanide mixing tank during cyanide solution preparation. Sodium hydroxide will also be delivered onsite in the form of bags of dry briquettes. The dry sodium hydroxide briquettes will be dissolved in a mixing tank (diameter of 3 m and height of 4 m), and then pumped to a sodium hydroxide solution day tank (diameter of 3 m and height of 4 m). This tank will provide a retention time around twelve days.

Seven days of onsite storage is recommended, which equals around 3.5 metric tons of sodium hydroxide dry briquettes on site, assuming 95% sodium hydroxide purity.

17.3.9.4 Diatomaceous Earth

Diatomaceous earth (DE) is required for the Merrill-Crowe process and will be used at the following three process operations:

- Precoating of DE Clarifiers.
- Body feed of DE Clarifiers.
- Precoating of Precipitate Filter Press.

For the DE precoat for both clarifier and cementation filter press, the DE thickness required to be coated on the filter cloth is around 3 mm or 1/8 inch. The only difference is that the operation cycle for the clarifier is typically about 12 hours, while the operation cycle for the precipitate filter is typically several days. For the cementation filter, a 7-day operation cycle is assumed. For both DE clarifier and cementation filter, DE precoat applications can be performed using one agitated DE precoat tank. Bags of DE will be dumped into the DE precoat tank until a certain amount of DE is accumulated for either the DE clarifier or the precipitate filter. The DE slurry density for precoating is typically controlled around 2% solids for optimum precoat performance. The DE slurry is pumped through the clarifier or filter and the water in the DE slurry returns to the DE precoat tank. The DE slurry density can be calibrated with a Marcy density scale.

During the operation cycle of the DE clarifier, the DE slurry from the DE body feed tank will be metered into the clarifier together with the pregnant solution. The amount of DE required will be proportional to the TSS in the pregnant solution. The TSS in the pregnant solution can be sampled periodically and measured by a turbidity meter calibrated with TSS level, so a proper amount of DE slurry can be applied to the clarifier. The purpose of DE body feed to the clarifier is to efficiently remove the TSS in the pregnant solution. The typical DE slurry density for body feed is 7% by weight.

The DE in the clarifier will eventually be sluiced from the clarifier to the area sump and eventually will be pumped to the CCD circuit. The DE precoated at the precipitate filter will report to the precipitate cake and will eventually report to the slag produced from the refinery process.

The total consumption of DE for all above functions is around 1.4 metric tons per day. Seven days of DE storage onsite is recommended, which corresponds to ten metric tons of DE onsite. For JAC material, due to a higher TSS in the solution feed and also a larger solution flow to the Merrill-Crowe plant, the total DE consumption is around 2.7 metric tons per day.

17.3.9.5 Zinc Dust

Zinc dust is employed to precipitate the gold and silver in the Merrill-Crowe process. The zinc dust utilized always has a high purity of 99% zinc and the particle size typically varies between 8 to 12 microns insuring a fast precipitation reaction. The zinc dust will be added into the zinc cone which is covered with water to avoid the entrainment of any oxygen into the solution.

From the laboratory test results and industry standards, the achievement of an elevated gold and silver recovery at the Merrill-Crowe process requires 1.5 kg of zinc dust for every kg of gold and silver to be precipitated. This unit value corresponds to approximately 810 kg of zinc dust consumption per day.

The zinc dust is delivered in steel kegs which hold 50 kg of dry zinc dust. Based on a seven-day onsite storage requirement, it is recommended that 6 metric tons of zinc dust be stored onsite.

17.3.9.6 Flocculant

Flocculant will be used at the following process locations. Recommended dosages are indicated.

- Pre-leach thickener, 15 g/t of feed solids (30 g/t for JAC material).
- CCD thickener, 12 g/t for the first CCD thickener and 1.2 g/t for the remaining 5 CCD thickeners (total 25 g/t for JAC material).
- Tailings thickener, 16 g/t of feed solids (40 g/t for JAC material).

Based upon the nominal plant feed, the daily consumption of flocculant is approximately 0.4 metric tons. Considering a seven-day onsite storage specification for flocculant, a total of 2.8 metric tons of flocculant in bags will be stored onsite. For JAC material, the daily consumption is approximately 0.86 metric tons.

The solid flocculant needs to be diluted with water to a low concentration for optimum flocculation performance. A design flocculant solution content of 0.1% by weight is assumed for the project design. The dry flocculant will be dumped into a feeder and then metered into a mixing tank and the dilution water will be injected based on the flowrate of dry flocculant. There will be one flocculant mixing tank and one flocculant day tank. Based on the daily flocculant requirement, approximately one or two batches of mixing are required per day.

The flocculant day tank is also an agitated tank with a diameter of 11 m and height of 15 m. The capacity of the flocculant day tank will provide flocculant solution storage for the operation for approximately three days.

17.3.9.7 Fluxes

After the retorting process, the dry cake will be mixed with fluxes based on a certain recipe then placed into the smelting furnace to produce the final Doré bullion. A typical flux recipe for 100 kg of Merrill-Crowe precipitate is presented below:

- 3 to 5 kg of soda ash.
- 5 to 10 kg of borax.
- 3 to 5 kg of silica sand.

The flux recipe can be optimized during future operations based on the exact composition of the dry cake. The preceding flux recipe is for reference only. The typical weight ratio between total fluxes and dry cake is 0.2. Based on the estimated dry cake weight per day (estimated around 0.67 mtpd, including gold, silver, assumed percentage of impurity metals, and estimated DE), the daily flux consumption is around 134 kg. For 14 days of onsite storage, the required total fluxes will be around 2 metric tons. JAC material will require approximately 404 kg of flux per day.

17.3.9.8 Sodium Metabisulfite

The CCD tails slurry will contain WAD cyanide, which needs to be reduced to a certain level before being discharged to the tailings pond. The cyanide destruction will use the industry standard INCO process, which utilizes sulphur dioxide (or sodium metabisulfite), copper sulphate, and air to oxide the WAD cyanide. Based on the laboratory test results and the industry standard, 4.7 grams of sulphur dioxide and 0.22 grams of copper will be required for one gram of WAD cyanide.

Based on the total sodium cyanide consumption of 0.83 kg per metric ton of plant feed, the total sodium cyanide consumption will be 0.33 mt/h. Laboratory testing indicated that when leach feed has a sodium cyanide concentration of 1500 mg/L in the aqueous phase, the leached tail has total sodium cyanide concentration of 1300 mg/L in the aqueous phase of which approximately 700 mg/L is in the form of WAD cyanide. Based on this ratio, the WAD cyanide in the form of CN- is around 0.08 mt/h in the feed to the cyanide destruction circuit.

Based on the required weight ratio of sulphur dioxide to WAD cyanide, the consumption of sodium metabisulfite is about 0.56 mtph. Assuming a 20% concentration in the sodium metabisulfite solution, the solution flow will be around 2.8 m^3/hr. Sodium metabisulfite will be delivered onsite in the form of dry solids, it will be dissolved in an agitated tank and then pumped to a day tank. The day tank will provide reagent solution storage capacity to sustain the cyanide detox operation for approximately five days. Based on seven days of onsite storage, a total of 95 metric tons of sodium metabisulfite will be stored onsite.

17.3.9.9 Copper Sulphate

The lab test did not indicate the requirement of copper sulphate for cyanide destruction due to the presence of minor amount of copper in the test sample. However, copper sulphate is still recommended onsite for provision, and a reduced dosage from typical cyanide destruction is assumed at 0.11 grams of copper per gram of WAD cyanide, the copper sulphate consumption will be 0.02 mtph. Copper sulphate will be delivered onsite in the form of dry solids and then dissolved in the mixing tank to make copper sulphate solution with a 20% concentration. The copper sulphate day tank will provide the solution storage capacity to sustain the detox operation for around four days. Due to the elevated copper content in the pregnant solution from JAC material, no copper sulphate will be needed for the detox.

Based on the onsite storage for seven days operation, a total of four metric tons of copper sulphate needs to be stored onsite. The copper sulphate will be delivered onsite in the form of bags of dry solids, either in the form of $CuSO_4$ or $CuSO_4.5H_2O$.

17.3.9.10 Lead Nitrate

Lead nitrate can potentially improve recovery of the Merrill-Crowe process in certain circumstances. Therefore, lead nitrate is recommended as an optional reagent prepared onsite. Based on industry practice, the pregnant solution flow rate, and zinc addition rate, the lead nitrate consumption is estimated at 8 kg/hr if needed. The lead nitrate will be delivered onsite in the form of dry solids. The mixing tank will provide the solution storage for the operation need of approximately one week.

17.3.9.11 Antiscalant

Solutions with high pH or high calcium concentration tend to form scale in the pipes and other associated equipment. To minimize the potential scaling, antiscalant is recommended onsite as a provision, added wherever necessary.

Assuming a typical 5 ppm concentration in the solution will be sufficient, the annual consumption of the antiscalant is estimated to be around 45 metric tons. The antiscalant will be delivered onsite in totes.

17.4 Process Solution and Raw Water

The total raw water requirement is 184 mtph, which includes:

- Raw water for CCD wash, 150 mtph.
- Raw water for reagents preparation, 22 mtph.
- Raw water for dust suppression, 12 mtph.

This amount of raw water will all report to the process and eventually recovered to the process solution. The raw water will be supplied from water wells located approximately 13 km away from the mine site. The total amount of raw water that is allowed to be withdrawn is 220 mtph, which includes the water for camp, mining operation, and office use. The water will be pumped from the wells to the raw water tank onsite, which also serves as fire water storage. The freshwater tank has a diameter of 20 m and height of 24 m. This volume will hold the water required for 24 hours of mine operation with an additional fire water reserve of 1,760 m^3, which is sufficient for anticipated fire suppression requirements.

The raw water tank will be installed at an elevation higher than the mine site, so the water can gravity flow to the various users including the process solution tank and fire hydrants. The total process solution flow rate is 594 mtph. A process solution tank with a diameter of 11 m and a height of 15 m will be installed in the plant to provide a retention time of over two hours.

17.5 Process Air and Instrument Air

Process air will be required at the cyanide leaching and cyanide destruction process as given below:

- Cyanide leach tanks, compressed air of 3,138 Nm3/h.
- Cyanide destruction tanks, compressed air of 2,713 Nm3/h.

The air pressure requirement is estimated to be between 150 kPa to 300 kPa for the above operations. A total of three air compressors will be installed, two operating and one standby, to provide the process air. A dedicated compressor will provide conditioned air, which will be used for various instruments in the plant. The required instrument air is assumed to be around 600 Nm^3/hr.

17.6 Power

The total power requirement from the mine site is estimated approximately at 20 MW, with the majority requirement for the process area. The power will be provided by a hybrid power generation facility composed of a photovoltaic plant and dual fuel diesel/natural gas gensets onsite. The diesel/natural gas gensets will be designed to provide the full power requirement of the mine site, with nine gensets operating most of the time and another two units as an installed spare.

The photovoltaic plant will be composed of two solar power arrays which, one of 3 MW with batteries power storage for camp and service hub operations during construction and operations, while a second one of 17 MW without batteries will provide the plant power during daytime operations and storing the excess energy into the 3 MW batteries storage system (BESS).

Power will be distributed to all process and ancillary facilities at 6.6kV via underground conduit duct-banks to avoid costly overhead power lines maintenance and improving site safety as well.

Off-site facilities, as the raw water well field and pipeline booster station, the tailings water recovery system and the nitrate preparation pad will be supplied by on-site diesel generators of the size according to power requirements, including one main generator and a second back-up one at each location.

The site distribution voltage will be transformed to low voltage, rated at 380/220V, for power supply to motor control centres (MCC) and power distribution centres (PDC) for motors, lighting, instrumentation, etc. All control systems will have an uninterruptible power supply (UPS) and emergency lighting will have battery back-ups to keep critical processes operational and provide a safe shut-down.

18 PROJECT INFRASTRUCTURE

The mine, ore processing plant and mine site related infrastructure will all be located within the Property in Salta and Catamarca provinces. The Project infrastructure is designed to support the operation of two (2) combined open pits feeding a 9,000 tonne per day processing plant, on a 350 day per year operating basis. The overall site layout showing the location of the open pits, processing plant, tailings storage facility (TSF), waste dumps, camp and service hub is provided in Figure 18-1.

18.1 Summary

The infrastructure required for the Diablillos Project will include:

- Site development and access roads.
- Raw Water Supply System.
- Raw water storage and treatment facility, including a firefighting system network.
- A hybrid power generation plant (Diesel + PV) and distribution network.
- An ore processing plant.
- A tailings storage facility (TSF) and associated water recovery management structures.
- Waste dumps with associated water management systems.
- Service hub, truck-shop, warehouse, offices, laboratories, and other service facilities.
- Operations and construction camp and contractors’ yard.

The proposed layout of the Diablillos Project is shown in Figure 18-1.

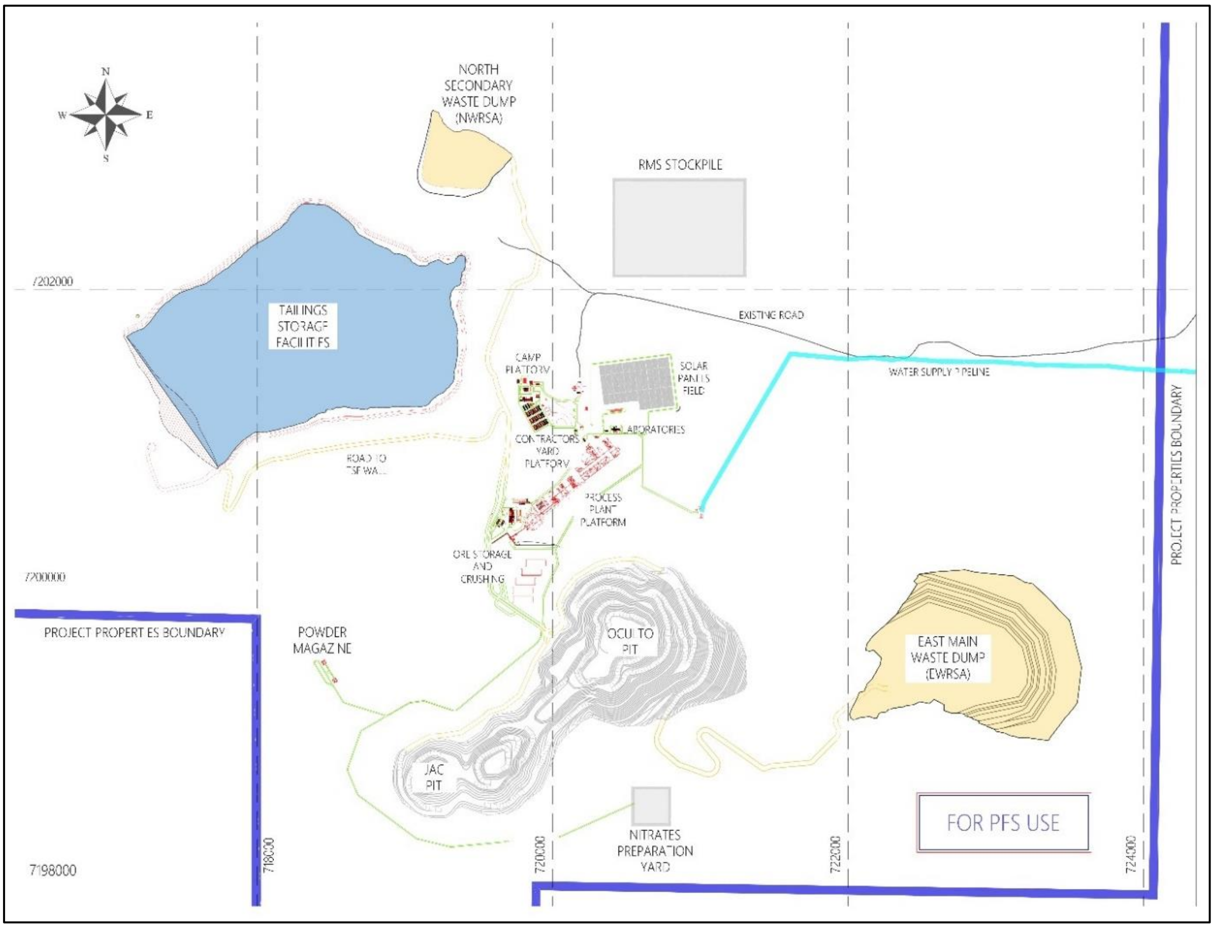


Figure 18-1: Diablillos Project Site Layout

Source: AbraSilver Resource Corp., 2023

18.2 Diablillos General Site Plan

The general site plan details the location of the different project infrastructure, including the camp, service hub, truck shop, plant warehouse, laboratories, ore processing plant, open pit, haul roads, TSF waste rock dumps, raw water wellfield and supply pipeline.

The mill complex site is centrally located, approximately 4.5 km north of Oculto section of the open pit, 4.6 km from JAC and 2.1 km northeast of the TSF. It will contain the service hub, plant offices, laboratories, truck-shop, plant warehouse, maintenance, and the process plant itself.

The layout of facilities has been optimized to take advantage of the topography. The JAC pit colluvial cover will be a quarry for tailings storage facility and road construction material. The complex will include the primary crusher, grinding via milling, gravity separation, leaching, counter current decantation, Merril Crowe process, detoxification, corresponding safety vault, reagents preparation, storage, hybrid power generation plant, and a fuel tank farm.

18.3 Access Roads, Main Site Access, and Internal Roads

The project is approximately 327 km from the capital city of Salta, 340 km from the Jujuy province capital San Salvador de Jujuy and approximately 673 km from Catamarca City Centre.

The three main access routes to the project in Argentina are listed below:

18.3.1 From Salta City

By paved National Highway N° 51, approximately 150 km to the main regional town of San Antonio de los Cobres, then a 15 km stretch of gravel road along the same highway, turning into Provincial Highway N° 129 for another 48 km to reach the small town of Santa Rosa de los Pastos Grandes. The route continues for another 95 km along gravel Highway N° 129, then another 20 km along an internal project road, totalling 327 km. Driving time is five to six hours depending on traffic and road conditions. This route is not suitable for oversized goods transportation.

Alternatively, the same route to San Antonio de los Cobres (150 km), then following the unpaved National Highway N° 51 for 67 km until Provincial Highway N° 27 then another 40 km until the small town of Salar de Pocitos, continuing 3 km to Provincial Highway N° 129 for another 30 km to join the previous route at Santa Rosa de los Pastos Grandes. Total driving time for light vehicles is seven to eight hours for a total distance of 405 km. This route is the most suitable for oversized goods transportation from Salta.

18.3.2 From Jujuy City

By National Highway N° 9 for 60 km until reaching the town of Purmamarca, then turning into National Highway N° 52 for another 100 km of paved road, passing the town of Susques after 5 km onto gravelled National Highway N° 40 for 110 km to National Highway N° 51. Then the route will follow one of the two previous alternatives, totalling either 445 km for the first option or 540 km for the second. Driving time for light vehicles is either eight or nine hours depending on traffic and road conditions.

18.3.3 From Catamarca City

Starting from San Fernando del Valle de Catamarca city, a 200 km paved highway leads southwards along National Highway N° 38 for 75 Km to the town of Chumbicha, where it joins National Highway N° 60. After 136 km the road joins National Highway N° 40 at Cerro Negro, turning northwards for another 135 Km until joining Provincial Route N° 36 at the town of El Eje, passing Londres and Belén. The road continues for another 12 Km to Provincial Route N° 43 and continues for 200 Km towards Antofagasta de la Sierra, one of the main towns in the Catamarca highlands.

From there a gravel road continues northwards to Salar del Hombre Muerto for another 90 Km, reaching the Livent Lithium Project. On reaching Cerro Gordo dwelling the road winds for 40 Km until it reaches the local community of La Redonda 7 Km from the Diablillos property. This route totals almost 700 Km.

All main roads to the project are well-constructed gravel district roads which are regularly maintained by the provincial highway's authorities of Salta and Catamarca. (Dirección de Vialidad de Salta - Catamarca).

The regional site map is presented in Figure 18-2 and Figure 18-3.

The final access road to the project from Route 129 will be improved and upgraded along its entire 20 km length according to provincial highway standards. Converting it into a two-lane gravel road until it reaches the main access gate which will be manned 24/7. It does not cross any significant water courses and will be fully maintained by AbraSilver to allow two-way traffic including oversize cargo transport.

The main access road from Route 129 is shown in Figure 18-4.

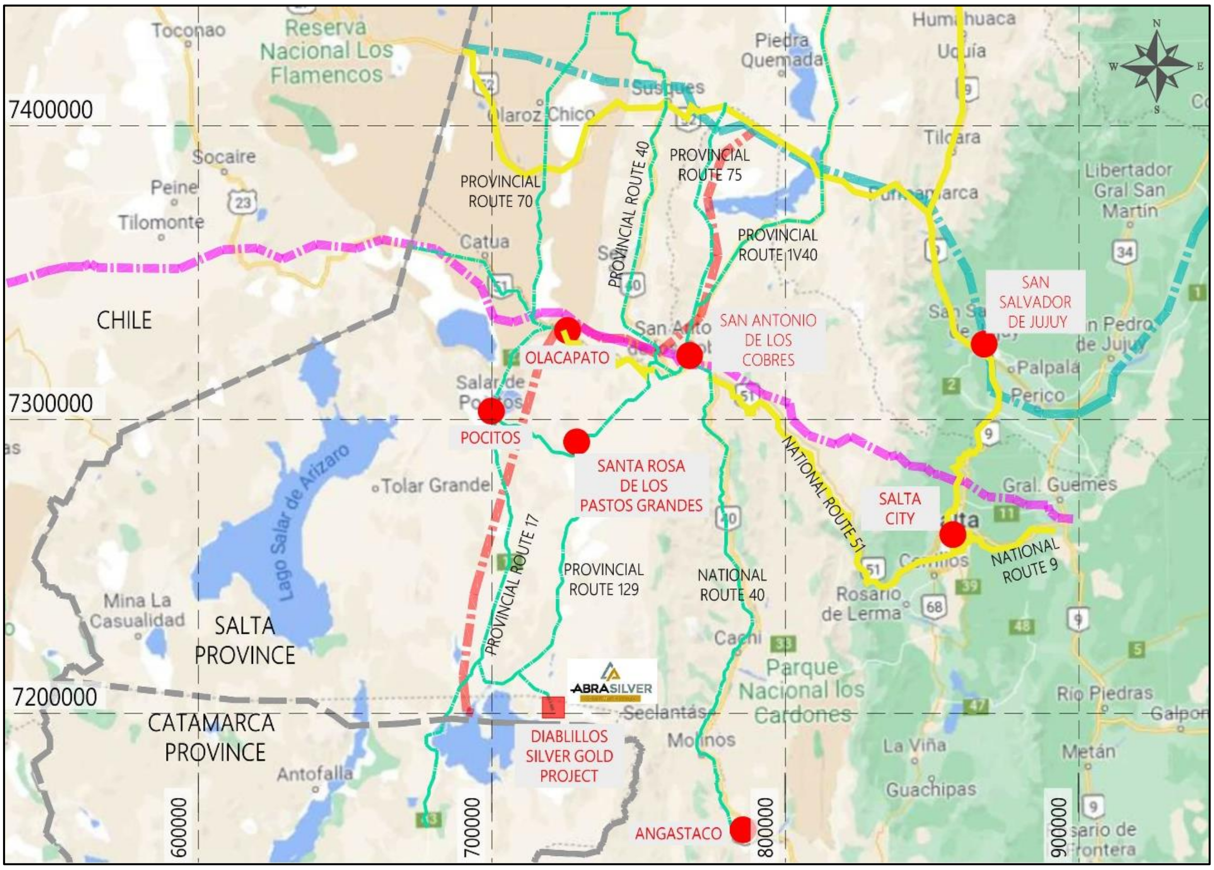


Figure 18-2: Regional site map – Salta

Source: AbraSilver Resource Corp., 2023

Figure 18-3: Regional site map – Catamarca

Source: AbraSilver Resource Corp., 2023

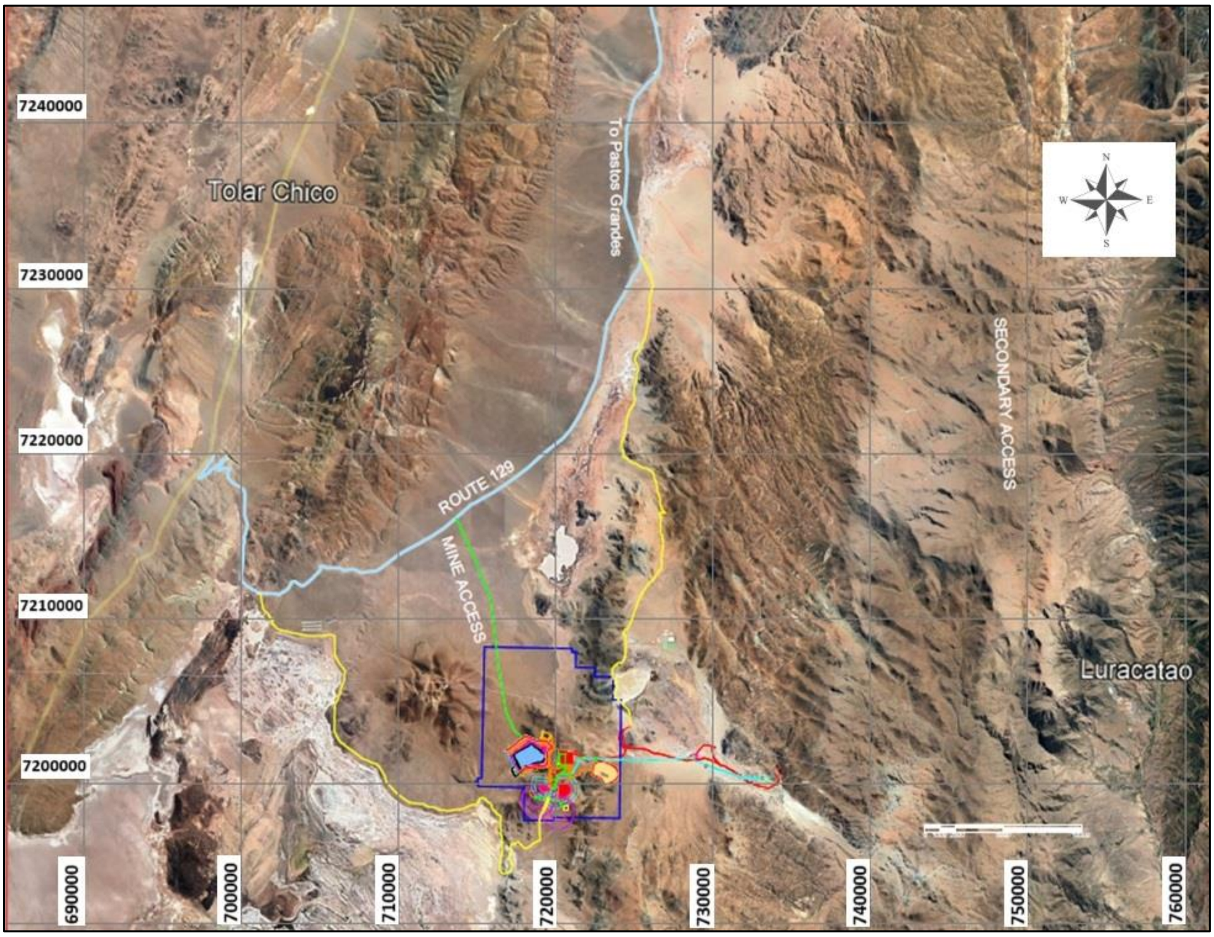


Figure 18-4: Mine access road

Source: AbraSilver Resource Corp., 2023

Due to the size of heavy mine equipment, safety measures require that normal and mine hauling roads are fully segregated from other mine vehicles. The mine haul road will be constructed to support 100 tonne trucks carrying ore and waste to the plant or dumps.

The project internal service roads will be designed according to provincial highway authority standards to provide access to all other facilities, including the raw water wellfield, TSF, powder magazine, camp and service hub.

18.4 Raw Water Supply

The raw water supply is expected to come from several different sources, as 5 basins have been identified in the area next to the project. However, the main raw water supply will come from the Barranquilla basin aquifer, a wellfield of at least 4 wells which is under development. The wellfield is located approximately 17 km from the plant site.

The Diablillos project requires water for the following uses:

- Dust suppression during mining operations.
- Dust suppression in the dry plant area (Crusher and stockpiles).
- Process plant and preparation.
- Service hub, laboratories, truck shop and truck washing station.
- Construction and operations camp.
- Construction activities including concrete preparation.
- Fire water reserve.

The water demand for construction averages 34.15 m^3/h, while operation demands an average of 183.29 m^3/h.

18.4.1 Water Source- Piezometer / Wells

Drilling by AbraSilver has identified an aquifer in the upper part of the Barranquillas valley. Two broad diameter holes drilled by Conhidro have encountered substantial aquifers which are extensions of ones previously discovered by exploration drill holes St-DBL-Ag4 and St-DBL-Ag5. Holes St-DBL-Ag6 and St-DBL-Ag7 are 12-inch diameter rotary holes and hole St-DBL-Ag7 intersected a sequence of gravels with abundant fresh water of more than 50 m3/hr. The hole was drilled in a water easement currently held by AbraSilver.

Pump testing on holes St-DBL-Ag6 and St-DBL-Ag7 demonstrated the potential of the aquifer to host adequate water for the project. Hole St-DBL-Ag7 produced 120 m^3/hr (2,880 m^3/day) of low salinity water, which is a bit more than half of the project requirement. An additional two holes will be drilled to secure the rest of the raw water supply. The recharge of the Barranquillas basin was estimated to be 3,1000,000 m^3/year (354 m^3/h). More than project requirements for make-up water and camp consumption. This also does not consider additional sources of reclaimed water from the tailings dam and open pits.

It is believed this aquifer holds water sufficient for the life of the project, permission has additionally been granted to use this water.

Four wells within the Barranquillas basin wellfield will supply raw water via an aqueduct, with a corresponding booster station, to the main raw water storage and fire water tanks for further treatment and distribution.

Raw water will be used for dust suppression, reagent mixing, gland water, processing requirements, workshop and laboratory requirements. Additional water will be reclaimed from the TSF using a reclaim water barge pumping directly to the cyanide recovery thickener and the process water tank.

18.4.2 Raw Water and Fire Water Distribution

Raw water storage tanks will feed the water distribution system to provide water for processing, reagent mixing and gland seal. Booster pumps will be installed to provide high pressure water to systems that require it, including pump gland seal water. Fire pressure pumps and control systems will be installed at the raw water storage tank to provide pressure to the fire suppression system.

There will be two main reservoir tanks for raw water storage fed by the water pipeline. These tanks will have a capacity of approximately 7,226 m^3 with a fire water reserve capacity of 1,760 m^3, located next to the RO plant. The tank will supply all water for road and crusher dust control.

The secondary tank will be located within the process plant area, to allow gravity flow from the primary tank and supply process water with a capacity of 1,378 m^3.

18.4.3 Potable Water System

A potable water system will be installed to supply water to the camp area, laboratory, office, water plant hose stations and safety showers with a total requirement of 6.8 m^3/hr. The potable water system will consist of a pre-filtration unit coupled to a reverse osmosis unit and associated piping, tankage, and controls.

18.4.4 Sewage Treatment System

The sewage treatment plant, shown in Figure 18-5 will treat sewage coming from the camps and service hub network. A modular effluent's treatment plant will be constructed, capable of processing effluents for up to 1,200 people during the construction phase and will be resized for 400 people during the operations phase. The wastewater treatment plant will also be managed from the fuel station and truck scale office container.

Plant design will be based on a daily water consumption of 150 l/person and an organic load of 66 g DBO5/(day-person). It will be able to process up to 180 m^3/day and 80 Kg of BDO5 during construction and 45 m^3/d and 20 Kg of BDO5 once the project is in operation. Considering 250 mg/l at the inlet and less than 50 mg/l at the outlet. Sludge will be recovered and shipped to Salta for final disposal and treatment. Treated fluids will be infiltrated into the ground.

As the Project is in an area of low temperature, the active process will be enclosed in an outdoors container to keep the temperature in the range of 10 to 15°C.

The sewage treatment plant will be composed of the following:

1. A modular plant to treat a total flow of 200 m3/day.
2. Elevator station (Pumping chamber).

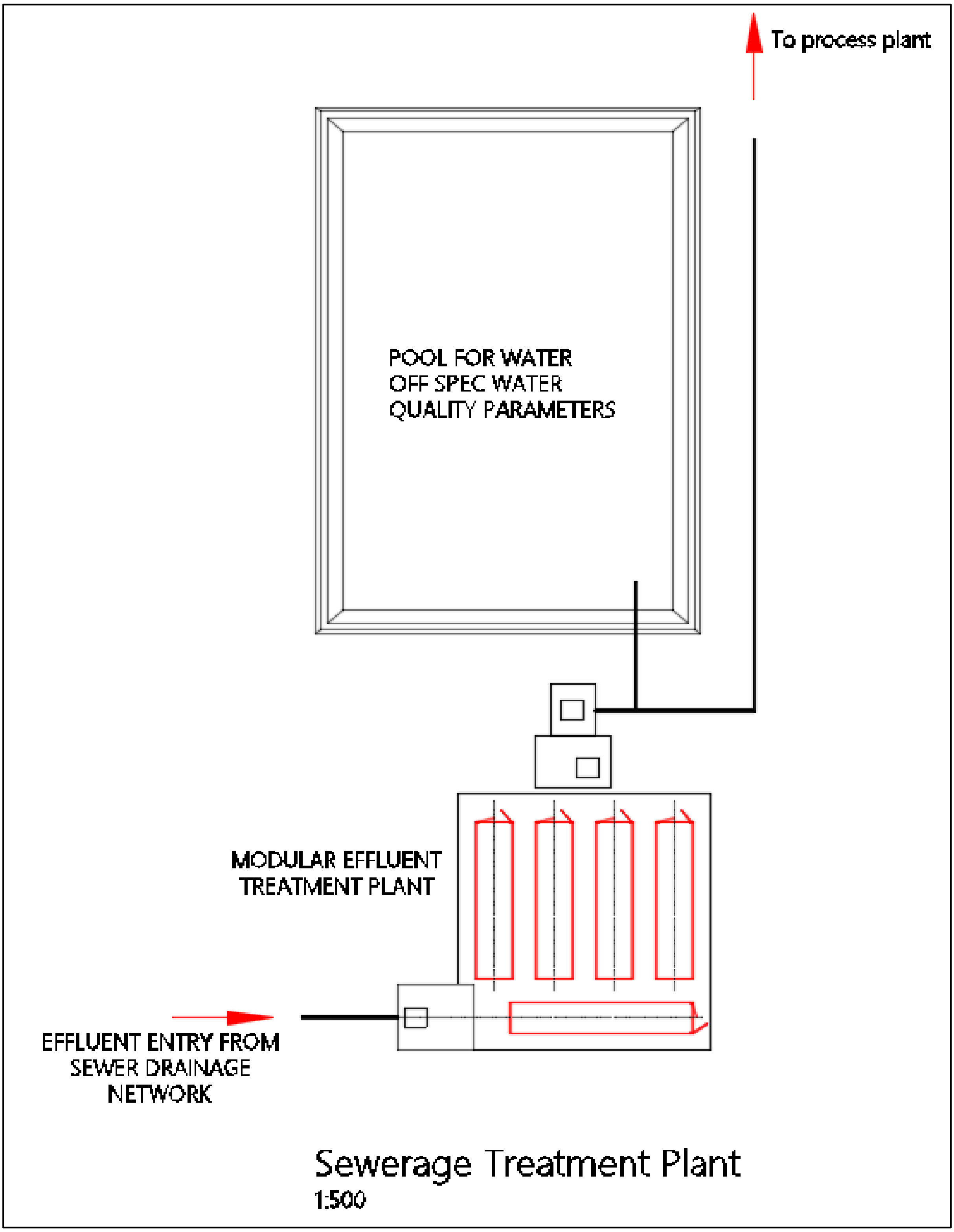


Figure 18-5: Sewage treatment plant

Source: AbraSilver Resource Corp., 2023

18.5 Power Supply

18.5.1 Electrical Load

The predicted electrical demand is approximately 20MW during operation.

This estimated load is based on the current mechanical and electrical equipment list, including the process plant, reagents, camp, service hub facilities and nominal growth / changes of auxiliary loads over time.

18.5.2 Power Generation

As there is presently no power grid available in the nearby area, power will be generated off-grid with a hybrid power generation plant, composed of solar panels arrays and diesel generators as the primary power source during construction and operations. Off-site facilities, not supplied from the main power plant due to distance, are to be supplied by separate power generation systems. Off-site facilities are the raw water wellfield, the water pipeline booster station, the tailings water recovery system, and the nitrate pad.

The total power generation capacity has been established at 20 MW, considering performance losses of almost 35% due to high altitude and a working capacity of 80%. Reserve capacity will be maintained to absorb peak loads and/or cover possible genset failure.

The diesel power plant is designed to cover the full site power demand, with 10 operating generators and 2 back-up of 2.8 MW each. One of the spare generators will be mobile and available for off-site emergency generation.

15% of the on-site PV power requirements (~ 3 MW) will be covered by an initial photovoltaic system (PV) which will be coupled with a battery energy storage system (BESS) to guarantee continuous power supply to camp, service hub and outdoor lighting, to secure constant power availability in case of fuel supply disruptions due to weather or road blockages.

The remaining part will provide daytime power to charge the BESS and support process operations by synchronizing with the diesel generators through the corresponding energy management system (EMS), thereby reducing emissions and providing fuel cost savings. The EMS will ensure that if the BESS is fully charged, the PV-generated power will be utilized as the primary power source to run the process plant and its site ancillaries.

The EMS will manage the whole power generation, giving priority to PV energy consumption during daytime operation and BESS loading and finally starting the diesel generators when PV power harvest becomes insufficient or inexistent at nighttime.

The main substation, located near the gensets will include an electrical room that houses the system controller and the main power distribution switchgear to provide output power at 6.6 kV. The diesel unit's system controller will also communicate with the main substations by an underground 6.6 or 13.2 kV power distribution network, installed within duct banks to reduce overhead power line maintenance, improve safety, and avoiding interference with cranes or mobile equipment.

The PV system will incorporate PV arrays, inverters, transformers, and controllers, while the BESS will be sized for 3 MW / 20 MWh capacity and include battery modules, inverter, and transformer. An energy management system will be used to charge / discharge battery power. If the PV system or BESS cannot provide power, the diesel gensets will back-feed power to the PV-powered facilities.

The energy management system EMS will communicate with the diesel gensets controller, distribution switchgears, the PV system controller and BESS to operate diesel generators, synchronize and manage PV generated power based on load demands, available PV power and BESS capacity.

For off-site power demands, diesel generators with back-up will be installed at the raw water wells, water pipeline booster station, at the TSF water recovery system and at the nitrate pad.

18.5.3 Power Distribution

The power plant will generate at 6.6 KV, 50 Hz, 3 phase and 3 circuits. The site distribution voltage will be transformed to low voltage, rated at 380/220V, 50 Hz, 3 phases and 4 circuits (3 phases + neutral) for power supply to motor control centres (MCC) and power distribution centres (PDC). All control systems will have an uninterruptible power supply (UPS) and emergency lighting will have battery back-up to keep critical processes operational.

Medium voltage equipment (Ball Mill, SAG mill, etc.) will be operated at 6.6kV. For transformation to low voltage, the transformers will be liquid-filled, pad mounted and rated for outdoor installation. The MCCs and PDCs will be housed indoors.

The estimated electrical load requirement for the mine site is summarized in Table 18-1.

Table 18-1: Estimated electrical load requirement

Electrical Power Load Estimate	
Area	**Electrical Load, MW**
Process Facilities	
Crushing and conveying	0.6
Grinding	10.0
Leaching	1.4
CCD	1.1
Detox, Tailings handling	1.0
Merrill-Crowe	1.5
Reagents	0.5
Water, Air	0.5
Non-Process Facilities	
Water Supply	0.5
Camp	0.7
Ancillary (Offices, Sub-Station, Truck-shop)	1.0
Mine	0.5
Total	**19.3**

The total diesel fuel consumption for power generation has been estimated at 100,000 litres per day.

All installations, including electrical equipment, instruments, cables, lighting, and grounding will be installed per national, provincial, and local standards. The lighting will be of the LED type. All areas will be equipped with emergency light fixtures utilizing battery packs which will provide a minimum of 90 minutes of illumination.

18.6 Waste Dumps

Two (2) waste rock dump facilities will be constructed. One East of the Oculto pit (East Main Dump-EWRSA) with a capacity of ~ 302 MM tonnes and one north of the TSF (North Secondary Waste Dump-NWRSA) with a capacity of ~9 MM tonnes.

The main dump location has been selected due to the existence of a granitoid basement. providing geotechnical stability alongside convenient topography. It is not near the property's borders and its distance to the pit exit is acceptable. The secondary dump location has been selected to provide uninterruptible access to a dump to avoid stoppage in case the main waste dump access road is blocked. This also guarantees sufficient waste rock to cover the TSF during remediation works.

The waste rock piles will be built in 30 m lifts to an overall slope of 35 degrees. The inter-bench slopes will have the corresponding rock repose angle of 27 degrees. Details of both WRSA specifications are found in Section 16.5 of this report.

Waste rock will be placed in subaerial storage which will result in exposure of material to atmospheric conditions. Fine-grained portions of exposed material are susceptible to weathering processes that can lead to the mobilization of constituents through oxidation and dissolution. Water that infiltrates into the waste rock pile and/or runoff that flows along the surface of the waste rock dump is referred to as "contact" water.

Contact water, generated from water-rock interactions, will contain soluble constituents (i.e., major ions, metals, and nitrogen species) from mineral weathering by-products and from residual explosives from blasting. This can persist in the waste rock, is water soluble and a source of ammonia and nitrate.

Uncontacted floodwater recollection ditches will be located around both waste rock dumps. The contact water collection ponds/sumps will be located at topographical low points to collect runoff and control physical and chemical parameters. Contact water will be transported to the TSF, or reutilized. The control parameters of contact water are determined according to Provincial Law No. 7017, Water Code of Salta province.

Figure 18-6 shows the main waste dump located on the East side of the project facilities, in its final stage.

Figure 18-7 shows the secondary waste dump located north of the TSF, in its final stage.

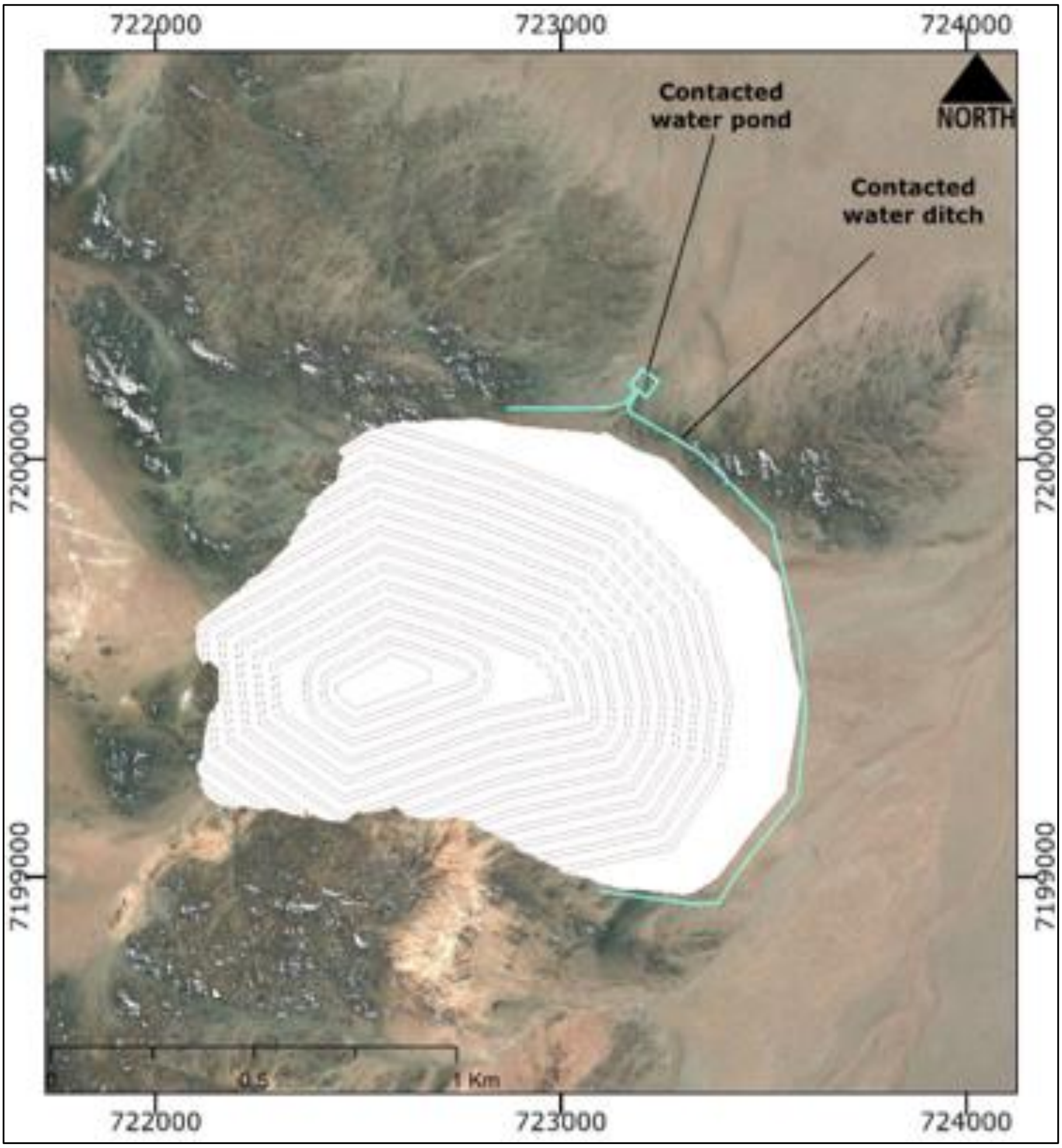


Figure 18-6: East Waste Dump Contact Water Management

Source: AbraSilver Resource Corp., 2023

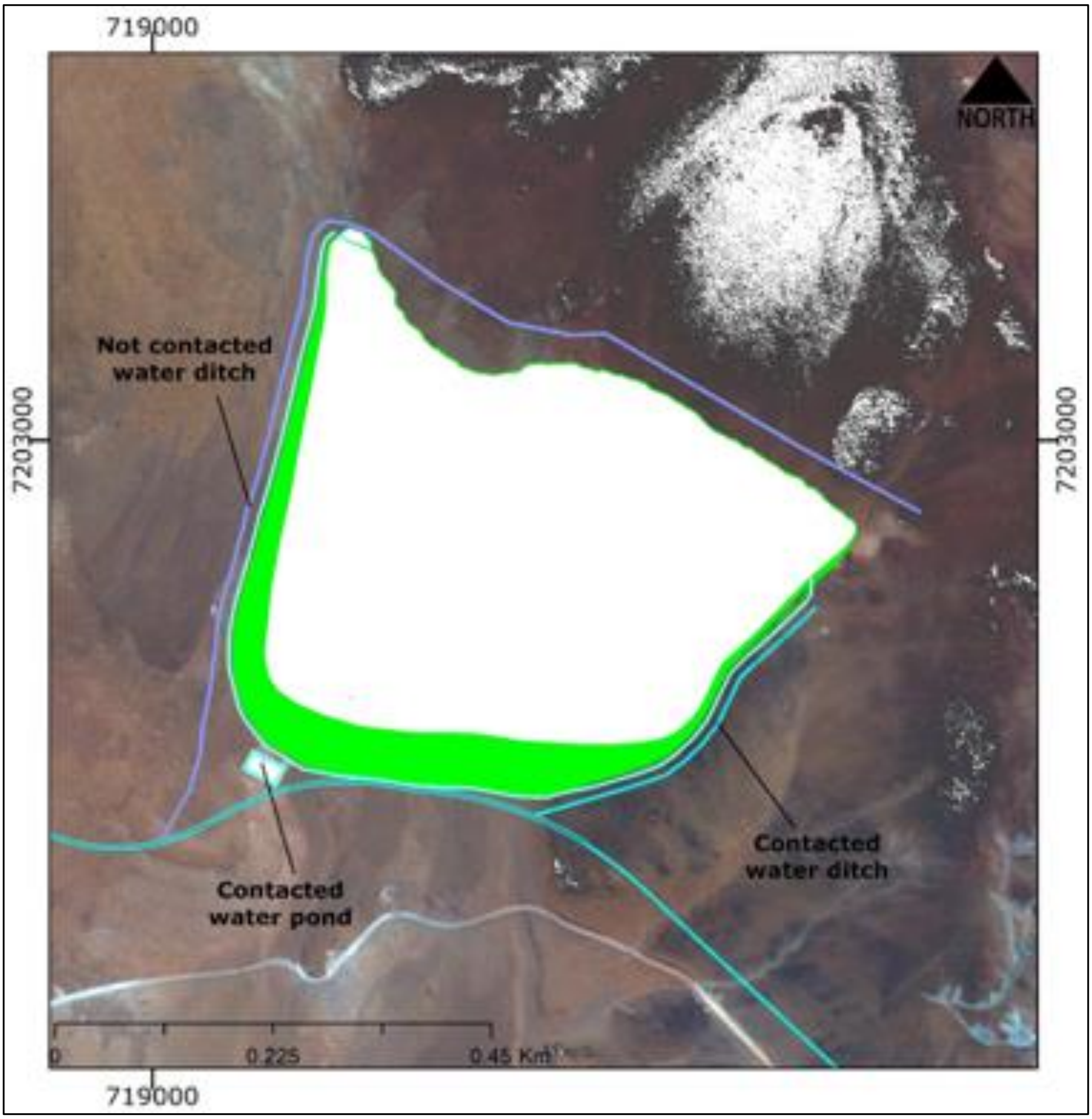


Figure 18-7: North Waste Dump Contact Water Management

Source: AbraSilver Resource Corp., 2023

All control ponds will be lined with PEAD membrane and leak control tests will be periodically performed to avoid filtration to natural ground.

Site test work results indicate that only deep gold waste produces Acid Rock Drainage. The waste coming from this domain will be embedded into the main waste dump, with a PEAD membrane installed before dumping.

18.7 Tailings Storage Facility (TSF)

18.7.1 Tailings and Disposal

The TSF for Diablillos has been designed as a conventional dam-and-slurry containment, within a closed valley approximately 2km to the NW of the proposed Process Plant and is depicted in Figure 18-8. It has been designed in general accordance with the Global Industry Standard for Tailings Management, and other, similar best-practice guidelines and documentation.

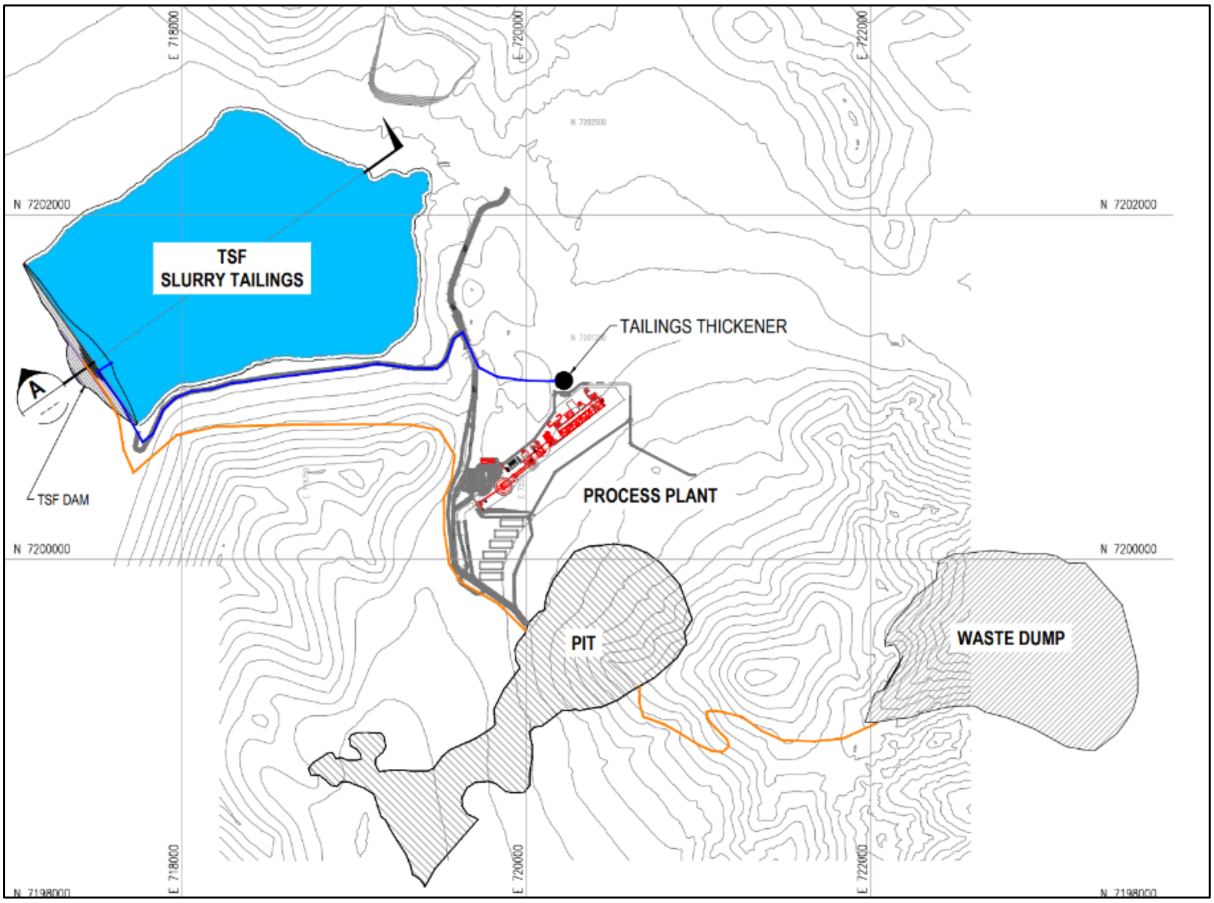


Figure 18-8: Diablillos TSF

Source: ENVIS, 2025

The proposed TSF will receive tailings thickened to approximately 60% solids content by weight, after processing and thickening at the process plant. The thickened tailings will be pumped via pipeline the impoundment and discharged over the area of the impoundment through spigots distributed around the perimeter of the facility.

The dam will be constructed in five phases over the life of the operation, using selected and processed non-PAG waste rock materials from the mining operations. The dam raises will be developed using the downstream raising method. The TSF has been designed for a total storage of 42.3 Mt, which includes all the tailings produced by the plant during the LOM. The valley in which the TSF is located has significant additional capacity readily available, through raises beyond the currently designed height.

A schematic of the tailings management is shown in Figure 18-9.

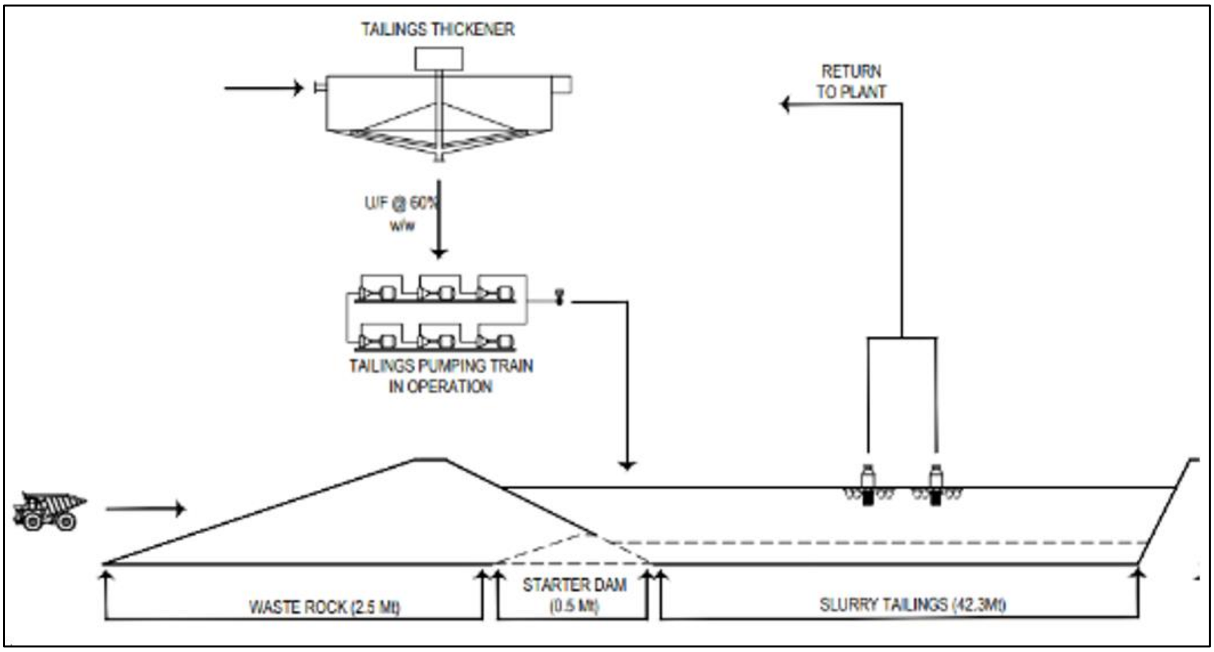


Figure 18-9: Schematic of tailings management

Source: ENVIS, 2025

As depicted in Figure 18-9, supernatant water from the consolidated tailings, as well as capture surface runoff, will be collected and returned to the Process Plant via the barge pump system. The Diablillos site is subject to very high annual evaporation and, as such, water losses from the pond and the wet tailings beach are anticipated to be relatively high.

The design currently includes diversion channels to be constructed around the perimeter of the TSF, in order to minimize the quantity of contact water. The diversion channels will route surface runoff around the TSF, and discharge to the water course downstream of the dam and seepage collection pond.

The total amount of fill placed in the dam will be approximately 1.6 Mm^3 (3.0Mt); this will include primarily a structural zone comprising coarse rockfill and also filter and transition material zones at the upstream face.

The current design includes lining the impoundment and dam face with an HDPE geomembrane as a low-permeability barrier to potential seepage from the tailings. As a contingency, a seepage collection pond would be constructed downstream of the tailings dam, to capture residual seepage, and this would be returned via pumping as contact water, ultimately to the process plant.

Preliminary site investigations have been carried out at the TSF and indicate that the dam and the impoundment foundations consist primarily of a consolidated sand-gravel-silt material, with 10-50 cm of organic soil materials on surface. The dam and impoundment preparation will include removal of organic materials, and any loose soil, to construct the facility on well-compacted ground.

A representative section of the TSF dam, including the 5 staged raises, is shown in Figure 18-10. The stage has been planned such that sufficient capacity is always available during operation, including allowances for appropriate freeboard. Additionally, preliminary slope stability analyses indicate that the section will be stable under both static and dynamic (earthquake-induced) conditions.

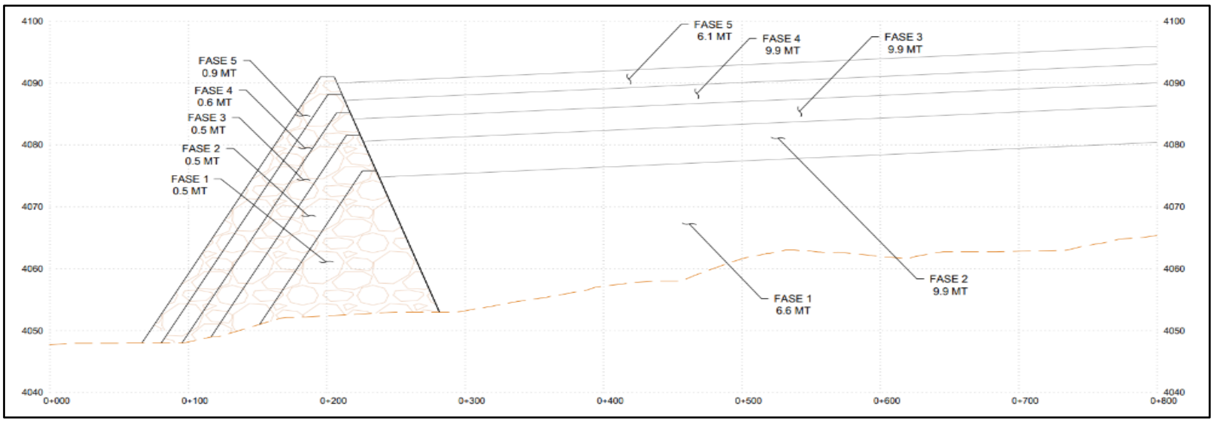


Figure 18-10: Diablillos TSF representative section

Source: ENVIS, 2025

18.8 Topsoil and Overburden Stockpiles

The first 50 cm of topsoil, according to local standards, will be stored in the reclamation material stockpile (RMS). Sedimentation ponds will be built to settle out solids before release to the environment. A perimeter ditch will be constructed at the toe of the topsoil stockpile to keep material intact. The stockpiled topsoil will be used for site rehabilitation upon mine closure.

Overburden material from the JAC open pit will be used as construction material for platforms, ROM pad and road. Remaining unused overburden coming from the Oculto open pit will either be used for further construction or be dumped on one of the two waste stockpiles.

18.9 Steel Buildings

All main steel buildings for the camp, service hub, process plant and off-site will be constructed as a pre-engineered steel frame and assembled on site.

Within the foundry, a reinforced concrete block safety vault will be installed to ensure proper security.

18.9.1 Camp Maintenance Warehouse & Workshop

Steel buildings are considered for the camp warehouse, maintenance, instrumentation, and light electrical workshop. The camp warehouse will be used to store all kind of camp related consumables and for the storage of empty core boxes and exploration equipment.

The camp workshop will be used for minor repairs and for specific electrical and instrumentation repairs. Major maintenance and repairs will be performed within the ancillary services hub, within the truck-shop building.

18.9.2 Waste management building.

A separate steel building for domestic waste classification and compaction has been included, to handle all generated waste until disposal.

18.9.3 Drilling core box storage building.

Exploration facilities have been set aside for core preparation, analysis, and final storage. Geological exploration is expected to proceed independently of the mine operations.

A steel building for core storage has already been installed, with a capacity of approximately 30,000 m of core where all historical and current Phase I and II core boxes are stored.

Figure 18-11 shows the building and steel racks for core storge.

A second core storage building space has been reserved in case future expansions of core storage capacity is required, i.e., Phase III and subsequent drilling campaigns.

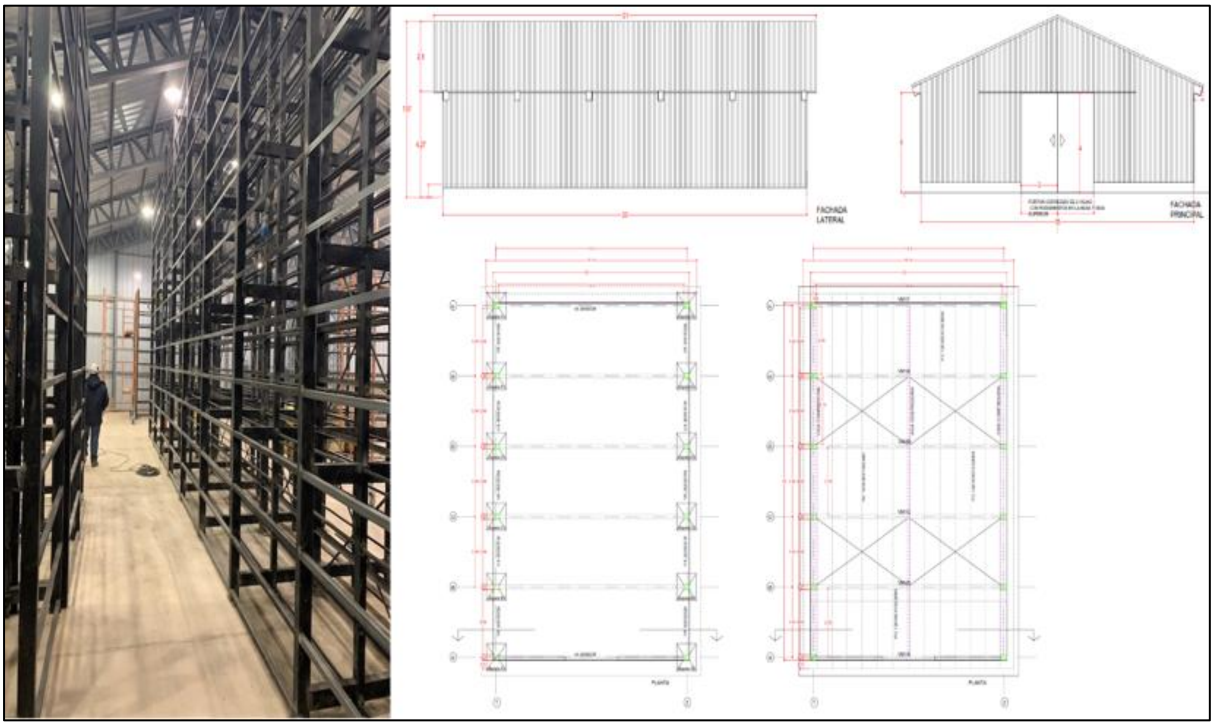


Figure 18-11: Core storage building and racks for approx. 30,000 m of cores

Source: AbraSilver Resource Corp., 2023

18.9.4 Truck Shop

The truck shop is the main building and centre of activities of the services hub (Figure 18 30). It will host the maintenance area for the off-road mine fleet, the mining equipment, standard trucks, earthworks equipment and the light vehicle fleet including forklifts, scissor platforms, and pick-ups.

The truck-shop will be composed of eight major bays, four for major off-road truck maintenance, two for major crawling equipment, one for lubrication and another for tire repair. Additionally, there will be a fully enclosed truck washing cabin/bay. Two of the main bays will have steel rail flooring so crawlers' can be maintained.

18.9.5 Plant & Mine Warehouse

A steel building for hosting the plant, mine and truck-shop warehouse and its fenced external lay-down area will be located opposite the truck-shop.

This warehouse will store all major equipment and spare parts. Afterwards it will serve as storage for spare parts, tools, consumables, and reagents.

18.10 Modular buildings - Construction and Operations Camp, Service Hub

18.10.1 Camp General Arrangement

The following (Figure 18-12) shows the main construction and operations camp facilities.

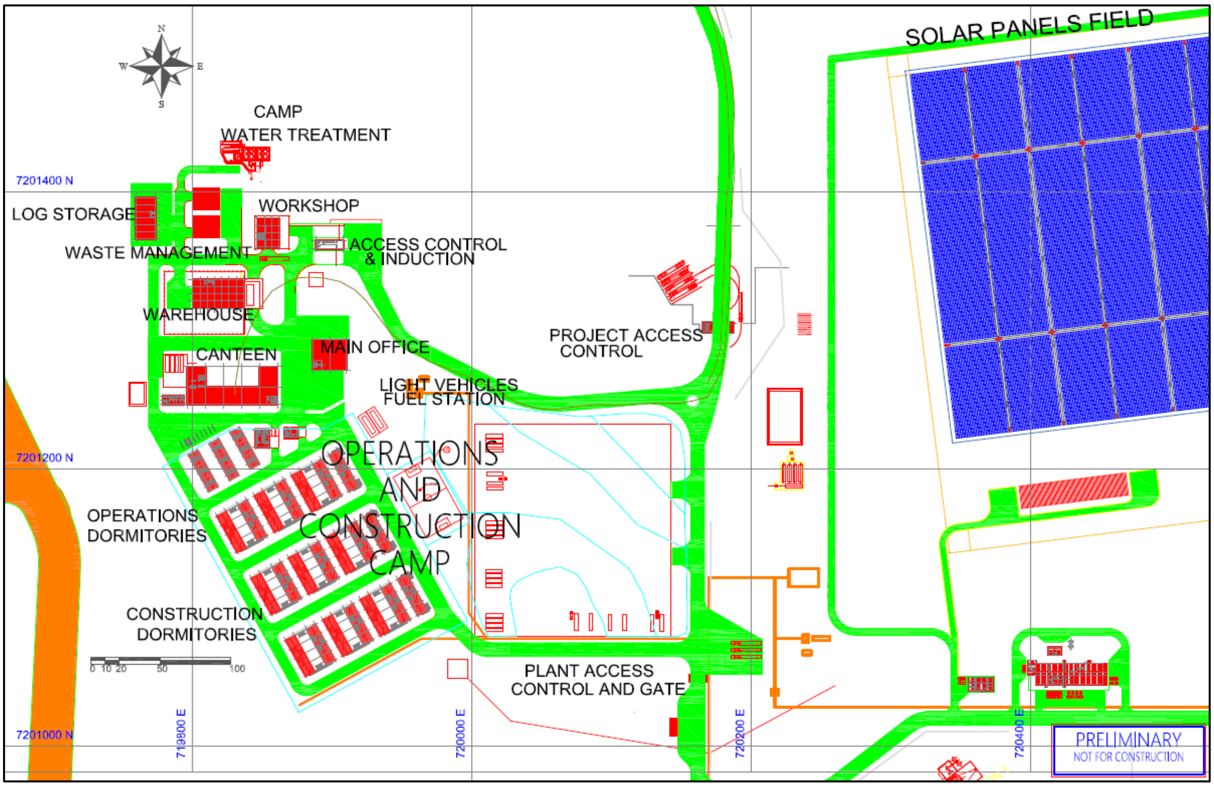


Figure 18-12: Camp facilities

Source: AbraSilver Resource Corp., 2023

18.10.2 Modular Buildings

The following facilities were considered within the camp and service hub.

- Accommodation and hospitality areas, including dormitories, canteen, recreational, laundry and medical emergency station.
- Administrative areas, offices, access control, hospitality reception and induction classroom.
- Geology, exploration, and core storage.
- Camp warehouse maintenance, camp maintenance workshop including light electrical and I&C.
- Water, waste treatment, temporary storage, utilities networks.

18.10.3 Dormitories

The capacity of the dormitories is 890 people, considering 840 construction workers, 40 supervisors and 10 managers. This accommodation will be distributed in three types of dormitory modules in containers:

- One single level container module for management, with individual bedrooms and bathrooms, hosting up to 10 people (managers + high level visitors).
- Two single level modules for supervisors, with sleeping accommodation and private bathrooms, with capacity for 40 people (supervisors and visitors). These modules follow the same configuration as the management ones.
- Twenty-one double level container modules for operators and construction staff, with one common shared sanitary facility and 20 beds on each floor level, totalling 40 persons to be accommodated per module.
- Each dormitory will have a minimum surface of 9 m2 to comply with local regulations and union standards. Typical dormitories module configurations are shown in Figure 18-13 and Figure 18-14.

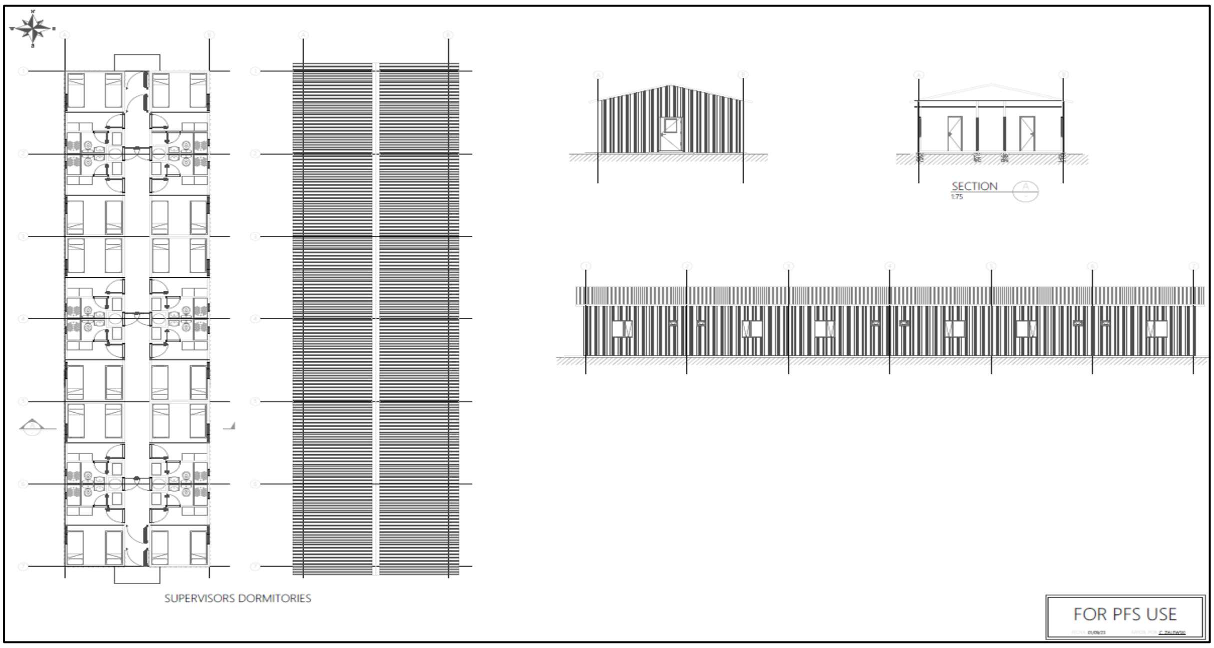


Figure 18-13: Typical supervisor's dormitories lay-out

Source: AbraSilver Resource Corp., 2023

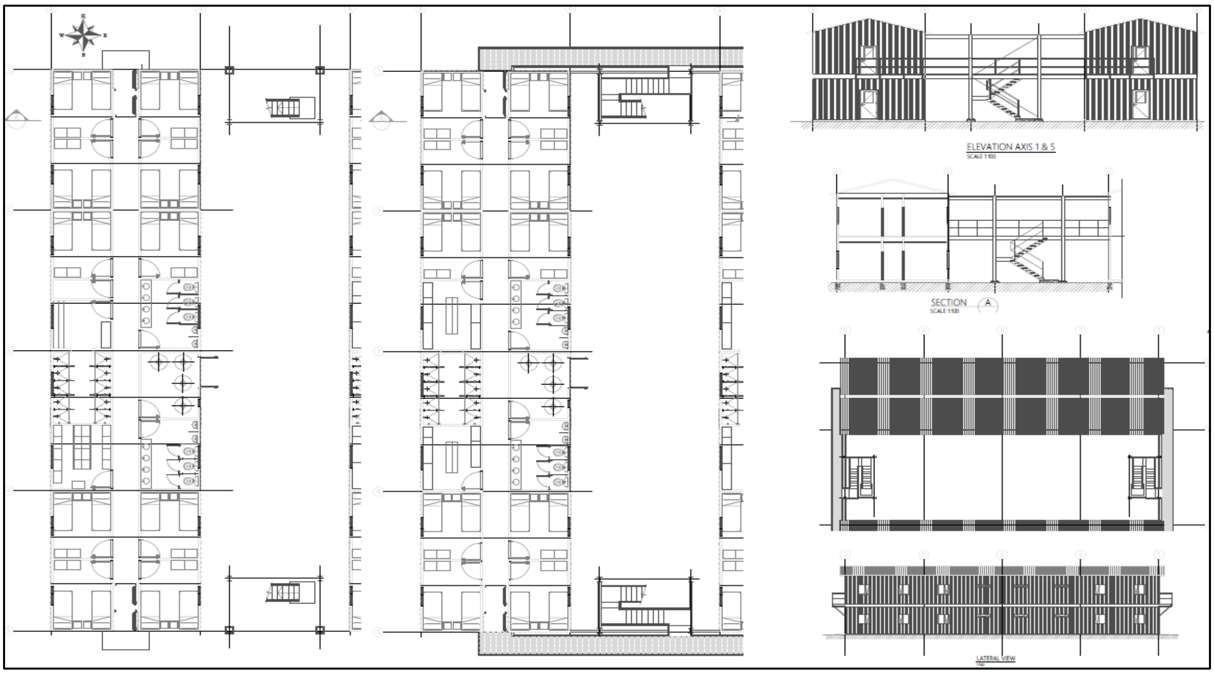


Figure 18-14: Typical operations and workers dormitories

Source: AbraSilver Resource Corp., 2023

18.10.4 Kitchen and Canteen

Kitchen and canteen will be designed to accommodate up to 560 guests during construction phase in two shifts during the day (breakfast, lunch, and dinner). For the operations phase the interior will be redesigned to offer a single meal shift for up to 402 persons according to the provision indicated in the Figure 18-15.

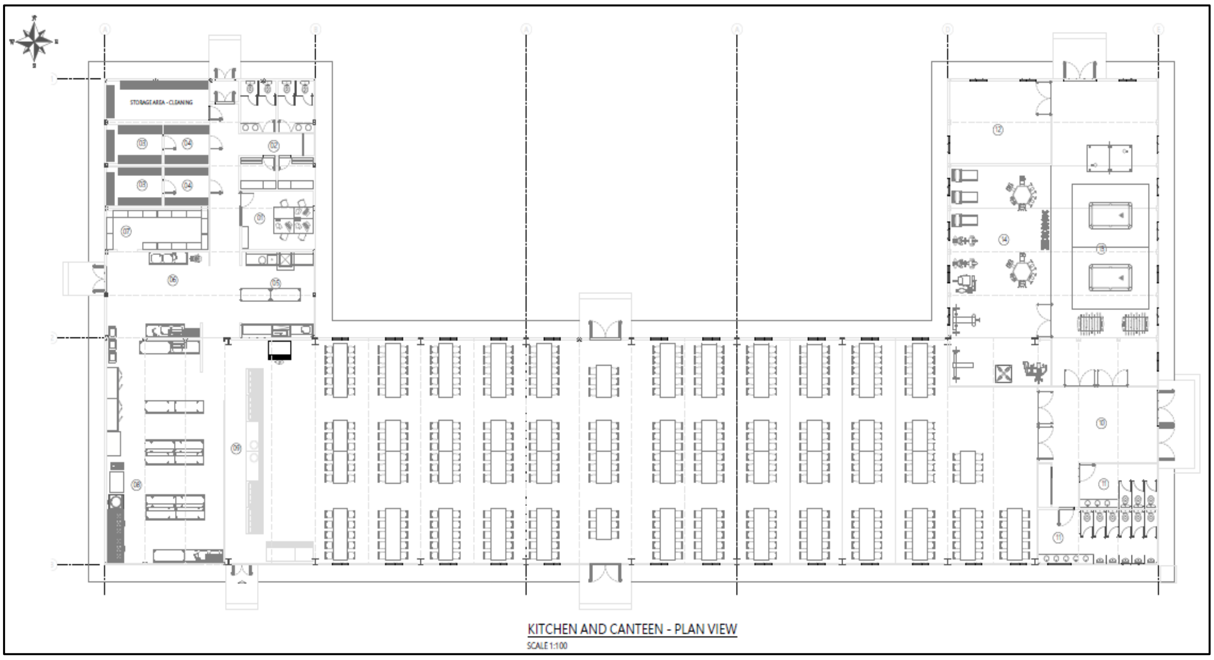


Figure 18-15: Typical Lay-out of kitchen, canteen & recreational facility

Source: AbraSilver Resource Corp., 2023

18.10.5 First Aid and Medical Emergency Station

A first aid and medical emergency station is shown in Figure 18-16 and will be installed within the camp. Emergency stations will also be distributed throughout the project facilities, in line with the Health, Safety & environment Design Criteria.

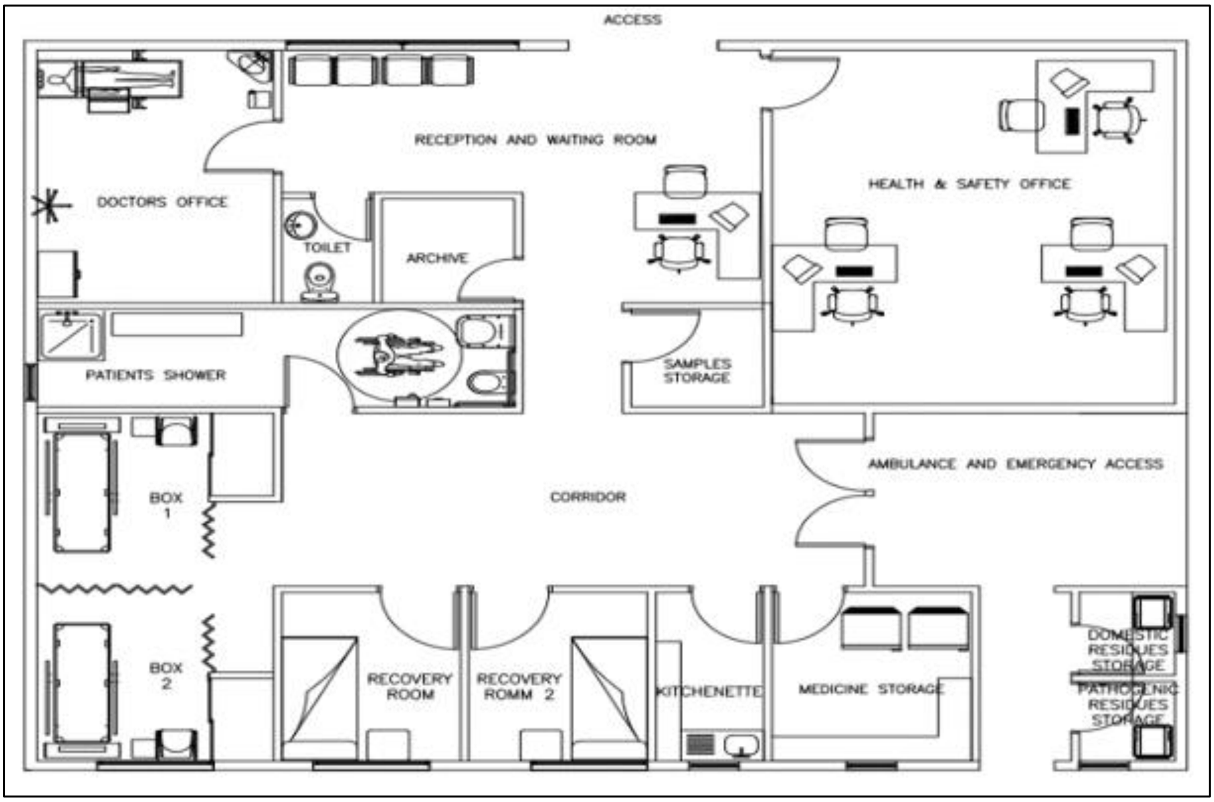


Figure 18-16: Typical lay-out of emergency medical station

Source: AbraSilver Resource Corp., 2023

18.10.6 Laundry

A separate building for the camp laundry and staff clothes washing and ironing be installed near the canteen as shown in Figure 18-17. It will host six laundry machines and four driers. The driers will be fed with GLP gas from the gas storage tanks. As it is considered a hazardous area, safety distances and effluents are to be treated accordingly before being released into the sewage network.

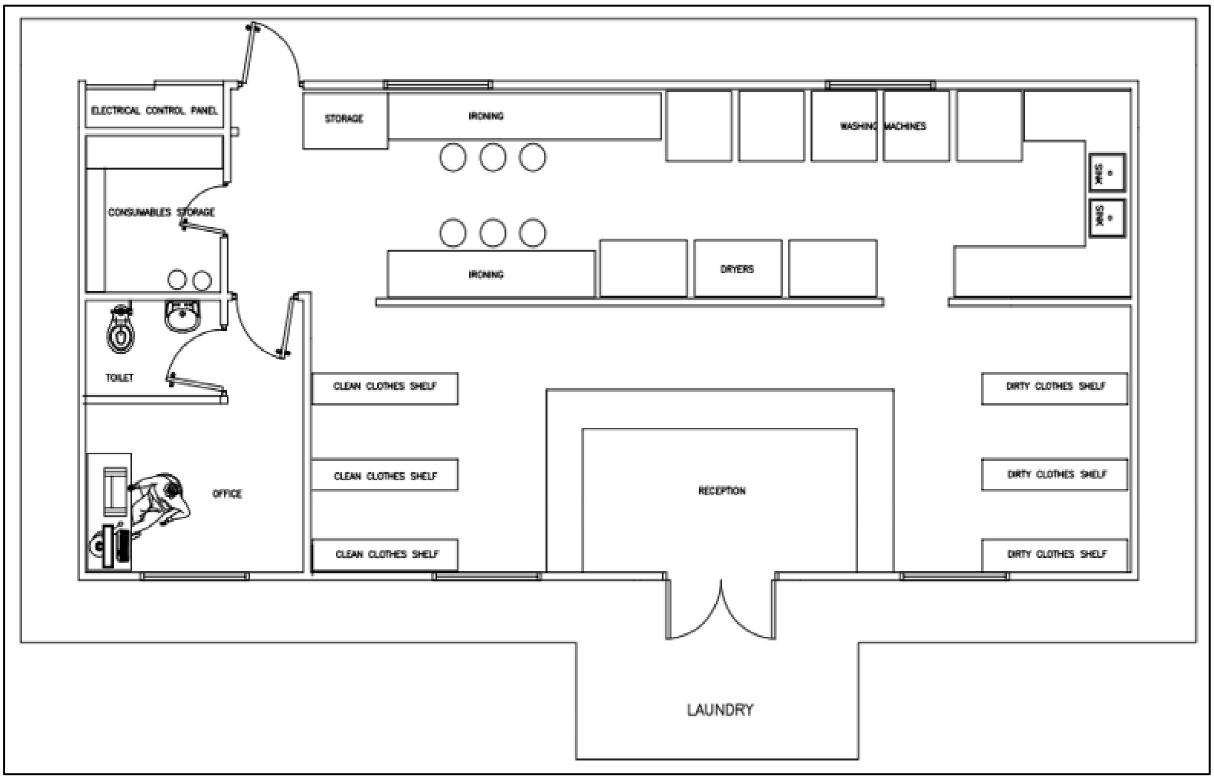


Figure 18-17: Typical lay-out of laundry

Source: AbraSilver Resource Corp., 2023

18.10.7 Administration Offices, Access Control, & Access Barriers

An access control booth will be located at the project facilities main entrance, with a parking space for trucks and light vehicles. Bus drivers, visitors and minor supply trucks will be instructed to proceed to the main camp gate. This will be used for document control, hospitality, health, safety, and environment inductions. Truck drivers, suppliers and service contractors will be diverted to the mine and service hub and its corresponding warehouse or reagent storage.

The administration buildings (Figure 18-18), comprise the project site offices, the hospitality management offices, access control and project access barriers.

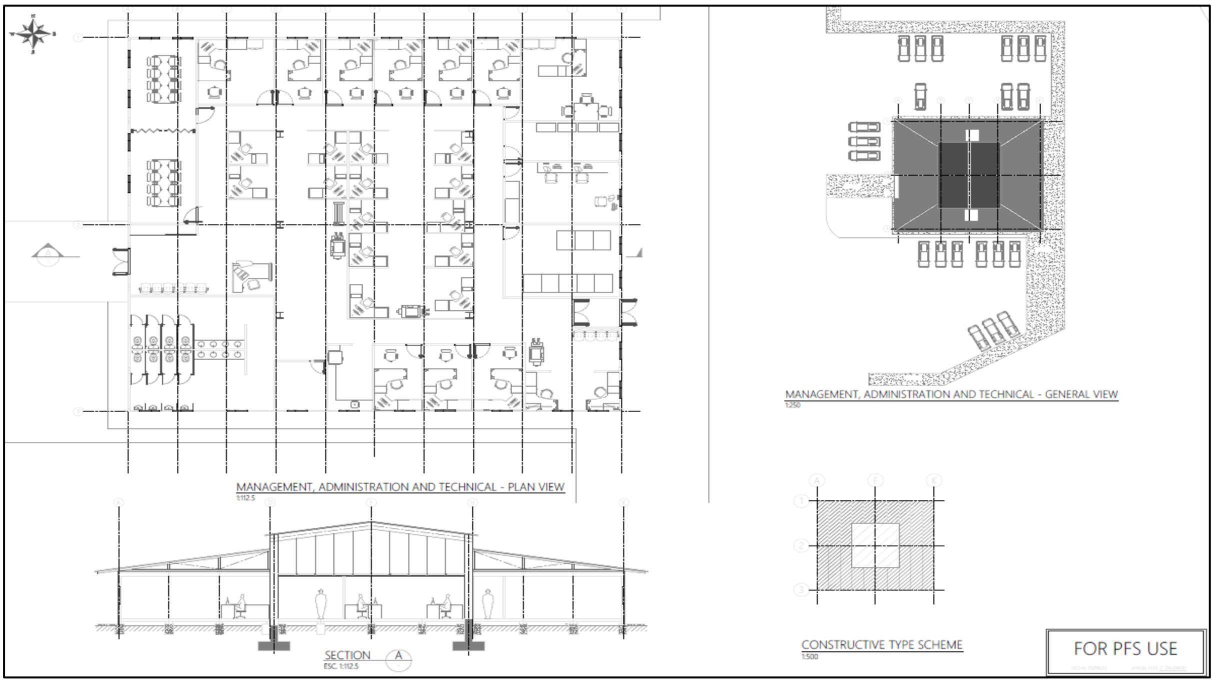


Figure 18-18: Typical lay-out of administrative offices

Source: AbraSilver Resource Corp., 2023

Figure 18-19 shows the main camp access control barrier, induction rooms and hospitality reception desk.

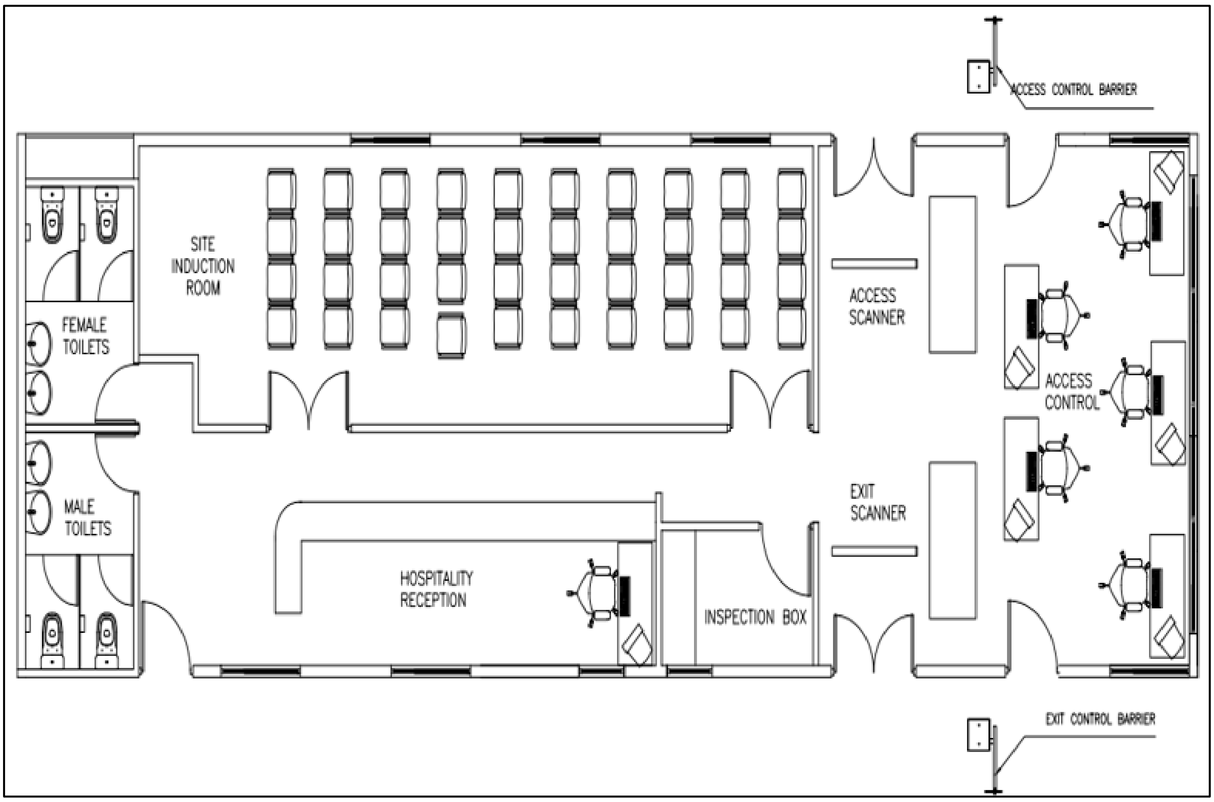


Figure 18-19: Typical lay-out of access control, hospitality reception and site induction

Source: AbraSilver Resource Corp., 2023

18.10.8 Service Hub, Plant & Mine Operations Offices

An office building as shown in Figure 18-20, will be located close to the process plant entrance with adequate parking. These offices will be used jointly by plant and mining operations staff. They will accommodate the plant superintendent office and supporting technical team.

Each area will include briefing / meeting rooms for daily briefing activities.

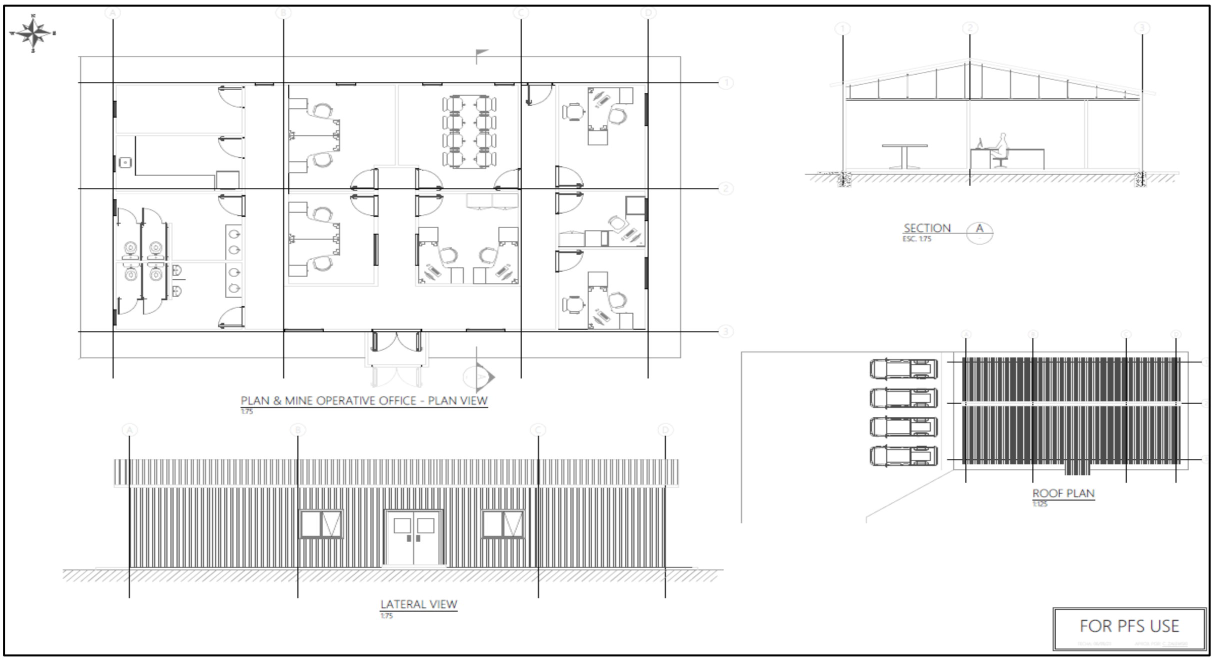


Figure 18-20: Typical lay-out of work front offices for mine and process plant staff

Source: AbraSilver Resource Corp., 2023

18.10.9 Laboratories

The central laboratory will be next to the plant operations office facilities, with easy access for light vehicles coming from the mine and processing plant. Figure 18-21 shows the typical combined chemical and metallurgical laboratory.

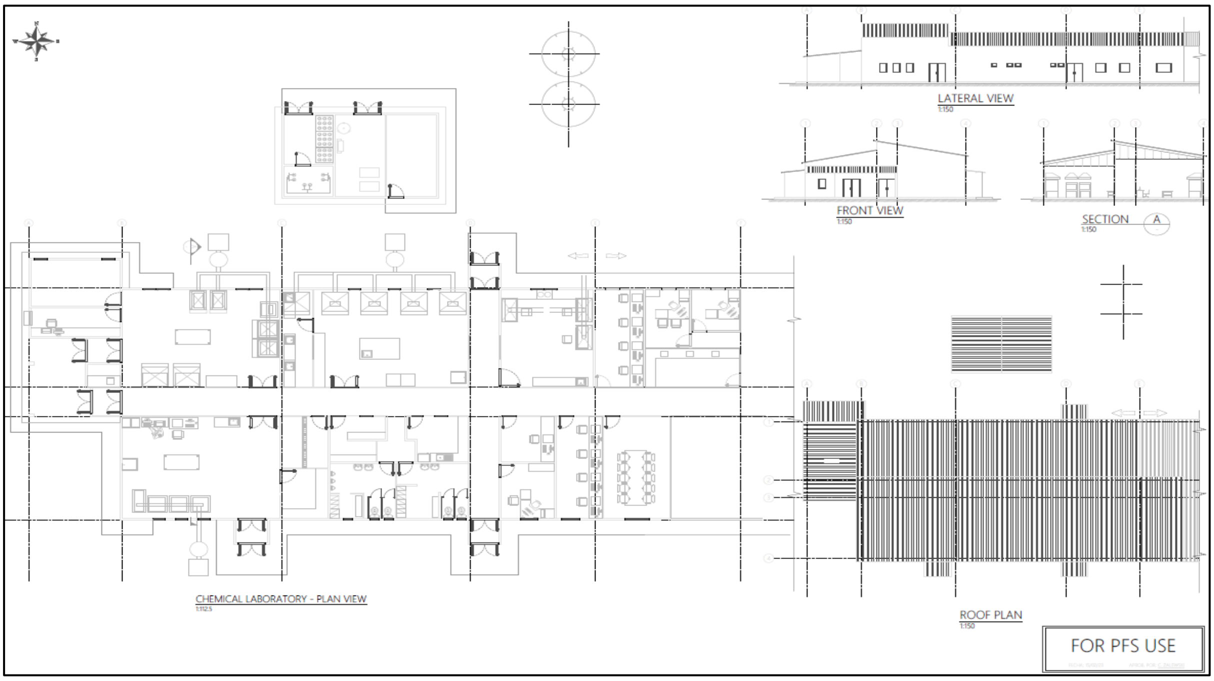


Figure 18-21: Typical lay-out of the chemical & metallurgical laboratory

Source: AbraSilver Resource Corp., 2023

The chemical laboratory (Figure 18-21) will perform all necessary chemical test work related to the plant operation, including Atomic Absorption, fire assays, etc., to determine mineral contents of the different solutions and optimize process variables.

18.10.10 Service Hub, plant access control and change room.

As the process plant will be located within an enclosed compound, control room, laboratory and work front operators will have to undergo scrutiny and change clothes to access the plant.

A change house with lockers and an access control will be installed next to the process plant access gates as shown in Figure 18-22.

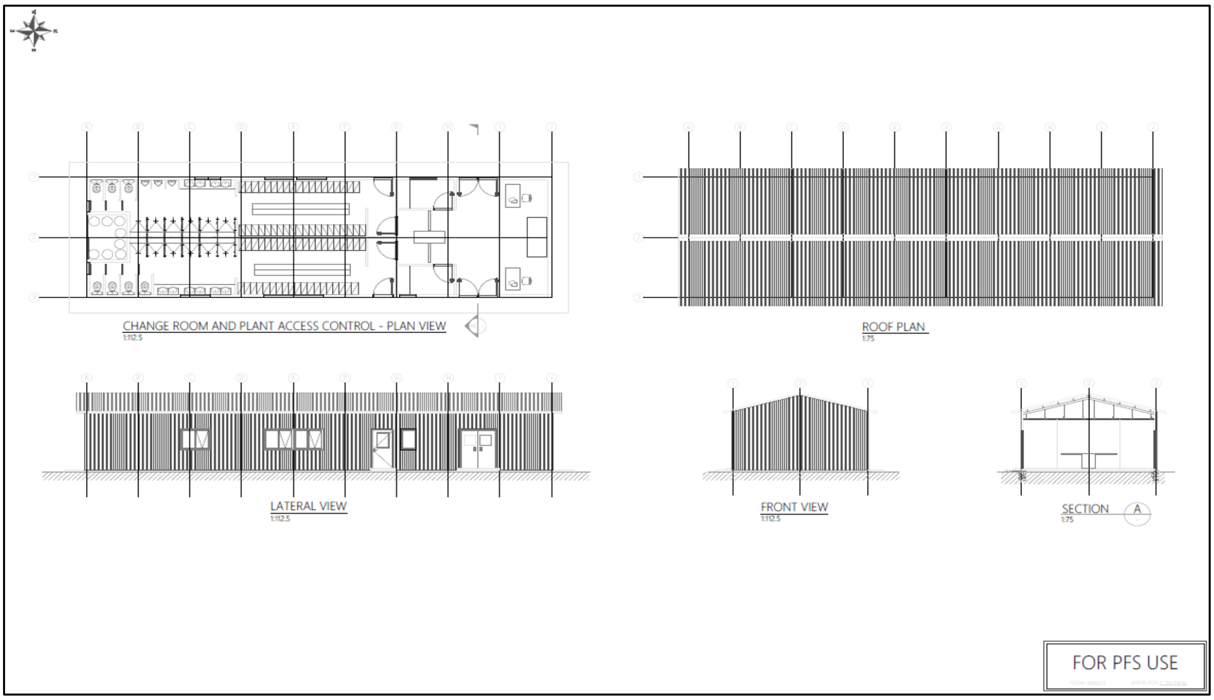


Figure 18-22: Typical lay-out of plant access control and change and locker rooms

Source: AbraSilver Resource Corp., 2023

18.10.11 Powder magazine

The Powder magazine and nitrates preparation yard are shown in Figure 18-23.

The nearest facility to the powder magazine is 1.5 km aerial distance to the crusher area.

The bulk explosives facilities are in two areas, with the areas being more than 2,350 m apart. These areas are composed of primary explosives and detonation and nitrates preparation yard.

All the containers are situated within a secure area, surrounded by fencing and managed with regular security patrols.

Raw materials, such as emulsion explosives, fuel oil, primary explosives (dynamite and booster) and blasting accessories are brought to site by road and stored at the explosives facility site until required.

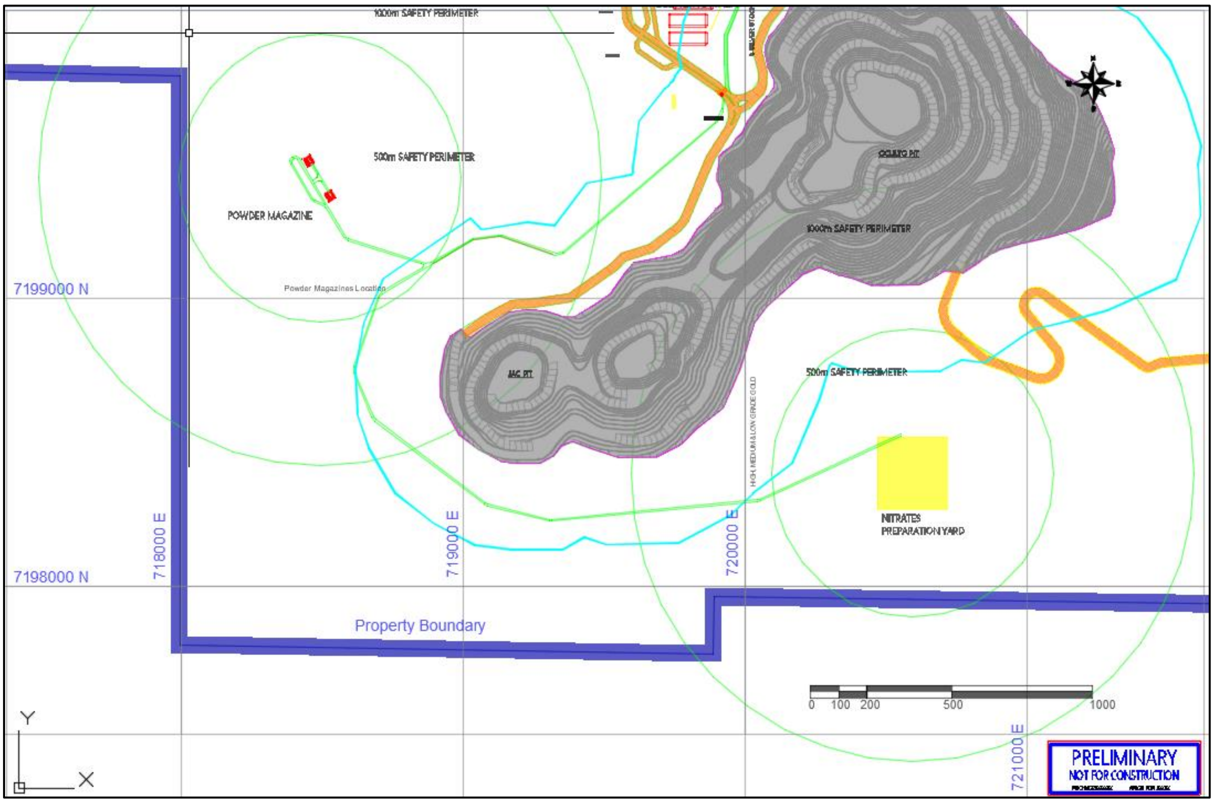


Figure 18-23: Explosive magazines plot plan

Source: AbraSilver Resource Corp., 2023

18.11 Site Services

18.11.1 Diesel Storage

The mine requires diesel to be stored within a diesel fuel tank farm covering a nine-day reserve, totalling 1,500,000 litres. The diesel will be stored in 6 vertical tanks north of the warehouse.

The fuel dispensing station and truck scale instruments and control hardware will share the same modular building.

18.11.2 Site Wide Communications

The mine site will employ a site-wide communications system based on a single mode fibre optic backbone. VOIP telephones, intranet/internet access, and control system network connectivity will be integrated into this fibre backbone, so these systems are accessible anywhere on site. Broadband internet access will be purchased from a satellite internet service provider. The corporate network (intranet) will be isolated from the control system network via a firewalled DMZ (de-militarized zone) network.

Industrial communications from the process plant or water well field will be routed to the central control room. The control room hardware and off-camp offices will be connected to an underground fibreoptics network through adequate polypropylene pipes buried at least 50 cm deep.

The remaining site communications will either be handled with VHF radios/handheld and wi-fi internet with separate band-width capacity for operations and camp leisure use. A steel tower for a VHF communication antenna will be installed at the camp.

18.11.3 Site Fencing

Fencing will be installed only around off-site facilities including raw water wells, booster station, powder magazine and reclaim water gensets at the TSF. At site, only warehouse lay-down area, foundry and gravity concentrator will be fenced to secure high value material. The remaining facilities will be chain linked wherever the H&S staff consider it necessary for safety reasons.

18.12 Utilities Network and Water Distribution

The following utilities networks will be installed within the camp, service hub, laboratories, and specific consumption points.

- Fresh water distribution network.
- Firefighting distribution network.
- Sewage recollection network.
- Gas distribution network (Camp, laboratories, and foundry).
- High (HV) and Low Voltage (LV) electrical distribution network.
- Industrial communications network (fibreoptics).

18.12.1 Firefighting Water Distribution Network

An underground firefighting water network will be installed throughout the camp facilities. A separate one will be considered for the process plant and industrial hub.

The corresponding jockey pump and emergency power system for firefighting will be installed next to the freshwater storage and treatment plant.

The network will be composed of 1 m buried carbon steel pipes which will distribute water to fire hydrants and hose cabinets installed sitewide according to the safety standards.

18.12.2 Kitchen Grease Separation Chamber

Wastewater coming from the kitchen and canteen will undergo grease separation before entering the sewage network. The chamber will be emptied on a weekly basis and grease stored for final disposal at the waste dump (Figure 18-24).

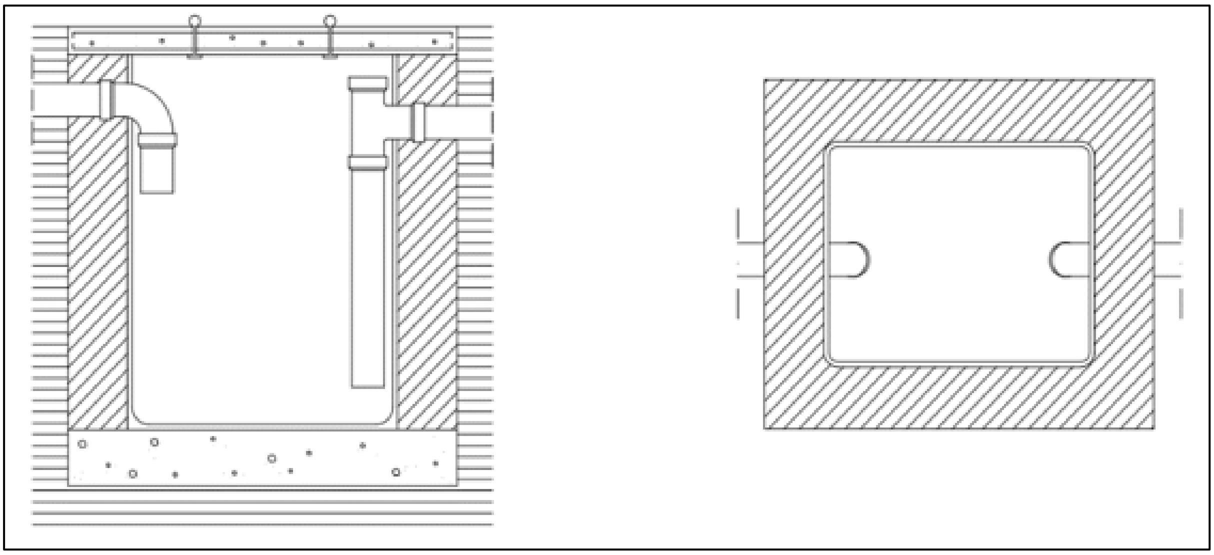


Figure 18-24: Typical lay-out of a concrete grease separation chamber

Source: AbraSilver Resource Corp., 2023

18.12.3 Gas Distribution Network

Bottled petroleum liquified gas will feed kitchen ovens, and eventually laundry driers will be installed. Gas will be distributed through buried epoxy paint coated carbon steel pipes to the kitchen and laundry buildings as shown in Figure 18-25.

According to gas consumption of laboratories and foundry equipment, another petroleum liquified gas tank farm of 7 m^3 will be installed close to both facilities.

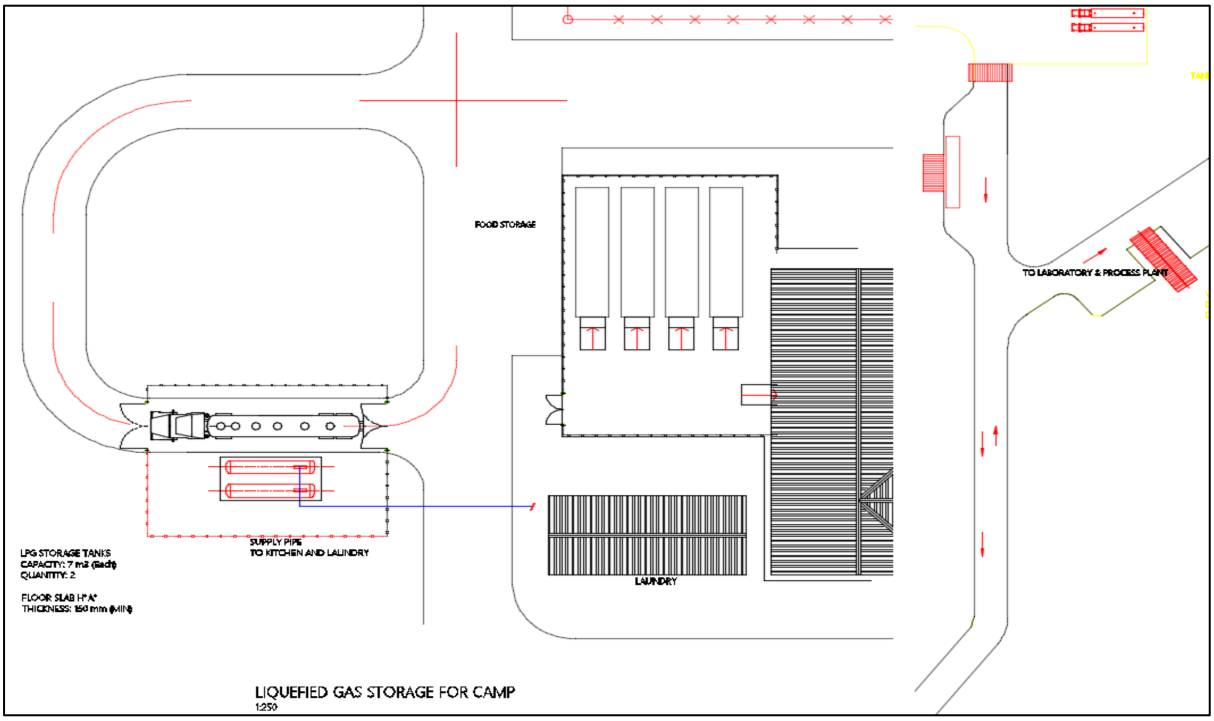


Figure 18-25: Typical lay-out of a gas distribution network

Source: AbraSilver Resource Corp., 2023

19 MARKET STUDIES AND CONTRACTS

No specific marketing study was completed for the potential sale of gold/silver Doré from the Diablillos Project. Silver and gold refining terms used in the analysis are based on company discussions with refiners, industry standards, and are considered reasonable when compared to other published studies.

Historic silver and gold prices (www.kitco.com) were compared against other online sources for accuracy. The twenty-year period from 2004 to 2024 is shown in Figure 19-1 and Figure 19-2.

This study recommends that, as the Project advances towards development, a detailed marketing report and logistics study for end-product shipment should be undertaken to ensure the accuracy of the precise terms. Table 19-1 outlines the terms used in the economic analysis.

Table 19-1: Sales terms assumptions

Parameter	Unit	Value
Provincial Royalties	%	3.0
Gold (Au) Payable	%	99.8
Silver (Ag) Payable	%	99.0
Gold (Au) Refining Charge	USD/pay oz Au	4.00
Silver (Ag) Refining Charge	USD$/pay oz Ag	0.70

At this time, no contractual arrangements for shipping or refining exist; nor are there any contractual arrangements made for the sale of the doré. Historical prices for silver and gold are shown in Figure 19-1 and Figure 19-2 respectively, averages can be found in Table 19-2.

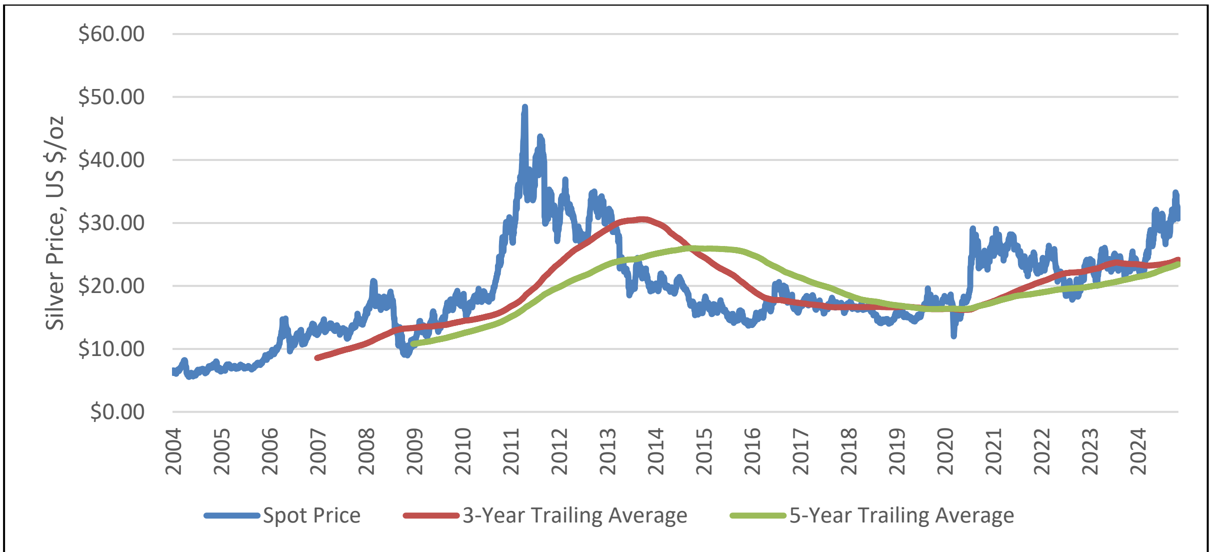


Figure 19-1: Silver Prices per Troy Ounce 2004 – 2024

Source: AbraSilver Resource Corp., 2023

Figure 19-2: Gold Prices per Troy Ounce 2004 – 2024

Source: AbraSilver Resource Corp., 2023

Table 19-2: Metal Prices for Silver and gold

Commodity	Spot Price April 11, 2024	36 Month Trailing Average April 11, 2024	60 Month Trailing Average April 11, 2024	20 Year Historic High	20 Year Historic Low
Silver	$22.66	$23.16	$21.76	$48.41	$5.54
Gold	$2,044.13	$1,858.72	$1,765.67	$2,077.16	$374.55

As of April 11th, 2024, the spot price of silver was trading below the 36-month trailing average, but above the 60-month trailing average price.

The spot price of gold was trading above both the 36-month and 60-month trailing averages.

Industry accepted practices indicate using a 36-month trailing average for Mineral Resources and Mineral Reserves estimation, thus, a silver price per ounce of $23.50 and a gold price of $1,850 per ounce is recommended for the Mineral Resource estimate in Chapter 14 and Mineral Reserve estimate in Chapter 15. The economic analyses in Section 22 of this report is presented using a silver price of $25.50 per once and gold price of $2,050 per ounce to reflect recent market conditions.

19.1 Royalties

The Doré produced and sold from the Diablillos project is subject to a provincial 3.0% NSR royalty and a 1.0% NSR agreed to be paid to EMX.

19.2 Contracts

There are currently no signed contracts for transport and sale of the doré production. However, as there is a ready and well-established market for doré refining, the sale of this product and the revenue from it is well understood.

There are also no current signed contracts in place for the development or operation of the Diablillos project. Those that exist are for the current exploration and camp support activities.

20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

20.1 Regulations and Permitting

20.1.1 Environment Requirements

The environmental legislation relevant to the Diablillos Project is as follows:

- National Law No. 24,585, of the Environmental Protection for Mining Activity Act, incorporated into the Mining Code. Salta Province stipulates that the Mining and Energy Secretary is the implementing authority, while in Catamarca it is the Ministry of Mining. The submission of environmental impact reports and the corresponding monitoring is the responsibility of this government authority.
- Provincial Environmental Protection Law No. 7,070, Salta Province. This law declares that it is a matter of Provincial public order that all necessary actions, activities, programs, and projects must be conducted to preserve, protect, defend, improve, and restore the environment and natural resources within a framework of sustainable development. The Provincial government is tasked to function as above except in matters governed by special laws such as Law No. 24,585.
- Civil Code, Art 14 and 240, fall under the category of "collective rights" as recognized by the National Constitution (also called rights of the third generation, with its peculiarities such as rights that do not belong to an individual, but everyone). Article 14 states, "the law does not protect abuse of individual rights where they may affect the environment and collective rights in general." Article 240 regulates the limits on the exercise of individual property rights including environmental rights.

Article 41 of the National Constitution refers to the rights of individuals residing in an area of productive activity to enjoy a healthy environment without compromising future generations. It also indicates that the Argentine State and Provincial governments will issue rules as appropriate to their jurisdictions. Other related legislation includes the Mining Code of the Argentine Republic.

20.1.2 Environmental Obligations

According to Provincial Law 7070, Article 41, Decrees 3097/00 and 1587/03, the technical manager of any environmental work must be registered as an Environmental Impact Evaluator in the Ministry of Environment and Sustainable Development of Salta Province. Maintenance of this registration requires biannual re-enrolment and the updating of the technical manager's curriculum vitae. An EIA must be signed as an affidavit, and the person signing the EIA is liable under civil and criminal law for the content of the report.

20.1.3 Permitting

Mining in Argentina is governed primarily by Federal legislation, Provincial laws, and decrees, and by Municipality regulations and controls. The principal permitting process, as well as regulatory activities during operations, are managed by Salta Province through the Salta Mining Court and Salta Mining and Energy Secretariat, in conjunction with other public offices. In the province of Catamarca, this is managed by the Mining Ministry.

20.1.3.1 Sectorial Permits

Following approval of the EIA, the following sectorial permit applications will be filed:

- Work authorization for foreign professionals.
- On-site bulk fuel storage.
- Domestic and industrial effluents.
- Authorization for explosives use and storage.
- Authorization for chemical precursors use and storage.
- Water management.
- Mining operations.
- Communications.

20.1.3.2 Permitting Agencies

Permitting government agencies are listed in Table 20-1 and Table 20-2Table 20-2, including a summary of the most important required approvals and permits.

Table 20-1: Required key permits and authorizations

Area	Key permits and Authorizations	Jurisdiction
Mining Law 24, 196	Certificate of Registration under number 242	Secretaría de Minería de la Nación
Import and export	Certificate of Import & Export	Customs
Mining Property	Granting of Mining Property	Salta Mining Court House
Surface Rights	Camp Rights	Salta Mining Court House and the Catamarca Mining Ministry
	Right of way	
	Surface water right and pipeline	
	Camp rights	
	Plant and process easement	
	Waste dump easement	
	Open Pit easement	
Water Resources	Water Concession for Mining Activity Use	Secretaría de Recursos Hídricos de Salta, Secretaria de Agua y Ambiente de la Provincia de Catamarca.
	Report on all drill water supply holes	

Area	Key permits and Authorizations	Jurisdiction
Waste Management	Pathogenic Waste Provincial Registration as Generator	Secretaría de Ambiente y Desarrollo Sustentable. Secretaría de Minería y Energía. Salta Secretaría de Agua y el Ambiente Catamarca.
	Operator and transporter of Hazardous Wastes	
Environmental Management	Environmental Impact Declaration (Approval of Environmental Impact	Secretaría de Minería y Energía de Salta. Ministerio de Minería de Catamarca
	Environmental Impact Statement, (art.250 Mining Code, art.34 of Provincial Law 7,141)	
	Comply with the DIA requirements	
Camp qualification	Camp municipal qualification	Municipio San Antonio de los Cobres y Antofagasta de la Sierra.
Explosives	Registration for Explosives Users	Ministerio del Interior Registro Nacional de Armas (RENAR)
	Registration for Users and Vendors of Explosive Services (vendor)	
	Certification of Powder Magazines	
	Storage of Ammonium Nitrate and Controlled Products	
Contract foreign professionals	Hire foreign professionals	RENURE (Migrations)
Fuel	Registration in the Liquid Fuel Dispensing Registry or National	Secretaría de Energía
	Liquid Petroleum Gas Registry (contractor)	
Chemicals	Storage and use of chemical products	SEDRONAR – R.N.P.Q (Registro Nacional de Precursores Químicos)
Communications	Use of satellite telephone and internet	Private contracts with vendors. Commission Nacional de Communications
	Use of VHF handheld radios	
Cultural and Natural Heritage	Notification of Accidental Discovery of Artifacts Potentially Relevant to	Secretaría de Cultura de la Provincia de Salta, Dirección de Antropología de Ministerio de Educación, Ciencia y Tecnología de Catamarca
	Cultural or Natural Heritage of the Province.	
	Request for Liberation of an Area (i.e., free of culturally significant artifacts)	

Table 20-2: Required key permits and authorizations

Area	Key permits and Authorizations	Jurisdiction
Health	Authorization for Installation and Operation for Food Preparation and Operation of Dining Area	Municipio de San Antonio de los Cobres Municipio Antofagasta de la Sierra. AOMA (Mining Union)
	Authorization to Operate Water	
	Potabilization Plant	
	Potable Water Certificate	
	Medical Post, Doctors, and Ambulances	
	Emergency Plan for Contingencies Health Security in Mining Activities	
Transit and transportation	Transit of special machinery and gasoline	National roads: Vialidad Nacional
		Provincial roads: Vialidad de la Provincia de Salta
Use of Soil	Quarry Concession in fiscal provincial areas	Juzgado de Minas de la Provincia de Salta
Water Management Works and Structures	Authorization for construction a water management structure	Secretaría de Recursos Hídricos de la Provincia de Salta
	Water management works Approval and authorization to operate.	
	Environmental impact report for the water pipes and construction	Secretaría de Minería y Energía
Mining Operations	Mining producer registration	Secretaría de Minería y Energía de Salta, Ministerio de Minería Catamarca
	Ore transport guidelines	
	Notice of start-up of mining activity	
	Notice of suspension of operations or abandonment	
	Qualification of plant and facilities	Municipio San Antonio de los Cobres
Closure Plan	Mining Closure Assessment	Secretaría de Minería y Energía de Salta

20.1.3.3 Permits

20.1.3.3.1 Existing Permits

AbraSilver has obtained permit approvals from both the provinces of Salta and Catamarca for exploration activities. In Salta, an Environmental Impact Declaration (DIA) was obtained, while in Catamarca the company received a provincial resolution.

In addition to the Project's current Environmental Impact Report (EIR) for the Exploration Stage, the Project holds easements outlined in Table 20-3.

Currently, there is a permit to use well water from St.DBL.Ag 7, called SRH 1515, with Resolution number 009/23.

Table 20-3: Existing easements

Item	File Number	Area (ha)
Water Easement	19332-2008	1
Water Easement	19333-2008	1
Water Easement	19334-2008	6
Camp & Road Easement	16225-1997	25
Road Easement	18927-07	36

20.1.3.3.2 Future Permits

The company has submitted applications for two new water easements of 4 ha each. While the expectation is that these will be granted, the process has only recently begun so they have not been included above.

Additionally, four new easements were requested in 2023.

An Environmental Impact Report is required as part of the application for environmental approval. The EIR includes the following:

- General Project Information
- General Description of the Environment
- Description of the Project
- Description of the Environmental Impacts
- Description of the Environmental Management Plan

On September 30, 2024, AbraSilver submitted an Environmental Impact Assessment, EIA, to both the Salta and Catamarca provincial authorities for implementation of the Diablillos project. The EIA included results of baseline environmental studies and social engagement dating to 2021. A local consultant with extensive experience in the mining and energy sectors was used to develop the EIA application.

20.2 Environmental Baseline

Within the framework of the elaboration of the environmental baseline of the Diablillos Project, three survey works were carried out at different times of the year, to characterize the flora, fauna, and limnology communities of the project's area of influence and its immediate environment, to understand their dynamics and to establish the biodiversity baseline in the area under mining concession of the Diablillos metalliferous project. Sampling the biotic indicators was duly selected.

On June 8, 2022, AbraSilver announced that it has completed a comprehensive Environmental Baseline Study (the "Study") at its Diablillos Project in Salta, Argentina. Following this initial report, routine field data collection and interpretation continue to generate a comprehensive record of the different seasons and project areas that will be influenced by the future mine.

The purpose of the Study and its updates is to collect and analyse environmental baseline parameters relevant to the area of a potential future mine prior to significant project activities taking place on and around the property's concessions.

The study conducted will help identify and mitigate potential environmental and social impacts that may arise with future project development. The study covered several important areas, including hydrology, flora, fauna and limnology.

From 2021 to the present, AbraSilver has been working with a local consulting firm to develop and update the project's environmental baseline.

Location and Access Routes

The Diablillos property is located approximately 160 km southwest of the city of Salta as the crow flies and 360 km northwest of the capital of Catamarca as the crow flies, located along the border between the provinces of Salta and Catamarca, Argentina. The property encompasses a concession area in both provinces of approximately 11,680 ha in the high Puna and Altiplano region of northwestern Argentina, with geographic coordinates at the centre of the property of 25°18' south latitude by 66°50' west longitude.

Climatology

The characterization of the climate is referred to in chapter 5.3, see details in this section.

Air Quality

The climatic conditions of the area contribute to the transfer of dust by winds. Depending on the direction of the wind, the dust load can come from the edge of the salt flat where the concentrations of silt and clay are higher, which causes an increase in the levels of particles naturally suspended in the atmosphere. The removal of material by mining activity will cause an increase in the number of fine particles available in the operating areas.

The EIA report analysed the air quality, origin and vectors of natural transfer. Frequent monitoring will be implemented where the results will be reported indicating the concentrations of selected pollutants that are within the guide levels established by current legislation. The results correspond to the natural levels of each site, with the levels of pollutants from the activities carried out in the area at the time of the evaluation corresponding to the levels of particulate matter transported by the wind. Air sampling will be carried out periodically in accordance with resolution 004/18. This process will involve community members, government authorities and other agencies in the sampling process and the results will be discussed.

Water Quality

The Barranquillas Aquifer System (SAB) is a unit of fluvial origin. At the site where the St.DBL.Ag7 Well is located, the area is proposed for the priority supply of the mine. The geology of the basin is made up of a growing system of medium sands to coarse gravels up to approximately 140m depth. The recharge basin of this system is 23,000 hectares with a 150mm isohyet, north-south parallel to the major axis of the basin.

During 2023 and 2024, systematic environmental chemical studies were carried out on samples taken from the St.DBL.Ag7 well. It was concluded that the conductivity and pH values between the field and the laboratory are consistent, reflecting consistency in the results despite variations related to temperature in the field. An average annual conductivity of 2516uS/cm and an average pH of 5.6 were obtained. The water is classified as sodium chlorinated and has demonstrated stability in its composition over time.

Comparisons between the results and the guide levels show that the metals that exceed the tolerances specified in Law No. 24585, Table No. 1 “Human Drink”, are arsenic and aluminum. In Table No. 6 “Livestock Drink”, the metals out of tolerance are boron, zinc and arsenic.

Although it is not classified as suitable for human or animal consumption, with proper treatment it can be used for domestic purposes in camping.

The morphological characteristics of the reservoir seem to indicate that it is a free to semi-confined aquifer, with edges and base formed by fractured Palaeozoic rocks (metamorphites, granites and granitoids), which determine the thickness and extent of the sediments of river fill.

Hydrology

From a hydrological point of view, the morphological factor directly affects the configuration of a centripetal or endorheic drainage that converges at points of lower heights, forming interior lagoons and salt flats. With reduced rainfall characteristics (precipitation less than 200 mm on the eastern edge, and less than 100 mm annually in the Puna in general) and predominantly summer, the courses have almost entirely a temporary regime, with permanent courses being rare.

This low rainfall means that the recharge of the aquifers is very poor in quantity but effective by rapid infiltration due to the transmissivity of the sediments.

Soil Science

The area has poorly developed and very fragile soils, due to the climatic and relief conditions, which condition and limit their formation.

In general, the taxa are called aridisols, which occur in areas with an arid climate. It is characteristic that these soils have a pale surface horizon (composed of salts and other minerals and poor in organic matter), entisols (formed on recent sediments such as alluvium, dunes or are found on very steep slopes where erosion predominates).

In this area, the prevailing conditions restrict the formation of soils, so there are large areas of rocky outcrops of varied composition and origin (mainly igneous, volcanic and metamorphic) and/or surfaces covered by salt flats.

Flora and Fauna

The phytogeographic provinces of the Puna and the High Andes are characterized by a very arid climate, with low temperatures, a wide daily thermal amplitude, intense solar radiation and almost constant exposure to strong winds. Studies and surveys of vegetation at a local level, which provide basic information on the functioning and dynamics of these ecosystems, are of fundamental importance for their sustainable management. Mitigation of the impacts on aquifer systems, areas of low vegetation cover, endemic and/or threatened species, which could result from human activity, must be based on knowledge of their ecological foundations, and these are updated and detailed in the environmental impact studies for the exploitation of the mine.

In the area of influence of the Diablillos Project, the vegetation unit with the greatest representativeness was the shrub steppe, followed by the grassland with shrubs. Both vegetation units are encompassed within the so-called high-Andean steppe, but while the former has a predominance of low shrubs, the latter is characterized by the predominance of grasses and grasslands. Of the totality of plots and observation points surveyed in this work, fourteen of them are framed in one of these two plant formations. This corresponds to the general physiognomy of the region, which shows not very steep slopes and small, mostly temporary watercourses.

Regarding flora, a total of 29 species were recognized throughout the project's area of influence, which mainly includes shrubs and grasses. To. Horrida and F. argentinensis, were the two most common and recurrent species in all vegetation units analysed. At the other extreme, species that were identified as exclusive in their environment or with very low density were: And. Tweedian and F. Bryoids; associated with wetter areas and to. Minor, B. Tola, C. Erinacea and F. Punensis associated with grassland areas.

From the estimation of the percentage of soil covered by vegetation we can divide the study area into two regions with distinctive characteristics. The first of these includes the area around the Co. Oculto and the current mining camp; the second is located within the vicinity of the Barranquilla River, at the height of the camp's current water intake. The surroundings of the Hidden Zone have relatively low vegetation densities (about 40% of the ground area covered). On the other hand, in the vicinity of the Barranquilla River water intake, the coverage values exceed 54% of the soil surface.

Regarding fauna, a total richness of 55 species of native vertebrates could be identified, considering the interest groups proposed in this case, corresponding to 1 species of amphibian, 2 reptiles, 42 species of birds and 11 species of mammals, one of which is domestic. In addition to two exotic species.

Ecosystem Characterization

Ecosystem characterization allows a more complete understanding of the existing interactions between a given project and the environment, and vice versa.

Eco-regions, or biomes present in the Diablillos Mine area are the Puna eco-region and the high Andean eco-region. These eco-regions were divided into ecological units summarized by descriptions of the soil, flora, and fauna, and their particularities and interactions (shelters, niches, eco-tones, barriers, and corridors comprising areas of frequent use). The degree of disturbance that these communities are experiencing due to human activity is currently being evaluated.

Local Ecosystem Characterization

To characterize the local ecosystem to be presented in the EIA, a summary of environmental conditions of the area was formulated, based on the data from baseline studies, carried out by the consultant Elisa Cozzi and Associates since 2021

Identification of Protected Area

The Diablillos Project is not located within any area figure of conservation, considering the current system of protected areas of the Provinces from Salta and Catamarca.

For reference, protected areas (from both provinces) are listed below relevant at a regional level.

- *Los Andes Multiple Use Natural Reserve (Salta Province).*

*The project is located outside this protected area.

- *La Vicuña Natural Reserve Area (Salta Province).*

*The final surface of the area protected is not defined.

- *Laguna Blanca Biosphere Reserve Area (Catamarca Province).*

*The project is located outside this protected area.

Archaeology

This section was carried out with the report "Archaeological Baseline Study (ELBArq) of the "Diablillos" Project, located on the N sector of the Salar del Hombre Muerto, department of Los Andes, province of Salta". It was developed as an integral part of the Environmental Baseline (LBA) prepared by the consulting firm EC & ASOCIADOS S.R.L. (EC)1, with the company ABRASILVER RESOURCES CORP. (ARC)2 being the operator of the project in question.

The field survey tasks were carried out by ARQUEOAMBIENTAL Archaeological Consultants during 2021 and updated in 2024.

The objective of this study is to evaluate the archaeological situation of the study area, so that the results obtained are used as base information for the development of future work.

The field survey carried out resulted in the creation of an archaeological record that includes a total of 17 (seventeen) archaeological findings, corresponding to sets of archaeological material, isolated simple structures and sets of low-sensitivity structures.

Of these findings, only 2 are located within the direct area of influence of the Hidden Mine, the rest are far away or outside the limits of the mining concessions.

Environmental Risks

Risk Assessment

The assessments and weighting of environmental risks are evaluated in the Environmental Impact Report submitted to the control authorities every 2 years, where the main risks, if any, for the environment and communities are evaluated and determined.

As a result of the environmental risk assessment carried out in the EIA, there are modifications to the landscape and the generation of uncontrolled dust. On the other hand, as positive findings, the generation of employment and improvements in local infrastructure such as access are considered to have a high positive impact.

Operations

The topography of the land will be altered by mineral extraction, especially around the pits and by construction of the waste dumps, stockpiles and TSF. The modifications made by the waste dumps do not represent geomorphological risks because they will be installed on sites that have no relevant natural hazards and will be designed to withstand earthquakes and extreme rainfall events.

Dump or Sterile Rock Deposit

While it is predicted that the waste dump area will have adequate long-term stability, monitoring of slope stability and deformation of the dump must be carried out on a continuous basis during its construction. In the case of the waste dump, its development has been executed in accordance with its design with no observations of subsidence as of the effective date of this Report. Any cracks that may be identified are surveyed, monitored, and subsequently remediated to enable the sectors for loading. The waste dump is located in a dry environment with no adverse issues related to wind erosion identified as of the effective date of this Report. The granulometry of the material varies, forming a 37° slope, that includes slight localized bulging, but nothing that interferes with the footing design. No instabilities have been identified.

Water

The risk of water contamination will always be an issue to consider and control. Monitoring and sampling will be constant, and the results will be reported to the relevant authorities. A comprehensive water quality monitoring program has been implemented downstream at various points to eliminate any uncertainty about possible contamination. Normally in this type of mine there are concerns about the risks of acid drainage and the presence of cyanide from the leaching circuit, although this is minimized by several factors such as water recirculation, monitoring stations, lack of meteoric water supply and climatic conditions that slow down the reaction speed of chemical weathering.

Air Quality

The operation generates emissions of particulate matter (dust) in the mine and plant area, mainly due to mining operations such as drilling and blasting, movement of vehicles on dirt roads, loading and unloading of extracted materials; and mineral processing operations such as crushing and agglomeration.

All these parameters were considered in the design of the mine, location of the facilities and methodologies to be implemented to mitigate or eliminate some risks.

The details of mitigation and risk assessments are detailed in the EIA presented by the company for the exploitation stage.

Soil

The process plant was designed as closed circuits and therefore no soil contamination is expected. There is, however, always a potential risk of failure in the leach circuit, in the transfer of solutions to different facilities, from drainage of solutions to the tailings pond, and from heavy precipitation that may cause solution in the circuit to exceed levels. A contingency settling pond has been constructed to provide protection against such events.

Within the plant, there will be a central drainage system to collect any spillage and send it to the containment ponds.

During operations, closure, and post-closure, events, or situations of low probability of occurrence may arise involving the contamination of the land, such as an oil spill, chemical spill, or accidental discharge of process solutions. Each of these events will have health and safety action plans and environmental remediation plans as necessary.

Flora and Fauna

The necessary monitoring was carried out to record and consider revegetation, growth periods, native species, among others, to guarantee the safekeeping of useful material to re-cover the activity areas during the useful life of the project.

Regarding fauna, the records indicate that the impact on its habits in indirect areas is minimal and in direct areas it can be restricted by civil works that do not allow the circulation of fauna on roads and in the mine pit.

Sites of Archaeological Interest

No sites of archaeological significance were found in the area that are directly affected by mining activity.

Noise

Due to the location of the mine, the environmental noise impact will be virtually nil for nearby residents and local wildlife. Noise and vibration controls will be installed where necessary.

Closure and Post Closure Phase

Environmental risks during the closure stage will be reduced by remediation and monitoring work. At the closure stage, soil will be contoured by heavy machinery to minimize the long-term impact of mining activity and return the topography of the land to resemble prior conditions. However, the movement of soil, and thus the risk, will be significantly less than in the mining operations stage.

Environmental Management Plan (EMP)

One of the priorities of AbraSilver is the care and protection of the environment. During the exploration stage, the company exercised any extent possible for the potential environmental impacts on the area. The same effort will be made during operational stage and in the closure stages of the mine. AbraSilver will define environmental principles to enable the development of mining operations efficiently from a productivity standpoint and from an environmental perspective, which include:

- Comply with existing environmental laws and regulations.
- Establish and maintain an environmental management program to guide operations.
- Involve the entire staff of AbraSilver and contractors in the Environmental Management Plan.
- AbraSilver promote environmental awareness among employees and the communities were operations occurrence.
- Mitigate the potential environmental impacts that do occur and support environmental improvement programs for common benefit.

The EMP defines the criteria, the design of specifications, and management practices that are applied to the Diablillos mine to mitigate, control, and monitor changes in the baseline conditions during operations, closure, and post-closure of the mine. Corresponding prevention measures, mitigation of potential environmental impacts, as well as rehabilitation measures, are outlined as appropriate.

Prevention measures will avoid potential environmental impacts, while mitigation actions are intended to minimize, correct, or compensate for environmental impacts of the proposed Diablillos mine at different stages. Measures to increase, improve, and enhance the positive environmental impacts caused by the Mine will also be implemented.

An environmental contingency plan will be implemented to predict potential incidents.

Issues of Environmental Concern

The following list specifies the most important issues to be considered from an environmental perspective that must be detailed in the EMP.

- Surveys of residents living in communities near the mine.
- Interests of those agencies evaluating the EIAs.
- Special requests by the Mining and Energy Secretary of the Production Ministry of Salta province (Secretaria de Minería y Energía, dependiente del Ministerio de Producción de Salta (DIA, Environmental Impact Declaration).
- Publications by Argentine media.
- Mining activity of concern to Argentine citizens.
- Statements by non-governmental organizations (NGOs), politicians, and others.

20.3 Community Relations

20.3.1 Social-Economic and Cultural Aspects

For the identification of the area of direct influence (AID), geographical and linkage criteria were considered, that is, the proximity of the project to the community, and the possibility of establishing ties there through the purchase of products and the contracting of services, as well as those that arise from interactions with the inhabitants. According to these criteria, the community may be impacted by the development of the project, and conversely, it may be the community that impacts the project.

The AID of the Diablillos project are the communities of Santa Rosa de los Pastos Grandes, located in the Department of Los Andes, Province of Salta; and the community of Ciénaga La Redonda, belonging to Villa Antofagasta de la Sierra, in Catamarca. These communities are the closest to the location of Diablillos. Scattered posts near the project were also included.

The AII of the Diablillos Project is the municipality of San Antonio de los Cobres, in Salta; while the most relevant institutions of the department of Los Andes are established there, and because it is the center that provides commercial support to the town of Santa Rosa de los Pastos Grandes. The locality Estación de Pocitos is also included as an AII, due to its proximity to the last-mentioned locality.

The most relevant information to take from the perception study, in relation to mining, is that, in general, they agree that the activity should be carried out in the area as long as certain requirements are met, related, in order of importance, to the collaboration with the town and its inhabitants, the hiring of local labour and services, and care for the environment.

Likewise, they expressed having a good image of the CSR area based on the support they receive. Given that the stallholders do not have daily contact due to the distance they are from AbraSilver's mining properties, no mentions were obtained regarding the identification of direct negative impacts on the quality of life or the surrounding environment. In this sense, we can infer a positive assessment of the actions that the CSR area has been carrying out through the permanent visit of the area of direct influence, by providing health care and in the contribution of merchandise and basic supplies.

20.3.2 Stakeholder Engagement

The Social Communication Program (SCP) is a fundamental instrument in the socio-environmental management of the projects and operations by AbraSilver, fulfilling the function of qualifying audiences and content, as well as mentioning communication and dialogue channels with populations, social organizations, and public institutions in their areas of direct influence. This program is included in the Environmental Management Plan within the environmental licensing process.

The communication actions proposed in this document have the guiding principle to provide society with information about the project, its licensing phases, possible impacts, and control/minimization actions, thus, aiming to contribute to the involvement and participation of interested parties, showing transparency in the execution of the company's business.

20.4 Closure

The rehabilitation and closure plan consist of three main stages:

1. Decommissioning planning
2. Execution of decommissioning
3. Implementation of the socio-environmental and geotechnical follow-up and monitoring actions of the post-closing. Waste piles will be graded as needed, capped with a vegetation suppression layer, and revegetated with herbaceous-shrub species. A final protective cover can be placed over the pile to facilitate revegetation and minimize erosion, at which point the sedimentation pond may be decommissioned. A cap layer of soil will be placed and seeded on the open pit berm areas. A fence will be built around the open pits, and all mine haul roads will be blocked off.

The closure plan is based on assessments of available technical information and local conditions throughout the life of the venture.

The recovery of degraded areas is a complex process that encompasses many interrelated activities and must be carefully monitored to avoid possible deviations, such as delays in soil correction or significant erosion.

During the recovery process of degraded areas, the aim is to maintain the original structure, whenever possible, prioritizing the use of native species in the areas to be recovered.

The pits and piles must have a final configuration with properly inclined slopes, an adequate drainage network to direct surface water, and the application of replanting techniques on the slope faces for efficient execution of a Mine Closure Plan. Replanting reduces the action of erosive agents, in addition to mitigating the negative visual effect from mineral extraction.

The equipment and civil structures demobilization that could be used in the project will not be carried out yet, even if there is the existence of a deposit and a mining concession that justifies the continuation and processing operations is proven.

If there is no technical-economic feasibility to continue the project, the company will remove the civil, metallic, and other structures related to the processing plant and of other supporting areas. The pit and piles geotechnical stability and the revegetation will also be part of the schedule.

Further details of the Mine Closure Plan will be presented below if the activity cessation is considered after experimental mining. A schedule of activities planned for the mine closure can be seen in Table 20-4.

Table 20-4: Schedule of Mine Closure Activities

Activities	Year 0	Year 1	Year 2	Year 3	Year 4+
Excavation and backfill					
Surface drainage					
Geotechnical monitoring					
Required earthworks					
Surface regrading					
Biomat and Hydroseeding application					
Facilities dismantling, demolition and demobilization					
Preparation of periodic inspection reports					

20.5 Corporate Social Responsibility

As part of a social responsibility program, AbraSilver maintains regular contact with local authorities and community members. Periodic meetings are held for information, contact, and to aid. AbraSilver assists in the development of community service providers, highlighting opportunities for local entrepreneurs that will be brought by the Diablillos Project.

AbraSilver is additionally part of a "social commission" along with other companies active in the area. This commission was created by the provincial government to facilitate cooperation between the government, communities, and companies in the region.

In meetings to date, the communities have expressed their support for the development of mining projects. The general feedback is that the local communities are excited at the prospect to develop the region and the personal opportunities that development will bring.

21 CAPITAL AND OPERATING COSTS

21.1 Introduction

Capital and operating costs for the Diablillos Project were developed based on the investment required to achieve and sustain the mine plan and production schedule. The capital cost (CAPEX) was estimated based on process plant, infrastructure and TSF designs, including equipment, materials, labour, services required, indirect costs, owner's costs and contingency. Operating costs (OPEX) were estimated for equipment, labour, materials, power, supplies, fuel, explosives and other consumables. The capital and operating cost estimates were prepared by Bmining Chile, INSA Consultora, Envis Consulting and AbraSilver.

Capital and operating costs are quoted as United Stated Dollars ($).

21.2 Capital Costs (CAPEX)

CAPEX for the Diablillos Project is for a silver/gold mine capable of producing and processing an average of 9,000 tpd of ore.

The initial capital investment was estimated in accordance with the guidelines from the Association for the Advancement of Cost Engineering (AACE) and international Class 4 standards at an expected accuracy range of ±25%.

This summary describes the approach, methodology, format, and scope used for estimating CAPEX. This includes guidance notes and key assumptions.

The summary of CAPEX by discipline is presented in Table 21-1.

Table 21-1: Summary of initial CAPEX by discipline

Description	Initial Capital (MUSD)	Sustaining Capital (MUSD)	Total (MUSD)
Mining	128.6	27.1	155.7
Processing plant	111.7	-	111.7
Infrastructure	166.7	49.1	215.8
Owner and Indirect cost	110.2	0.3	110.6
Contingency	26.3	-	26.3
Total capital	543.5	76.5	620.0

*Note: Values may not sum due to rounding.

21.2.1 Material Take-Offs

Quantities were developed using preliminary Material Take-Offs (MTOs), complemented by estimates and allowances derived from the following engineering documents:

- General arrangements and site plot plans,
- Architectural drawings,
- Layouts drawings
- Process flow diagrams,
- Preliminary Piping & Instrumentation Diagrams (P&IDs)
- Mechanical and Electrical Equipment Lists,
- Electrical Single Line Diagrams.

Relevant quantities obtained from the MTOs are summarized in Table 21-2.

Table 21-2: Relevant MTOs

Discipline	Description	Unit	Quantity
Civil	TSF Liners (Phase 1)	m^2	886,142
Concrete works	Lean Concrete	m^3	875
	Structural Concrete	m^3	24,975
	Reinforcement steel	tn	2,019
Steel structure works	Steel Buildings	tn	1,953
	Steel structures	tn	1,286
	Cladding	m^2	49,416
Piping works	Carbon Steel	m	24,643
	Carbon Steel - Rubber Lined	m	2,694
	Stainless Steel	m	455
	HDPE	m	37,271
	PVC	m	5,626
Electrical works	Cable Trays	m	10,410
	Grounding cables	m	13,380
	Lighting protection cables	m	2,905
	Low voltage cables	m	33,472
	Medium voltage cables	m	1,750

21.2.2 Labour and Site conditions

Most construction packages included man-hour estimates, and therefore minimal additional estimation was required for this report. Where necessary, Argentine standard construction productivity factors were applied. This included installation of tank, reactor, mechanical equipment, electrical and instrumentation. These factors were adjusted to account for high-altitude productivity losses, worker quality, and absenteeism. However, productivity impacts related to labour market conditions, availability or scheduling constraints, were not factored in.

A total of 6,130,500 man-hours is estimated for the construction and commissioning period. To improve working conditions, a 15-day on/15-day off roster with 10 effective working hours per day was adopted, offering better terms than the construction union's standard 21-day on/7-day off schedule.

Hospitality and emergency medical care will be managed by the Owner's camp administration. Ensuring consistent quality in accommodation, meals, and emergency services. Transportation will also be handled by the Owner's team, providing safe and reliable travel between Salta City and site.

21.2.3 Data Sources

Data for the estimates were obtained from:

- Mine schedules,
- PFS-level engineering design for process plant, ancillaries, and off-site facilities from previous technical report, camp by owner's engineering team, TSF by Envis Consulting.,
- Topographical information from site surveys and preliminary geotechnical investigations,
- Budgetary equipment quotes from suppliers based in Argentina and overseas,
- Budgetary unit costs from local contractors for different disciplines,
- Data from similar recently completed studies and projects.

The following parameters and qualifications were considered:

- No allowance has been made for exchange rate fluctuations.
- Quotes in Argentine Pesos were converted to USD at the exchange rate corresponding to the date of quotation.
- No escalation is included in the estimate.

21.2.4 Mining CAPEX

Mining CAPEX was estimated by Bmining Chile. The breakdown of this cost includes 48% for the acquisition of the mining fleet, 35% for pre-stripping activities, 17% for sustaining CAPEX and 1% for explosive storage. The sustaining CAPEX includes acquisition/renewal of mining equipment and mine dewatering as the operation progresses to greater depths. Table 21-3 summarizes the capital requirements for the mining area.

Table 21-3: Mining CAPEX

Description	Mining Capital (MUSD)
Mine fleet	74.1
Mine infrastructure	0.1
Pre-stripping	54.4
Sustaining CAPEX	27.1
Total	155.7

21.2.5 Processing CAPEX

The definition of process equipment requirements was based on process flowsheets and process design criteria, defined in Section 17. All major equipment was sized based on the process design criteria and a mechanical equipment list. Mechanical scopes of work were developed and sent for budgetary pricing to equipment suppliers. The components costed for the process plant include:

- ROM pad and retention wall
- Process plant - ore stockpile – dome
- Process plant - steel buildings
- Process plant - modular buildings, mainly electrical rooms
- Process plant – concrete, steel, mechanical, piping, electrical and I&C
- Crushing
- Grinding
- Gravity concentration
- Tank leaching
- Counter current decantation (CCD)
- Merril-Crowe zinc precipitation
- Foundry
- Cyanide recovery
- Cyanide detox

The costed components under Reagents Storage and Preparation include:

- Sodium cyanide storage and preparation
- Milk of lime storage and preparation
- Flocculants - storage and preparation
- Merril-Crowe reagents - storage and preparation
- Detox reagents - storage and preparation

Other ancillaries considered were:

- Process water treatment, storage and distribution
- Compressed air plant
- Petroleum liquified gas tank farm
- Conventional power plant
- Photovoltaic power plant

94% of the processing capital cost (104.6 MUSD) corresponds to plant construction, the remaining 6% (7 MUSD) is allocated to reagent storage and preparation (See Table 21-4).

Table 21-4: Processing CAPEX

Description	Processing Capital (MUSD)
Process plant	104.6
Reagents storage and preparation	7.0
Total	111.7

21.2.6 Infrastructure CAPEX

Table 21-5 summarizes the infrastructure CAPEX. Key components include:

- Permanent Site Facilities: This includes the construction of platforms, haul roads, operations camp, service hub, and site-wide utilities.
- Ancillary Services: Covers essential services required throughout the mine's life, such as the process water treatment system, storage, distribution, compressed air plant, fuel storage facilities, conventional and photovoltaic power plants.
- Site-wide piping: Includes process plant piping as well as piping and pipelines to support ancillary systems, such as workshops and infrastructure.
- Site-wide Electrical: The power distribution network will deliver electricity from onsite generators and a photovoltaic (renewable) system. All distribution networks will be installed underground in duct banks. The network includes switchgear, electrical rooms, transformers, and lighting protection. Diesel generators will be installed at off-site locations. Within buildings, power cabling will be routed through cable trays.

- Site-wide Instrumentation and Control (I&C): The scope covers the central control room, the industrial communications network, IT, remote-control units, and fibre optics.
- The TSF will be constructed in five stages over the mine's life. Stage 1 (22.7 MUSD) will be built during the pre-production years, while stages 2 through 5 will be constructed as sustaining capital during production years 2, 5, 8, and 11, respectively (48 MUSD).
- Off-site infrastructure is mainly related to the water supply system and the aggregates quarry. The raw water supply system is composed of raw water wellfield, raw water pipeline and booster pumping station.
- 2 MUSD has been allocated as capitalized operating costs, covering utilities, off-site staff and labor expenses during the construction phase.

Table 21-5: Infrastructure CAPEX

Description	Infrastructure Capital Cost (MUSD)
Permanent site facilities	29.5
Ancillary Services	49.5
Sitewide piping	28.3
Sitewide electrical	25.9
Sitewide I&C	5.2
TSF - Phase 1	22.7
Waste dumps	0.0
Off-site facilities / infrastructure	3.4
Capitalized OPEX	2.0
Sustaining CAPEX/TSF - Tailings Storage Facility phase 2-5 and waste dump	48.0
Sustaining CAPEX/ waste dump	1.1
Total	215.8

21.2.7 Indirect and Owner's Cost

Table 21-6 details the costs associated with indirect and owner-related expenditure.

Table 21-6: Indirect and owner's cost

Description	Indirect and Owner's Cost (MUSD)
Project preparation	8.0
Construction site services and costs	83.1
Engineering and Construction Management	5.1
Owner's costs during construction	9.1
Camp and service	4.8
Sustaining CAPEX/survey permits	0.3
Total	110.6

A description of these costs follows in Section 21.2.7.1.

21.2.7.1 Construction support and site costs supplied by the owner

Construction Site costs include the following components:

- Construction fuel
- Catering and hospitality
- Personnel transport to site
- Access control and site security
- Medical service
- Chemical toilets
- Hazardous and general waste management
- Equipment, tools and supplies to be provided by the owner – construction
- Concrete plant (aggregates + concrete plant)
- Mobile equipment rentals
- Testing equipment / instruments
- Camp maintenance and other consumables
- Spare parts and lubricants for vehicles
- Health and safety signage
- Internal material handling, unloading and site distribution
- Overland bulk transportation costs
- Maritime bulk and air bulk transportation costs (depending on schedule requirements).

Contractor's indirect costs include all overheads such as contractual requirements (safety, insurance, etc.), mobilization and overheads as included into their budgetary quotations. Unit prices submitted by contractors are "all-in" rates and are totally considered as direct costs. The listed site services to be supplied by the owner, were excluded from contractors' budgetary quotations.

Transportation costs were obtained from a specialized logistics consultant. Providing overseas and inland freight figures from different shipment ports and a road study for all types of cargo, including insurance and demurrage.

The freight and logistics costs include brokerage, agent fees, warehouse services, and import charges. It is assumed that there will be no requirement for major ongoing air freight to site.

21.2.7.2 Engineering and Construction Management support.

Engineering and Construction Management includes:

- Detailed engineering for execution
- Vendor representatives
- Commissioning and start-up assistance.

21.2.7.3 Owner's costs

Owners Costs during construction include the Owner's project execution team, construction insurance policies, initial reagents and diesel.

No allowances for spare parts have been considered, as spares for start-up and the first two years of operations was included in vendor quotes.

First fills include the start-up fill of the reagents, lime, fuel, gas, and lubricants.

21.2.8 Contingency

Contingency accounts for the difference in costs between the estimated and actual costs of materials and equipment. A comprehensive list of quotations for equipment and services of approximately 80% of total costs were obtained from budgetary quotations, the following contingencies have been considered.

- 2% on major equipment
- 7% on minor equipment and all remaining supplies and services packages.

The resulting contingency included in the initial CAPEX is 26.3 MUSD.

21.2.9 Assumptions, Restrictions and Exclusions

The capital cost estimate fulfils all local requirements regarding labour, construction, services contracts, materials and equipment supplies.

The estimate assumes no access restrictions to site at any time, nor delays in execution due to Owner's financing, permitting or other delays from labour disputes.

21.2.10 Mine remediation and closure

Mine Closure costs relate to ongoing environmental monitoring, facilities demolition, removal, camp and off-site facility dismantling, TSF cover, facility area rehabilitation, and EPCM costs. Costs associated to mine remediation and closure were detailed separately in this estimate. The remediation scope is detailed in Chapter 20.

The following items are specifically excluded from the Capital Estimate:

- Escalation and interest during construction
- Schedule delays and associated costs or schedule recovery or acceleration
- Scope changes
- Unidentified ground conditions
- Extraordinary climatic events, labour disputes and force majeure,
- Research and exploration drilling and other sunk costs
- Salvage values.

21.3 Operating Costs (OPEX)

Operational costs are considered following commissioning when ore production starts. Costs estimated in previous periods are considered as CAPEX.

Table 21-7 presents the estimated total operating costs for the LOM and unit costs per ton milled.

Table 21-7: Summary of OPEX

Description	LOM Cost (MUSD)	Unit cost (US$/t milled)
Mining	613.8	14.50
Processing, utilities and maintenance	961.3	22.71
G&A and logistics	165.6	3.91
Camp and service	181.8	4.29
Total OPEX	1,922.5	45.42

21.3.1 Mine OPEX

The mine OPEX was estimated by Bmining Chile based on the mine plan and the equipment operating cycles. OPEX was supported by vendor information and/or benchmark database for ownership costs.

The mine fleet will be diesel powered with a diesel price of USD 0.95/l is considered in the OPEX.

Mine dewatering is not expected to start until year 10.

Blasting is assumed to be performed by a local contractor providing all necessary explosives and manpower.

Mine OPEX include laboratory assay costs for mining, process, and environmental test work. Required assays and quantities for normal operations were estimated by the owner and benchmarked against other projects.

Table 21-8 shows the mine OPEX, where the total cost of mining is 614 MUSD and the unit cost is 1.75 US$/t moved.

Table 21-8: Mine OPEX

Mining operating cost	LOM Cost (MUSD)	Unit cost (US$/t milled)	Unit cost (US$/t moved)
Mine staff and labour	140.7	3.32	0.40
Drilling & Blasting	58.9	1.39	0.17
Excavation & Hauling	285.5	6.74	0.81
Ancillary & support	59.0	1.39	0.17
Mine road maintenance & dust control	57.8	1.36	0.16
Mine dewatering	0.6	0.01	0.00
Metallurgical lab	10.8	0.26	0.03
HS&E and Training	0.7	0.02	0.00
Total	613.8	14.50	1.75

21.3.2 Process OPEX

Process OPEX was estimated considering cost related to the plant, utilities and maintenance costs as summary in Table 21-9.

Table 21-9: Summary of process OPEX

Process operating cost	LOM Cost (MUSD)	Unit cost (US$/t milled)
Processing plant	350.1	8.27
Utilities & off-site facilities	453.8	10.72
Maintenance	157.4	3.72
Total	961.3	22.71

The ore processing plant covers crushing and conveying, grinding, tank leaching, CCD and Merril-Crowe, cyanide detoxification, reagents storage and handling. The plant will process 9,000 tpd with ramp-up periods during the first two years.

Consumption of reagents and plant consumables were specified within the process design Criteria and quoted from suppliers. Main reagents include sodium cyanide, quicklime, sodium hydroxide, sodium metabisulphite, zinc dust, diatomaceous earths, flocculants, fluxes and anti-scalant.

Table 21-10 summarizes the operating cost related to the processing plant with a total of 350 MUSD or 8.27 US$/t milled.

Table 21-10: Processing plant OPEX

Processing plant operating costs	LOM Cost (MUSD)	Unit cost (US$/t milled)
Plant staff and labour	80.8	1.91
Crushing	5.5	0.13
Grinding	52.5	1.24
Leaching and CCD	1.4	0.03
Merril-Crowe and foundry	3.2	0.08
Cyanide recovery and detoxification	1.5	0.04
Reagents	200.8	4.74
HS&E and Training	4.5	0.11
Total	350.1	8.27

Utilities and off-site operating costs consider cost of power generation, raw water wellfield, water treatment plant, fuel station, gas tank farms and TSF operation.

Power generation is one of the most significant utilities costs accounting for 75% of the total. A hybrid power plant has been designed, composed by a 3 MW photovoltaic plant with a battery storage system (BESS) for the camp and service hub operation and a 17 MW photovoltaic plant without batteries for generating the plant power consumption during daytime. The photovoltaic plant will be complemented with a dual fuel power plant (diesel – natural gas) depending on the future supply availability of natural gas, for a total of 20 MW installed power. The cost of operating the dual fuel power plant considers diesel fuel at $0.95/l.

Table 21-11 summarizes operating costs related to utilities and off-site facilities with a total of 453.8 MUSD. 75% belongs to the cost of power generation and 22% to the cost of the fuel storage facility.

Table 21-11: Utilities & off-site facilities OPEX

Utilities & off-site facilities cost	LOM Cost (MUSD)	Unit cost (US$/t milled)
Utilities and off-site staff and labour	10.1	0.24
TSF	0.1	0.00
Water production & treatment	0.3	0.01
Power generation	341.5	8.07
Fuel station	0.4	0.01
Fuel storage facility	101.3	2.39
Total	453.8	10.72

Maintenance costs include estimated maintenance consumables for the different project facilities, including major spare parts for the mine fleet and process plant (i.e. liners and screen replacements). Wear rates for liner and screen replacement frequencies were estimated based on vendor-supplied data.

Underground power lines, raw water wellfield pumps and water pipeline booster station maintenance and TSF facilities were also included.

Table 21-12 presents the cost of maintenance with a total of 157.5 MUSD and a unit cost of 3.72 US$/t milled.

Table 21-12: Maintenance OPEX

Maintenance operating cost	LOM Cost (MUSD)	Unit cost (US$/t milled)
Maintenance staff & labour	35.3	0.83
Camp and service hub maintenance	8.6	0.20
Plant mobile fleet maintenance	0.4	0.01
Power generation maintenance	5.7	0.13
General support fleet maintenance (truck shop, staff, camp, etc.)	2.2	0.05
Plant maintenance	98.8	2.33
Off-site maintenance - access & internal service roads maintenance	0.8	0.02
Off-site maintenance - overhead power lines	3.0	0.07
Off-site maintenance - water wellfields and water treatment plant	1.7	0.04
Off-site maintenance - TSF	0.9	0.02
Total	157.4	3.72

21.3.3 G&A and logistics

The G&A costs for the operations stage were compiled using current internal data as shown in Table 21-13.

Table 21-13: General and administrative cost

General and administrative cost	LOM Cost (MUSD)	Unit cost (US$/t milled)
General administration and office staff, site management	20.1	0.48
Pacific Rim Argentina SA Office Expenses	1.2	0.03
Pacific Rim Argentina SA Office External Support	2.9	0.07
Pacific Rim Argentina SA Office Travel Expenses	0.4	0.01
Mining tenements and other fees	0.9	0.02
Pacific Rim Argentina SA ESG	2.6	0.06
Total	28.2	0.67

Logistic costs were split into upstream and downstream logistics. The upstream logistics consider the transportation of supplies, consumables, and reagents to site. In general terms and according to the Process Design Criteria, most of the reagents and consumables storage capacities have been designed for a seven day supply margin.

Downstream logistics consider transportation of doré bars from site to a refinery located in the United States. Transportation, security, and insurance for doré transportation to the refinery were quoted by a specialized contractor.

The production of mercury, which must be treated and disposed of according to international standards, was considered and estimated for final disposal at facilities in Europe. The resulting costs can be found in Table 21-14.

Table 21-14: Logistic cost

Logistic cost	LOM Cost (MUSD)	Unit cost (US$/t milled)
Logistics staff and labour	14.6	0.34
Upstream logistics - Inland overland transportation - Bs. As. to Salta	65.6	1.55
Upstream logistics - Overseas maritime shipping	27.3	0.65
Downstream logistics - Doree transportation from mine to refinery	29.9	0.71
Downstream logistics - Special Hg transport to Antwerpen - 40' cont.	0.0	0.00
Total	137.4	3.25

21.3.4 Camp and service

OPEX for the camp consider staff and consumables to operate and maintain the camp and provide the necessary services. The estimate includes staff accommodation, meals, room cleaning, recreation, medical and emergencies. The camp includes a workshop to perform all camp, minor civil, electrical, and I&C maintenance, and the workshop consumables are included in the estimate.

The service hub includes all costs related to the truck-shop and plant maintenance workshop, including the plant and mine operating offices as shown in Table 21-15.

Table 21-15: Camp and service cost

Camp and service cost	LOM Cost (MUSD)	Unit cost (US$/t milled)
Camp staff and labour	31.2	0.74
Hospitality	86.0	2.03
Staff travel and site transportation	51.0	1.21
HS&E	4.3	0.10
Medical	2.3	0.05
Water consumption	0.0	0.00
Miscellaneous consumables	4.2	0.10
Waste management	2.0	0.05
Effluent management	0.7	0.02
Total	181.8	4.29

21.4 Comparison to the Previous Technical Report

A comparison of the CAPEX previously reported is reported in Table 21-16.

Table 21-16: Comparison of CAPEX estimate to the previous Technical Report

Description	Updated PFS Study	Prior PFS (Mar. 25, 2024)	Change Updated PFS vs. Prior PFS	
	$ millions	$ millions	% Change	$ Change
Mining	128.6	39.3	227%	89.3
Processing	111.7	96.9	15%	14.8
Site Infrastructure	166.7	152.0	10%	14.7
Owner and Indirect Costs	110.2	64.9	70%	45.3
Initial Capital Costs (excl. contingency)	**517.2**	**353.2**	46%	164
Contingency & Other Provisions	26.3	20.3	30%	6
Initial Capital Costs	**543.5**	**373.5**	46%	170

The main changes to the CAPEX estimate are as follows:

- Quotations were updated for the new exchange rates applied to imported equipment. This overall increase amounts to 65 MUSD.
- The mine plan now includes capitalized waste of 50 MUSD associated with the new mine plan. The previous mine plan did not include any capitalized waste as the overburden from JAC is used for construction materials. The 50 MUSD was previously reported as OPEX and is associated with waste movement to access the Shallow Gold zone.
- Owner and Indirect costs were updated to reflect a re-estimation of camp, bussing and catering costs required to support the new project execution plan.

Contingency increase as a result of the increased direct costs for plant and equipment.

22 ECONOMIC ANALYSIS

22.1 Introduction

AbraSilver and Mining Plus developed the economic model using CAPEX and OPEX cost inputs from INSA Consultora, Bmining Chile, Envis Consulting and AbraSilver. The model was prepared following accepted engineering and financial principles. All dollar amounts in this analysis are expressed in US dollars, unless otherwise specified.

The economic analysis assumes the project will be 100% equity financed and considers incentives introduced under the new Large Investment Incentive Regime (*Regimen de Incentivo para Grandes Inversiones* -RIGI), enacted by the Argentinean Congress in July 2024 and implemented across most provinces, including Catamarca and Salta (See Chapter 22.14.1).

The economic analysis includes construction of the pre-operational stage (3 first year), and the subsequent production periods (14 years). The net present value (NPV) at a 5% discount rate is calculated from the start of project construction.

The financial evaluation estimates NPV, payback period (time in years to recapture the initial capital investment), and the internal rate of return (IRR). Annual cash flow projections were estimated over the life of the mine based on CAPEX, OPEX and sales revenue. Revenues are based on silver and gold production. The CAPEX and site OPEX estimates were developed specifically for this project and have been presented in earlier sections of this report.

Sensitivity analysis was done to key changes, like metal prices, metal recoveries, capital and operating costs.

22.2 Forward-Looking Information Cautionary Statements

Certain information and statements contained in this section represent forward-looking information as defined under Canadian securities law. The results depend on inputs that are subject to known and unknown risks, uncertainties, and other factors that may cause actual results to differ materially from those presented herein. Information that is forward-looking includes the following:

- Mineral Resource and Reserve estimates.
- Assumptions about commodity prices and exchange rates.
- Proposed mine production plan.
- Projected mining and process recovery rates.
- Sustaining costs and proposed operating costs.
- Assumptions as to closure costs and closure requirements, as well as salvage value of assets at end of production.
- Assumptions as to environmental, permitting, and social risks.

Additional risks to the forward-looking information include:

- Production cost changes from what is assumed.
- Unrecognized environmental risks.
- Unanticipated reclamation expenses.
- Unexpected variations in quantity of mineralized material, grade, or recovery rates.
- Accidents, labour disputes, and other risks of the mining industry.
- Geotechnical or hydrogeological conditions during mining being different from what was assumed.
- Failure of mining methods to operate as anticipated.
- Failure of plant, equipment, or processes to operate as anticipated.
- Ability to maintain the social license to operate.
- Changes to interest rates.
- Changes to tax rates.

22.3 After-Tax Financial Result

Based on the Cash Flow Model results, the Diablillos Project has an unlevered after-tax NPV@5% of 747 MUSD, an after-tax IRR of 27.6%, a payback period of 2 years, and an annual average gross operating margin of 181 MUSD from start of operation. This considers a long-term silver price of 25.5 USD$/oz and gold of 2,050 USD$/oz. The key financial metrics of the Project are summarized in Table 22-1.

The All-In Sustaining Cost (AISC), which averages USD$12.67/oz AgEq over the life of mine, includes royalties, selling cost, mining cost, processing cost, administrative costs and sustaining capital.

Table 22-1: Summary of after-tax financial results

Item	Unit	Value
Gold price	**$/Oz**	**2,050**
Silver price	**$/Oz**	**25.5**
After-Tax NPV @5%	**M$**	**747**
After-Tax IRR	**%**	**27.60%**
Pre-Tax NPV @5%	M$	1,114
Pre-Tax IRR	%	35.60%
Life of Mine (LOM)	years	14
Average Annual Production - Au (LOM)	oz	71,852
Average Annual Production - Ag (LOM)	Koz	7,613
Average Annual Production - AgEq (LOM)	Koz	13,362
Average Annual Production - Au (Year 1 to 5)	oz	58,740
Average Annual Production - Ag (Year 1 to 5)	Koz	11,694
Average Annual Production - AgEq (Years 1 to 5)	Koz	16,384
Total Production - Au	Koz	962
Total Production - Ag	Koz	103,193
All-In Sustaining Cost (LOM)	$/oz AgEq	12.67
All-In Sustaining Cost (Year 1 to 5)	$/oz AgEq	11.23
All-In Sustaining Cost (LOM)	$/oz AuEq	1,019
All-In Sustaining Cost (Year 1 to 5)	$/oz AuEq	903
Head Grade - Au (LOM)	g/t	0.81
Head Grade - Ag (LOM)	g/t	91
Head Grade - AgEq (LOM)	g/t	159
Recovery Au (LOM)	%	86.80%
Recovery Ag (LOM)	%	83.60%
Head Grade - Au (Year 1 to 5)	g/t	0.71
Head Grade - Ag (Year 1 to 5)	g/t	143
Head Grade - AgEq (Year 1 to 5)	g/t	201
Recovery Au (Year 1 to 5)	%	85.20%
Recovery Ag (Year 1 to 5)	%	83.50%
Initial Capital Expenditure (Contingency included)	M$	544
Sustaining Capital Cost	M$	77
Mine Life Operating Costs	$/t processed	45.4
Payback	years	2

22.4 Methods, Assumptions and Basis

The economic analysis was performed on the following assumptions and basis:

- The financial analysis was performed on Proven and Probable Mineral Reserves.
- The LOM NPV was determined on a pre-tax and after-tax basis.
- Annual cash flows used for NPV calculations are assumed to be realized at year-end.
- All costs and sales do not consider inflation or escalation factors.
- All gold and silver sales are assumed to occur in the same period as produced.
- Details of CAPEX and OPEX costs are provided in Chapter 21 of this report.
- Cash flows shown include royalty payments.
- Final closure costs are included in the period incurred.
- The financial analysis includes working capital.
- Taxes considers Large Investment Incentive Regime (RIGI).
- After-tax results and royalty payments were provided by Abra Silver.
- Mining Plus has not verified taxes.

22.5 Silver and Gold Price

The silver and gold prices used for the economic evaluation are 25.50 and 2,050 US$/oz respectively as defined by AbraSilver. These metal prices are guided by 3-year trailing averages, comparisons with other recently published studies and recent market conditions. The forecasts used are meant to reflect the average metals price expectation over the life of the project. No price inflation or escalation factors are considered.

The economic sensitivity of gold and silver prices is shown in the in Section 22.15.

22.6 Mine Production

Mine production was developed by Bmining, Chile, and it is reported direct ore, ore rehandled from stockpile and waste. The annual production figures were obtained from the mine plan as reported in Section 16. A total of 42.3 Mt of ore is mined at an average grade of 0.81 g/t Au and 90.70 g/t Ag. During the construction phase 35.8Mt is pre-stripping and during the operation phase a total of 262.7 Mt of waste is mined for a waste-ore stripping ratio of 6.2.

22.7 Plant Production

The silver and gold production plan was estimated by Bmining Chile considering the recoveries described in Chapters 13 and 17. The process plant is designed based on the following criteria:

- 9,000 tpd ore production.
- 83.6% average silver recovery.
- 86.8 % average gold recovery.
- Estimated life of mine silver production of 103.2 million ounces and gold production of 0.96 million ounces.

22.8 Revenue

Annual revenue is determined by applying estimated silver and gold prices to annual payable metal estimated for each operating year (Table 22-2). Sale prices for the entire life of mine production are not escalated or hedged. Revenue is the gross value of payable silver and gold and the NSR (Net Smelter Return) revenue accounts for royalty and selling costs.

Table 22-2: LOM Revenue summary

Description	LOM (MUSD)
Gold gross revenue	1,967.7
Silver gross revenue	2,626.2
Smelting and refining - Au	3.8
Smelting and refining - Ag	72.1
EMX Royalty Corp - Au	19.7
EMX Royalty Corp - Ag	26.3
Provincial government Royalty - Au	58.9
Provincial government Royalty - Ag	76.6
Total NSR revenues	4,336.4

22.9 Total Operating Cost

The average total unit operating cost over the life of the mine is estimated at $45.4 per tonne of ore processed. A detail of the operating cost is shown in Chapter 21 and summarized in Table 22-3.

Table 22-3: Operating Cost Summary

Description	LOM (MUSD)	$/t ore processed	$/oz Ageq
Mining	613.8	14.5	3.4
Processing	350.1	8.3	1.9
Utilities & off-site facilities	453.8	10.7	2.5
Maintenance	157.4	3.7	0.9
G&A	28.2	0.7	0.2
Logistics	137.4	3.2	0.8
Camp and service	181.8	4.3	1
Total Operating cost	1,922.5	45.4	10.7

22.10 Selling Cost and Royalties

The refining cost of gold sales used in the economic evaluation is $4/oz Au and $ 0.7/oz for silver. This value was estimated and provided by AbraSilver. Over the life of the project, the total royalty cost amounts to 181.5 MUSD, with an average cost estimated at $1.4 per payable ounce of silver equivalent

The royalties for the Diablillos Project are as follows:

- A 1% NSR royalty payable to EMX Royalty Corporation and
- 3% payable as a provincial mining royalty.

22.11 Capital Expenditure

22.11.1 Initial Capital

The financial indicators for the Diablillos Project were determined under the assumption of 100% equity financing for initial capital. The total initial capital estimate includes pre-stripping, infrastructure construction, owners' costs, contingencies and is 543.6 MUSD. A breakout of the capital cost is shown in Chapter 21.

22.11.2 Remediation and Closure Capital

Remediation costs include environmental monitoring at the end of the mine life, progressive guarantees from year 6 of the operation stage, remediation and dismantling. Dismantling considers the mine, waste dump, tailing storage facilities, plant and camps. This amounts to 26.4 MUSD.

22.11.3 Sustaining Capital

Sustaining capital is estimated at 76.9 MUSD and includes the renewal of the mining fleet, construction of phases 2, 3, 4 and 5 of the TSF, maintenance of the waste dump and import duties.

22.12 Total All-In Sustaining cost (AISC)

The average total All-In Sustaining cost over the life of the mine is estimated at $12.67 per ounce of payable silver equivalent, as shown in Table 22-4.

Table 22-4: All-In Sustaining Cost

Description	$/Oz Ag
Mining	3.4
Processing	1.9
Utilities & off-site facilities	2.5
Maintenance	0.9
G&A	0.2
Logistics	0.8
Camp and service	1.0
Selling cost and royalties	1.4
Sustaining capital and closure capital	0.6
Total cost	12.7

22.12.1 Working Capital

Working capital for accounts receivable and accounts payable will vary over the mine life based on revenue, operating costs, and capital costs. The turnover rate is 30 days for accounts receivable and 30 days for accounts payable. All working capital is assumed to be recaptured by the end of the mine life and the closing value of accounts is zero.

22.13 Depreciation

Depreciation of assets has been estimated based on Argentine regulations considering the RIGI regime. Fiscal reserves for exploration and resource development are not included in the depreciation calculation. The salvage value is not considered for the depreciation value of capital items, as salvage is considered taxable income.

22.14 Royalties and Taxes

22.14.1 Large Investment Incentive Regime – RIGI

The economic model has incorporated the incentives offered under the new large investment regime (RIGI) which was passed into law by the Argentinean congress in July, 2024 and implemented in most Argentinean provinces, including Catamarca and Salta.

Qualifying projects with expenditures above 200 MUSD, through the formation of a Special Purpose Vehicles (VPU, authorized entity type or creation of a dedicated branch), may apply for RIGI before the law expires in July, 2026, and must spend 40% of the initial investment amount within two years of approval (by no later than July, 2028). The Diablillos project meets all the required qualifications under RIGI. The execution plan considers obtaining RIGI approval by no later than Q2, 2026, giving the project until Q2, 2028 to spend 40% of the investment, or approximately 191 MUSD. According to the construction schedule, the 191 MUSD threshold for committed capital spending will be achieved in approximately 12 months after the project investment decision. An investment decision would therefore be required no later than the end of Q2, 2027 to ensure the project captures the RIGI benefits.

These benefits include:

Corporate income tax

- A reduction of the federal tax rate from 35% to 25%.
- Accelerated tax depreciation of plant and equipment.
- Tax losses will be adjusted for inflation with no time limit for carry-forward losses. If tax losses are not absorbed by taxable income within five years, these losses can be transferred to third parties.
- Dividend and profit distributions are taxable at a rate of 7%, however, after seven years from the registration date, distributions will be taxed at a reduced rate of 3.5%.
- Elimination of restrictions for interest expense and foreign exchange losses derived from foreign and local financing during the first five years from the registration date.

Value added tax (VAT)

- VPUs will be allowed to pay VAT to their suppliers using Fiscal Credit Certificates.

Tax on banking transactions

- The Financial Transaction Tax, which generally applies at a 0.6% rate on debits and credits in Argentinian bank accounts, will be fully creditable against income tax payments.

Customs incentives

- Imports of goods, as well as temporary imports of capital goods, spare parts, parts, and components, will be exempt from import duties, statistical rate, and from all federal and/or local tax withholding, collection, advance payment, or retention regimes.
- Exports carried out by the VPU will be exempt from export duties (8% on gold and 4.5% on silver), if applicable, after three years from the approval of the application process.
- Registered VPUs can freely import and export without direct prohibitions, quantitative restrictions, quotas, or economic qualitative restrictions.

Foreign exchange incentives

- Proceeds from exports performed by the VPU will be exempt from the obligation to enter and/or negotiate and liquidate in the foreign exchange market in the following percentages: (1) 20% after two years from the registration date; (2) 40% after three years from the registration date; and (3) 100% after four years from the registration date.
- Further, VPUs also will have free availability of foreign currency from local or external financing disbursed after the enactment of the regime. Additionally, exchange regulations imposing restrictions or prior authorizations for accessing the currency market for repaying loans, interest, accessories, other financial debts, or repatriating direct investments by non-residents, or for paying dividends, profits, or interests to non-residents, will not apply to VPUs provided some requirements are met.

Tax Stability

- RIGI will grant eligible VPUs with regulatory stability in tax, customs, and exchange matters for their projects, ensuring that the incentives awarded will not be affected by their repeal or by the creation of more burdensome regulations. This stability will last for 30 years from the registration date.

22.14.2 Royalties

The economic evaluation of the Diablillos project also considers the following royalties and taxes:

- A municipal tax of 1.2% is applied on revenue net of royalties and export duties.
- Argentina has a bank transaction tax for deposits for bank debits and credits of 0.6% in and 0.6% out for a total of 1.2%. This applies to all cash flows into and out of the project.
- Stamp Tax of 1.6 % applied on 80% of operating and capital costs.

22.15 After- tax NPV Sensitivity Analysis

The most important model input is the silver and gold price. To assess sensitivity, six price scenarios were examined as illustrated in Figure 22-1 and Figure 22-2

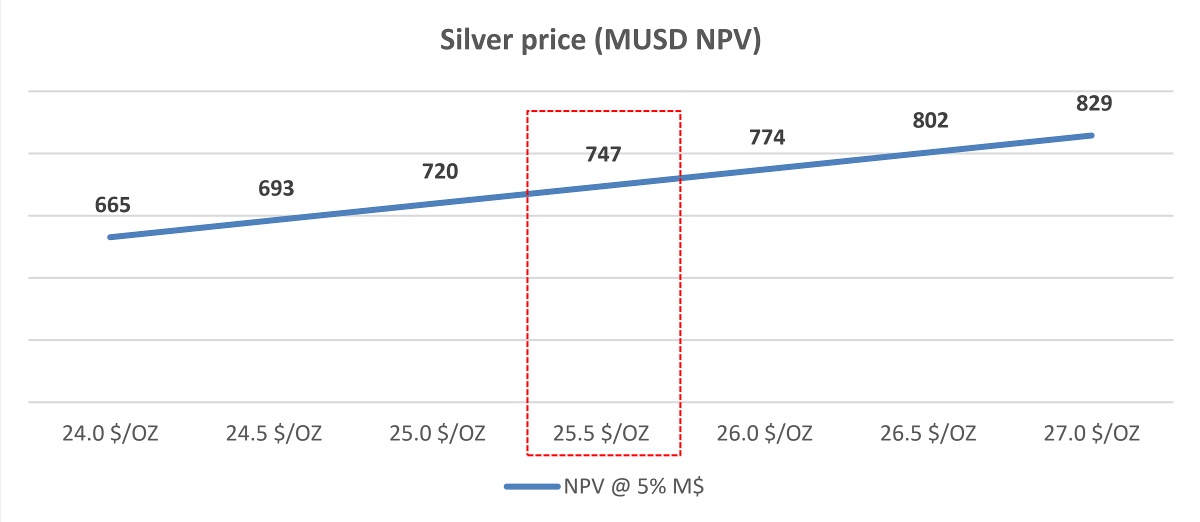


Figure 22-1: Silver price sensitivity.

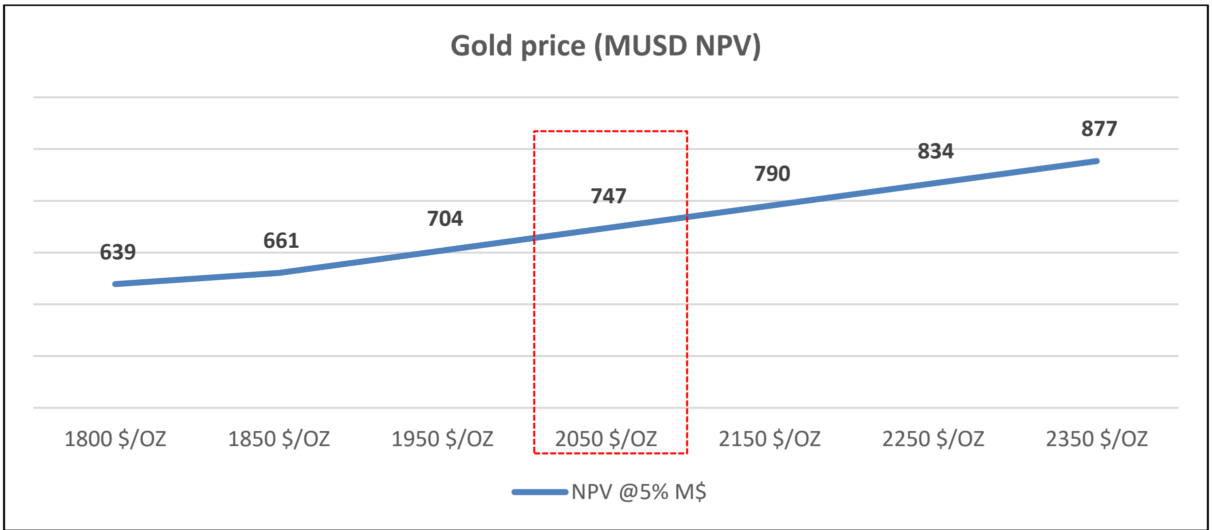


Figure 22-2: Gold price sensitivity

The sensitivity analysis also considered: CAPEX, OPEX, silver recovery, gold recovery and the discount rate (Figure 22-3 and Figure 22-4).

As shown in Figure 22-3, the sensitivity analysis shows that the Diablillos Project, apart from the price of silver and gold, is more sensitive to OPEX than CAPEX. If the OPEX is increased by 15%, the NPV would be reduced to $600M, while if the CAPEX increases by the same percentage, the NPV would be reduced to $663M.

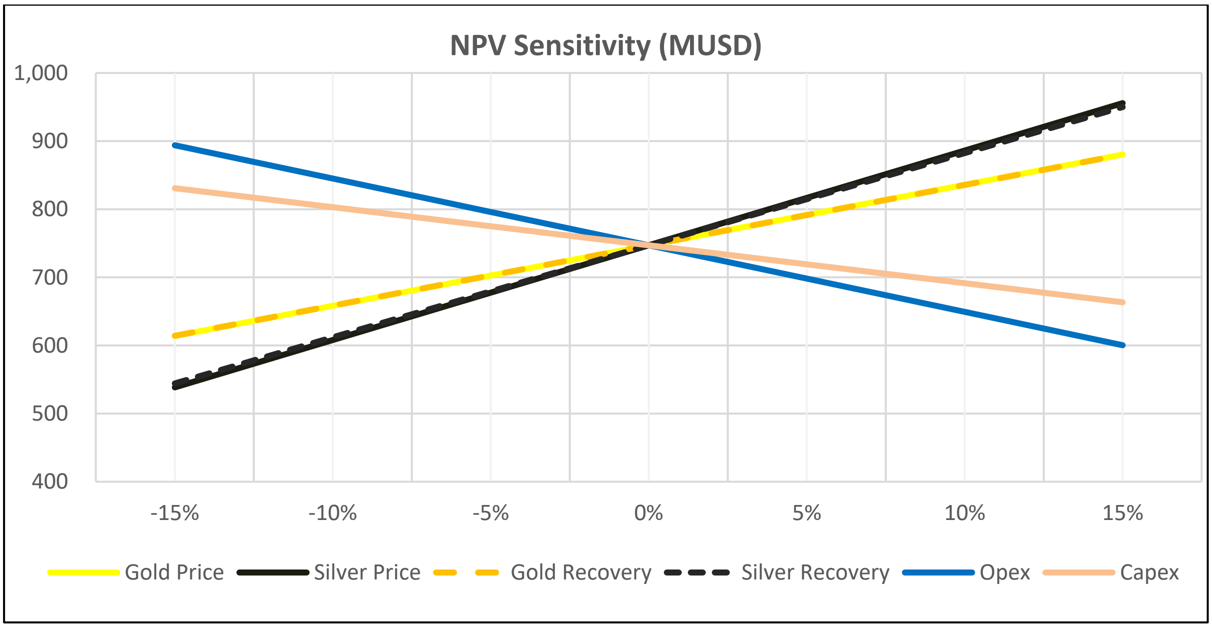


Figure 22-3: Sensitivity analysis

Figure 22-4 shows the sensitivity of the NPV to the discount rate. It indicates that at a 12% discount rate, the NPV is 361 MUSD, demonstrating the robustness of the project.

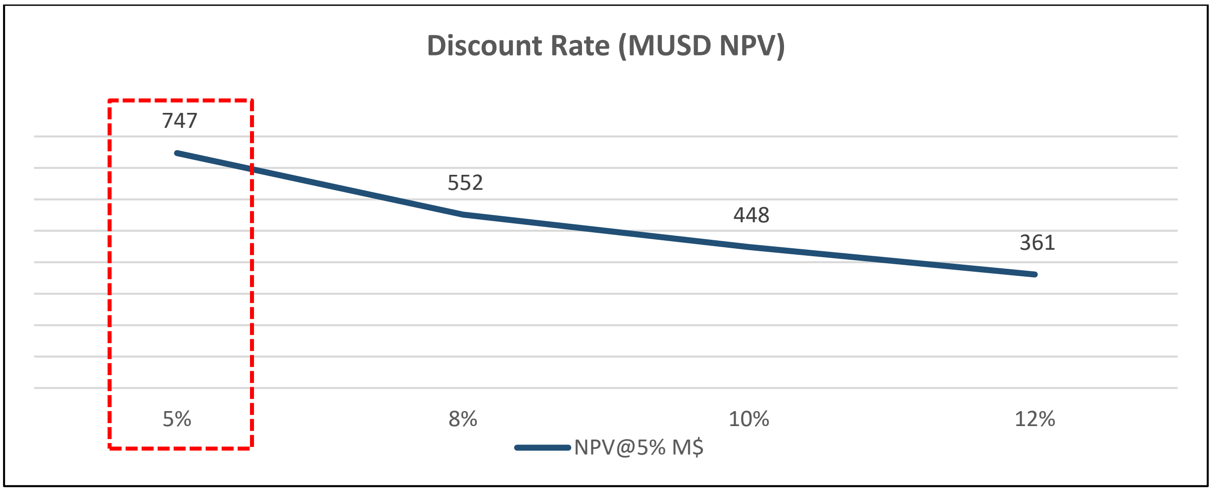


Figure 22-4: Discount rate sensitivity

A summary of the annual and cumulative cash flow balance is presented in Figure 22-5. The cumulative cashflow over the 17-year life of the mine amounts to $1,231M.

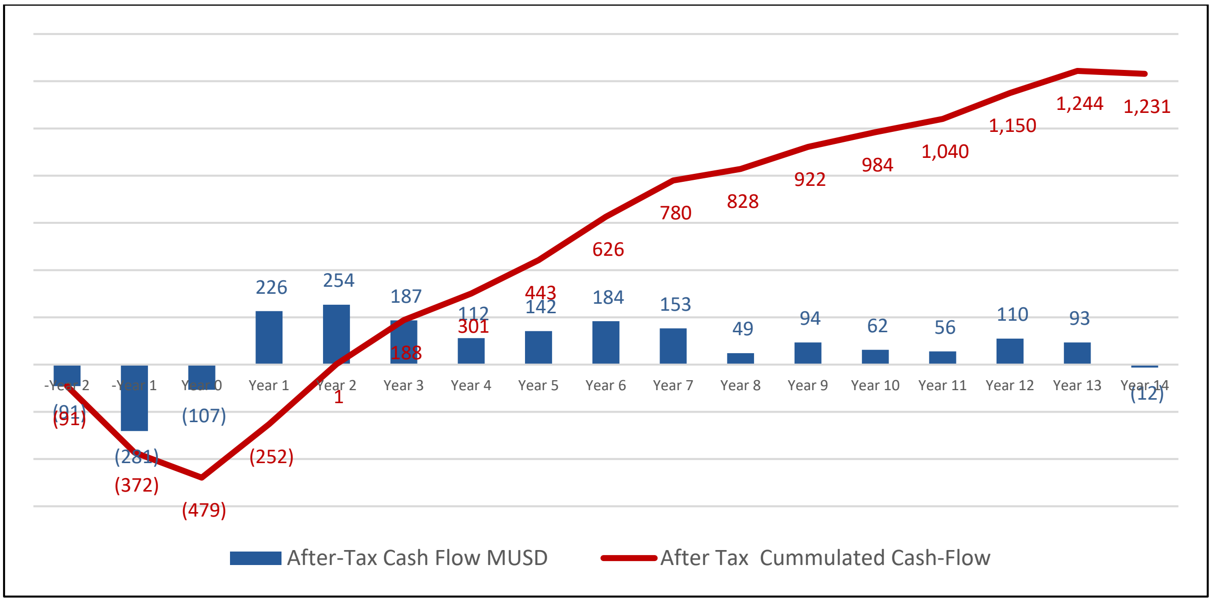


Figure 22-5: Cash Flow profile.

The annual production schedule and the estimated cash flow forecast for the Diablillos Project are presented in Figure 22-5 and in detail in Table 22-5. This table provides a detailed breakdown of the mine production plan, silver and gold production schedules, projected sales, applicable royalties, annual NSR values, OPEX, CAPEX, and taxes. These figures are further explained in Chapter 22 and preceding chapters, offering a comprehensive overview of the project's economics and operational framework.

Table 22-5: Diablillos cash flow by year

Abrasilver Resource - Diablillos Project Cash Flow		Stage	Construction		Pre-Operation	Operation													
		Total	-Year 2	-Year 1	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14
			2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Mining Schedule																			
Ore direct to plant	Kt	32,626	-	-	1,575	592	3,150	3,150	3,150	3,150	1,739	1,194	3,150	3,150	1,003	3,150	3,150	1,323	-
Au grade	g/t	0.84	-	-	0.49	0.68	0.47	0.85	0.58	1.23	0.27	0.45	0.58	1.33	0.48	1.01	1.35	1.06	-
Ag grade	g/t	79.86	-	-	90.3	55.4	203.7	126.3	88.0	81.5	151.0	107.0	53.4	25.7	49.0	28.9	18.4	14.6	-
Ore to stockpile	Kt	9,703	-	298	1,988	-	72	571	3,052	757	-	-	1,546	52	-	1,010	356	-	-
Au grade	g/t	0.72	-	0.7	0.2	-	0.7	0.4	0.7	1.0	-	-	0.9	0.9	-	1.5	1.0	-	-
Ag grade	g/t	127.16	-	77.2	281.0	-	30.6	85.8	147.4	98.9	-	-	32.4	25.0	-	19.7	13.4	-	-
Ore rehandled from stockpile	Kt	9,703	-	-	298	1,988	-	-	-	-	1,411	1,956	-	-	2,147	-	-	1,903	-
Au grade	g/t	0.72	-	-	0.7	0.2	-	-	-	-	0.8	0.7	-	-	0.7	-	-	1.2	-
Ag grade	g/t	127.16	-	-	77.4	281.0	-	-	-	-	155.2	132.8	-	-	59.2	-	-	24.3	-
Waste to dump	Kt	298,357	12,751	23,052	20,081	21,930	21,644	21,998	18,384	26,548	23,874	24,286	20,223	17,284	22,438	16,840	4,594	2,430	-
Cover/overburden material	Kt	63,038	10,632	9,784	2,552	5,685	3,098	2,701	10,580	4,879	1,859	6,357	2,157	2,541	213	-	-	-	-
Waste	Kt	235,319	2,119	13,268	17,529	16,244	18,546	19,298	7,804	21,669	22,015	17,929	18,066	14,743	22,225	16,840	4,594	2,430	-
Total material mined	Kt	340,687	12,751	23,350	23,644	22,522	24,866	25,720	24,586	30,455	25,613	25,480	24,919	20,486	23,441	21,000	8,100	3,753	-
Total material moved	Kt	350,391	12,751	23,350	23,942	24,510	24,866	25,720	24,586	30,455	27,024	27,436	24,919	20,486	25,588	21,000	8,100	5,656	-
Stripping ratio	w:o	6.20	-	77.3	5.6	37.0	6.7	5.9	3.0	6.8	13.7	20.3	4.3	5.4	22.4	4.0	1.3	1.8	-
Production Schedule																			
Total ore to plant	Kt	42,330	-	-	1,873	2,580	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,226	-
Au grade	g/t	0.81	-	-	0.5	0.3	0.5	0.9	0.6	1.2	0.5	0.6	0.6	1.3	0.6	1.0	1.4	1.2	-
Ag grade	g/t	90.7	-	-	88.2	229.2	203.7	126.3	88.0	81.5	152.9	123.0	53.4	25.7	55.9	28.9	18.4	20.3	-
Au contained	Koz	1,108	-	-	32	28	48	86	59	125	50	62	59	135	65	102	137	120	-
Ag contained	Koz	123,443	-	-	5,314	19,019	20,630	12,787	8,914	8,257	15,483	12,461	5,411	2,604	5,666	2,929	1,861	2,108	-
Average gold recovery	%	86.8%			87.9%	85.8%	85.5%	84.5%	86.3%	83.7%	83.8%	85.5%	88.1%	86.3%	87.1%	89.1%	89.2%	89.2%	
Average silver recovery	%	83.6%			79.6%	85.3%	85.1%	81.8%	83.1%	82.7%	85.4%	82.9%	82.3%	82.2%	83.0%	81.7%	81.7%	81.8%	
Au recovered	Koz	962	-	-	27.7	24.1	40.9	73.0	51.1	104.6	42.1	52.6	52.2	116.4	56.7	91.3	122.2	106.9	-
Ag recovered	Koz	103,193	-	-	4,227.6	16,226.2	17,546.4	10,461.5	7,410.3	6,826.0	13,225.4	10,332.2	4,455.7	2,139.1	4,704.0	2,393.3	1,521.0	1,724.0	-
Revenues																			
Gross revenue																			
Gold price	USD/oz	2,050.00	2,050	2,050	2,050	2,050	2,050	2,050	2,050	2,050	2,050	2,050	2,050	2,050	2,050	2,050	2,050	2,050	
Silver price	USD/oz	25.50	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	
Gold payable	Koz	960	-	-	28	24	41	73	51	104	42	53	52	116	57	91	122	107	-
Silver payable	Koz	102,986	-	-	4,219	16,194	17,511	10,441	7,396	6,812	13,199	10,312	4,447	2,135	4,695	2,389	1,518	1,721	-
Gold gross revenue	MUSD	1,968	-	-	57	49	84	149	105	214	86	108	107	238	116	187	250	219	-
Silver gross revenue	MUSD	2,626	-	-	108	413	447	266	189	174	337	263	113	54	120	61	39	44	-
Total gross revenue	**MUSD**	**4,594**	**-**	**-**	**164**	**462**	**530**	**415**	**293**	**388**	**423**	**371**	**220**	**293**	**236**	**248**	**289**	**263**	**-**
Sales																			
Smelting and refining - Au	MUSD	4		-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Smelting and refining - Ag	MUSD	72		-	3	11	12	7	5	5	9	7	3	1	3	2	1	1	-
Total smelting and refining	**MUSD**	**76**	**-**	**-**	**3**	**11**	**12**	**8**	**5**	**5**	**9**	**7**	**3**	**2**	**4**	**2**	**2**	**2**	**-**
Royalties																			
EMX Royalty Corp - Au	MUSD	20	-	-	1	0	1	1	1	2	1	1	1	2	1	2	2	2	-
EMX Royalty Corp - Ag	MUSD	26	-	-	1	4	4	3	2	2	3	3	1	1	1	1	0	0	-
Provincial government Royalty - Au	MUSD	59	-	-	2	1	3	4	3	6	3	3	3	7	3	6	7	7	-
Provincial government Royalty - Ag	MUSD	77	-	-	3	12	13	8	6	5	10	8	3	2	3	2	1	1	-
Total royalties	**MUSD**	**181**	**-**	**-**	**6**	**18**	**21**	**16**	**12**	**15**	**17**	**15**	**9**	**12**	**9**	**10**	**12**	**10**	**-**
NSR																			
Net revenues for gold	MUSD	1,885	-	-	54	47	80	143	100	205	82	103	102	228	111	179	239	210	-
Net revenues for silver	MUSD	2,451	-	-	100	385	417	248	176	162	314	245	106	51	112	57	36	41	-
Total NSR revenues	**MUSD**	**4,336**	**-**	**-**	**155**	**433**	**497**	**392**	**276**	**367**	**397**	**349**	**208**	**279**	**223**	**236**	**276**	**251**	**-**

Abrasilver Resource - Diablillos Project
Cash Flow

		Stage	Construction		Pre-Operation	Operation													
		Total	**-Year 2**	**-Year 1**	**Year 0**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**Year 11**	**Year 12**	**Year 13**	**Year 14**
			2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Operating costs																			
Mining	MUSD	614	-	-	39	43	44	46	43	53	52	53	49	48	47	45	23	29	-
Processing	MUSD	350	-	-	15	26	26	26	26	26	26	26	26	26	26	26	26	26	-
Utilities & off site facilities	MUSD	454	-	-	17	34	34	34	34	34	34	34	34	34	34	34	34	34	-
Maintenance	MUSD	157	-	-	3	12	12	12	12	12	12	12	12	12	12	12	12	12	-
G&A	MUSD	28	-	-	2	2	2	2	2	2	2	2	2	2	2	2	2	2	-
Logistics	MUSD	137	-	-	5	9	10	10	10	10	10	10	10	10	10	10	10	10	-
Camp and service	MUSD	182	-	-	9	13	13	13	13	13	13	13	13	13	13	13	13	13	-
Total operating cost	**MUSD**	**1,923**	**-**	**-**	**90**	**138**	**141**	**143**	**140**	**150**	**148**	**150**	**145**	**145**	**144**	**142**	**120**	**126**	**-**
Cash cost per ounces of Ag equivalent	**US$/oz Ag eq**	**12.1**		**-**	**15.4**	**9.3**	**8.4**	**10.3**	**13.7**	**11.2**	**10.5**	**11.9**	**18.2**	**13.8**	**17.0**	**15.8**	**11.7**	**13.4**	**-**
Cash cost per ounces of Au equivalent	US$/oz Au eq	973		-	1,237	745	675	824	1,099	900	846	954	1,465	1,109	1,364	1,272	944	1,076	-
Capital costs																			
Initial capital																			
Mining	MUSD	128.6	20	73	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Processing plant	MUSD	111.7	0.2	102	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Infrastructure	MUSD	166.7	33	63	71	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Indirect cost	MUSD	110.2	37	40	32	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Contingency	MUSD	26.3	-	-	13	13	-	-	-	-	-	-	-	-	-	-	-	-	-
Import duties (guarantees)	MUSD	0.1	0	0	0														
Total inicial capital	**MUSD**	**543.6**	**90**	**277**	**161**	**15**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Sustaining capital																			
Sustaining	MUSD	77	-	-	-	4	21	9	2	16	0	-	10	-	0	12	0	1	0
Contingency	MUSD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Import duties (guarantees)	MUSD	0				0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total sustaining capital	**MUSD**	**77**	**-**	**-**	**-**	**4**	**21**	**10**	**2**	**16**	**0**	**0**	**10**	**0**	**0**	**12**	**0**	**1**	**0**
Remediation and closure capital																			
Remediation and closure cost	MUSD	26	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	22
Total capital cost	**MUSD**	**647**	**90**	**277**	**161**	**19**	**21**	**10**	**2**	**16**	**1**	**1**	**11**	**1**	**1**	**13**	**1**	**2**	**23**

Abrasilver Resource - Diablillos Project Cash Flow		Stage	Construction		Pre-Operation	Operation													
		Total	-Year 2	-Year 1	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14
			2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Working Capital																			
Working capital																			
Accounts receivable yearly		4,594		-	164	462	530	415	293	388	423	371	220	293	236	248	289	263	-
Accounts receivable adjusted		378		-	14	38	44	34	24	32	35	30	18	24	19	20	24	22	-
Change in accounts receivable				-	14	24	6	(9)	(10)	8	3	(4)	(12)	6	(5)	1	3	(2)	(22)
Accounts payable yearly		2,180		-	99	168	174	167	157	170	174	172	157	158	157	154	133	138	-
Accounts payable adjusted		179		-	8	14	14	14	13	14	14	14	13	13	13	13	11	11	-
Change in accounts payable				-	8	6	1	(0.6)	(0.8)	1	0	(0.2)	(1.2)	0	(0.1)	(0.3)	(1.7)	0	(11.3)
Change in working capital		**0**		**-**	**(5)**	**(19)**	**(5)**	**9**	**9**	**(7)**	**(3)**	**4**	**11**	**(6)**	**5**	**(1)**	**(5)**	**3**	**10**
Pre-tax Cash Flow																			
Gross Revenues	MUSD	4,594	-	-	164	462	530	415	293	388	423	371	220	293	236	248	289	263	-
Selling cost	MUSD	(257)	-	-	(10)	(30)	(33)	(24)	(17)	(21)	(26)	(22)	(12)	(14)	(13)	(12)	(13)	(12)	-
Operating cost	MUSD	(1,923)	-	-	(90)	(138)	(141)	(143)	(140)	(150)	(148)	(150)	(145)	(145)	(144)	(142)	(120)	(126)	-
Gross Margin from Operations	MUSD	2,414	-	-	65	294	356	248	136	218	248	198	63	134	79	94	156	125	-
Change in Net Working Capital	MUSD	0	-	-	(5)	(19)	(5)	9	9	(7)	(3)	4	11	(6)	5	(1)	(5)	3	10
Capital expenditures	MUSD	(647)	(90)	(277)	(161)	(19)	(21)	(10)	(2)	(16)	(1)	(1)	(11)	(1)	(1)	(13)	(1)	(2)	(23)
Pre-Tax Cash Flow before depreciation	**MUSD**	**1,767**	**(90)**	**(277)**	**(102)**	**256**	**329**	**248**	**143**	**195**	**245**	**202**	**63**	**128**	**83**	**80**	**150**	**126**	**(12)**
Taxes																			
Gross Margin from Operations	MUSD	2,414	-	-	65	294	356	248	136	218	248	198	63	134	79	94	156	125	-
Depreciation	MUSD	(491)	-	(21)	(117)	(158)	(70)	(18)	(20)	(18)	(16)	(16)	(10)	(6)	(4)	(4)	(4)	(4)	(4)
Operating Income	MUSD	1,923	-	(21)	(52)	136	286	231	116	200	232	183	53	129	75	90	152	121	(4)
Provincial tax - Gross income	MUSD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Provincial tax - Stamp tax	MUSD	(33)	(1)	(4)	(3)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(0)
Municipal tax on total revenue	MUSD	(52)	-	-	(2)	(5)	(6)	(5)	(3)	(4)	(5)	(4)	(2)	(3)	(3)	(3)	(3)	(3)	-
Export duty refund Au	MUSD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Export duty refund Ag	MUSD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taxable income	MUSD	1,926	-	-	-	129	278	224	110	193	225	176	48	123	70	85	147	116	-
Federal tax	MUSD	(481)	-	-	-	(32)	(69)	(56)	(28)	(48)	(56)	(44)	(12)	(31)	(18)	(21)	(37)	(29)	-
Transaction tax	MUSD	31	1	3	3	2	2	2	2	2	2	2	2	2	2	2	1	2	0
Effective tax	MUSD	(451)	-	-	-	(23)	(67)	(54)	(26)	(46)	(54)	(42)	(10)	(29)	(16)	(19)	(35)	(28)	0
Total taxes	MUSD	(536)	(1)	(4)	(5)	(30)	(75)	(61)	(31)	(53)	(61)	(48)	(15)	(34)	(20)	(24)	(40)	(32)	(0)
After-tax Cash Flow																			
EBIT	MUSD	1,923	-	(21)	(52)	136	286	231	116	200	232	183	53	129	75	90	152	121	(4)
Depreciation	MUSD	491	-	21	117	158	70	18	20	18	16	16	10	6	4	4	4	4	4
Taxes	MUSD	(536)	(1)	(4)	(5)	(30)	(75)	(61)	(31)	(53)	(61)	(48)	(15)	(34)	(20)	(24)	(40)	(32)	(0)
Change in Net Working Capital	MUSD	0	-	-	(5)	(19)	(5)	9	9	(7)	(3)	4	11	(6)	5	(1)	(5)	3	10
Capital expenditures	MUSD	(647)	(90)	(277)	(161)	(19)	(21)	(10)	(2)	(16)	(1)	(1)	(11)	(1)	(1)	(13)	(1)	(2)	(23)
After-Tax Cash Flow	MUSD	1,231	(91)	(281)	(107)	226	254	187	112	142	184	153	49	94	62	56	110	93	(12)
After Tax Cummulated Cash-Flow	MUSD		(91)	(372)	(479)	(252)	1	188	301	443	626	780	828	922	984	1,040	1,150	1,244	1,231

23 ADJACENT PROPERTIES

The reports and accounts in this section were provided by AbraSilver and have not been independently verified by Mr. Peralta. They are intended to provide a summary of metallic and non-metallic projects within a radius of approximately 50 km of the Diablillos Project. This highlights the importance of the Provinces of Salta and Catamarca as a growing exploration and mining district. The deposits described herein are not indicative of the mineralization at Diablillos.

The Diablillos Project is located within what has become a significant mining and exploration camp in northwestern Argentina including both metallic and non-metallic projects as shown in Figure 23-1. The metallic projects, except for Incahuasi, are predominantly of Miocene age and related to intrusive events that occurred along a regional-scale north-south crustal lineament.

Most of the non-metallic projects occur in Quaternary aged salt pans, for which deposition is also controlled by the same north-south lineament.

23.1 Metallic Projects

23.1.1 Condor Yacu

The Condor Yacu property adjoins Diablillos on the southern boundary and was once part of the Diablillos claim block. Prior to 1990, the property was explored by various parties including geological studies by a Dr. O Gonzalez from 1971 to 1973, metallurgical test work carried out by S. Hochschild S.A. of Copiapo, Chile on behalf of the Banco Nacional de Desarollo ("BND") in 1975, and a magnetic survey and surface sampling program by Pecomrio S.A.M. in 1981.

In 1984, the BND and the Mining Directorate of the Catamarca Province mined approximately 350 tons which were systematically sampled and analyzed. The University of Jujuy carried out some gravity-concentration test work in 1985, which was ultimately unsuccessful. Geological mapping at a scale of 1:1000 was conducted by Kleine-Hering in 1987.

Exploration in 1987 and 1988 is not well documented. However, AbraSilver geologists believe that Ophir drilled 22 RC holes in 1987. During the 1990s, Cavok S.R.L obtained the property and carried out a ground magnetic survey and drilled 15 diamond drill holes in 1999 and 2000. In 2001, Cardero Resource Corp. ("Cardero") signed an agreement with Cavok S.R.L. to acquire a 100% share of the project. In the same year, an IP survey was carried out over the property and 396.24 m were drilled in five diamond drill holes. A further nine holes totalling 842.17 m were completed in 2002.

In 2003, Maximus Ventures Ltd. ("Maximus") signed an agreement with Cardero to acquire an 80% interest in the project. In the same year, Maximus drilled a total of 1,516.10 m in 17 diamond drill holes. Both Cardero and Maximus withdrew from the project in 2004.

The Condor Yacu prospect is located 2.75 km to the southeast of Oculto and is thought by AbraSilver geologists to be closely associated with the eastern bounding Pedernales graben fault. This zone of mineralization occurs in granitoids of the Oire Formation of the Faja Eruptiva. The main Condor Yacu structure has been divided into two zones termed the Southern Outcrop and the Northern Outcrop.

Most exploration has been focused on the Southern Outcrop, consisting of a high sulphidation silicified breccia within granodiorite host rocks. At surface the zone is over 16 m wide, narrowing to less than 2 m at depth. It has been intersected in drill holes over a north-south strike of 90 m and to a vertical depth of 140 m. Drilling has intersected grades of up to 28.35 g/t Au, 147 g/t Ag, and 2.67 % Cu. The Northern Outcrop is also a silicified, brecciated north-south trending structure. It is about 15 m wide on surface, narrowing to 10 m at a depth of 100 m, open-ended along strike. Grades are generally lower than at the Southern Outcrop, with gold less than 2.0 g/t Au.

A third zone is known to exist to the east of the Northern and Southern Outcrop areas. The zone is buried below overburden, and little exploration has been conducted over it. Gold values of up to 0.34 g/t Au have been reported.

23.1.2 Rumi Cori

The Rumi Cori property also adjoins Diablillos on the southern boundary. This is an epithermal prospect consisting of several siliceous veins in granite, 2 km south of Diablillos. Unconfirmed values of gold (0.50 g/t) and copper (0.69 %) have been reported. Surficial exploration has been carried out on the prospect to date.

23.1.3 Incahuasi

The Incahusi project is located 41 km southeast of Diablillos. The mine was originally exploited by Jesuit missionaries and mining continued until 1954 when it ceased due to flooding. The deposit comprises gold in mesothermal veins of Ordovician age. The veins occur in marine sedimentary rocks of the same age and consist of meta-pelites and greywackes. The veins of have north-south trending strikes of up to a minimum of 700 m with widths varying between 0.5 m and 2.6 m. Underground development has traced the veins for a minimum down dip extension of 130 m. The mineralization occurs as free gold in quartz veins and veinlets with minor associated pyrite, arsenopyrite, and chalcopyrite. Run-of-mine gold grades were reportedly 17.6 g/t Au with local bonanza grades of up to 300 g/t Au. Past production is estimated at 2,000 kg Au.

23.1.4 Inca Viejo

The Inca Viejo project is located 16 km north of Diablillos. The area has been worked since Inca times, but the first systematic exploration was carried out in 1994 and 1995 by Grupo Minera Aconcagua S.A. This work consisted of lithological, alteration, structural, and mineralization mapping; surface geochemistry; and 11,500 line-meters of Spectral Induced Polarization (“IP”) on 11 sections.

Host lithologies consist of basement Paleozoic rocks characterized by meta-sedimentary rocks of Ordovician age. Intruded by Silurian granite, granodiorite, and rhyodacite. These basement rocks are in turn intruded by a dacite porphyry with associated breccia pipes and bodies. Mineralization consists of porphyry-style copper and gold within the intrusives and breccias. A later unaltered andesitic porphyry intrudes the dacite porphyry. The dacite displays an altered potassic silicified core with a halo of sericitic alteration.

Minera Aconcagua drilled eight widely spaced (between 300 m and 500 m) RC holes. The best copper values were in borehole AR5 which returned an intersection of 0.70% Cu over 30 m. Borehole AR6 had an average of 0.23% Cu over 73.5 m. Surface gold values are up to 1.70 g/t Au with the central part of the system having values greater than 0.2 g/t Au over an area of 300 m by 100 m. The best gold values intersected were in borehole AR1 which returned a value of 0.25 g/t Au over 54 m in the leach cap.

23.1.5 Pistola de Oro

The Pistola de Oro project is 20.5 km north-northeast of Diablillos. It includes the Volcan and Soroche mines which were worked on a limited scale in the past before the workings collapsed. These mines are located on a polymetallic (Au-Ag-Cu-Zn-Pb) vein system in Precambrian basement rocks consisting of micaceous schists. Vein gangue mineralization is principally quartz with a minimum strike length of 650 m and a minimum down dip extension of 70 m. A sample taken in 2009 reportedly returned values of 2.21 g/t Au, 165 g/t Ag, 1.13% Cu, 5.18% Pb, and 0.55% Zn.

A second type of mineralization occurs in hydrothermal breccia. It has an ellipsoid shape on surface with dimensions of 600 m by 300 m. Composition is angular clasts of bleached micaceous schists varying in size from millimetre-scale to more than 20 cm in diameter. The matrix is black to dark grey and aphanitic consisting of quartz and tourmaline. The mineralization is fine-grained and consists of malachite and sphalerite. A sample taken in 2009 returned a value of 0.42 g/t Au, 7.9 g/t Ag, 0.86% Cu, 0.16% Pb, and 0.11% Zn. Results of a limited drill program carried out in the late 1990s are unknown.

23.1.6 Vicuña Muerta

The Vicuña Muerta project is located 30 km to the north-northeast of Diablillos. The project consists of an unexplored porphyry complex. Geology consists of a rhyolitic porphyry intruded into Ordovician granites, granodiorites, diorites, and gabbro's. Three phases of porphyritic intrusion have been recognized and have been hydrothermally altered consisting of quartz-sericite, argillic alteration and silicification. In the 1990s La Pacha Minera, reported maximum values from surface rock chip and soil sampling of 0.29 g/t Au to 0.38 g/t Au, 145 g/t Ag to 210 g/t Ag, and 0.11% Cu to 0.35% Cu. In addition to the porphyry mineralization, satellite auriferous veins have been sampled with values of up to 7.47 g/t Au. No drilling has been done on the project.

23.2 Lithium and non-metallic Projects

There are 23 lithium projects active in the area, two already producing and expected to expand. Another is under construction, sixteen are at a feasibility stage or advanced exploration, and another 20 are in the early stages of exploration. The following projects are located close to Diablillos:

23.2.1 Fenix

The Fenix project is owned and operated by the Argentine company Minera Altiplano S.A., a subsidiary of Livent Corporation, formerly FMC Corporation. The project is 30 km southwest of Diablillos in the western basin of the Salar de Hombre Muerto. The operation has been producing Lithium Carbonate and Lithium Chloride since 1998 and has an estimated life of 2038. An expansion is planned in two consecutive stages from the current 20,000 to 40,000 ton/y. This is based on an off-take agreement with the German car manufacturer BMW, with delivery planned to begin in 2025. Exploitation is through the pumping of brines directly from the Salar (salt pan) to a fully automated selective absorption plant which extracts lithium and returns the solution to the Salar. The onsite plant derives its energy from a natural gas pipeline which is used to drive steam boilers required by the treatment process. Electrical energy is derived from five diesel powered generators. The company notably has an airstrip for transportation of employees and the delivery of consumables.

23.2.2 Kachi

Kachi is located 100 Km south of Fenix in the Catamarca province and under advanced exploration. They are currently performing test works at a pilot scale with their technological partners, Lilac Solutions to validate their direct extraction process technology.

23.2.3 Sal de Vida

Sal de Vida is located in the eastern basin of the Salar de Hombre Muerto and 10 km southwest of Diablillos. Galaxy Resources Ltd merged with the Lithium producer Orocobre and renamed as Arcadium. The project is set for 32,000 t/y of LCE production using conventional brine extraction, evaporation, and processing. Currently pilot ponds and testing are underway.

23.2.4 Sal de Oro

Galaxy Resources sold their northern properties called Sal de Oro within the Salar del Hombre Muerto to the Korean POSCO, who are now advancing the project. A construction camp and pilot facilities are currently under construction.

23.2.5 Sal de los Angeles

The Sal de los Angeles project is in the Diablillos Salar to the east of Diablillos. The project is currently operated by a Joint Venture conformed by Salta Exploraciones SA and Potasio y Litio Argentina SA with the former under control. They are currently operating 7 evaporation ponds fed with brine from an artesian well. A construction camp is to be completed within the next months, complementing an already installed one. Estimated final production rate targets 15,000 t/y of LCE and 50,000 t/y of KCl.

23.2.6 Centenario – Ratones

Lithium exploration activities have focused in the Centenario and Ratones salars, 25 km north of Diablillos. The property concessions are owned by the local company Eramine Sudamerica S.A. which is wholly owned by the French conglomerate Eramet. The Eramet website reports that the company is producing from the Centenario-Ratones mine as of 2024.

23.2.7 Tincalayu

Borax Argentina is the principal producer of borate products in Argentina. The Tincalayu open pit mine and plant are located 26 km west of Diablillos. The borates occur in Tertiary age rocks and are related to paleo-salars.

23.2.8 Pozuelos – Pastos Grandes

The Pozuelos project is on the Salar de Pozuelo and is being operated by Litica, a subsidiary of the Argentine oil and gas company Pluspetrol. They are currently setting up a pilot plant for a DLE process targeting production of 25,000 t/y of LCE.

23.2.9 Salar de Pastos Grandes

The Project is owned by Proyecto Pastos Grandes, a 100% owned local subsidiary of Millennial Lithium Corporation of Canada. The target is to produce 24,000 t/y of LCE with a LOM of 40 years based on conventional evaporation and processing techniques. The project obtained its EIA approvals and finalized its DFS. It is currently operating evaporation ponds, a liming plant and has produced high purity battery grade lithium carbonate from a pilot plant.

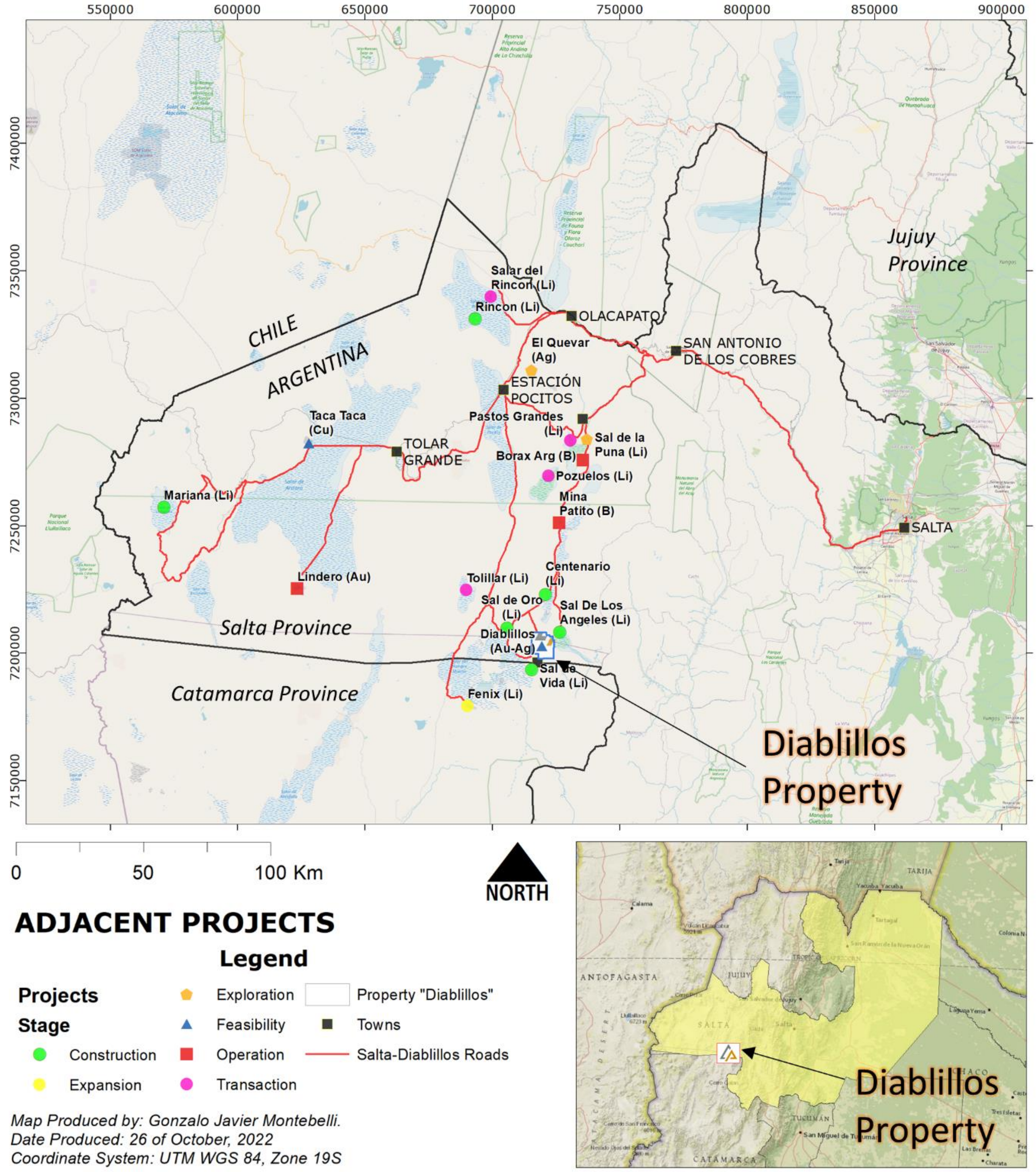


Figure 23-1: Metallic & non-metallic projects

Source: AbraSilver Resource Corp., 2022

24 OTHER RELEVANT DATA AND INFORMATION

24.1 Project Execution Schedule

The Project Execution Plan (PEP) includes all the activities for implementing the Diablillos project to first silver and gold production (First Silver), including pre-construction planning required to reach an investment decision for the project. The strategy of the PEP is to deliver the project within the timeframe to capture the economic incentives offered under RIGI, the new congressional law for large investments. The mechanism and benefits of RIGI are described in Chapter 22.

This section describes the basis of the schedule, the overall project execution approach and key milestones.

24.2 Critical Path Summary

The following is a critical path summary to First Silver for the Diablillos project:

- Preparation and completion of the Definitive Feasibility Study (DFS)
- Update of EIA application upon the end of the DFS
- Completion of the RIGI application
- Preparation of a NI 43-101 Technical Report for the DFS
- Investment decision/financing
- Camp construction
- Completion of the bore field installation and piping connection to the camp
- Order and completion of the SAG/Ball mill installation and other long lead items
- Completion of the TSF, including pumping and piping systems
- Pre-commissioning
- Mechanical, electrical and instrumentation completion
- Commissioning completion.

The project schedule includes five months for the preparation of approval documents and finance.

The key milestones leading up to an investment decision are as follows:

- EIA approval
- Completion of the DFS
- RIGI approval.

The RIGI milestone places an external time constraint on the project to capture significant economic benefits as described in Chapter 22. The application window for RIGI closes in July, 2026. The PEP is based on achieving key milestone dates as outlined in Table 24-1.

Table 24-1: Key milestones

Milestone	Finish
EIA Approval	31-October, 2025
RIGI Application	30-November, 2025
RIGI Approval	31-January, 2026
Complete DFS (*Design, Estimate and Schedule)*	31-January, 2026
Investment Decision	30-June, 2026
Mechanical Completion	31-March, 2029
First Silver	30-June, 2029

The milestones in Table 24-1 include five months of schedule contingency for meeting the RIGI window application of 8-July, 2026. It should be noted that the Argentinean government has indicated that the application for RIGI may extend by a further 12 months.

24.3 RIGI Window

As described in Chapter 22, RIGI requires that 40% of initial CAPEX is invested within 24 months of approval. Based on a RIGI approval date of 31-January, 2026, 40% of the funds must be invested by 31-January, 2028. Based on the construction cashflow estimate of the PFS update, 40% of cash commitments will be achieved by April, 2027. This allows nine months of schedule contingency to comply with RIGI. The cash commitment schedule is shown in Figure 24-1.

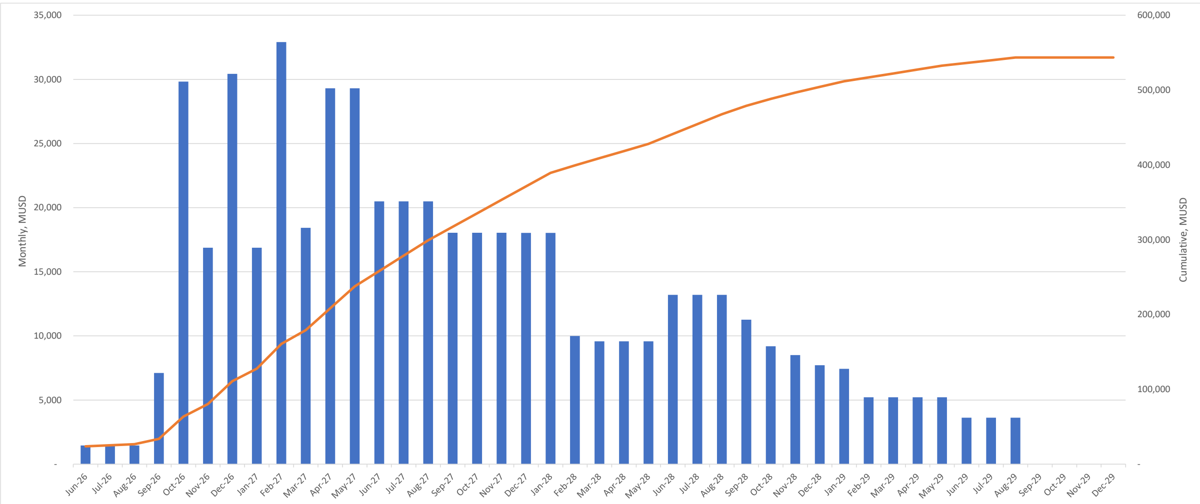


Figure 24-1: Cash commitment schedule

Source: AbraSilver Resource Corp., 2024

24.4 Construction Approach

Project implementation will start after investment decision. It is estimated that the project will take 36 months to complete. The construction support facilities engineering will already be finalized as part of the DFS (i.e. exploration camp relocation, bulk earthworks for platforms and camp construction, service hub, etc.) allowing site work to start immediately.

While these activities progress, the remaining detailed engineering will be finalized, so key facilities can be constructed using infrastructure already in place.

During the DFS phase, all procurement packages will be defined, suppliers and contractors identified. Special care will be taken to comply with the local regulations of Catamarca and Salta provinces. Long lead items will also be identified during that stage.

24.5 Project Type

The Project is considered a greenfield site with no infrastructure and service connections available.

Engineering and Site Supervision will be awarded to a single engineering contractor, ensuring responsibility in terms of quality. The main engineering contractor will be responsible for project technical quality and the plant production capacity post ramp-up.

The Construction Management activities will be either managed by the owner's team or by another contractor and will be responsible for timely and cost-efficient delivery.

24.5.1 Logistics and Sequencing

As part of the mine development, JAC open pit overburden removal will provide material for early work platforms and road backfill. Oculto cover removal may also be used for TSF impoundment construction. As JAC open pit overburden is largely colluvial material, this does not require blasting. Local bulk earthworks contractors can thus readily remove this material. The haul road tasks will be scheduled so the owner crew can assist with construction.

Process facility construction will commence with crushing/screening area before advancing to the covered stockpile and grinding areas. Steel buildings will be equipped with overhead power cranes, so mechanical equipment and piping installation can be completed within an enclosed area, protected from the harsh climate.

The TSF will be constructed early to ensure completion prior to process plant start up. Haul roads and waste dumps will be constructed as needed during operation. Water containment embankments and other related earthworks will be completed upfront.

The mining fleet will be purchased early, once the truck shop is available for assembly, allowing for pre-stripping activities to support local contractor activities.

24.6 Permitting

The project requires the approval of certain permits as detailed in Section 20. The Environmental Impact Assessment was submitted to approval agencies in September 2024 and is expected to be approved within 12 months. This is a key permit required to start construction. Following initial construction approvals, further construction and operations permits will be required prior to the commencement of operations.

24.7 Project Risk Review

A risk review process was undertaken as part of the PFS. AbraSilver is incorporating action plans to mitigate these risks (and others) as part of the upcoming DFS.

Key environmental and social risks were discussed in Section 20. Other key technical risks and uncertainties were also identified and will be addressed in the next phase of the project. These are shown in the Table 24-2 (list is only an excerpt).

Table 24-2: Risk matrix excerpt

Risk	Impact	De-Risking Recommendations
Project delay resulting in failure to meet RIGI benefits	Fail to achieve RIGI benefits included in the economic model. Significant impact to project economics (approx. 30% of NPV). Project more difficult to finance.	Project schedule includes five months of float for RIGI application, and nine months of float for meeting the 40% spending requirement. Earlier project sanction/funding would further mitigate the risk of meeting the RIGI time constraint.
Geotechnical risks	1. Pit slopes are dependent on detailed geotechnical analysis. 2. Facilities foundations for heaviest equipment and TSF impoundment must be characterized in more detail. 3. Soil suitability for TSF constructions have to be further test	Conduct geotechnical site investigation program prior to beginning the DFS.
Topographical risks	1. Mining and bulk earthworks volumes costs are dependent on correct topography. 2. The use of different coordinate systems are required by authorities and those commonly used as industry practice (Gauss-Kruger vs. UTM).	Final check of topography to be performed and secure that adequate coordinate systems are used for deliverables to be submitted to government agencies and for site use.
Seismic Classification of Facilities	Current design criteria considered in line with official regulations and standards for buildings, but TSF design criteria adopted was conservative for the preliminary dam break study in the absence of site-specific seismic studies.	Conduct site specific seismic studies to improve TSF design parameters and perform a more detailed dam break study under the new design.
Waste Rock Characterization and Treatment	Acid Generating potential and heavy metal leaching characterization performed, but waste facility design for ARD material enclosure has not been sufficiently designed (i.e. lining, treatment, co disposal, etc.).	Complete long-term waste dumps design to complete regulatory compliance framework and to ensure efficient waste management design and operation on site.
Technical professionals' scarcity	Most of engineering discipline professionals are not available or their knowledge does not conform to required standards.	Define detailed staffing plan for early contracting of technical owners' team.
Construction /Execution Risk Availability of Local Contractors	Supplier vetting and development may be required to mitigate execution related risk.	Further outline the procurement packages to identify suitable contractors and vendors including technical and regulatory compliance assessment, through formal vetting.
Site Closure Monitoring	Site monitoring and obligations post closure - unclear legislative requirements or guidelines - long term obligations.	Perform full EIA for baseline monitoring data to be captured. Engage formally with regulators utilizing prepared closure planning.

24.8 Project Opportunities Review

The key opportunities were assessed and will be evaluated as part of the upcoming DFS. These are summarised in Table 24-3.

Table 24-3: Opportunities matrix excerpt

Opportunity	Potential Benefit	Action plan to capture
Leaching of marginal material	Sub-COG material, currently classified as waste, may be suitable for heap leaching, increasing Mineral Resources and Reserves, and annual metal production.	Sampling and test work campaign. Evaluate economic trade-offs and advance project to Scoping Level (PEA) if of merit, and povision engineering for potential future inclusion of a heap leaching process circuit.
Mine plan optimization	Improved open pit design and phases to improve grade profile and reduce waste movement.	Ongoing optimization work with key consultants such as Whittle Consulting.
Power connection to the national grid	Eliminate the CAPEX of the on-site generation facility and reduce the cost of electricity by 50%.	Utilities operating in the region have announced intentions to study and connect the Puna district to the national grid via a high voltage power line. AbraSilver will engage these utilities in negotiations for a long term supply contract.
Increase water availability to the project	Additional potential water sources have been identified. Exploiting these would remove the 9ktpd limit on plant throughput.	Continue water exploration activities. Evaluate economic trade-off results of increased plant throughput and re-evaluate plant size.
Improve TSF design	Alternative tailings disposal solutions may reduce cost and environmental footprint.	Trade-offs of alternative TSF designs will be evaluated prior to commencement of the DFS.
Improve waste rock dump design	Reduce waste haulage costs and environmental footprint.	Evaluate co-disposal of waste rock with tailings as part of ongoing trade-off study work with TSF design.
Improve project sustainability metric	Greenhouse gas reduction, water conservation, improved overall environmental footprint of the project	Benchmark project sustainability score to peers prior to commencing the DFS. Sustainability targets to be incorporated into the DFS project charter.

24.8.1 Potential Leachable Material

Preliminary analysis based on historical sampling and testing indicate the potential to treat the Diablillos oxide ore by heap leaching. The PFS mine plan includes 36-44 Mt of marginal mineralisation below between 23-38 g/t silver and 0.33-0.53 g/t gold, below the economic cutoff for conventional treatment. Pending the evaluation of further studies, there may be a further leaching opportunity, and the 36-44 Mt of marginal mineralisation could be diverted to a dedicated heap leaching circuit. The ore would be crushed, stacked on a heap leach pad and irrigated with sodium cyanide. Gold and silver would be stripped from the pregnant solution in a separate processing plant, resulting in increased metal production of 10-20 Moz silver and 225-450 koz gold. Although detailed cost estimates have not yet been completed, it is estimated that the CAPEX would be incremental to the existing 9 ktpd tank leaching circuit.

A further benefit of heap leaching marginal mineralisation would be a reduction in the size of the waste rock facilities by 36-44 Mt.

24.8.2 Mine Plan Optimization

The mine plan has numerous opportunities for further optimisation. Some of the options that will be considered are:

- Improved stripping ratios (following further geotechnical analysis)
- Pushback selection and timing
- Ramp and pit exit optimisation
- Haulage optimization
- Waste dump optimization (including location)
- Blend optimization including “floating” cut-off grade analysis
- Process optimization

24.8.3 Power Connection to the National Grid

Electricity for the project is currently planned to be supplied from an on-site self-generation power facility comprising a combined photovoltaic-diesel plant. The capital cost of this facility is 33 MUSD and the operating cost is calculated a US $0.19/kWh of generation. AbraSilver is currently in discussions with local power generation and distribution companies to supply electricity to Diablillos via a planned high voltage powerline to the Puna district. Power supply from a grid connection would eliminate the CAPEX of the on-site self-generation facility and reduce operating costs significantly. Based on market surveys performed by AbraSilver, long-term power prices can be contracted for $0.07-$0.10/kWh. Electricity supplied at market comparative power prices would reduce OPEX by 15 – 20 MUSD/year.

24.8.4 Increase Water Availability

Throughput for the process plant was capped at 9 ktpd due to the water limitation of the Baranquillas borefield. Additional potential sources of water supply in the region have been identified. Further exploration activities are planned during the DFS to confirm the volume available. If water supply is available, the throughput rate of the process plant will be re-evaluated in trade-off studies as part of the DFS. Additional water supply may also support requirements for a heap leaching circuit as described in 24.8.1.

Increased water recovery from tailings and water efficiency measures may further increase available water.

24.8.5 TSF and Waste Rock Dump Designs

Opportunities to improve the design of the TSF will be evaluated during the DFS. The scope of the improvements encompasses constructability, total cost of ownership (encompassing CAPEX and OPX trade-offs), operability and safety.

The TSF design review will investigate co-disposal of tailings with waste rock. This would potentially reduce or eliminate the need for separate facilities by constructing the dam wall with the waste rock. The resulting benefits would include lower waste rock disposal costs and a reduced environmental footprint.

24.8.6 Sustainability

During the DFS, opportunities to further improve the sustainability of the Diablillos project will be evaluated. An exercise is planned to evaluate the project's sustainability. This will include a benchmark against peers, and the evaluation of sustainability goals. Specific opportunities include (but are not limited to) a reduction of environmental footprint, water consumption and emissions.

25 INTERPRETATION AND CONCLUSIONS

25.1 Geology and Mineral Resources

Based on the site visit and subsequent evaluation, Mr. Peralta offers the following conclusions:

- The input data was suitable for use in a Mineral Resource estimate.
- The gold and silver grade estimation process was consistent with CIM Mineral Resource and Mineral Reserve estimation best practice guidelines.
- The Mineral Resources conforms to CIM (2014) definitions and complies with all disclosure requirements for Mineral Resources set out in NI 43-101.
- The Mineral Resources have been estimated by Mr. Luis Rodrigo Peralta (Independent Senior Geologist consultant).
- Diamond drilling on the Oculto, JAC, Fantasma and Laderas zones has to date resulted in discovery of additional Mineral Resources.
- The sampling and analytical work for the programs post-1995, particularly those performed by AbraSilver from 2017 to present, have been conducted in an appropriate fashion using industry best practice methods and commercially accredited independent laboratories.
- The drill hole number, orientation and the sampling methods are suitable for the mineralization at Diablillos.
- The database is reasonably free from errors and suitable for use in estimation of Mineral Resources.
- It is reasonable to assume that the gold and silver at Diablillos can be recovered using conventional industry processes.
- The number of bulk density determinations is representative to generate a density model.

- Measured and Indicated Mineral Resources are estimated to contain 53.25 million tonnes grading 87 g/t Ag and 0.79 g/t Au for a total of 148.3 million ounces of contained Ag metal and 1.36 million ounces of contained Au metal. Inferred Mineral Resources are estimated at 3.28 million tonnes grading 23 g/t Ag and 0.66 g/t Au. These estimates are reported based on a positive Net Value per Block assuming operating costs of $28.23/t equivalent to an approximate oxidized material 46 g/t AgEq cut-off. These cut-off grades are considered appropriate based on currently available metallurgical test work and the estimated mining, processing, G&A, gold and silver economic assumptions.

- There is no significant metal loss due to the capping of extreme values in the mineralized zone.

- The presence of copper in the transition zone needs to be reviewed in greater detail to understand potential recovery through a secondary process.

- Other elements such as arsenic, bismuth, and antimony, are present. Their impact should be reviewed in future metallurgical studies. There are no relationships between these elements and gold/silver, suggesting the minerology of these elements is not related.

- A sensitivity analysis to the parent cell size suggests non-selective mining, allowing the use of relatively large equipment. A 10 x 10 x 10 block has minimal dilution, depending on cut-off grade.

- Mr. Peralta (“QP”) considers that there are no significant risks associated with the project.

25.2 Mining and Mineral Reserve Estimate

Based on the site visit and subsequent evaluation, Mr. Fuentealba offers the following conclusions:

- The input data was suitable for use in a Mineral Reserve estimate.
- The gold and silver grade estimation process was consistent with CIM Mineral Resource and Mineral Reserve estimation best practice guidelines.
- The Mineral Reserve Estimate conforms to CIM (2014) definitions and complies with all disclosure requirements for Mineral Reserves set out in NI 43-101.
- The Mineral Reserves have been estimated by Mr. Fuentealba (Independent Senior Mining Engineer consultant).
- According to Mr. Miguel Fuentealba, the technical and economic factors used as inputs, have sufficient levels of accuracy for use in a PFS.
- The process of reviewing preliminary phase designs during the PFS, allowed for the reduction of the waste-ore ratio. At the same time providing sufficient backfill material for roads and construction platforms, thus improving the project's financial indicators, such as NPV and IRR.

25.3 Geotechnical

Based on the site visit and subsequent evaluation, Mr. Fuentealba offers the following conclusions:

- Open pit slopes: Open pit shell slope angles consider recent geotechnical drilling and modelling. Six geotechnical sectors have been defined. The average over-all angle assumed for open pit shell generation was 51 degrees.
- A stability analysis using relevant information was done to take advantage of redesign opportunities and to improve open pit slopes. Recent drilling however presents limited geotechnical information and additional geotechnical drilling should be carried out to validate parameters and optimise the open pit slopes.

25.4 Mineral Processing and Metallurgical Testing

Based on the site visit and subsequent evaluation, Mr. Keane offers the following conclusions:

The initial metallurgical tests conducted on Oculto material by SGS have been used for flowsheet development, equipment selection and process design criteria development. The tested material was amenable to cyanide leach and the Merrill-Crowe precious metal recovery process. Both gold and silver had satisfactory recoveries reaching 80% or higher.

The second batch of metallurgical tests conducted on JAC/Fantasma material had much higher silver content and significantly lower gold content. However, the gold and silver recoveries were in a similar range to those of the Oculto material.

The flowsheet and equipment selection developed based on the Oculto material applies to the JAC/Fantasma material, except that JAC/Fantasma material had a much higher reagent consumption and increased slurry viscosity, implying a slightly larger CCD circuit and Merrill-Crowe equipment could be required. However, JAC/Fantasma material is only approximately 15% of the deposit and an ore blending strategy could give blended material very similar to the Oculto material. The third batch of metallurgical tests included gravity tests and gravity tails leaching tests for material from the four different Oculto zones. The overall metal recoveries were in a similar range with the recovery realized from the Oculto composite sample.

The metallurgical tests completed to date are sufficient to complete a full PFS study. The process flowsheet developed is based on a daily throughput of 9,000 tpd and includes the following circuits:

- Crushing and coarse ore stockpile.
- Grinding circuit with one 26x12 ft SAG mill and one 18x28 ft ball mill closed with hydro cyclones, reducing the particle size to p80 around 150 microns.
- Gravity recovery circuit installed to recover the gravity gold and silver from the hydro-cyclones underflow. The gravity concentrate will be further leached in an intensive cyanidation circuit.
- The ground slurry from the grinding circuit will be tank leached for 36 hours, the pregnant solution will be recovered by a six stage of CCD circuit and washed tailings solids will report to the TSF after cyanide destruction.
- The pregnant solution recovered from the CCD circuit is combined with the pregnant solution from the intensive cyanidation and will be pumped to the Merrill-Crowe plant. The dissolved gold and silver will be recovered to the Merrill-Crowe precipitate using zinc power and the barren solution will be recycled back to the CCD circuit and the tank leach circuit.
- The precipitate will be retorted and placed into a smelting furnace to produce the final doré bullion and slag. The slag will be crushed and recycled back to the grinding circuit for further precious metals recovery.

25.5 Economic Analysis

AbraSilver and Mining Plus completed the economic analysis for this PFS using appropriate industry standard criteria. The results of this study indicate that the Diablillos Project offers positive economic potential.

The base case economic analysis results in an after-tax NPV of 747 MUSD at a discount rate of 5%, a projected internal rate of return (IRR) of 27.6%, and a payback period of two years. The timing of the project is such that it can take advantage of the RIGI large investment incentives recently introduced in Argentina.

The economic calculations were based on a silver price of $25.50 USD per ounce and a gold price of $2,050 USD per ounce, and an average annual silver equivalent production of 13,400 Koz during the production phase. The first five years average will be approximately 16,400 Koz per year.

Initial capital costs are estimated at 544 MUSD and cover first stage construction and pre-production costs. Sustaining capital is estimated at 77 MUSD and covers raising of the TSF, renewal of the mining fleet and biannual renewal of the environmental impact study.

Sensitivity analysis indicates that the project is more sensitive to metal prices and metallurgical recoveries, and less sensitive to operating and capital costs. All values delivered a positive NPV throughout the ranges of -25% to +25% for metal prices, recoveries, operating, and capital costs.

Due to the volatility of the Argentinian Peso over the last several years, sensitivities were not conducted on exchange rates, and all costs were normalized to USD at the time of quotation.

26 RECOMMENDATIONS

26.1 Geology

Mr. Peralta makes the following recommendations:

- Improve the structural knowledge of the deposit through surface mapping of outcrops, and/or with information from oriented drill core or televiewer methods which will allow determination of the physical and elastic properties of each of the identified geotechnical domains.
- Improve the structural knowledge of the deposit based on interpretation of actual faults and lineaments combined with air magnetics to define potential areas for exploration.
- In-fill drilling should continue as part of the Phase IV campaign at Oculto in areas of current Indicated Mineral Resources where confidence could be improved to Measured.
- In-fill drilling should also continue in areas of current Inferred Mineral Resources where confidence could be improved to Indicated.
- Perform definition drilling in the northeast area of Oculto, using both in-fill and step-out holes.
- Definition drilling should also be carried out between the Oculto and Fantasma zones, and between the JAC and Alpaca zones, to determine the continuity between the existing zones and identify potential new zones.
- Evaluate potential Mineral Resources in the sub-economic zones, marginal to current estimated Mineral Resources.
- A further evaluation of lower-grade oxide material for potential heap leaching is recommended, including bottle roll tests and column leach studies. This may allow a lower NVB and equivalent cut-off grade to be used in future MREs.
- Continue advancement of the Project toward delivery of a DFS.
- An evaluation of the Mineral Resource contained in the underlying sulphides should eventually be carried out in parallel with metallurgical test work.

26.2 Mining

Mr. Fuentealba makes the following recommendations:

- Improve strategic planning and optimisation by analysing variable cut-off grades over time. The Comet software can redirect mine planning by exploiting synergies between operations strategies and financial indicators.
- A marginal analysis of phases would allow balancing of mining phases while maintaining strategic planning recommendations.
- Perform a trade-off study for the hauling fleet, incorporating a redesign of phases for autonomous trucks. Potentially an opportunity to reduce the purchase of equipment and operators.
- Prior to resuming any other drilling campaign within Oculto, 4 holes should be drilled to determine the groundwater level. Subsequent hydrogeological modelling should follow.
- It will be essential to drill at least 12 geo-technical holes in the next drilling campaign to confirm geotechnical data and Investigate an increase of global slope angles on some of the open pit walls.
- A new open pit optimization should be completed using an updated block model and MRE based on the latest Phase IV drilling campaign.

26.3 Mineral Processing

Mr. Keane makes the following recommendations:

For the next stage of study, it is recommended to consider following work:

- Additional tests on the transitional ore and sulphide ore to estimate the metallurgical performance.
- Further heap leach test work should be completed on the marginal grade oxide mineralisation to determine likely gold and silver recoveries and whether this treatment route can potentially improve further the project economics.
- Cyanidation tests based on grade are recommended to develop a recovery algorithm to further define and optimize the Mineral Resource model.
- The current plant throughput of 9,000 tpd is based on the raw water availability. Considering the total amount of Mineral Resource of the deposit, increasing the plant throughput may further improve the total project economics assuming that more raw water resources can be confirmed.
- The power cost is the second largest process operating cost. It is recommended to further study the power sources and implied costs, which may further optimize the process operating cost.

26.4 Infrastructure

Power

The combined solar-diesel self-generation facility will supply sufficient electricity to the project. However, a connection to the national grid would derisk the project, reduce capital and reduce operating cost, as well as potentially reducing the carbon footprint of the project. It is recommended to engage with local utilities who have viable plans to electrify the Puna district) in negotiations for a long-term supply contract.

26.5 General

- The project should proceed to full DFS and a final investment decision to meet the timetable of the Argentinian RIGI investment scheme.
- Although AbraSilver conducted a very thorough cost estimation exercise during the PFS, due to economic volatility in Argentina, the DFS should update all cost estimates.
- Other initiatives to improve the project economics should be investigated during the DFS. These should include opportunities to:
    - equipment selections including the use of contractors for pre-stripping the open pit
    - lease rather than purchase mining and other equipment
    - co-dispose tailings with waste rock
    - process of marginal material
    - secure additional water and increase processing throughput
    - explore and geotechnically validate an expanded open pit
    - explore other economically and/or environmentally beneficial power options

Table 26-1 presents a budget for the recommended items:

Table 26-1: Proposed budget summary

Description	Cost in USD
Engineering & Preparation of a DFS Report	6,000,000
Site investigation and water exploration	2,000,000
Metallurgical test work, geotechnical test work, other studies	1,000,000
Total	**9,000,000**

27 REFERENCES

The following references are cited in the creation of this report:

CIM, 2014. CIM Definition Standards of Mineral Resources & Mineral Reserves. Prepared by the CIM Standing Committee on Reserve Definitions. Adopted by the CIM council May 19, 2014. https://mrmr.cim.org/media/1128/cim-definition-standards_2014.pdf

CIM, 2018. CIM Mineral Exploration Best Practice Guidelines. Prepared by the CIM Mineral Resource and Mineral Reserve Committee. Adopted by the CIM Council on November 23, 2018. https://mrmr.cim.org/media/1080/cim-mineral-exploration-best-practice-guidelines-november-23-2018.pdf

CIM, 2019. CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines. Prepared by the CIM Mineral Resource and Mineral Reserve Committee. Adopted by the CIM Council on November 29, 2019. https://mrmr.cim.org/media/1129/cim-mrmr-bp-guidelines_2019.pdf

Roscoe Postle Associates Inc. (RPA), 2018, Technical report on the Diablillos Project, Salta Province, Argentina, a NI 43-101 report prepared by Scott Ladd., April 16, 2018.

Mining Plus, (MP), 2021, Results of Diablillos Database Audit for NI 43.101. Diablillos Project, Salta Province, Argentina. Internal report prepared by Peralta Luis Rodrigo, August 2021.

Mining Plus, (MP), 2021, Technical Report Mineral Resource Estimate – Diablillos Project, Salta Province, Argentina, a NI 43.101 report prepared by Peralta Luis Rodrigo, Maria Muñoz, Simon Perkins, October 28, 2021.

Mining Plus, (MP), 2022, Preliminary Economic Assessment – Diablillos Project, Salta Province, Argentina, a NI 43.101 report prepared by Peralta Luis Rodrigo, Maria Muñoz, Paganini Gabriel, Simon Perkins, January 13, 2022.

Dawson Geological Consultants LTD., 1992, Report on the Diablillos Property, Provinces of Salta and Catamarca, Argentina. Internal report prepared by James M. Dawson, P.Eng., August 20th, 1992.

Inukshuk Exploration Inc., 1994, Internal report on 1993 Diamond Drilling Program, Diablillos Project, Salta, Argentina. Bruce Goad, M.Sc., P. Geo., March 18th, 1994.

Mine Development Associates, Gold, and silver resources Oculto Area, Diablillos Project, Salta Province, Argentina. Internal report prepared by Steven Ristorcelli & Matthew Blattman, June 6th, 1997.

Aceñolaza F.C. y Toselli A.; 1971; Nuevos hallazgos del Paleozoico inferior (Ordovícico) en la Puna, Mundo Geológico.

Shaw, M.G.; 1991; "Diablillos Project, Salta Province, Argentina; BHP Minerals Company, report N13.

Sillitoe, R. H., 1977: Permo-Carboniferous, Upper Cretaceous, and Miocene Porphyry Copper-Type Mineralization in the Argentinian Andes. Scientific Communications. Economic Geology; Economic Geology, Volume 72, p. 99 – 109

Ronning P.A.; Richard W. Allmendinger: The evolution of the Altiplano-Puna Plateau of the Central Andes. Annual Review of Earth and Planetary Sciences. Department of Geological Sciences and Institute for the Study of the Continents, Cornell University, Ithaca, New York 14853-1504.

Pit DiLauro, May 2023; "An Investigation into the Diablillos Deposit" Metallurgical test work analysis; SGS Lakefield.

Pit DiLauro, October 2023; "An Investigation into the Diablillos Deposit" Metallurgical test work analysis; SGS Lakefield.

Pablo Montebelli; October 2023; AbraSilver Internal Report; Salta, Argentina.

Law No. 24,051: Hazardous Waste

Law No. 24,196: Mining Investments

Law No. 25,612: Comprehensive Management of Industrial Waste and Service Activities

Law No. 25,675: General Environment

Law No. 25,688: Environmental Water Management

Law No. 25,743: Cultural and Archaeological Heritage

Law No. 25,831: Free Access to Public Environmental Information Provincial Constitution, Articles No. 30, 79, 81, 82

Provincial Law No. 7,017: Water Code of Salta Province

Provincial Laws No. 7, 107: Protected Areas

Provincial Law No 8164: Royalties. Local Supplier Registration of Salta Province

Provincial Resolution 84/22: Registry of mining suppliers

Provincial Resolution 087/2018 Social and economic impact tables

Provincial Resolution 3652/10 Annual analysis of drinking water.

Provincial Resolution 197/2023 Provision of housing modules for control and inspection authorities of Mining Secretary of Salta Province.

Provincial Law No. 4218 Preservation of vestiges and/or remains of anthropological archaeological sites existing in the province of Catamarca.

SAyA Resolution No. 065/05 Regulations and conditions for the discharge of liquid waste in Catamarca.

Resolution S.E.M. No. 146/05 The regulations are approved that determine the procedure and conditions for granting information regarding environmental matters held by this Secretary of State for Mining.

Resolution S.E.M. N° 65/07 Establishes that all mining companies active in the Province that carry out water, soil and air monitoring in Catamarca.

Ley Provincial Law N° 4865/95: Adheres to National Law No. 24051 and establishes the Hazardous Waste Regime. By request of this law, companies must register as Generators of Hazardous Waste in the Provincial Registry of Generators, Operators and Transporters of Hazardous Waste, through Decree 473/01

Resolution 065/05: Discharge of effluents. Establishes the conditions for overturning the discharge of Residual Liquids required for discharge to the Receiving Body. This resolution establishes that all discharge of waste liquids must be declared, and the Enforcement Authority will grant the Exception, or not, of having a conditional dumping permit, depending on the volume of effluents generated.

Law 2257/73: Establishes the water code of the province of Catamarca. Its regulations are outdated, and its application is articulated through provisions of the Secretariat of Water Resources of the Province of Catamarca.

Ley 5682/2020: Establishes the Mining Procedures Code

Disposition 74: Environmental Impact in Mining. Establishes the Presentation of the Environmental and Social Impact Study for any activity that may be susceptible to degrading the Environment. In Catamarca, the Ministry of Mining is the Authority that governs the control of the ESIAs linked to the Mining Activity, through the Provincial Directorate of Mining Environmental Management.

Ley N 27.742: Regimen de Incentivo para Grandes Inversiones (RIGI). Decreto-2024-749-APN-PTE. Titulo VII.

APPENDIX

This section is not applicable with no appendices listed.

DATE AND SIGNATURE PAGE

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All data used as source material and text, tables, figures, and attachments of this document have been reviewed and prepared in accordance with generally accepted professional engineering and environmental practices.