TECHNICAL REPORT

AND UPDATED MINERAL RESOURCE ESTIMATE OF THE BOUMADINE POLYMETALLIC PROJECT, KINGDOM OF MOROCCO

LONGITUDE 4°55’18” WEST AND LATITUDE 31°24’40” NORTH
UTM WGS 84 ZONE 30R 317,310 m EAST AND 3,476,770 m NORTH

FOR
AYA GOLD & SILVER INC.

NI 43-101 & 43-101F1
TECHNICAL REPORT

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GOLD & SILVER

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1.0 EXECUTIVE SUMMARY

This Technical Report (the "Report") presents an updated Mineral Resource Estimate ("MRE") for the Boumadine Polymetallic Project, Kingdom of Morocco. This update is based on the previous Mineral Resource Estimate prepared by P&E Mining Consultants Inc. ("P&E"), published on May 8, 2024, and new drilling data from Aya Gold & Silver Inc. ("Aya"). The revised estimate has been completed by Aya, with the Report having an effective date of February 24, 2025.

Aya, a reporting issuer, trades on the TSX under the symbol "AYA" and has its head office located at Suite 132, 1320 Graham, Ville Mont-Royal, Québec, H3P 3C8.

1.1 PROPERTY DESCRIPTION AND LOCATION

The Boumadine Property (also known as Boumaadine, Boumâadine, and Bou Madine) is located in the Province of Errachidia, Kingdom of Morocco, ~220 km east of the City of Quarzazate and 70 km southwest of the City of Errachidia.

Aya's property in the Boumadine area ("Boumadine Property") consists of 9 mining permits and 16 exploration permits totaling 272 km2 in size. The "Boumadine Mining License", which contain Boumadine Deposit and is the focus of the Boumadine Report, consists of mining permit LE-383661 and covers the historical Boumadine Mine, the Boumadine Camp, and the current Mineral Resource Estimate described in this AIF, which total 32 km2 in area. The additional twenty-four permits are distributed within a 25 km radius of the Boumadine Deposit and collectively cover an additional 240 km2 in area. In addition, an Authorization of Exploration of 600 km2 was granted to Aya in January 2025.

On October 9, 2012, Aya and ONHYM signed a joint venture agreement for the acquisition, development and exploitation of the Boumadine Deposit. Under the terms of said agreement, Aya acquired 85% of mining license LE-383661 for total cash payments of MAD 28 million, being approximately USD 2.8 million at such time. A new Moroccan company - BGM, was created with Aya and ONHYM as 85%-15% shareholders. The mining title of the Boumadine Mining License was transferred to BGM by ONHYM. The participation of ONHYM is subject to dilution if they fail to invest 15% in the budget after Aya matches all the previous investment from ONHYM. ONHYM will receive a 3% royalty and Aya will receive a 2.75% management fee on BGM sales revenue from the first year of operation.

In addition to its ownership of the Boumadine Mining License, Aya, through its subsidiaries, has: 100% ownership of a total of 10 mining licenses and exploration permits and; an option to earn 100% interest in 13 other mining licenses and exploration permits.

1.2 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Boumadine Property is located in the Errachidia Province of the Meknès-Tafilalet Region, in the Anti-Atlas Mountains. It is accessible via the National Highway 10 (N10), ~220 km east-northeast from Ouarzazate City or ~70 km southwest from Errachidia City. Tinejdad, the nearest town, is ~16 km north from the historical Boumadine Mine. The nearest village, Bouyoud, is 4 km away. The Property is accessible from Tinejdad by all-terrain vehicle on a paved and gravel road.

The Property has a Sahara climate, which falls under the category of a hot desert climate, also known as a "hot arid climate" (Köppen climate classification BWh). Summers are hot, with daytime temperatures >40°C. Winters are generally mild, with daytime temperatures ranging from mild to warm; nighttime temperatures can be cool, but freezing conditions are uncommon. The region receives very little rainfall throughout the year, most of which occurs in winter. Field work at Boumadine can be carried out year-round.

The Property is accessible by two roads: 1) a 16-km dirt road southwards from Tinejdad; and 2) a 4-km dirt road from the east through the village of Bouyoud. The National Highway 10 (N10) goes through the City of Tinejdad and connects to Ouarzazate City to the west and Errachidia City to the east of Tinejdad. The nearest power line to the Property is 2.8 km away.

There are numerous dirt roads and paths that lead to former shafts and other remnants of the historical mining infrastructure. Water is currently sourced from historical underground workings and wells. Electricity on site is provided via the national electricity grid. The facilities on-site are adapted for exploration operations. They include an office, drill core shack, the AfriLab sample preparation laboratory, drill contractors workshops, and drill contractors camps.

The physiography of Boumadine Property is characterized by its desert setting, with influences from the nearby Atlas Mountains. The topography of the area is marked by ridges and hills mostly, with altitude ranging between 980 and 1,300 m asl. The site and its surroundings exhibit characteristics typical of a desert landscape, with vast expanses of arid and rocky terrain. Vegetation in the Boumadine area consists mainly of desert plants, such as Acacia Raddiana and Tamarix Amplexicaul. Drought-resistant grasses may be found and provide some ground cover. Oases and palm trees are notable features in this region.

The Boumadine Mining License is in close proximity to the Ziz river, which flows through the centre of the Town of Tinejdad. The river, along with its valley, contributes to the oasis environment with palm groves, particularly date palms. Group of nomads pass by the Boumadine Property with their livestock of camels or goats. Historical artisanal mining activities have been recognized at several places on the Boumadine Property. Historical extraction work focused on barite and lead veins.

Mine workers and other personnel are available from surrounding villages and Tinejdad. Errachidia City (formerly Ksar souk) is the closest major urban centre. Errachidia has an international airport with access to Casablanca and it is also accessible by road from Marrakech, ~420 km away. Basic supplies, such as food and limited accommodation, are available at Tinejdad; Errachidia offers greater diversity in supplies. Special items must be purchased from Ouarzazate or Marrakech.

1.3 HISTORY

The historical Boumadine Mine is one of the oldest known mines in the Kingdom of Morocco. It was probably exploited by the Portuguese in the 15th and 16th centuries. They extracted the oxidized part of the polymetallic veins to a depth of as much as 20 m. Such workings are found along a north-south strike length of 4.2 km on the Boumadine Property.

Between 1956 and 1998, exploration and mining activities in the Boumadine area were completed by the Bureau de Recherches et de Participations Minières (“BRPM“), with and without partners. These activities included mineral prospecting, geophysical surveys, drilling, mineralogical studies, mineral resource estimations, metallurgical testwork, engineering and economic studies, shaft excavation, and underground development and mining. Underground mining from 1986 to 1992 produced 261,485 t of mineralized material from four mining levels for mineral processing on-site.

In 2013, Maya Gold and Silver Inc. (“Maya”; precursor entity to Aya Gold & Silver) acquired the Project through a Joint Venture with the ONHYM (new entity of the BRPM) on a 85%/15% basis, respectively. Between 2013 and 2016, Maya completed geological mapping and grab sampling of the historical mineralized structures. In 2017, Maya completed a drilling program to confirm the historical mineral resources. Fourteen drill holes totalling 3,158 m were completed over the Central, South and Tizi Zones. Between 2018 and 2020, Maya completed a sampling program on two historical tailings deposits and 9,503 m of diamond drilling on the South, Central, North, Imariren and Tizi Zones. In addition, Maya completed a drone survey over the Boumadine Property.

Maya announced its name change to Aya in a Company press release dated July 31, 2020.

1.4 GEOLOGICAL SETTING, MINERALIZATION, DEPOSIT TYPE

The Boumadine Property is located at the eastern end of the Anti-Atlas Mountain Range, which extends east-northeast to west-southwest, over approximately 600 kilometers from the Atlantic Ocean in the west to the interior of the African Plate in the east. The Anti-Atlas basement rocks are mainly Neoproterozoic in age and consist of ophiolites, island arc-related gneiss and intrusive rocks, particularly near to the northern edge of the West African Craton.

The Boumadine polymetallic deposit (Ag, Au, Pb, Cu, Zn) is located on the northwest side of the Ougnat Massif (or Boutonnière). The geology of the Massif consists of a Neoproterozoic metasedimentary basement overlain unconformably by a Late Neoproterozoic volcano-sedimentary rock sequence and by Paleozoic lacustrine sedimentary and minor volcanic rocks. The basement consists of sandstone, pelites and greywackes that are intruded locally by granite, granodiorite, and diorite bodies. The volcano-sedimentary sequence consists of felsic and mafic volcanic rock units separated by volcano-sedimentary units.

The volcanic and volcano-sedimentary rock unit have been grouped into three formations, which from the oldest to youngest are:

- Tamerzaga-Timrachine Formation ("TTF"): Consists of ignimbrites, rhyodacites and andesites;
- Isilf-Ouinou-Oufroukh Formation: Consists of volcano-sedimentary rocks, specifically tuffs and breccia, andesite flows; and fine- to coarse-grained sedimentary rocks; and
- Aoujane-Aissa-Akchouf Formation: Formed of ignimbrites, dacite domes and flows, and andesite flows.

These three formations are intruded by dolerite, microdiorite and andesite dykes. At the Boumadine Mining License, only the andesite dykes are present and trend north-south.

The Ougnat Massif area was subjected to a Neoproterozoic shearing, which generated regional-scale faults trending N30°E and associated secondary fractures. The area has also been affected by a late-stage series of north-south extensional fractures that were subsequently reactivated by a compressive Hercynian tectonic event.

The TTF volcaniclastic sequence of felsic tuffs and mafic tuffs host the Boumadine Deposit. The felsic tuffs consist of angular to rounded cm-size felsic fragments, quartz eyes, plagioclase grains, and locally mafic fragments. This felsic sequence is homogeneous and massive, and sits unconformably on mafic tuffs. Mafic tuffs consist of amphibole and fragments/clasts of sedimentary rocks. Mafic tuffs are interpreted as underwater-deposited volcaniclastic eruptives.

Many intrusions are observed on the Boumadine Property. The intrusions are divided into a pre-to syn-mineralization group and a post-mineralization group. The pre- to syn-mineralization intrusions are mainly felsic to intermediate in composition, show aphanitic to porphyritic textures, and form dykes and sills. Locally porphyritic mafic dykes, similar in composition to mafic tuffs, crosscut the felsic tuff sequence and syn-mineralization dykes, suggesting bimodal magmatism.

The post-mineralization intrusions consist of rhyolite subvolcanic domes associated with normal faults. These domes are interpreted as being synchronous with a post-mineralization deformation episode that disrupted the Boumadine mineralized zones. Subsequently, a swarm of regionally extensive mafic dykes intruded every lithological unit on the Boumadine Property.

Two events of hydrothermal alteration are observed on the Boumadine Mining License. The first alteration event affects the felsic tuff sequence as phyllic alteration (quartz-sericite-pyrite). Proximal to massive sulphide veins (1 to 5 m thick), there is an advanced clay alteration composed of kaolinite and pyrophyllite. The second sequence of alteration affects mainly the underlying mafic tuffs and consists of propylitic alteration (epidote and chlorite). Near the veins, the alteration minerals are black chlorite, pyrophyllite and pyrite. The transition between these two alteration events is relatively sharp and consistent with the change in tuff composition.

Due to the extensive weathering to clay minerals, the Boumadine Deposit has a very light colour that contrasts with the surrounding landscape. The mantos, “chapeau de fer” or “iron cap” alteration extends from 5 to 10 meters depth. The mantos consists principally of goethite and jarosite with sparse hematite and no lepidochrosite. This mineralogical assemblage indicates that the oxidation fluids were strongly acidic. In this case, Mn, Zn, Cd, Ni, Co, Pb are highly mobile in the acid and sulphur-rich fluids and are commonly leached at surface. However, Ag, Au, Ba, Sr and Pb are immobile and form stable sulphosalts. The hydroxide-rich “mantos” has been partially mined out by artisanal workers for ochre and precious metals.

The Boumadine Deposit has been traced on surface and in drilling for approximately 5,400 meters along strike. Strike direction varies from mainly northwest to northerly and dips vary from steeply northeast to steeply southwest. The Boumadine Deposit consists of 45 mineralized domains that have been grouped into five separate zones. The South and Central Zones consist of 13 stacked mineralized vein domains. From the south end of the South Zone to the north end of the Central Zone, these domains extend for 4,800 meters along strike, up to 300 to 400 meters across strike and up to 1,000 meters down-dip. The South Zone appears to be offset dextrally along a northeast-trending fault from the Central Zone. The north end of the Central Zone appears to be offset senestrally along a northeast-trending fault from the North Zone. The North Zone consists of eight closely-spaced mineralized vein domains. This Zone is 650 meters long, 5 to 10 meters in thickness and 500 meters down-dip. It strikes northwest and dips steeply southwest. The North Zone appears truncated by the Imariren Zone. The Imariren Zone and the Tizi Zone are two sub-parallel, single mineralized vein domains that are 200 meters apart in the south and 500 meters apart in the north, strike northerly, and dip vertically. The Tizi Zone has been extended to 2.0 km in length, while Imariren has been traced over 1,000 meters. Both zones extend 600 meters down-dip.

The Boumadine Deposit mineralized zones consist of 1 to 4 meters-wide massive sulphide lenses/veins oriented N20°W and dipping 70° east. The massive sulphide veins (approximately 70% sulphide) consist of pyrite, sphalerite, galena, arsenopyrite and chalcopyrite, with subordinate amounts of cassiterite, silver-rich sulphosalts, stannite, enargite, bismuthinite, native copper and bismuth. The main mineralization zone is surrounded by a 1 to 10 meters thick halo of 10 to 30% disseminated pyrite and two types of veinlets: 1) quartz-carbonate-galena-sphalerite veinlets; and 2) massive pyrite veinlets. Geochemically, there is a strong positive correlation of gold with silver and copper and a weaker correlation of zinc with lead and molybdenum. The Boumadine Deposit has been described in literature as being an epithermal polymetallic deposit in a shallow submarine setting, but field and drilling evidence seems to suggest a deeper environment of formation.

1.5 EXPLORATION AND DRILLING

Exploration activities completed by Aya on the Boumadine Property since 2020 include surface trenching, satellite-based hyperspectral surveys, mineral prospecting, geological mapping, aerial geophysics and grab sampling and assaying. These programs were successful in finding and confirming evidence of mineralization on surface.

Between May 2022 and December 2024, Aya completed 476 diamond drill holes totaling 192,957 m. The drilling programs aimed to extend the mineralization of the North, Central, and South Zones while also testing targets located further from the main mineralized trend. In addition, all historical drill holes from 2018 to 2021 were re-logged and resampled in 2023 for a total of 77 drill holes and 9,510 m of drill core.

1.6 SAMPLE ANALYSES AND DATA VERIFICATION

Aya implemented and monitored a thorough QA/QC program for the drilling completed at the Boumadine Deposit over the 2018 to 2025 period. Examination of QA/QC results for all recent sampling indicates no material issues with accuracy, contamination, or precision in the data. The current Authors have reviewed the QA/QC procedures and results, as well as the previous verification work conducted by P&E, and confirm that the sample preparation, security, and analytical procedures are adequate. The data are considered to be of good quality and satisfactory for use in the current Mineral Resource Estimate.

The current author performed a verification of the Boumadine Deposit database for the 2024 to 2025 period, which included verifying drill hole assay data. No errors were found, and the data is deemed suitable for inclusion in the current Mineral Resource Estimate.

Verification of the Boumadine Deposit data, used for the previous Mineral Resource Estimate, had been review independently by P&E, including a site visit in March 2024, due diligence sampling, verification of drill hole assay data from electronic assay files, and assessment of the available QA/QC data. P&E stated at that time that sufficient verification of the Project data had been undertaken and that the supplied data are of good quality and suitable for use in the previous Mineral Resource Estimate.

1.7 MINERAL PROCESSING AND METALLURGICAL TESTING

Based on the 2023 metallurgical testwork completed by SGS Canada Inc., Aya envisions a two-phase metal recovery process. Phase 1 is a sulphide flotation stage for recovery of Pb and Zn and partial recovery of Au and Ag. Phase 2 is an oxidation and leaching stage for recovery of Au and Ag. Oxidation of the pyrite concentrate using the Albion Process followed by cyanide leaching produced the highest precious metal recoveries. Total recoveries were 89% Ag, 85% Au, 85% Pb and 72% Zn. Next steps include continued refinement of the metallurgical testwork, particularly methods for pyrite concentrate oxidation, such as POX or roasting, and evaluation of key reagents and input parameters.

1.8 MINERAL RESOURCE ESTIMATE

The Mineral Resource Estimate (“MRE”) of the Boumadine Deposit is amenable to conventional open-pit and to underground mining methods.

The MRE contains an Indicated Mineral Resource of 5,2 Mt grading 91 g/t Ag, 2.78 g/t Au, 2.8% Zn and 0.85% Pb containing an estimated 15.1 Moz of Ag, 449 koz of Au, 145 kt of Zn and 44 kt of Pb, and an Inferred Mineral Resource of 29.2 Mt grading 82 g/t Ag, 2.63 g/t Au, 2.11% Zn, and 0.82% Pb containing an estimated 76.8 Moz of Ag, 2.4 Moz of Au, 615 kt of Zn and 237 kt of Pb, as shown in Table 1.1. The MRE has an effective date of February 24, 2025. Approximately 49% of the Inferred Mineral Resource is pit-constrained and reported above a cut-off NSR value of $95/t, and 51% is deemed for underground development and reported above a cut-off NSR value of US$125/t. The sensitivity of the out-of-pit Mineral Resource to changes in potentially economic NSR cut-off value was also calculated and the results are listed in Table 1.2.

A total of 428 drill holes totalling 142,268 m were available for Mineral Resource modelling. Mineralization models were developed by Aya and reviewed and accepted by the Authors. Forty-five individual mineralized domains were identified through drilling and surface sampling. The modelled mineralized domains are constrained by individual wireframes, based on sulphide content and a nominal 100 g/t AgEq cut-off value. Mineralized wireframes were used as hard constraining boundaries for the purposes of block coding, statistical analysis, compositing limits, and estimation of the Mineral Resources.

A rotated three-dimensional block model, with 2.5 m x 5.0 m x 5.0 m blocks, was used for the MRE. The block model consists of estimated Au, Ag, Cu, Pb and Zn grades, bulk density, block volume inclusion percent, and classification criteria. Net smelter return (“NSR”), AuEq and AgEq block values were subsequently calculated from the estimated Ag, Au, Zn, Pb and Cu grades, incorporating metal prices, metallurgical recoveries, concentrate freight and smelter charges.

Sampled assays were composited to a 1.00 meter standard length. Grades were estimated using Inverse Distance Squared (ID2) estimation, with two estimation passes. Composites were capped prior to estimation. Composite samples were selected within an oriented search ellipse, based on domain orientation and grade trends. Bulk density values specific to each mineralized domain were assigned based on bulk density measurements obtained from drill core.

Classification criteria were determined from observed grade, geological continuity and variography. Grade blocks estimated in the first pass that used a minimum of two drill holes and with an average distance between composites of <50 m were classified as Indicated, and all remaining estimated grade blocks were classified as Inferred.

Pit-constrained Mineral Resources have been estimated within an optimized pit shell for the purpose of reporting Mineral Resources and includes Indicated and Inferred Mineral Resources. The pit-constrained Mineral Resources are reported using a NSR cut-off value of US$95/t. Out-of-pit Mineral Resources are reported beneath the pit shell which exhibit historical continuity and reasonable potential for extraction by longhole mining methods. Out-of-pit Mineral Resources are reported using an NSR cut-off of US$125/t.

Table 1-1 Boumadine MRE as of February 24, 2025

Boumadine MRE as of February 24, 2025 (1-12)																	
	Cut-off NSR US$/t	Tonnes (kt)	Average Grade							Contained Metal							
			Ag (g/t)	Au (g/t)	Cu (%)	Pb (%)	Zn (%)	AgEq (g/t)	AuEq (g/t)	Ag (koz)	Au (koz)	Cu (kt)	Pb (kt)	Zn (kt)	AgEq (koz)	AuEq (koz)
Pit-Constrained																	
Indicated	95	3,920	94.3	2.99	0.13	0.84	2.95	476.5	5.3	11,881	343	5.1	33	116	60,051	667
Inferred	95	14,258	89.7	2.89	0.1	0.81	2.38	450	5	41,135	1102	14.3	115	339	206,293	2,293
Out-of-Pit																	
Indicated	125	1,249	80.1	2.11	0.08	0.87	2.32	358.2	3.98	3,216	106	1	11	29	14,382	160
Inferred	125	14,938	74.3	2.39	0.07	0.82	1.85	356.9	3.97	35,669	1,294	10.5	122	276	171,393	1,905
Total																	
Indicated	95/125	5,169	90.8	2.78	0.12	0.85	2.8	447.9	4.981	15,097	449	6.1	44	145	74,433	827
Inferred	95/125	29,196	81.8	2.63	0.08	0.82	2.11	402.4	4.473	76,804	2,396	24.8	237	615	377,686	4,198

Notes:

1. *Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. There is no certainty that Mineral Resources will be converted to Mineral Reserves.*
2. *The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.*
3. *The Mineral Resources were estimated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (the "CIM") Standards on Mineral Resources and Mineral Reserves Definitions (2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.*
4. *A silver price of US$24/oz with a process recovery of 89%, a gold price of US$2,200/oz with a process recovery of 85%, a zinc price of US$1.20/lb with a process recovery of 72%, a lead price of US$1.00/lb with a process recovery of 85%, and a copper price of US$4.00/lb with a process recovery of 75% were used.*
5. *AgEq = Ag(g/t) + (Au(g/t) *Au price/gram*Au recovery)/(Ag price/gram*Ag recovery) + Zn(%)*Zn price/lb* Zn recovery/(Ag price/gram*Ag recovery)*685.7147973 + Pb(%)*Pb price/lb* Pb recovery/(Ag price/gram*Ag recovery)*685.7147973 + Cu(%)*Cu price/lb* Cu recovery/(Ag price/gram*Ag recovery)*685.7147973*
6. *AuEq = Au(g/t) + (Ag(g/t) *Ag price/gram*Ag recovery)/(Au price/gram*Au recovery) + Zn(%)*Zn price/lb* Zn recovery/(Au price/gram*Au recovery)*685.7147973 + Pb(%)*Pb price/lb* Pb recovery/(Au price/gram*Au recovery)*685.7147973 + Cu(%)*Cu price/lb* Cu recovery/(Au price/gram*Au recovery)*685.7147973*
7. *The constraining pit optimization parameters were US$3.5/t for mineralized material mining. US$2/t for waste mining US$89/t for processing and US$6/t for G&A totalling US$95/t for a cut-off and 50-degree pit slopes*
8. *The out-of-pit parameters used a US$30/t mining cost, US$89/t processing cost and US$6/t G&A totalling US$125/t for a cut-off The out-of-pit Mineral Resource grade blocks were quantified above the US$125 NSR cut-off, below the constraining pit shell and within the constraining mineralized wireframes. Out–of-pit Mineral Resources exhibit continuity and reasonable potential for extraction by the long hole underground mining method.*
9. *Individual calculations in tables and totals may not sum due to rounding of original numbers.*
10. *Grade capping of 800 g/t Ag, 30 g/t Au, 28% Zn, 10% Pb and 1.4% Cu was applied to composites before grade estimation.*
11. *Bulk density was evaluated separately for each individual vein with values ranging from 3.20 to 4.00 t/m^3 determined from drill core samples and used for the MRE. For oxidized and transitional material, a bulk density of 2.65 t/m^3 was used.*
12. *1.0 m composites were used during grade estimation.*

Table 1-2 Cut-Off Sensitivity MRE (1-12)

Cutoff NSR US$/t	Tonnes (kt)	Ag (g/t)	Ag (koz)	Au (g/t)	Au (koz)	Cu (%)	Pb (%)	Zn (%)	AgEq (g/t)	AgEq (koz)	AuEq (g/t)	AuEq (koz)
Indicated & Inferred Out-of-Pit Resources												
145	12,476	83	33,164	2.45	985	0.07	0.91	2.03	394	157,918	4.38	1,755
140	13,331	80	34,430	2.40	1,028	0.07	0.88	1.98	384	164,578	4.27	1,829
135	14,159	79	35,820	2.34	1,064	0.07	0.87	1.96	376	170,951	4.17	1,900
130	15,098	77	37,306	2.27	1,103	0.07	0.85	1.94	367	177,957	4.08	1,978
125	16,186	75	38,885	2.21	1,148	0.07	0.82	1.91	357	185,775	3.97	2,065
120	17,311	73	40,374	2.15	1,194	0.07	0.80	1.86	347	193,392	3.86	2,150
115	18,376	71	41,803	2.09	1,235	0.06	0.79	1.83	339	200,397	3.77	2,227
110	19,289	69	42,987	2.04	1,267	0.06	0.78	1.80	332	206,197	3.70	2,292
80	20,539	68	44,787	1.98	1,306	0.06	0.77	1.77	324	213,754	3.60	2,376
Indicated & Inferred In-Pit Resources												
Cutoff NSR US$/t	**Tonnes (kt)**	**Ag (g/t)**	**Ag (koz)**	**Au (g/t)**	**Au (koz)**	**Cu (%)**	**Pb (%)**	**Zn (%)**	**AgEq (g/t)**	**AgEq (koz)**	**AuEq (g/t)**	**AuEq (koz)**
120	16,018	98	50,290	3.21	1,653	0.11	0.84	2.43	490	252,356	5.45	2,805
115	16,423	96	50,830	3.16	1,666	0.11	0.84	2.43	483	255,215	5.37	2,837
110	16,850	95	51,366	3.10	1,679	0.11	0.84	2.42	476	258,136	5.30	2,869
105	17,373	93	52,000	3.03	1,695	0.11	0.83	2.41	468	261,474	5.20	2,906
100	17,792	92	52,504	2.98	1,707	0.10	0.82	2.40	462	264,055	5.13	2,935
95	18,178	91	53,016	2.94	1,716	0.10	0.82	2.39	456	266,344	5.07	2,961
90	18,504	90	53,404	2.90	1,723	0.10	0.81	2.38	451	268,214	5.01	2,981
85	18,885	89	53,811	2.85	1,730	0.10	0.81	2.38	445	270,310	4.95	3,005
80	19,550	87	54,616	2.77	1,739	0.10	0.81	2.38	436	273,966	4.84	3,045
75	19,977	86	55,082	2.72	1,745	0.10	0.80	2.38	430	276,129	4.78	3,069
70	20,491	84	55,570	2.66	1,753	0.10	0.80	2.37	423	278,585	4.70	3,097

Notes 1-12 listed below Table 1.1.

1.9 ENVIRONMENTAL STUDIES, PERMITS AND SOCIAL OR COMMUNITY IMPACT

The Boumadine Deposit may require several permits from the Moroccan Government, and the requirement to complete an Environmental and Social Impact Assessment ("ESIA") by the Moroccan Law No. 12-03 on Environmental Impact Assessments. The ESIA will establish the comprehensive regulatory framework for the Project.

The Boumadine Mining License is a joint-venture between the ONHYM (15%) and Aya (85%). The land is understood to be held under the collective land status. In Morocco, collective lands are used for grazing, farming, forests, quarries, and land in urban and peri-urban areas. The number of traditional communities ranges from 4,500 to 5,500 ethnic groupings, comprising almost 2.5 million collectives. The legal status of collective lands is set out in a dahir dating from 1919. A national program started in 2021 to identify land rights with the intent to formalize land ownership in collective lands. These rights are managed by the Direction des affaires rurales, part of the Ministry of the Interior. Aya will establish communication with the relevant authorities at the governorate in the Province of Errachidia, in order to commence the process of establishing land agreements between Aya and the landowners.

Aya's Health and Safety, Environment and Community ("HSEC") Policy sets out clear parameters for governance during project development. The Policy requires: compliance with all laws and regulations in force in the countries where Aya operates; implementation of an environmental and social management system ("ESMS") to identify, reduce or mitigate risks to sustainable development. This ESMS will include objectives, review and corrective actions allowing continuous improvement; and, where economic or physical displacement cannot be avoided, adherence to IFC Performance Standard 5, including formal consultation throughout the process and seeking to improve the situation of households and communities.

Aya has developed a Tailings Policy, which commits to design, govern, and manage tailings in-line with industry best practice, following guidelines such as those provided by the International Commission on Large Dams, Australian National Committee on Large Dams, and Canadian Dam Association. Aya will work towards aligning its practices with industry best practices.

As per its HSEC Policy, Aya commits to developing a Mine Closure Management Plan for each of its projects, from the earliest stage of Feasibility Studies and updating the Plan regularly during the life of mine ("LoM"). In collaboration with its stakeholders, reclamation planning entails an extensive analysis of land use options, environmental factors, community development concerns and objectives, and measurable performance targets. Aya will progressively complete reclamation as part of its commitment to restore mine sites to a healthy environment. Aya begins restoring disturbed land as soon as it is no longer needed, using best available techniques and developing context-specific measures. During the LoM, Aya strives to develop local capacity and collaborate on economic diversification through community investment programs. Stakeholder engagement will include specific topics in the lead-up to closure, and Aya will complement their social baseline with a social closure impact assessment.

Aya's drive for sustainability involves adopting a precautionary approach and implementing and working on the continuous improvement of its Environmental and Social Management System ("ESMS"). The precautionary approach is the process for investigating, addressing and mitigating how the Corporation's actions could impact the environment and host communities. The ESMS is based on best practice from the International Finance Corporation Performance Standards and the European Bank for Reconstruction and Development that will help the Corporation monitor status and progress in upholding its many legal, social and environmental responsibilities. The ESMS incorporates a 'Plan, Do, Check, Act' process, thereby encouraging continuous improvement in sustainability management, and is based on the ISO 14001 environmental standard and the ISO 45001 occupational H&S standard. Aya's key HSEC policies are posted on its website (www.ayagoldsilver.com).

1.10 CONCLUSIONS AND RECOMMENDATIONS

Aya owns or controls 25 mining and exploration permits in the Boumadine Property area (272 km2) in the eastern part of the Kingdom of Morocco. Structurally-controlled, mainly silver-gold polymetallic sulphide mineralizations are currently defined in five separate zones along an approximately 5.4 kilometers strike length that together make-up the Boumadine Deposit. Additional mineralized zones and mineral occurrences are known in the area.

Additional expenditures are recommended by the Boumadine Report Authors for the following activities:

- Drilling to advance Inferred to Indicated Mineral Resources.
- Drilling down-dip to develop additional Mineral Resources at depth.
- Follow-up geological mapping, mineral prospecting, and assays.
- Development of a comprehensive bulk density model.
- Investigate grade capping thresholds by individual mineralized domain.
- Review grade anisotropy by individual mineralized domain.
- Complete a Preliminary Economic Assessment of the Boumadine Deposit.

The Boumadine Report Authors also recommend that Aya continues with the current QC protocol and monitor QC data and continue refining the metallurgical testwork for improved process recoveries.

This estimated cost of the recommended work program is US$52.3M, which includes 10% contingency (without applicable taxes) (Table 1-3).

Table 1-3: Recommended Programs and Budgets for 2025-206

Year	Item	Activity	Unit (m)	Cost Estimate (US$)
Phase 1 - 2025				
2025		Drilling (all-in costs)	140,000	22,330,000
		Administration and Management		3,000,000
		Geological Mapping, Mineral Prospecting, Assays		120,000
	Sub-Total			25,450,000
	Contingency (10%)			2,545,000
	Total - 2025			28,000,000
Phase 2 - 2026				
2026		Drilling (all-in costs)	120,000	19,140,000
		Administration and Management		3,000,000
	Sub-Total			22,140,000
	Contingency (10%)			2,214,000
	Total - 2026			24,350,000

2.0 INTRODUCTION AND TERMS OF REFERENCE

2.1 TERMS OF REFERENCE

This Technical Report on the Boumadine (also known as Boumaadine, Boumâadine, and Bou Madine) Deposit was prepared by Aya Gold and Silver Inc. (“Aya” or the “Company”) at the request of Mr. Benoit La Salle, President & CEO of Aya Gold & Silver Inc. Aya is a public, TSX listed company trading under the symbol “AYA”, with its head office located at: Suite 132, 1320 Graham, Ville Mont-Royal, Québec, H3P 3C8. This Technical Report has an effective date of May 8, 2024.

This Technical Report (“the Report”) has been prepared to provide a fully compliant NI 43-101 Technical Report and Updated Mineral Resource Estimate of the existing mineralization at the Boumadine Deposit (or the “Boumadine Property” or the “Boumadine Mining License”), located in the Kingdom of Morocco. The Boumadine Mining License is a joint venture owned by Aya (85%) and l’Office National des Hydrocarbures et des Mines (“ONHYM”) (15%) of the Kingdom of Morocco. Aya (known as Maya Gold & Silver at the time of the Acquisition Agreement) and Office National des Hydrocarbures et des Mines (“ONHYM”) signed an agreement on October 9, 2012, for the acquisition of the Boumadine Mining License. A new Moroccan company, Boumadine Global Mining (“BGM”), was created with Aya (85%) and ONHYM (15%) as shareholders. The mining title of the Boumadine Mining License was transferred to BGM by ONHYM.

The name change from Maya Gold & Silver Inc. to Aya Gold & Silver Inc. was announced in a press release dated July 30, 2020. The Updated Mineral Resource Estimate reported herein is based on up-to-date drilling results and appropriate metal pricing, and is fully conformable to the “CIM Standards on Mineral Resources and Reserves – Definitions (2014) and Best Practices Guidelines (2019)”, as referred to in National Instrument (“NI”) 43-101 and Form 43-101F, Standards of Disclosure for Mineral Projects.

2.2 SOURCES OF INFORMATION

2.2.1 Site Visit

Mr. David Lalonde, P. Geo., and VP of Exploration of AYA Gold & Silver and a Qualified Person under the terms of NI 43-101, has visited the Boumadine Property at numerous occasions between 2022 and 2025. Mr.Lalonde is a professional geologist with ~25 years of experience in mineral exploration and mining operations, including several years working in hydrothermal precious metal and polymetallic deposits.

2.2.2 Additional Information Sources

This Report is based, in part, on internal Company technical reports, and maps, published government reports, company letters and memoranda, and public information as listed in the references (Section 27) of this Report. Several sections from reports authored by other consultants have been directly quoted or summarized in this Technical Report, and are cited where appropriate.

The Authors of this Report have used selected portions or excerpts from material contained in the following NI 43-101 compliant Technical Reports, which are publicly available on SEDAR+ under Aya’s profile:

- Boily, M. 2014. The Boumadine Polymetallic (Au, Ag, Zn, Pb, Cu) Deposit, Errachidia Province, Kingdom of Morocco. Prepared for Maya Gold & Silver Inc. by Boily, Michel. Effective Date April 2, 2014. Issue Date April 2, 2014. 217 pages.
- GoldMinds Geoservices Inc. 2019. NI 43-101 Technical Report Preliminary Economic Assessment [of the] Boumadine Polymetallic Deposit, Kingdom of Morocco. Prepared for Maya Gold & Silver Inc. by Duplessis, C., Rachidi, M., Dufort, D. and Rousseau, G. Effective Date: April 24, 2019. Issue Date: May 24, 2019. 304 p.; and
- P&E Mining Consultants Inc. 2024. NI 43-101 Technical Report and updated Mineral Resource Estimate of the Boumadine Polymetallic Project, Kingdom of Morocco. Prepared for Aya Gold & Silver Inc. by

Stone, W., Brown, F., Barry, J., Yassa, A., Feasby, G. and Puritch, E. Effective Date: May 08, 2024. Issue Date: May 31, 2024. 214 p.; and

Since 2019, Aya has continued extensive mineral exploration and drilling programs. The results of these programs were disclosed publicly in numerous Aya press releases and are summarized in Sections 9 and 10 of this Report.

The Authors and Co-authors of each section of this Report are listed in Table 2.1, who in acting as Qualified Persons as defined by NI 43-101, take responsibility for those sections of this Report as outlined in the "Certificate of Author" included in Section 28 of this Report.

Table 2-1 Qualified Persons Responsible for this Report

Qualified Person	Company	Sections of Technical Report
David Lalonde, P.Geo.	AYA Gold & Silver	2 to 12 and 14 to 24, and Co-Author 1, 25, 26, 27
Patrick Pérez, P.Eng	AYA Gold & Silver	13 and Co-Author 1, 14.3, 25, 26, 27

2.3 UNITS AND CURRENCY

In this Technical Report, all currency amounts are stated in US dollars ("$") unless otherwise stated. Commodity prices are typically expressed in US dollars ("US$") and will be duly noted where appropriate. Quantities are generally stated in Système International d'Unités ("SI") metric units including metric tons ("tonnes", "t") and kilograms ("kg") for weight, kilometres ("km") or metres ("m") for distance, hectares ("ha") for area, grams ("g") and grams per tonne ("g/t") for metal grades. Platinum group metal ("PGM"), gold and silver grades may also be reported in parts per million ("ppm") or parts per billion ("ppb"). Copper metal values are reported in percentage ("%") and parts per billion ("ppb"). Quantities of PGM, gold and silver may also be reported in troy ounces ("oz"), and quantities of copper in pounds ("lb"). Abbreviations and terminology are summarized in Table 2.2 and units in Table 2.3.

Grid coordinates for maps are given in the UTM WGS 84 Zone 30 R or as longitude and latitude.

Table 2.2 Terminology and Abbreviations

Abbreviation	Meaning
$	dollar(s)
°	degree(s)
°C	degrees Celsius
<	less than
>	greater than
%	percent
3-D	three-dimensional
AAS	atomic absorption spectrometry
Actlabs	Activation Laboratories Ltd.
Ag	silver
AgEq	silver equivalency
ALS	ALS Laboratory (Australian Laboratory Services), ALS Limited
ANCOLD	Australian National Committee on Large Dams
As	arsenic
Au	gold
AuEq	gold equivalency
avg	average

Abbreviation	Meaning
Aya	Aya Gold & Silver Inc.
Ba	barium
BGM	Boumadine Global Mining
BRGM	Bureau des Recherches Géologiques et Minières
BRPM	Bureau de Recherches et de Participations Minières
BWI	ball mill work index
CaO	calcium oxide
Cd	cadmium
CDA	Canadian Dam Association
CGG	Compagnie Générale de Géophysique
CIL	carbon-in-leach
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
cm	centimetre(s)
CN	cyanide
Co	cobalt
Company, the	Aya Gold & Silver Inc.
CRI	Comité Régional d'Investissement (centre of investment)
CRM(s)	certified reference material(s)
CSA	Canadian Securities Administrators
CSAMT	controlled-source audio magnetotelluric survey
Cu	copper
d	day
D_{80}	80% passing size
DAR	Direction des Affaires Rurales
Deposit, the	Boumadine Deposit
E	east
EBRD	European Bank for Reconstruction and Development
ESMS	environmental and social management system
ESIA	Environmental and Social Impact Assessment
FA	fire assay
Fe	iron
g	gram
G&A	General and administration
g/L	grams per litre
g/t	grams of metal per tonne
GISTM	Global Industry Standard on Tailings Management
GoldMinds	GoldMinds Geoservices Inc.
ha	hectare(s)
HC	Hot Curing
HSEC	Health and Safety, Environment and Community
ICOLD	International Commission on Large Dams
ICP	inductively coupled plasma
ICP-OES	inductively coupled plasma-optical emission spectroscopy
ID	identification
ID^2	inverse distance squared
IFC	International Finance Corporation
ISO	International Organization for Standardization

Abbreviation	Meaning
ISO/IEC	International Organization for Standardization/International Electrotechnical Commission
k	thousand(s)
kg	kilogram(s)
kg/t	kilogram(s) per tonne
km	kilometre(s)
km^2	square kilometre(s)
koz	thousands of ounces
kt	kilotonne(s), thousands of tonnes
kWh/t	kilowatt hour per tonne
L	litre(s)
lb	pound(s) (weight)
LB	Lime Boiling
LCT(s)	locked cycle testwork(s)
level	mine working level referring to the nominal elevation (m RL), e.g. 4285 level (mine workings at 4285 m RL)
LoM	life of mine
M	million(s)
m	metre(s)
m^3	metres cubed
m asl	metres above sea level
Ma	millions of years
MAD	Moroccan Dirham
mag	magnetic(s)
max.	maximum
Maya	Maya Gold and Silver Inc.
mbs or MBS	metres below surface
Mg	magnesium
min.	minimum
mL	millilitre(s)
mm	millimetre(s)
Mn	manganese
Moz	million ounce(s)
MRE	Mineral Resource Estimate
Mt	million(s) tonnes per year
MTEDD	le ministère de transition énergétique et durable or minister of durable energetic transition
N	total number of observations/population size
N	north
N10	National Highway 10
NaCN	sodium cyanide
Ni	nickel
NI or NI 43-101	National Instrument or National Instrument 43-101
NN	Nearest Neighbour
NPV	net present value
NSR	net smelter return
OK	Ordinary Kriging
ONHYM	Office National des Hydrocarbures et des Mines
ORE	ORE Research & Exploration Pty Ltd.
oz	ounce(s)

Abbreviation	Meaning
P_{80}	80% passing size
P&E	P&E Mining Consultants Inc.
PAX	potassium amyl xanthate
PEA	Preliminary Economic Assessment
Pb	lead
P.Eng.	Professional Engineer
P.Geo.	Professional Geoscientist
POX	pressure oxidation
ppm	parts per million
Property, the	Boumadine Property
Q1, Q2, Q3, Q4	first quarter, second quarter, third quarter, fourth quarter of the year
QA	quality assurance
QA/QC	quality assurance / quality control
QC	quality control
R^2	the coefficient of determination
Report, the	this Technical Report
RQD	rock quality designation
S	south
S	sulphur
SEDAR	System for Electronic Document Analysis and Retrieval
SGS	SGS Canada Inc. / SGS Lakefield Research
Si	silicon
SIPX	sodium isopropyl xanthate
SODECAT	Société de Développement du Cuivre de l'Anti Atlas
SODIM	Société de Développement de l'industrie maricole
Sr	strontium
t	metric tonne(s)
t/m^3	tonnes per cubic metre
Technical Report	(this) NI 43-101 Technical Report
TEM	Transmission Electron Microscopy
TIMA-X	Tescan Integrated Mineral Analyses
TSF	tailings storage facility
TSX-V	Toronto Venture Stock Exchange
TTF	Tamerzaga-Timrachine Formation
URSTM	Unité de recherche et de service en technologie minérale
US$	United States dollars
UTM	Universal Transverse Mercator
VTEM	Versatile Time Domain Electromagnetic (survey)
W	west
w/w	weight by weight
wireframe	polygons joined together to represent a specific 3-D domain or unit
wt%	weight percent
XRD	x-ray diffraction
Zn	zinc

Table 2-3 Unit Measurement Abbreviations

Abbreviation	Meaning	Abbreviation	Meaning
µm	microns, micrometre	m^3/h	cubic metre per hour
$	dollar	m^3/s	cubic metre per second
$/t	dollar per metric tonne	m^3/y	cubic metre per year
%	percent sign	mØ	metre diameter
% w/w	percent solid by weight	m/h	metre per hour
¢/kWh	cent per kilowatt hour	m/s	metre per second
°	degree	Mt	million tonnes
°C	degree Celsius	Mtpy	million tonnes per year
cm	centimetre	min	minute
d	day	min/h	minute per hour
ft	feet	mL	millilitre
GWh	Gigawatt hours	mm	millimetre
g/t	grams per tonne	Mt	million tonnes or megatonnes
h	hour	MV	medium voltage
ha	hectare	MVA	mega volt-ampere
hp	horsepower	MW	megawatts
Hz	hertz	oz	ounce (troy)
k	kilo, thousands	Pa	Pascal
kg	kilogram	pH	Measure of acidity
kg/t	kilogram per metric tonne	ppb	part per billion
kHz	kilohertz	ppm	part per million
km	kilometre	s	second
kPa	kilopascal	t or tonne	metric tonne
kt	thousands of tonnes or kilotonnes	tpd	metric tonne per day
kV	kilovolt	t/h	metric tonne per hour
kW	kilowatt	t/h/m	metric tonne per hour per metre
kWh	kilowatt-hour	t/h/m^2	metric tonne per hour per square metre
kWh/t	kilowatt-hour per metric tonne	t/m	metric tonne per month
L	litre	t/m^2	metric tonne per square metre
L/s	litres per second	t/m^3	metric tonne per cubic metre
lb	pound(s)	T	short ton
M	million	tpy	metric tonnes per year
m	metre	V	volt
m^2	square metre	W	Watt
m^3	cubic metre	wt%	weight percent
m^3/d	cubic metre per day	yr	year

3.0 RELIANCE ON OTHER EXPERTS

3.1 INTRODUCTION

The Authors of this Technical Report have relied on the following other expert reports, which provided information regarding mineral rights, surface rights, property agreements and royalties, sections of this Report.

3.2 MINERAL TENURE AND SURFACE RIGHTS

The Authors have not independently reviewed ownership of the Property area and any underlying mineral tenure, and surface rights. The Authors have fully relied on, and disclaim responsibility for, information derived from Aya, and legal experts retained by Aya for this information through the following document:

- Dentons Morocco May 8, 2024 Legal Opinion / Boumadine Mining Title.

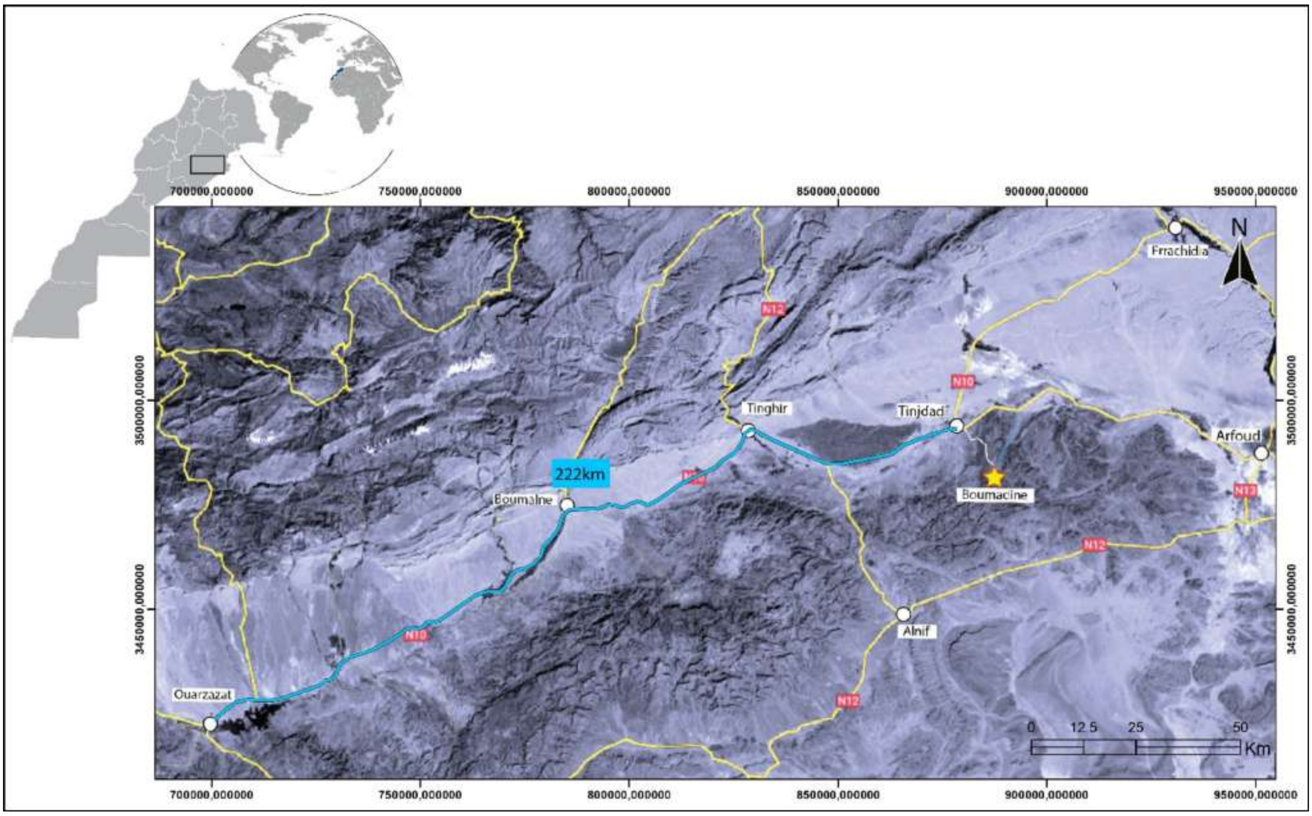
This information is used in Section 4 of this Report.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 LOCATION

The Boumadine Property is located in the Province of Errachidia, Kingdom of Morocco, approximately 220 km east of the City of Ouarzazate and 70 km southwest of the City of Errachidia (Figure 4.1). The historical Boumadine Mine is located at approximately Longitude 4°55'18" West, Latitude 31°24'40" North (and altitude 1,145 m asl), or in UTM WGS 84 Zone 30 R 317,310 m East and 3,476,770 m North.

Figure 4-1 Location of the Boumadine Property between Ouarzazate and Errachidia, Kingdom of Morocco



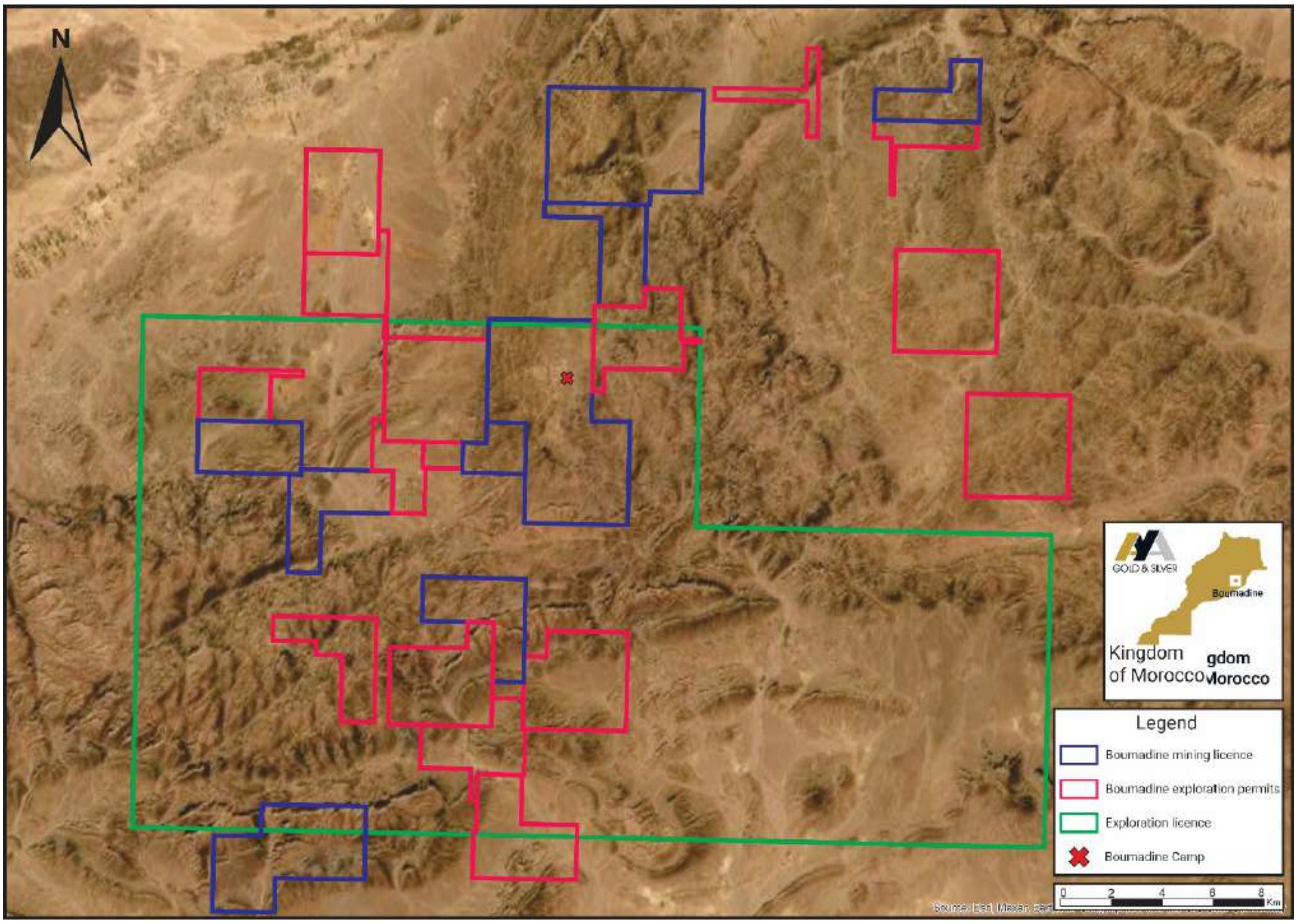
Source: *Aya (May 2024)*

4.2 PROPERTY DESCRIPTION AND TENURE

Aya’s property in the Boumadine area ("Boumadine Property") consists of 9 mining permits and 16 exploration permits totaling 272 km^2 in size. The “Boumadine Mining License”, which contain Boumadine Deposit and is the focus of the Boumadine Report, consists of mining permit LE-383661 and covers the historical Boumadine Mine, the Boumadine Camp, and the current MRE described in this Report, which total 32 km^2 in area. The additional twenty-four permits are distributed within a 25 km radius of the Boumadine Deposit and collectively cover an additional 240 km^2 in area (see Figure 4.2 and Table 4-1). In addition, an Authorization of Exploration of 600 km^2 was granted to Aya in January 2025.

In addition to its ownership of the Boumadine Mining License, Aya, through its subsidiaries, has: 100% ownership of a total of 10 mining licenses and exploration permits and; an option to earn 100% interest in 13 other mining licenses and exploration permits, as summarized in Table 4.1 below.

Figure 4-2 Land Tenure in the Boumadine Property Area



Source: *This Study*
Note: *Mineral Tenure information effective February 24, 2025.*

Table 4-1: Aya Mining and Exploration Permits in the Boumadine Property Area

Permit ID	Permit Type	Interest of Aya*	Area (km^2)	Granted	Expires
LE-383661*	Licence d'exploitation	85% ownership	31.7	17 May 2016	16 May 2026
LE-383692**	Licence d'exploitation	Option to earn 100% interest	4	14 May 2016	13 May 2026
PR-3843057**	Permis de Recherche	100% ownership	9.43	10 June 2023	9 June 2026
PR-3843332**	Permis de Recherche	100% ownership	4.7	12 October 2023	11 October 2026
PR-3843056**	Permis de Recherche	Option to earn 100% interest	15.9	10 June 2023	9 June 2026
LE-383722**	Licence d'exploitation	Option to earn 100% interest	9.5	27 September 2014	26 September 2024*
LE-383724**	Licence d'exploitation	Option to earn 100% interest	6.2	25 November 2017	24 November 2027
PR-3843342**	Permis de Recherche	Option to earn 100% interest	11.4	June 14, 2023	June 13, 2026
PR-3843372**	Permis de Recherche	100% ownership	8	8 March 2024	7 March 2027
PR-3843371**	Permis de Recherche	100% ownership	3	8 March 2024	7 March 2027
PR-3843370**	Permis de Recherche	100% ownership	4	8 March 2024	7 March 2027
PR-3843051**	Permis de Recherche	Option to earn 100% interest	16	10 June 2023	9 June 2026
PR-3843156**	Permis de Recherche	Option to earn 100% interest	11.7	14 June 2023	13 June 2026
PR-3842950**	Permis de Recherche	Option to earn 100% interest	15.6	2023-June-27	27 June 2026
LE-383657	Licence d'exploitation	Option to earn 100% interest	8	October 18, 2015	October 17, 2025
LE-383852**	Licence d'exploitation	Option to earn 100% interest	9.5	October 16, 2018	October 15, 2028
LE-383853**	Licence d'exploitation	Option to earn 100% interest	17.6	December 21, 2018	December 20, 2028
LE-383856**	Licence d'exploitation	Option to earn 100% interest	25.9	July 20, 2016	July 19, 2026
LE-383874**	Licence d'exploitation	Option to earn 100% interest	8.1	December 2, 2015	December 1, 2025
PR-3843146**	Permis de Recherche	Option to earn 100% interest	8.5	June 14, 2023	June 13, 2026
PR-3843387**	Permis de Recherche	100% ownership	8.3	June 29, 2024	June 28, 2027
PR3843388**	Permis de Recherche	100% ownership	5.7	June 29, 2024	June 28, 2027
PR-3843389**	Permis de Recherche	100% ownership	1.6	June 29, 2024	June 28, 2027
PR-3843390**	Permis de Recherche	100% ownership	14.3	June 29, 2024	June 28, 2027
PR-3843391**	Permis de Recherche	100% ownership	13	June 29, 2024	June 28, 2027

Notes : *(1) Mineral Tenure information effective February 24, 2025.*
(2) « Permis de recherche » means « exploration permit » and « licence d'exploitation » means « mining license ».
*(3) Permits marked with * are within the Boumadine Mining License and permits marked with ** are located outside the Boumadine Mining License.*
(4) Mining License LE-383722 is currently being renewed for an additional 10 years
(5) For this table, Aya means Aya or one of its subsidiaries, AGSM, ZMSM or BGM.

4.3 MINERAL TENURE IN MOROCCO

In Morocco, Mineral Tenure are attributed according to the mining code 33-13 (2013) by le ministère de transition énergétique et durable (minister of durable energetic transition or “MTEDD”). There are three types of permits:

a) Autorisation d'exploration (Authorization of Exploration). These authorizations grant the holder the right to carry preliminary exploration work within a defined perimeter. It is granted for a period of 2 years, renewable once for an additional year. The authorization provides a priority right to obtain one or more exploration permits within the same area, provided the request is submitted during the validity period of the authorization;
b) Permis de recherche (Exploration Permit). These permits grant the holder the right to conduct geological research (i.e., exploration) to identify mineral deposits within a specified area. Initially, the permit is issued for a period of 3 years and can be renewed once for an additional 4 years under specific conditions. After that period, the permit must be converted into a Mining License; and
c) Licence d’exploitation (Exploitation or Mining License). These licenses are granted once a viable mineral deposit has been discovered. They allow the holder to extract and commercialize the minerals. Mining Licenses are issued for longer durations (generally 10 years) and require compliance with environmental and safety regulations. They are renewable.

4.4 ACQUISITION AGREEMENT

On October 9, 2012, Maya and ONHYM signed a joint venture agreement for the acquisition, development and exploitation of the Boumadine Deposit. Under the terms of said agreement, Maya acquired 85% of mining license LE-383661 for total cash payments of MAD 28 million, being approximately USD 2.8 million at such time. A new Moroccan company - BGM, was created with Maya and ONHYM as 85%-15% shareholders. The mining title of the Boumadine Mining License was transferred to BGM by ONHYM. The participation of ONHYM is subject to dilution if they fail to invest 15% in the budget after Aya matches all the previous investment from ONHYM. ONHYM will receive a 3% royalty and Aya will receive a 2.75% management fee on BGM sales revenue from the first year of operation.

In addition to its ownership of the Boumadine Mining License, Aya, through its subsidiaries, has: 100% ownership of a total of 10 mining licenses and exploration permits and; an option to earn 100% interest in 13 other mining licenses and exploration permits.

4.5 ROYALTIES AND ENCUMBRANCES

Aya and ONHYM signed an agreement for the development and exploitation of the Boumadine polymetallic deposit; Aya holds 85% and ONHYM holds 15% stake in its share capital of the Boumadine Mining Licence through BGM. The participation of ONHYM is subject to dilution if they fail to invest 15% in the budget after Aya matches all the previous investment from ONHYM. ONHYM will receive a 3% royalty on BGM sales revenue from the first year of operation. Aya will receive a management fee equal to 2.75% of the revenue from BGM.

4.6 ENVIRONMENTAL AND PERMITTING

In order to convert an exploration permit to a mining permit, an environmental impact assessment needs to be submitted to the regional centre of investment (“CRI”).

Aya is committed to carrying out exploration work, Mineral Resource estimation, mine and infrastructure design work, and metallurgical testing in the next 60 months. Aya agreed to periodically inform the Regional Department of Energy and Mines and ONHYM of its work progress.

4.7 OTHER SIGNIFICANT FACTORS AND RISKS

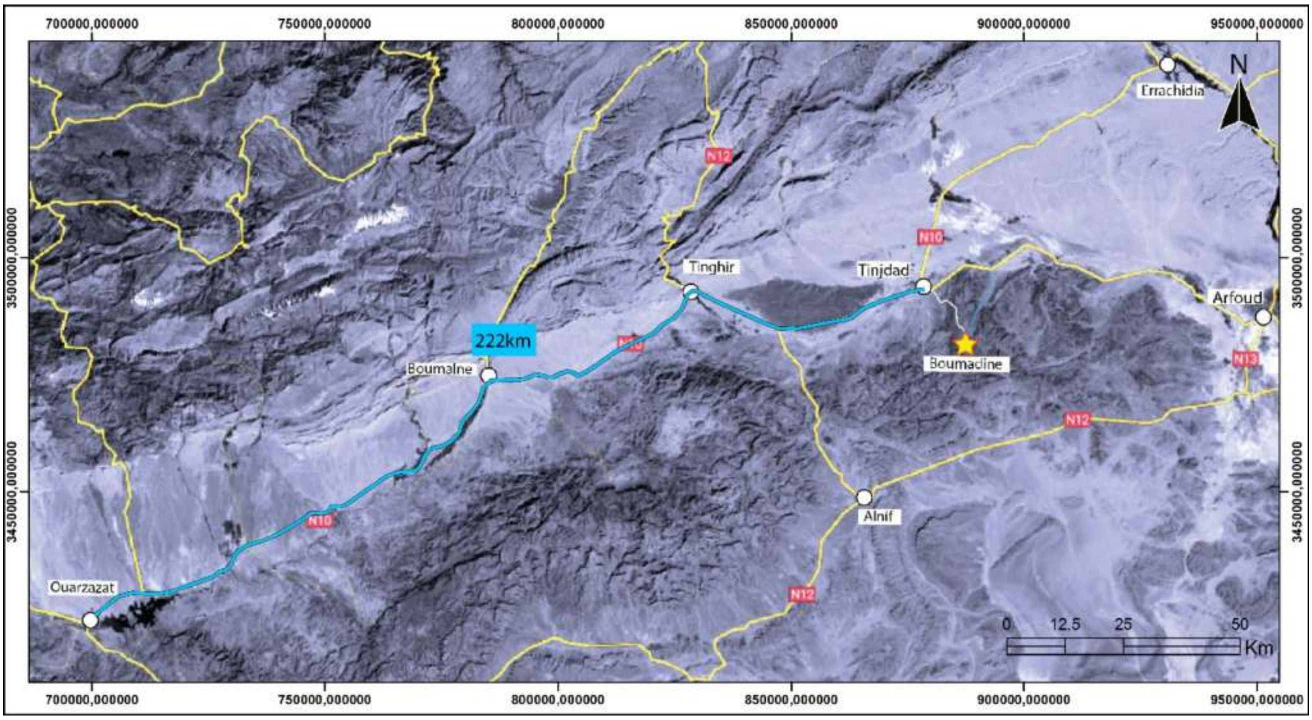
To the best of the knowledge of the Authors, there are no environmental considerations or other significant factors or risks that may affect access, title, or the right or ability to perform work on the Boumadine Property.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESS

The Boumadine Property is located in the Errachidia Province of the Meknès-Tafilalet Region, in the Anti-Atlas Mountains. It is accessible via the National Highway 10 (N10), ~220 km east-northeast from Ouarzazate City or ~70 km southwest from Errachidia City (Figure 5.1). The nearest town is Tinejdad, ~16 km north from the historical Boumadine Mine. The nearest village, Bouyoud, is 4 km away from the site. The Property is accessible from Tinejdad by all-terrain vehicle on a paved and gravel road.

Figure 5-1 Location of the Boumadine Deposit from Ouarzazate



Source: *Aya (May 2024)*

5.2 CLIMATE

The Project is located on the Ougnat massif of the Anti-Atlas Mountains. This region is separated from the influence of the Mediterranean climate by the High Atlas Mountains to the north, and therefore, shares the Sahara climate. The climate falls under the category of a hot desert climate, also known as a "hot arid climate" (Köppen climate classification BWh).

Summers are hot, with daytime temperatures exceeding 40°C (Table 5.1). Winters are generally mild, with daytime temperatures ranging from mild to warm; nighttime temperatures can drop, but freezing temperatures are uncommon. The region receives very little rainfall throughout the year; most of the rainfall occurs during the winter months. Field work at Boumadine can be performed year-round.

Table 5-1 Monthly Temperature and Precipitation Average at Tinejdad from 1991 to 2021

Monthly Temperature and Precipitation Average at Tinejdad from 1991 to 2021	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Avg. Temp. (°C)	8.6	10.6	14.9	19.2	23.1	28	31.5	30.3	25.5	20.1	13.4	9.5
Min. Temp. (°C)	1.7	3.2	7	11.2	15	19.2	22.3	22	17.9	13.3	6.9	3.4
Max. Temp. (°C)	15	17.1	21.5	25.7	29.4	34.4	38.2	36.7	31.7	25.9	19.2	15.4
Precipitation / Rainfall (mm)	8	13	9	8	9	4	2	4	9	17	12	7
Humidity (%)	40	36	29	23	21	17	14	17	25	34	41	47
Rainy Days (d)	1	1	2	1	1	1	0	1	1	2	2	1
Avg. Sun hours (hours)	9	9.6	10.6	11.6	12.3	12.7	12.6	11.9	11	10.1	9.2	8.7

Source: *climatedata.org*

5.3 INFRASTRUCTURE

The Boumadine Property can be accessed by two roads: 1) by a 16-km dirt road southwards from Tinejdad; and 2) by a 4-km dirt road from east through the Village of Bouyoud. The National Highway 10 (N10) goes through the City of Tinejdad and connects to Ouarzazate City to the west and Errachidia City to the east of Tinejdad. The nearest power line to the Property is 2.8 km away.

There are numerous dirt roads and paths that lead to former shafts and other remnants of the historical mining infrastructure. Water is currently sourced from historical underground workings and wells. The Boumadine camp and infrastructures are connected to the national electrical grid, to provide electricity.

The facilities on-site are adapted for exploration operations. They include an office, drill core shack, the Afrilabs sample preparation laboratory, drill contractor workshop, and drill contractor camp (Figure 5.2).

5.4 PHYSIOGRAPHY AND VEGETATION

The physiography of Boumadine Property is characterized by its desert setting, with influences from the nearby Atlas Mountains. The topography of the area is marked by ridges and hills mostly, with altitude ranging between 980 and 1,300 m asl (Figure 5.3a). The site and its surroundings exhibit characteristics typical of a desert landscape, with vast expanses of arid and rocky terrain.

The vegetation of the Boumadine region consists mainly of desert plants such as Acacia Raddiana and Tamarix Amplexicaul. Certain types of drought-resistant grasses may be found in the region, providing some ground cover. Oases and palm trees are a notable feature in this region (Figure 5.3b). Date palms are cultivated in this type of area.

Figure 5-2 Boumadine Site Infrastructure

Source: *Aya (April 2024)*

Figure 5-3 Physiography and Vegetation

Source: *Aya (April 2024)*

Figure 5.3 Description: a) Physiography at Boumadine; and b) Cultivated oasis near Boumadine

5.5 LOCAL RESOURCES

The Boumadine Mining Licence is in close proximity to the Ziz river, which flows through the centre of Tinejdad. The river, along with its valley, contributes to the oasis environment with palm groves, particularly date palms. Other types of agricultural activities can be found in these areas.

Group of nomads pass by the Boumadine Property with their livestock of camels or goats (Figure 5.4a). The nomad community is composed of Amazigh (Berber) people.

Historical artisanal mining activities have been recognized at several places on the Boumadine Property (Figure 5.4b). Historical extraction work focused on barite and lead veins.

Figure 5-4 Nomadic Livestock and Artisanal Activity

Source: *Aya (April 2024)*

Figure 5.4 Description: *a) Camels near the Boumadine Historical Mine Site; and b) an artisanal excavation on the Boumadine Property.*

Mine workers and other personnel are available from nearby villages or Tinejdad. The City of Errachidia (formerly called Ksar souk) is the closest major urban centre. Errachidia has an international airport with access to Casablanca and it is also accessible by road from Marrakech (~420 km away).

Basic supplies, such as food and limited accommodation, are available at Tinejdad; the larger City of Errachidia offers greater diversity in supplies. Special items must be purchased from Ouarzazate or Marrakech.

6.0 HISTORY

6.1 MINING AND EXPLORATION HISTORY

6.1.1 Antiquity and 15th to 16th Centuries

The historical Boumadine Mine is one of the oldest known mines in the Kingdom of Morocco. It was probably exploited by the Portuguese during the 15th and 16th centuries. They extracted the oxidized part of the polymetallic veins to a depth of as much as 20 m. Such workings are found along a north-south strike length of 4.2 km on the Boumadine Property.

6.1.2 BRPM: 1956 to 1964

In 1956, the Bureau de Recherches et de Participations Minières ("BRPM"), the Morocco filial of the Bureau des Recherches Géologiques et Minières ("BRGM") commenced modern exploration at Boumadine. Initially, BRPM defined three targets:

1. The north-south historical workings, ±4 km extension starting from the south area and finishing to the north at 'Imariren';
2. The N70°E veins, enriched in galena and chalcopyrite. At least five of these veins were defined over the property; and
3. The southwest-northeast 'Bou Guedoud' regional faults, which is an alignment of different intrusions.

Exploration was prioritized at the north-trending historical workings. In 1962, exploration activities increased and by the end of 1964, BRPM had completed 6,248 m of drilling and 27 m of shaft excavation at the Mining License.

6.1.3 BRPM: 1964 to 1966

In 1964, a geophysical survey testing different methods (magnetism, electromagnetism) was completed on the Mining License. The results were inconclusive.

Metallurgical testing was completed in July 1965, leading to the first economic study and the next phase of exploration, which involved underground excavation to certify probable and possible mineral reserves. Exploration workings were extended in the Central Zone, followed by mineralized material development and underground drilling. During that period, BRPM completed 1,984 m of drilling, 122 m of vertical underground development, and 859 m of horizontal underground development.

6.1.4 BRPM: 1966 to 1975

Between 1966 and 1970, the BRPM continued mineralogical, metallurgical, and economical studies. BRPM contracted the USSR agency Giprotsvetmet for an independent technical economic review. The USSR agency considered the opportunity to treat the mineralized material through a flotation, roaster, and cyanidation circuit. Their first conclusion came in 1968 and was negative, based on the remote location and low mineral resource quantity at the time.

In 1969, BRPM conducted an electromagnetism survey (Thuram) to better define extension and geometry of Boumadine polymetallic veins.

Exploration continued from 1973 to 1975. The BRPM completed an additional 7,132 m of drilling to target the Central Veins extension below underground working and to define new polymetallic veins in the northern area. A new shaft was opened in the northern area, whereas one central shaft was deepened to -150 m below surface ("MBS"). The BRPM completed 678 m of mineralized material development at the -150 mbs central level and 288 m of mineralized material development in the northern area.

6.1.5 BRPM: 1975 to 1985

From 1975 to 1981, BRMP did not conduct any exploration activities; however, exploration was resumed in 1981–1982. An infill campaign targeted a high-grade panel with 340 m of underground drifts and two shafts of 37.5 m each. Many underground channel samples were taken in the central area at that time.

Exploration continued in 1984 to help define the mineral resource of the Central Area. Additional underground workings and diamond and sludge holes were completed to define parallel polymetallic veins. Two new areas, Tizi and South Zones, were explored by two new shafts and additional underground workings.

6.1.6 SODIM: 1986 to 1989

In 1986, the society SODIM in partnership with the BRPM started industrial testwork for mining production. Between July 1986 and October 1987, SODIM treated 23,700 tonnes grading 1.38% Pb and 6% Zn; precious metals recovery was low at <30%. All materials were sourced from the -50 m level of the Central Zone.

In June 1988, the BRPM retook ownership of the Deposit to pursue industrial tests. From June 1988 to May 1989, the BRPM treated through a flotation circuit 42,785 tonnes at 1.57% Pb and 4.97% Zn. Precious metals recovery was still low; all materials were sourced from the -50 m level of the Central Zone.

In July 1989, the BRPM loaned the Project to the Société de Développement du Cuivre de l'Anti Atlas ("SODECAT") to continue production testwork.

6.1.7 SODECAT: 1989 to 1992

SODECAT re-optioned the Property in 1989 and invested in the mining infrastructure. The development of underground workings were concentrated at the -100 m level in the Central Zone and -120 m level in the South Zone. From July 1989 to August 1992, 1,570 m of surface drilling, 111 m of shaft, 1,058 m of stopes and drifts, and 187 m of raises were completed. A committee was organized in 1991 between BRPM and SODECAT to decide the future of the Project. Due to marginal profit, the decision was made to mine out high-grade stopes and cease production at the end of 1991. During their production period, the SODECAT extracted 191,000 t of mineralized material grading 0.94 wt.% Pb, 328 g/t Ag and 3.69 g/t Au from the South and Central Zones.

6.1.8 BRPM: 1993 to 1998

An electromagnetism geophysical survey was completed in 1994, results confirmed extension of polymetallic veins below -300 m below surface. The recommendation from the geophysical survey report for conducting additional deep drill holes was not followed-up.

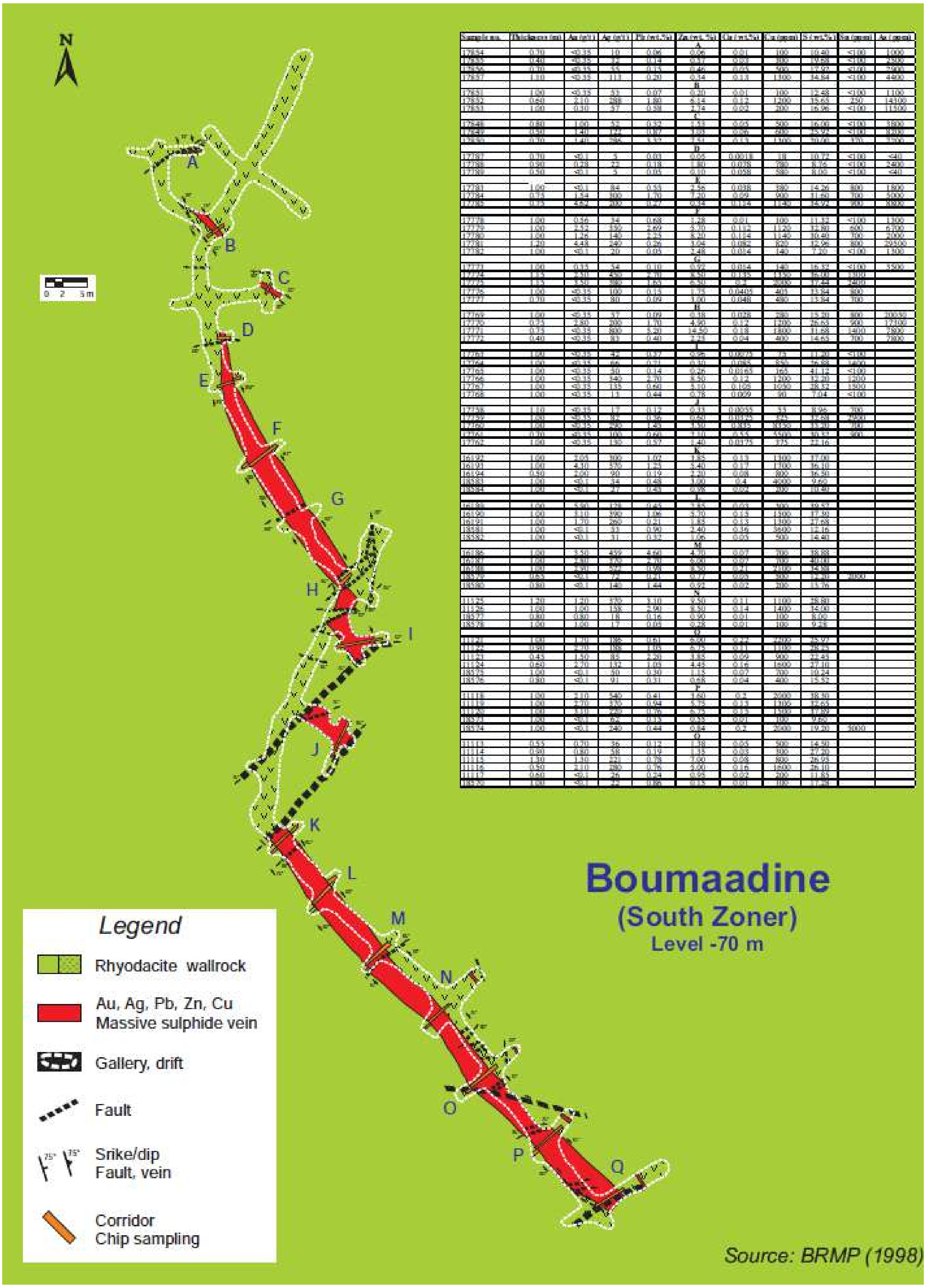
The BRPM issued its final report in 1998 summarizing all the workings completed on the Boumadine Mining License (also known as Boumaadine), including a summary of all its drilling
(Table 6.1; Figures 6.1 and 6.2).

Table 6-1 Summary of BRPM Exploration Work

Period	Diamond Holes		Shafts/Raises	Drifts
	Number	(m)	(m)	(m)
1956 to 1957	2	144	27	191
1962 to 1964	40	6,248	-	-
1964 to 1966	36	1,984	77	981
1973 to 1975	25	7,132	152	874
1981 to 1982	-	-	82	340
1984 to 1985	13	1,029	140	1,885
1989 to 1992	unknown	1,570	298	1,376

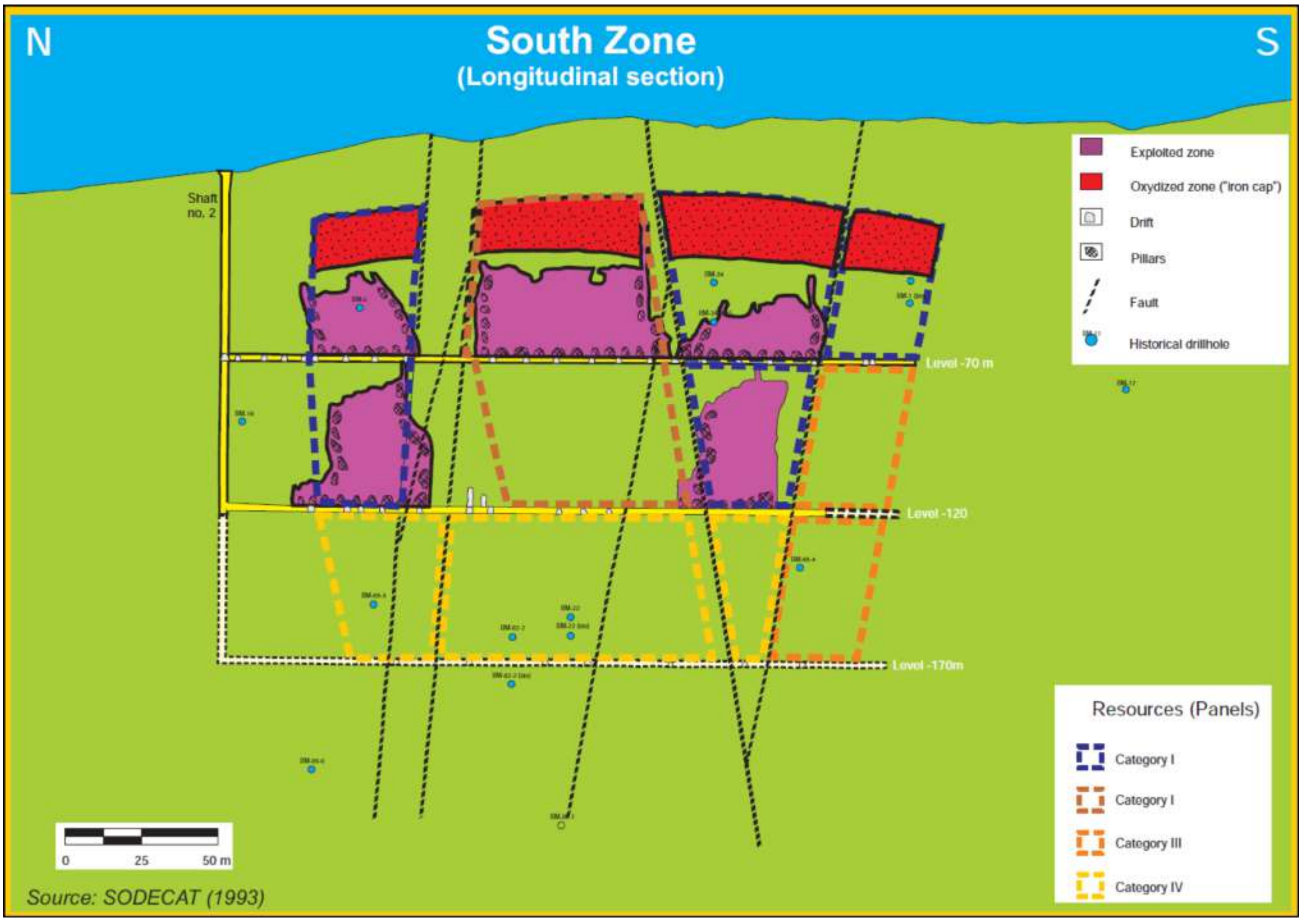
Source: Aya (April 2024)

Figure 6-1 -70 m Level Plan of South Zone, with Chip Sample Assays



Source: BRPM (1998)

Figure 6-2 Longitudinal Projection of the Principal Polymetallic Vein Mined in the South Zone



***Source**: BRPM, (1998)*

***Note:** Panels or blocks defined according to the historical mineral resource category. Category I to IV corresponds to internal BRPM mineral resource classification.*

6.1.9 Maya: 2013 to 2019

In 2013, Maya Gold and Silver Inc (Maya: former entity of Aya Gold & Silver) acquired the Boumadine Mining License through a Joint Venture with the ONHYM (new entity of the BRPM) 85%/15%, respectively.

Between 2013 and 2016, Maya only conducted surface exploration work. This included the collection of several grab samples from historical mineralized structures to investigate the historical mineral resources. Surface mapping of the mineralized structures was completed to identify targets for the surface sampling program.

In 2017, Maya conducted drilling with the objective to certify the historical mineral resource. Fourteen drill holes were completed over the Central, South and Tizi Zones for a total of 3,158 m.

The next drilling campaign was designed to increase the mineral resource at the Boumadine Deposit. Between 2018 and 2020, Maya completed 9,503 m of diamond drilling over South, Central, North, Imariren and Tizi Zones. In addition, Maya conducted a drone survey over part of the Boumadine Mining License. A summary of the drilling completed by Maya is presented in (Table 6.2).

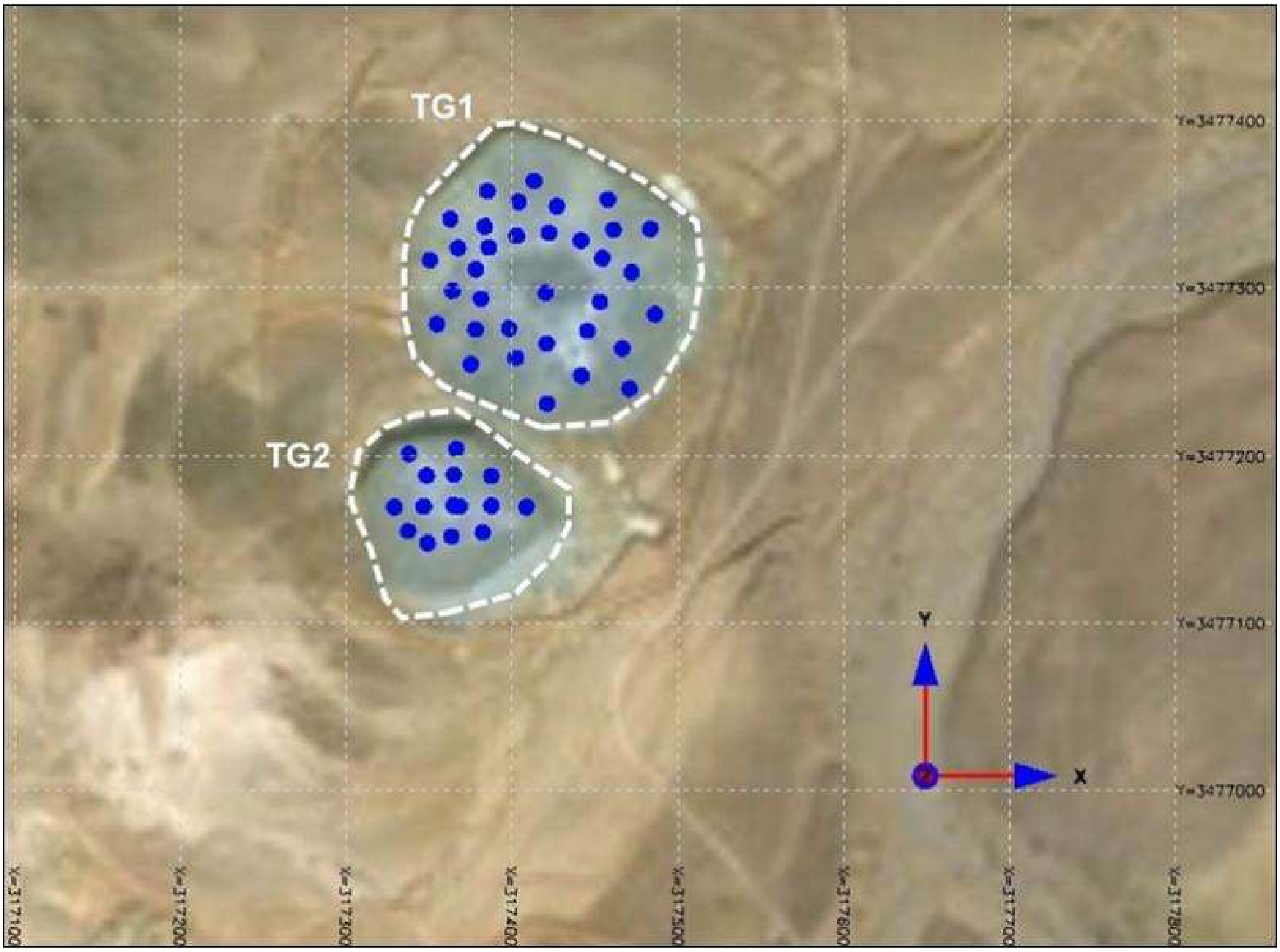
Table 6-2 Summary of Diamond Drilling Completed by Maya from 2017 to 2020

Summary of Diamond Drilling Completed by Maya from 2017 to 2020	Zone	Metres Drilled	Objective
2017	Centre	1,490.4	Historical resource and old workings verification
	Sud	1,137.6	
	Tizi	530.0	
2018	Centre	1,597.0	Check southern continuity of the vein
	Sud	608.0	
	Tizi	466.1	
	Imariren Est	804.9	Follow-up on grab samples positive results
	Imariren Ouest	1,168.4	
2019	Centre	1,446.7	Increase Imariren resource
	Imariren Est	670.8	
	Imariren Ouest	1,297.8	
	Nord	543.9	Test northern historical resource
2020	Nord	899.0	Increase Zone Nord resource
Total		12,661.0	

Source: *Aya (April 2024)*

In 2018, a sampling campaign was completed over two historical tailing deposits. A soil core sample were taken every meter in 49 holes for a total of 186.63 m (Figure 6.3).

Figure 6-3 Location of Soil Core Samples Completed by Maya in 2018



Source: *GoldMinds (2019)*

6.2 GEOPHYSICAL SURVEYS

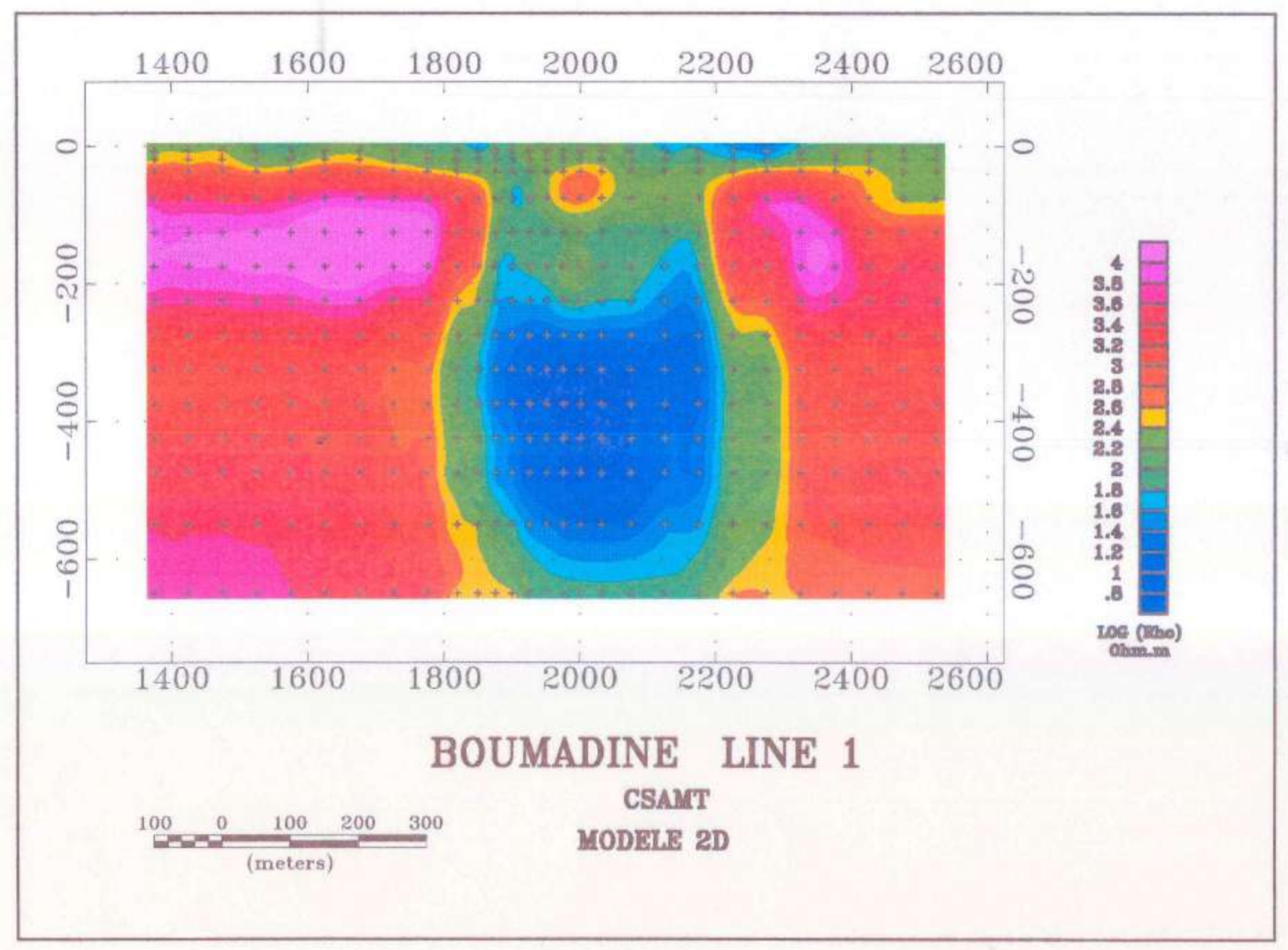
BRPM completed several geophysical surveys over the Boumadine Property (Table 6.3). Electromagnetic surveys delivered results that helped to better define polymetallic veins extension on surface (Figure 6.4).

Table 6-3 Geophysical Surveys Completed by BRPM

Years	Type
1964	Self Potential
	Seismic
	Resistivity
1974	Electromagnetic - TURAM
1985	Electromagnetic - TURAM
1990	Electromagnetic - TURAM
	Electric - Self Potential
	Induced Polarization
1994	Electromagnetic CSAMT & TEM

Source: *Aya (April 2024)*

Figure 6-4 2-D Section of a CSAMT Survey*



Source: *BRPM (1994)*
**** CSAMT*** *= controlled-source audio magnetotelluric survey*

6.3 PAST PRODUCTION

BRPM published a summary of production figures in 1998 (Table 6.4), including flotation results (Table 6.5) and metallurgical recoveries (Table 6.6).

Table 6-4 Tonnes Extracted

Period	Location	Tonnes
1986–1987	Central level -50	22,355
1988–1989	Central level -50	48,130
1989–1992	Central level -50 & -100	132,000
1989–1992	South - level 70 & -120	59,000
Total		261,485

Source: *BRPM (1998)*

Table 6-5 Flotation Results

Flotation Results		Zn Concentrate		Grade - Rejects	
Pb (%)	41.6	Zn (%)	44.5	Pb (%)	0.21
Ag (g/t)	4,711	Ag (g/t)	565,000	Zn (%)	0.96
Au (g/t)	24.6	Au (g/t)	3.7	Ag (g/t)	125
				Au (g/t)	2.38

Source: *BRPM (1998)*

Table 6-6 Metallurgical Recovery by Concentrate Type

Metallurgical Recovery by Concentrate Type	Pb	Zn	Ag	Au
Pb Concentrate	69.08%	-	32.01%	13.52%
Zn Concentrate	-	77.04%	18.03%	9.53%

Source: *BRPM (1998)*

6.4 HISTORICAL MINERAL RESOURCE ESTIMATES

The Authors are unable to verify the historical mineral resource estimates, as the supporting data are incomplete, they were not prepared by an independent party, and all predate the requirements set forth in NI 43-101. The historical mineral resource estimates are relevant in that they provide historical context and a framework on which to plan work programs to define NI 43-101 compliant Mineral Resources or Mineral Reserves. Aya is not treating the historical mineral resource estimates as current Mineral Resources, and therefore they cannot be relied on and may not be indicative of future mining a Boumadine.

6.4.1 BRPM

BRPM produced several mineral estimates during its tenure; however, none of these mineral estimates were reported in compliance with NI 43-101 or other internationally recognized reporting standards. The final BRPM mineral resource was reported in 1998 and included mining depletion (Table 6.7).

Table 6-7 Boumadine Deposit 1998 Mineral Resource Report

Boumadine Deposit 1998 Mineral Resource Report	Tonnes	Au (g/t)	Ag (g/t)	Zn (%)	Pb (%)
Certain	280,775	3.17	171	3.60	0.70
Very Probable	267,670	2.27	155	3.27	1.02
Probable	231,230	1.06	175	3.03	0.86
Possible	450,000	1.52	95	3.51	1.05

Source: *(BRPM (1998)*
Note: **BRPM internal classification categories, not NI-43-101 compliant*

The work was completed prior to the implementation of current NI 43-101 standards, does not conform to present-day standards, and should not be relied upon. The Authors have not completed sufficient work to classify the historical mineral resource estimates as current Mineral Resource Estimates. Aya is not treating the historical mineral resources as current Mineral Resource Estimates, and they should not be relied upon.

6.4.2 Maya 2019 PEA

Maya commissioned GoldMinds Geoservices Inc. (GoldMinds) to complete a Preliminary Economic Assessment (“PEA”) for the Boumadine Deposit. The PEA was reported in May 2019 with an effective date of April 24, 2019.

6.4.3 P&E 2024 MRE

On behalf of Aya, P&E prepared a Mineral resource Estimate for the Boumadine Deposit. The MRE was published on May 8, 2024 with an effective date of February 23, 2024 (ref Table 6-8).

Table 6-8 Boumadine MRE as of April 15, 2024 (1-12)

Class	Cut-off NSR US$/t	Tonnes (kt)	Average Grade							Contained Metal						
			Ag (g/t)	Au (g/t)	Cu (%)	Pb (%)	Zn (%)	AgEq (g/t)	AuEq (g/t)	Ag (koz)	Au (koz)	Cu (kt)	Pb (kt)	Zn (kt)	AgEq (koz)	AuEq (koz)
Pit-Constrained																
Indicated	95	995	145	2.71	0.2	1.6	5.9	634	7.4	4,647	87	2	16	59	20,299	237
Inferred	95	8,474	103	2.97	0.1	0.8	2.5	475	5.54	28,087	808	8	67	215	129,478	1,510
Out-of-Pit																
Indicated	125	1,046	82	2.33	0.1	0.6	2.8	402	4.69	2,751	78	1	6	29	13,533	158
Inferred	125	15,096	76	2.42	0.1	0.9	2.2	389	4.53	36,653	1,175	11	131	330	188,663	2,198
Total																
Indicated	95/125	2,042	113	2.51	0.1	1.1	4.3	515	6.01	7,398	165	3	22	88	33,832	395
Inferred	95/125	23,569	85	2.62	0.1	0.8	2.3	420	4.89	64,740	1,983	19	198	546	318,141	3,708

Notes:

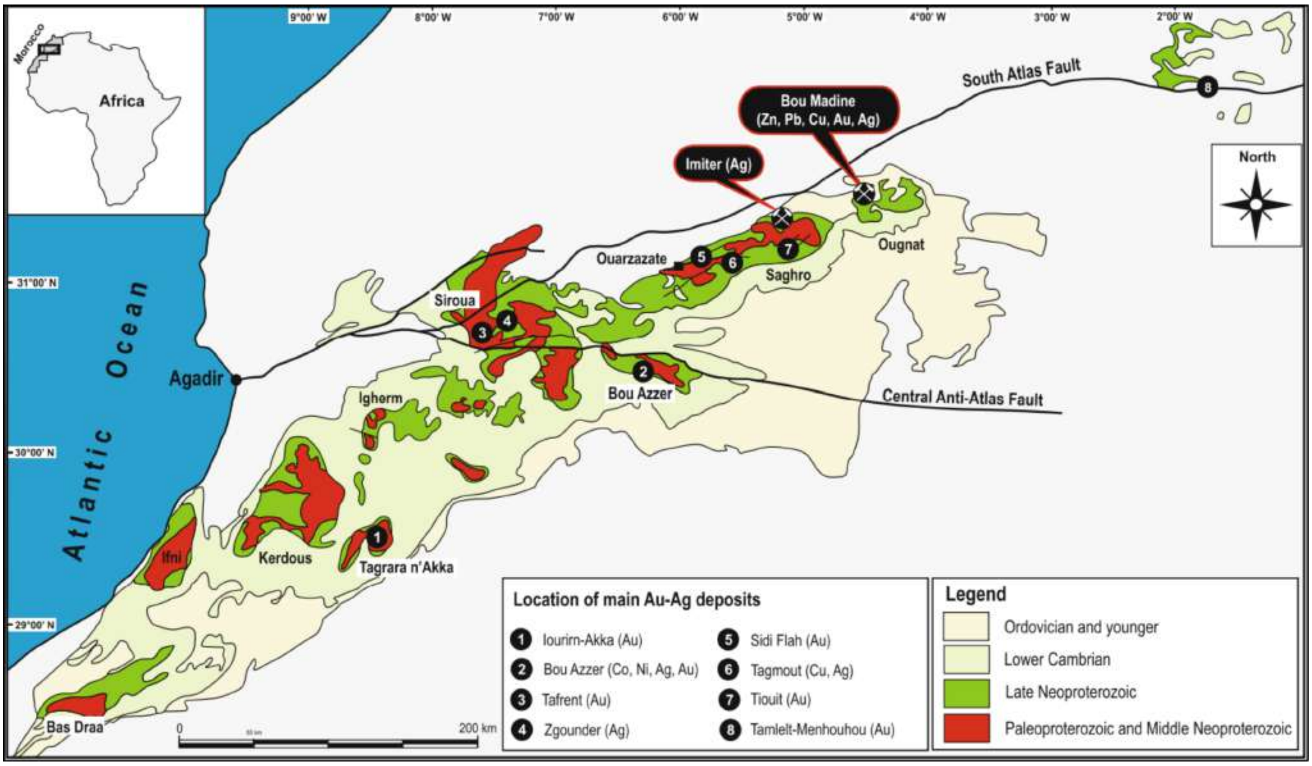
1. *Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. There is no certainty that Mineral Resources will be converted to Mineral Reserves.*
2. *The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.*
3. *The Mineral Resources were estimated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (the "CIM") Standards on Mineral Resources and Mineral Reserves Definitions (2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.*
4. *A silver price of US$21/oz with a process recovery of 89%, a gold price of US$1,900/oz with a process recovery of 85%, a zinc price of US$1.20/lb with a process recovery of 72%, a lead price of US$1.00/lb with a process recovery of 85%, and a copper price of US$4.00/lb with a process recovery of 75% were used.*
5. *AgEq = Ag(g/t) + (Au(g/t) *Au price/gram*Au recovery)/(Ag price/gram*Ag recovery) + Zn(%)*Zn price/lb* Zn recovery/(Ag price/gram*Ag recovery)*685.7147973 + Pb(%)*Pb price/lb* Pb recovery/(Ag price/gram*Ag recovery)*685.7147973 + Cu(%)*Cu price/lb* Cu recovery/(Ag price/gram*Ag recovery)*685.7147973*
6. *AuEq = Au(g/t) + (Ag(g/t) *Ag price/gram*Ag recovery)/(Au price/gram*Au recovery) + Zn(%)*Zn price/lb* Zn recovery/(Au price/gram*Au recovery)*685.7147973 + Pb(%)*Pb price/lb* Pb recovery/(Au price/gram*Au recovery)*685.7147973 + Cu(%)*Cu price/lb* Cu recovery/(Au price/gram*Au recovery)*685.7147973*
7. *The constraining pit optimization parameters were US$3/t for of mineralized material mining. US$2/t for waste mining US$89/t for processing and US$6/t for G&A totalling US$95/t for a cut-off and 50-degree pit slopes.*
8. *The out-of-pit parameters used a US$30/t mining cost, US$89/t processing cost and US$6/t G&A totalling US$125/t for a cut-off The out-of-pit Mineral Resource grade blocks were quantified above the $125 NSR cut-off, below the constraining pit shell and within the constraining mineralized wireframes. Out–of-pit Mineral Resources exhibit continuity and reasonable potential for extraction by the longhole underground mining method.*
9. *Individual calculations in tables and totals may not sum due to rounding of original numbers.*
10. *Grade capping of 800 g/t Ag, 30 g/t Au, 28% Zn, 10% Pb and 1.4% Cu was applied to composites before grade estimation.*
11. *Bulk density was evaluated separately for each individual vein with values ranging from 3.20 to 4.00 t/m^3 determined from drill core samples and used for the MRE. For oxidized and transitional material, a bulk density of 2.65 t/m^3 was used.*
12. *1.0 m composites were used during grade estimation.*

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY

The Boumadine Property is located at the eastern end of the Anti-Atlas Mountain Range, which extends east-northeast to west-southwest, over approximately 600 kilometers from the Atlantic Ocean in the west to the interior of the African Plate in the east (Figure 7-1). The Anti-Atlas basement rocks are mainly Neoproterozoic in age and consist of ophiolites, island arc-related gneiss and intrusive rocks, particularly near to the northern edge of the West African Craton.

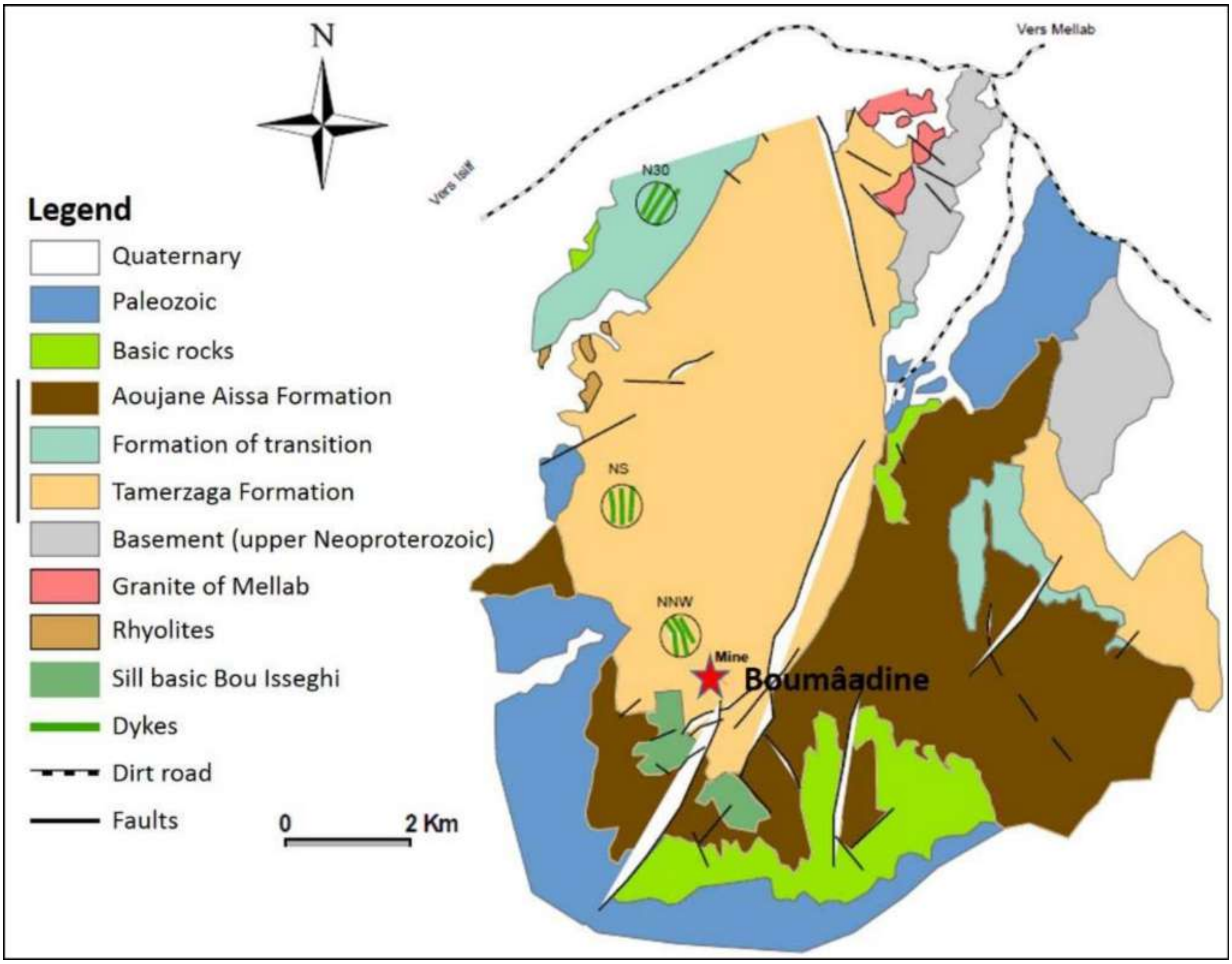
Figure 7-1 The Regional Geology of the Anti-Atlas Displaying Proterozoic Windows



Source: *Boily (2014)*
Note: *Boumadine is also known as Bou Madine*

The Boumadine polymetallic deposit (Ag, Au, Pb, Cu, Zn) is located on the northwest side of the Ougnat Massif (or Boutonnière). The geology of the Massif consists of a Neoproterozoic metasedimentary basement overlain unconformably by a Late Neoproterozoic volcano-sedimentary rock sequence and by Paleozoic lacustrine sedimentary and minor volcanic rocks. The basement consists of sandstone, pelites and greywackes that are intruded locally by granite, granodiorite, and diorite bodies. The volcano-sedimentary sequence consists of felsic and mafic volcanic rock units separated by volcano-sedimentary units (Figures 7.2 and 7.3).

Figure 7-2 Geology of the Ougnat Massif



Source: *Boily (2014)*
Note: *Boumadine is also known as Boumâadine*

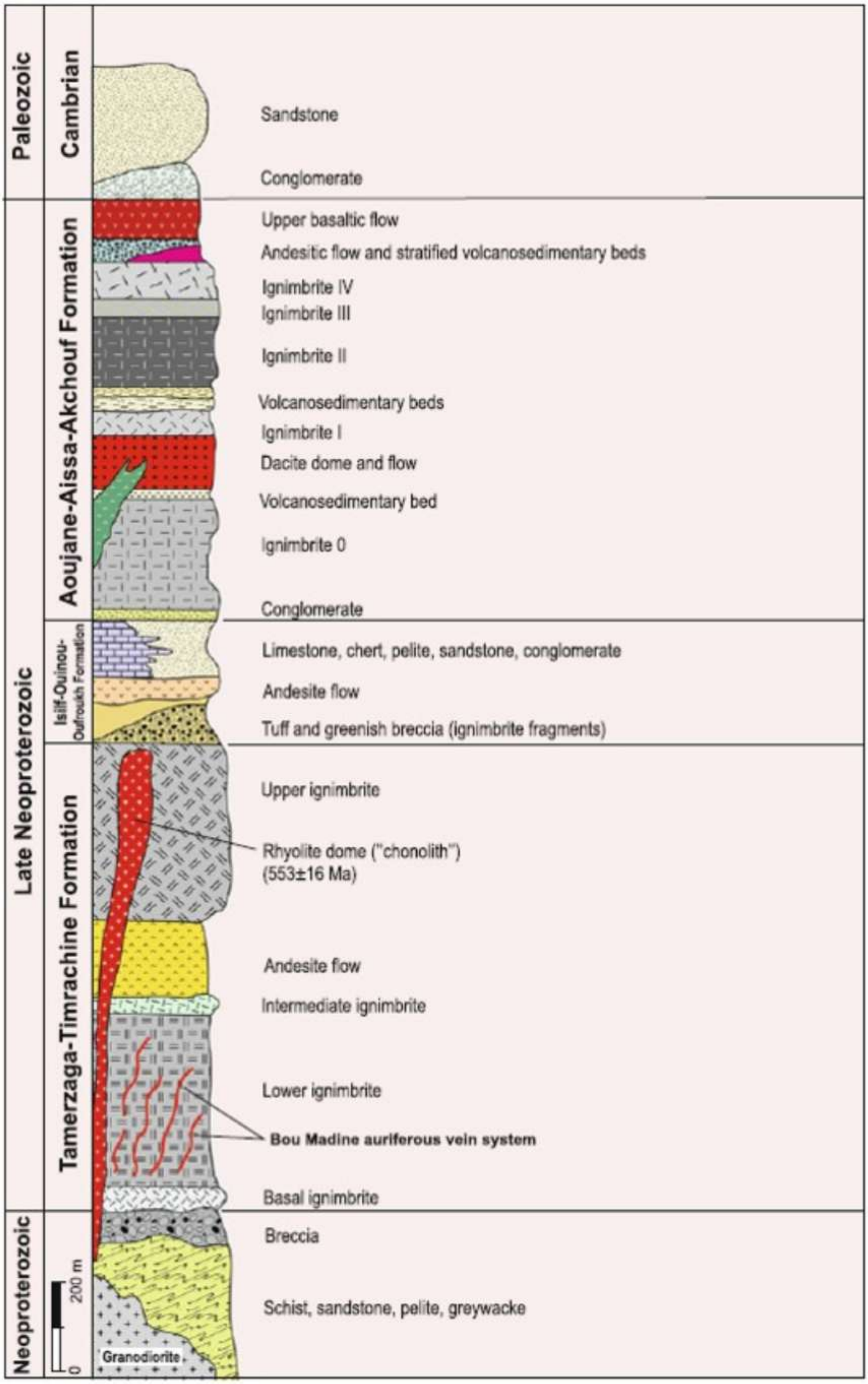
The volcanic and volcano-sedimentary rock unit have been grouped into three formations (Figure 7.3), which from the oldest to youngest are:

1. Tamerzaga-Timrachine Formation ("TTF"): Consists of ignimbrites, rhyodacites and andesites;
2. Isilf-Ouinou-Oufroukh Formation ("IOF"): Consists of volcano-sedimentary rocks, specifically tuffs and breccia, andesitic flows; and fine- to coarse-grained sedimentary rocks; and
3. Aoujane-Aissa-Akchouf Formation ("AAA"): Formed of ignimbrites, dacite domes and flows, and andesitic flows.

These three Formations are intruded by dolerite, microdiorite and andesite dykes. At the historical Boumadine Mine, only the andesite dykes are present and trend north-south.

The Ougnat Massif area was subjected to a Neoproterozoic shearing, which generated regional-scale faults trending N30°E and associated secondary fractures. The area has also been affected by a late-stage series of north-south extensional fractures that were subsequently reactivated by a compressive Hercynian tectonic event.

Figure 7-3 Schematic Stratigraphic Column of the Central Ougnat Massif



Source: *Modified by Bouabdellah and Levresse (2016) from Paile (1983)*

7.2 PROPERTY GEOLOGY

7.2.1 Volcanic and Intrusive Rocks

The TTF volcaniclastic sequence of felsic tuffs and mafic tuffs host the Boumadine Deposit (Figures 7.3 and 7.4). The felsic tuffs consist of angular to rounded cm-size felsic fragments, quartz eyes, plagioclase grains, and locally mafic fragments. This felsic sequence is homogeneous and massive, and sits unconformably on mafic tuffs. Mafic tuffs consist of amphibole and fragments/clasts of sedimentary rocks. Mafic tuffs are interpreted as underwater-deposited volcaniclastic eruptives.

Many intrusions are observed on the Boumadine Property. The intrusions are divided into a pre-to syn-mineralization group and a post-mineralization group. The pre- to syn-mineralization intrusions are mainly felsic to intermediate in composition, show aphanitic to porphyritic textures, and form dykes and sills. Locally porphyritic mafic dykes, similar in composition to mafic tuffs, cross cut the felsic tuff sequence and syn-mineralization dykes, suggesting bimodal magmatism.

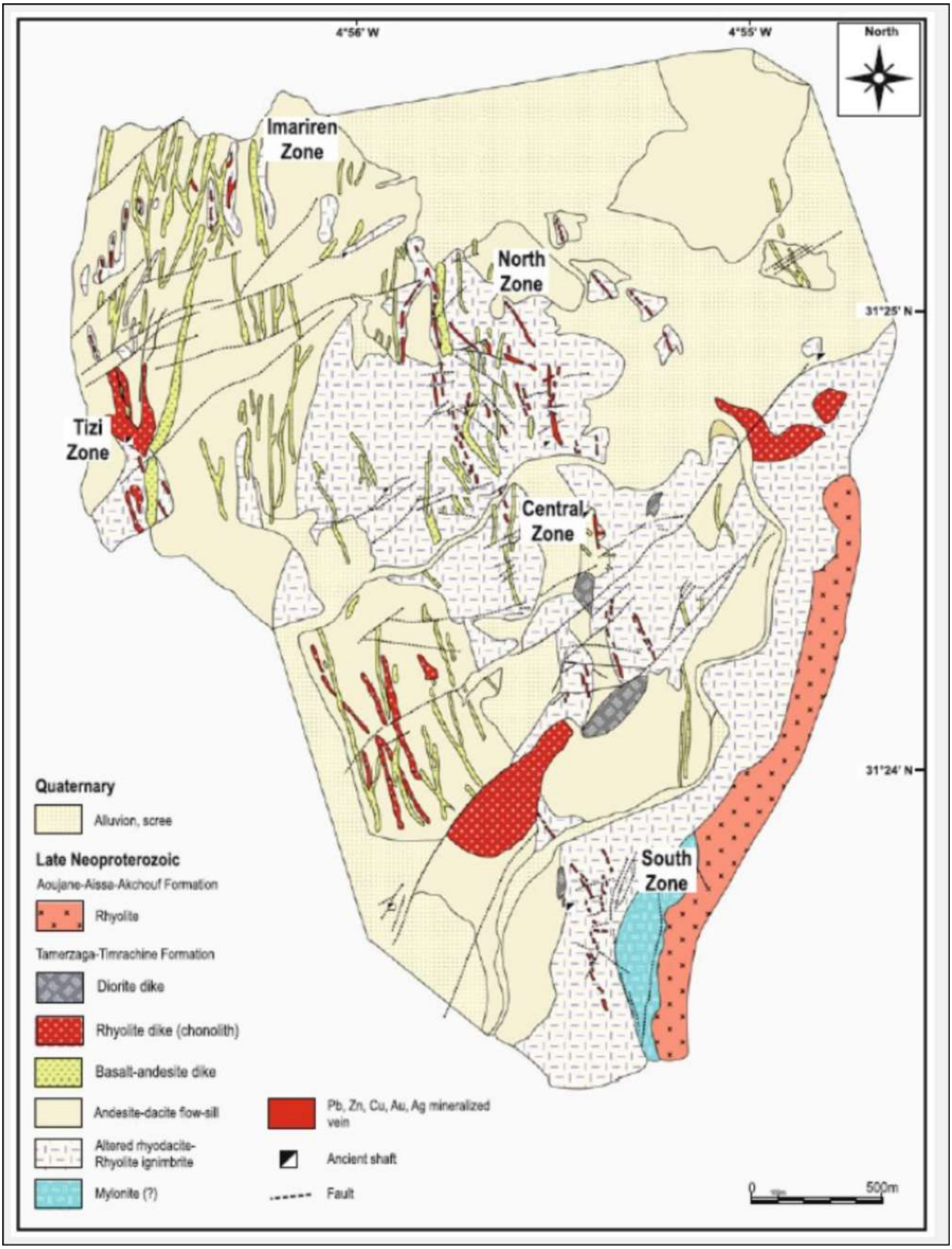
The post-mineralization intrusions consist of rhyolite subvolcanic domes associated with normal faults. These domes are interpreted as being synchronous with a post-mineralization deformation episode that disrupted the Boumadine mineralized zones. Subsequently, a swarm of regionally extensive mafic dykes intruded every lithological unit on the Property.

7.2.2 Hydrothermal Alteration

Two events of hydrothermal alteration are observed on the Mining License. The first alteration event affects the felsic tuff sequence as phyllic alteration (quartz-sericite-pyrite). Proximal to massive sulphide veins (1 to 5 m thick), there is an advanced clay alteration composed of kaolinite and pyrophyllite.

The second sequence of alteration affects mainly the underlying mafic tuffs and consists of propylitic alteration (epidote and chlorite). Near the veins, the alteration minerals are black chlorite, pyrophyllite and pyrite. The transition between these two alteration events is relatively sharp and consistent with the change in tuff composition.

Figure 7-4 Boumadine Mining License Geology Map



Source: *Aya website (April 2024)*

7.2.3 Structure

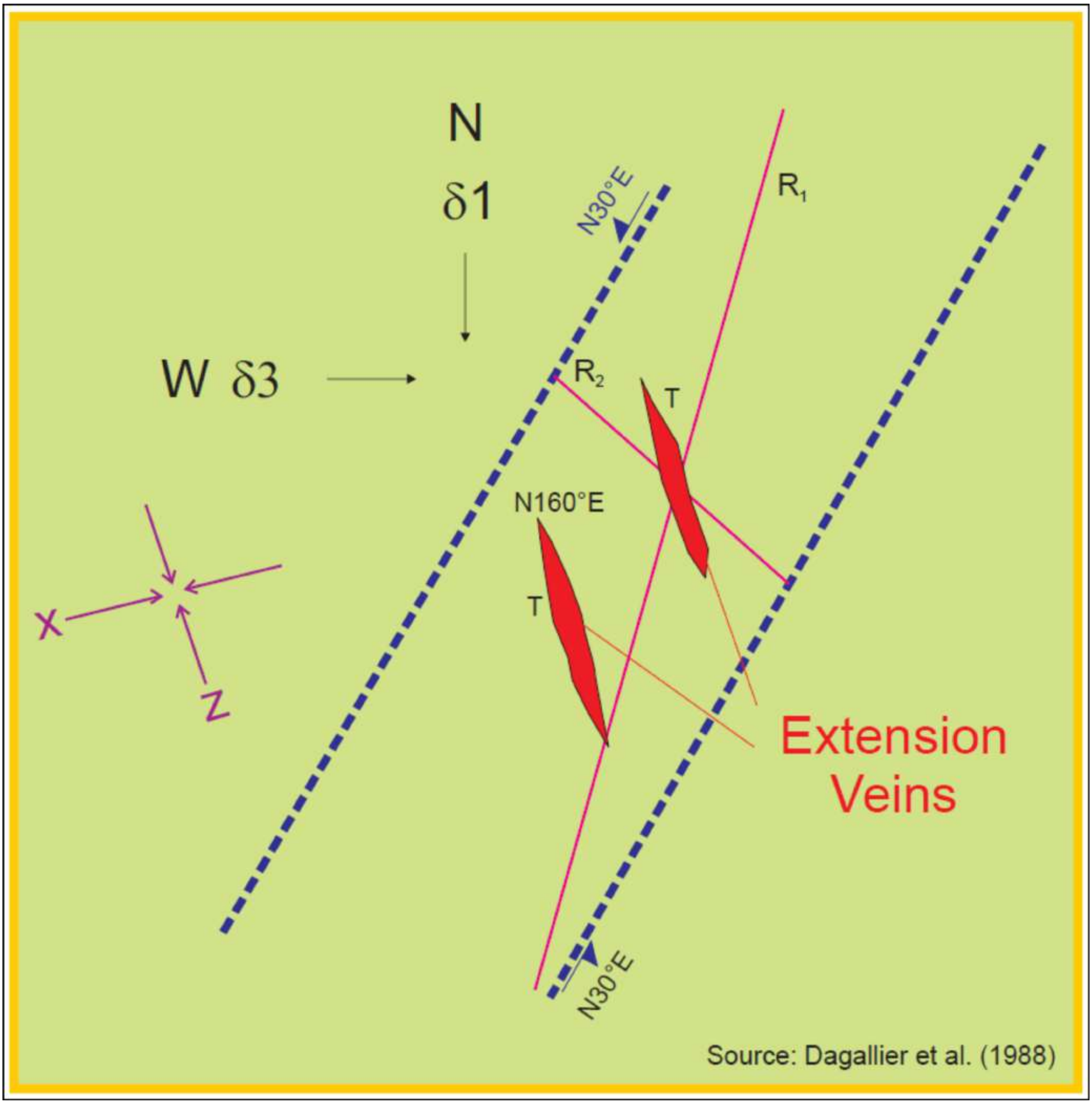
This section is summarized largely from Boily (2014).

The most important structures in the Boumadine Mining License are represented by km-scale N30°E-oriented faults, limiting several tectonic blocks in the Ougnat Massif and potentially corresponding to tectonic movement of basement rocks. These faults, associated with tectonic breccias, first manifested normal-sinistral movement (striae with a N30°E/ 0–15°S plunge), and subsequently re-activated as normal faults. The tectonic fractures correspond either to normal faults associated with a north-northeast to south-southwest-oriented tension gash or N160°E tension gash controlling the emplacement of the andesite dykes, "chonolith" rhyolites, and polymineralized Boumadine veins (Figure 7.5). These features correspond to the shortening direction associated with the early sinistral activity on the N30°E faults (Abia et al., 2003), as represented by the patterns of dykes distributed in "en-echelon arrays" in potential conjugate shear zones developed along N10°–30°E and N130°–140°E directions. The movements along the N30°E sinistral faults induced shearing associated with the opening of a collapsing basin and extension during emplacement of the TTF.

Some felsic and andesite dyke swarms strike N0°–N30°E, at variance with the N160°E strike of earlier andesite dykes. The emplacement of these dyke swarms is likely related to the reactivation of the early N30°E faults as normal brittle faults (associated with brecciation) that represent tension cracks. At Boumadine, ductile shear-zones striking N150°E developed C/S structures with a schistosity trending N135°E, consistent with dextral movement under N30°–N40°E shortening direction (Abia et al., 2003). These shear zones developed in corridors already affected by a strong pyrophyllitization and syn- and late-kinematic pyrophyllite veinlets occur within the shear-zones coeval with the shearing (Figure 7.6). The shearing overprinted late rhyolite domes and andesite dykes (Ait Sasdi, 1992), and the shear-zones are sealed by the upper basalt flows
(Freton, 1988). Thus, a return to compressional regime tectonics occurred at the end of the Late Proterozoic.

During the Phanerozoic era (Variscan period), reactivation of some N30°E-oriented faults as reverse faults occurred in relation with doming of the Proterozoic basement and the overlying Paleozoic cover. Cu–Pb–Zn mineralized quartz-carbonate veins were emplaced in N75°E fractures in Paleozoic and Proterozoic terrains. These veins correspond to the Imariren-type mineralization of Abia et al. (1999) and fill tension joints associated with N45°E and N105°E conjugate faults. N40°–50°E-oriented brittle faults dextrally displace the "pyrophyllite shear-zones" (up to tens of metres) and the polymetallic mineralized veins.

Figure 7-5 Stress Distribution in a Sinistral Shear Zone



Source: *Boily (2014)*

Figure 7.5 Description*: Z = maximum shortening; X = maximum elongation; R1-R2 = conjugated Reidel system; T = extension gash; δ1 = maximum stress during deformation; δ3 = minimum stress during deformation.*

Figure 7-6 Interpreted Traces of N150°E-Trending Shear Zones

Source: *Boily (2014)*
Figure 7.6 Description: *Dextral shear zones developed in corridors previously affected by strong pyrophyllitization.*

7.2.4 Supergene Weathering

Due to the extensive weathering to clay minerals, the Boumadine Deposit has a very light colour that contrasts with the surrounding landscape. The mantos, "chapeau de fer" or "iron cap" alteration extends from 5 to 10 meters depth. The mantos consists principally of goethite and jarosite with sparse hematite and no lepidochrosite. This mineralogical assemblage indicates that the oxidation fluids were strongly acidic. In this case, Mn, Zn, Cd, Ni, Co, Pb are highly mobile in the acid and sulphur-rich fluids and are commonly leached at surface. However, Ag, Au, Ba, Sr and Pb are immobile and form stable sulphosalts. The hydroxide-rich "mantos" has been partially mined out by artisanal workers for ochre and precious metals (Figure 7.7).

Figure 7-7 Oxidized Mineralized Vein at the Central Zone

Source: *Boily (2014)*

7.3 DEPOSIT GEOLOGY

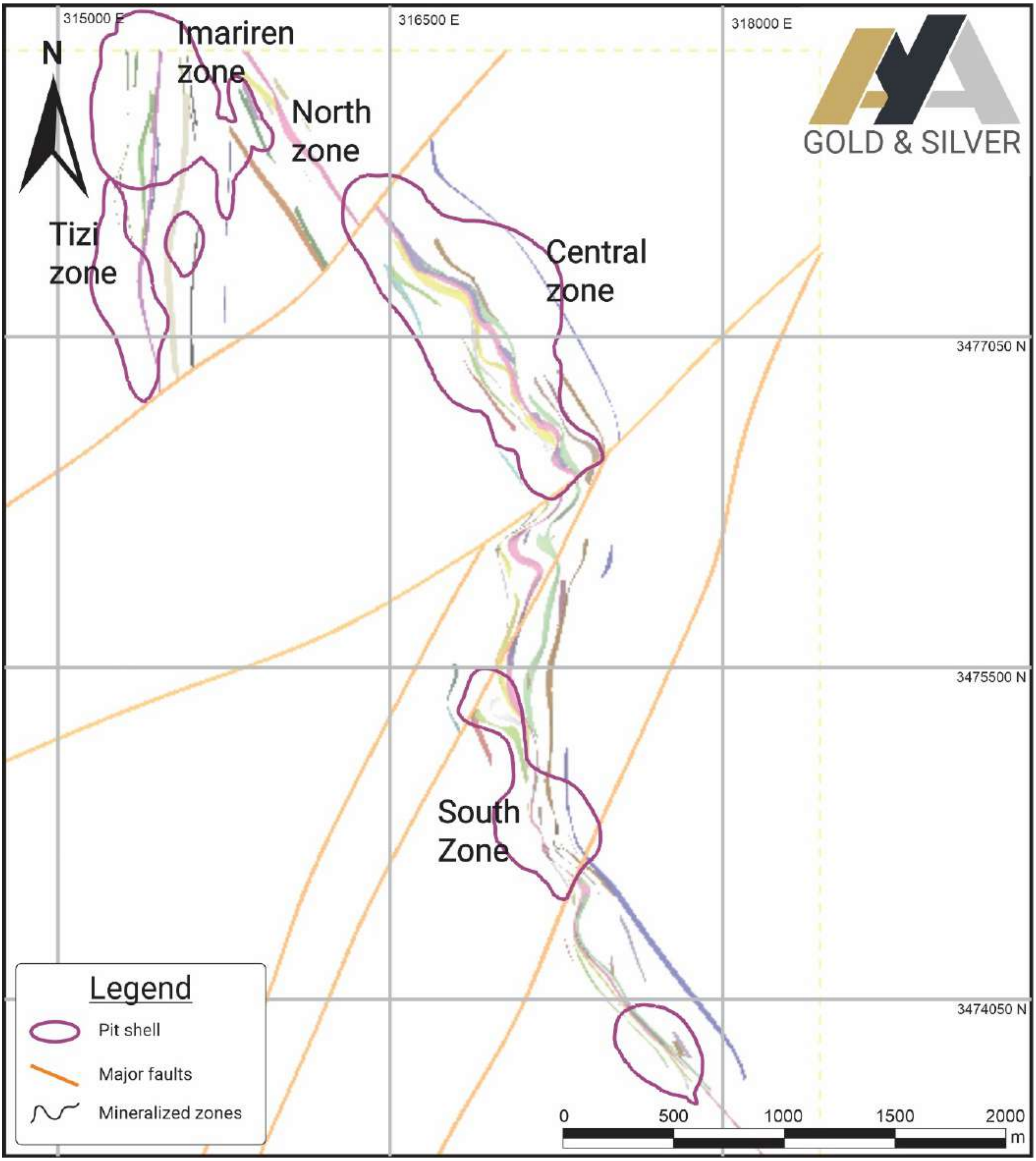
The Boumadine Deposit has been traced on surface and in drilling as a curvilinear vein system for ~5,400 m along strike (Figure 7.8). Strike direction varies from mainly northwest to northerly and dip from steeply northeast to steeply southwest (Figure 7.9).

The Deposit consists of 45 mineralized domains that have been grouped into five separate zones. The South and Central Zones consist of up to 13 stacked mineralized vein domains. From the south end of the South Zone to the north end of the Central Zone, these domains extend for 4,800 m along strike, as much as 300 to 400 m across strike and a maximum of 1,000 m down-dip. The south end of the South Zone appears to be open to expansion by drilling along strike to the south. The South Zone appears to be offset dextrally along a northeast-trending fault from the Central Zone. The north end of the Central Zone appears to be offset sinistrally along a northeast-trending fault from the North Zone.

The North Zone consists of eight closely-spaced mineralized vein domains. This Zone is 650 m long, 5 to 10 m in thickness and 500 m down-dip. It strikes northwest and dips steeply southwest. The North Zone appears to be truncated by the Imariren Zone.

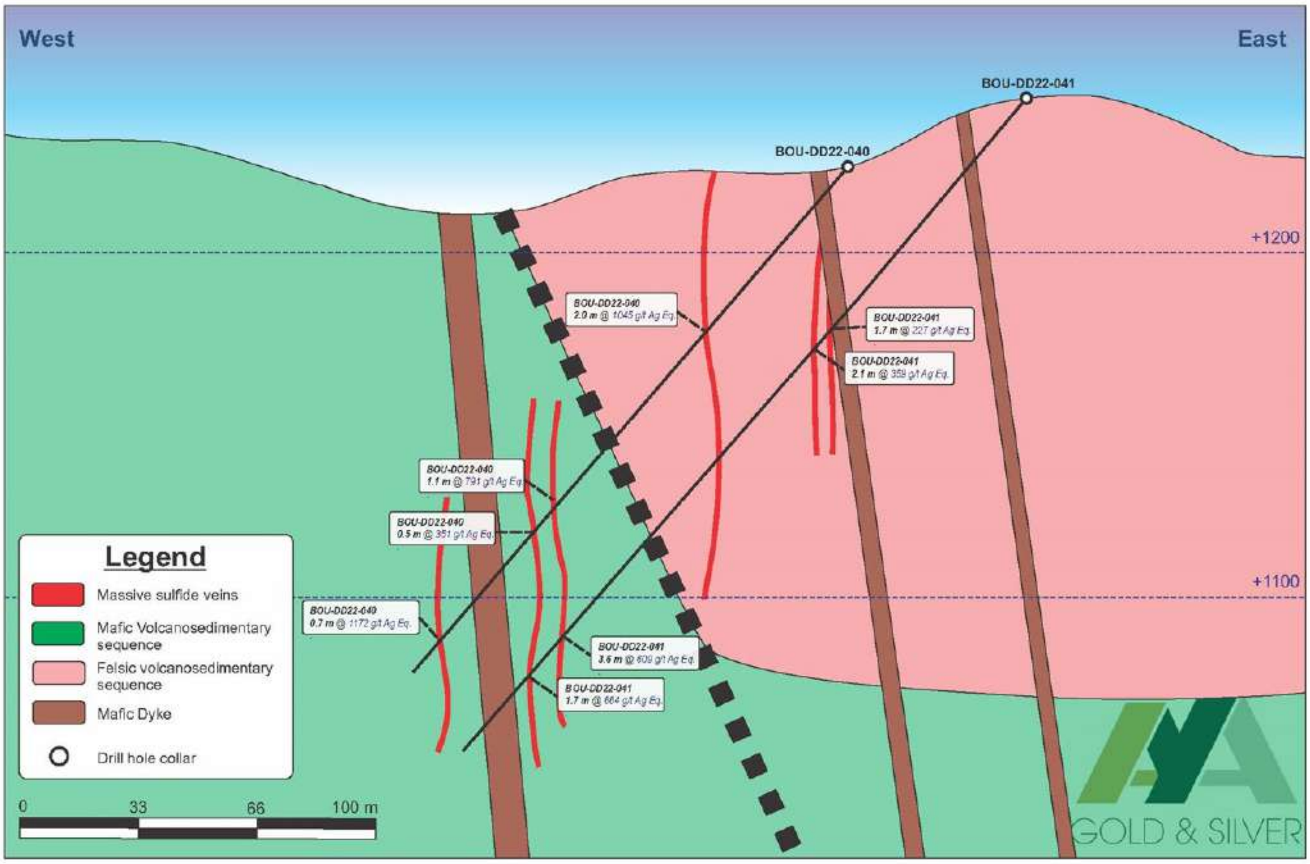
The Imariren Zone and the Tizi Zone are two sub-parallel, single mineralized vein domains that are 200 meters apart in the south and 500 meters apart in the north, strike northerly, and dip vertically. The Tizi Zone has been extended to 2.0 km in length, while Imariren has been traced over 1,000 meters. Both zones extend 600 meters down-dip.

Figure 7-8 Surface Plan View of the Boumadine Deposit Mineralized Zones



Source: *Aya press release dated February 24, 2025*

Figure 7-9 Cross-Sectional Projection 3,477,070 N of the Central Zone



Source: *Aya press release dated February 14, 2023.*
Note: *The heavy dashed line marks a fault.*

7.4 MINERALIZATION

The Boumadine mineralized zones generally consist of 1 to 4 m-wide massive sulphide lenses/veins oriented N20°W and dipping 70° east. The massive sulphide veins (>70% sulphide) are composed mainly of pyrite, sphalerite, galena, arsenopyrite and chalcopyrite, with subordinate amounts of cassiterite, silver-rich sulphosalts, stannite, enargite, bismuthinite, native copper and bismuth (Figures 7.10 to 7.13). The main mineralization zone is generally surrounded by a 1 to 10 m (locally up to 20 m) thick halo of 10 to 30% disseminated pyrite and two types of veinlets: 1) quartz-carbonate-galena-sphalerite veinlets; and 2) massive pyrite veinlets (Freton, 1988).

Within massive sulphide veins, zones of breccias with silicified angular fragments and round fragments have been completely replaced by pyrite. Those breccia zones underline the presence of syn-volcanic faults, which probably served as fluid pathways for the mineralization. In weathered felsic tuffs, breccia fragments can be replaced by pyrite which locally form large, mineralized sub-zones as much as 10 m thick. Those thick sub-zones are interpreted to be the upper part of the hydrothermal system. Geochemically, there is a strong positive correlation of gold with silver and copper and a weaker correlation of zinc with lead and molybdenum.

Figure 7-10 Brecciated and Slightly Oxidized Pyrite-Rich Mineralization

Source: *Boily (2014)*

Figure 7.10 Description: *Typical brecciated and slightly oxidized pyrite-rich mineralization with quartz veinlets mined form polymetallic veins and collected from the Central Zone muck pile.*

Figure 7-11 Galena-Rich Mineralization

Source: *Boily (2014)*

Figure 7.11 Description: *Galena-rich mineralization with pyrite, pyrrhotite, chalcopyrite, sphalerite and second stage quartz veins that contain most of the Au and Ag mineralization. Collected from the Central Zone muck pile.*

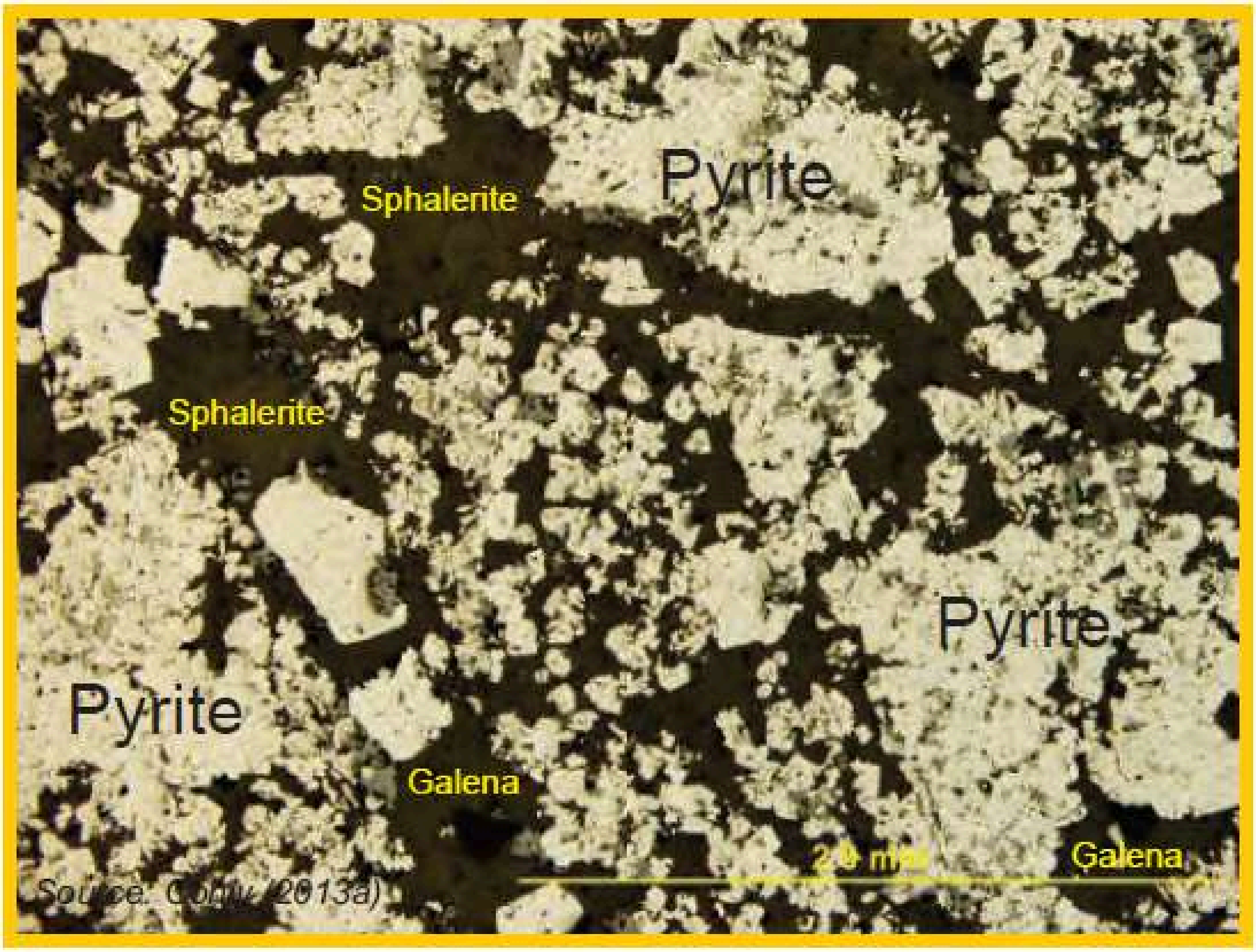
Figure 7-12 Pyrite-Sphalerite Mineralized Material from the Central Zone

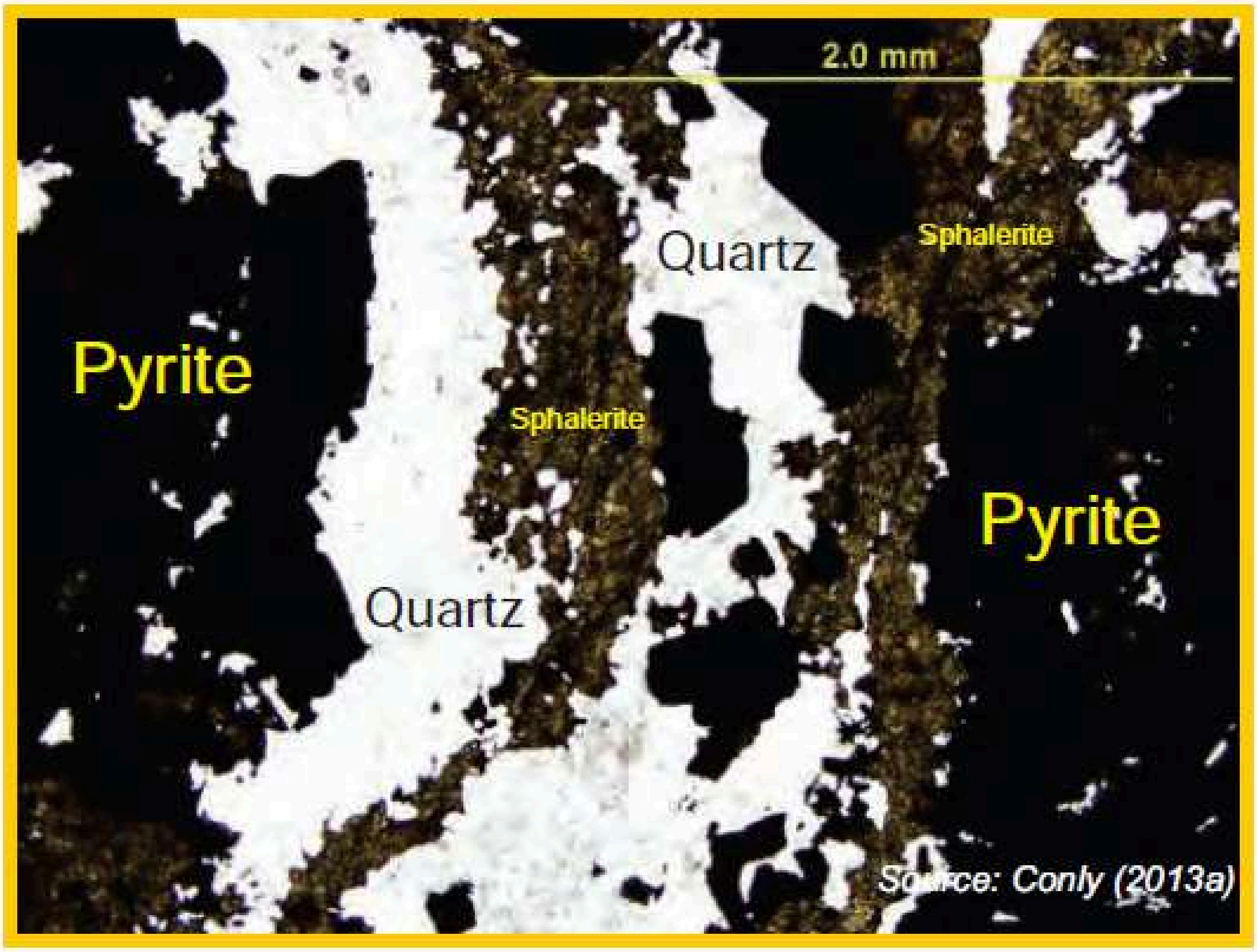
Source: *Boily (2014)*

Figure 7.12 Description: *Mineralized material sample BOU2012-02 collected from the muck pile near Shaft A of the Central Zone, historical Boumadine Mine.*

U/Pb single zircon dating from a “chonolithic” rhyolite intrusion cutting the mineralized veins yielded an age of 553±16 Ma (Levresse, 2001). This result is consistent with a late Neoproterozoic maximum age for the mineralization.

Figure 7-13 Massive Sulphide Minerals and Textures at Boumadine





Source: *Boily (2014)*

Figure 7.13 Description: *A) Reflected light microphotograph showing the paragenetic relationship between pyrite, galena and sphalerite.* ***Sample BOU2012-02.*** *B) Transmitted light photomicrograph showing mineralogical and textural variations in sphalerite + quartz veins in sample BOU2012-02. Low Fe-bearing sphalerite (yellow-brown) occurs in the core of a diverging quartz vein that is cutting recrystallized coarse-grained massive pyrite.*

8.0 DEPOSIT TYPES

Boumadine mineralization traditionally was considered to be hosted only in felsic tuffs (Abia et al., 2003; Bouabdellah and Levresse, 2016; Duplessis et al., 2019). However, drilling completed from 2017 to 2024 intercepted mineralized veins within mafic tuffs. Furthermore, the mineralized veins in the mafic tuffs appear to be more continuous, richer and thicker than in the felsic tuffs.

Hydrothermal alteration at Boumadine resembles that found in high sulphidation (acid) epithermal systems. Aluminous alteration is more proximal to sulphide-rich mineralized zones and the propylitic alteration more distal. Propylitization is generally induced by the convection of surface fluids, whereas aluminous alteration results from the contribution of acidic magma-derived fluids during degassing of andesite/diorite subvolcanic intrusions.

On the other hand, high-sulphidation deposits are composed of sulphides rich in S and Cu, such as tennantite and enargite. At Boumadine, the sulphides are mainly pyrite and minor sphalerite and galena, and trace chalcopyrite. This sulphide mineral affiliation is more like that of a volcanogenic massive sulphide type.

The current Company-preferred interpretation is that the mineralizing system at Boumadine developed under shallow submarine conditions in a graben setting (Bouabdellah and Levresse, 2016). In this model, magma-derived high-temperature acidic fluids/vapours containing Au and Ag ascend from the subvolcanic andesite/diorite intrusions and mix with circulating low-temperature, seawater-derived chlorinated fluids containing Fe, Zn and Pb. Mixing, cooling and wall rock reactions drive metal precipitation and deposition in volcaniclastic rocks below the seafloor.

Other shallow submarine, seawater-entrained polymetallic epithermal systems have been reported elsewhere (Hannington et al., 2005), with perhaps the best known example being at Milos Island (Greece) in the Aegean Sea (Alfieris et al., 2013).

9.0 EXPLORATION

Exploration activities completed by Aya on the Boumadine Mining License include trenching, hyperspectral surveys, airborne geophysics, mineral prospecting, geological mapping and grab sampling. Each of these activities is summarized below.

9.1 TRENCHING

One trench (37m) was excavated during the early 2022 drilling campaign on section 8125N between drill holes BOU-DD22-001 and BOU-DD22-006. The goal was to find mineralization at surface. Assaying failed to return any significant values. The trench was too shallow to expose the target and it was judged unnecessary to extend it, because mineralization was intersected in the subsurface by drill hole BOU-DD22-006.

9.2 HYPERSPECTRAL

At the end of 2021, Compagnie Générale de Géophysique – Veritas ("CGG") carried out a satellite-based geological and mineral mapping study for Aya over the Boumadine Mining License. The aim of the study was to process satellite imagery and identify areas of possible mineral alteration and place these in a geological context. This study enabled the generation of geologically valid target areas that were subsequently visited in the field during geological mapping in 2022 and 2023. The program was completed in two stages: 1) a regional project outlining the main structural controls and areas of alteration carried out at 1:25,000 scale; and 2) a detailed 1:5,000 scale project that focused on the historical permit (LE-383661).

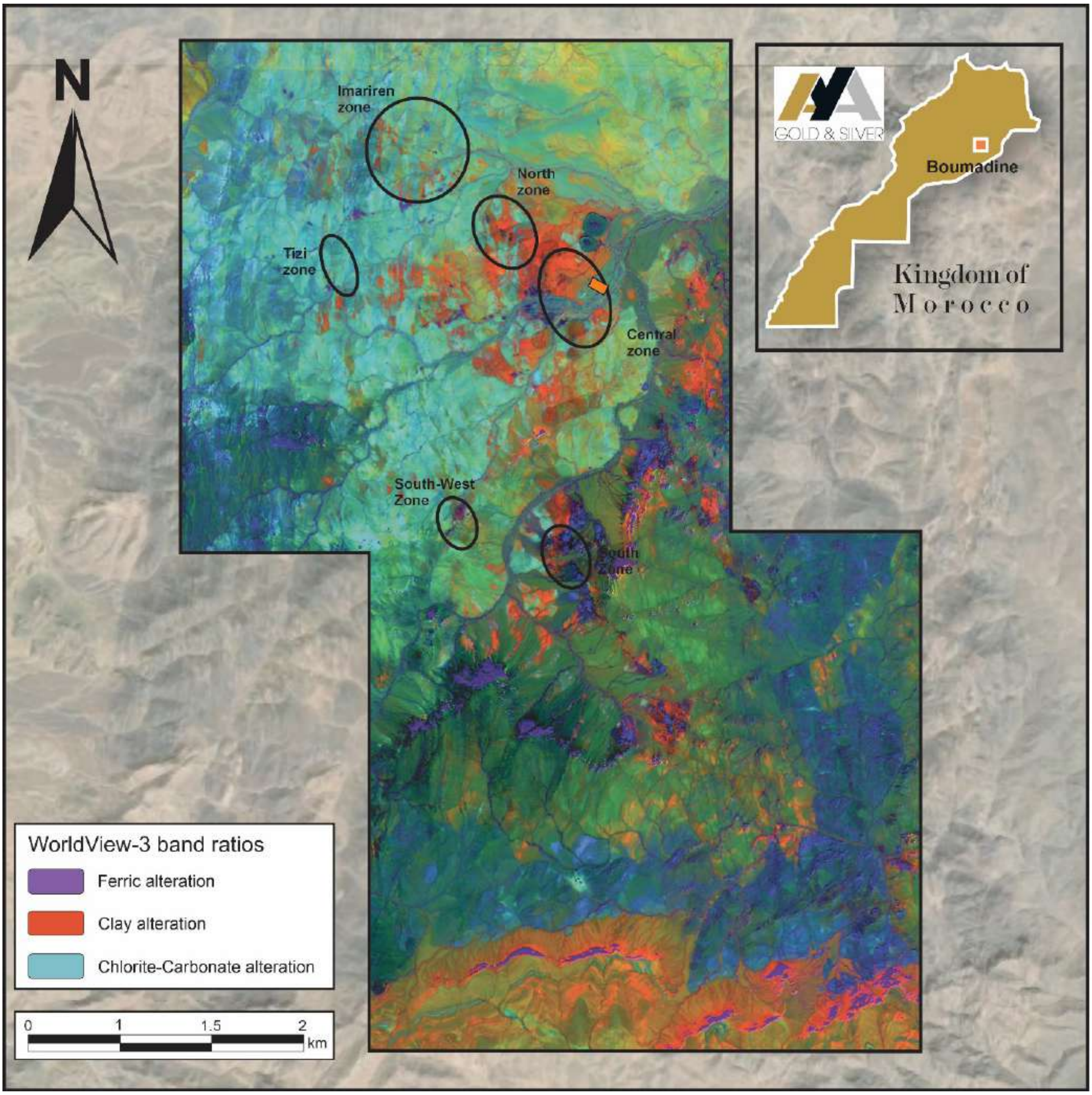
Several satellite datasets were supplied by CGG, processed and interpreted over the Boumadine area. For the regional project, Sentinel-2 imagery was used for the geological interpretation with Copernicus elevation data being merged to enhance this process. ASTER imagery was utilized for its spectral range, which enables clay/ iron/carbonate alteration related to hydrothermal alteration associated with intrusions to be mapped. For the detail mapping, WorldView-3 imagery was used for both the structural and spectral mineral mapping.

The mineral outputs exhibited a strong correlation with the main structures mapped (at 1:25,000 scale). There is significant argillic alteration along the northwest-trending fault in the northeastern area of the Boumadine Mining License (Figure 9-1). There is also significant argillic alteration along a northeast-trending fault slightly to west of the Boumadine Mining License. Mineral outputs also display a strong correlation with the underlying geology in the Northern Zone on the license area, with the altered rhyodacite-rhyolite ignimbrite clearly highlighted.

In early 2024, Aya re-engaged CGG to conduct a new satellite-based study over big part of the Boumadine Property. The project has been carried out using high resolution satellite imagery to provide detailed 1:5,000 scale structural interpretation and 1:10,000 scale lithological classification with key areas of alteration mapped to 1:5,000 scale. This time the study integrated Geological maps and other spatial geological datasets provided by Aya.

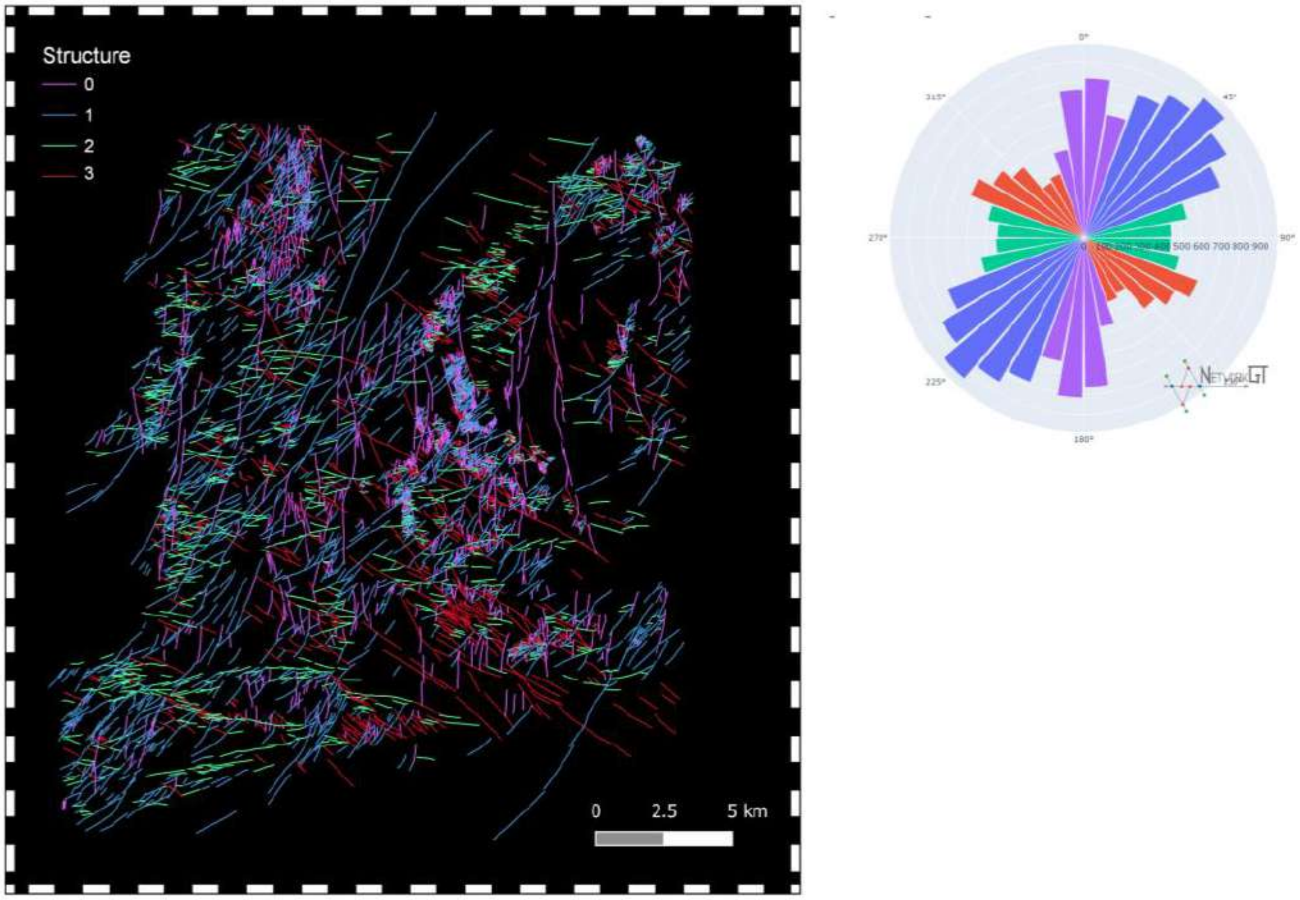
The use of WorldView-3 satellite imagery has significantly improved lithological classification (up to 1:10,000 scale) and structural mapping (1:5,000 scale) compared to the previous 1:200,000 regional map. This higher resolution has provided clearer boundaries and more detailed structural features. Additionally, CGG's ASTER Bare Earth+ multi-spectral imagery has been utilized to map large alteration footprints while filtering out non-geological artifacts. This integration has identified new areas of interest beyond the main Boumadine AOI. The enhanced spatial and spectral resolution of WorldView-3 imagery has allowed for the mapping of narrow intrusive dykes and faults (Figure 9-2), as well as the identification of intrusive not visible in optical imagery. At a 1:5,000 scale, the structural mapping has helped establish relationships between faults, dyke intrusions, and alteration zones.

Figure 9-1 Map of the 2022 Hyperspectral Survey Completed on Boumadine



Source: *Aya (April 2024)*

Figure 9-2 Map of the Interpreted Structures in the Boumadine Area,Colored by Orientation Set.



Source: *This Study*

9.3 AIRBORNE GEOPHYSICAL SURVEYS

In March 2022, Geotech Ltd. conducted an airborne geophysical survey over the Boumadine Mining License. A total of 366 linear-km (33 km²) was flown in a west - east (N90°E) direction with traverse line spacing of 100 m. Tie lines were flown perpendicular to the traverse lines at a spacing of 1,000 m.

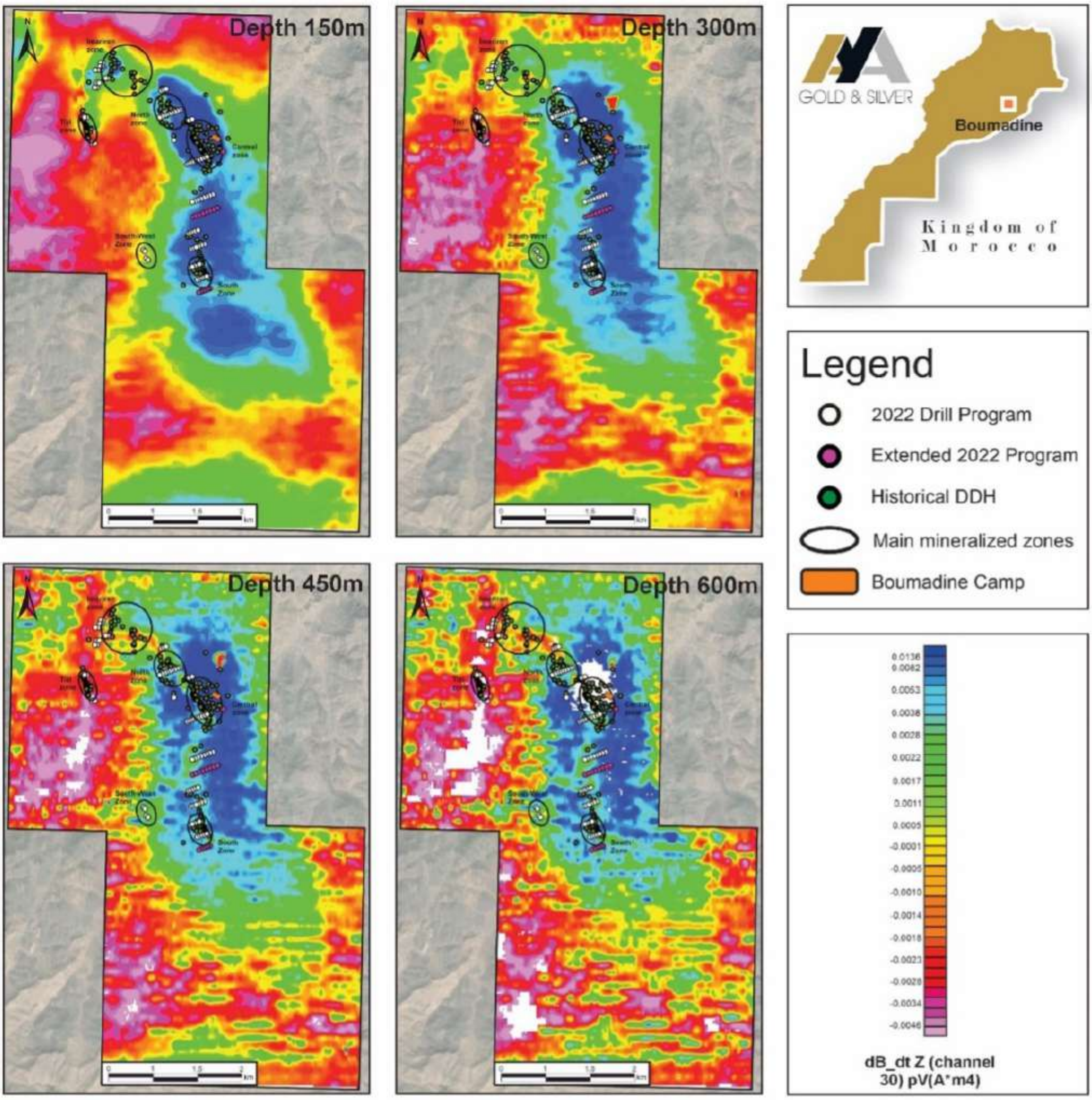
Principal geophysical sensors included a versatile time domain electromagnetic (“VTEM”) system, airborne magnetics using a cesium magnetometer, and RSI ARGS RSX-5 spectrometer system.

The purpose of the survey was to provide magnetic, resistivity and radiometry coverage over the mining license with sufficient resolution to map the footprint of the known mineralization and any potential extensions.

The airborne results of both methods were of good quality and meaningful. Electromagnetically, Boumadine features a prominent, large (>6.0 x 1.5 km), variably conductive, north-south elongate resistivity low feature in the center of the block that roughly coincides with all the historical mining work (Figure 9-3).

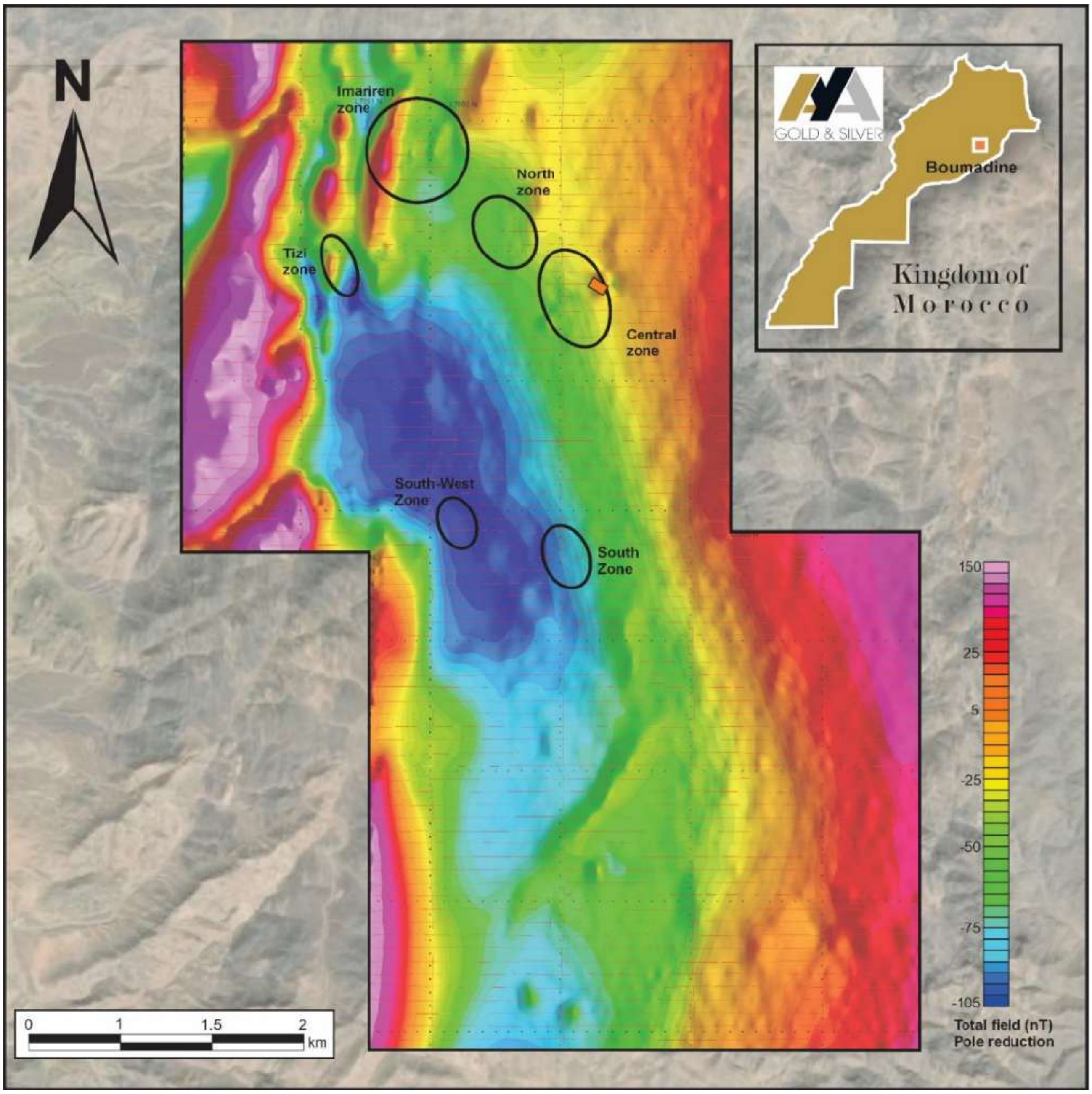
The resistivity low also coincides well with the northern half of the magnetic low (Figure 9-4). Those anomalies accurately mapped the known mineralization and supports extension of the favorable prospective corridor to the north and the south.

Figure 9-3 Boumadine 2022 VTEM Survey Depth Slices



Source: *Aya (April 2024)*

Figure 9-4 2022 VTEM Magnetic Survey Completed at Boumadine



Source: *Aya (April 2024)*

Following the success of the VTEM geophysical survey, a new airborne geophysical survey commenced on February 2, 2024, and concluded on July 18, 2024. Conducted by Expert Geophysics Limited (EGL), this helicopter-borne MobileMT electromagnetic and magnetic survey covered three blocks: Boumadine, Boumadine West, and Boumadine East, encompassing all of Aya's permits in the Boumadine Property (Figure 9-5).

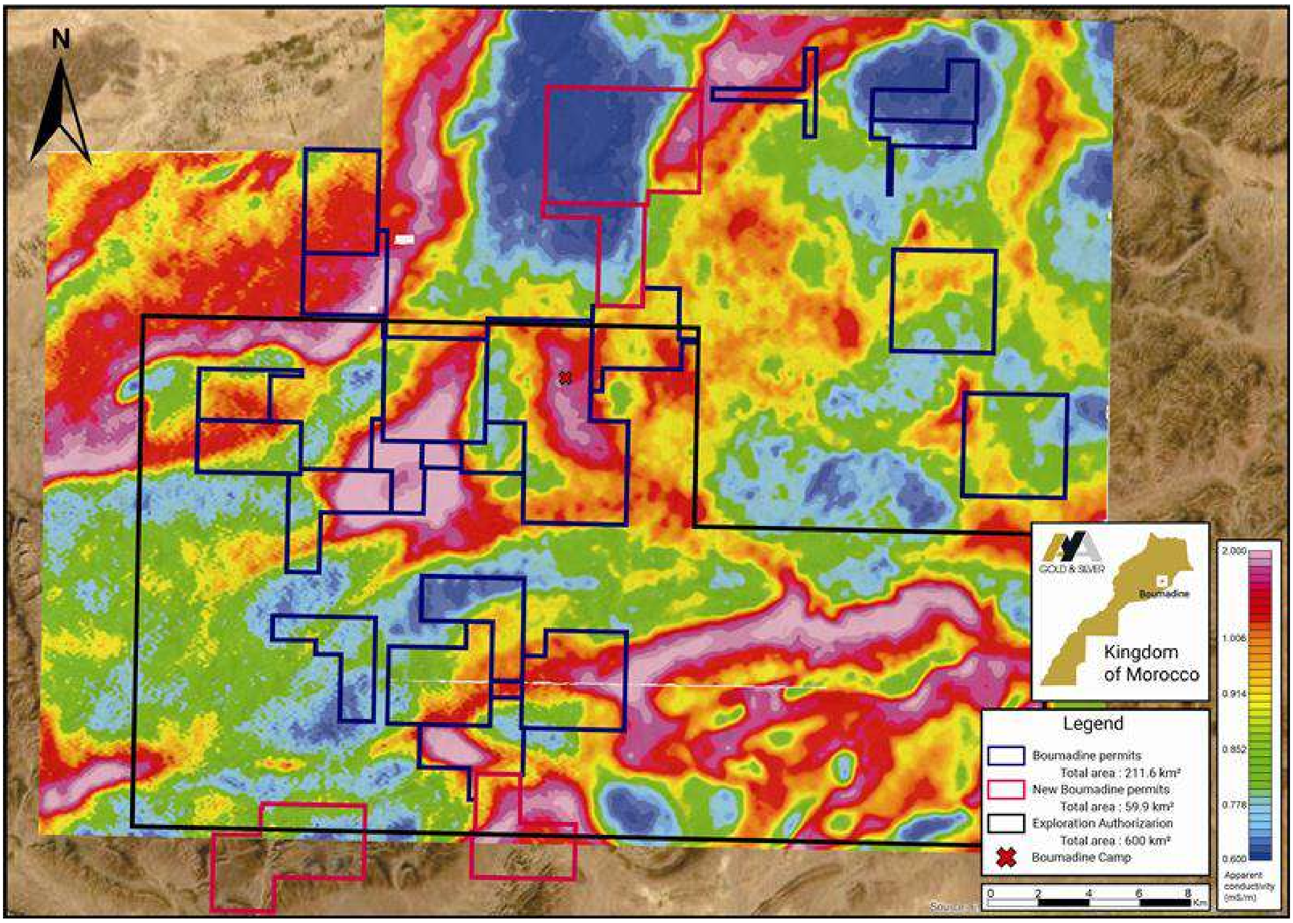
The survey involved 105 production flights, covering a total of 14,353 line-kilometers. Specifically, Boumadine covered 6,771 line-kilometers over 609 square kilometers, Boumadine West covered 4,535 line-kilometers over 414 square kilometers, and Boumadine East covered 3,047 line-kilometers over 278 square kilometers.

Electromagnetic readings were obtained using an EGL AFMAG & VLF MobileMT system, which includes an airborne three-component magnetic sensor and a base station with two horizontal electric components.

Additionally, a cesium vapor magnetometer in a separate towed-bird was used to measure the intensity of the Earth's magnetic field.

The geophysical acquisition was successful, identifying multiple potentially parallel, on-trend conductive anomalies similar to those previously identified at Boumadine Deposit. Notably, a very large potential conductive anomaly was detected approximately 5 kilometers west of Boumadine, exhibiting a similar orientation but stronger intensity than the Boumadine Deposit conductor. This extensive system also includes strong potential conductors oriented east-west. Additionally, the survey revealed the continuation of the conductivity anomaly, South of Boumadine Deposit and a series of new N340 and north-south oriented potential conductive anomalies.

Figure 9-5 Location of New Boumadine Permits with 2024 Airborne Geophysics



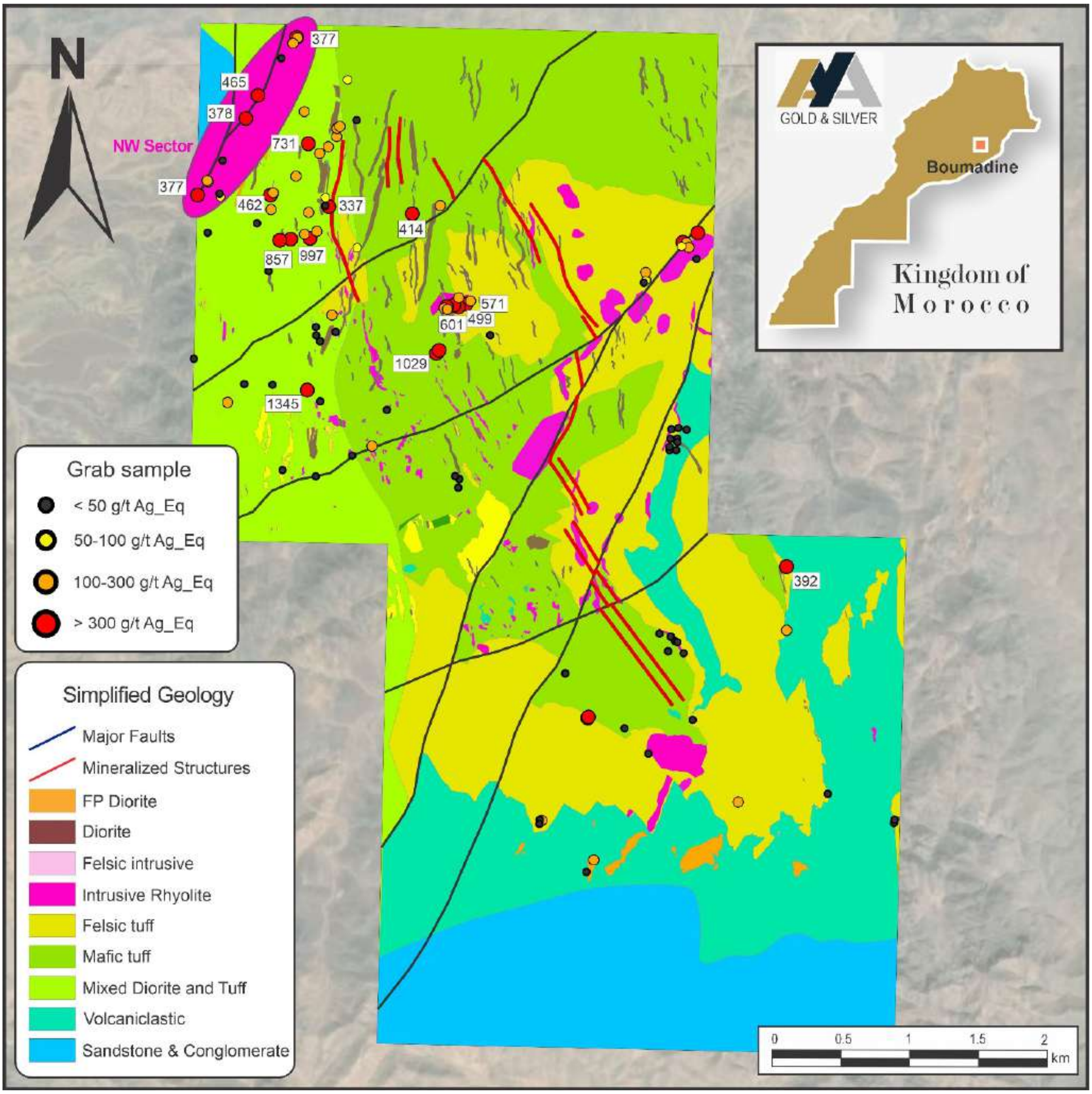
Source: *Aya press release dated February 24, 2025*
Note: *Showing apparent conductivity at 175Hz*

9.4 GEOLOGICAL MAPPING

Detailed mapping was carried out on Boumadine Mining License, with the objective to improve geological understanding of the mineralization and geological events.

From the mapping work, two major fault sets were recognized: 1) a fault event N030 that intersects the main Boumadine corridor (N340) and could be responsible for an Au enrichment and the Zn mineralization event; and 2) an N70°E fault event cutting both the N20°W and N70°E structures that appears to be responsible for a Ag-Pb mineralization event (Figure 9-6).

Figure 9-6 Simplified Geological Map with 2023 Surface Sample Locations



Source: *Aya's Press Release dated July 5, 2023*

9.5 GRAB SAMPLING

In 2023, 127 surface grab samples were taken, leading to identification of a new mineralized structure to the northwest of the Property (see Figure 9-5 above). The structure, which can be followed for >1.5 km, graded up to 3.45 g/t Au (sample 2260129), 186 g/t Ag (sample 2274547), 9.40% Cu (sample 2274534), 27.40% Pb (sample 2274545), and 1.80% Zn (sample 2274547) (Table 9.1). The mineralization exhibits stockwork quartz-pyrite-chalcopyrite veinlets associated with silicified felsic dykes injected into a corridor of faults located at the contact of volcanic rocks and sedimentary rocks. This discovery shows the mineralization potential outside of the main Boumadine corridor.

Mapping and grab sampling activities continued throughout 2024, extending to properties beyond the Boumadine Mining License. A total of 386 grab samples were collected during the year.

Table 9-1 Grab Sampling Assay Highlights

Sample ID	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)
2260129	3.45	40.0	0.75	0.16	0.06
2260130	3.37	23.4	0.28	0.04	0.03
2260131	2.83	44.0	0.54	0.06	0.02
2260113	2.00	28.0	0.01	1.97	0.06
2260119	1.92	122.0	0.01	0.82	0.08
2260121	1.92	90.0	0.01	0.35	0.06
2274531	1.32	2.5	0.01	0.01	0.01
2260134	0.99	28.0	0.49	0.71	0.27
2274547	0.03	186.0	2.38	8.14	1.80
2274521	0.03	122.8	0.77	10.21	0.40
2260119	1.92	122.0	0.01	0.82	0.08
2274534	0.07	112.0	9.40	0.01	0.01
2274545	0.03	110.0	0.05	27.40	0.09

Source: *Aya's Press Release dated July 5, 2023*

10.0 DRILLING

10.1 SUMMARY

From May 2022 to December 2024, Aya completed 476 diamond drill holes, totaling 192,957 meters. In 2024, Aya drilled 219 holes, amounting to 107,683 meters, on the Boumadine property. Of these, 93 holes totaling 44,514 meters were drilled along the Boumadine Deposit and were utilized for the 2025 Mineral Resource Estimate (MRE) (Table 10-1). The drilling programs aimed to extend the mineralization of the North, Central, South, Tizi and Imariren Zones while also testing targets located further from the main mineralized trend.

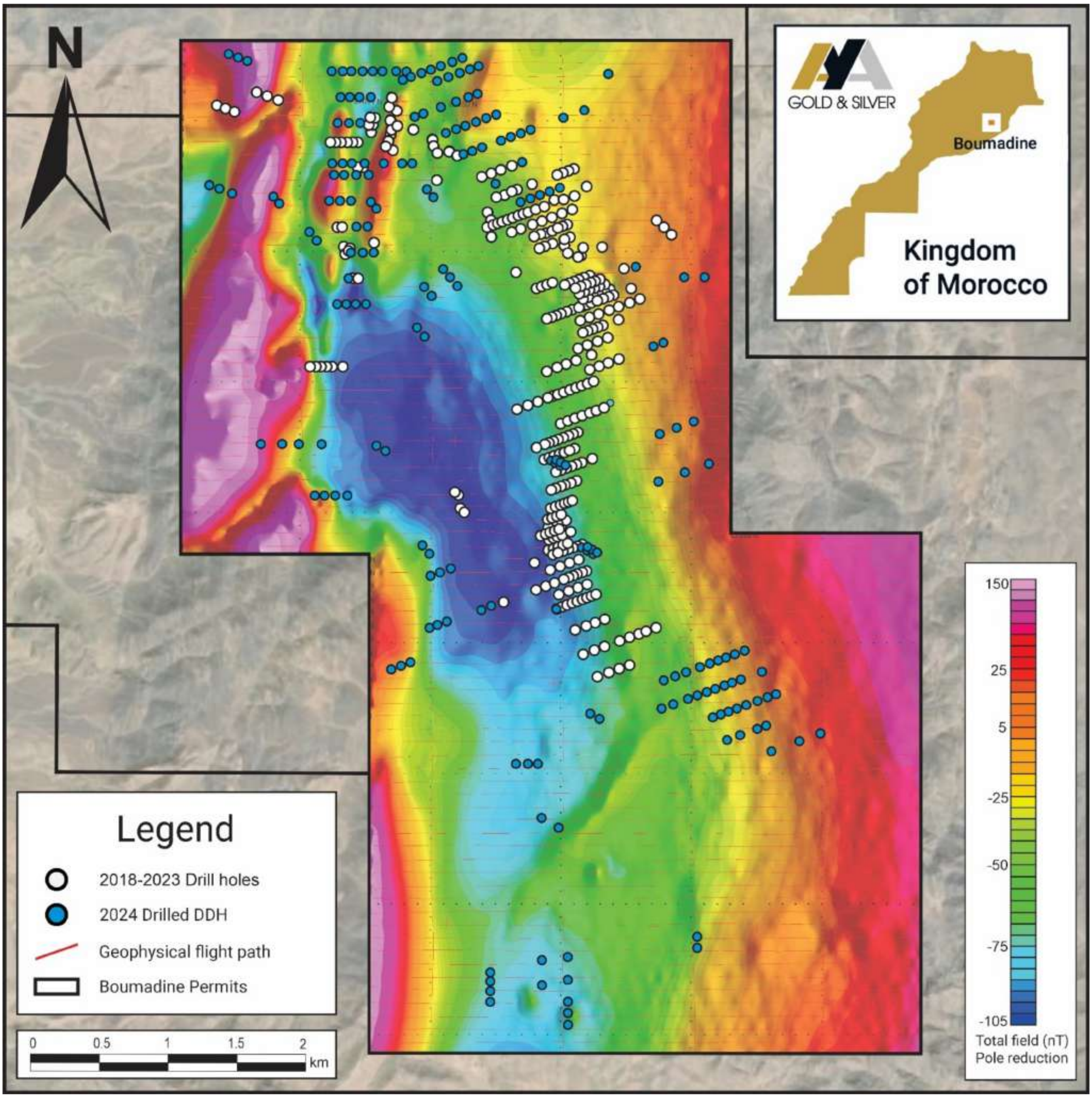
In addition, all historical drill holes from 2018 to 2021 were re-logged and resampled by Aya in 2023 for a total of 77 drill holes and 9,510 m of drill core. The historical BRPM drill holes and 2017 Maya's drill holes have not been retrieved in the Aya drill core yard. Therefore, it was not possible to proceed with re-sampling and the decision was made to include those drill holes for geological interpretation and exclude them from MRE Information from the drill holes completed in 1992 by the SODECAT-BRPM has not been found, and those drill holes are not included in Aya's Mineral Resource database.

Table 10-1: Aya Diamond Drilling at Boumadine

Period	Company	Surface		Underground		Total Drill Holes	Total Meters	Comments
		Drill Holes	Meters	Drill Holes	Meters			
1964 to 1985	BRPM	70	13,467	48	2,124	138	15,591	Excluded from 2024 uMRE
2017	MAYA	14	3,158	---	---	14	3,158	
2018 to 2020	MAYA	77	9,507	---	---	77	9,507	Included in 2024 uMRE
2022	AYA	86	19,702	---	---	86	19,702	
2023	AYA	171	65,572	---	---	171	65,572	
2024	AYA	219	107,683	---	---	219	107,683	93 holes included 2025 uMRE

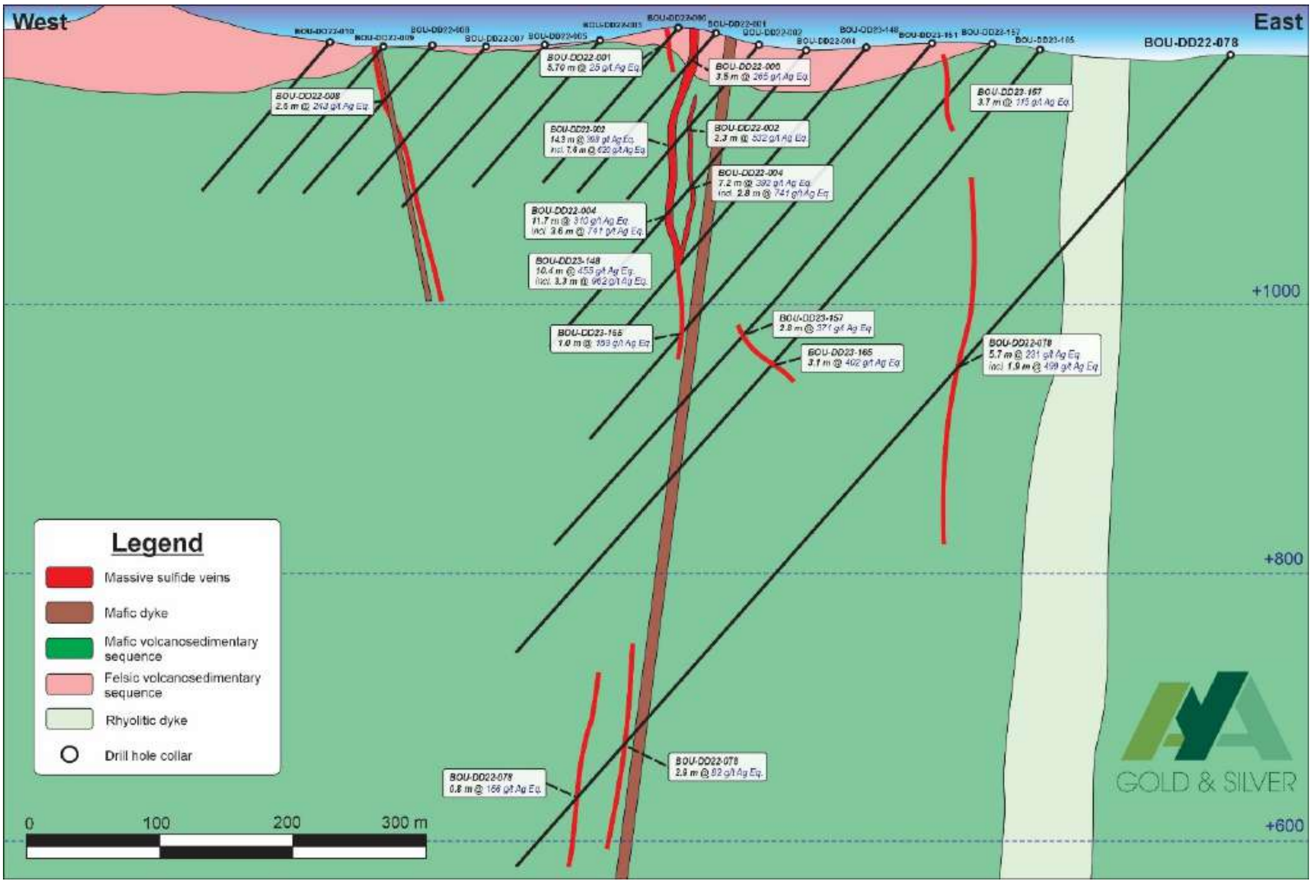
Source: *Aya press release dated February 24, 2025*

Figure 10-1 Aya Current MRE Drill Hole Collar Location Map



Source: *Aya press release dated February 24, 2025*
Note: *Showing Magnetic Data – residual total field*

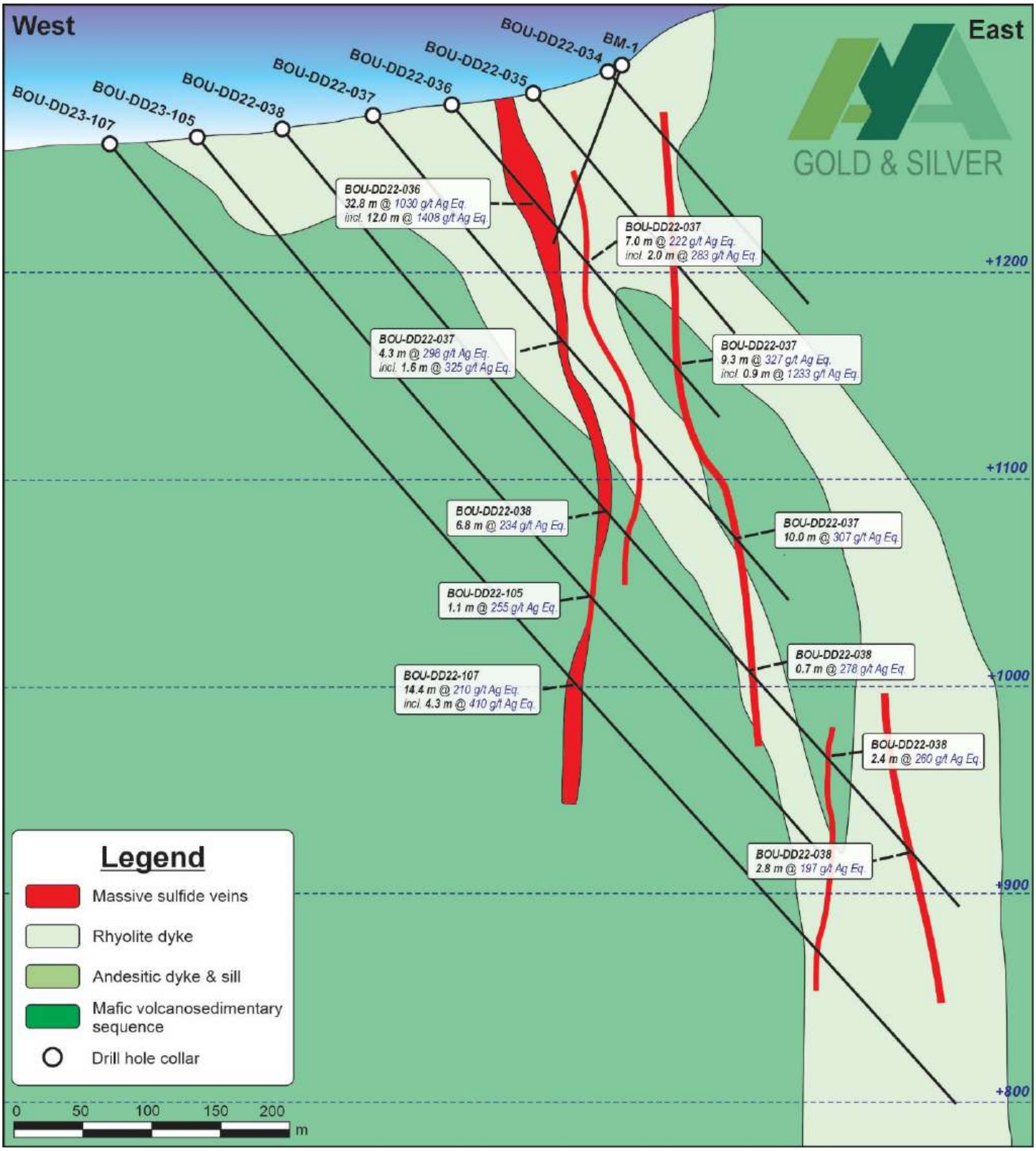
Figure 10-2 Interpreted Drill Hole Cross-Section Projection 8125N



Source: *Aya (April 2024)*

Figure 10.2 Description: *Ag equivalent is based on 100% recovery with the following ratios: 1 g/t Au: 93.4 g/t Ag; 1% Cu: 130.4 g/t Ag; 1% Pb: 31.8 g/t Ag; 1% Zn: 54.1 g/t Ag. All assay values are uncut. All intersections are in core lengths, as true thickness remains undetermined at this stage.*

Figure 10-3 Interpretation of Drill Cross-Section Projection 6400N



Source: *Aya (April 2024)*

Figure 10.3 Description: *Ag equivalent is based on a 100% recovery with the following ratios: 1 g/t Au: 93.4 g/t Ag; 1% Cu: 130.4 g/t Ag; 1% Pb: 31.8 g/t Ag; 1% Zn: 54.1 g/t Ag. All assay values are uncut. All intersections are in core lengths, as true thickness remains undetermined at this stage.*

10.2 DRILLING PROCEDURES

Aya typically employs a drill pattern consisting of a series of drill lines-oriented perpendicular to the trend of mineralization. Most drill holes are oriented either N70°E or S70°W, depending on the terrain. For Tizi and Imariren, the drill holes are oriented East-West. The standard drill hole spacing for most of the Boumadine Deposit is 100 meters. In certain areas, this spacing has been reduced to 50 meters, while in other areas, such as the edges of the Boumadine Deposit, the spacing is 200 meters.

GEOSOND Maroc SARL carried out the drilling program between 2022 and 2023. In 2024, FTE Drilling joined GEOSOND to continue executing the drill program. All drilling to date has been completed using diamond core drilling to produce either HQ or NQ core.

Prior to the start of drilling, the collars are set out in the field with a standard hand-held GPS with a precision of ±3 m in easting and northing; after completion of the drill holes, the collar locations are surveyed by a professional surveyor with a DGPS Trimble R8s. Drill rigs were aligned using a standard compass with back and front site pickets.

During drilling, the drill core is placed in standard plastic drill core boxes and every 3m run is marked by a labelled plastic drill core block. Each drill core box is labelled with the drill hole ID and a sequential box number. The drill core boxes are delivered by the drilling contractor every morning at the end of the night shift to the Boumadine drill core shack.

GEOSOND conducted downhole orientation measurements using a Reflex EZ-Shot (by Reflex Instruments Inc.) until drill hole BOU-DD23-192. For all subsequently completed drill holes, a Devico Devi-flex was utilized. FTE systematically employed a Reflex EZ-Shot. Downhole surveys were performed by the drillers, with measurements initially taken at 12 meters and subsequently at 25-meter intervals. The data were communicated to the geologists each morning along with the daily drill report.

Following removal of the drill rig, a 1 m PVC tube is inserted into the drill hole and it is cemented. The drill hole number is written on the concrete base (Figure 10.4).

Figure 10-4 Drill Hole Collar Locations

Source: *This Study*

At the drill core shack, "from-to" of every drill core box are measured by geologists, and the core logging information is recorded in the logging software (GeoticLog). After logging and sampling, drill core boxes are stacked outside with one drill hole per cross-pile within a fenced and guarded enclosure around the Boumadine drill core shack (Figure 10.5).

Figure 10-5 Stacked Drill Core at Boumadine

Source: *P&E (May 2024)*

10.3 DRILLING RESULTS

In general, drilling exploration and definition has identified and further defined the distribution of mineralization in five areas: North Zone, Central Zone, South Zone, Tizi and Imariren. Drilling results on the main structure show a strong continuity of the mineralization.

High-grade mineralization was intersected at Tizi, with two holes, BOU-DD24-306 and BOU-DD24-310, showing high gold concentrations (respectively 20.05g/t Au over 1.5m; and 23.34 g/t Au over 1.6m). The mineralization remains hosted within massive sulfide veins, characterized by a higher ratio of arsenopyrite.

A new style of mineralization has also been identified from a drill hole along an east-west structure (BOU-DD24-329) which has returned high-grade Ag results (1,937 g/t Ag over 1.9m). This structure shows stockworks of brecciated carbonate-quartz-pyrite-chalcopyrite ± tetrahedrite veinlets with low temperature texture.

Table 10-2: Significant intercepts from the 2024-2025 programs

Drill Hole	Section	Zone	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Mo (g/t)	Ag Eq (g/t)
BOU-DD23-214	8850N	Main	214.0	223.0	9.0	4.77	61	0.12	0.07	0.19	5	535
Including			216.2	221.5	5.3	6.61	90	0.18	0.10	0.27	6	749
BOU-DD23-218	8850N	Para	244.3	247.5	3.2	14.72	19	0.02	0.19	0.15	4	1,411
BOU-DD23-218	8850N	Para	252.6	256.8	4.2	13.59	115	0.10	0.13	0.12	3	1,409
BOU-DD23-218	8850N	Main	280.3	286.1	5.8	9.21	80	0.21	0.06	0.14	8	978
Including			280.3	284.3	4.0	13.05	108	0.29	0.07	0.19	8	1,377
BOU-DD23-220	6575N	Main	105.0	115.9	10.9	1.77	91	0.09	1.72	4.53	133	575
Including			112.3	114.7	2.4	6.26	261	0.26	1.24	6.56	16	1,275
BOU-DD23-220	6575N	Para	133.4	136.8	3.4	0.89	76	0.26	2.47	6.97	7	649
BOU-DD23-223	6525N	Main	131.6	169.9	38.3	1.53	311	0.04	1.80	4.40	101	763
Including			144.9	155.9	11.0	2.34	494	0.06	1.89	3.93	36	996
BOU-DD23-225	9325N	Para	47.4	53.7	6.3	1.44	54	0.02	0.85	5.34	12	508
Including			50.8	53.7	2.9	2.88	86	0.04	0.96	9.90	21	927
BOU-DD23-227	9325N	Main	259.7	268.3	8.6	3.34	18	0.07	0.13	0.45	6	369
Including			263.5	268.3	4.8	5.42	21	0.07	0.08	0.11	7	545
BOU-DD23-228	6300N	Main	267.2	276.1	8.9	1.99	81	0.02	1.03	3.36	59	488
Including			267.7	273.0	5.3	3.09	119	0.03	1.45	4.66	87	715
BOU-DD23-229	6525N	Para	111.9	116.0	4.1	1.6	175	0.12	1.86	7.32	259	810
BOU-DD23-230	6575N	Main	166.6	184.2	17.6	2.64	247	0.27	1.24	7.74	86	991
Including			177.6	181.3	3.7	2.91	651	0.08	3.18	11.49	106	1,662
BOU-DD23-230	6575N	Para	188.2	202.3	14.1	2.78	97	0.24	0.41	6.52	31	755
BOU-DD23-245	6450N	Main	198.4	206.5	8.1	0.73	122	0.02	2.32	4.68	68	524
Including			198.4	200.2	1.8	1.83	299	0.06	4.83	13.08	269	1,355
BOU-DD23-248	6450N	Main	329.5	335.4	5.9	5.94	59	0.13	0.95	8.75	23	1,136
BOU-DD23-251	6450N	Main	345.9	355.3	9.4	2.66	32	0.04	0.21	4.39	14	531
Including			346.4	348.8	2.4	7.99	91	0.13	0.30	15.77	19	1,719
Including			314.0	318.8	4.8	6.76	36	0.06	0.11	0.16	0	569

BOU-DD23-265	8850N	Main	338.0	341.1	3.1	16.25	86	0.13	0.14	0.12	0	1,355
BOU-DD23-265	8850N	Para	366.0	374.0	8.0	4.51	58	0.23	0.20	0.32	0	442
Including			369.7	372.3	2.6	12.17	160	0.69	0.31	0.51	0	1,186
BOU-DD24-284	9950N	Imariren	439.7	441.6	1.9	15.7	91	0.16	0.06	0.05	4	1,317
BOU-DD24-306	3478100	Tizi	314.1	317.1	3.0	11.48	89	0.24	0.15	0.78	3	1,021
Including			314.1	315.6	1.5	20.05	133	0.37	0.20	1.37	2	1,755
BOU-DD24-310	34777500	Tizi	58.0	71.7	13.7	4.90	42	0.06	0.37	0.35	9	445
Including			58.0	59.6	1.6	23.34	148	0.20	0.41	0.50	17	1,988
BOU-DD24-310	34777500	Tizi	281.4	282.4	1.0	0.08	7,820	0.17	5.50	1.46	7	8,036
BOU-DD24-329	East-West	East-West	142.1	144.0	1.9	0.03	1,937	1.66	0.16	0.17	7	2,110
BOU-DD24-353	East-West	East-West	354.0	356.3	2.3	0.06	107	0.26	4.78	36.67	5	1,300

Source: *Aya press releases dated January 21, 2025*

Notes:

** All assay values are uncut. All intersections are core lengths, as true width remains undetermined at this stage.*

***Ag equivalent is based on 100% recovery with the following ratios: 1 g/t Au: 93.4 g/t Ag; 1% Cu: 130.4 g/t Ag; 1% Pb: 31.8 g/t Ag; 1% Zn: 54.1 g/t Ag.*

11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

The following section discusses the sample preparation, analyses and security procedures carried out by Aya for the Boumadine Property between 2018 and 2024.

11.1 SAMPLE PREPARATION

11.1.1 Logging and Sampling

Logging and sampling of drill core are performed at Aya's onsite logging facility; a large warehouse with ample space for logging tables and direct vehicular access for drill core box delivery.

Geotechnical personnel align drill core pieces and check for gaps. Devicore BTT is utilized during drilling to indicate the drill core orientation of the bottom surface of the drill core, and during drill core logging this mark is continued along the entirety of the drill core, were possible in a straight line. Logging procedure includes using core orientation to determine the azimuth and dip of each structure encountered (e.g., veins, contacts, faults). Digital photographs are taken of the drill core (wet and dry) and drill core recovery, RQD, basic geotechnical information, geological and structural elements are recorded in the drill core logs. Sample intervals are marked and samples for bulk density determination are also selected. Drill core recovery is generally good; however, when poor, the samples are shorter and there are small gaps in the sampled drill core to show where it was lost.

All data are entered using Geotic software and logging is regularly supervised with sign-off on all steps by a supervisor. When logging is complete, the data are audited in a spreadsheet available to all personnel involved before being imported into a master file with limited access to select authorized personnel only. Nominal drill core sample intervals are 1.0m, which are adjusted to respect lithological contacts or abrupt changes in mineralization, with smaller intervals of 0.5m where needed.

Drill core samples are cut in half lengthwise using a diamond-blade saw. The rock saw operator cuts along contacts between samples along a line drawn by the logging geologists. One-half of the drill core is placed into a polyethylene bag with a sample tag, and the remaining half-drill core is carefully returned to its original position in the drill core boxes. Field duplicates are made by halving the already halved drill core again and both ¼-drill cores are sent as duplicates to the lab, leaving the remaining ½-drill core archived in the drill core box. Paper sample tags are stapled to the drill core boxes at the end of the sample intervals. Sample books were utilized with pre-recorded, unique sequential number tags reserved for QC samples at pre-determined locations.

11.1.2 Bulk Density Determinations

Bulk density determination is performed onsite by Aya geologists, with the water immersion method selected to determine the bulk density of rocks at Boumadine, as there is none to very limited porosity in Boumadine drill core, this method is judged adequate by the Authors. Bulk density determinations are completed in a dedicated area, where the equipment is protected from disturbances, such as vibration or drafts, which might influence balance readings.

Aya's protocol requires the determination of wet (moisture percent) and dry bulk densities of mineralized and barren samples. Full drill core pieces of ~10 to 15cm are used for the determinations. When this process is complete, the drill core is cut and one-half returned to the original location in the drill core box, with a piece of flagging tape stapled to the box to aid with future sample identification.

The equipment is calibrated on a daily basis with 0.5 and 1.0 kg reference materials used for wet and dry tests, and the balance is calibrated weekly with dry certified weights. The set-up is rudimentary, although acceptable and the equipment has been upgraded in 2024 .

As discussed in Section 14.4 of this Report, the average bulk density for the constrained sulphide material is 3.70 t/m^3. For the current Mineral Resource Estimate a bulk density of 2.61 t/m^3 was assigned to oxide and transitional blocks. For sulphide blocks, the median sulphide bulk density was assigned for each modelled domain.

11.1.3 Sample Preparation and Analysis

Samples were prepared by AfriLab at its Boumadine prep-laboratory facility or at its Zgounder prep-lab. A total of 250 g of pulverized sample material was subsequently submitted for analysis to Afrilab in Marrakech. When received at the analytical lab, drill core samples are crushed to <2 mm with a passing rate of 85% using a ROCKLABS jaw crusher. A sieving operation is used to ensure the sample is 85% <2 mm. To control the risk of contamination, the jaw crusher is cleaned thoroughly between each sample using compressed air and local barren waste rock.

The crushed sample is subsequently divided using a riffle splitter, in order to have a sub-sample of between 250 to 300 g. The splitter is cleaned thoroughly between each sample using compressed air.

The sub-samples (of 250 to 300 g) are pulverized using a ROCKLABS pulverizer. Pulverizing performance is targeted to a size of 85% of the sample at <75 µm. One sample in twenty is selected randomly to verify this performance, by wet sieve test (standard 75 µm sieve).

Ag, Zn, Pb, Cu, Fe, Sn, As and Mo are analyzed by Inductively Coupled Plasma ("ICP") spectrometry after 4-acid digestion. Gold is analyzed by fire assay method with AAS finish. Silver grades of >200 g/t Ag are further analyzed by fire assay method with gravimetric finish.

11.1.4 Security – Chain of Custody

Drill core remains under Aya's control from the drill site, where Company geologists supervise operations, to the on-site drill core logging facility, where drill core boxes are transported at the end of each shift for logging, cutting and sampling. When logging and sampling are completed, the plastic drill core trays are stored outside, on-site and cross-piled within a gated compound that is guarded by a security guard around the clock. Sample chain of custody is simplified by the presence of the on-site AfriLab preparation laboratory. Prepared samples are then shipped to the AfriLab facility in Marrakech and tracked through AfriLab's internal management system.

11.2 QUALITY ASSURANCE/QUALITY CONTROL REVIEW

Aya implemented and monitored a thorough quality assurance / quality control ("QA/QC" or "QC") program for the drilling undertaken at the Boumadine Deposit during the 2018 to 2025 period. In addition to the internal QC protocol implemented at the laboratories, QC protocol at Boumadine included the sequential insertion of certified reference materials ("CRMs"), blanks and field duplicates into every batch of drill core samples sent for analysis (each batch contains 25 samples). Samples prepared at the drill core logging facility are numbered sequentially, such that drill core samples and QC samples are not able to be differentiated by the laboratory.

QC sample insertion rates are as follows:

- A range of CRMs over varying grades are inserted at a rate of 1 in 25 samples;
- Blank samples are inserted at a rate of 1 in 25 samples to monitor for instrumentation carry-over and contamination at the laboratory;
- Field duplicate samples were also inserted into the drill core sample stream, but not as systematically as the CRMs and blanks, at a rate of ~1 in every 50 samples from 2022 to 2025. Prior to this, four field duplicates only were inserted into three drill holes during 2018 and none were inserted during the 2019 drill program;
- At the end of each month, a selection of 5% of the coarse reject samples is submitted to Afrilab; and
- Check analyses at an umpire laboratory (ALS in Seville, Spain) are carried out on one in every 50 samples, representing ~2% of the global primary laboratory sample flow.

The QA/QC procedures from 2018 to 2024 were previously evaluated by P&E and documented in the May 2024 Mineral Resource Estimate (MRE) report. The author determined that the sample preparation, security, and analytical procedures for the Boumadine Deposit were satisfactory, and that the data were of high quality, suitable for inclusion in the current MRE.

The current author has reviewed P&E's findings and agrees with their conclusions. For further reference, performance graphs from the previous MRE report are provided in Appendix H.

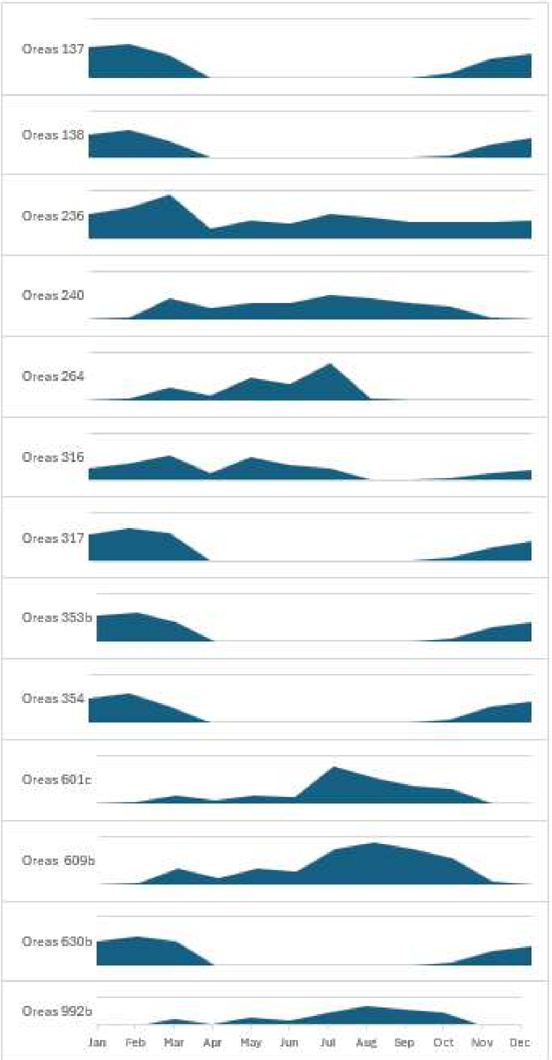
New data from the 2024-2025 period, included in this MRE update, have been reviewed by the current author. The performance evaluations are detailed in the subsequent sections.

11.2.1 2024 to 2025 Diamond Drill Hole Programs

11.2.1.1 Performance of Certified Reference Materials

A total of 13 different OREAS certified reference materials ("CRMs") were used during the 2024 to 2025 drilling at the Boumadine Deposit, to monitor accuracy at the lab for gold, silver, lead, zinc and copper. A summary of CRMs inserted into the drill sample stream and analyzed at AfriLab is outlined in Figure 11-1. All 13 CRMs were purchased from ORE Research & Exploration Pty Ltd ("ORE") in Australia and the corresponding certified mean value for each individual CRM is indicated in Table 11.1.

Figure 11-1: CRM usage at Boumadine 2024 TO 2025



Source: *This Study*

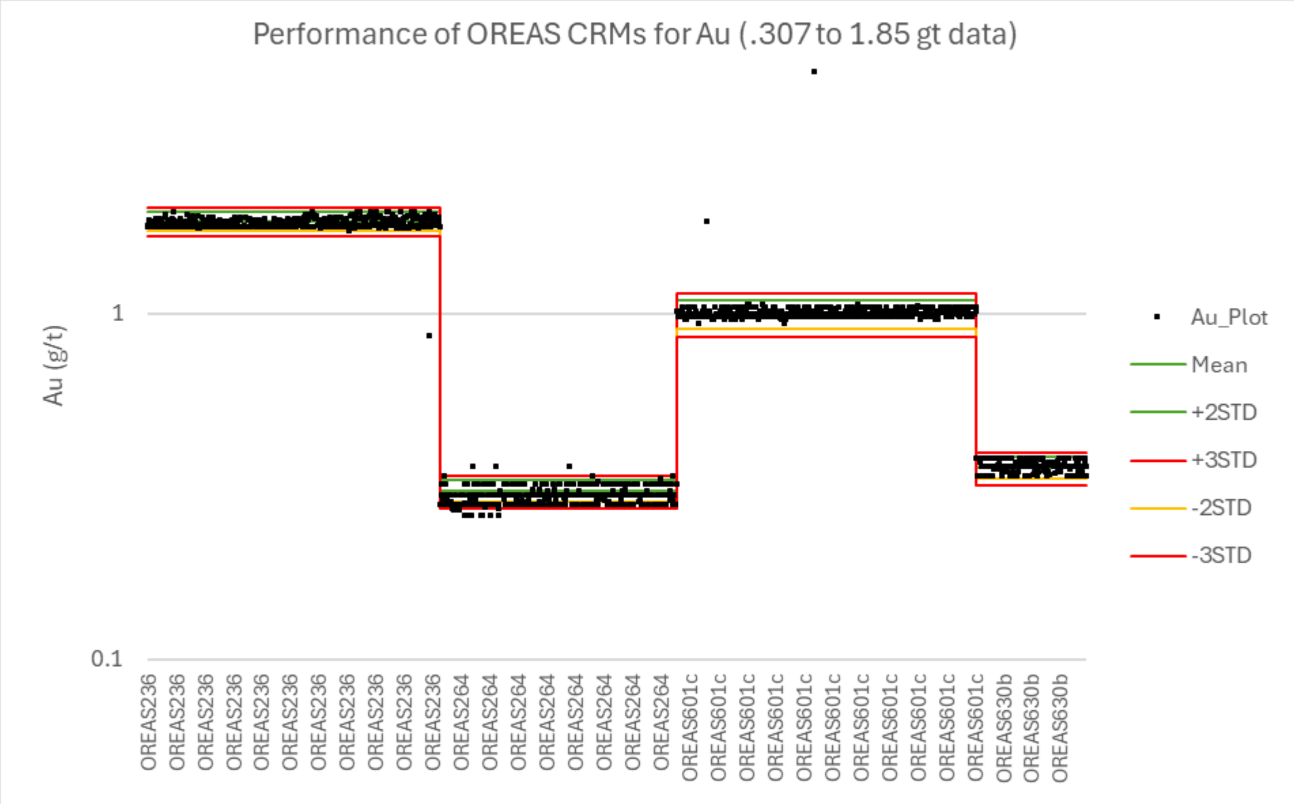
Table 11-1: Summary of Reference Materials used at Boumadine in 2024 to 2025

Reference Material	Certified Mean Value					
	Au	Ag	Pb	Zn	Mo	Cu
	(g/t)	(g/t)	(%)	(%)	(g/t)	(%)
OREAS137	--	25.9	0.673	4.92	9.83	0.0246
OREAS138	--	45.2	1.23	8.19	10.7	0.0266
OREAS236	1.85	0.478	0.003	0.014	1.56	0.017
OREAS240	5.51	1.3	0.003	0.014	1.7	0.017
OREAS264	0.307	1.29	0.001	0.022	9.15	0.009
OREAS316	--	103	5.02	11.16	16.3	0.161
OREAS317	--	232	12.13	17.45	41.5	0.413
OREAS353b	--	2,184	64.58	3,83	84	0.431
OREAS354	--	98	1.58	49.77	2.37	0.1387
OREAS601c	0.996	50.3	0.033	0.043	3.66	0.116
OREAS609b	4.97	24.6	0.045	0.131	5.54	0.498
OREAS630b	0.358	19	0.411	1.11	12.7	0.052
OREAS992b	15	340	0.374	0.862	7.29	44.73

Source: *This Study*

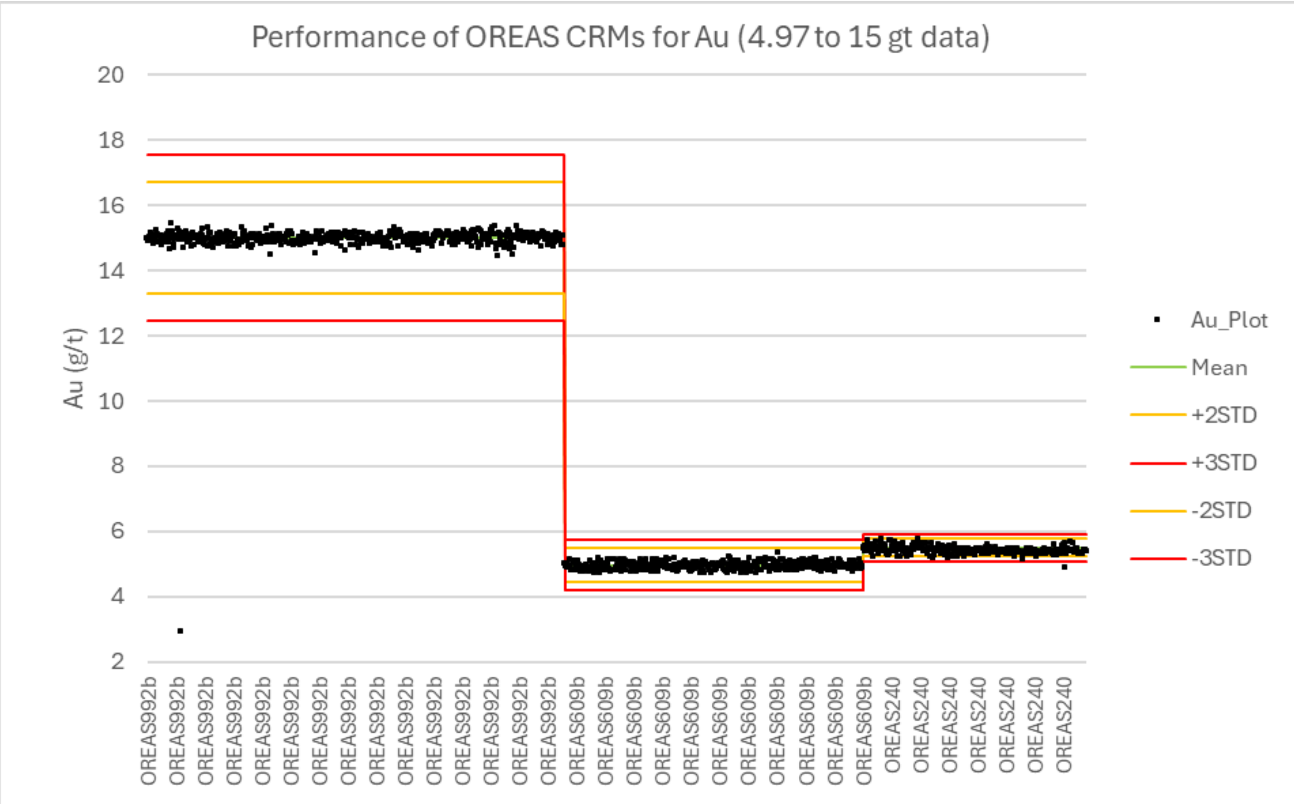
CRMs were inserted into the analysis stream approximately every 25 samples. Criteria for assessing CRM performance are based as follows: data falling outside ±3 standard deviations from the accepted mean value, or two consecutive data points falling between ±2 and ±3 standard deviations on the same side of the mean, fail. The CRM results are presented in Figure 11-2 to Figure 11-11. The Author of this Technical Report section considers that the CRMs demonstrate acceptable accuracy in the Boumadine 2024 to 2025 diamond drilling data and the relative few failures indicate no material issues with accuracy.

Figure 11-2 Performance of OREAS CRMs for Au (0.307 to 1.85 g/t data)



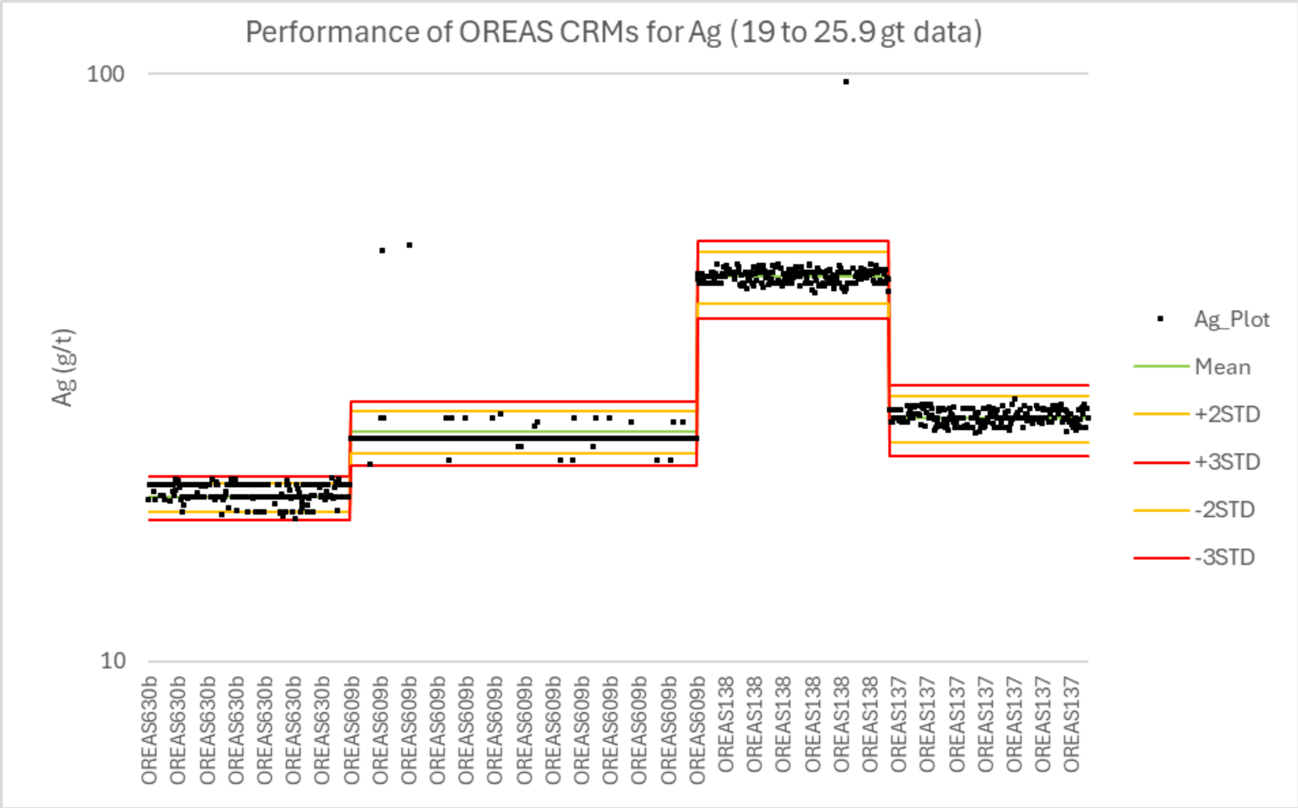
Source: This Study

Figure 11-3 Performance of OREAS CRMs for Au (4.97 to 15 g/t data)



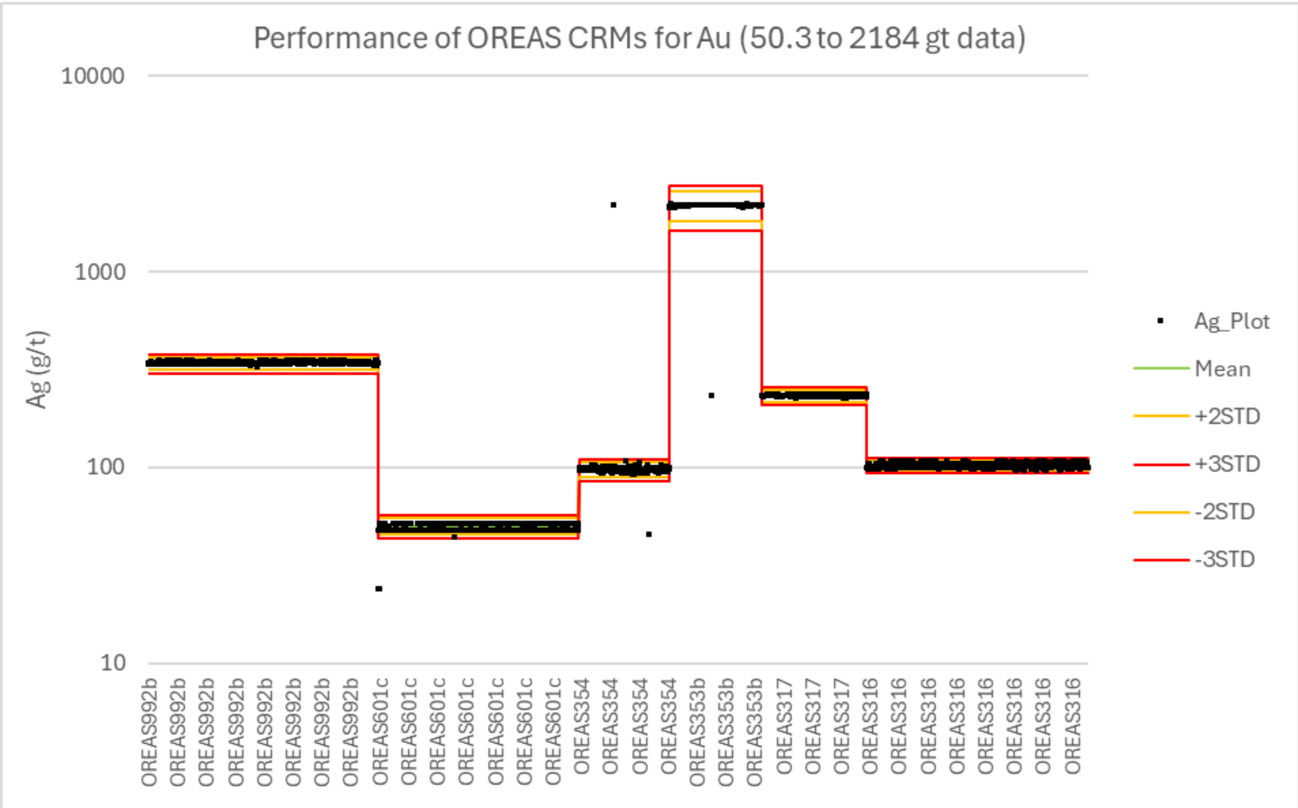
Source: *This Study*

Figure 11-4 Performance of OREAS CRMs for Ag (19 to 25.9 g/t data)



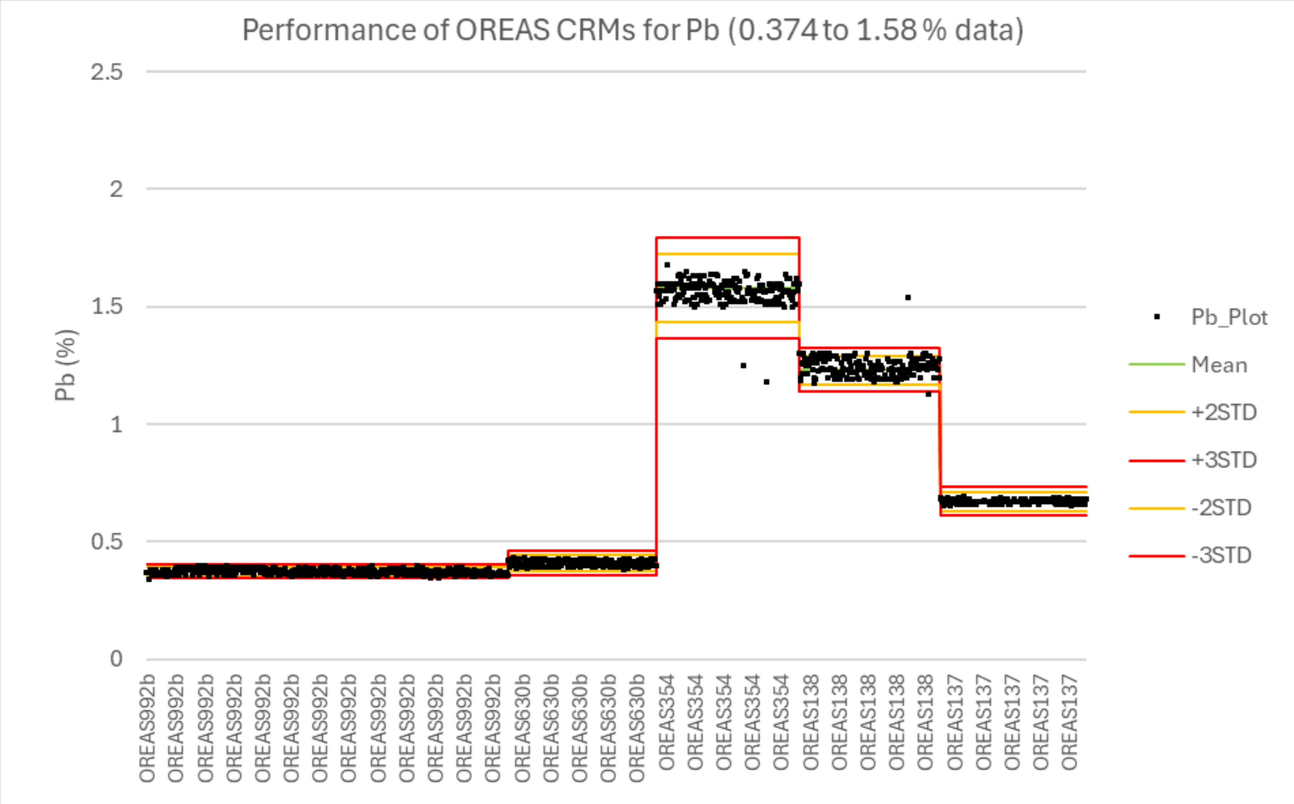
Source: *This Study*

Figure 11-5 Performance of OREAS CRMs for Ag (50.3 to 2,184 g/t data)



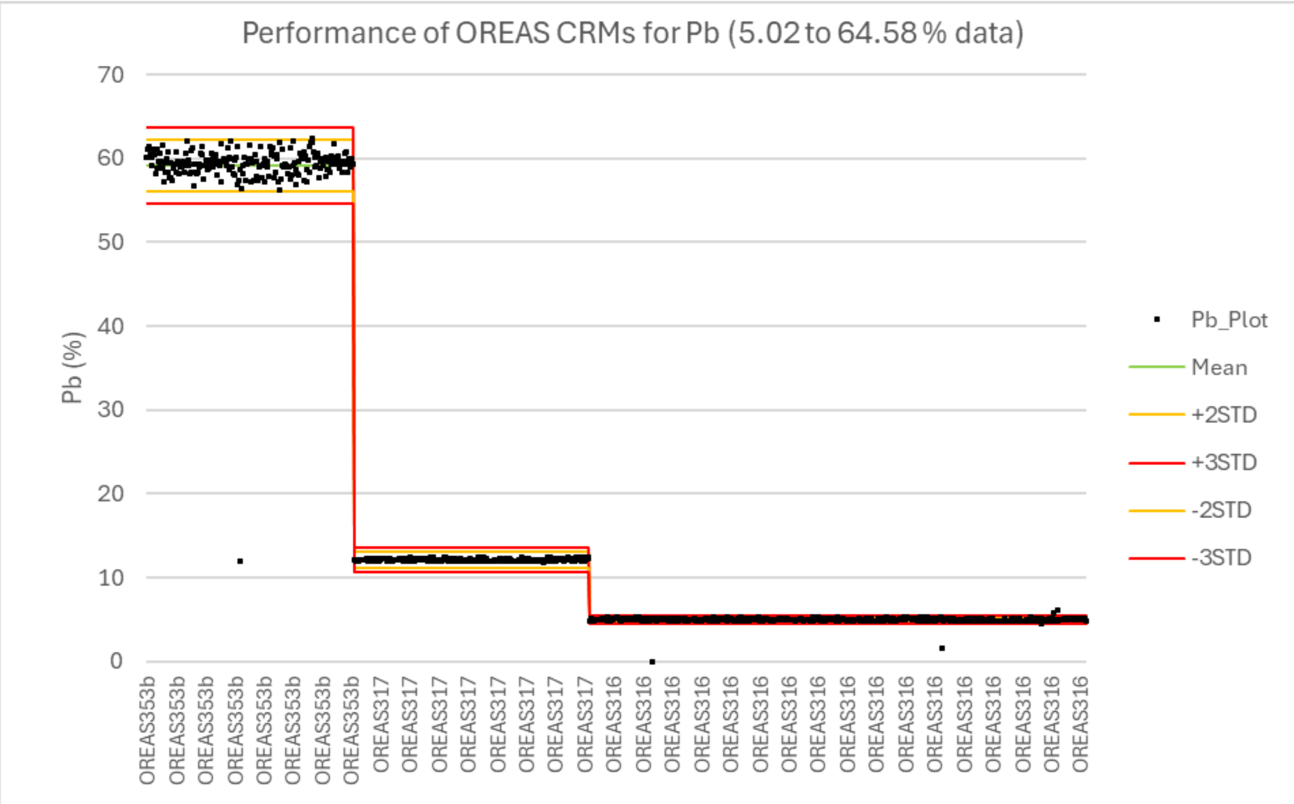
Source: *This Study*

Figure 11-6 Performance of OREAS CRMs for Pb (0.374 to 1.58 % data)



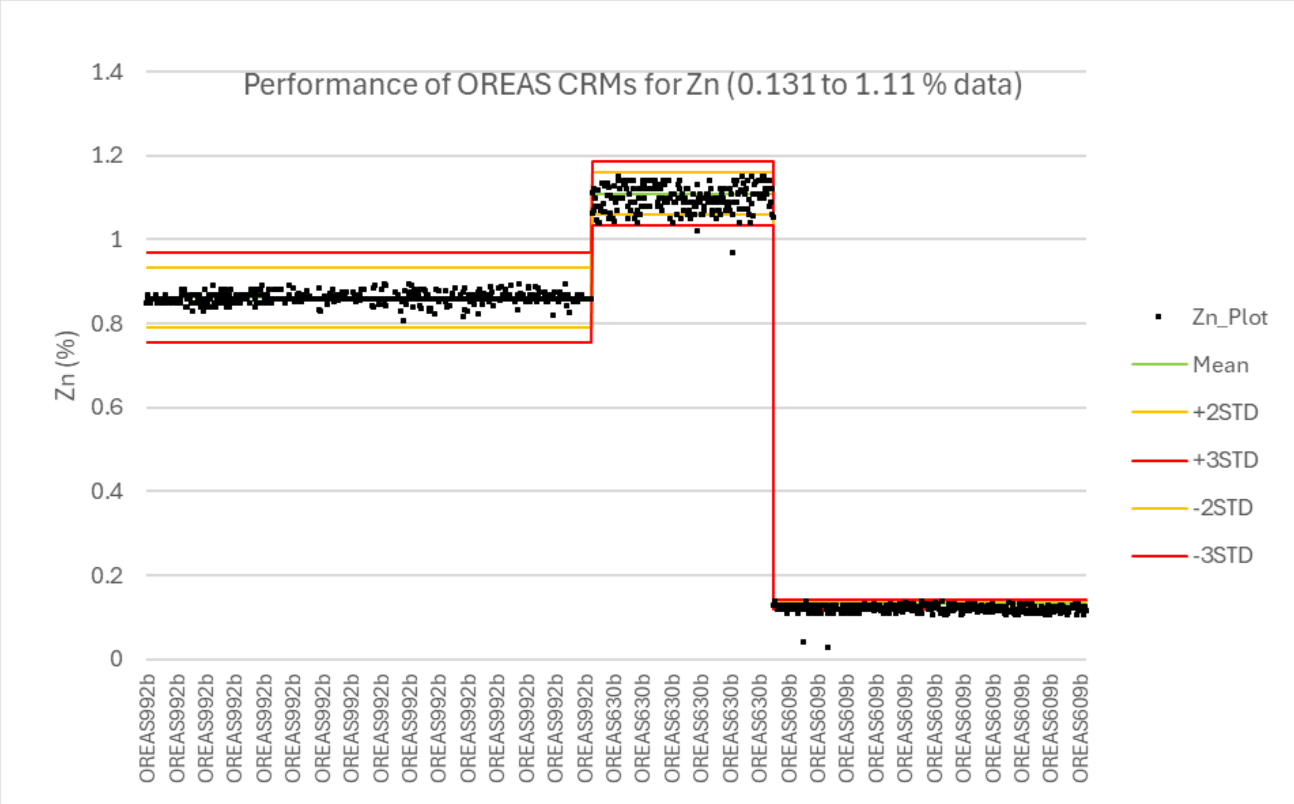
Source: *This Study*

Figure 11-7 Performance of OREAS CRMs for Pb (5.02 to 64.58% data)



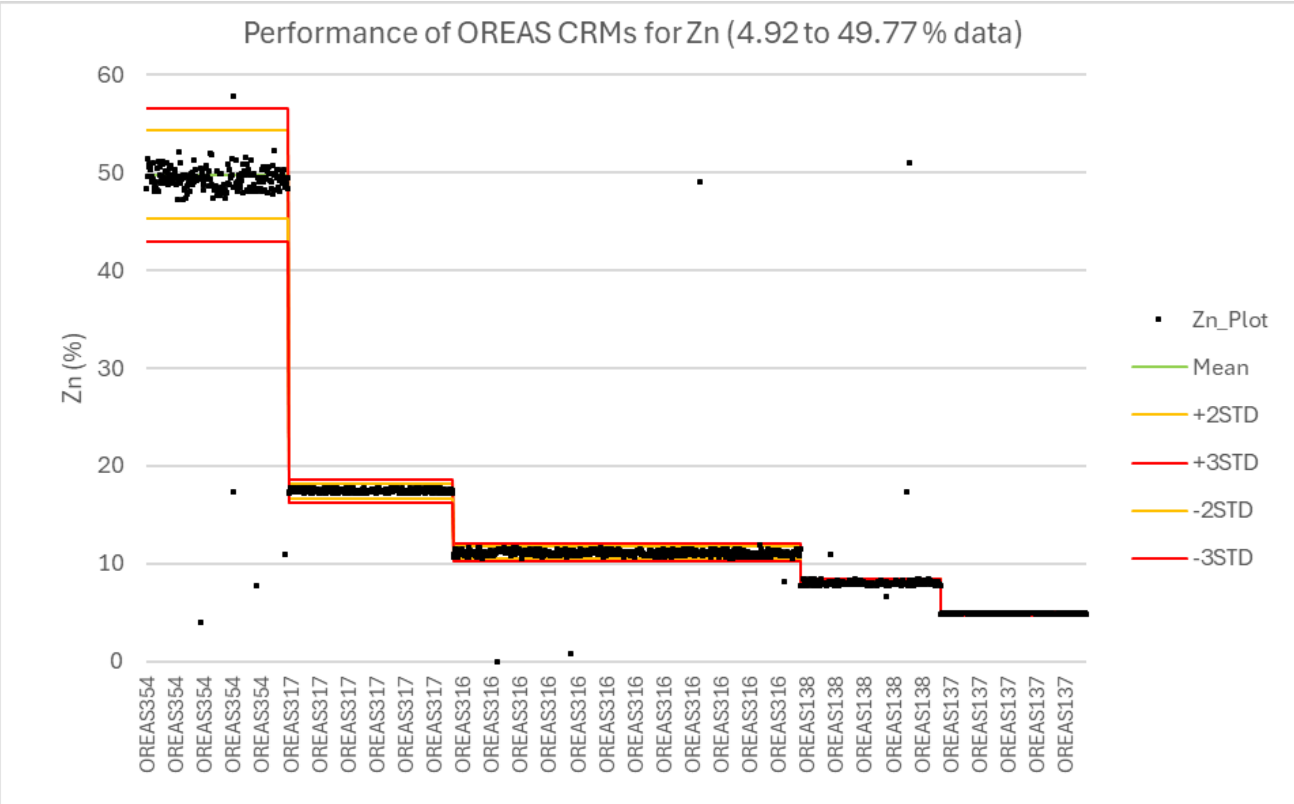
Source: *This Study*

Figure 11-8 Performance of OREAS CRMs for Zn (0.131 to 1.11% data)



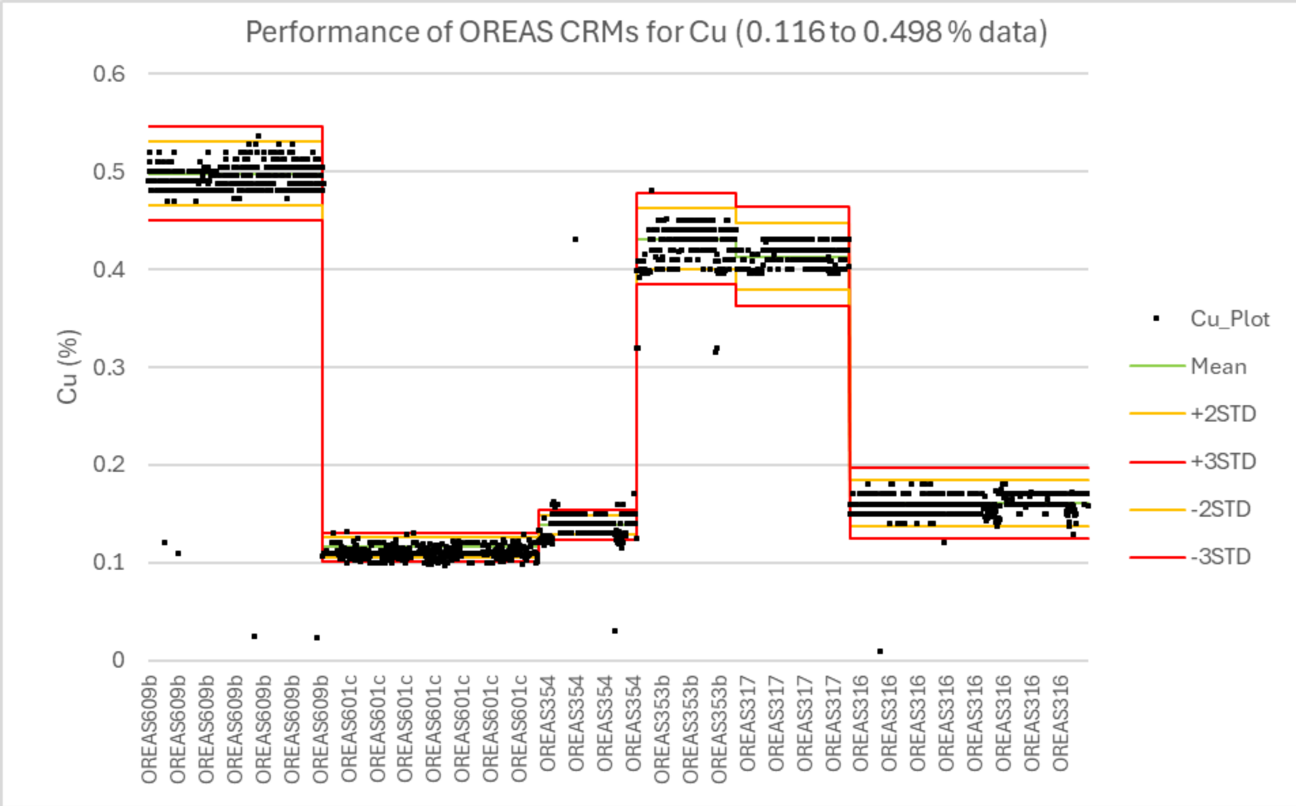
Source: *This Study*

Figure 11-9 Performance of OREAS CRMs for Zn (4.92 to 49.77% data)



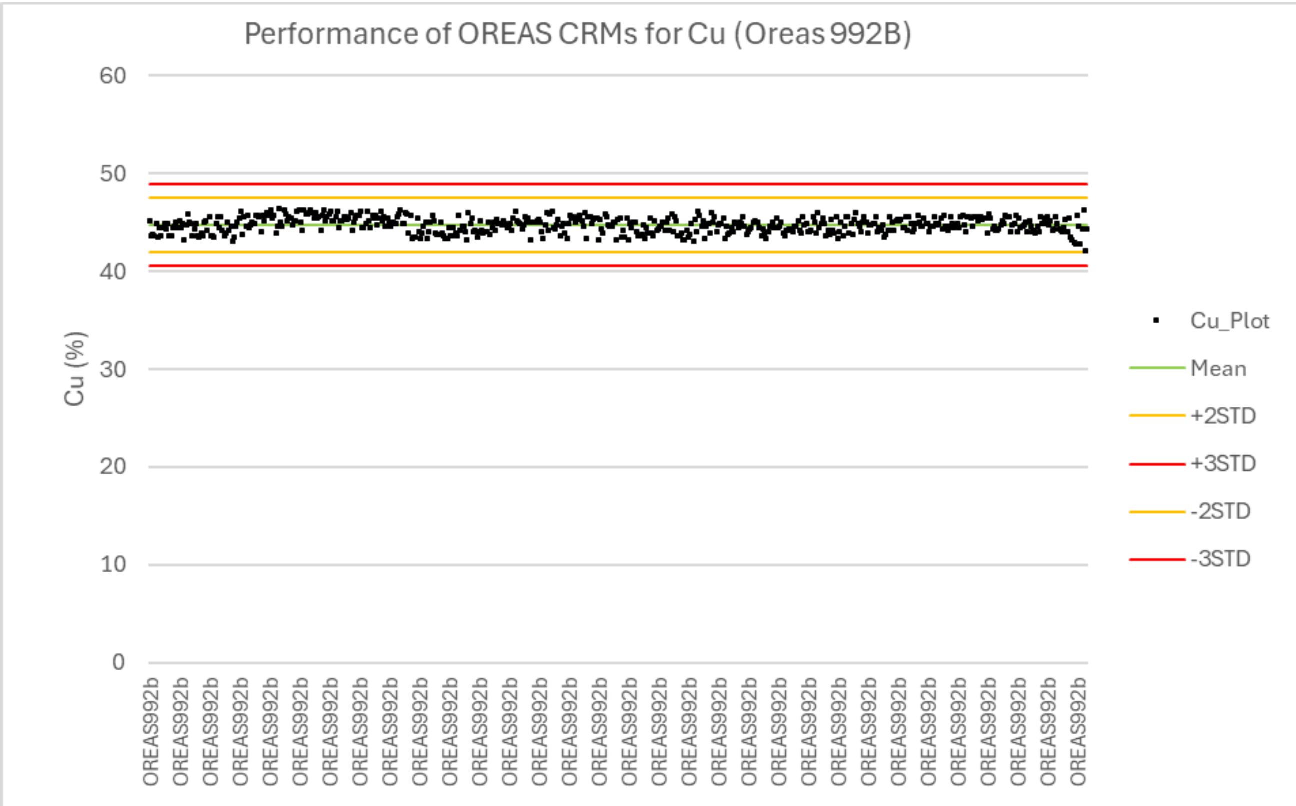
Source: *This Study*

Figure 11-10 Performance of OREAS CRMs for Cu (0.116 to 0.498 % data)



Source: *This Study*

Figure 11-11 Performance of OREAS CRMs for Cu (oreas 992b)



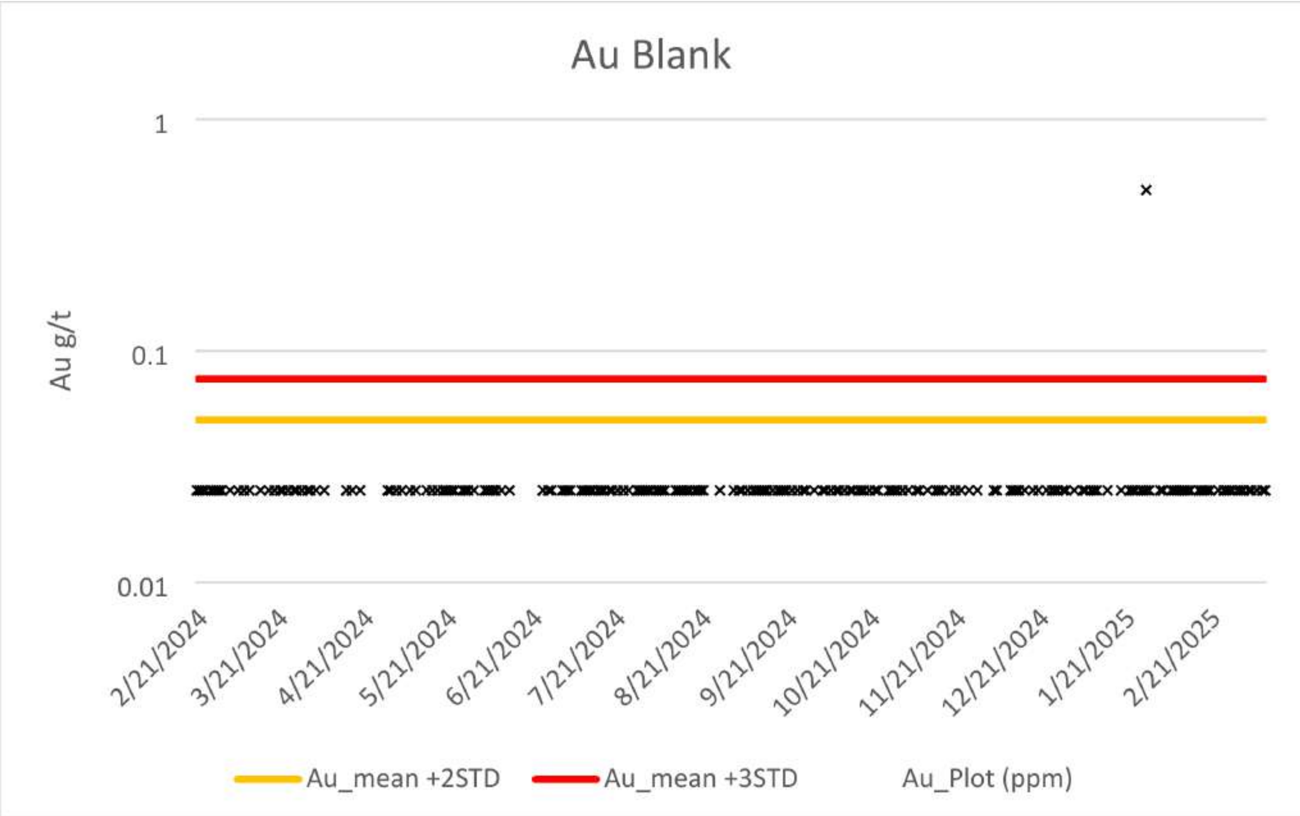
Source: *This Study*

11.2.1.2 Performance of Blanks

The blank material used by Aya is sourced and prepared from local cobbles of arenite and a variety of barren sandstone. The blank material is safely stored away from any source of contamination in plastic drums on-site. Blanks are inserted into the analysis stream approximately every 25 samples. All blank data for gold, silver, lead, zinc, and copper are graphed (Figure 11-12 to Figure 11-16). If the assayed value in the certificate was indicated as being less than detection limit, the value was assigned half the value of the detection limit for data treatment purposes (e.g., <1 = 0.5). An upper tolerance limit of +3 standard deviations from the calculated mean was set. There were 4,843 data points to examine.

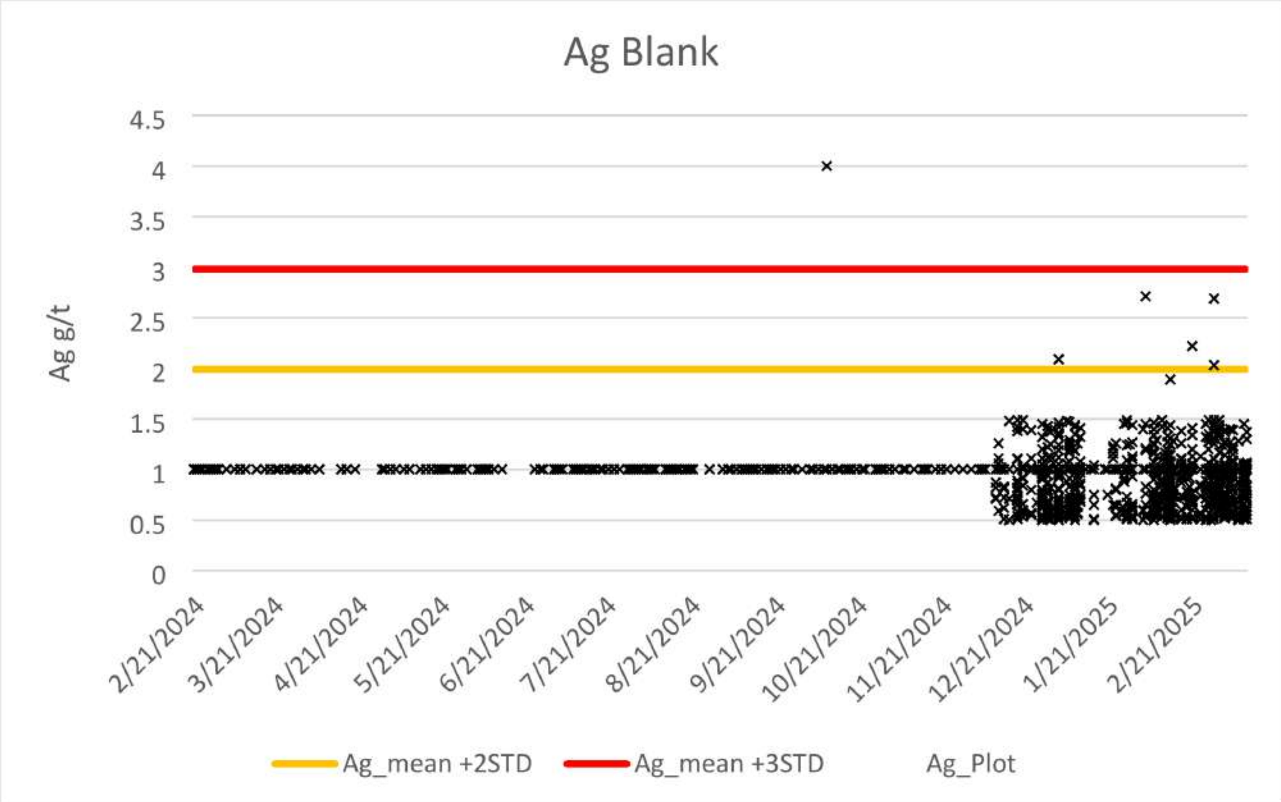
The vast majority of data plotted below the set tolerance limit, with very few data points plotting above the set tolerance limit. The Author of this Report section does not consider contamination to be an issue with the 2024 to 2025 Boumadine Deposit data.

Figure 11-12 Performance of Blanks for Au



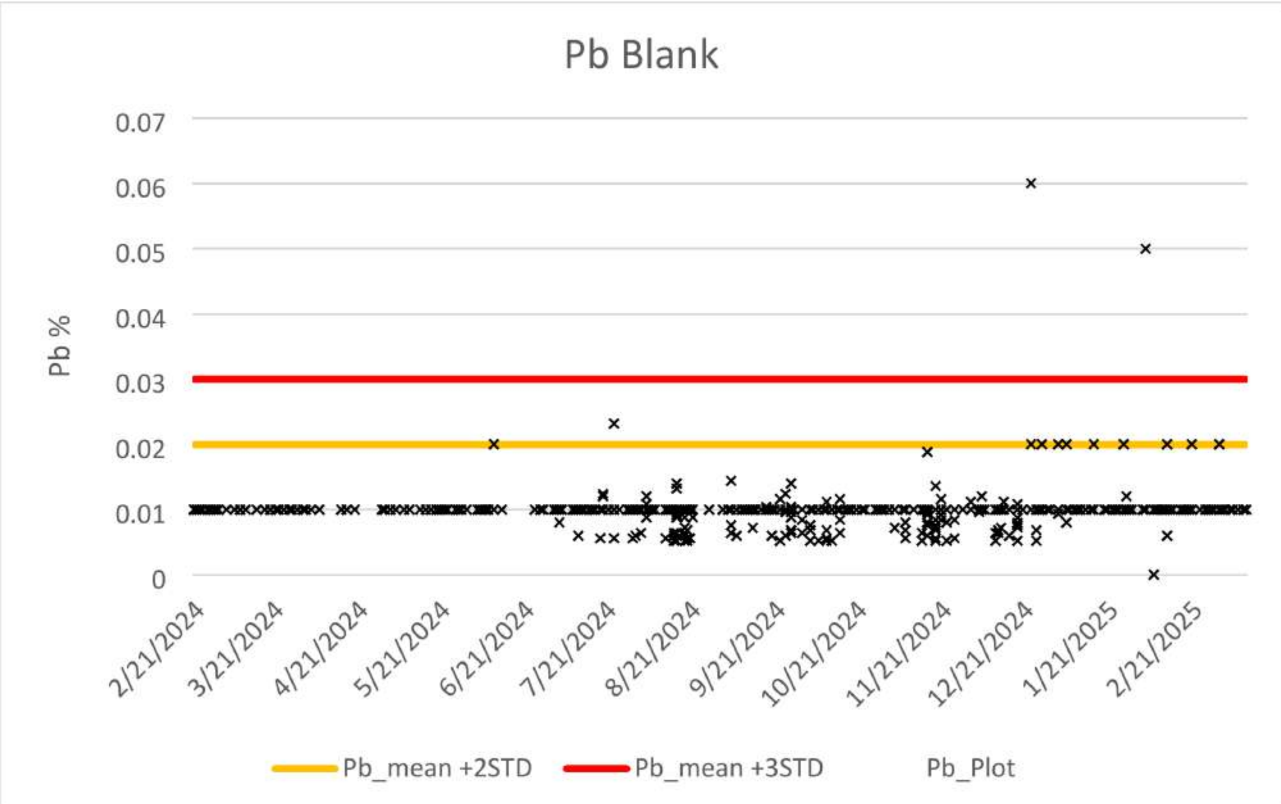
Source: *This Study*

Figure 11-13 Performance of Blanks for Ag



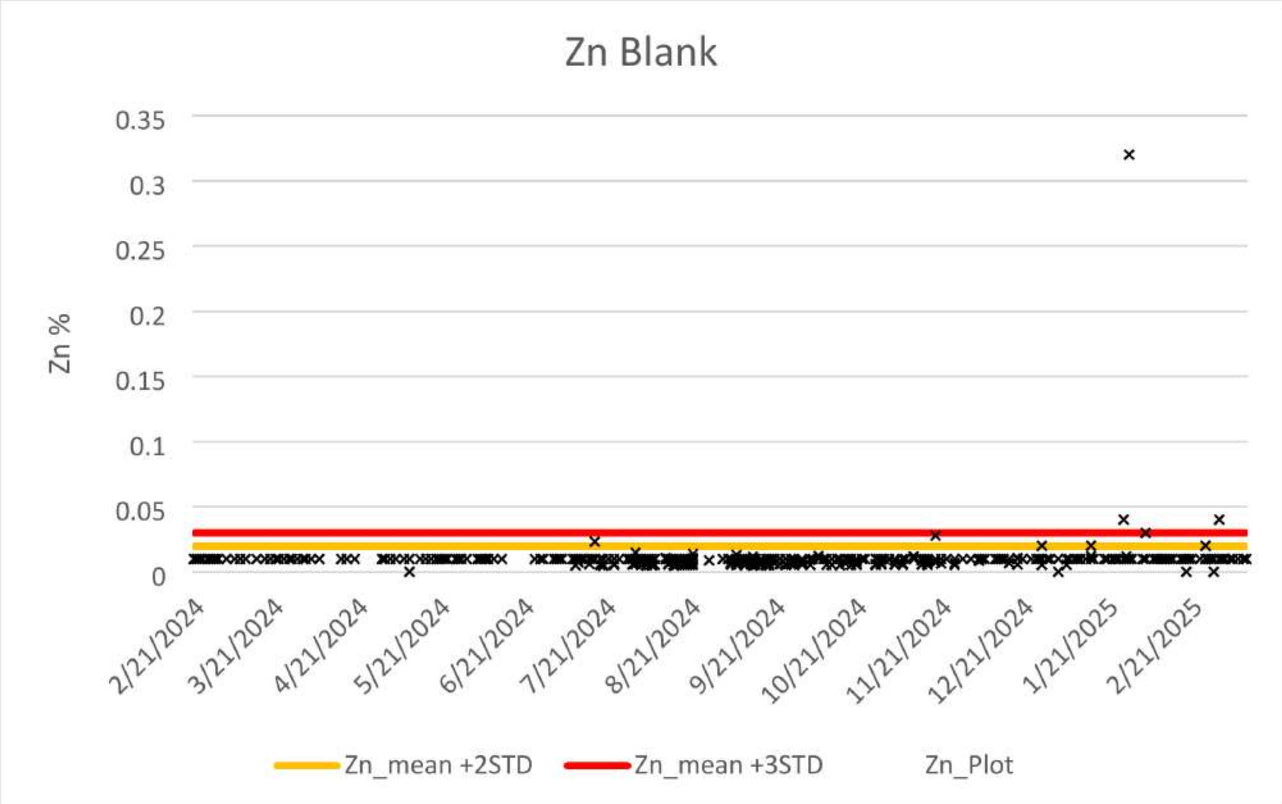
Source: *This Study*

Figure 11-14 Performance of Blanks for Pb



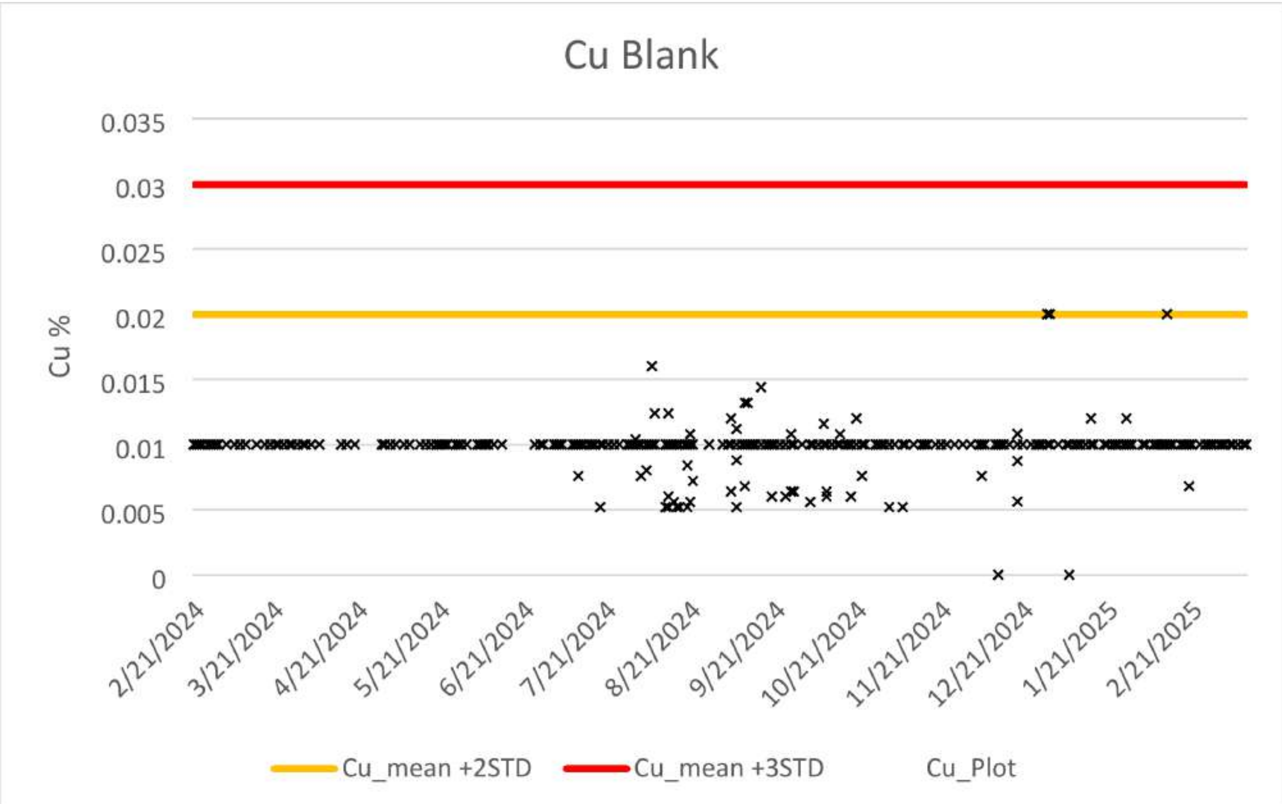
Source: *This Study*

Figure 11-15 Performance of Blanks for Zn



Source: *This Study*

Figure 11-16 Performance of Blanks for Cu



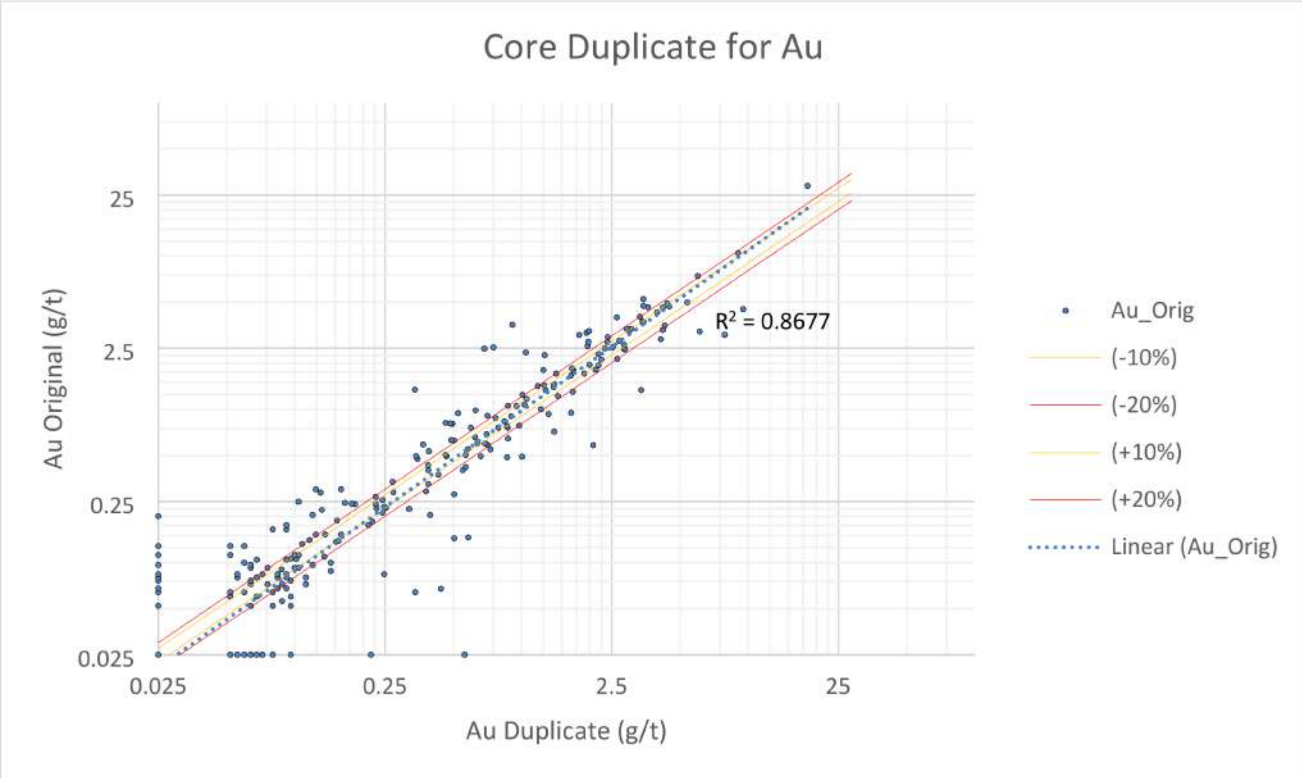
Source: *This Study*

11.2.1.3 Performance of Duplicates

Field duplicate samples were inserted into the drill core sample stream, at a rate of ~1 in every 50 samples from 2022 to 2025. Prior to this, four field duplicates only were inserted into three drill holes during 2018 and none were inserted during the 2019 drill program. At the end of each month, a selection of 5% of the coarse reject samples is also submitted to Afrilab for duplicate analysis and the primary lab also assays pulp samples for duplicate analysis.

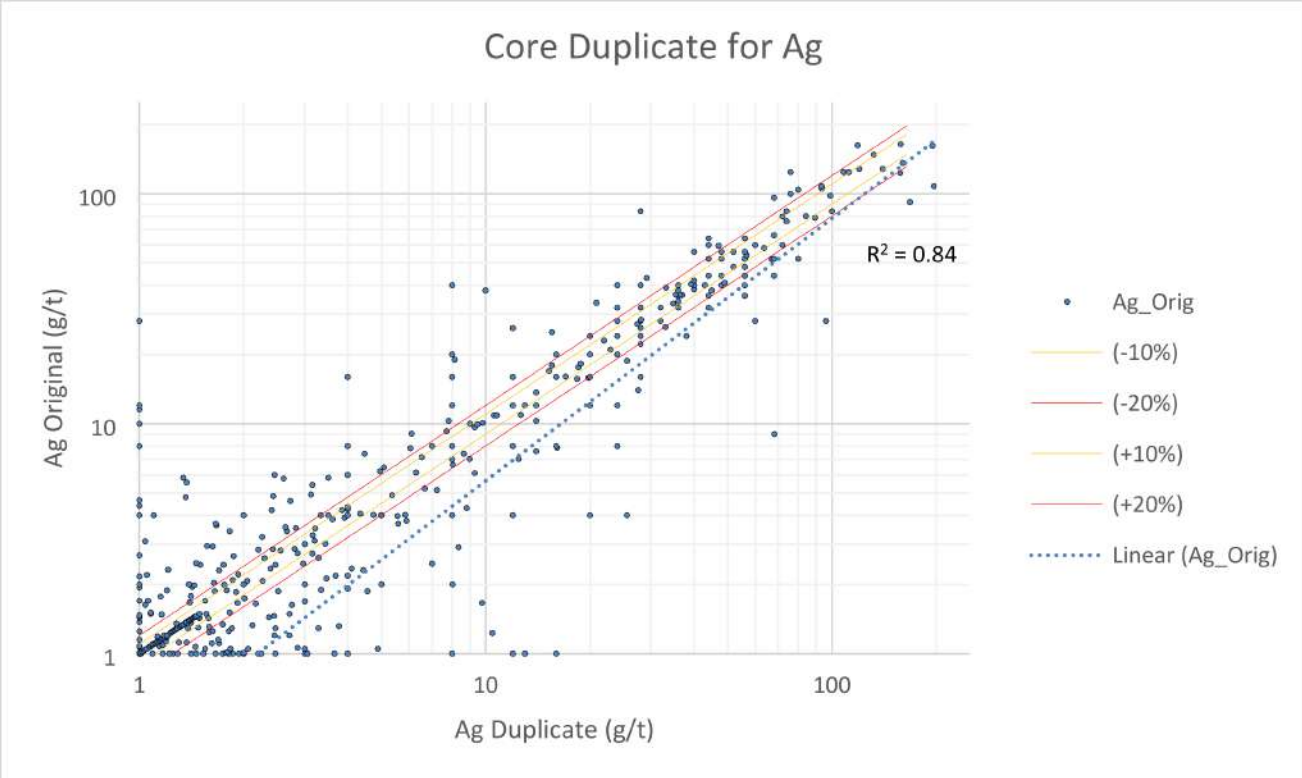
Core duplicate data for gold, silver, copper, lead and zinc were examined by the current Author for the 2024 to 2025 diamond drilling at the Boumadine Deposit. The data were graphed (Figure 11-17and Figure 11-21) and found to have acceptable precision.

Figure 11-17 Performance of Field Duplicates for Au



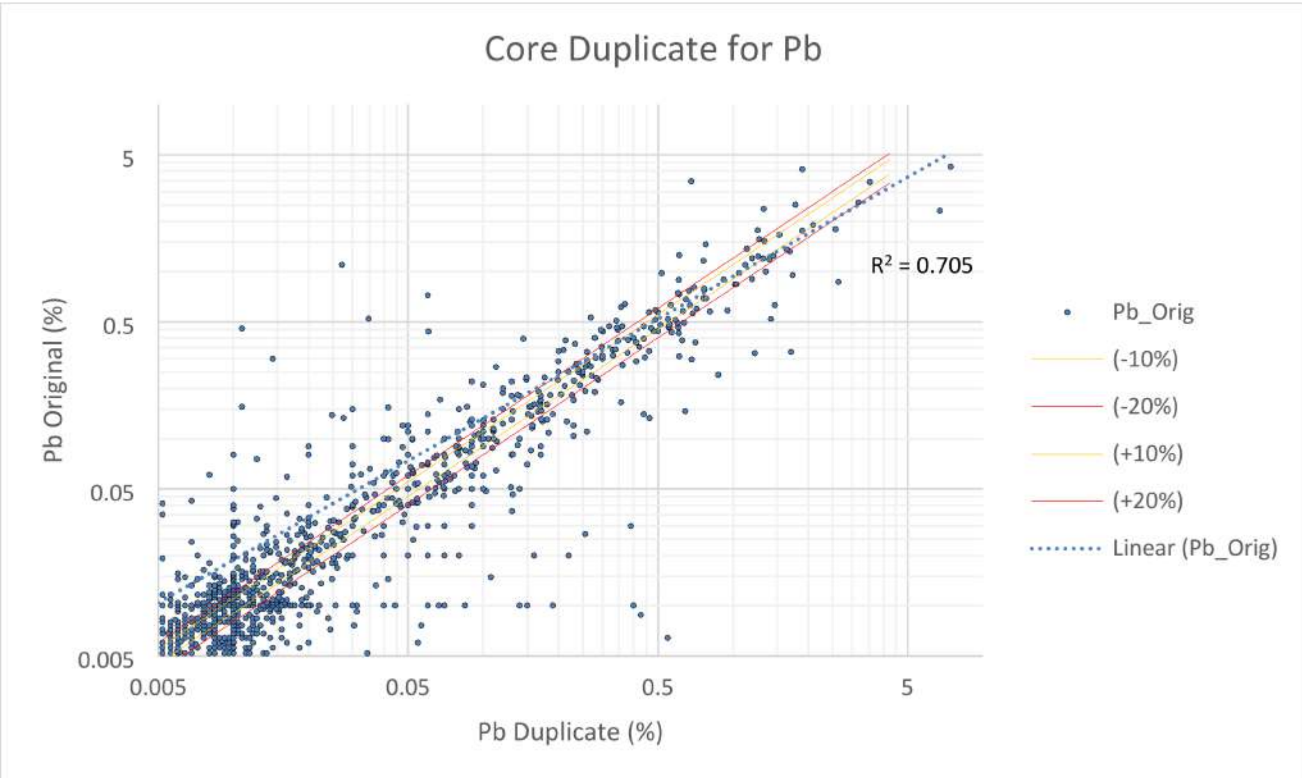
Source: *This Study*

Figure 11-18 Performance of Field Duplicates for Ag



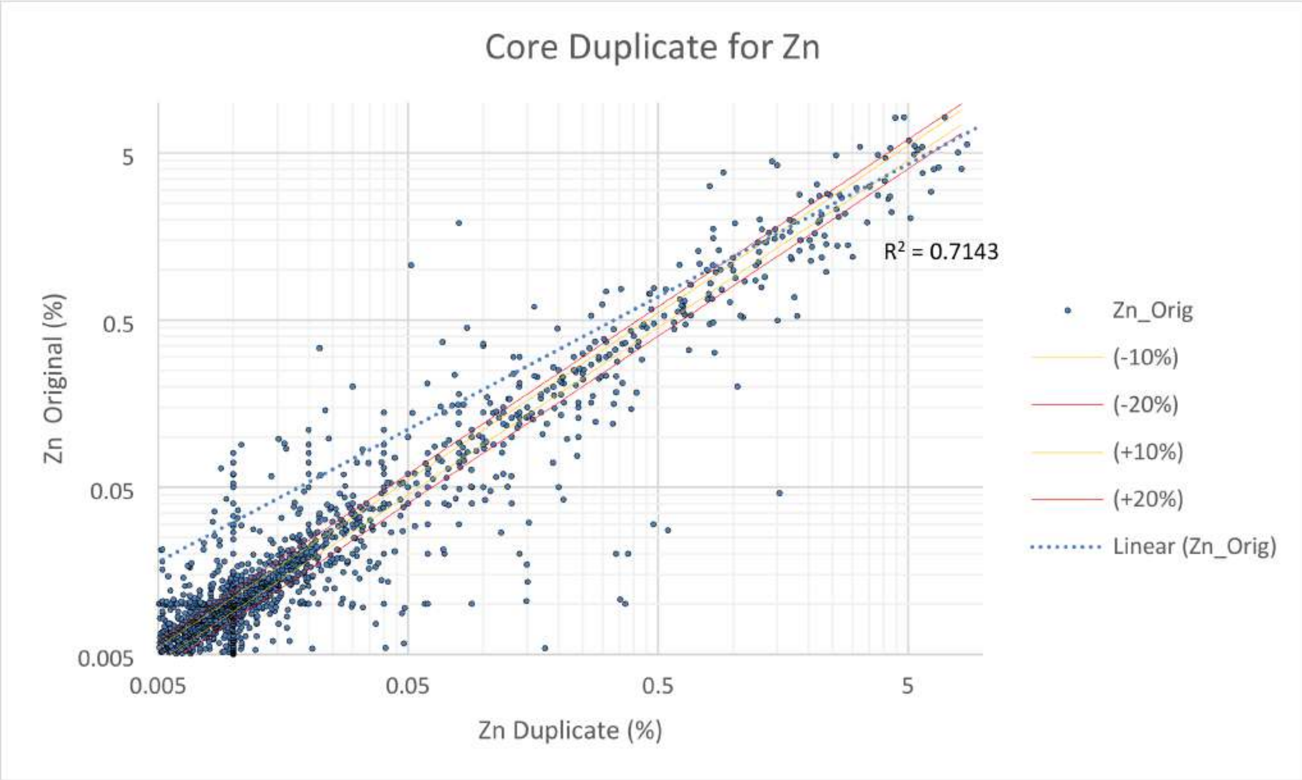
Source: *This Study*

Figure 11-19 Performance of Field Duplicates for Pb



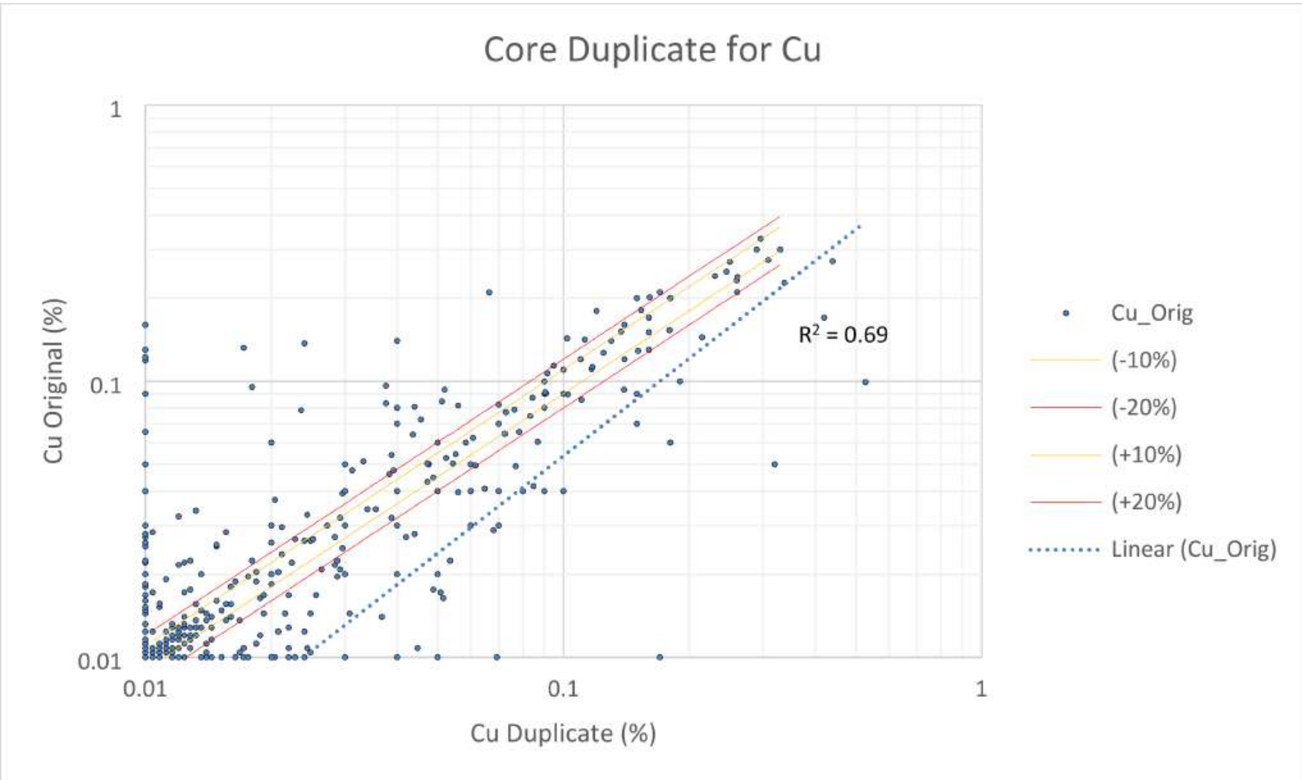
Source: *This Study*

Figure 11-20 Performance of Field Duplicates for Zn



Source: *This Study*

Figure 11-21 Performance of Field Duplicates for Cu



Source: *This Study*

11.2.1.4 Umpire Sampling

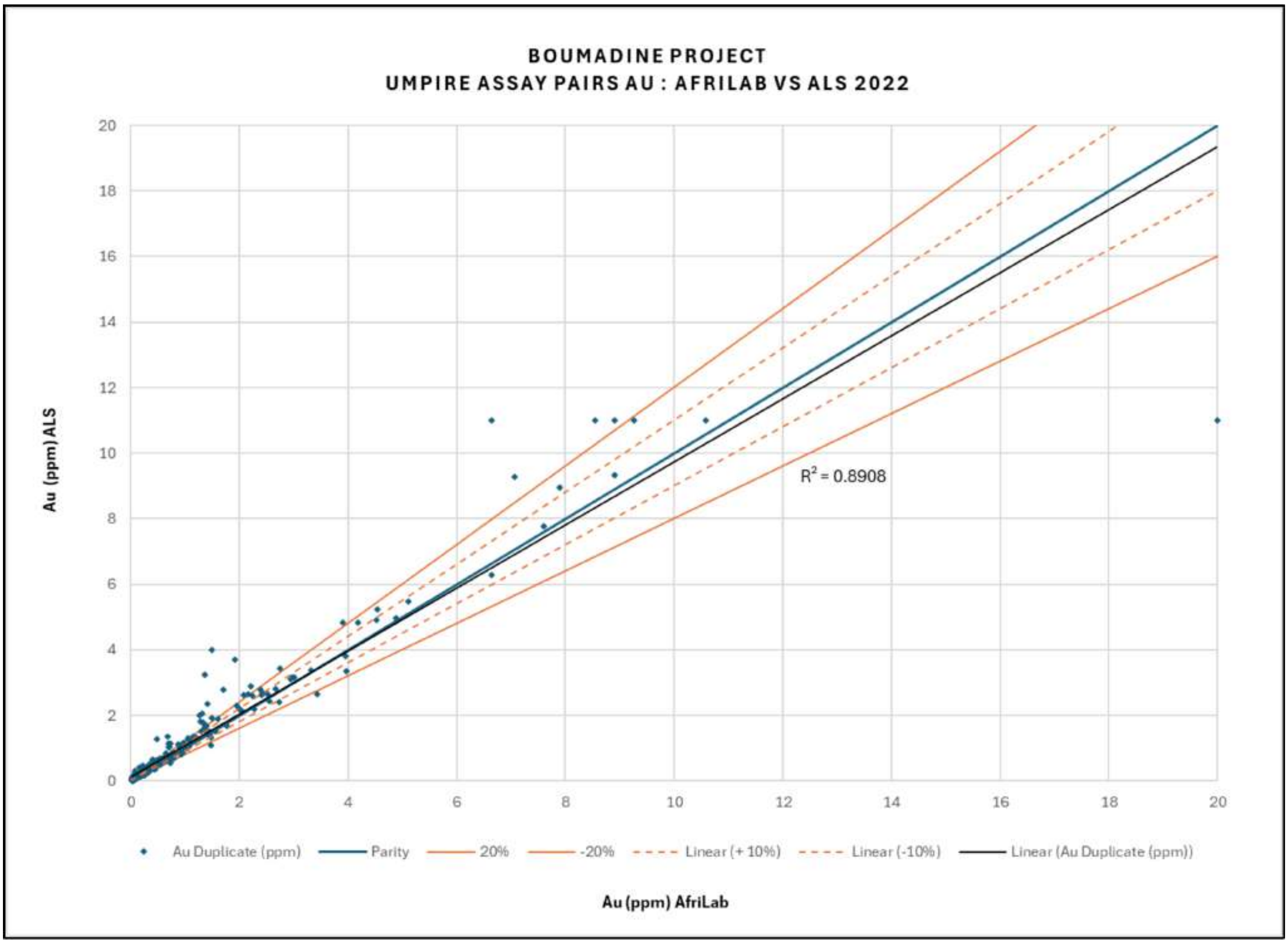
Aya conducted umpire sampling to verify the integrity of the analytical results produced by AfriLab, the primary laboratory, for geochemical testing at the Boumadine Deposit. Select pulverized pulp samples were submitted for check assaying at a secondary laboratory (umpire lab) to validate the original analyses performed by AfriLab. These check analyses were conducted on one in every 50 samples, representing approximately 2% of the samples sent for analysis, and were completed at ALS in Seville, Spain.

For the 2024 to 2025 period, a new ALS laboratory opened in Morocco at Aya's Zgounder site. Umpire samples for Boumadine were sent to this new lab. However, as the facility was only operational by the end of 2024, none of these samples were available for the current study.

P&E, the author of the 2024 MRE and technical report, reviewed the umpire assays for gold and silver for the Q3 and Q4 2022 drilling, comparing 422 samples. P&E noted some dispersion in the gold results below 2 ppm and around 8 ppm Au (Figure 11-22), along with a high bias in the reported umpire lab results and an R^2 value of 0.891. Increased dispersion below 80 ppm Ag was observed, as expected near the lower detection limit, while good correlation was seen above these lower grades (Figure 11-23). No significant bias was detected, with an R^2 value of 0.964.

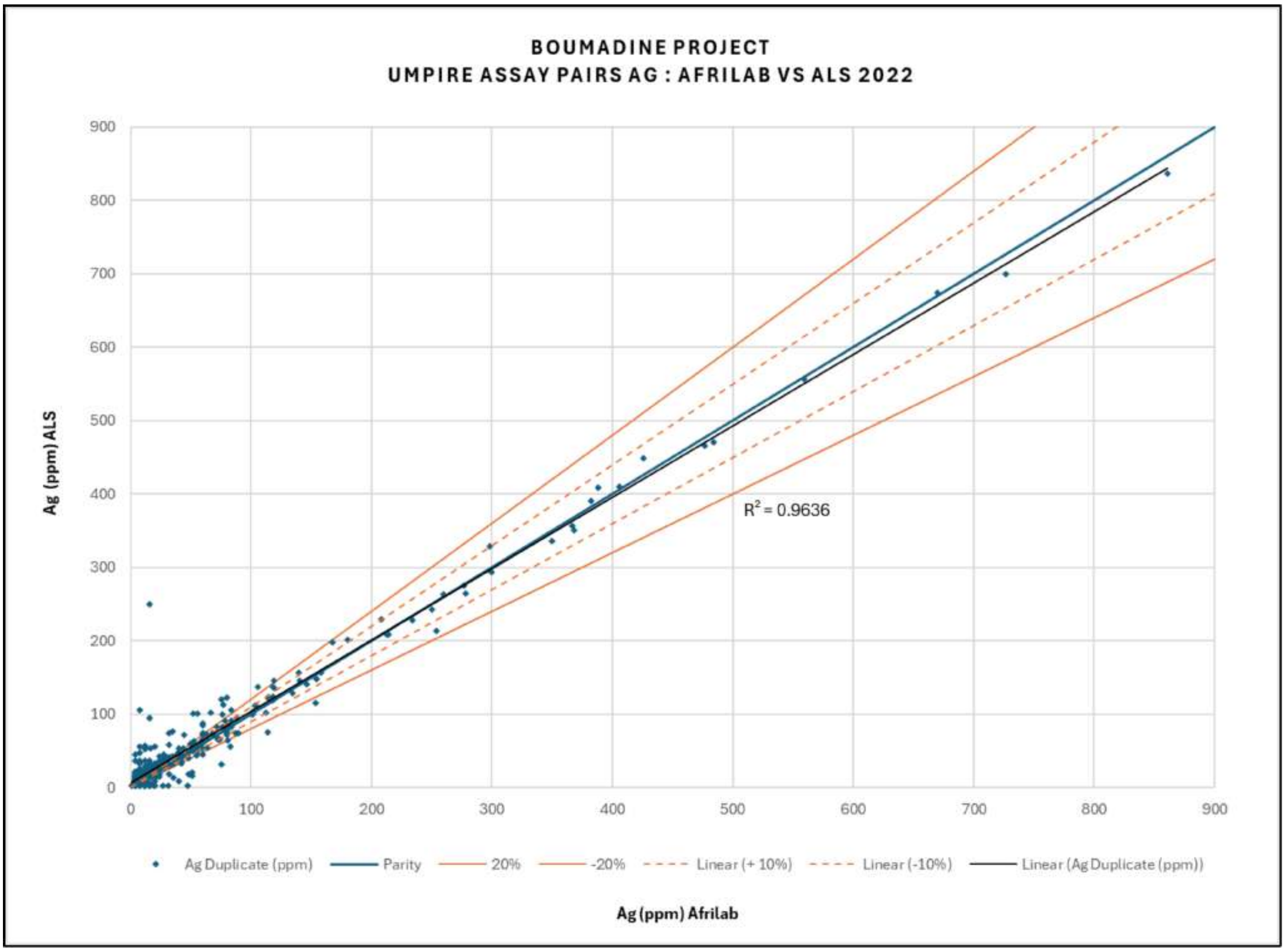
The current author verified P&E's observations and work. The current author does not consider the biases exhibited in the gold data to have a material impact on the current Mineral Resource Estimate, as the primary laboratory may be under-reporting these results. Overall, the current author considers the data acceptable for use in the current Mineral Resource Estimate.

Figure 11-22 Umpire Assay Comparison for Au: Afrilab Versus ALS 2022



Source: *P&E (May 2025)*

Figure 11-23 Umpire Assay Comparison for Ag: Afrilab Versus ALS 2022



Source: *P&E (May 2025)*

11.3 CONCLUSION

Aya implemented and monitored a thorough QA/QC program for the drilling completed at the Boumadine Deposit during the 2018 to 2024 period and also completed umpire assaying to confirm sampling and analyses undertaken during the drilling. Examination of QA/QC results for all recent sampling indicates no material issues with accuracy, contamination or precision in the data, and the late-2022 check assaying reviewed by the Author and P&E generally confirms the original data.

It is the opinion of the current Author that sample preparation, security and analytical procedures for the Boumadine Deposit are adequate and that the data are of good quality and satisfactory for use in the current Mineral Resource Estimate.

12.0 DATA VERIFICATION

12.1 DRILL HOLE DATABASE VERIFICATION

12.1.1 MRE 2025 Assay Verification

The current authors conducted a verification of the Boumadine Deposit drill hole assay data for silver, gold, copper, lead, and zinc for the 2024 to 2025 period. Certificates provided by Afrilabs were re-imported into an Excel template, and assay results were checked against the Geotic database and core photos. Approximately 5% of the certificates were verified by the author, and no errors were encountered during the verification process.

Assay data from 2018 to 2024 for the Boumadine Deposit were verified independently by P&E in the previous MRE report (P&E, May 2024). Approximately 15% of the overall data were verified for silver, gold, copper, lead, zinc, molybdenum and iron. Approximately 89% of the constrained data were verified for gold and molybdenum and ~16% for silver, copper, iron, lead and zinc. No errors were encountered in the data during the verification process.

The database verification undertaken by P&E is summarized in Table 12-1.

Table 12-1 Boumadine Database Verification Summary: May 2024

Element	All Recent Data (N=57,364)		Constrained Recent Data (N=1,591)	
	No. Verified	% Verified	No. Verified	% Verified
Au	8,758	15.3	1,415	88.9
Mo	8,760	15.3	1,409	88.6
Ag	8,566	14.9	259	16.3
Cu	8,566	14.9	259	16.3
Fe	8,566	14.9	259	16.3
Pb	8,566	14.9	259	16.3
Zn	8,566	14.9	259	16.3

Source: *P&E May 2024*

12.1.2 Drill Hole Data Validation

The Authors also validated the Mineral Resource database in Leapfrog Geo Seequent by checking for inconsistencies in analytical units, duplicate entries, interval, length, or distance values less than or equal to zero, blank or zero-value assay results, out-of-sequence intervals, intervals or distances greater than the reported drill hole length, inappropriate drill hole collar locations, survey and missing interval and coordinate fields. A few errors were identified and corrected in the database.

12.2 QP SITE VISIT AND INDEPENDENT SAMPLING

Throughout 2024 and 2025, the current Authors made several visits to the Boumadine Property.

Mr. Antoine Yassa, P.Geo., of P&E and an independent Qualified Person under the terms of NI 43-101, completed a site visit to the Boumadine Property from March 12 to 14, 2024 as part of the independent QP visit for the 2024 MRE. The site visit included the following activities:

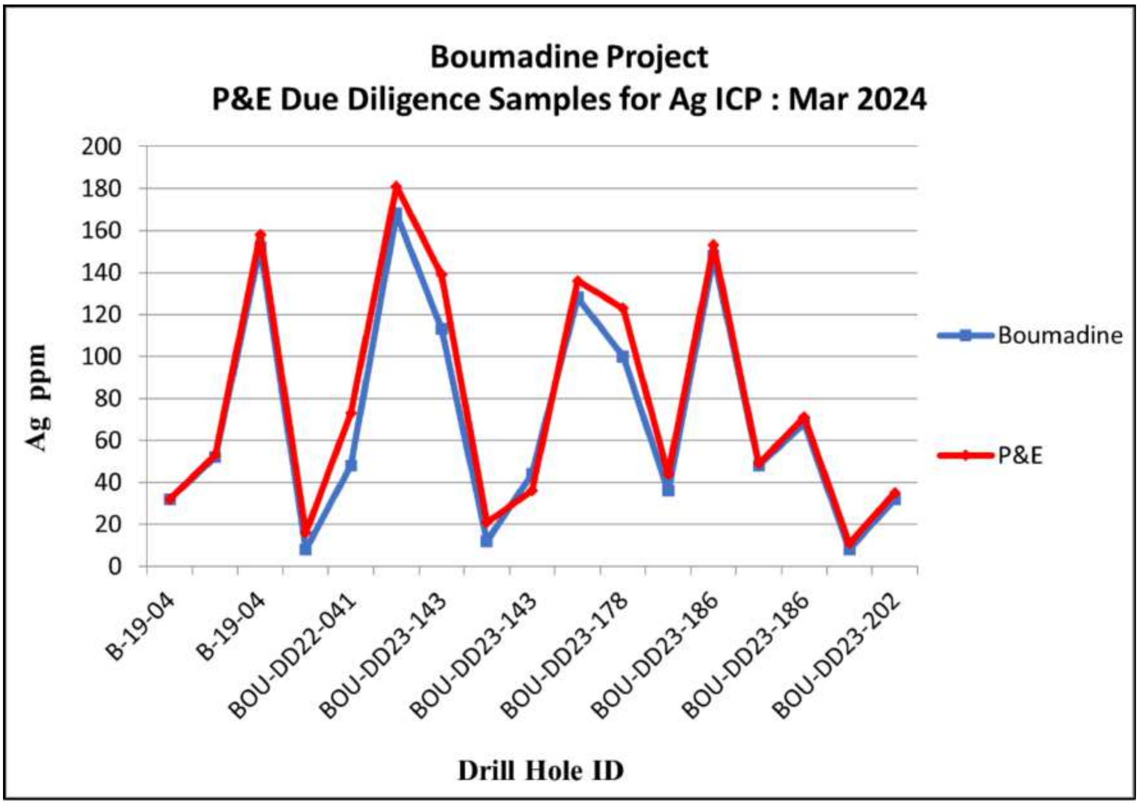
- Visiting various surface drilling sites;
- Inspection of onsite drill core logging and drill core storage facilities;
- GPS location verifications along the main mineralized trend from North to South
- Inspection of Afrilab in Marrakesh;
- Review of database, drill hole collar surveying, logging, sampling and QC procedures;
- Technical discussions and;
- Drill core verification sampling.

Mr. Yassa also collected 21 verification drill core samples from seven diamond drill holes. Samples were selected from holes drilled in 2019, 2022 and 2023. A range of high, medium and low-grade samples were selected from the stored drill core. Samples were collected by taking a quarter drill core, with the other quarter drill core remaining in the drill core box. Individual samples were placed in plastic bags with a uniquely numbered tag, after which all samples were collectively placed in a larger bag. Mr. Yassa delivered the samples to AfriLab, a certified laboratory in Marrakesh, Morocco for sample preparation and pulp shipment directly to Actlabs Laboratories in Ancaster, Ontario for analysis. The pulp samples at Actlabs were analyzed for silver and gold by fire assay with gravimetric finish, and by 4-acid digest with ICP-OES finish for silver, copper, molybdenum, lead and zinc.

Actlabs is independent of Aya and P&E and runs a Quality System that is accredited to international quality standards through ISO/IEC 17025:2017 and ISO 9001:2015. The accreditation program includes ongoing audits, which verify the QA system and all applicable registered test methods.

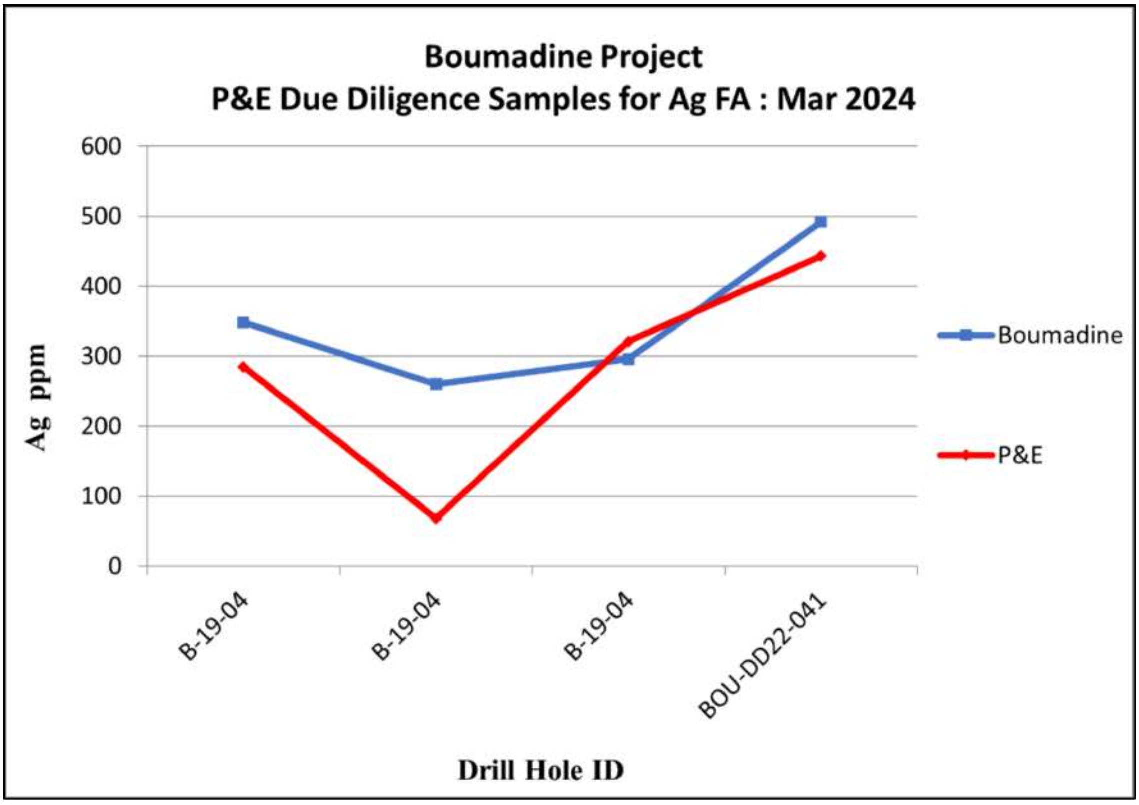
Results of the Boumadine site visit verification samples are presented in Figures 12.1 to 12.7.

Figure 12-1 Results of March 2024 Ag (ICP) Verification Sampling by P&E



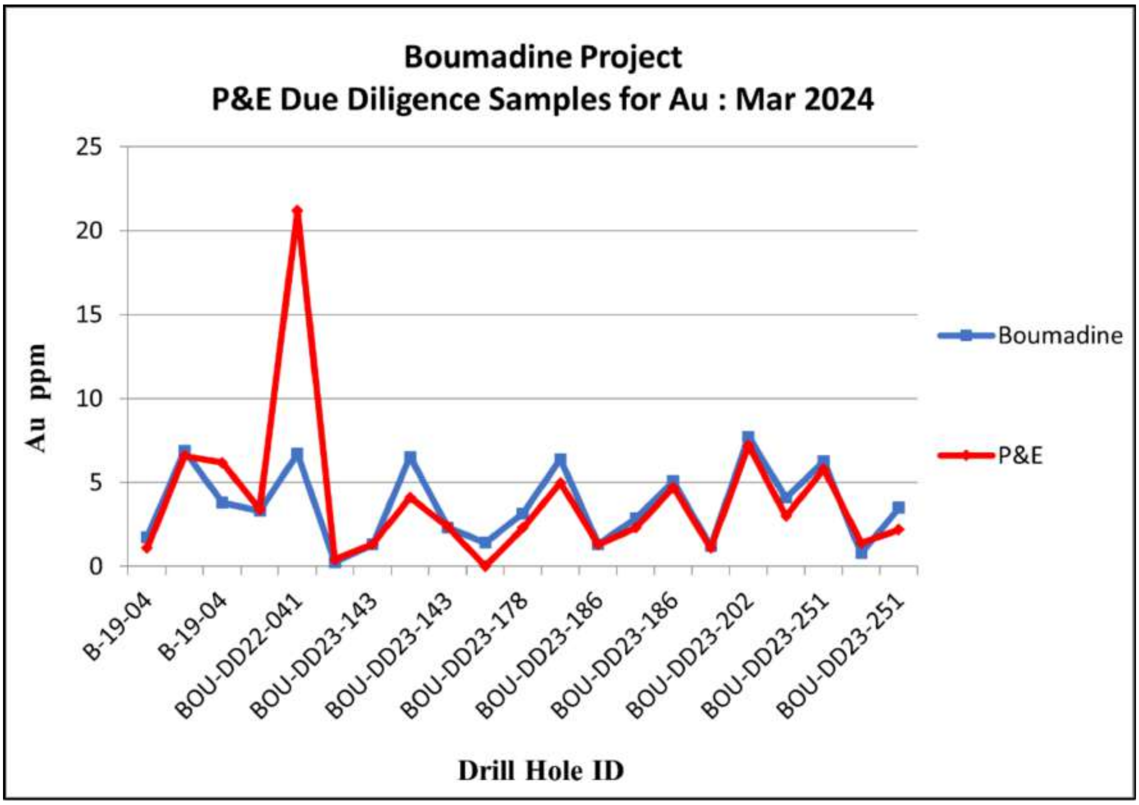
Source: *P&E (May 2025)*

Figure 12-2 Results of March 2024 Ag (FA) Verification Sampling by P&E



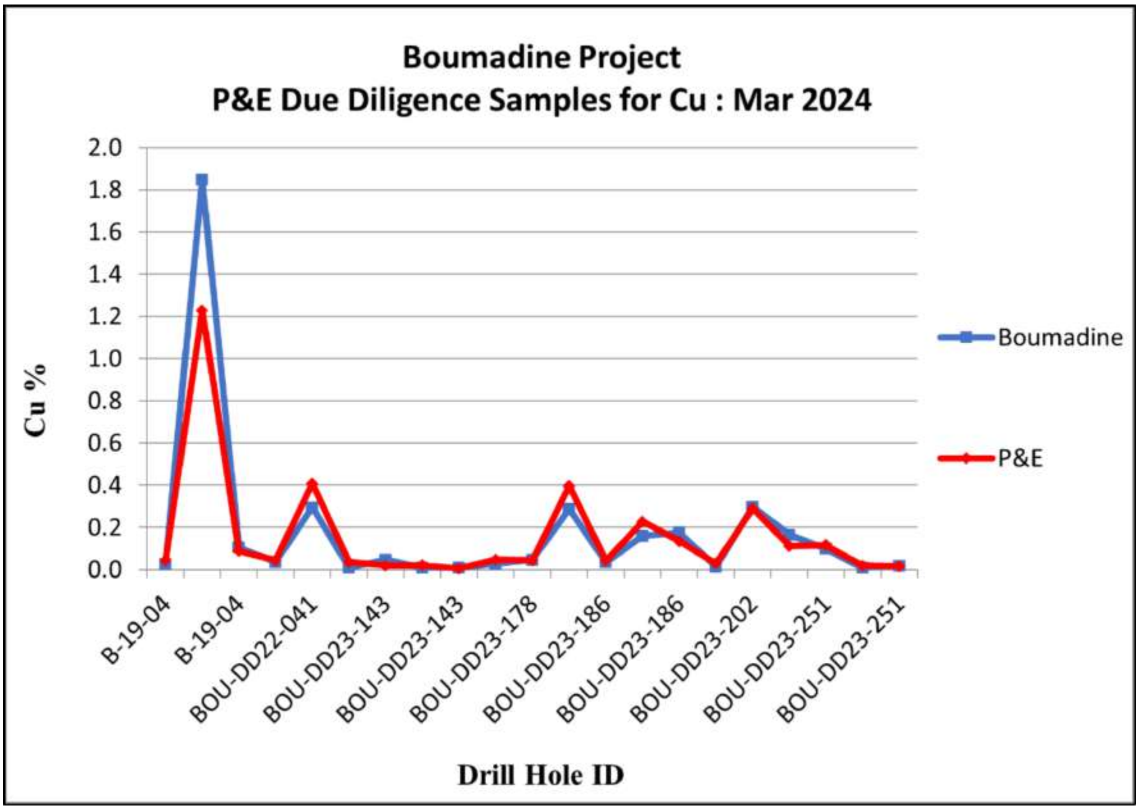
Source: *P&E (May 2025)*

Figure 12-3 Results of March 2024 Au Verification Sampling by P&E



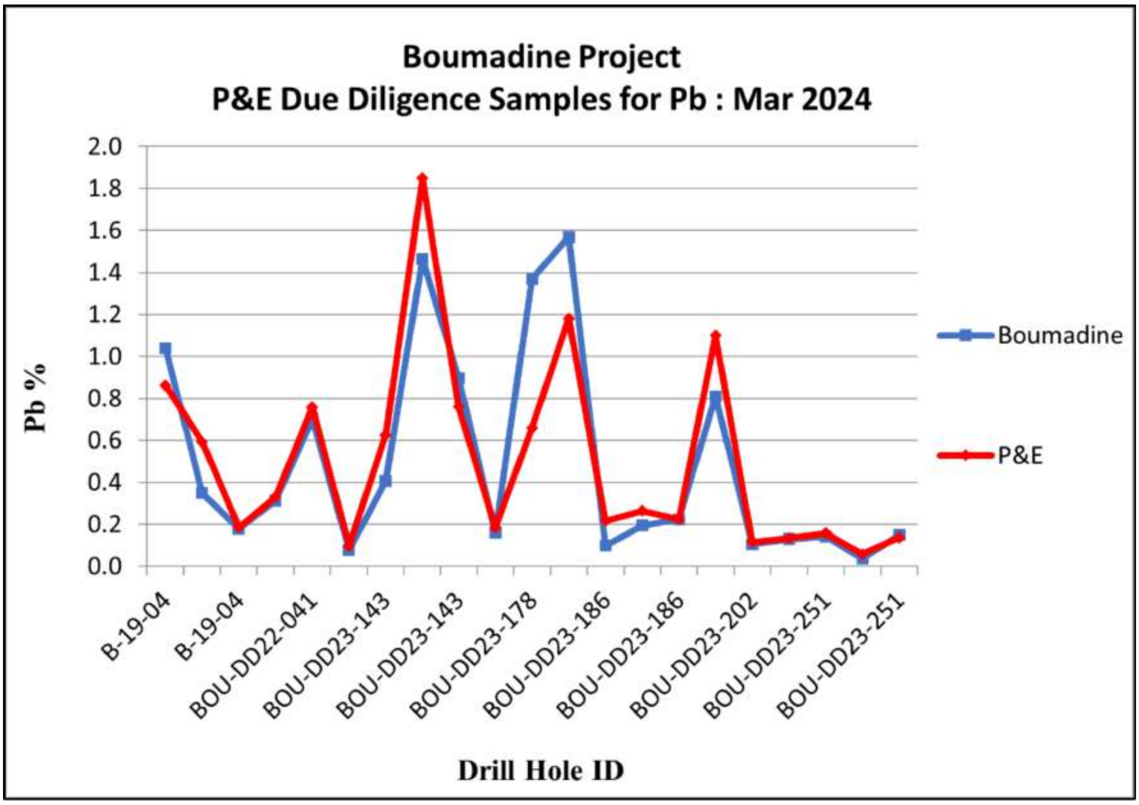
Source: *P&E (May 2025)*

Figure 12-4 Results of March 2024 Cu Verification Sampling by P&E



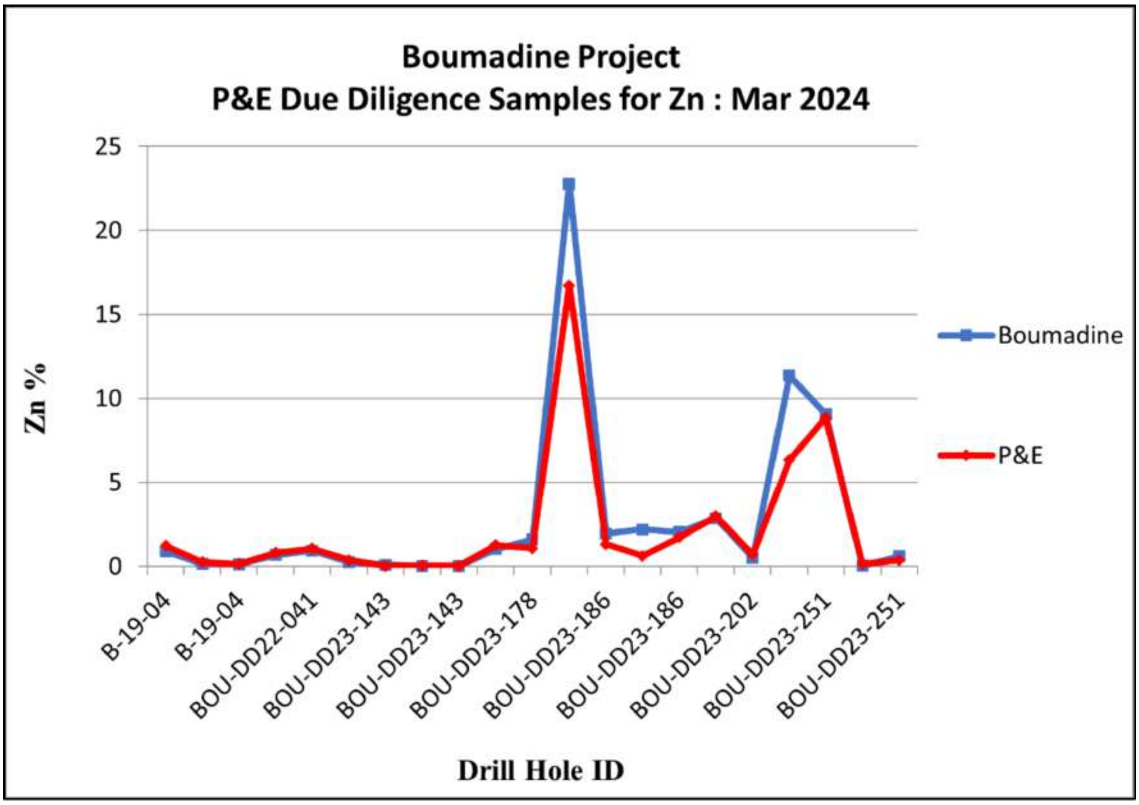
Source: *P&E (May 2025)*

Figure 12-5 Results of March 2024 Pb Verification Sampling by P&E



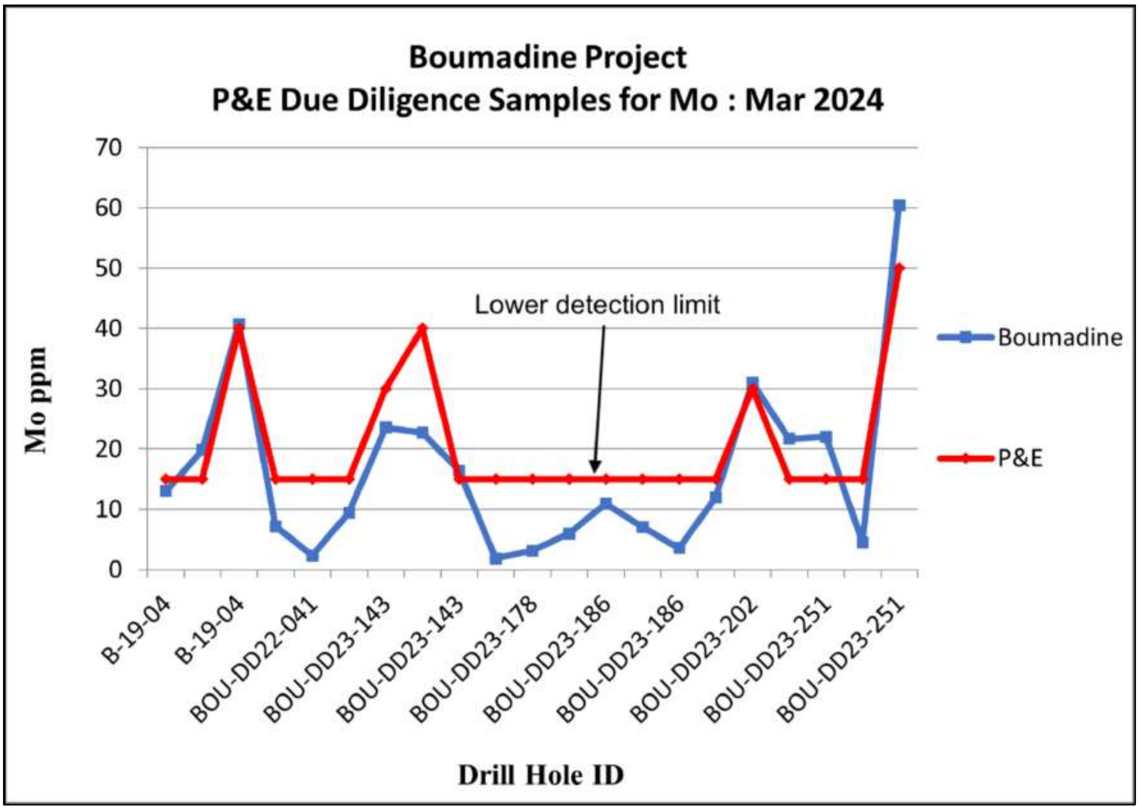
Source: *P&E (May 2025)*

Figure 12-6 Results of March 2024 Zn Verification Sampling by P&E



Source: *P&E (May 2025)*

Figure 12-7 Results of March 2024 Mo Verification Sampling by P&E



Source: *P&E (May 2025)*

12.3 CONCLUSION

The current Author has verified the Boumadine Deposit data used for the current Mineral Resource Estimate. This verification included site visits, validation of drill hole assay data from electronic files, and an assessment of the available QA/QC data.

In March 2024, Mr. Antoine Yassa, P.Geo., of P&E, an independent Qualified Person, performed an independent due diligence review, site visit, and sampling. The findings indicated a strong correlation between the assay values in Aya's database and the independent verification samples collected and analyzed by P&E at Actlabs. It was concluded that the supplied data were suitable for use in a Mineral Resource Estimate.

The current Author concludes that sufficient verification of the project data has been conducted and that the supplied data are of good quality and appropriate for use in the current Mineral Resource Estimate.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 HISTORICAL METALLURGICAL TESTWORK (PRE-2018)

Several metallurgical testwork programs have been completed on the Boumadine mineralized material between 1980s and 2018.

From 1986 to 1992, testwork programs have been completed by companies like SODIM and BRPM SODECAT, including pilot plant testwork, with the aim of upgrading the recovery by a selective flotation process of the precious metals in the lead and zinc concentrates.

In 2011, MAYA Gold & Silver organized a testwork campaign with the URSTM laboratory,
based in Rouyn-Noranda, Québec. The samples were collected from the historical tailings pond located at the Boumadine site. The goal of this test campaign was to assess the potential recovery of the precious metals contained in the historical tailings. The results from the URTSM tests (direct cyanidation tests) showed the flowing:

- The recovery obtained for gold was very low, at 27.8% after 44 hours of cyanidation. However, the recovery for silver was much higher at 70.1%. It was determined that the majority of leaching occurs within the first 2 hours; and
- The consumption of cyanide and hydrated lime was significant, ~2.2 kg NaCN/t and 8.9 kg $Ca(OH)_2$/t of mineralized material for 19 hours of cyanidation.

It appeared that the Boumadine sample was highly refractory to direct cyanidation, especially for gold, and to a lesser extent for silver.

In 2013, some metallurgical testwork was completed at the Nichromet Extraction Inc facility, located in Thetford Mines, in Québec.

Two samples collected from the bottom (BMF) and the top (BMS) of the main dry-stacked tailing located on the historical Boumadine Mine site were sent to the laboratory. The specimens weighed 5,156 g and 5,159 g, respectively, and were crushed to 80 µm (200 mesh) before being sent for geochemical analysis to the SGS Lakefield Laboratory. The samples are deemed to be representative of the entire tailings impoundment. Results of the assays are presented in the following Table 13.1.

Table 13-1 Geochemical analysis of Boumadine Tailing Samples BMF and BMS Performed by SGS Laboratories

Elements	BMS*	BMF*
Si (wt%)	13.60	9.52
Fe (wt%)	19.40	26.00
Mg (wt%)	0.16	0.11
Ca (wt%)	0.19	0.15
K (wt%)	0.78	0.62
Mn (wt%)	0.01	0.01
Pb (wt%)	0.07	0.12
Zn (wt%)	1.115	2.36
Cu (wt%)	0.09	0.09
Ni (wt%)	0.01	0.01
Co (wt%)	0.01	0.01
As (wt%)	1.04	1.53
Au (g/t)	1.85	2.71
Ag (g/t)	133	180
S (wt%)	16.00	26.00

Notes: ** bottom (BMF) and the top (BMS), wt% = weight percent*

The first step of the hydro-metallurgical process at Nichromet was the oxidation of the mineralized material in an oven at 750°C, in order to remove the sulphides that make it resistant to the gold and silver recovery by the means of cyanidation or "chloration".

The chloration was done in an aqueous solution comprising 2% NaOCl, 300 g NaCl/L and 30 g NaBr/L and the mixing and the contact time were 4 hours at 25°C. Results are given in Table 13.2.

Table 13-2 Rates of Au and Ag Extraction After Chloration of the Oxidized Residues of Samples BMF and BMS

Sample ID	Au Extraction (%)	Ag Extraction (%)
BMS*	31.94	11.48
BMF*	31.51	25.59

** bottom (BMF) and the top (BMS)*

To improve the lixiviation treatment, 50 g of BMS and BMF samples were mixed in a 2 g HNO_3 (69%) and 10 g H_2SO_4 (98%) solution without adding water. Strong mixing produced a homogeneous mud which was heated to 160°C for 1½ hours. The results show a 49% extraction for silver and an extraction of 69% of gold was achieved for sample BMS and only 18% for sample BMF (Table 13.3).

The duration of oxidation and addition of O_2 were also studied for the two tailings samples. The results demonstrate that an amount of 0.084% S^{-2} is found in the BMF residue after a 2 hours period of oxidation. S^{-2} amounts of 0.067% and 0.066% occur after 3 hours for samples BMF and BMS, respectively. Adding O_2 during the last hour of oxidation results in 0.057% and 0.066% S^{-2} for samples BMF and BMS, respectively. These results show that a period of 2 hours leads to the removal of 99.9% of S^{-2} from the residue.

The Nichromet testwork results showed that the best extraction method for gold and silver appears to be a lixiviation process using a blend of nitric and sulphuric acid solution. Doubling the amount of acid produces a respective extraction of 62% and 68% of gold for samples BMF and BMS after chloration. These are comparable to the former results using less acid. For silver, the respective extraction is 49% and 48% for samples BMF and BMS, which is a significant improvement from the earlier process.

Table 13-3 Rate of Extraction for Au and Ag for Re-crushed Samples BMF and BMS

Sample ID	Au Extraction (%)	Extraction (%)
BMS*	67.63	47.74
BMF*	61.98	48.76

Note: *Lixiviation with 1N HNO_3/2.5N H_2SO_4 solution; chloration 300/30 - 2% NaOCl).*
** bottom (BMF) and the top (BMS).*

It appears that ~60 to 70% of the gold can be removed from samples BMF and BMS when a moderate period of oxidation is employed. A longer oxidation rate with injection of O_2 at higher temperature is counterproductive, leading to the formation of more refractory components. These results are presented in the following Table 13.4.

Table 13-4 Au and Ag Extraction Rate for Samples BMS and BMF According to the Duration of Oxidation

Process	BMF* Extraction (%)		BMS* Extraction (%)	
	Au	Ag	Au	Ag
Oxidation 2 hrs + Chloration 300/30	68	49	62	48
Oxidation 3 hrs + O2 + Leaching HNO_3/H_2SO_4 + Chloration 300/30	32	25	32	12

Notes: *bottom (BMF) and the top (BMS), hrs = hours*

13.2 SGS LAKEFIELD METALLURGICAL TESTWORK – 2018

13.2.1 Grindability Testwork

The fresh mineralized material sample, Sample No. 1, was submitted for the Bond ball mill grindability test performed at 100 mesh of grind. The Bond ball mill work index (BWI) is compared to the SGS database. The BWI was 10.7 kWh/t, which lies in the moderately soft range in the SGS database.

13.2.2 Flotation Testwork

Open circuit batch rougher kinetic flotation tests were conducted on Samples No. 1 (fresh rock) and No. 2 (tailings).

A baseline lead-zinc-pyrite rougher kinetic flotation test was performed on Sample No. 1, the fresh mineralized material sample. A second test was performed at a finer primary grind and with increased dosages of depressants and collectors (sodium isopropyl xanthate ("SIPX") and potassium amyl xanthate ("PAX") to try to improve the lead concentrate grade and the lead and zinc recoveries.

The lead recovery in the second test was 69.7% at 3.4% mass pull and 7.79% grade. The zinc recovery was 81.9% at 3.3% mass pull and 36.8% Zn grade. The sulphur recovery to the pyrite concentrate was 92% with 68.6% mass pull and 50.7% S grade.

A flotation test was completed on the historical tailings Sample No. 2. It was discovered that the natural pH of the water was very low when this sample was pulped. The grinding mill discharge was pH 2.3 in the preliminary test after adding 1,250 g/t lime to the grinding mill. The lime consumption required to achieve a pH of 8.5 was extremely high. Bulk sulphide flotation on the washed tailings was performed, resulting in a pyrite concentrate grading 49.3% S and 6.1 g/t Au. The sulphur recovery was 99.6% and gold recovery 91.3%.

Open circuit batch cleaner flotation tests were performed on the fresh mineralized material Sample No. 1.

The first test, F5, attempted to produce lead, zinc, and pyrite concentrates. A lead 4^{th} cleaner concentrate grading 33.1% Pb was produced at 56.7% Pb recovery. The zinc 3^{rd} cleaner concentrate assayed 51% Zn with 78% recovery, whereas the pyrite rougher concentrate contained 49.8% S and 3.4 g/t Au, at 92.4% S recovery and 73% Au recovery. The pyrite rougher tail assayed 0.2 g/t Au. Most of the gold losses were in the lead circuit.

A second test was performed without lead flotation. A zinc concentrate was produced at 46.4% zinc, with only at 47.6% recovery. The pyrite rougher concentrate assayed 49.8% S and 5.28 g/t Au, with 97.5% S recovery and 87.5% Au recovery. The gold loss to the zinc circuit was 11%. The pyrite rougher tails assayed 0.22 g/t Au. The lead reporting to the pyrite concentrate was 85.2%.

A third test was performed to produce pyrite concentrate for downstream testing (roast/CIL). A lead rougher stage was included to reduce the amount of lead in the pyrite concentrate. A zinc concentrate grading 54.2% Zn at 79.5% recovery was produced. The pyrite concentrate graded 51% S and 5.18 g/t Au with sulphur recovery at 93.9% and gold recovery at 80.9%. The major gold loss was to the lead rougher concentrate at 15.5%. The pyrite concentrate was submitted for a roast/CIL test.

13.2.3 Cyanidation Testwork

Seven cyanidation tests were completed on the historical tailings samples and pyrite concentrates; five tests on tailings and two tests on pyrite concentrate samples after fine grinding to <10 µm.

The tailings samples were washed before leaching. Lime and NaCN consumptions were high and further weight losses occurred during the leaching period. The cyanidation extractions for gold ranged from 11 to 86% and normalized recoveries (based on residue and direct head grades) ranged from 25 to 69%.

The lime and NaCN consumptions for the pyrite concentrate samples were also high and recoveries were low at 19 and 32%.

13.2.4 Roast – CIL Testwork

Four roasting tests were completed on various samples (pyrite concentrate and historical tailings). The tests were conducted as two-stage roasts, in a static muffle furnace for a total of 4 hours (2 hours per stage). The sample was stirred every 15 minutes during the second stage. All sulphide sulphur was oxidized during roasting.

Each calcine was subsequently subjected to a standard cyanidation test as CIL, with 2 g/L NaCN, 10 g/L carbon for 24 hours. The RST-2 calcine (CN-9 feed) was ground in an attrition mill to <10 µm prior to cyanidation. The CIL results are listed in Table 13.5. Gold extraction from the calcines ranged from 45 to 85%, whereas silver recovery ranged from 5 to 72%. The poor recovery from the fully oxidized calcine may be due to the presence of 0.15 to 0.25% lead in the pyrite concentrates, which is known to cause problems in the roasting process.

Additional testwork would be required to optimize the roast-leach process, including examining lower temperatures for the second stage roast (600 to 650°C) and diagnostic work would be useful in determining the un-leached precious metal in the residues.

Table 13-5 Roasting – Calcine CIL Results

Test ID	Calcine CN Test ID	Reagent Addition (kg/t)		Reagent Consumption (kg/t)		CIL Recovery (%)	
		NaCN	CaO	NaCN	CaO	Au	Ag
RST-1	CN8	2.82	1.16	1.02	1.16	62.5	9.1
RST-2	CN9	4.17	4.29	3.91	4.27	84.8	72.5
RST-3	CN10	2.62	1.19	1.02	1.18	68.7	7.0
RST-5	CN11	3.39	1.54	1.54	1.52	44.8	4.7

13.2.5 POX – CIL Testwork

Seven pressure oxidation (POX) tests were completed on various samples. The POX tests were carried out in standard Parr 2 L titanium autoclaves. The pulp density in the POX tests was dictated by the sulphide sulphur grade in the POX feed and the need to create autothermal heating conditions. The POX feed was pre-acidulated to pH 1.5 for 30 minutes by addition of sulphuric acid. The Oxidized Tailings Comp was naturally acidic, and no acid was added to the POX feed for that sample. After POX, the pulp was filtered, and the solids washed. POX residues were sub-sampled for analysis and the remaining residue forwarded for CIL. POX4 through POX7 evaluated the effect of Hot Curing (HC) and Lime Boiling (LB) on subsequent lime consumption and silver recovery during CIL.

13.2.5.1 Hot Curing

POX4 through POX7 all incorporated a Hot Curing stage following POX. Hot Curing consists of holding the autoclave discharge slurry hot (~95ºC), under atmospheric pressure, to allow basic iron sulphate (produced at high temperature) to re-dissolve to ferric sulphate in solution according to the following equation:

$$2Fe(OH)SO_4 + H_2SO_4 = Fe_2(SO_4)_3 + 2H_2O$$

During the Hot Curing stage for POX4 and POX5, solution samples were taken after 1, 2 and 4 hours. Time zero iron in solution values are the POX liquor before starting the hot cure. In POX4, the iron in solution increased as expected based on the equation above; however, there was no change in iron in solution in POX5, because the oxidation was poor in that test (POX was overfilled, and some pulp was reported in the off-gas system). Under these conditions, very little basic iron sulphate was produced in the autoclave. In fact, the ~15 g/L iron in solution was almost all present as ferrous iron (versus ferric as basic iron sulphate). Hot curing has a significant impact on lime consumption during cyanidation/CIL.

13.2.5.2 Gold and Silver Extraction from POX Residues

Washed POX residues (direct POX residue, Hot Cure residue, or Lime Boil residue) were subjected to standard carbon-in-leach (CIL) tests to determine gold and silver recovery. Test conditions and results are summarized in Table 13.6.

Gold recovery from the flotation concentration after POX 1 pressure oxidation (POX CIL1) was high, at 97.4%. However, lime consumption was extremely high at 321 kg/t (POX feed basis). Silver recovery was low at 49%. Both of these results are related to the chemistry in the pressure oxidation process, with high sulphide feeds tending to produce significant amounts of basic iron sulphate and silver jarosite. The sulphate ion in basic iron sulphate does not react with limestone and can only be neutralized with lime. Therefore, copious amounts of lime were consumed during neutralization of the POX residue prior to and during cyanidation. In addition, it is well known that silver jarosite is insoluble in cyanide solution. These are well known phenomena in processing of refractory gold sulphide concentrates by pressure oxidation. The consumption of lime by the POX 4 residue was reduced significantly to 16.8 kg/t in the POX CIL 4 test, by employing a Hot Cure ("HC") stage after pressure oxidation. Silver recovery in this test, however, dropped from 49% in POX CIL 1 to just

1.2%, indicating that more silver jarosite formed during hot curing. In the final test on the flotation concentrate, POX CIL6, the autoclave slurry was first subjected to Hot Curing, followed by solid-liquid separation and washing of the residue. The washed solids were then subjected to a Lime Boil stage, which is designed to breakdown the silver jarosite complex. Excess lime is added to the slurry (generally 100 to 200% stoichiometric excess of the sulphate in the solids), which is then held near boiling temperature for several hours. The overall lime requirement was 60 kg/t, and recovery of both gold and silver were high after lime boiling, at ~98%. The POX=CIL results are presented in Table 13.6.

Table 13-6 POX – CIL Results

Test ID	Sample ID	Lime Boil CaO Addition		Reagents (kg/t of POX feed)				CIL Recovery (%)	
				Added		Consumed			
		kg/t lb Feed	kg/t POX Feed	NaCN	CaO	NaCN	CaO	Au	Ag
POX CIL 1	Pox 1 residue			7.24	320.8	3.55	320.8	97.4	49.2
POX CIL 2	Pox 2 residue			1.96	93.2	1.00	93.2	87.7	12.1
POX CIL 3	Pox 3 residue			2.21	73.7	0.61	73.6	95.4	3.5
POX CIL 4	Pox 4 HC residue			6.56	16.8	4.45	16.8	97.6	1.2
POX CIL 5	Pox 5 HC residue			1.49	2.4	0.37	2.2	43.7	65.7
POX CIL 6	Pox 6 HC-LB residue	263	59.2	2.11	0.6	0.90	0.6	98.2	97.6
POX CIL 7	Pox 7 HC-LB residue	40.1	23.8	1.39	0.4	0.25	0.3	71.6	81.4

13.3 SGS LAKEFIELD METALLURGICAL TESTWORKS - 2022

The 2022 test program consisted of X-ray diffraction (“XRD”) and Tescan Integrated Mineral Analyses (“TIMA-X”) mineralogical studies and the following processing and metallurgical tests:

- Comminution test.
- Gravity separation.
- Flotation – open circuit and locked cycle testing.
- Direct CIL cyanidation of pyrite flotation concentrate.
- BIOX/CIL of pyrite concentrate.
- Albion Leach ™ CIL.
- Roast/CIL.

13.3.1 Mineralogy

Gold and silver deportment studies were completed on fresh drill core representing a Main Composite (from the Boumadine Main Deposit or Central Zone).

A portion of the composite was stage-crushed to an intended target P_{80} of 75 µm. The sample was screened into +53 µm and -53 µm fractions. Chemical analyses of the two fractions indicated a significant concentration of copper, lead and zinc in the finer fraction. The gold content was slightly higher in the coarse fraction (3.7 versus 3.0 g/t), whereas silver was slightly lower (71 versus 114 g/t).

The XRD results provided the overall mineral composition of the composite sample as summarized in Table 13.7.

Table 13-7 Composite Sample Mineralogy

Mineral	% Weight
Quartz	34.6
Pyrite	32.6
Muscovite	17.1
Chlorite	3.3
Sphalerite	3.2
Gypsum	2.9
Arsenopyrite	2.8
Biotite	1.7
Galena	0.9
Chalcopyrite	0.9
Total	100

Slightly more than 40% of the sample weight were sulphides with the most common being pyrite. The presence of chlorites and micas could affect froth flotation efficiencies, and that of arsenopyrite could influence metallurgical process selection.

The TIMA-X bulk mineralogy analyses were somewhat different with the following results. The sulphides in the composite sample were found to be consisting mainly of pyrite (55.5%), sphalerite (4.1%), arsenopyrite (3.2%), galena (1.4%), and trace amounts of chalcopyrite (0.4%), pyrrhotite (0.1%), and tetrahedrite (0.06%). The remainder of the sample was composed of quartz (21.7%), micas/chlorite/clays (10.6%), and trace amounts (<1% each) of other minerals.

The liberation and mineral association of the key minerals of interest are as follows:

1. Free and liberated pyrite was determined to be high (>94%) in both plus and minus 53 µm fractions;
2. The arsenopyrite is 77% free and liberated; and
3. The sphalerite is 78% free and liberated, galena less at 65%.

Grade-recovery associations in flotation were determined by SGS to be potentially:

- Galena – 58% to 100% pure mineral at 87% to 54% recovery; and
- Sphalerite – 63% to 99% pure mineral at 96% to 69% recovery.

Gold was determined by SGS to be present as native gold (70%) and electrum (30%). Silver was found to be widely distributed as native silver (20%), with gold (electrum – 20%), and six silver minerals.

Essentially, all of the gold was measured to be present in fine (<15 µm) grains with 23% in extremely fine (<3 µm) grains. As a result, half of the gold grains were identified as locked-in, mainly within pyrite grains. Practically no gold grains were identified as associated with or locked-in other sulphides. These phenomena suggest that high concentration gold by physical means would be unrealistic and that leaching extraction would need to follow a high degree of pyrite oxidation.

13.3.2 Comminution Testing

The Main Composite sample was submitted for the Bond ball mill grindability test performed at a P_{80} 150 µm mesh grind. The Bond ball mill work index ("BWI") is compared to the SGS database. The measured BWI was 15.4 kWh/t, which lies in the moderately hard range of the SGS database.

13.3.3 Gravity Separation

The test feed, 1.8 kg of the Main Composite sample, was ground in a laboratory rod mill to P_{80} 78 µm. The mill discharge was passed through a Knelson MD-3 Concentrator collecting a concentrate and producing tailings. The Knelson concentrate was further upgraded on a Mozley mineral separator. The final concentrate represented 0.1% of the total mass and graded 312 g/t Au and 747 g/t Ag. The combined Knelson and Mozley tailings assayed 1.55 g/t Au and 117 g/t Ag. The recovery to the final Mozley concentrate was 19% Au and 0.7% Ag.

The results indicated that gravity may not add significant value if incorporated in the final flowsheet, based on the results with the Main Composite sample.

13.3.4 Flotation Testwork

13.3.4.1 Rougher Flotation Tests

Open circuit rougher and cleaner tests were completed on the Main Composite sample, attempting to produce a saleable lead/gold/silver concentrate and a pyrite concentrate with the maximum amount of gold and silver, along with a zinc concentrate that would be floated prior to pyrite flotation.

Locked cycle testing was also completed to determine the effect of recirculating middling products, to test the robustness of the conditions and to produce a pyrite concentrate for downstream testing.

The baseline lead-zinc-pyrite kinetic test (F3) was completed at a primary grind P_{80} of 58 µm. The reagents and grind size were varied in the subsequent tests. These test conditions produced a lead-gold-silver concentrate grading 9.39% Pb, 3.47% Zn, 1.60% As, 30.8% S, 12.4 g/t Au, and 678 g/t Ag in the baseline test. The concentrate recovered 87% of the lead, 32.8% of the gold, and 53.9% of the Ag. However, 14.8% of the Zn and 13% of the As also reported to the lead rougher concentrate.

Further tests were conducted with the objective of increasing the grade of the lead-gold-silver concentrate and a pyrite concentrate containing the remainder of the gold and silver. The tests investigated different reagent schemes and grind sizes. The main objective of these tests was to reduce the amount of zinc reporting to the lead concentrate. Various zinc/sulphide depressants, in addition to $ZnSO_4$ and NaCN, were tested, such as sodium sulphide, sodium sulphite, and sodium metabisulphite. None of these alternatives significantly reduced the level of zinc in the rougher concentrate. The zinc recovered to the lead concentrates ranged from 14 to 25%. The TIMA-X mineralogical investigation results indicated that only 3% of the galena was associated with sphalerite in the ground Main Composite sample. This suggests that there exists potential for improved rejection of zinc from a lead concentrate.

The combined lead + pyrite concentrates all achieved recoveries of >90% gold and >85 to 87% silver.

13.3.4.2 Cleaner Flotation Tests

Open circuit batch cleaner flotation tests were made on the Main Composite sample. The results showed that, although the gold and silver grades of the lead concentrates were high in Tests F6 and F11, and the lead recoveries were acceptable, the lead grades were all below the saleable target. The zinc grade in Test F11 was above the target grade; however, the recovery was low, with significant losses occurring in the cleaning stages.

13.3.4.3 Locked Cycle Flotation

A single 6-cycle locked cycle test was completed with the goals of assessing overall metallurgical performance when internal recycles are incorporated and producing concentrate for downstream testing. Products were recirculated in a typical counter-current manner. The lead and zinc first cleaner tailings were advanced to the next circuit roughing stage.

The conditions for the locked cycle test were based on the results from the batch tests, with minor adjustments in the reagent dosages. The test was completed over six cycles with 2 kg of feed per cycle. The primary grind P_{80} target was 58 µm, lead regrind D_{80} was 18 µm, and zinc regrind D_{80} was 17 µm. The test generally exhibited satisfactory stability with the exception of zinc, where the stability was lower than the other elements. This result suggests steady state may not have been achieved in the zinc circuit. The results of the locked cycle tests are presented in Table 13.8.

13.3.5 Pyrite Concentrate Testing

The pyrite concentrates from cycles A-F were combined and blended, then split into small charges for direct CIL, Albion, BIOX, and roasting testwork.

Table 13-8 Locked Cycle Test Results Summary

Locked Cycle Test Results Summary	Weight (%)	Assays							% Distribution						
		Cu (%)	Pb (%)	Zn (%)	As (%)	S (%)	Au (g/t)	Ag (g/t)	Cu	Pb	Zn	As	S	Au	Ag
Pb Conc	3.0	4.81	26.7	4.35	1.67	35.0	26.6	1,923	75.3	84.5	7.1	4.7	4.1	26.5	53.1
Zn Conc	2.3	0.37	0.48	58.1	0.27	32.9	1.22	166	4.3	1.2	72.0	0.6	2.9	0.9	3.5
Pyrite Conc	54.9	0.061	0.18	0.65	1.69	42.4	3.80	78.5	17.4	10.6	19.5	86.8	89.9	69	39.6
Pyrite Tails	39.9	0.015	0.089	0.063	0.21	2.02	0.27	10.5	3.0	3.7	1.4	7.9	3.1	3.6	3.8
Head Calc	100	0.19	0.95	1.83	1.07	25.9	3.02	109	100	100	100	100	100	100	100
Head Direct		0.19	1.00	2.25	0.083		3.33	113							

13.3.5.1 Direct CIL Testing

Two cyanidation tests were completed on the pyrite concentrate at two grind sizes; the "as received" grind size of P_{80} 42 µm, and reground to D_{80} 6.3 µm. At the end of the leaching stage, the carbon was screened from the pulp and the samples were filtered, collecting a barren leach solution and a residue. The residue was washed with three displacement washes of water and the wash discarded. The carbon, barren solution, and residue were submitted for gold and silver analysis.

As indicated in Table 13.9, the gold extractions were very low, even with fine grinding, although the gold extraction increased from 9.5 to 22.4%. Silver yielded better extractions, with extraction of 80% from the finely ground sample. The reagent consumptions were high and increased significantly with fine grinding.

Table 13-9 Direct CIL Extraction

Sample Type	P_{80} (µm)	Au Extraction (%)	Ag Extraction (%)
Pyrite Conc	42	9.5	36.4
Pyrite Conc	6.3	22.4	80.2

13.3.5.2 Albion Testing

The Albion Process™, developed by Xstrata Pty Ltd. (Glencore Technology Pty Limited), Australia, is a combination of fine grinding and exothermic oxidative leaching without the need for pressure treatment or external heating.

The Albion leach parameters recommended by Glencore were in line with their standard neutral leach protocol, which was characterized, in this case, by the parameters listed here:

- Grind D_{80} targets = 6.3 µm (Test NAL-1) and 10 µm (Test NAL-2) (P_{80});
- pH controlled at 5.5;
- Pulp density = 10% (w/w);
- Leach at 95°C, and
- 96 hours retention time (Test NAL-1) and 78 hours retention time (Test NAL-2).

Sulphide oxidation was high (96.3%) for the test at the finer grind size P_{80} of 6.3 µm and longer retention time, which dropped significantly to 74.7% when the grind was coarsened to 10 µm and the retention time decreased to 78 hours.

The limestone additions were very high for both tests; 1,650 kg/t of feed to Albion for Test NAL-1 and 1,260 kg/t for Test NAL-2. It should be noted that at the amenability level of testing these additions were not optimized.

The results for the cyanide leaches after Albion oxidation are provided in Table 13.10. Gold and silver extractions were greatly improved after the Albion pre-treatment. The test at 6.3 µm reported 94.4% gold and 94.8% silver extractions. The gold extraction decreased significantly with the NAL-2 residue (coarser grind and shorter retention time). Reagent consumptions were also reduced in comparison with the direct CIL tests.

Table 13-10 Pyrite Concentrate Albion Testing Results

Sample	Sulphide Oxidation (%)	P_{80} (µm)	Au Extraction (%)	Ag Extraction (%)
NAL-1 residue	96.3	6.3	94.4	94.8
NAL-2 residue	74.7	10	84.9	91.3

13.3.5.3 Bacterial Oxidation Testing

Bacterial leaching (or bio-oxidation of sulphides) is a biohydrometallurgical process developed for pre-cyanidation treatment of refractory gold feed or concentrates. The bacterial culture employed is a mixed culture of acidithiobacillus ferrooxidans, acidithiobacillus thiooxidans, and leptospirillum ferrooxidans. The bio-oxidation process consists of contacting refractory sulphide sample (typically flotation derived concentrate) with a strain of the bacterial culture for a suitable treatment period under an optimum operating environment. The bacteria oxidize the sulphide minerals, thus liberating the occluded gold for subsequent recovery via cyanidation.

The inoculum build up was performed in preparation of the bioleach tests. The standard operating procedure applied in all tests was as follows:

- 399 g of sample was pulped with 3,250 mL of 0 K solution in a 5 L reactor and heated to 40°C with heated lines placed in the reactor;
- The targeted pulp density was 10.5% solids (w/w);
- The slurry was agitated with a mechanical mixer and air was sparged through it using a stainless steel sparger;
- The pH of the sample was adjusted to 1.6 and maintained for 24 hours with concentrated sulphuric acid. After 18, 26 or 35 days, the pulps were filtered, and the filtrate was collected and measured. A filtrate sample was submitted for analysis and the remainder retained; and
- The filter cake was repulped with water, agitated using an overhead mixer, and re-filtered. The filter cake was then washed three times with one approximate displacement volume of water per wash stage. The pH of each wash solution was recorded and the wash water discarded. A representative sub-sample of the washed filter cake was submitted for chemical analysis. The remainder of the filter cake was forwarded to cyanidation.

The sulphide oxidations improved with increase in retention time, ranging from 60.6% for the 18-day test to 92.8% for the 35-day test. It should be noted that a 35-day residence time in a batch test translates to an ~5 day retention in a continuous process.

The BIOX residues were leached, and at the end of the leaching period, the carbon was screened from the pulp and the sample was filtered, collecting a barren leach solution and a residue. The residue was washed with three displacement washes of water and the wash was discarded. The samples were submitted for gold and silver assay.

The CIL gold extractions improved from 75 to 85%, with longer retention time; i.e., higher sulphide oxidation, however silver extractions decreased drastically (Table 13.11). This result is most likely due to the Jarosite Formation and may be overcome with the inclusion of a lime boil stage. The reagent consumptions were very elevated. High cyanide consumption in commercial bacterial leaching plants is generally associated with the formation of elemental sulphur as an intermediate sulphide oxidation product in the BIOX process, and reaction between cyanide and sulphur to produce thiocyanate ions in solution.

Table 13-11 Biox Testwork Results

Sample	Days	Sulphide Oxidation (%)	Au Extraction (%)	Ag Extraction (%)
BAT-2 residue	18	60.6	75.2	75.5
BAT-3 residue	26	88.0	82.2	40.1
BAT-1 residue	35	92.8	85.1	37.0

13.3.5.4 Roast-CIL Testing

Roasting tests were completed on the LCT 1 pyrite concentrate. The tests were conducted as one, two, and three-stage roasts, in a static muffle furnace. Each stage was 2 hours. The sample was rabbled every 15 minutes.

Each calcine was then split in half. One-half was reground in a lab attrition mill to a D_{80} of <10 µm and the other remained at the "as is" particle size. The calcines were then subjected to a standard cyanidation test as CIL, with a 4-hour pre-conditioning stage with oxygen addition, the addition of lead nitrate and lime, and then a 72-hour leach with 2 g/L NaCN and 4 g/L carbon.

As shown in Table 13.12, gold extraction from the calcines was poor, ranging from 55.6 to 71.1%, whereas silver extraction ranged from 19.9 to 60.3%.

SGS stated that they were uncertain why gold and silver extractions were so poor, even after near complete oxidation of the sulphides. The formation of an impervious molten phase during the roasting process was suggested as a possibility.

Table 13-12 Roast-CIL Testwork Results

Sample ID	P_{80} (µm)	Sulphide Oxidation (%)	Au Extraction (%)	Ag Extraction (%)
RST1	46.0	99.9	61.1	19.9
	7.4	99.9	71.1	44.9
RST2	41.5	97.6	55.6	51.3
	6.7	97.6	65.9	60.3
RST3	44.3	99.8	59.3	32.5
	7.5	99.8	66.7	51.6
RST6	51.3	89.3	52.5	51.8
	8.1	89.3	63.9	61.8
RST7	36.5	95.1	56.4	29.6
	5.9	95.1	66.7	50.4

14.0 MINERAL RESOURCE ESTIMATES

14.1 INTRODUCTION

This section presents the updated MRE for the Boumadine Deposit, incorporating new drilling data and geological modeling refinements. It updates the previous MRE dated April 16, 2024. The estimate has been prepared in accordance with the Canadian Securities Administrators' National Instrument 43-101 and Form 43-101F1, following industry best practices outlined in the "CIM Estimation of Mineral Resources and Mineral Reserves Best Practices" guidelines. Mineral Resources have been classified in compliance with the CIM Standards on Mineral Resources and Reserves: Definition (2014) and Best Practices (2019), as adopted by the CIM Council.

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

An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.

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

Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the Mineral Resource will be converted into a Mineral Reserve. Confidence in the estimate of Inferred Mineral Resources is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. The Authors are not aware of any known permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource Estimate.

The Authors consider the block model used for the Mineral Resource Estimates and mineral resource classification, which was developed by Aya, to represents a reasonable estimation of the mineral resources for the Boumadine Deposit with regard to compliance with generally accepted industry standards and guidelines, the methodology used for grade estimation, the classification criteria used and the actual implementation of the methodology in terms of Mineral Resource estimation and reporting. The Mineral Resources have been estimated in conformity with the requirements of the CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines as required by the Canadian Securities Administrators' National Instrument 43-101. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

Wireframe modelling was developed by Aya using Seequent Leapfrog Geo™ software. Mineral Resource estimation and variography were completed by Aya using Isatis™ software. Open-pit optimization was developed by Aya using the GEOVIA Whittle software.

14.2 DATA USED

The resource estimate is based on a dataset of 428 drill holes, totaling 142,268 meters. This updated MRE incorporates an additional 93 drill holes, contributing 44,514 meters of new drilling data. The drilling extends approximately 5.4 km along strike (Figure 14.1 and Appendix A). The database was closed on December 1, 2024.

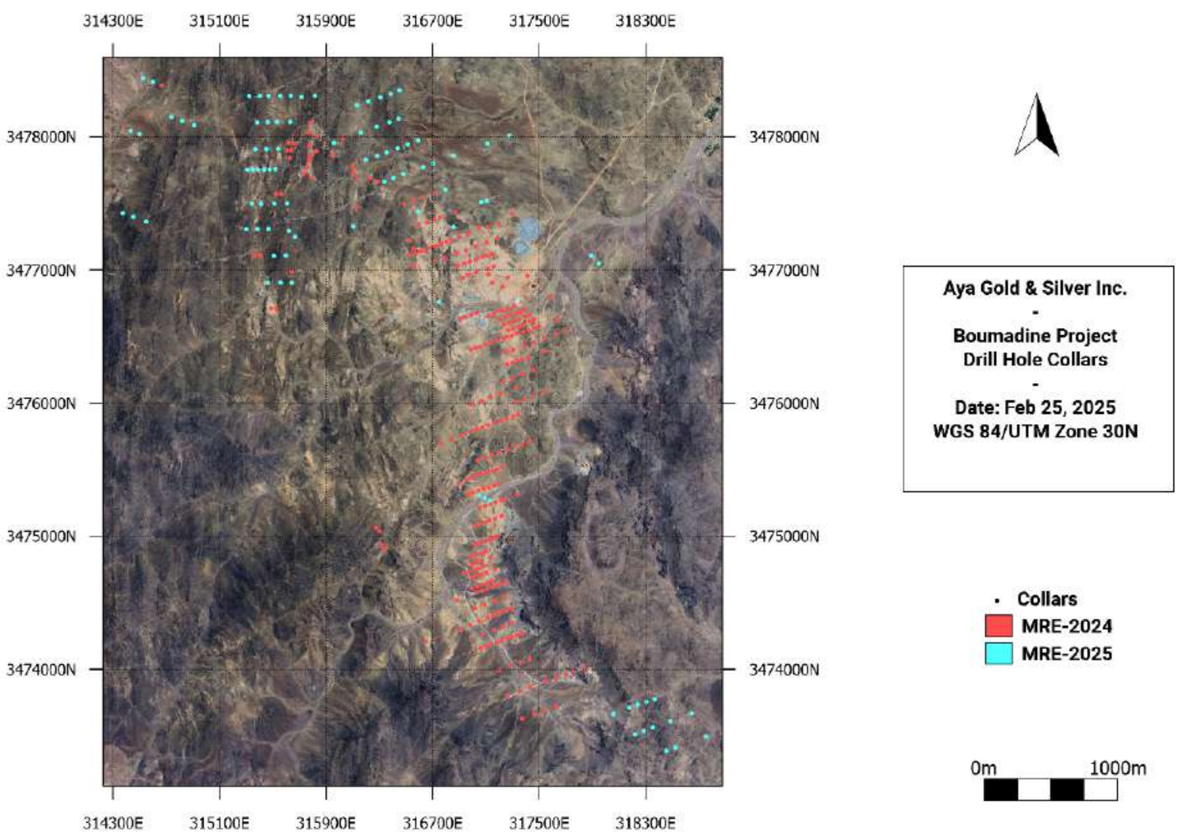
Drill hole data were exported from Geotic software in .csv format and include tables for collar, survey, assay, lithology, and bulk density. Assay data comprise gold (Au g/t), silver (Ag g/t), copper (Cu%), lead (Pb%), and zinc (Zn%) grades.

The coordinate system used is WGS 84 UTM Zone 30N (EPSG 32630). A Digital Terrain Model surveyed by drone was use as reference surface for the project. Veins were extracted as .msh files from Leapfrog Seequent software.

Industry standard validation checks were carried out on the database, and minor corrections made where necessary. The Authors typically validate a Mineral Resource database by checking for inconsistencies in naming conventions or analytical units, duplicate entries, interval, length or distance values less than or equal to zero, blank or zero-value assay results, out-of-sequence intervals, intervals or distances greater than the reported drill hole length, inappropriate collar locations, and missing interval and coordinate fields.

No significant errors were noted within the database. The Authors consider the drill hole database to be suitable for Mineral Resource estimation.

Figure 14-1 Drill Hole Plan View



Source: *This Study*

14.3 ECONOMIC CONSIDERATIONS

For the Mineral Resource model, Aya selected the economic parameters listed in Table 14.1.

Table 14-1 Economic Parameters

NSR ASSESSMENT - BOUMADINE DEPOSIT Feb 25					
Zn Concentrate	**Metal Price**	**Concentrate**	**Smelter**	**Refining Chg.**	**Average Ore Grade**
Element	$US/lb or oz	Recovery	Payable	$US/lb or oz	% or g/t
Pb	$1.00	2.17%	0%	$0.00	1.00%
Zn	$1.20	72.00%	85%	$0.00	1.00%
Au	$2,200	1.73%	0%	$4.00	1.00
Ag	$24.00	5.54%	0%	$4.00	1.00
Concentration Ratio		31.04	3.22%		
Trucking/Storage/Ship Loading US $/t per WMT		$50			
Ocean Freight /Unloading $US/t per WMT		$0			
Smelter Treatment Charge US $/t per DMT incl $6 Penalty		$156			
Humidity Factor		8.0%			
	NSR				
Element	US $ Val/tonne				
Pb	$0.00				
Zn	$16.19				
Au	$0.00				
Ag	$0.00				
Subtotal	$16.19				
Less Smelter Charges US $/t	$5.03				
Less Shipping & Handling Charges US $/t	$1.74				
Subtotal NSR US $/tonne of ore from Zn Concentrate	$9.43				
Pb Concentrate	**Metal Price**	**Concentrate**	**Smelter**	**Refining Chg.**	**Average Ore Grade**
Element	$US/lb or oz	Recovery	Payable	$US/lb or oz	% or g/t
Pb	$1.00	84.50%	95%	$0.00	1.00%
Cu	$4.00	75.30%	95%	$0.00	1.00%
Zn	$1.20	3.93%	0%	$0.00	1.00%
Au	$2,200	26.50%	95%	$30.00	1.00
Ag	$24.00	53.10%	95%	$1.50	1.00
Concentration Ratio		32.91	3.04%		
Trucking/Storage/Ship Loading US $/t per WMT		$50			

Ocean Freight /Unloading $US/t per WMT		$0			
Smelter Treatment Charge US $/t per DMT incl $45 Penalty		$175			
Humidity Factor		8.0%			
	NSR				
Element	US $ Val/tonne				
Pb	$17.70				
Cu	$63.08				
Zn	$0.00				
Au	$17.56				
Ag	$0.36				
Subtotal	$98.71				
Less Smelter Charges US $/t	$5.32				
Less Shipping & Handling Charges US $/t	$1.64				
Subtotal NSR US $/tonne of ore from Pb Concentrate	$91.75				
Pyrite Concentrate	**Metal Price**	**Concentrate**	**Smelter**	**Refining Chg.**	**Average Ore Grade**
Element	$US/lb or oz	Deportment	Payable	$US/lb or oz	% or g/t
Au	$2,200	69.00%	85%	$4.00	1.00
Ag	$24.00	39.60%	91%	$0.20	1.00
	NSR				
Element	US $ Val/tonne				
Au	$41.41				
Ag	$0.28				
Subtotal	$41.68				
Subtotal NSR US $/tonne of ore from Pb Concentrate	$41.68				
Per Tonne of Ore	NSR	Value Contribution	TC/Fr for each concentrate	Net NSR $/%/ g/tonne	
Element	US $ Val/tonne				
Pb	$17.70	11.3%	$6.96	$10.74	
Cu	$63.08	40.3%		$63.08	1.44 Mass Pull Factor
Zn	$16.19	10.3%	$6.77	$9.43	
Au	$58.97	37.7%		$58.97	
Ag	$0.64	0.4%		$0.64	
Subtotal	$156.58	100.0%	$13.72	$142.86	

NSR, Ag Equivalent and Au Equivalent values were calculated as follows:

Table 14-2: Calculation Formulas for NSR, Silver Equivalent, and Gold Equivalent

	Au (oz)	Ag (oz)	Zn (lb)	Pb (lb)	Cu (lb)
Prices in $USD	$2,200	$24	$1.20	$1.00	$4.00
Recovery in %	85.20%	89.10%	72.00%	84.50%	75.30%
NSR ($/t)	(Pb% x $10.74) + (Zn% x $13.59) + (Au g/t x $50.89) + (Ag g/t x $0.56) +				
	(Cu% x 63.08)				
Ag Equivalent (g/t)	Ag(g/t) + (Au(g/t) *Au price/oz*Au recovery)/(Ag price/oz*Ag recovery) + Zn(%)*Zn price/lb* Zn recovery/(Ag price/oz*Ag recovery)*685.7147973 + Pb(%)*Pb price/lb* Pb recovery/(Ag price/oz*Ag recovery)*685.7147973 + Cu(%)*Cu price/lb* Cu recovery/(Ag price/oz*Ag recovery)*685.7147973				

Table 14-3: Calculation Formulas for NSR, Ag Equivalent, and Au Equivalent

	Au (oz)	Ag (oz)	Zn (lb)	Pb (lb)	Cu (lb)
Prices in $USD	$2,200	$24	$1.20	$1.00	$4.00
Recovery in %	85.20%	89.10%	72.00%	84.50%	75.30%
NSR ($/t)	(Pb% x $10.74) + (Zn% x $13.59) + (Au g/t x $50.89) + (Ag g/t x $0.56) +				
	(Cu% x 63.08)				
Ag Equivalent (g/t)	Ag(g/t) + (Au(g/t) *Au price/oz*Au recovery)/(Ag price/oz*Ag recovery) + Zn(%)*Zn price/lb* Zn recovery/(Ag price/oz*Ag recovery)*685.7147973 + Pb(%)*Pb price/lb* Pb recovery/(Ag price/oz*Ag recovery)*685.7147973 + Cu(%)*Cu price/lb* Cu recovery/(Ag price/oz*Ag recovery)*685.7147973				
Au Equivalent (g/t)	Au(g/t) + (Ag(g/t) *Ag price/oz*Ag recovery)/(Au price/oz*Au recovery) + Zn(%)*Zn price/lb* Zn recovery/(Au price/oz*Au recovery)*685.7147973 + Pb(%)*Pb price/lb* Pb recovery/(Au price/oz*Au recovery)*685.7147973 + Cu(%)*Cu price/lb* Cu recovery/(Au price/oz*Au recovery)*685.7147973				

14.4 MINERALIZED DOMAINS

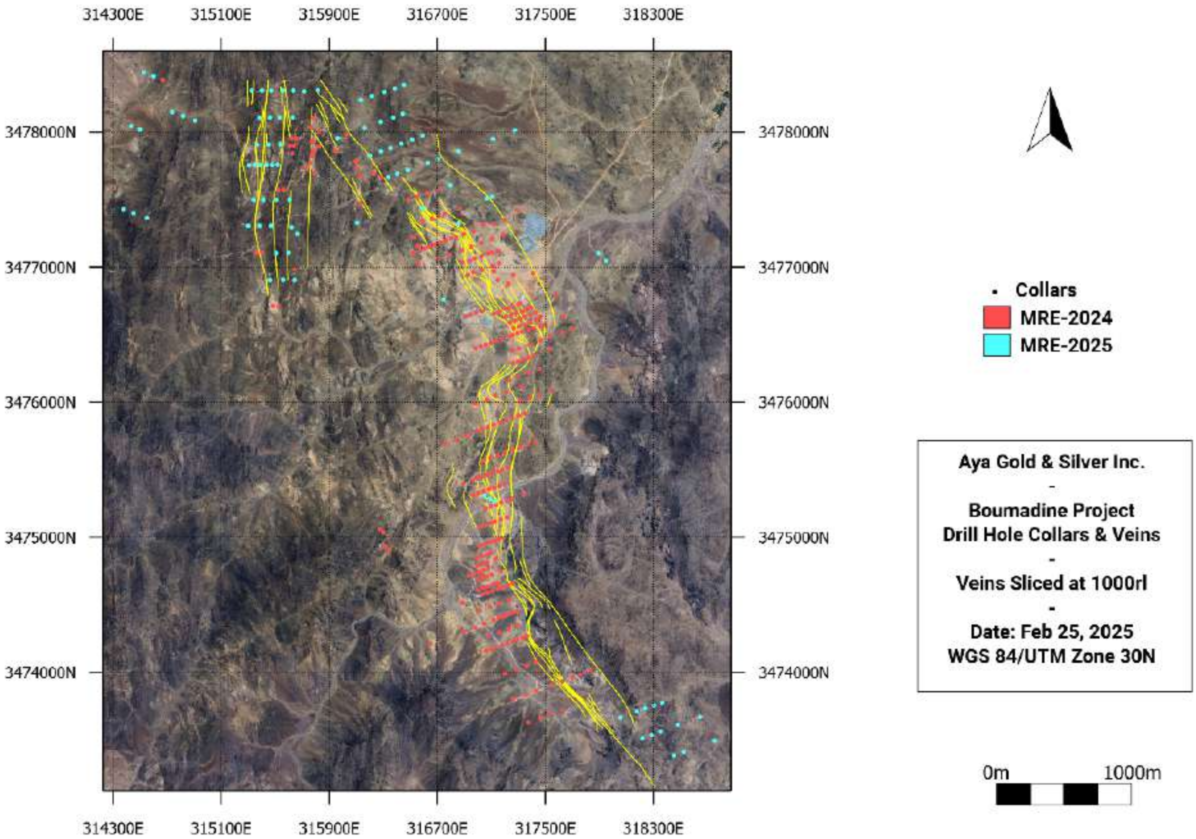
Interpreted mineralized wireframes (domains) were based on logged drill holes, lithology and assay grades. Aya identified continuous zones of mineralization with a massive sulphide percentage of 70% or greater, and zones where the assay grades were ≥100 g/t AgEq and the massive sulphide percentage was ≥30%. The selected intervals include lower-grade mineralization where necessary to maintain continuity between drill holes. Three-dimensional wireframes linking drill hole cross-sections were constructed using the Leapfrog™ Radial Basis Function, with hanging wall and footwall surfaces snapped directly to the selected drill hole intercepts.

A total of 45 individual mineralized veins were wireframed (Figure 14.2 and Appendix B). The mineralized vein wireframes were used to back-tag the assay, bulk density and composite tables with unique category codes (Table 14-4).

Table 14-4: Mineralized Veins

Vein Code - North Area	Vein Code - Central Area	Vein Code - South Area
North - Tizi Main	Central - Main	South - Main
North - Tizi West	Central - East 1	South - East 1
North - Tizi East	Central - West 1	South - West 1
North - Tizi East 0	Central - West 2	South - West 2
North - Tizi West 0	Central - East 0	South - East 0
North - Tizi West 001	Central - East 3	South - East 3
North - Tizi West 01	Central - East 2	South - East 2
North - Tizi Imariren	Central - FarFarEast	South - East 4
North - Tizi Imariren 2	Central - West 3	South - FarFarEast
North - Tizi Imariren 3	Central - West 4	South - West 3
North - Main	Central - FarWest	South - West 4
North - East 1	Central - East 33	South - FarWest
North - West 1	Central - Nord West	South -East 33
North - West 2		
North - East 2		
North - Imariren		
North - Nord West		
North - North West 0		
North North West 01		

Figure 14-2 Mineralized Veins



Source: *This Study*

14.5 EXPLORATORY DATA ANALYSIS

The average nearest neighbor drill hole collar distance for the Boumadine drilling is 48 m. The average length of the drill holes is 328 m. Summary statistics for the drill hole assay data constrained by the modelled domains are listed in Table 14-5.

Table 14-5: Constrained assays summary statistics

Assay	Count	Average	St Dev	CoV	Minimum	Maximum
Ag (g/t)	3,828	56.11	171.51	3.057	0.81	7,720.00
Au (g/t)	3,821	1.50	3.12	2.082	0.05	74.48
Cu (%)	3,816	0.07	0.18	2.670	0.01	3.22
Pb (%)	3,816	0.67	1.40	2.099	0.01	24.40
Zn (%)	3,814	1.89	3.50	1.847	0.01	39.71

Note: *St Dev = standard deviation, CoV = coefficient of variation.*

Bulk density measurements were determined by Aya using the water immersion method on drill core samples. The average bulk density for the constrained sulphide material is 3.72 t/m^3.

For the Mineral Resource Estimate a bulk density of 2.61 t/m^3 was assigned to oxide and transitional blocks. For sulphide blocks the median sulphide bulk density was assigned for each modelled domain. Minor veins with insufficient density measurements were reclassified into spatial sub-domains (Table 14-6).

Table 14-6: Summary Statistics for bulk density measurements

Domain	Count	Average Bulk Density (t/m3)	Median Bulk Density (t/m3)
Major Vein			
1_Main	314	3.87	3.97
1_West1	124	3.64	3.67
1_West2	91	3.59	3.49
1_West3	45	3.64	3.72
1_East0	45	3.66	3.71
1_East1	147	3.64	3.68
1_East2	48	3.74	3.90
1_East3	88	3.49	3.47
3_Tizi Main	33	3.90	3.93
Eastern Veins			
FarFar East East4 East33	44	3.60	3.74
Western Veins			
West4 FarWest	27	3.62	3.64
Vein between Tizi-Imariren			
Between Tizi Imariren Between Tizi Imariren 2 Between Tizi Imariren 3	17	3.65	3.76
Imariren -Vein System			
Imariren North West North West 01 North West 0	51	3.93	4.11
Tizi Other			
Tizi_East Tizi_East 0 Tizi West 001 Tizi West Tizi West 01 Tizi West 0	40	3.90	3.91
Total			
Total	1114	3.72	3.78

14.6 COMPOSITING

Constrained assay sample lengths within the defined mineralized domains range from 0.40 to 1.30 m, with an average sample length of 0.85 m and a mode of 1.00 m. A total of 31% of the constrained assay sample lengths equal 1.00 m.

Based on the distribution of assay sample lengths, Aya chosed to composite all constrained assay samples to 1.00 m in order to ensure equal length sample support. Length-weighted composites were calculated within the defined mineralized veins. A small number of un-sampled intervals in the data were treated as null intervals.

The compositing process started at the first point of intersection between the drill hole and the mineralized vein intersected and was halted on exit from the mineralization. Downhole residual composites that were less than half the compositing length were merged with the preceding interval. The wireframes that represent the mineralized veins were used to back-tag a rock code attribute into the composite workspace.

The composite data were visually validated against the mineralized wireframes and extracted for analysis and grade estimation. Summary composite statistics are listed in Table 14-7.

Table 14-7: Composite Summary Statistics

Assay	Count	Average	St Dev	CoV	Minimum	Maximum
Ag (g/t)	3,730	52.75	165.33	3.134	0.81	7,720.00
Au (g/t)	3,730	1.38	2.72	1.978	0.05	60.28
Cu (%)	3,730	0.06	0.17	2.639	0.01	3.22
Pb (%)	3,730	0.64	1.27	1.986	0.01	19.86
Zn (%)	3,730	1.80	3.13	1.741	0.01	39.71

Note: *St Dev = standard deviation, CoV = coefficient of variation.*

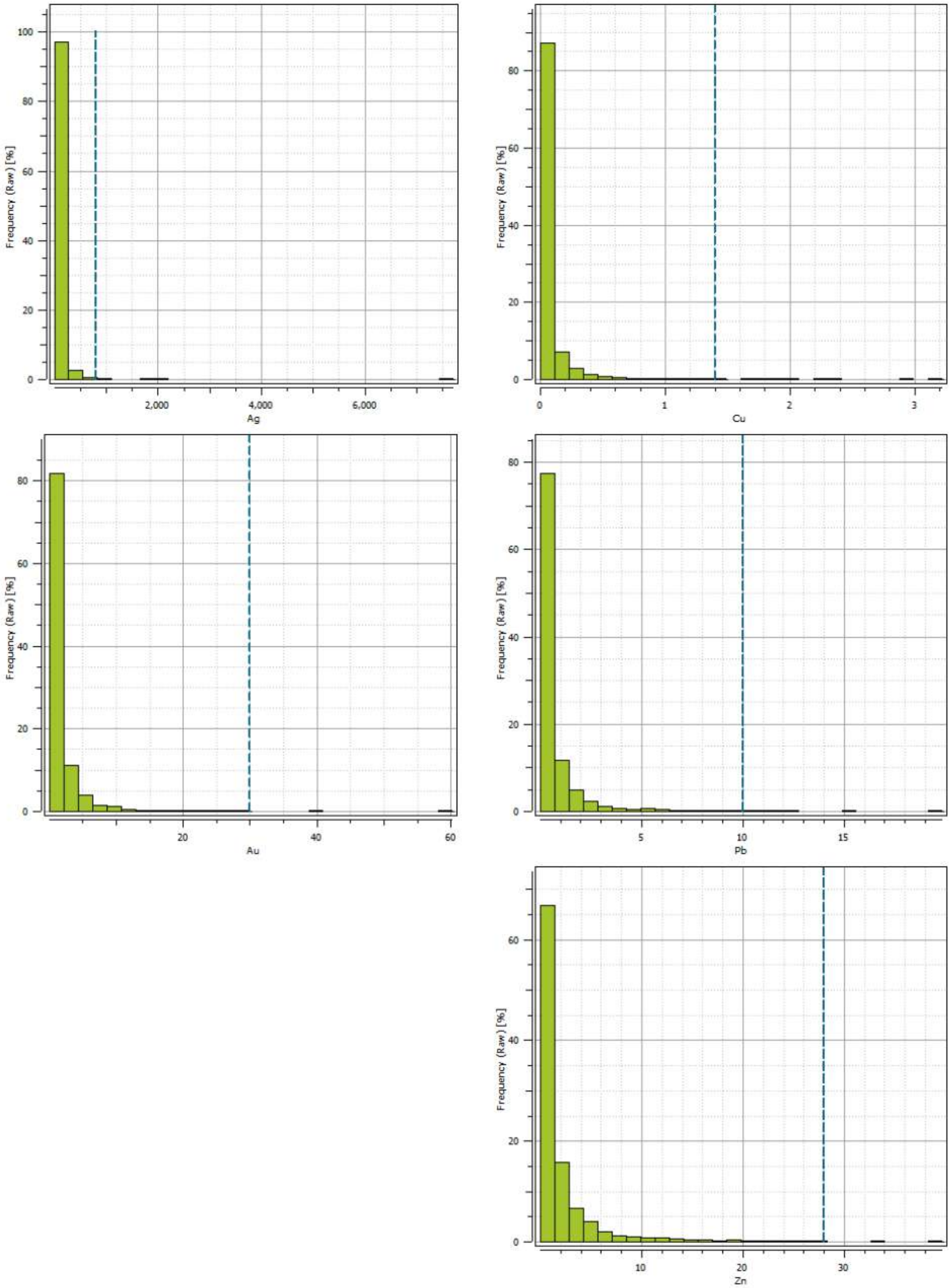
14.7 TREATMENT OF EXTREME VALUES

Aya selected capping thresholds based on the low Coefficient of Variation of the constrained composite grades and analysis of individual composite log-probability distributions for the composite sample populations (Figure 14-3). Composites were capped to the defined threshold prior to grade estimation (Table 14-8).

Table 14-8: Composite Capping Thresholds

Veins	Capping Threshold (g/t)	Average Uncapped Value	Number Capped	Capping Percentile	Average Capped Value
Ag (g/t)	800	52.75	11	99.7	49.73
Au (g/t)	30	1.38	2	99.9	1.36
Cu (%)	1.4	0.06	11	99.7	0.06
Pb (%)	10	0.64	9	99.7	0.63
Zn (%)	28	1.80	3	99.9	1.79

Figure 14-3 Histogram for Composites



Source: *This Study*

14.8 CONTINUITY ANALYSIS

Three-dimensional continuity analyses (variography) were conducted by Aya on the domain-coded uncapped composite data. In general, an acceptable semi-variogram could only be developed for the Main domain. These semi-variograms were used to guide the search ellipse parameters for inverse distance estimation. Standardized spherical models were used to model the experimental semi-variograms (Figure 14.4).

The experimental semi-variogram for the northern Main is listed in Table 14-9.

Table 14-9 North Main Zone Semi-Variogram Results

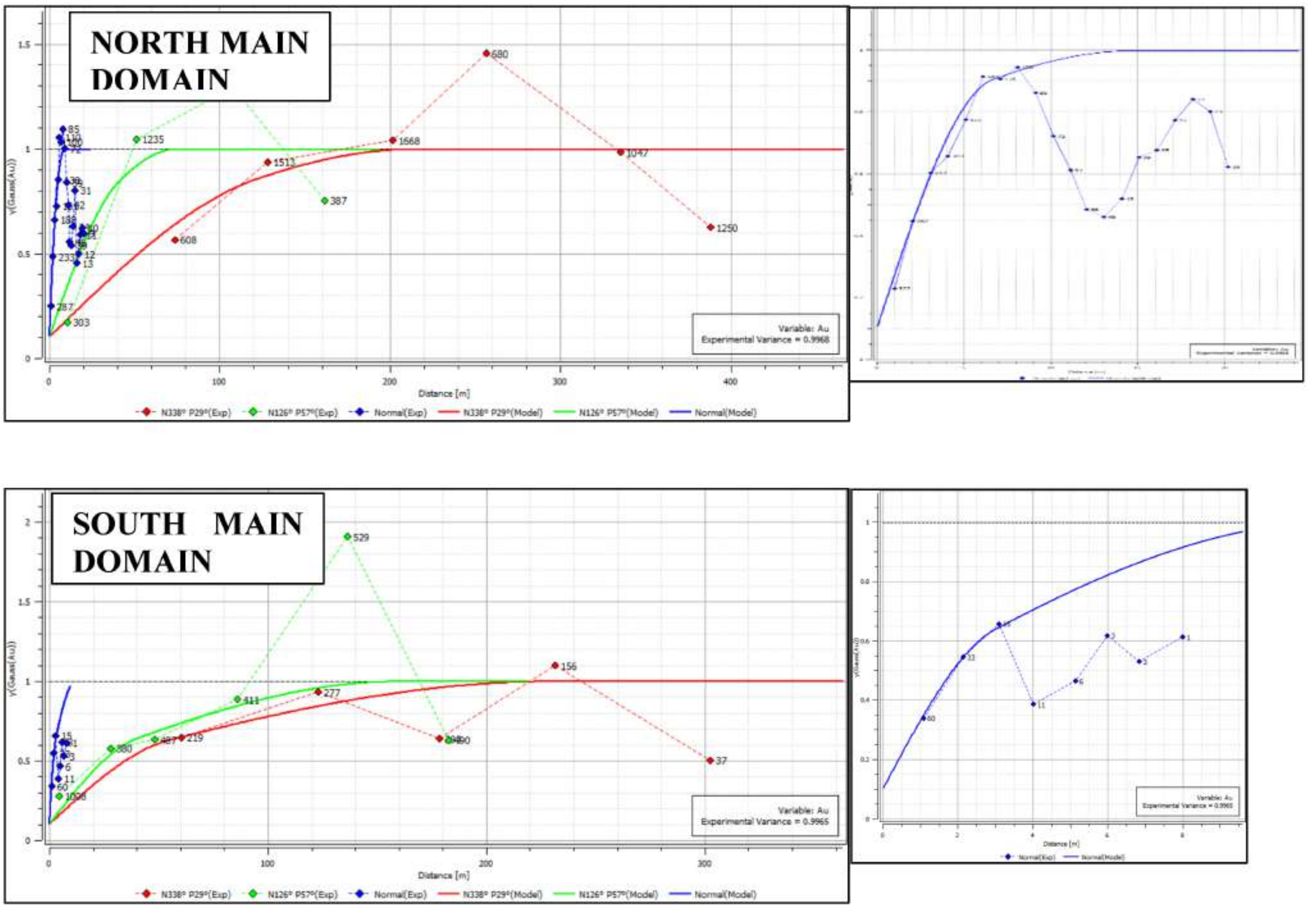
North Main	Dip (°)	Dip Azimuth	Pitch	Ranges UVW (m)			Sill
Nugget							0.1
Spherical	75°	60°	30°	120	40	5	0.3032
Spherical	75°	60°	30°	215	75	9	0.5941

The experimental semi-variogram for the southern Main is listed in Table 14-10.

Table 14-10 South Main Zone Semi-Variogram Results

South Main	Dip (°)	Dip Azimuth	Pitch	Ranges UVW (m)			Sill
Nugget							0.1
Spherical	75°	60°	30°	55	40	3	0.3282
Spherical	75°	60°	30°	230	160	12	0.5702

Figure 14-4 Main Zone Semi-Variograms



Source: *This Study*

14.9 BLOCK MODEL

Aya developed a rotated block model with the block model limits selected, in order to cover the extent of the mineralized structures, the potential open pit dimensions, and to reflect the general nature of the mineralized zones (Table 14-11). The block model consists of estimated Ag, Au, Cu, Pb and Zn grades, bulk density, block volume inclusion percentage and classification criteria. NSR, Au and Ag equivalent block values were subsequently calculated from the estimated grades of Au, Ag, Cu, Pb and Zn.

Table 14-11 Block Model Setup

Direction	Origin (Corner)	Number of Blocks	Block Size (m)
Minimum X	316,550	880	2.5
Minimum Y	3,472,800	1,150	5.0
Minimum Z	460	174	5.0
Rotation	20° counter-clockwise		

14.10 GRADE ESTIMATION AND MINERAL RESOURCE CLASSIFICATION

Mineral Resource grade estimation and variography were undertaken by using Isatis™ software.

Aya assigned bulk density values for each domain based on the average bulk density values by domain. A bulk density of 2.61 t/m^3 was assigned to oxide and transition blocks.

Block grades were estimated from capped composites with two passes. The orientation of the search ellipsoid was defined by the orientation of the modelled domains and observed grade trends. Composite samples were selected within an oriented 200 m x 130 m x 60 m ellipsoid for the first pass and a 400 m x 260 m x 120 m ellipsoid for the second pass. Search and grade estimation were constrained by the individual mineralized veins, which define hard boundaries for grade estimation.

Inverse Distance Squared (ID^2) estimation was used for all domains. For the estimate, a minimum of four and a maximum of twelve composites were used in the first pass, while the second pass applied a minimum of four and a maximum of eight composites. Overall, approximately 40% of the modeled domains were estimated for grade.

Block grades were estimated separately for each domain and subsequently combined in one model space using the domain block inclusion percentages (see Appendices C, D, E and F).

The parameters used to define the classification limits included spatial analysis, drill hole spacing, and the observed continuity of the mineralization. Mineral Resources were classified algorithmically based on the local drill hole spacing within each individual mineralized domain. Grade blocks estimated in the first pass that used a minimum of two drill holes and an average distance between composites of <50 m were classified as Indicated, and all additional estimated blocks were classified as Inferred. Classification block model cross-sections and plans are presented in Appendix G.

14.11 MINERAL RESOURCE ESTIMATE

Open-pit Mineral Resources reported herein have been constrained within an optimized pit shell. The results from the optimized pit shell are used solely for the purpose of reporting Mineral Resources and include Indicated and Inferred Mineral Resources. Historical mining is minimal and poorly defined, and has not been depleted from the Mineral Resource Estimate.

The constraining pit optimization parameters were 50° pit slopes, US$3.5/t for mineralized material mining, US$2/t for waste mining, US$89/t for processing, and US$6/t for G&A, totalling US$95/t for the NSR cut-off value (Figure 14.5). The optimized pit shell is shown in Appendix H.

The out-of-pit parameters used a US$30/t mining cost, US$89/t processing cost, and US$6/t G&A totalling US$125/t. The out-of-pit Mineral Resource grade blocks were quantified above the US$125/t NSR cut-off value, below the constraining pit shell, and within the constraining mineralized wireframes. Out-of-pit Mineral Resources have been reported that exhibit historical continuity and reasonable potential for extraction by the longhole mining method.

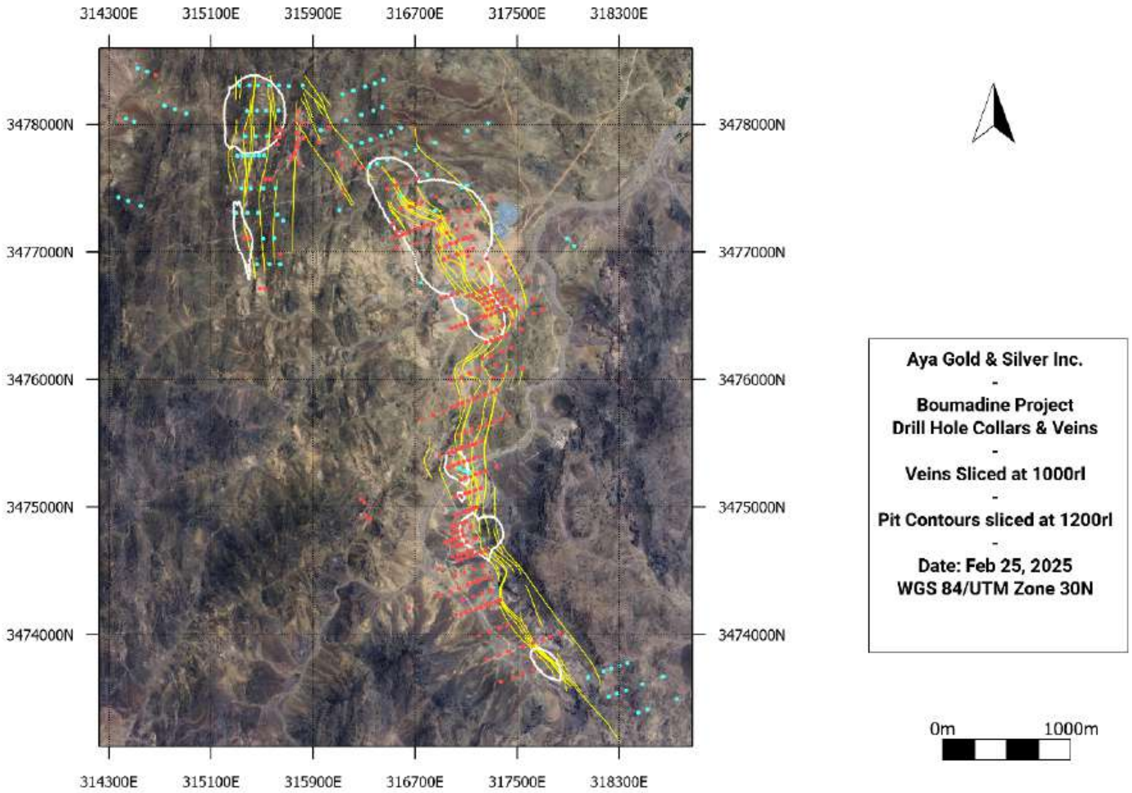
Highlights of the Boumadine Mineral Resource Estimate include:

- The Mineral Resource is amenable to conventional open-pit and underground mining methods;
- An Indicated Mineral Resource of 5.2 Mt grading 91 g/t Ag, 2.78 g/t Au, 2.8% Zn and 0.85% Pb containing an estimated 15.1 Moz of Ag, 449 koz of Au, 145 kt of Zn and 44 kt of Pb;
- An Inferred Mineral Resource of 29.2 Mt grading 82 g/t Ag, 2.63 g/t Au, 2.11% Zn and 0.82% Pb containing an estimated 76.8 Moz of Ag, 2.4 Moz of Au, 615 kt of Zn and 237 kt of Pb; and
- 49% of the Inferred Mineral Resource is pit-constrained above a US$95/t NSR cut-off value, with the remaining 51% suitable for underground development and reported above an NSR cut-off value of US$125/t.

The Mineral Resource has an effective date of February 24, 2025 (Table 14-12).

The sensitivity of the Mineral Resource to changes in cut-off grade was also calculated across a range of potentially economic NSR cut-offs (Table 14-13).

Figure 14-5 Boumadine Pit Shell Plan View



Source: *This Study*

Table 14-12: Boumadine MRE as of February 24, 2025

Class	Cutoff	Tonnes	Average Grade							Contained Metal						
			Ag	Au	Cu	Pb	Zn	AgEq	AuEq	Ag	Au	Cu	Pb	Zn	AgEq	AuEq
	NSR US$/t	(kt)	(g/t)	(g/t)	(%)	(%)	(%)	(g/t)	(g/t)	(koz)	(koz)	(kt)	(kt)	(kt)	(koz)	(koz)
Pit-Constrained																
Indicated	95	3,920	94.3	2.99	0.13	0.84	2.95	476.5	5.3	11,881	343	5.1	33	116	60,051	667
Inferred	95	14,258	89.7	2.89	0.10	0.81	2.38	450.0	5.0	41,135	1102	14.3	115	339	206,293	2,293
Out-of-Pit																
Indicated	125	1,249	80.1	2.11	0.08	0.87	2.32	358.2	3.98	3,216	106	1.0	11	29	14,382	160
Inferred	125	14,938	74.3	2.39	0.07	0.82	1.85	356.9	3.97	35,669	1,294	10.5	122	276	171,393	1,905
Total																
Indicated	95/125	5,169	90.8	2.78	0.12	0.85	2.80	447.9	4.981	15,097	449	6.1	44	145	74,433	827
Inferred	95/125	29,196	81.8	2.63	0.08	0.82	2.11	402.4	4.473	76,804	2,396	24.8	237	615	377,686	4,198

Notes:

1.Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. There is no certainty that Mineral Resources will be converted to Mineral Reserves.

The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.

3.Mineral Resources were estimated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (the "CIM") Standards on Mineral Resources and Mineral Reserves Definitions (2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council

4.Individual calculations in tables and totals may not sum due to rounding of original numbers.

Table 14-13: Mineral Resource estimate sensitivity

Indicated Out-of-Pit Resources												
Cutoff NSR US$/t	Tonnes (kt)	Ag (g/t)	Ag (koz)	Au (g/t)	Au (koz)	Cu (%)	Pb (%)	Zn (%)	AgEq (g/t)	AgEq (koz)	AuEq (g/t)	AuEq (koz)
145	1,014	82	2,679	2.48	81	0.07	0.90	1.99	387	12,621	4.38	143
140	1,064	80	2,732	2.42	83	0.07	0.88	1.94	380	13,012	4.27	146
135	1,132	78	2,847	2.36	86	0.07	0.86	1.92	372	13,524	4.18	152
130	1,177	76	2,890	2.29	87	0.07	0.84	1.90	366	13,858	4.08	154
125	1,249	74	2,982	2.22	89	0.07	0.82	1.87	358	14,382	3.97	159
120	1,311	72	3,036	2.16	91	0.06	0.80	1.83	352	14,819	3.86	163
115	1,415	70	3,199	2.11	96	0.06	0.79	1.79	341	15,500	3.77	171
110	1,479	69	3,278	2.06	98	0.06	0.78	1.77	334	15,906	3.69	176
105	1,559	67	3,380	1.99	100	0.06	0.76	1.73	327	16,391	3.59	180
90	1,771	62	3,550	1.81	103	0.06	0.72	1.67	309	17,577	3.33	189

Indicated In-Pit Resources												
Cutoff NSR US$/t	Tonnes (kt)	Ag (g/t)	Ag (koz)	Au (g/t)	Au (koz)	Cu (%)	Pb (%)	Zn (%)	AgEq (g/t)	AgEq (koz)	AuEq (g/t)	AuEq (koz)
120	3,458	101	11,244	3.22	358	0.14	0.85	2.97	513	57,011	5.70	634
115	3,561	99	11,378	3.15	361	0.14	0.85	2.95	504	57,739	5.61	642
110	3,659	98	11,512	3.09	364	0.13	0.85	2.92	496	58,409	5.52	649
105	3,756	97	11,657	3.04	366	0.13	0.85	2.90	489	59,040	5.43	656
95	3,920	94	11,881	2.94	370	0.13	0.84	2.87	476	60,051	5.30	667
90	3,987	93	11,972	2.90	372	0.13	0.84	2.86	471	60,431	5.24	672
85	4,066	92	12,067	2.86	373	0.12	0.83	2.84	466	60,864	5.17	677
80	4,168	91	12,199	2.80	375	0.12	0.82	2.83	458	61,414	5.09	683
75	4,261	90	12,303	2.75	376	0.12	0.82	2.82	452	61,877	5.02	688
60	4,513	86	12,511	2.62	380	0.11	0.80	2.77	434	62,994	4.83	700

Inferred Out-of-Pit Resources												
Cutoff NSR US$/t	Tonnes (kt)	Ag (g/t)	Ag (koz)	Au (g/t)	Au (koz)	Cu (%)	Pb (%)	Zn (%)	AgEq (g/t)	AgEq (koz)	AuEq (g/t)	AuEq (koz)
145	11,463	82	30,296	2.48	915	0.07	0.90	1.99	394	145,297	4.38	1,615
140	12,267	80	31,485	2.42	956	0.07	0.88	1.94	384	151,566	4.27	1,685
135	13,028	78	32,773	2.36	989	0.07	0.86	1.92	376	157,428	4.18	1,750
130	13,921	76	34,194	2.29	1,026	0.07	0.84	1.90	367	164,099	4.08	1,824
125	14,938	74	35,669	2.22	1,068	0.07	0.82	1.87	357	171,393	3.97	1,905
120	16,000	72	37,062	2.16	1,112	0.06	0.80	1.83	347	178,572	3.86	1,985
115	16,962	70	38,355	2.11	1,149	0.06	0.79	1.79	339	184,898	3.77	2,055
110	17,810	69	39,466	2.06	1,179	0.06	0.78	1.77	332	190,290	3.69	2,115
105	18,980	67	41,154	1.99	1,215	0.06	0.76	1.73	323	197,363	3.59	2,194
90	22,662	62	45,428	1.81	1,322	0.06	0.72	1.67	299	218,136	3.33	2,425

Inferred In-Pit Resources												
Cutoff NSR US$/t	Tonnes (kt)	Ag (g/t)	Ag (koz)	Au (g/t)	Au (koz)	Cu (%)	Pb (%)	Zn (%)	AgEq (g/t)	AgEq (koz)	AuEq (g/t)	AuEq (koz)
120	12,560	97	39,047	3.21	1,295	0.10	0.84	2.29	484	195,345	5.38	2,171
115	12,861	95	39,452	3.16	1,305	0.10	0.84	2.28	478	197,476	5.31	2,195
110	13,191	94	39,854	3.10	1,315	0.10	0.83	2.28	471	199,726	5.23	2,220
105	13,617	92	40,343	3.03	1,329	0.10	0.82	2.27	462	202,434	5.14	2,250
95	14,258	90	41,135	2.93	1,345	0.10	0.81	2.25	450	206,293	5.00	2,293
90	14,517	89	41,432	2.89	1,351	0.10	0.81	2.25	445	207,784	4.95	2,310
85	14,819	88	41,744	2.85	1,357	0.09	0.81	2.25	440	209,447	4.89	2,328
80	15,381	86	42,418	2.76	1,364	0.09	0.80	2.26	430	212,552	4.78	2,363
75	15,716	85	42,778	2.71	1,369	0.09	0.80	2.26	424	214,252	4.71	2,381
60	16,798	81	43,684	2.56	1,384	0.09	0.78	2.24	406	219,083	4.51	2,435

14.12 VALIDATION

The block model was validated visually by the inspection of successive cross-section lines, in order to confirm that the block models correctly reflect the distribution of high-grade and low-grade values (see Appendices).

An additional validation check was completed by comparing the correlation of the average grade of the composites within a block to the corresponding estimated block grade.

As a further check on the model the average estimated block grades was compared to a Nearest Neighbour block model grade generated by Aya, and to the average capped composite grade and declustered composite grade (Table 14-14 and Figure 14.6).

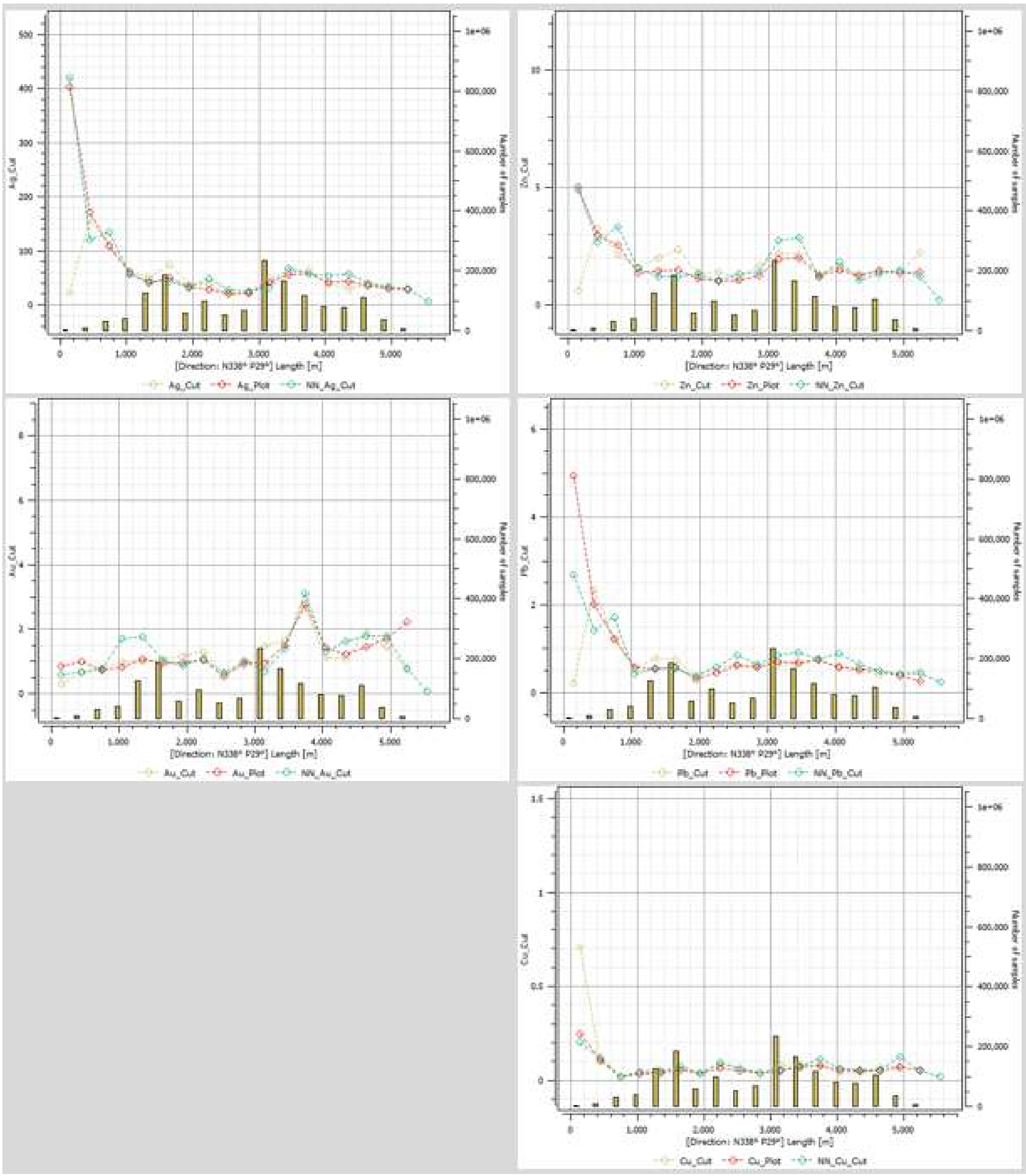
The current Authors consider the validation results to be acceptable for linear estimation.

Table 14-14: Grade Block Model Check

Grade Element	Composite Average	Declustered Composite Average	Block Average	NN Block Average
Ag (g/t)	49.73	48.19	43.63	47.04
Au (g/t)	0.06	0.06	0.05	0.06
Cu (%)	0.06	0.06	0.06	0.07
Pb (%)	0.63	0.66	0.59	0.70
Zn (%)	1.79	1.76	1.44	1.61

Note: *NN = Nearest Neighbour*

Figure 14-6 Composite Grade Versus Swath Plots



Note: *Ag_Cut = Composite Grade; Ag_Plot=Model Grade; NN_Ag_Cut=Nearest Neighbourhood block estimate*
Source: *This Study*

15.0 MINERAL RESERVE ESTIMATES

This section is not applicable to this Report.

16.0 MINING METHODS

This section is not applicable to this Report.

17.0 RECOVERY METHODS

This section is not applicable to this Report.

18.0 PROJECT INFRASTRUCTURE

This section is not applicable to this Report.

19.0 MARKET STUDIES AND CONTRACTS

This section is not applicable to this Report.

20.0 ENVIRONMENTAL STUDIES, PERMITS, AND SOCIAL OR COMMUNITY IMPACTS

20.1 ANALYSIS OF THE LEGISLATIVE AND REGULATORY FRAMEWORK

20.1.1 Environmental and Social Impact Assessment

The Boumadine Deposit may require several permits from the Moroccan Government, and the requirement to carry out an Environmental and Social Impact Assessment ("ESIA") by the Moroccan Law No. 12-03 on Environmental Impact Assessments. The ESIA will establish the comprehensive regulatory framework for the Project.

The ESIA in Morocco includes:

- An overall description of the initial state of the site likely to be affected by the Project, including its biological, physical, and human components;
- A description of the Project's main components, characteristics and implementation stages, including manufacturing processes, the nature and quantities of raw materials and energy resources used, liquid, gaseous and solid discharges, and waste generated by the Project's implementation or operation;
- An assessment of the positive, negative and harmful impacts of the Project on the biological, physical and human environment that may be affected during the implementation, operation or development phases, based on the terms of reference and guidelines provided for this purpose; the measures envisaged by the petitioner to eliminate, reduce or compensate for the harmful consequences of the Project on the environment, as well as measures to enhance and improve the positive impacts of the Project;
- An environmental monitoring and follow-up program for the Project, together with the training, communication and management measures envisaged to ensure implementation, operation, and development in accordance with the technical specifications and environmental requirements adopted by the study;
- A concise presentation of the legal and institutional framework for the Project and the building in which it will be implemented and operated, and the projected costs of the Project;
- A brief note summarizing the content and conclusions of the environmental impact study; and
- A simplified summary for the public of the information and main data contained in the study.

An environmental acceptability decision must be made before any project in Morocco that is subject to an environmental impact assessment can be approved. This decision constitutes one of the documents in the environmental acceptability application submitted with a view to obtaining authorization for the Project. Acceptability is given by the Comité Régional d'Investissement ("CRI"), a regional committee, or the Comité National, a national committee, depending on the size of the investment.

A public inquiry is held for every project that is subject to an environmental impact assessment. The purpose of this inquiry is to enable the population concerned to find out about the possible impact of the project on the environment and to gather their comments and proposals. These comments and proposals are taken into consideration when the environmental impact study is examined.

In 2024, Aya mandated SLR to start the baseline data collection and studies. A scoping report towards the full Environmental and Social Impact Assessment will be delivered in Q2-2025.

The assessment of impacts will only be possible when all the various infrastructures and processes have been identified for the Project, which is likely to happen at a later stage in its life cycle. Impact assessment is typically done in parallel to the Feasibility Study stage.

20.1.2 Land Title

The Boumadine Mining License is a joint-venture between the ONHYM (15%) and Aya (85%). The ONHYM was in charge of the Boumadine Mining License until the acquisition in 2013; however, since then no further development have been made. It is understood that the land is held under the collective land status.

In Morocco, collective lands are estimated at 15,620,000 ha. These lands are mainly used for grazing, but also includes arable land, forests, quarries forests, quarries and land in urban and peri-urban areas. The number of traditional communities range from 4,500 to 5,500 ethnic groupings, comprising almost 2.5 million collectives. The legal status of collective lands is set out in a dahir dating from 1919 (Zirari-Devif, 2011).

A national program was started in 2021 to identify land rights with the specific intent to formalize land ownership in collective lands. These rights are managed by the Direction des Affaires Rurales (DAR), part of the Ministry of the Interior.

Aya will establish communication with the relevant authorities at the governorate at the Province of Errachidia, in order to commence the process of establishing land agreements between Aya and the landowners.

20.2 CORPORATE POLICIES

20.2.1 Health and Safety, Environment and Community Policy

Aya's Health and Safety, Environment and Community ("HSEC") Policy sets out clear parameters for governance during project development. Amongst other elements, the policy requires:

- To comply with all laws and regulations in force in the countries where Aya operates;
- To implement an environmental and social management system ("ESMS") to identify, reduce or mitigate to the extent desired, risks in terms of sustainable development. This ESMS will include objectives, review and corrective actions allowing continuous improvement; and
- Where economic or physical displacement cannot be avoided, adhere to IFC Performance Standard 5, including formal consultation throughout the process and seeking to improve the situation of households and communities.

20.2.2 Tailings Policy

Aya has developed a Tailings Policy, which commits to design, govern, and manage TSFs in line with best industry practice, following relevant guidelines such as those provided by the International Commission on Large Dams ("ICOLD"), Australian National Committee on Large Dams ("ANCOLD"), and Canadian Dam Association ("CDA"). Aya will work towards aligning its practices with the GISTM, which represents industry best practices.

20.2.3 Mine Closure

Asset closure management is an integral part of the life of mine ("LoM"). As per Aya's HSEC Policy, Aya commits to developing a Mine Closure Management Plan for each of its projects, from the earliest stage of Feasibility Studies and updating the Plan regularly during the LoM to ensure that it is adapted and contextualized. In collaboration with its stakeholders, reclamation planning entails an extensive analysis of land use options, environmental factors, community development concerns and objectives, and measurable performance targets.

Aya will progressively carry out reclamation as part of its commitment to restore its sites to a healthy environment. Aya begins restoring disturbed land as soon as it is no longer needed, using best available techniques and developing context-specific measures. During the LoM, Aya strives to develop local capacity and collaborate on economic diversification through our community investment programs. Stakeholder engagement will include closure-specific topics in the run-up to closure, and Aya will complement their social baseline with a social closure impact assessment.

20.2.4 Sustainability Framework

Aya's drive for sustainability involves adopting a precautionary approach and implementing and working on the continuous improvement of its Environmental and Social Management System ("ESMS").

The precautionary approach is the process for investigating, addressing and mitigating how the Corporation's actions could impact the environment and host communities.

The ESMS is a set of policies, plans, programs, procedures and tools based on best practice from the International Finance Corporation ("IFC") Performance Standards and the European Bank for Reconstruction and Development ("EBRD") that will help the Corporation monitor its status and progress in upholding its many legal, social and environmental responsibilities.

The ESMS incorporates a 'Plan, Do, Check, Act' process, thereby encouraging continuous improvement in sustainability management, and is based on the ISO 14001 environmental standard and on the ISO 45001 occupational H&S standard. Aya's key HSEC policies are posted on its website (**www.ayagoldsilver.com**).

21.0 CAPITAL AND OPERATING COSTS

This section is not applicable to this Report.

22.0 ECONOMIC ANALYSIS

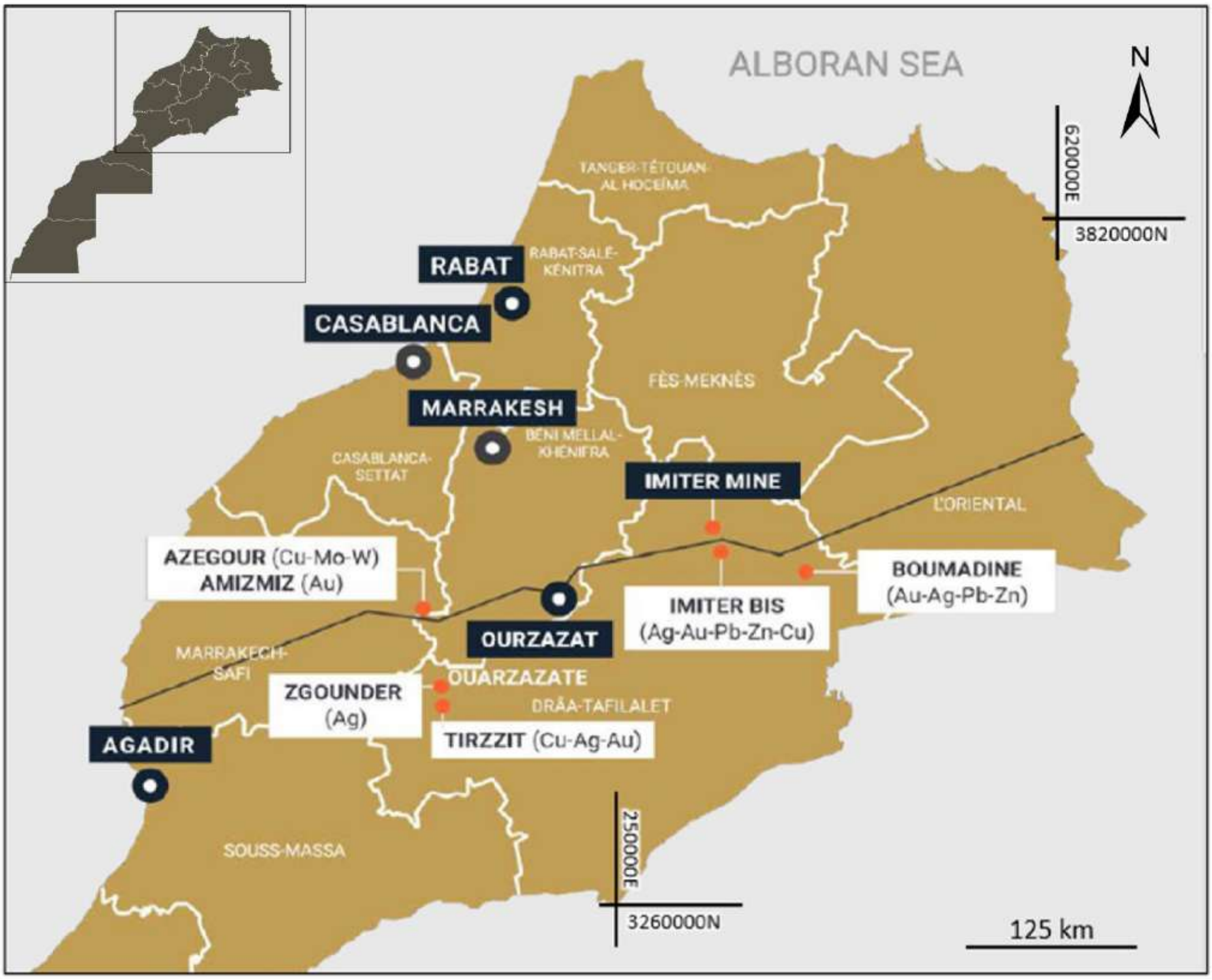
This section is not applicable to this Report.

23.0 ADJACENT PROPERTIES

Several vein occurrences of Ba, Pb, Cu, and Zn that vary in size and thickness are recognized regionally. Some of these veins are subject of artisanal exploitation by individuals or small Moroccan companies.

Boumadine is regionally surrounded by several mineral deposits that have been recently exploited, are currently active, or are under development. The largest nearby deposit is the Imiter Silver Mine. Imiter is a major silver deposit that is owned by the Moroccan mining company Managem. The Imiter Mine is located on the north side of the Saghro Massif, ~80 km west of the Boumadine Property (Figure 23.1).

Figure 23-1 Location of the Imiter Mine



Source: *Aya corporate presentation dated April 2024*

24.0 OTHER RELEVANT DATA AND INFORMATION

To the best of the Authors’ knowledge there are no other relevant data, additional information or explanation necessary to make the Technical Report understandable and not misleading.

25.0 INTERPRETATION AND CONCLUSIONS

The Boumadine Property is located in the Province of Errachidia, in the eastern part of the Kingdom of Morocco. Aya's Property in the Boumadine area consists of 9 mining licenses and 16 exploration permits totaling 272 km2 in size. The Boumadine Mining License, which contains the Boumadine Deposit and is the focus of the Boumadine Report, consists of mining license LE-383661 and covers the historical Boumadine Mine, the Boumadine Camp, and the current MRE described in this report, which total 32 km2 in area. The additional twenty-four exploration permits and mining licenses are distributed within a 25 km radius of the Boumadine Deposit and collectively cover an additional 240 km2 in area. In addition, an Exploration authorization of 600 km2 was granted to Aya in January 2025.

On October 9, 2012, Maya and ONHYM signed a joint venture agreement for the acquisition, development and exploitation of the Boumadine Deposit. Under the terms of said agreement, Maya acquired 85% of mining license LE-383661 for total cash payments of MAD 28 million, being approximately USD 2.8 million at such time. A new Moroccan company - BGM, was created with Maya and ONHYM as 85%-15% shareholders. The mining title of the Boumadine Mining License was transferred to BGM by ONHYM. The participation of ONHYM is subject to dilution if they fail to invest 15% in the budget after Aya matches all the previous investment from ONHYM. ONHYM will receive a 3% royalty and Aya will receive a 2.75% management fee on BGM sales revenue from the first year of operation.

In addition to its ownership of the Boumadine Mining License, Aya, through its subsidiaries, has: 100% ownership of a total of 10 mining licenses and exploration permits and; an option to earn 100% interest in 13 other mining licenses and exploration permits.

The Boumadine Property is located in the Anti-Atlas Mountains. The Property is accessible via the National Highway 10 (N10), ~220 km east-northeast from Ouarzazate City or ~70 km southwest from Errachidia City. The nearest town is Tinejdad, ~16 km north. The Boumadine Property is accessible from Tinejdad by all-terrain vehicle on a paved and gravel road. The Boumadine Property has a Saharan desert climate. Nevertheless, field work at Boumadine can be completed year-round. The nearest power line to the Boumadine Mining License is 2.8 km away.

There are numerous dirt roads and paths that lead to former shafts and other remnants of the historical mining infrastructure. Water is currently sourced from historical underground workings and wells. Electricity on site is provided via the national electricity grid. The facilities on-site are adapted for exploration operations. They include an office, drill core shack, the AfriLab sample preparation laboratory, drill contractor workshops, and drill contractor camps.

The topography of the area is marked by ridges and hills mostly, with altitude ranging between 980 and 1,300 m asl. The site and its surroundings exhibit characteristics typical of a desert landscape, with vast expanses of arid and rocky terrain. Vegetation in the Boumadine area consists mainly of desert plants.

The Boumadine site is in close proximity to the Ziz river, which flows through Tinejdad. The Ziz river valley contributes to the oasis environment with palm groves, particularly date palms. Nomads pass by the Boumadine Property with their livestock of camels or goats. Historical artisanal mining activities have been recognized at several places on the Boumadine Property. Historical extraction work focused on barite and lead veins.

Mine workers and other personnel are available from nearby villages or Tinejdad. Errachidia has an international airport with access to Casablanca and it is also accessible by road from Marrakech, ~420 km away. Food and limited accommodation are available at Tinejdad; Errachidia offers greater diversity in supplies. Special items must be purchased from Ouarzazate or Marrakech.

The historical Boumadine Mine is one of the oldest known mines in the Kingdom of Morocco. It was probably exploited by the Portuguese in the 15th and 16th centuries. Between 1956 and 1998, exploration and mining activities in the Boumadine area were completed by the BRPM, with and without partners. These activities included mineral prospecting, geophysical surveys, drilling, mineralogical studies, mineral resource estimations, metallurgical testwork, engineering and economic studies, shaft excavation, and underground development and mining. Underground mining from 1986 to 1992 produced 261,485 t of mineralized material from four levels for mineral processing on-site.

In 2013, Maya Gold and Silver Inc acquired the Project through a Joint Venture with the ONHYM. Between 2013 and 2016, Maya completed surface work that included grab sampling and surface mapping of the historically known mineralized structures. In 2017, Maya completed a drilling program to confirm the historical mineral resources. Fourteen drill holes were completed totaling 3,158 m on the Central, South and Tizi Zones. In 2018, a sampling campaign was completed over two historical tailings deposits. Between 2018 and 2020, Maya completed 9,503 m of diamond drilling over South, Central, North, Imariren and Tizi Zones. In addition, Maya completed a drone survey over part of the Boumadine Mining License. Maya announced its name change to Aya in a Company press release dated July 31, 2020.

The Boumadine Property is located at the eastern end of the Anti-Atlas Mountain Range, which extends east-northeast to west-southwest, over >600 km, from the Atlantic Ocean in the west to the interior of the African plate in the east. The Boumadine polymetallic deposit (Ag, Au, Pb, Cu, Zn) is located on the northwest side of the Ougnat Massif (or Boutonnière). The geology of the Massif consists of a Neoproterozoic metasedimentary basement overlain unconformably by a Late Neoproterozoic volcano-sedimentary rock sequence and by Paleozoic lacustrine sedimentary and minor volcanic rocks. The basement consists of sandstone, pelites and greywackes that is intruded locally by granite, granodiorite, and diorite bodies. The volcano-sedimentary sequence consists of felsic and mafic volcanic rock units separated by volcano-sedimentary units.

The Tamerzaga-Timrachine Formation (TTF), which consists of ignimbrites, rhyodacite and andesite tuffs and volcaniclastics, hosts the mineralization at Boumadine. The felsic tuffs consist of angular to rounded cm-size felsic fragments, quartz eyes, plagioclase grains, and locally mafic fragments, and sits unconformably on mafic tuffs. Mafic tuffs consist of amphibole and fragments/clasts of sedimentary rocks. Mafic tuffs are interpreted as underwater-deposited volcaniclastic eruptives. The TTF is intruded by dolerite, microdiorite and andesite dykes. The Ougnat Massif area was subjected to Neoproterozoic shearing that generated regional-scale faults trending N30° and associated secondary fractures. The area has also been affected by a late-stage series of north-south extensional fractures that were subsequently reactivated by a compressive Hercynian tectonic event.

Two hydrothermal alteration events are recognized on the Boumadine Mining License. The first alteration event affected the felsic tuff sequence as phyllic alteration (quartz-sericite-pyrite). Proximal to massive sulphide veins (1 to 5 m thick), there is an advanced clay alteration composed of kaolinite, pyrophyllite and vuggy silica. The second sequence of alteration affects mainly the underlying mafic tuffs and consists of propylitic alteration (epidote and chlorite). Near the veins, the alteration minerals are black chlorite, pyrophyllite and pyrite. The transition between these two alteration events is relatively sharp and consistent with the change in tuff composition.

Due to the extensive weathering to clay minerals, the Boumadine Deposit has a very light colour that contrasts with the surrounding landscape. The mantos, “chapeau de fer” or “iron cap” alteration extends from 5 to 10 meters depth. The mantos consists principally of goethite and jarosite with sparse hematite and no lepidochrosite. This mineralogical assemblage indicates that the oxidation fluids were strongly acidic. In this case, Mn, Zn, Cd, Ni, Co, Pb are highly mobile in the acid and sulphur-rich fluids and are commonly leached at surface. However, Ag, Au, Ba, Sr and Pb are immobile and form stable sulphosalts. The hydroxide-rich “mantos” has been partially mined out by artisanal workers for ochre and precious metals.

The Boumadine Deposit has been traced on surface and in drilling for approximately 5,400 meters along strike. Strike direction varies from mainly northwest to northerly and dips vary from steeply northeast to steeply southwest. The Boumadine Deposit consists of 45 mineralized domains that have been grouped into five separate zones. The South and Central Zones consist of 13 stacked mineralized vein domains. From the south end of the South Zone to the north end of the Central Zone, these domains extend for 4,800 meters along strike, up to 300 to 400 meters across strike and up to 1,000 meters down-dip. The South Zone appears to be offset dextrally along a northeast-trending fault from the Central Zone. The north end of the Central Zone appears to be offset sinistrally along a northeast-trending fault from the North Zone. The North Zone consists of eight closely-spaced mineralized vein domains. This Zone is 650 meters long, 5 to 10 meters in thickness and 500 meters down-dip. It strikes northwest and dips steeply southwest. The North Zone appears truncated by the Imariren Zone. The Imariren Zone and the Tizi Zone are two sub-parallel, single mineralized vein domains that are 200 meters apart in the south and 500 meters apart in the north, strike northerly, and dip vertically. The Tizi Zone has been extended to 2.0 km in length, while Imariren has been traced over 1,000 meters. Both zones extend 600 meters down-dip.

The Boumadine Deposit mineralized zones consist of 1 to 4 meters-wide massive sulphide lenses/veins oriented N20°W and dipping 70° east. The massive sulphide veins (approximately 70% sulphide) consist of pyrite, sphalerite, galena, arsenopyrite and chalcopyrite, with subordinate amounts of cassiterite, silver-rich sulphosalts, stannite, enargite, bismuthinite, native copper and bismuth. The main mineralization zone is surrounded by a 1 to 10 meters thick halo of 10 to 30% disseminated pyrite and two types of veinlets: 1) quartz-carbonate-galena-sphalerite veinlets; and 2) massive pyrite veinlets. Geochemically, there is a strong positive correlation of gold with silver and copper and a weaker correlation of zinc with lead and molybdenum. The Boumadine Deposit has been described in literature as being an epithermal polymetallic deposit in a shallow submarine setting, but field and drilling evidences seems to suggest a deeper environment of formation.

Exploration activities completed by Aya on the Boumadine Property since 2020, other than drilling, include surface trenching, satellite-based hyperspectral surveys, aerial electromagnetic and magnetic survey, mineral prospecting, geological mapping, grab sampling and assaying. Between May 2022 and December 2024, Aya completed 476 diamond drill holes totaling 192,957 m. The drilling programs aimed to extend the mineralization of the North, Central, and South Zones while also testing targets located further from the main mineralized trend. In addition, all historical drill holes from 2018 to 2021 were re-logged and resampled in 2023 for a total of 77 drill holes and 9,510 m of drill core.

Aya implemented and monitored a thorough QA/QC program for the drilling completed at the Boumadine from 2018 to 2025. Examination of QA/QC results for all recent sampling indicates no material issues with accuracy, contamination or precision in the data. It is the Author's opinion that sample preparation, security and analytical procedures are adequate and that the data are of good quality and satisfactory for use in the current Mineral Resource Estimate. Verification of the Boumadine Deposit data, had also been undertaken by independent Qualified Person in the previous MRE, including a site visit in March 2024, due diligence sampling, verification of drill hole assay data from electronic assay files, and assessment of the available QA/QC data. Independent Authors stated that sufficient verification of the Project data has been undertaken and that the supplied data are of good quality and suitable for use in the Mineral Resource Estimate.

For metal recoveries, Aya envisions a two-phase process based on recent metallurgical testwork completed by SGS Canada Inc. in 2023. Phase 1 is a flotation stage for recovery of Pb and Zn and partial recovery of Au and Ag. Phase 2 is an oxidation and leaching stage for recovery of Au and Ag. Oxidation using the Albion Process followed by cyanide leaching produced the highest precious metal recoveries. Total recoveries were 89% Ag, 85% Au, 85% Pb and 72% Zn. Next steps include continued refinement of the metallurgy testwork, particularly methods for oxidation of the pyrite concentrate, and evaluation of key reagents and input parameters.

The updated MRE of the Boumadine Deposit is amenable to conventional open-pit and to underground mining methods. The updated MRE for Boumadine contains an Indicated Mineral Resource of 5.2 Mt grading 91 g/t Ag, 2.78 g/t Au, 2.8% Zn and 0.85% Pb containing an estimated 15,1 Moz of Ag, 449 koz of Au, 145 kt of Zn and 44 kt of Pb, and an Inferred Mineral Resource of 29.2 Mt grading 82 g/t Ag, 2.63 g/t Au, 2.11% Zn, and 0.82% Pb containing an estimated 76.8 Moz of Ag, 2.4 Moz of Au, 615 kt of Zn and 237 kt of Pb. Pit-constrained Mineral Resources have been estimated within an optimized pit shell for the purpose of reporting Mineral Resources and includes Indicated and Inferred Mineral Resources. The pit-constrained Mineral Resources are reported using a NSR cut-off value of US$95/t. Out-of-pit Mineral Resources are reported beneath the pit shell that exhibit continuity and reasonable potential for extraction by longhole mining methods. Out-of-pit Mineral Resources are reported using an NSR cut-off of US$125/t. The Mineral Resource has an effective date of February 24, 2025. The sensitivity of the Mineral Resource to changes in cut-off grade was also calculated across a range of potentially economic NSR cut-offs.

The Mineral Resource Estimates have been classified with respect to CIM Standards as Indicated Mineral Resources and Inferred Mineral Resources, according to the geological confidence and sample spacing that currently define the Deposits, with Indicated Mineral Resources requiring <50 m spaced drill hole centres. All additional estimated grade blocks were classified as Inferred. The Authors are of the opinion that the current

Mineral Resource Estimate meets the reasonable prospect of eventual economic extraction. The Authors have experience with other similar projects and are of the opinion that the cut-off grade and cost assumptions are reasonable.

The Boumadine Deposit may require several permits from the Moroccan Government, and the requirement to complete an Environmental and Social Impact Assessment ("ESIA") by the Moroccan Law No. 12-03 on Environmental Impact Assessments. The ESIA will establish the comprehensive regulatory framework for the Project.

The Boumadine Mining License land is understood to be held under the collective land status. In Morocco, collective lands are used for grazing, farming, forests, quarries, and land in urban and peri-urban areas. The number of traditional communities ranges from 4,500 to 5,500 ethnic groupings, comprising almost 2.5 million collectives. The legal status of collective lands is set out in a dahir dating from 1919. A national program started in 2021 to identify land rights with the intent to formalize land ownership in collective lands. These rights are managed by the Direction des affaires rurales, part of the Ministry of the Interior. Aya will establish communication with the relevant authorities at the governorate in the Province of Errachidia, in order to commence the process of establishing land agreements with the landowners.

Aya's Health and Safety, Environment and Community ("HSEC") Policy sets out clear parameters for governance during project development. The Policy requires: compliance with all laws and regulations in force in the countries where Aya operates; implementation of an environmental and social management system to identify, reduce or mitigate risks to sustainable development; and, where economic or physical displacement cannot be avoided, adherence to International Finance Corporation ("IFC") Performance Standard 5, including formal consultation throughout the process and seeking to improve the situation of households and communities.

Aya has developed a Tailings Policy that commits to design, govern, and manage tailings, in-line with industry best practice, following guidelines such as those provided by the International Commission on Large Dams, Australian National Committee on Large Dams, and Canadian Dam Association. Aya will work towards aligning its practices with industry best practices.

As per its HSEC Policy, Aya commits to developing a Mine Closure Management Plan for each of its projects. In collaboration with its stakeholders, reclamation planning entails an extensive analysis of land use options, environmental factors, community development concerns and objectives, and measurable performance targets. Aya will progressively complete reclamation as part of its commitment to restore mine sites to a healthy environment. Aya begins restoring disturbed land as soon as it is no longer needed, using best available techniques and developing location-specific measures. During the life of mine ("LoM"), Aya strives to develop local capacity and collaborate on economic diversification through community investment programs. Stakeholder engagement will include specific topics in the lead-up to closure, and Aya will complement their social baseline with a social closure impact assessment.

Aya's drive for sustainability involves adopting a precautionary approach and implementing and working on the continuous improvement of its Environmental and Social Management System ("ESMS"). The precautionary approach is the process for investigating, addressing and mitigating how the Corporation's actions could impact the environment and host communities. The ESMS is based on best practice from the IFC Performance Standards and the European Bank for Reconstruction and Development that will help the Corporation monitor status and progress in upholding its legal, social and environmental responsibilities. The ESMS incorporates a 'Plan, Do, Check, Act' process, thereby encouraging continuous improvement in sustainability management, and is based on the ISO 14001 environmental standard and the ISO 45001 occupational H&S standard.

The Authors are not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that may materially affect the Mineral Resource Estimate. A material decrease in metal prices below those utilized for the current Mineral Resource Estimates or a significant increase in operating costs could materially affect the cut-off and average grades, and potentially result in a revised lower Mineral Resource Estimate tonnage.

26.0 RECOMMENDATIONS

Aya owns or controls 25 mining licenses and exploration permits in the Boumadine Property area (272 km^2) in the eastern part of the Kingdom of Morocco. Structurally-controlled, mainly silver-gold polymetallic sulphide mineralization are currently defined in five separate zones along a 5.4 km strike length that together make-up the Boumadine Deposit. Additional mineralized zones and mineral occurrences are known in the area.

Additional expenditures are recommended by the Authors for the following activities:

- Drilling to advance Inferred to Indicated Mineral Resources;
- Drilling down-dip in order to develop additional Mineral Resources at depth;
- Follow-up geological mapping, mineral prospecting, and assays;
- Development of a comprehensive bulk density model;
- Investigate grade capping thresholds by individual mineralized domain;
- Review grade anisotropy by individual mineralized domain; and
- Complete a Preliminary Economic Assessment of the Boumadine Deposit.

The Authors also recommend that Aya continue with the current QC protocol and monitor QC data on an ongoing basis, and continue refining the metallurgical work for improved recoveries.

The estimated cost of the recommended work program is US$52.3M, which includes 10% contingency (without applicable taxes) (Table 26-1). Phase 1 of the recommended work program should be completed in 2025 and Phase 2 in 2026. Phase 2 is contingent on a successful Phase 1.

Table 26-1: Recommended programs and budgets for 2025-2026

Year	Item	Activity	Unit (m)	Cost Estimate (US$)
Phase 1 - 2025				
2025		Drilling (all-in costs)	140,000	22,330,000
		Administration and Management		3,000,000
		Geological Mapping, Mineral Prospecting, Assays		120,000
	Sub-Total			25,450,000
	Contingency (10%)			2,545,000
	Total - 2025			28,000,000
Phase 2 - 2026				
2026		Drilling (all-in costs)	120,000	19,140,000
		Administration and Management		3,000,000
	Sub-Total			22,140,000
	Contingency (10%)			2,214,000
	Total - 2026			24,350,000

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28.0 CERTIFICATES

CERTIFICATE OF QUALIFIED PERSON

To accompany the Report entitled "*Technical Report – Updated Mineral Resource Estimate of the Boumadine Polymetallic Project, Kingdom of Morocco"* which is effective as of February 24th, 2025 and issued on March 31st, 2025 (the "Technical Report") prepared for Aya Gold & Silver Inc. (the "Company").

I, *David Lalonde, P. Geo.*, do hereby certify:

1. I am the Vice-President Exploration with AYA Gold & Silver, with an office at 1320 Boulevard Graham, suite 132, Ville Mont Royal, Québec, Canada.
2. I am a graduate from "Université du Québec à Montréal", in Canada, with a B.Sc. in Resources Geology obtained in 2001.
3. I am a registered member of OGQ (Ordre des Géologues du Québec), membership #00664.
4. I have worked as a Geologist, Exploration Manager or Vice-President Exploration continuously since my graduation from university. I have been employed since my graduation in 2001. I have gained relevant experience on deposits and projects similar to the Boumadine Project. My relevant experience for the purpose of the Technical Report includes:
   - Field Geologist, SOQUEM Inc. 2001-2004
   - Field Geologist, Bema Gold Corp. 2004-2006
   - Exploration Project Manager, Bema Gold Corp. 2006-2007
   - Exploration Project Manager, Kinross Gold Corp. 2008-2009
   - Chief Geologist, SEMAFO Inc, 2009-2010
   - Exploration Deputy Manager, SEMAFO Inc. 2011-2018
   - Exploration Manager, SEMAFO Inc. 2018-2020
   - Exploration Manager, Mineral Development Oman 2020-2021
   - Head of Exploration, QP, Aya Gold & Silver Inc. 2021-2024
   - Vice-President Exploration, QP, Aya Gold & Silver Inc. 2024-Current
5. I have read the definition of "qualified person" set out in the National Instrument 43-101 and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfil the requirements to be an independent qualified person for the purposes of NI 43-101;
6. I am not independent of the issuer in accordance with the application of Section 1.5 in section 1.5 of National Instrument 43-101.
7. I have participated in the preparation of this Technical Report and am responsible for Sections 2 to 12, 23 to 24 and parts of Sections 1, 14, and 25 to 27.
8. I have visited the Boumadine mine site, with my most recent visit occurring on 9-10 March 2025.
9. I have no personal knowledge as of the date of this certificate of any material fact or change, which is not reflected in this Report;
10. I have read NI 43-101 and Form 43-101F1 and have prepared the Technical Report in compliance with NI 43-101 and Form 43-101F1; and have prepared the report in conformity with generally accepted Canadian mining industry practice, and as of the date of the certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 31st day of March 2025

"Signed and sealed"
David Lalonde, P. Geo.
Vice-President Exploration

CERTIFICATE OF QUALIFIED PERSON

To accompany the Report entitled "*Technical Report – Updated Mineral Resource Estimate of the Boumadine Polymetallic Project, Kingdom of Morocco"* which is effective as of February 24th, 2025 and issued on March 31st, 2025 (the "Technical Report") prepared for Aya Gold & Silver Inc (the "Company").

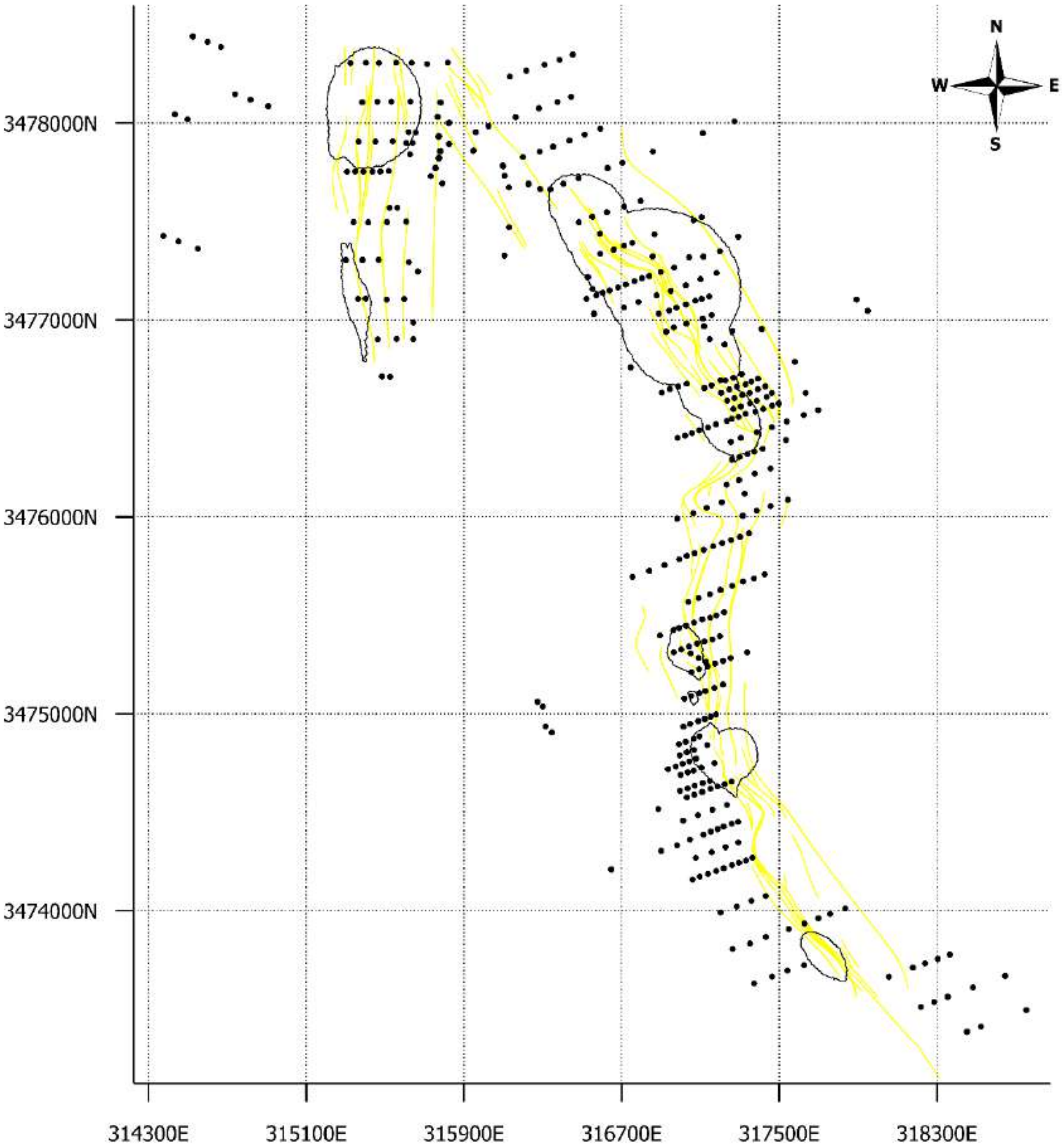
I, *Patrick Pérez, P. Eng.*, do hereby certify:

1. I am the Director of Technical Services with AYA Gold & Silver, with an office at 1320 Boulevard Graham, suite 132, Ville Mont Royal, Québec, Canada.
2. I am a graduate from "Ecole Nationale Supérieure de Géologie de Nancy", in France, with a M.Sc. in Geological Engineering obtained in 2003.
3. I am a registered member of OIQ (Ordre des Ingénieurs du Québec), membership #5095334.
4. I have worked as a Mining Engineer, Senior Mining Engineer or Project Manager continuously since my graduation from university. I have been employed since my graduation in 2003. I have gained relevant experience on deposits and projects similar to the Boumadine Project, including:
   a) Work on mining operations and projects in west Africa, in both Open Pit and Underground environment
   b) I have also participated and supervised several mineral resource estimates or engineering studies for different projects at various stages of development. Hands-on experience for precious metals in Morocco, Ivory Coast, Mali, Burkina Faso, Australia and Canada;
   c) Design, supervision and implementation of mining programs;
   d) Review, audits, interpretation of geoscientific data; and
   e) Participation in the preparation of parts of NI 43-101 compliant Technical Reports.
5. I have read the definition of "qualified person" set out in the National Instrument 43-101 and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfil the requirements to be an independent qualified person for the purposes of NI 43-101;
6. I am not independent of the issuer in accordance with the application os Section 1.5 in section 1.5 of National Instrument 43-101.
7. I have participated in the preparation of this Technical Report and am responsible for Sections 13 and parts of Sections 1, 14.3, and 25 to 27.
8. I have visited the Boumadine mine site, with my most recent visit occurring on 2-5 April 2024.
9. I have no personal knowledge as of the date of this certificate of any material fact or change, which is not reflected in this Report;
10. I have read NI 43-101 and Form 43-101F1 and have prepared the Technical Report in compliance with NI 43-101 and Form 43-101F1; and have prepared the report in conformity with generally accepted Canadian mining industry practice, and as of the date of the certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 31st day of March 2025

"Signed and sealed"
Patrick Pérez, P. Eng.
Director of Technical Services

Appendix A DRILL HOLE PLAN



Aya Gold & Silver Inc.

-

Boumadine Deposit
Surface Drill Hole Plan
MRE - February 2025

-

Veins Sliced at 1000rl

-

Pit Contours sliced at 1200rl

-

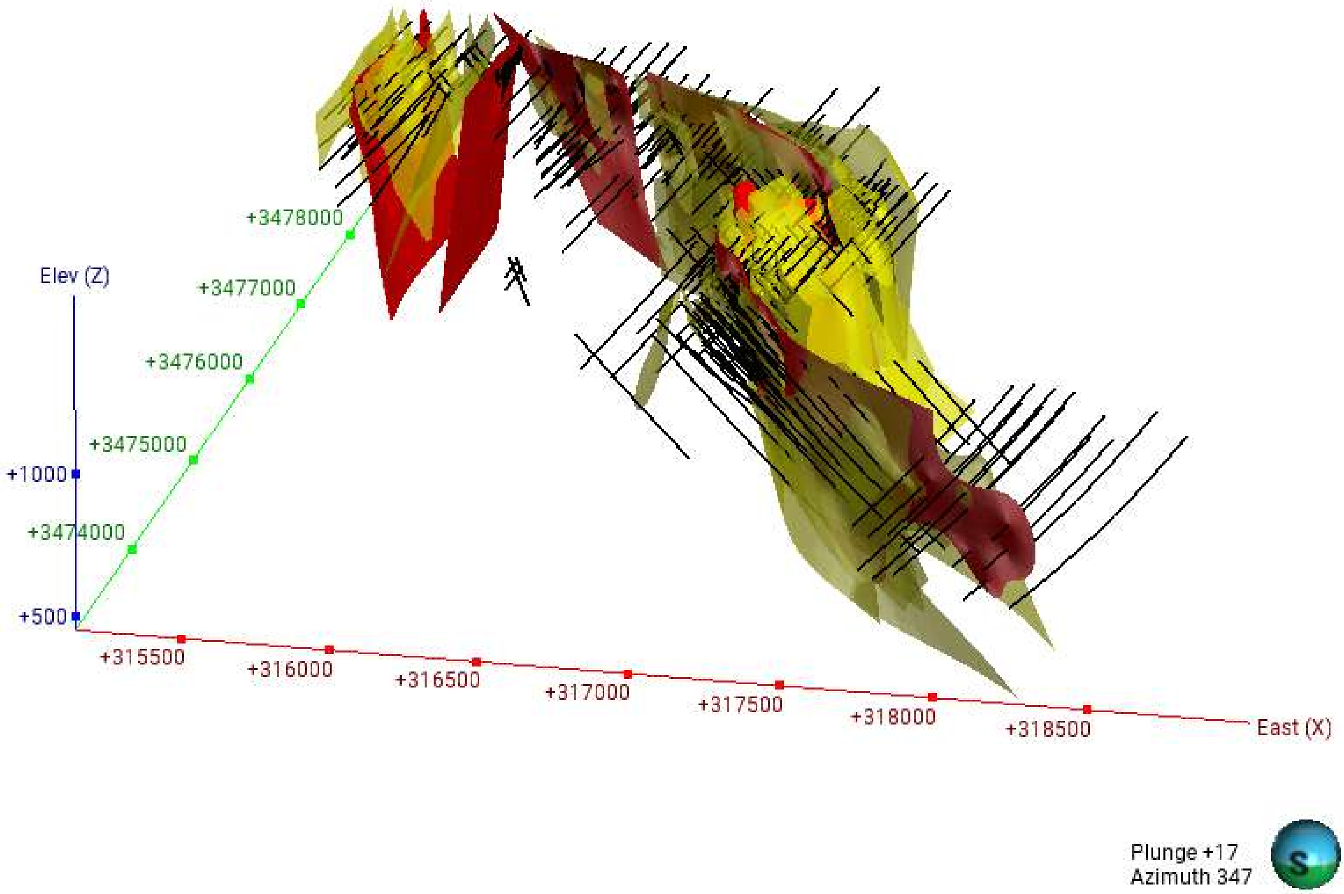
Date: Feb 25, 2025
WGS 84/UTM Zone 30N

0m 2000m

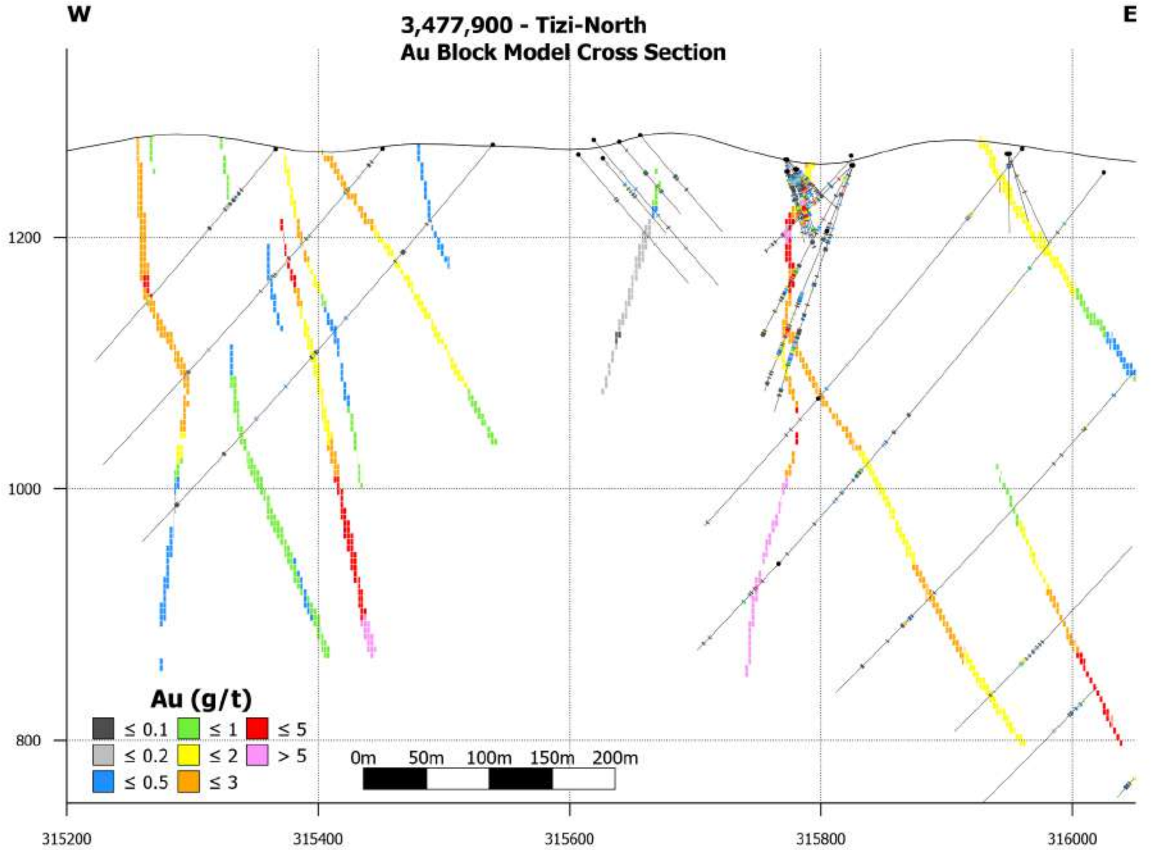
Appendix B 3-D DOMAINS

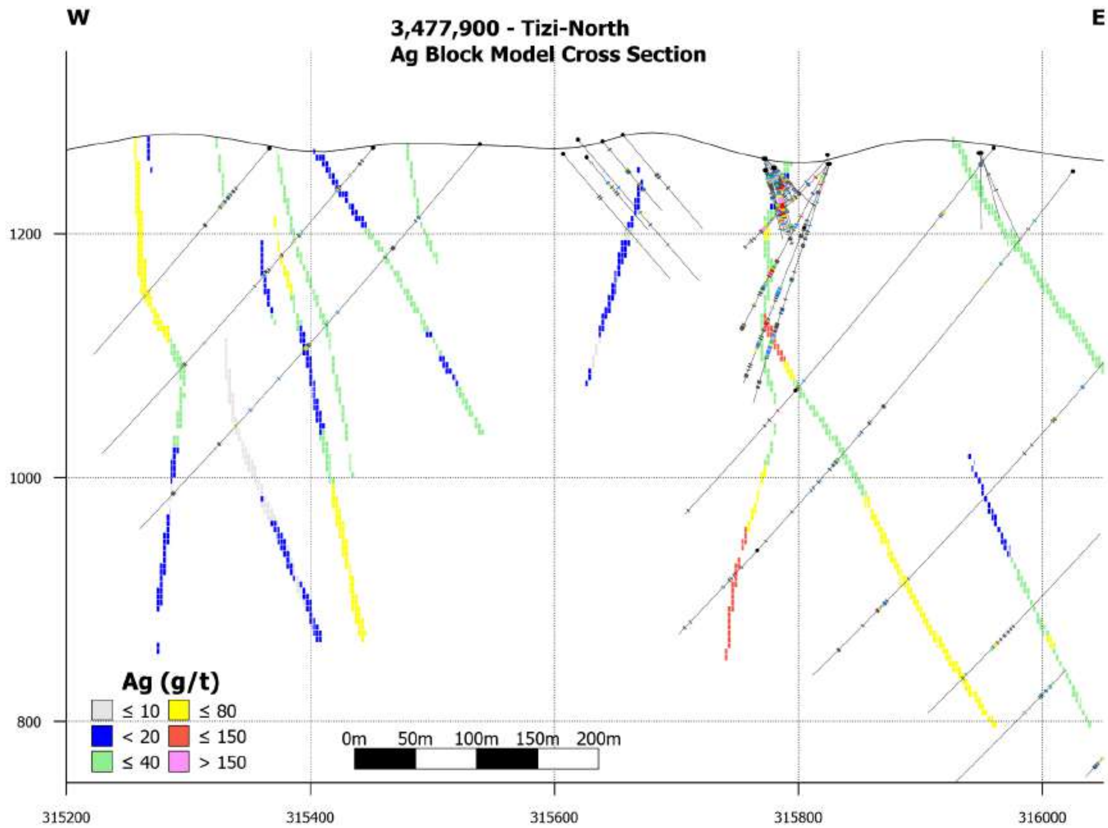
Boumadine 3D-Domains

main veins in red (Central_main, South_main, Tizi_Main, Imariren)

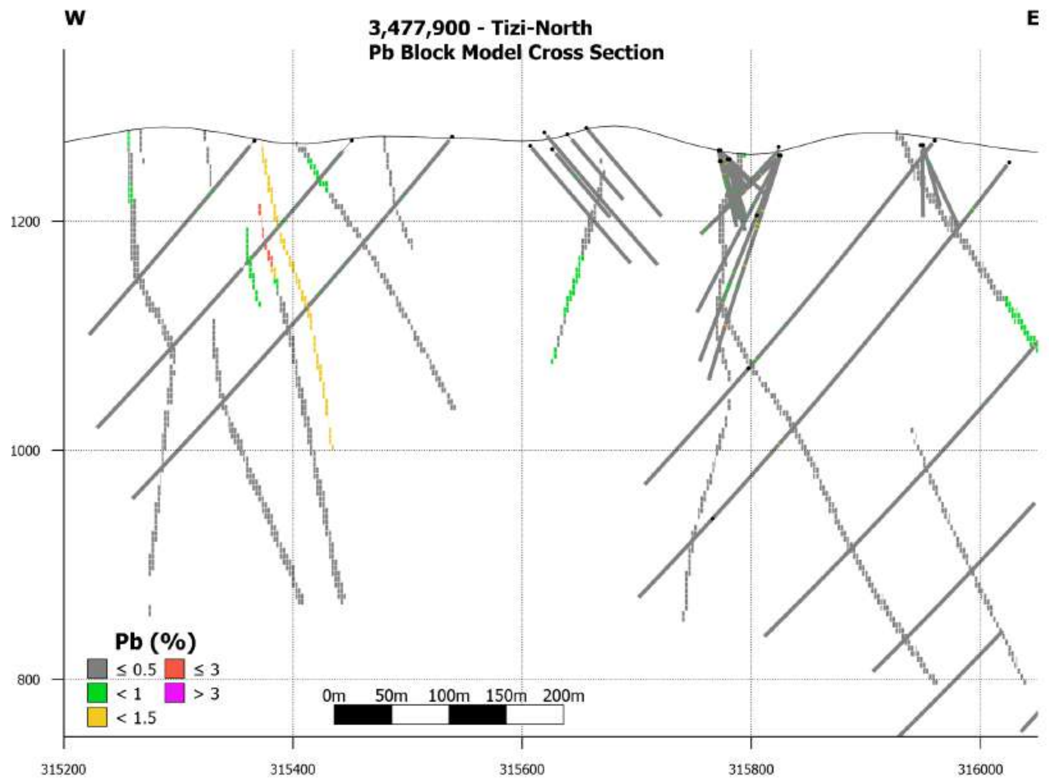


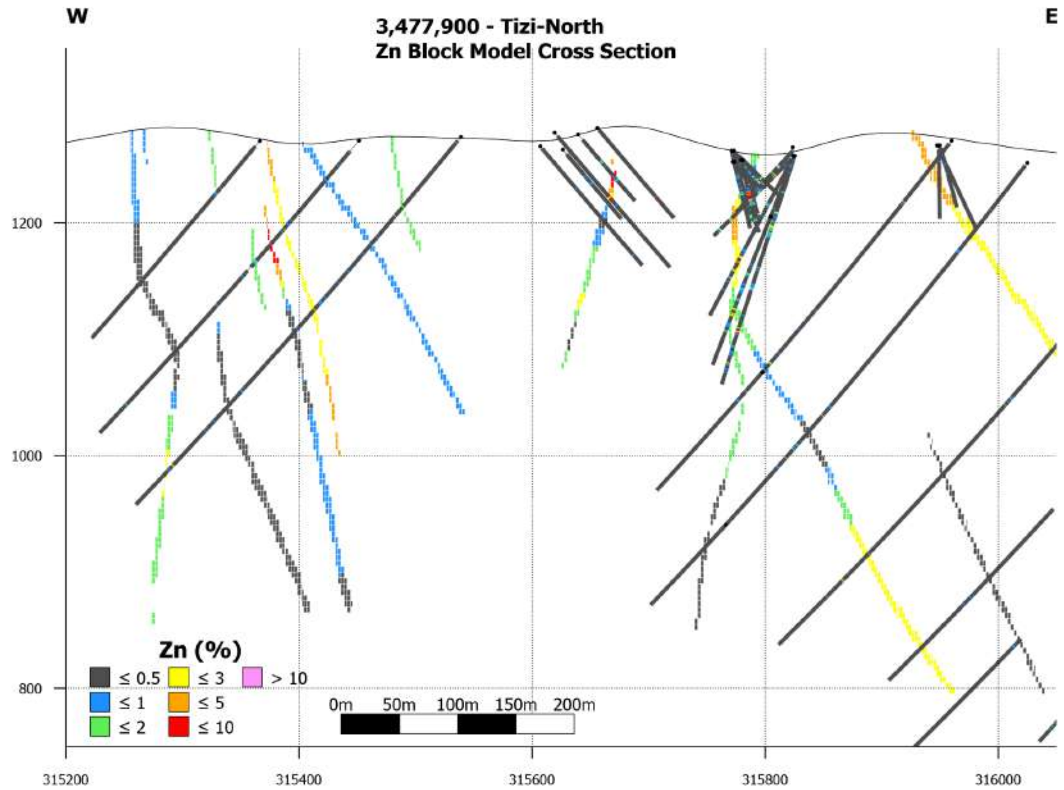
Appendix C TIZI & NORTH ZONES BLOCK MODEL CROSS SECTIONS

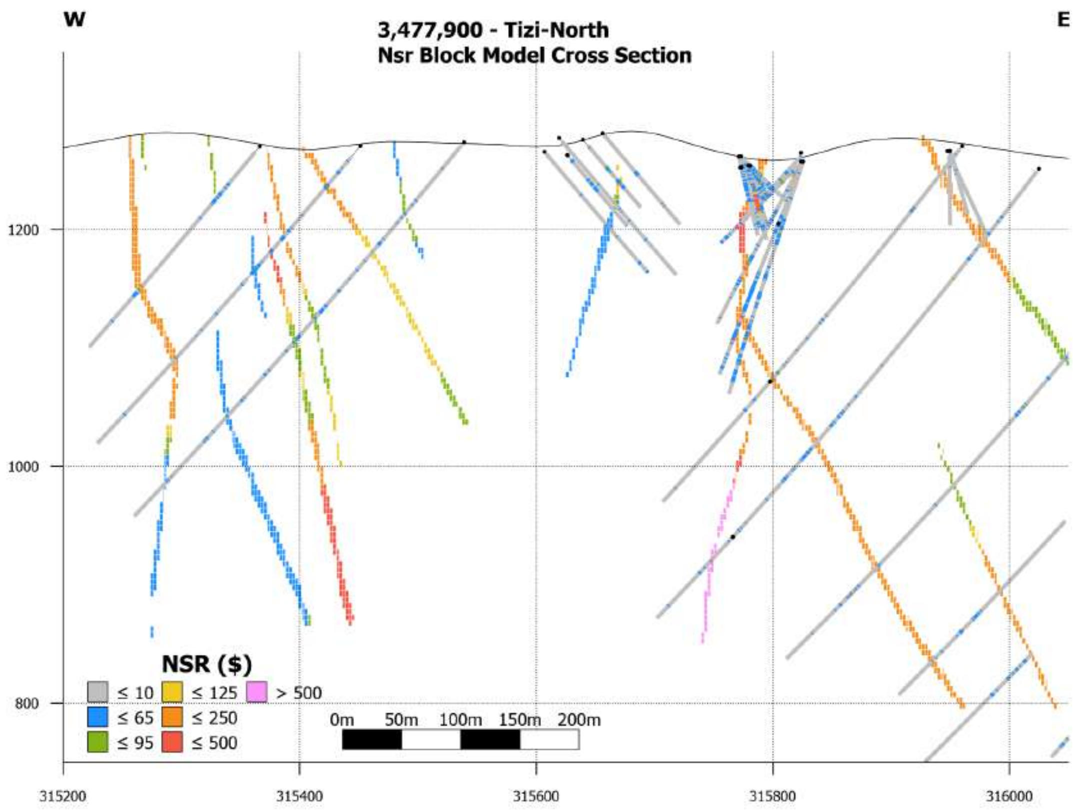


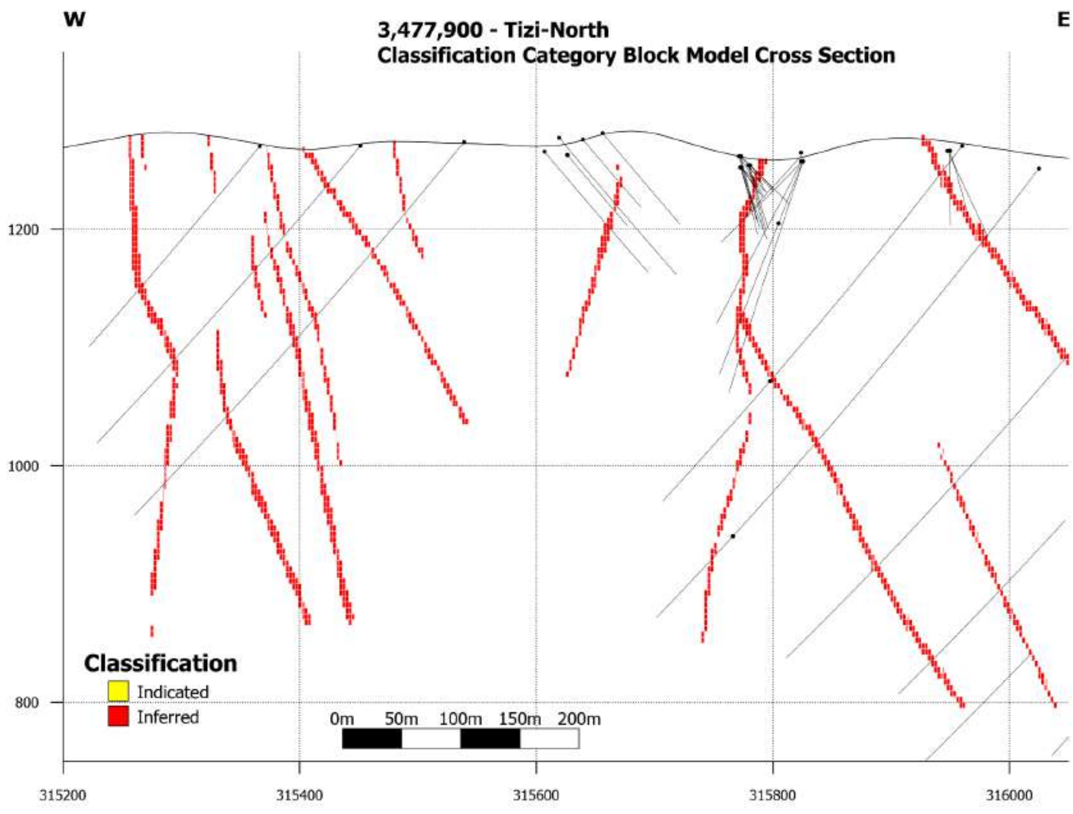


TIZI

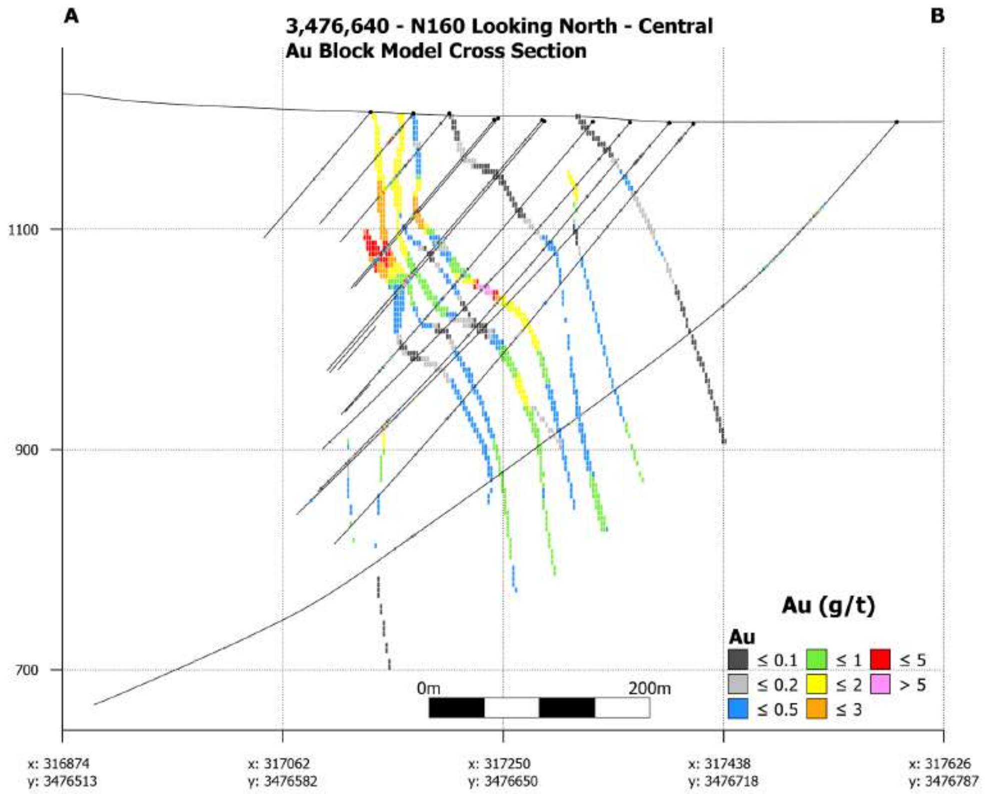

W
E
3,477,900 - Tizi-North
Pb Block Model Cross Section
1200
1000
800
Pb (%)
≤ 0.5
≤ 3
< 1
> 3
< 1.5
0m 50m 100m 150m 200m
315200
315400
315600
315800
316000

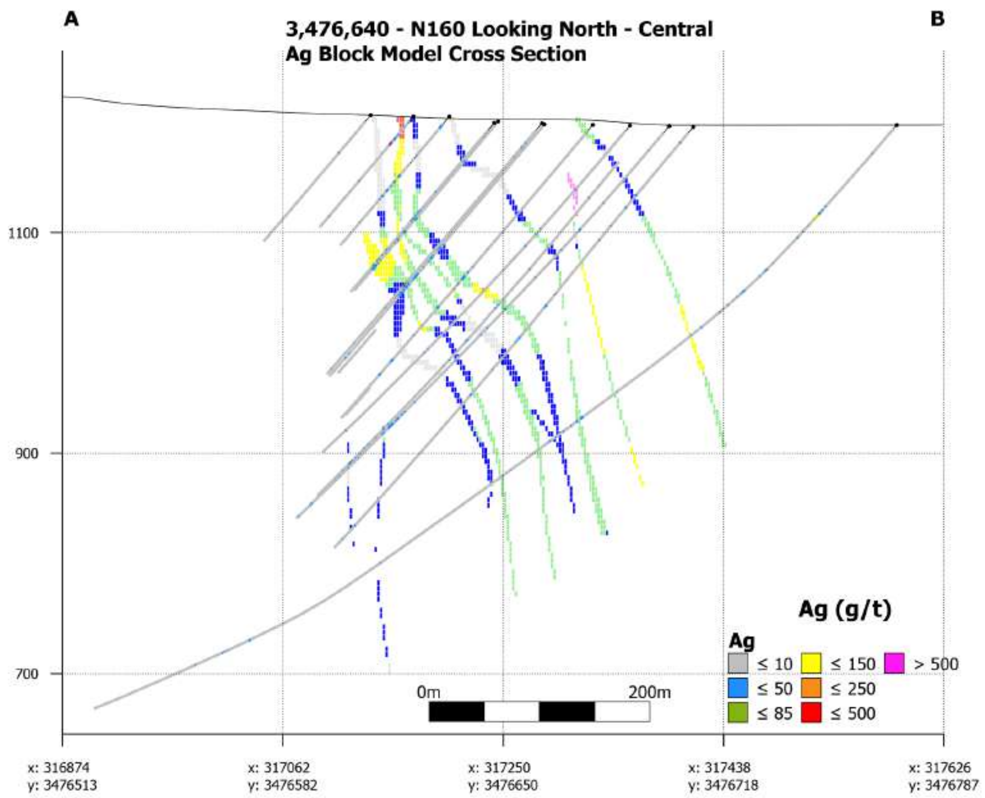

W
E
3,477,900 - Tizi-North
Zn Block Model Cross Section
1200
1000
800
Zn (%)
≤ 0.5
≤ 3
> 10
≤ 1
≤ 5
≤ 2
≤ 10
0m 50m 100m 150m 200m
315200
315400
315600
315800
316000


W
E
3,477,900 - Tizi-North
Nsr Block Model Cross Section
1200
1000
800
NSR ($)
≤ 10
≤ 125
> 500
≤ 65
≤ 250
≤ 95
≤ 500
0m
50m
100m
150m
200m
315200
315400
315600
315800
316000

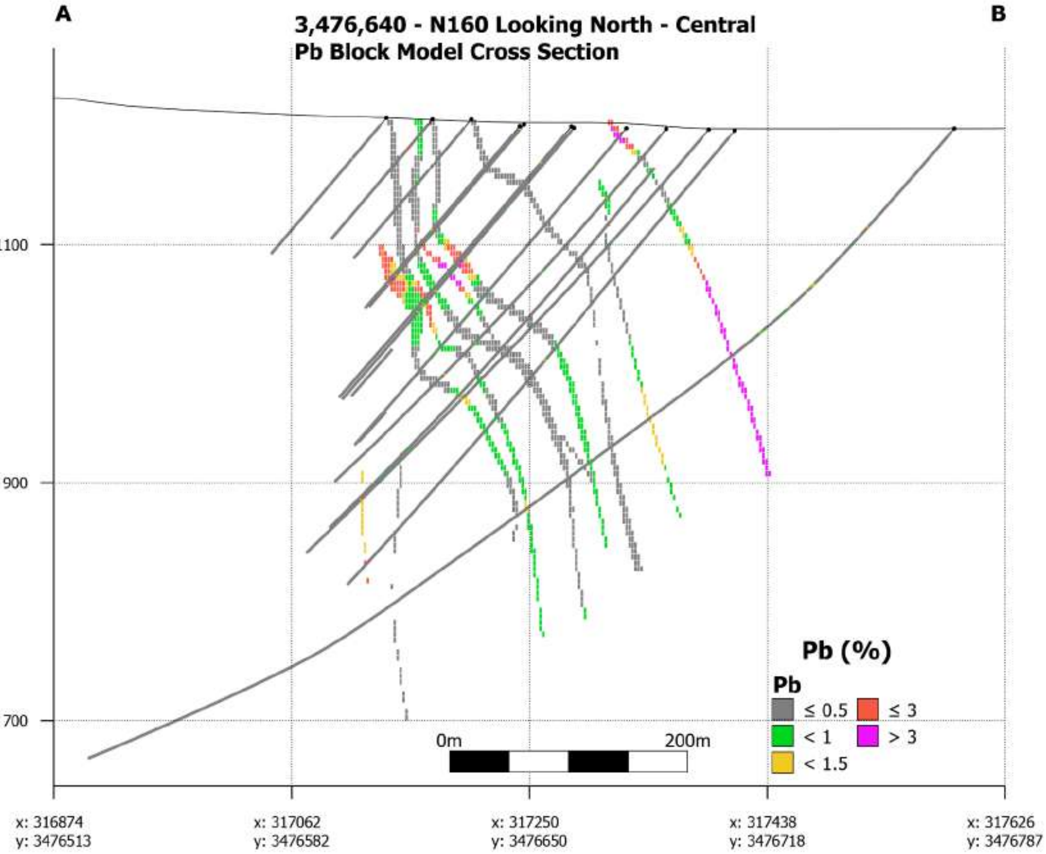

W
E
3,477,900 - Tizi-North
Classification Category Block Model Cross Section
1200
1000
800
Classification
Indicated
Inferred
0m
50m
100m
150m
200m
315200
315400
315600
315800
316000

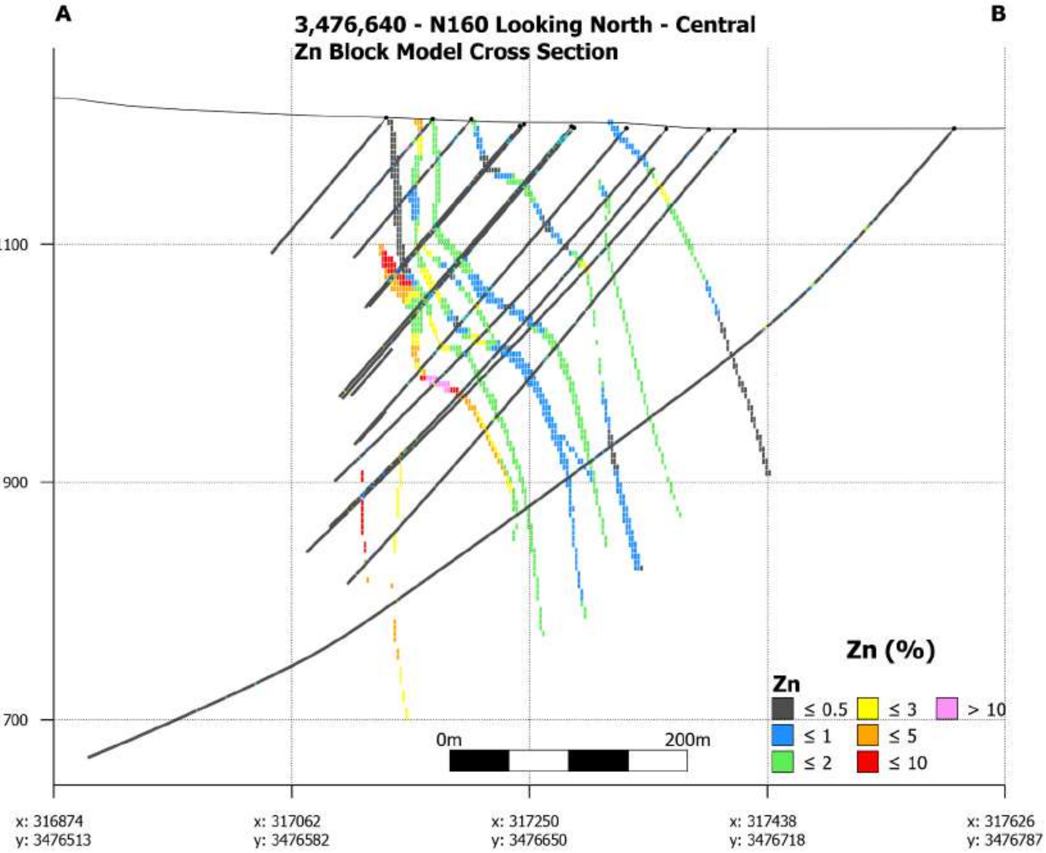
Appendix D CENTRAL ZONE BLOCK MODEL CROSS SECTIONS

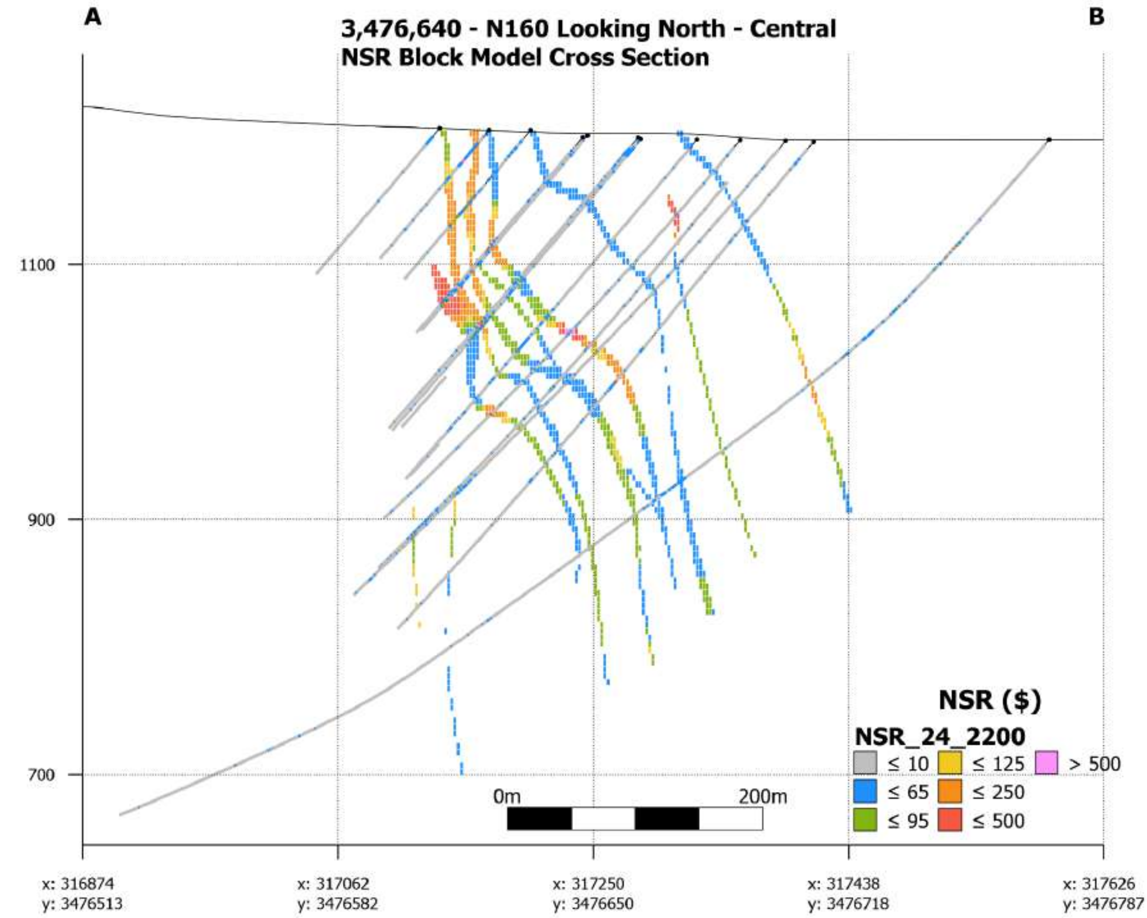




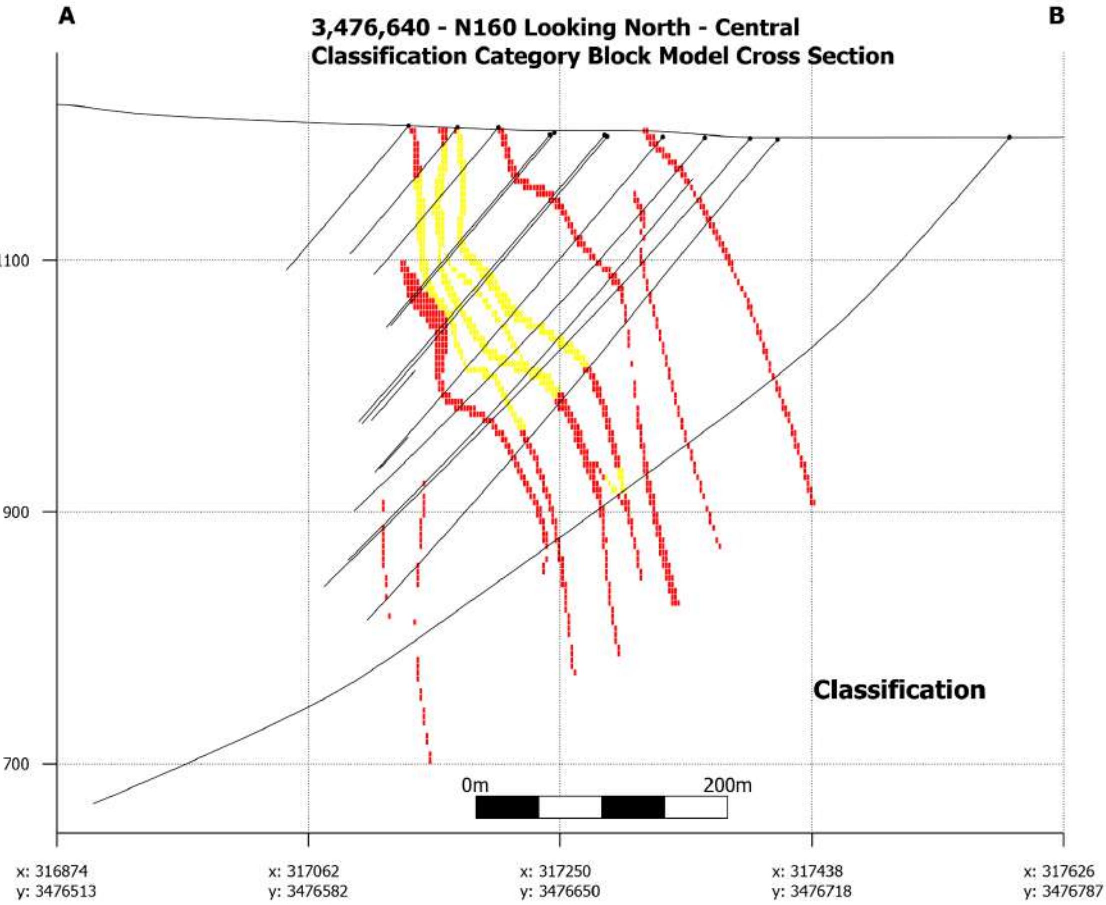
TIZI


A
B
3,476,640 - N160 Looking North - Central
Pb Block Model Cross Section
1100
900
700
Pb (%)
Pb
≤ 0.5
≤ 3
< 1
> 3
< 1.5
0m
200m
x: 316874
y: 3476513
x: 317062
y: 3476582
x: 317250
y: 3476650
x: 317438
y: 3476718
x: 317626
y: 3476787

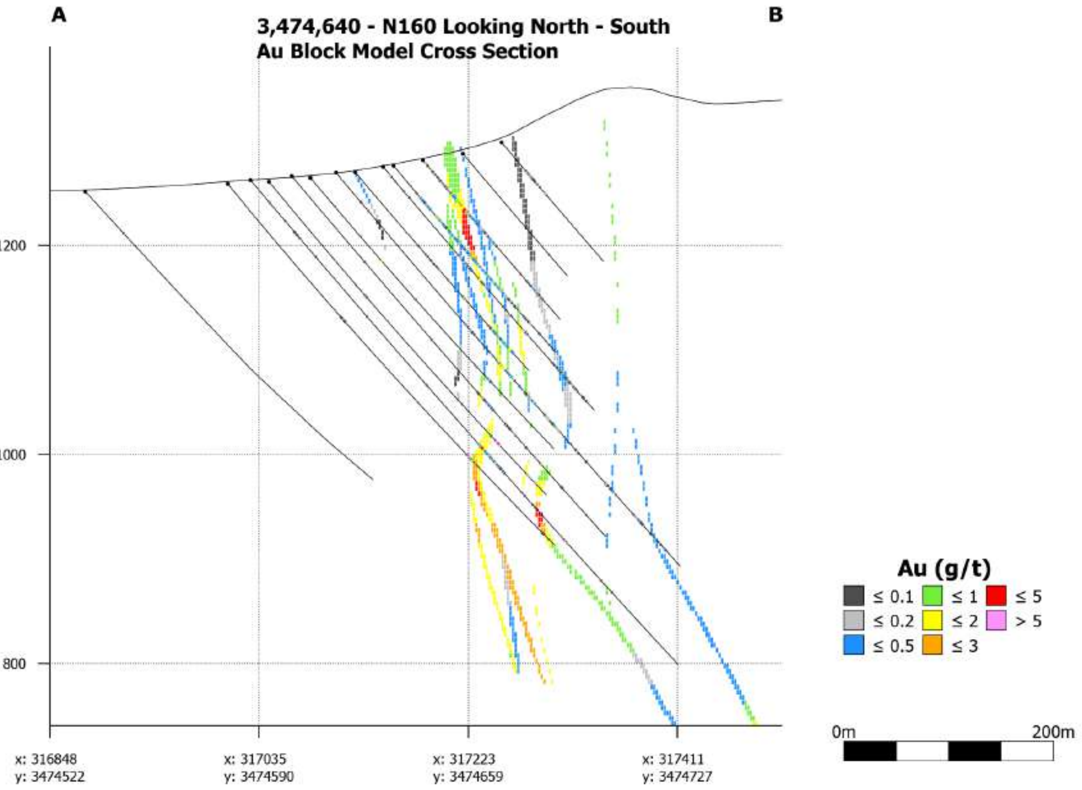

A
B
3,476,640 - N160 Looking North - Central
Zn Block Model Cross Section
1100
900
700
Zn (%)
Zn
≤ 0.5
≤ 3
> 10
≤ 1
≤ 5
≤ 2
≤ 10
0m
200m
x: 316874
y: 3476513
x: 317062
y: 3476582
x: 317250
y: 3476650
x: 317438
y: 3476718
x: 317626
y: 3476787

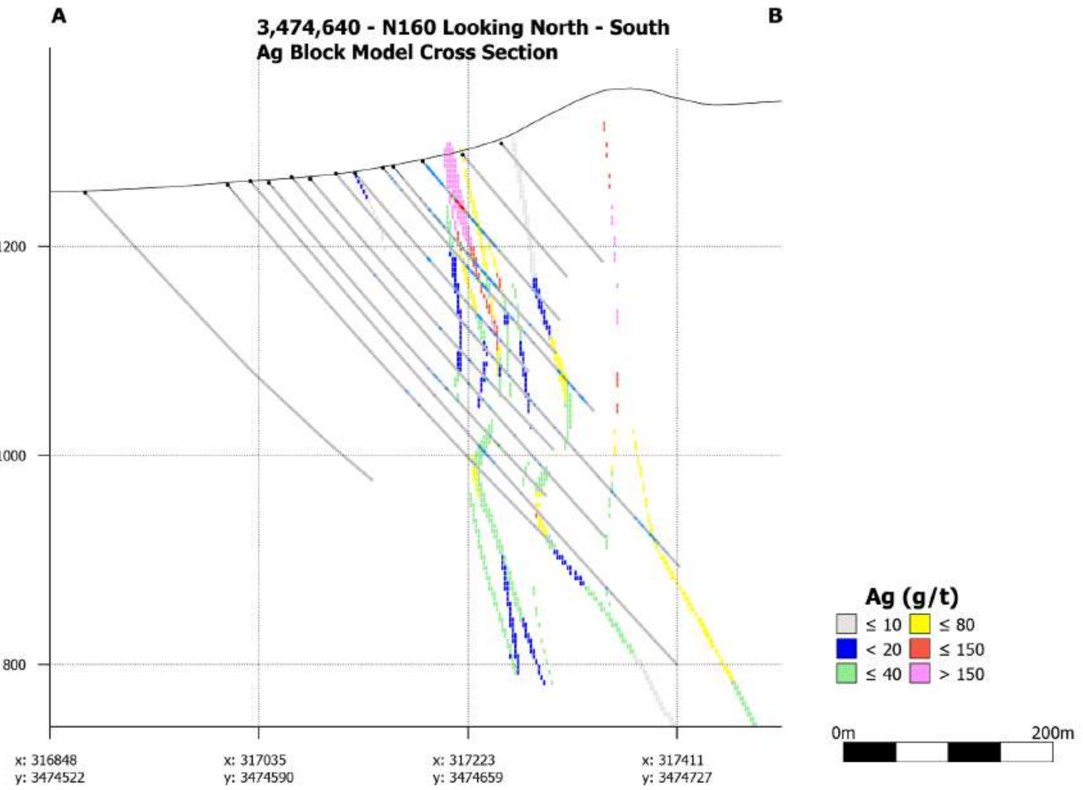


A
B
3,476,640 - N160 Looking North - Central
NSR Block Model Cross Section
1100
900
700
0m
200m
NSR ($)
NSR_24_2200
≤ 10
≤ 125
> 500
≤ 65
≤ 250
≤ 95
≤ 500
x: 316874
y: 3476513
x: 317062
y: 3476582
x: 317250
y: 3476650
x: 317438
y: 3476718
x: 317626
y: 3476787

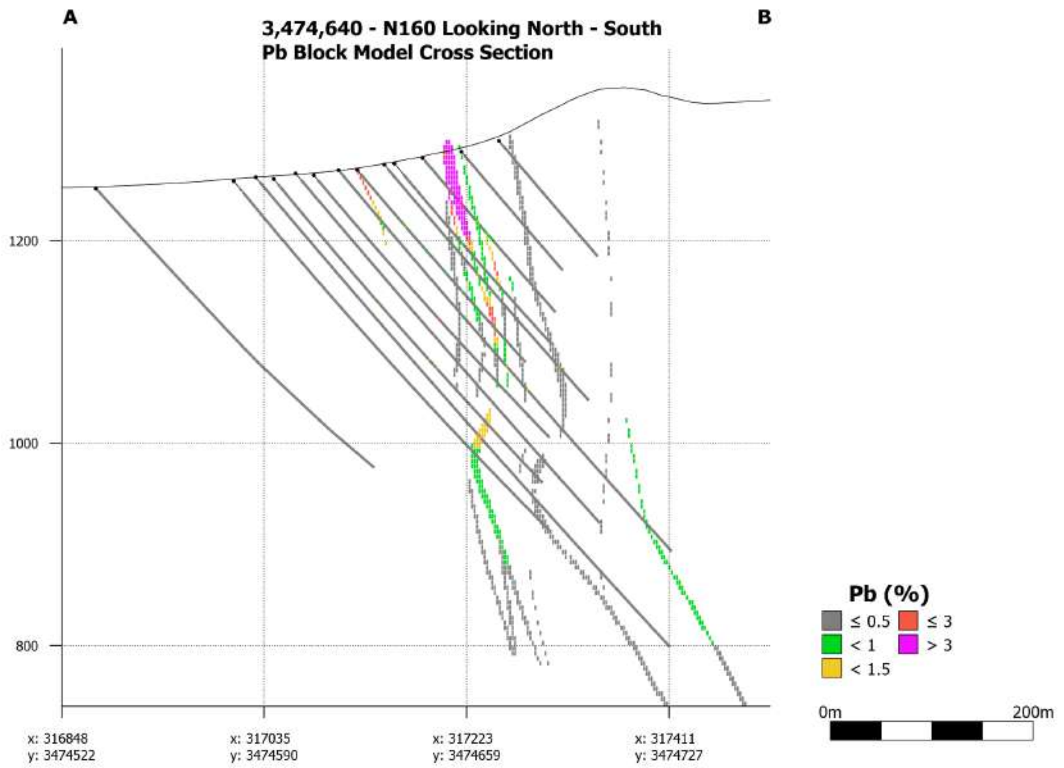

A
B
3,476,640 - N160 Looking North - Central
Classification Category Block Model Cross Section
1100
900
700
0m
200m
Classification
x: 316874
y: 3476513
x: 317062
y: 3476582
x: 317250
y: 3476650
x: 317438
y: 3476718
x: 317626
y: 3476787

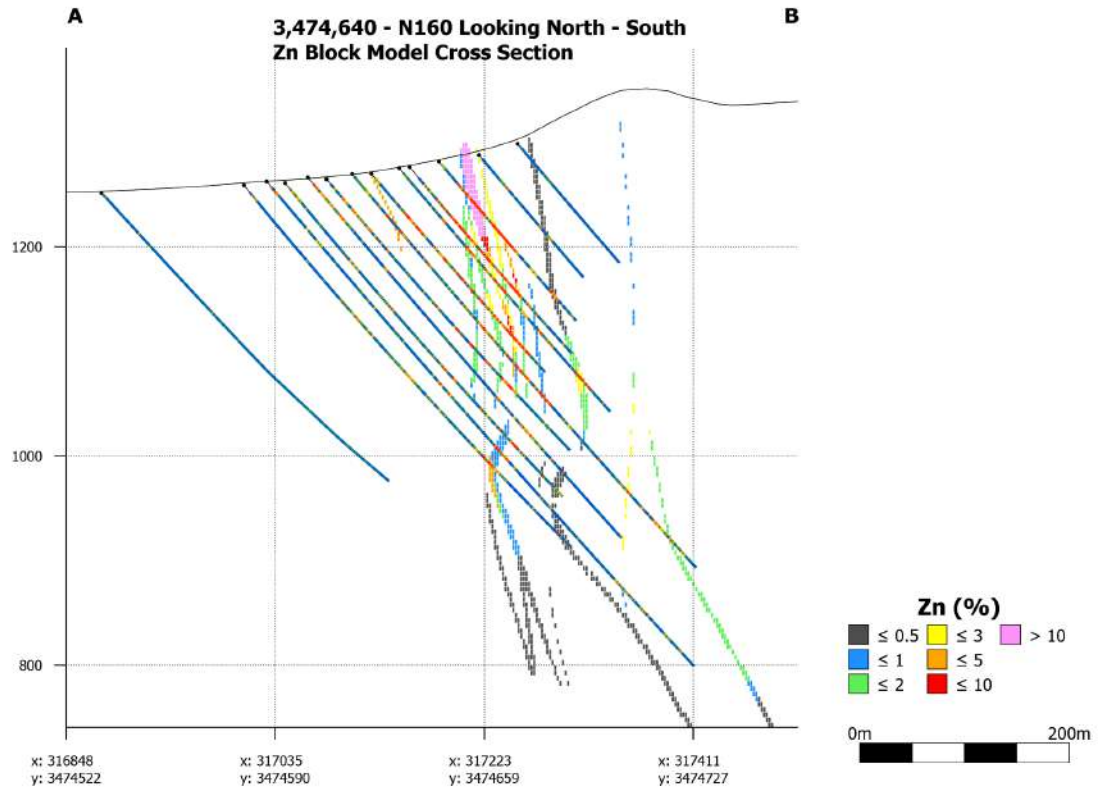
Appendix E SOUTH ZONE BLOCK MODEL CROSS SECTIONS

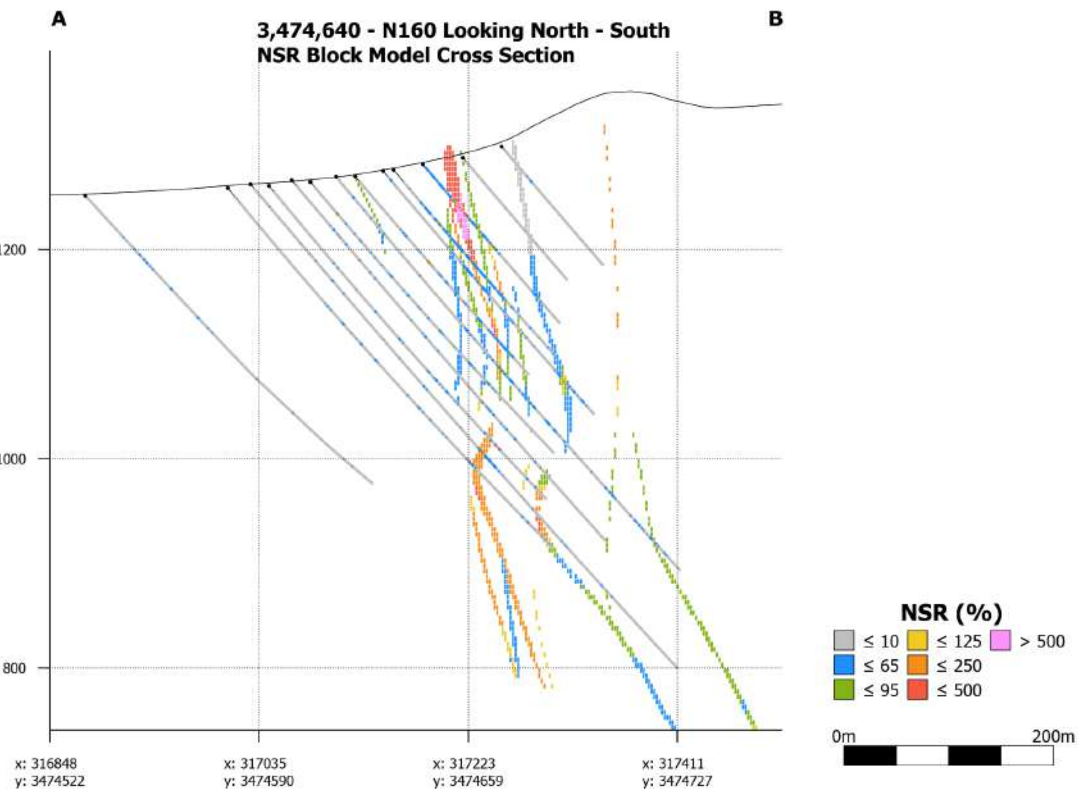


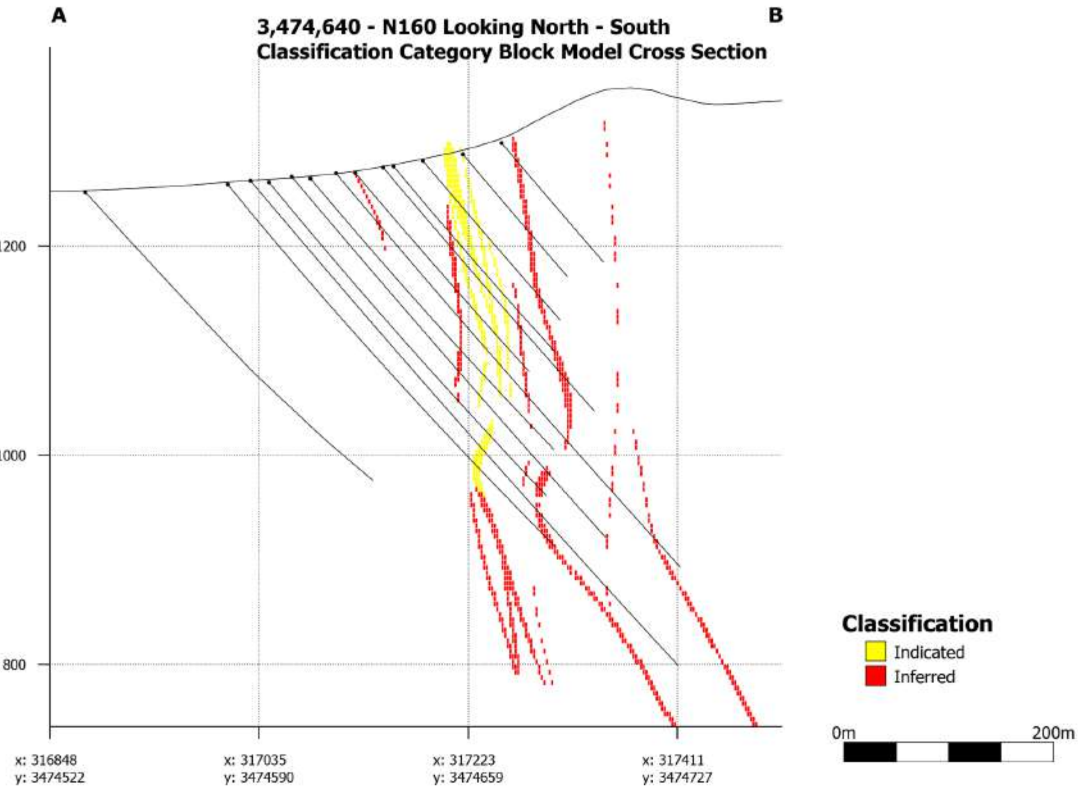


TIZI

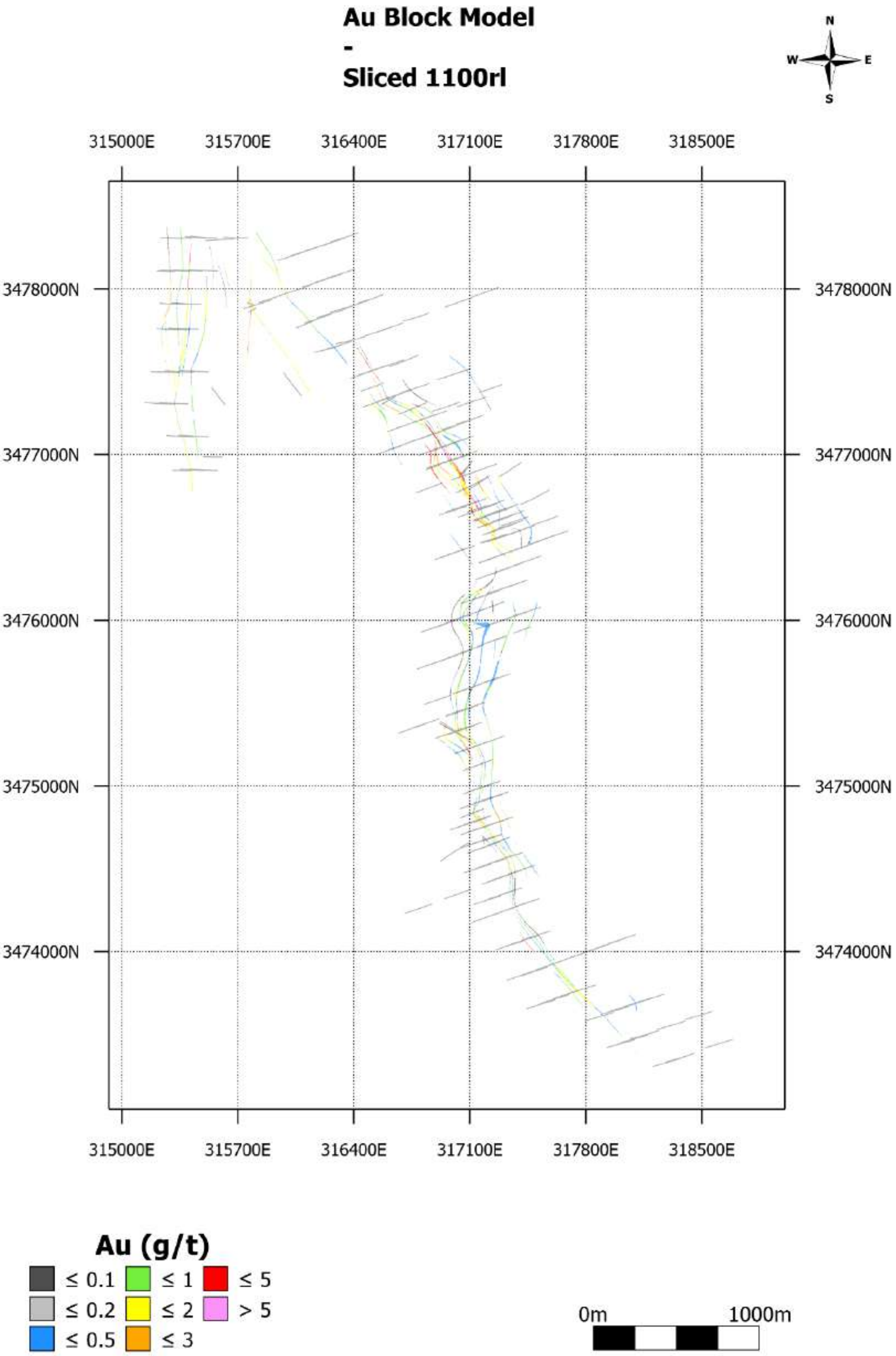

A
B
3,474,640 - N160 Looking North - South
Pb Block Model Cross Section
1200
1000
800
x: 316848
y: 3474522
x: 317035
y: 3474590
x: 317223
y: 3474659
x: 317411
y: 3474727
Pb (%)
≤ 0.5
≤ 3
< 1
> 3
< 1.5
0m
200m

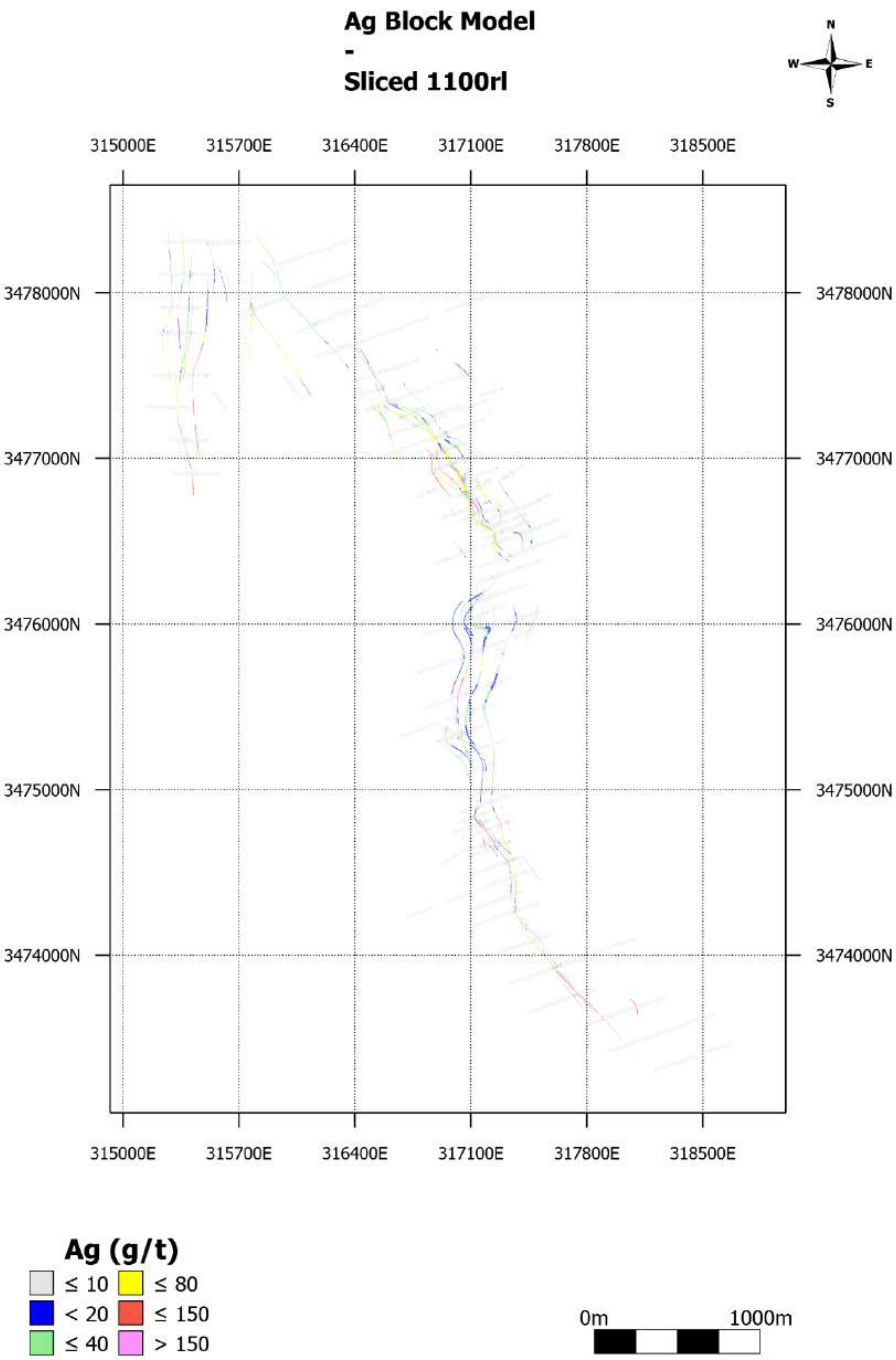

A
B
3,474,640 - N160 Looking North - South
Zn Block Model Cross Section
1200
1000
800
x: 316848
y: 3474522
x: 317035
y: 3474590
x: 317223
y: 3474659
x: 317411
y: 3474727
Zn (%)
≤ 0.5
≤ 3
> 10
≤ 1
≤ 5
≤ 2
≤ 10
0m
200m


A
B
3,474,640 - N160 Looking North - South
NSR Block Model Cross Section
1200
1000
800
x: 316848
y: 3474522
x: 317035
y: 3474590
x: 317223
y: 3474659
x: 317411
y: 3474727
NSR (%)
≤ 10
≤ 125
> 500
≤ 65
≤ 250
≤ 95
≤ 500
0m
200m

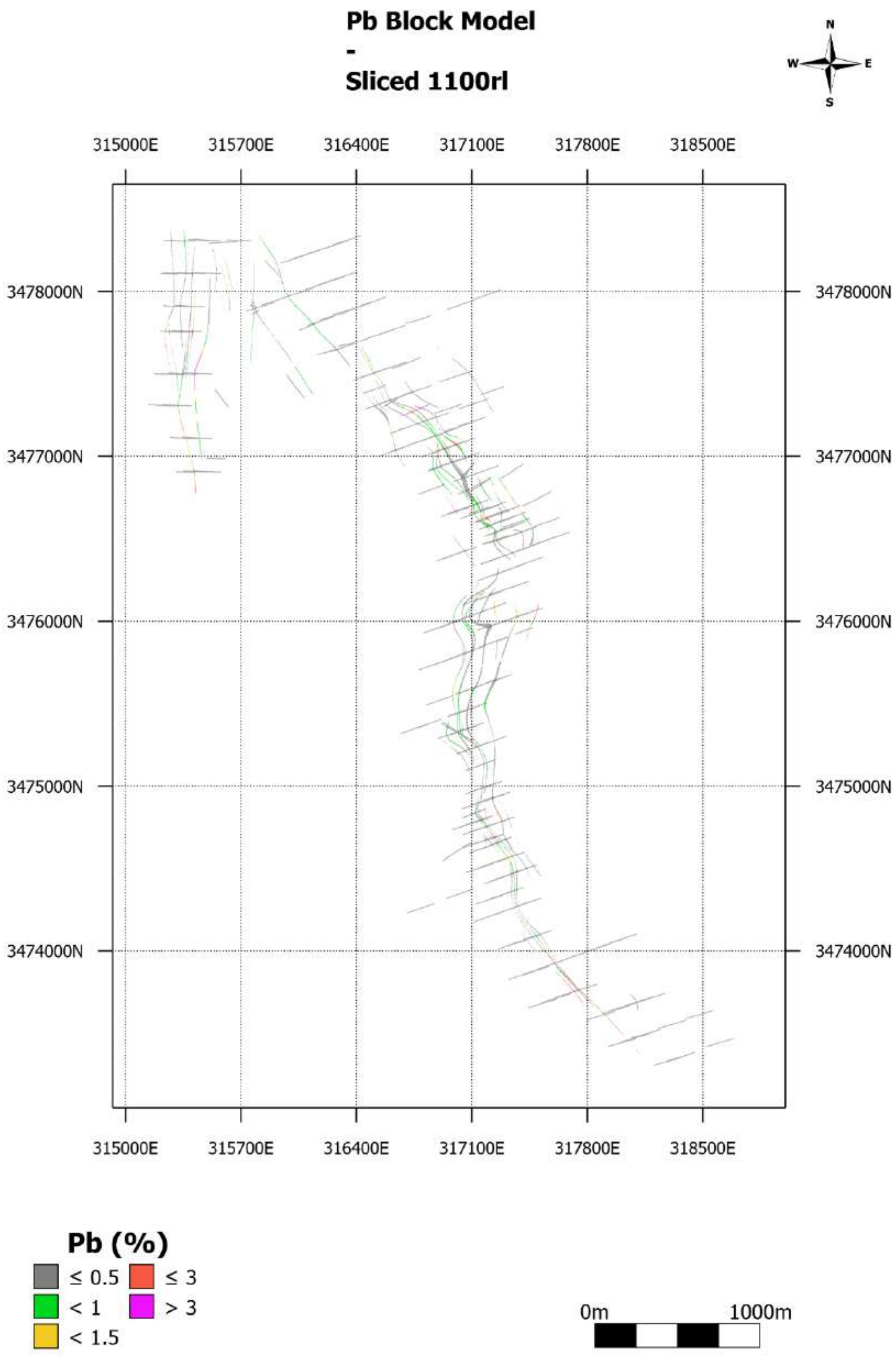

A
B
3,474,640 - N160 Looking North - South
Classification Category Block Model Cross Section
1200
1000
800
x: 316848
y: 3474522
x: 317035
y: 3474590
x: 317223
y: 3474659
x: 317411
y: 3474727
Classification
Indicated
Inferred
0m
200m

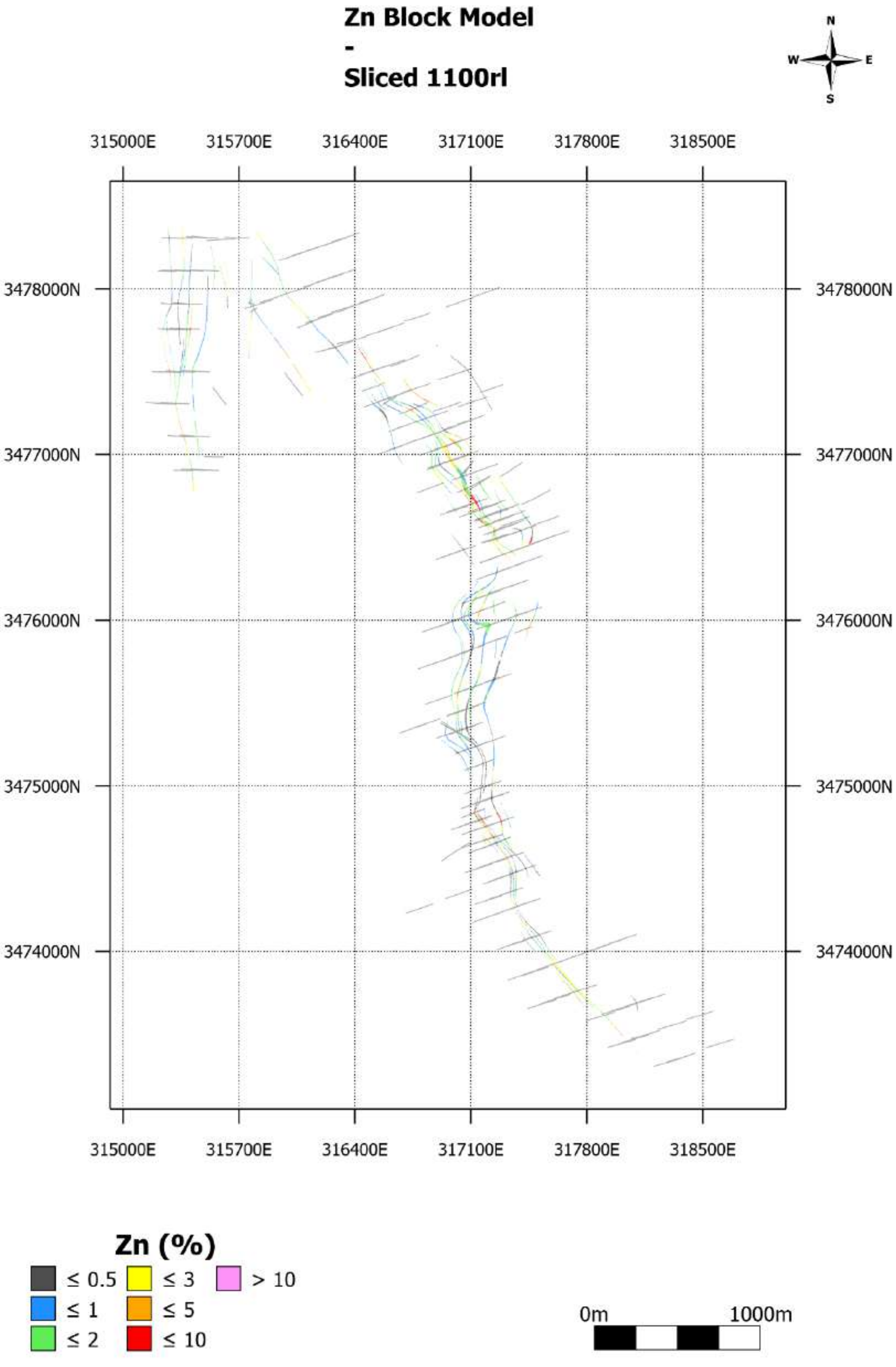
Appendix F BLOCK MODEL PLAN VIEWS



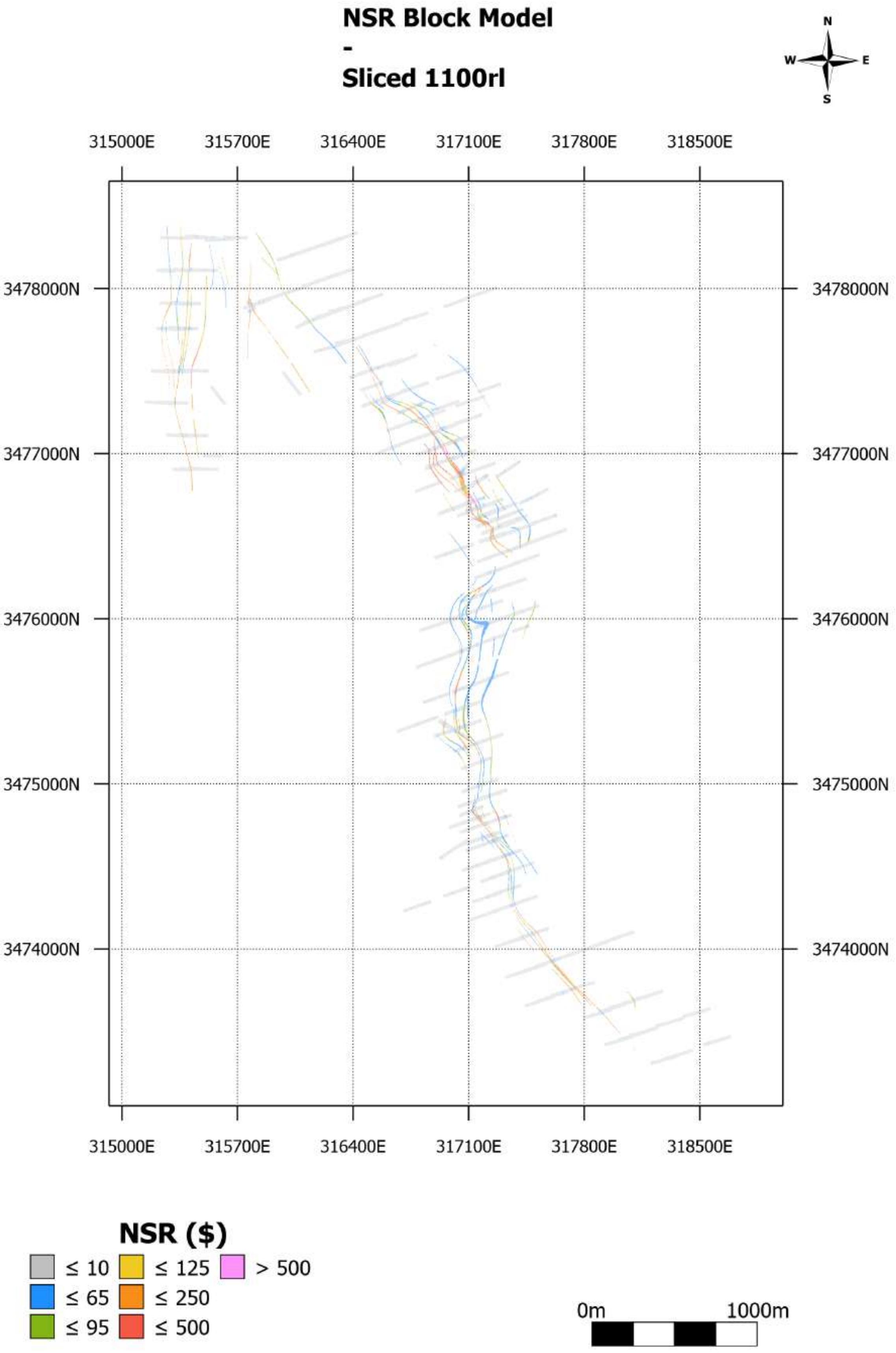


Ag Block Model
-
Sliced 1100rl
N
W
E
S
315000E
315700E
316400E
317100E
317800E
318500E
3478000N
3477000N
3476000N
3475000N
3474000N
Ag (g/t)
≤ 10
≤ 80
< 20
≤ 150
≤ 40
> 150
0m
1000m

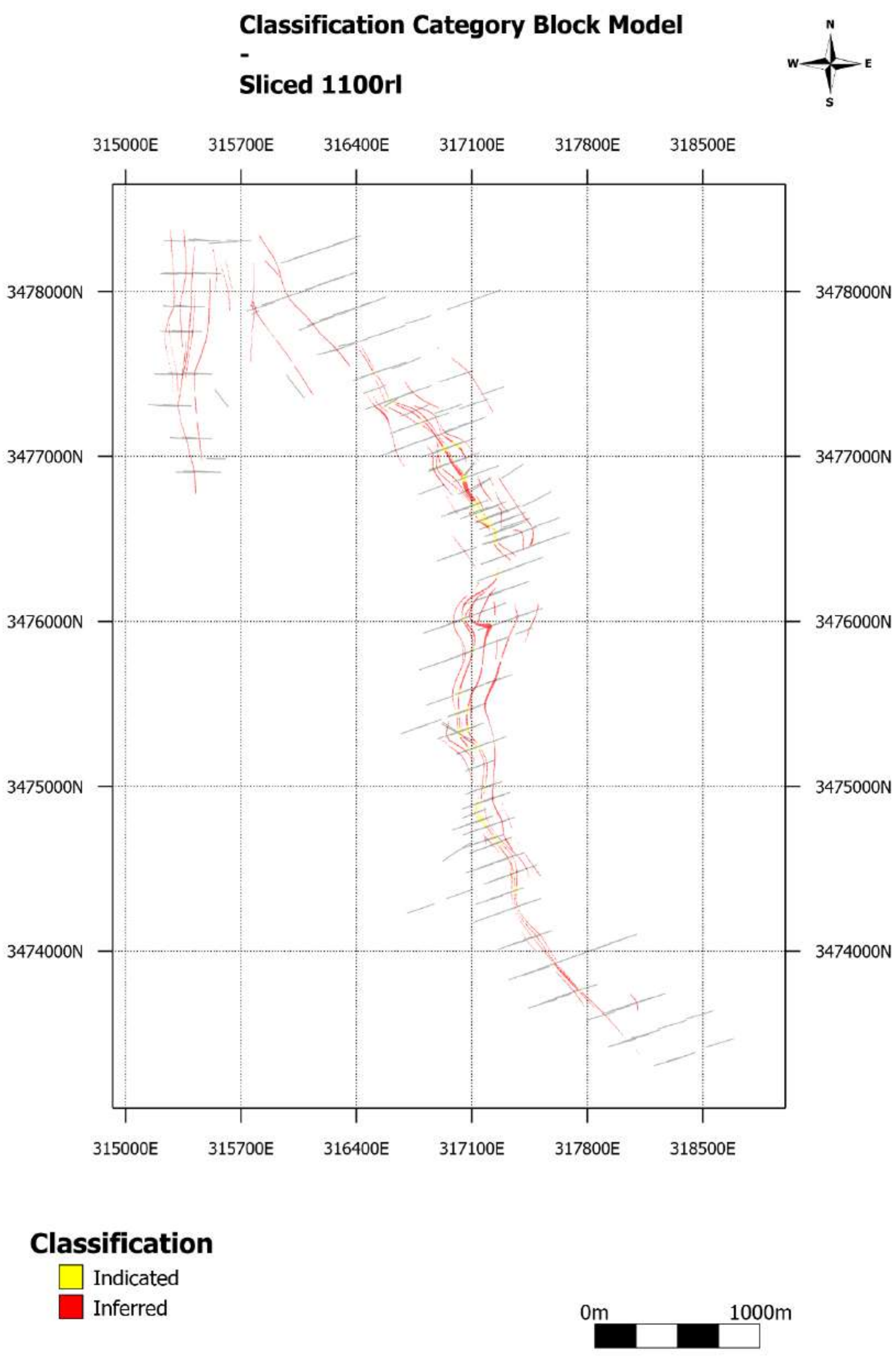

Pb Block Model
-
Sliced 1100rl
N
W
E
S
315000E
315700E
316400E
317100E
317800E
318500E
3478000N
3477000N
3476000N
3475000N
3474000N
Pb (%)
≤ 0.5
≤ 3
< 1
> 3
< 1.5
0m
1000m



Zn Block Model
-
Sliced 1100rl
N
W
E
S
315000E
315700E
316400E
317100E
317800E
318500E
3478000N
3477000N
3476000N
3475000N
3474000N
Zn (%)
≤ 0.5
≤ 3
> 10
≤ 1
≤ 5
≤ 2
≤ 10
0m
1000m

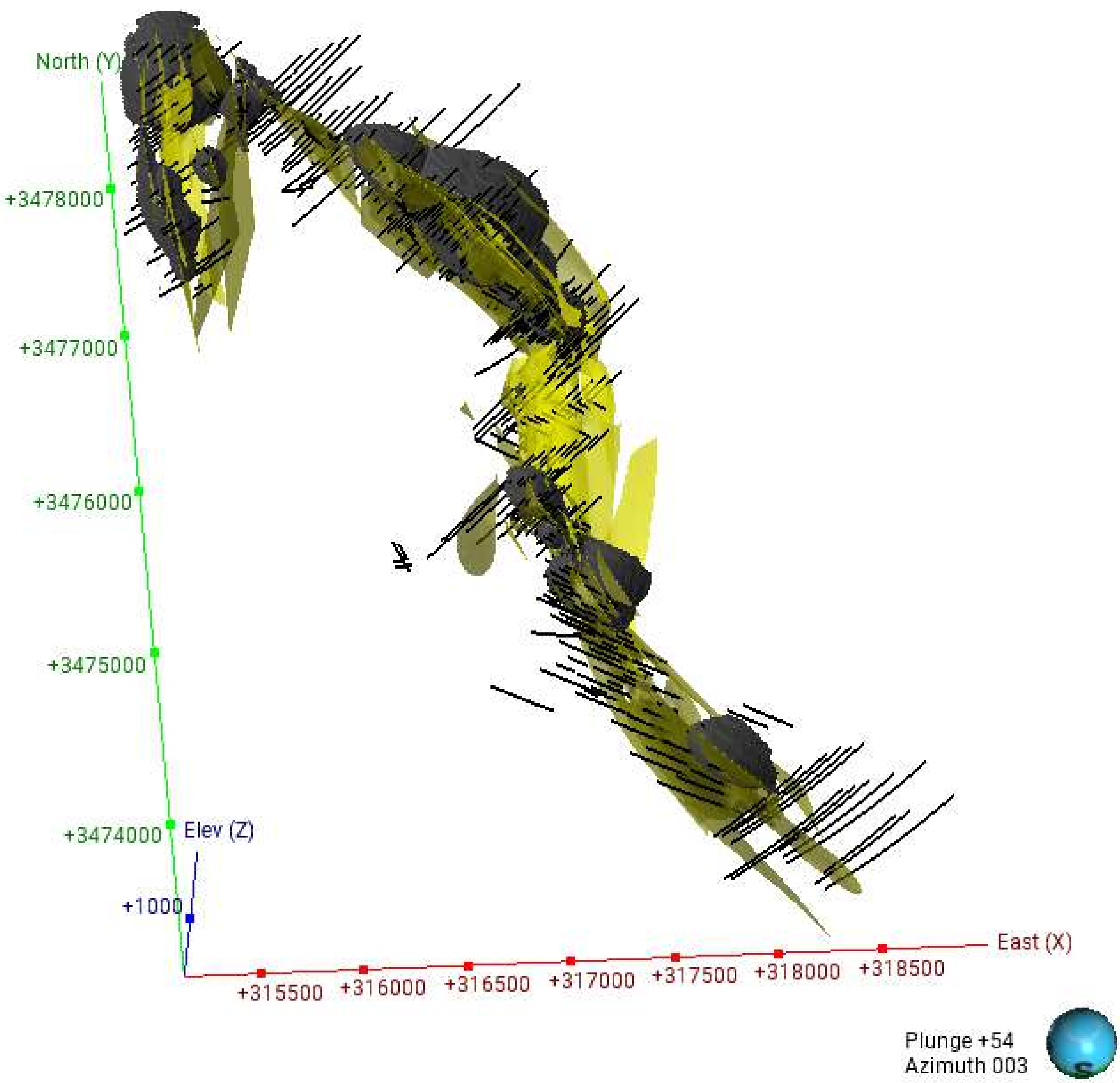


NSR Block Model
-
Sliced 1100rl
N
W
E
S
315000E
315700E
316400E
317100E
317800E
318500E
3478000N
3477000N
3476000N
3475000N
3474000N
NSR ($)
≤ 10
≤ 125
> 500
≤ 65
≤ 250
≤ 95
≤ 500
0m
1000m


Classification Category Block Model
-
Sliced 1100rl
N
W
E
S
315000E
315700E
316400E
317100E
317800E
318500E
3478000N
3477000N
3476000N
3475000N
3474000N
Classification
Indicated
Inferred
0m
1000m

Appendix G OPTIMIZED PIT SHELLS

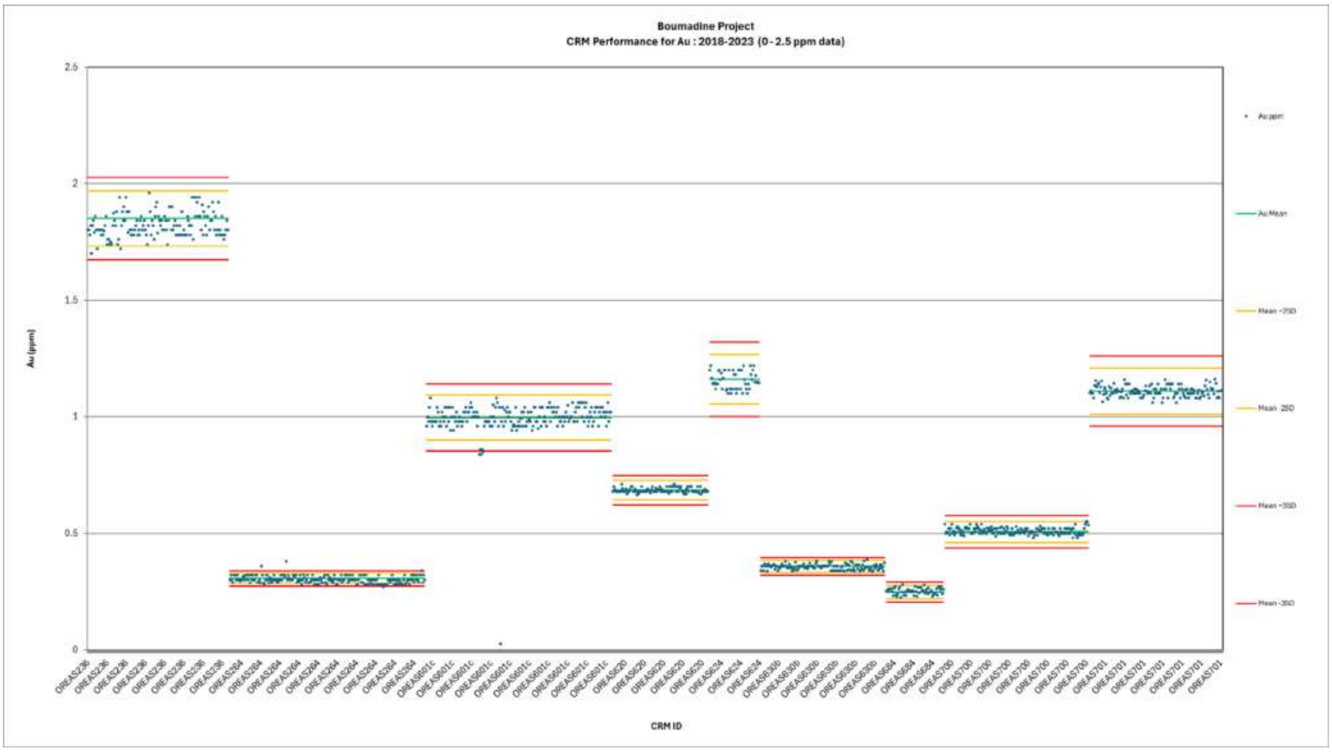
Optimized Pit Shells in 3D



Appendix H QAQC– 2018 TO 2024 DIAMOND DRILL HOLE PROGRAMS

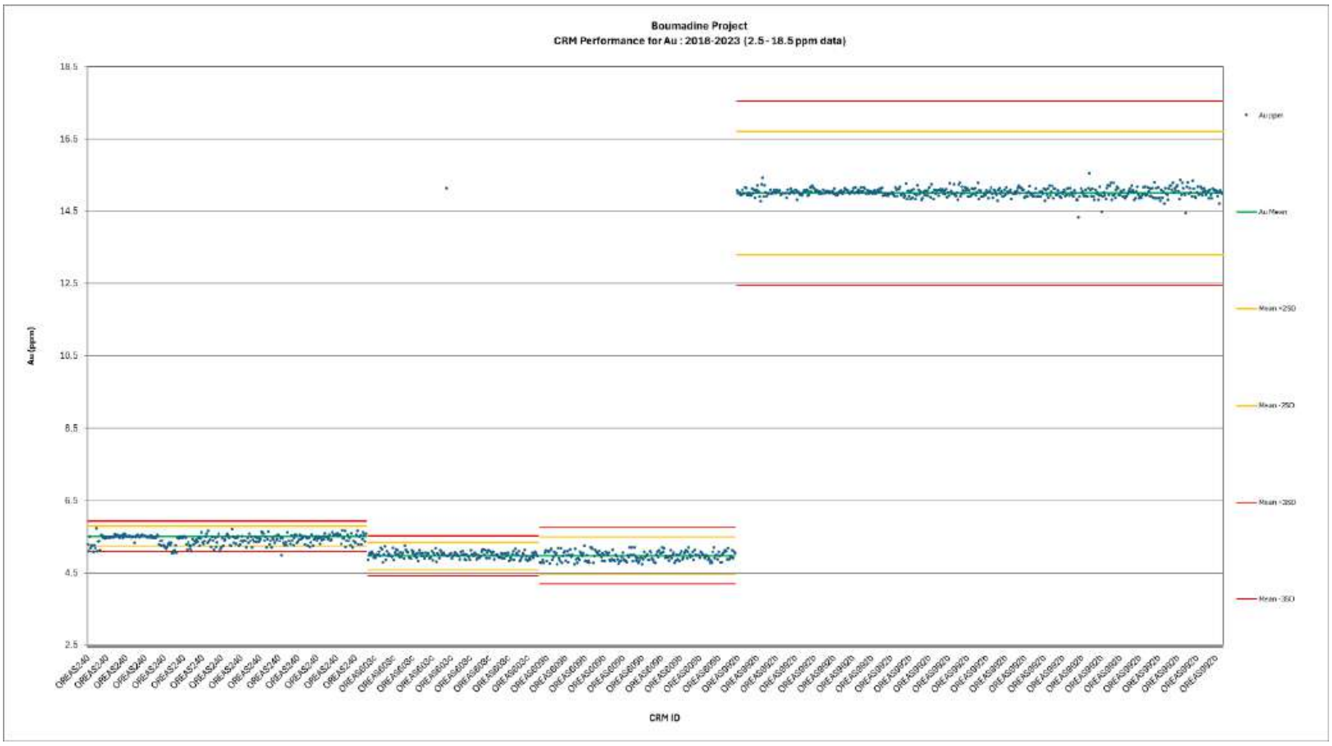
Performance of CRM Materials – 2018 to 2024

OREAS CRMs for Au (0 to 2.5ppm)



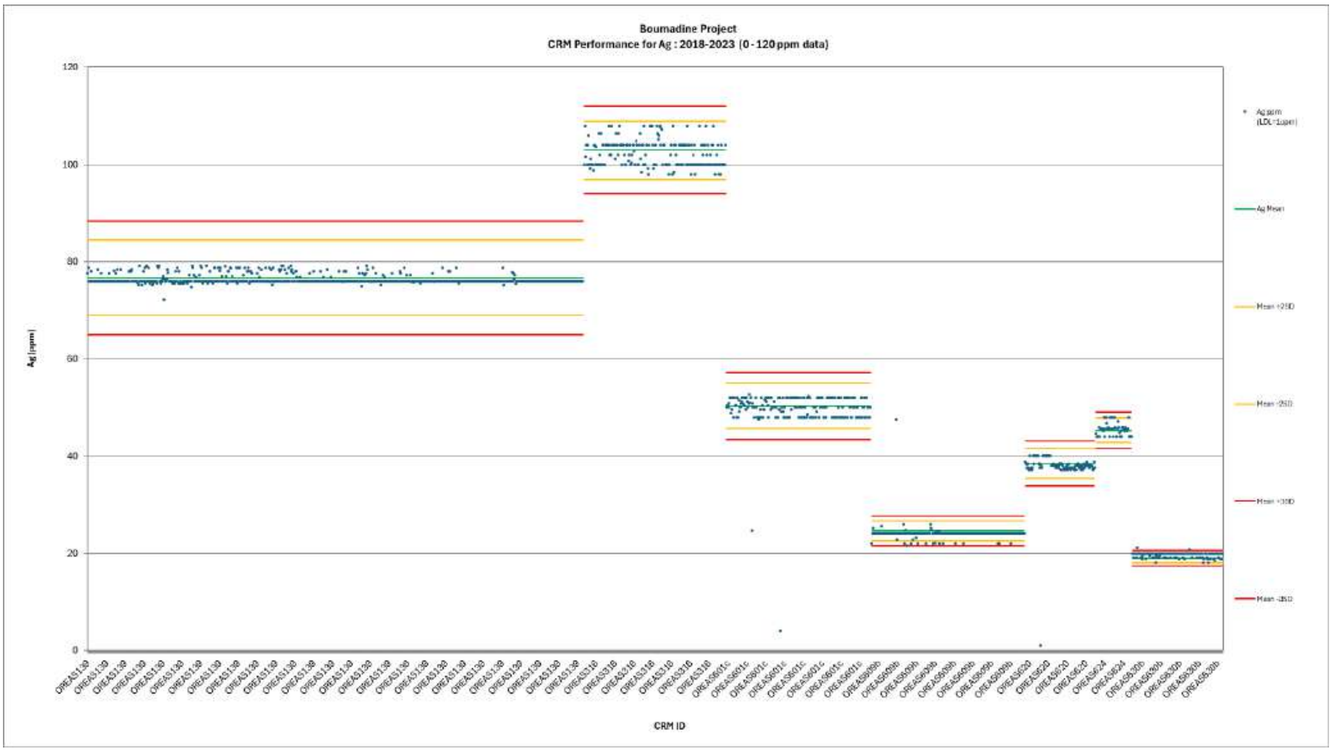
Source: *P&E (2024)*

OREAS CRMs for Au (2.5 to 18.5ppm)



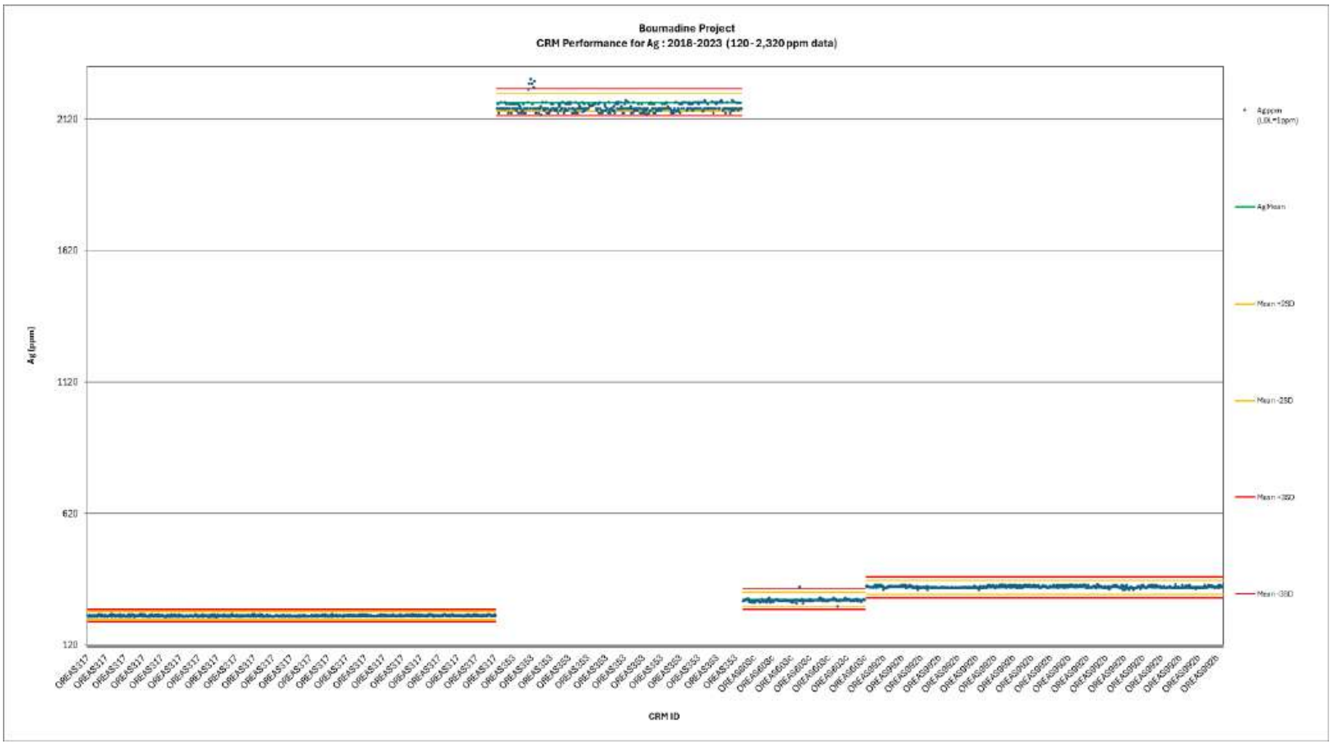
Source: *P&E (2024)*

OREAS CRMs for Ag (0 to 120 ppm)



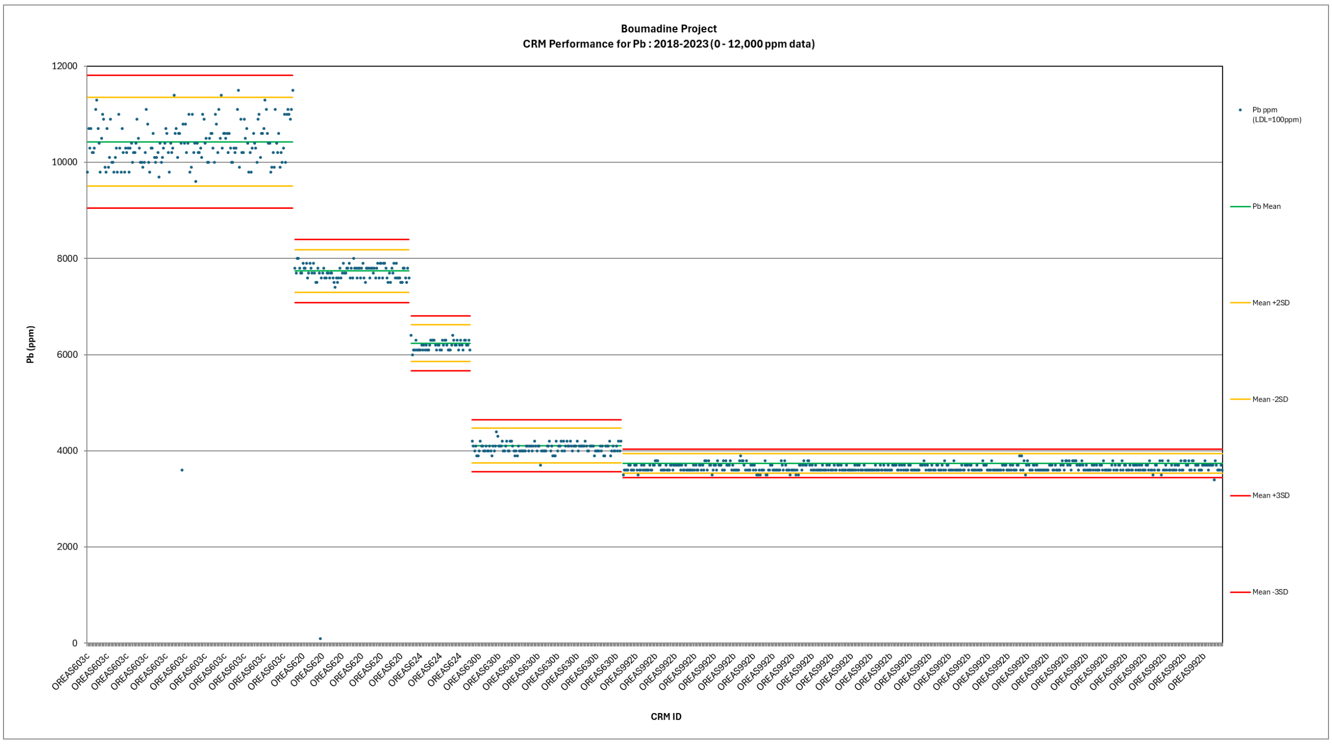
Source: *P&E (2024)*

OREAS CRMs for Ag (120 to 2,300 ppm)



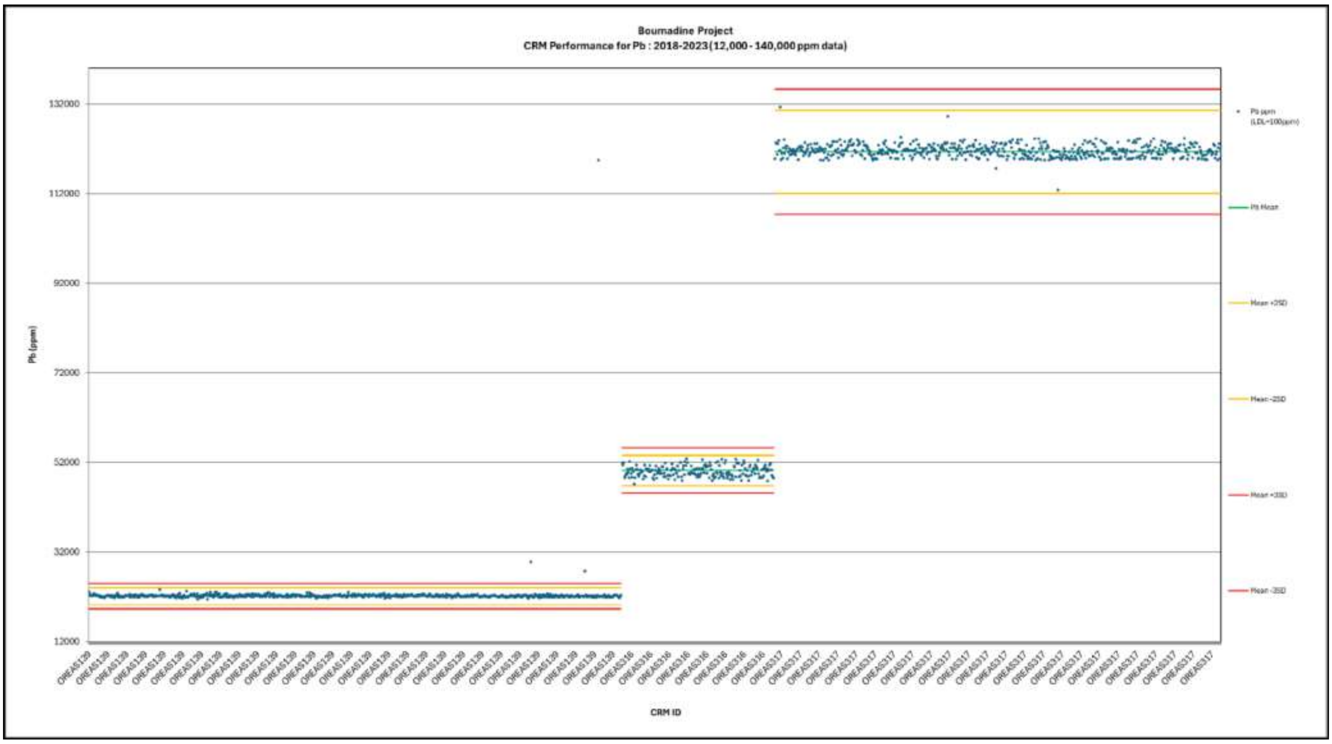
Source: *P&E (2024)*

OREAS CRMs for Pb (0 to 12,000 ppm)



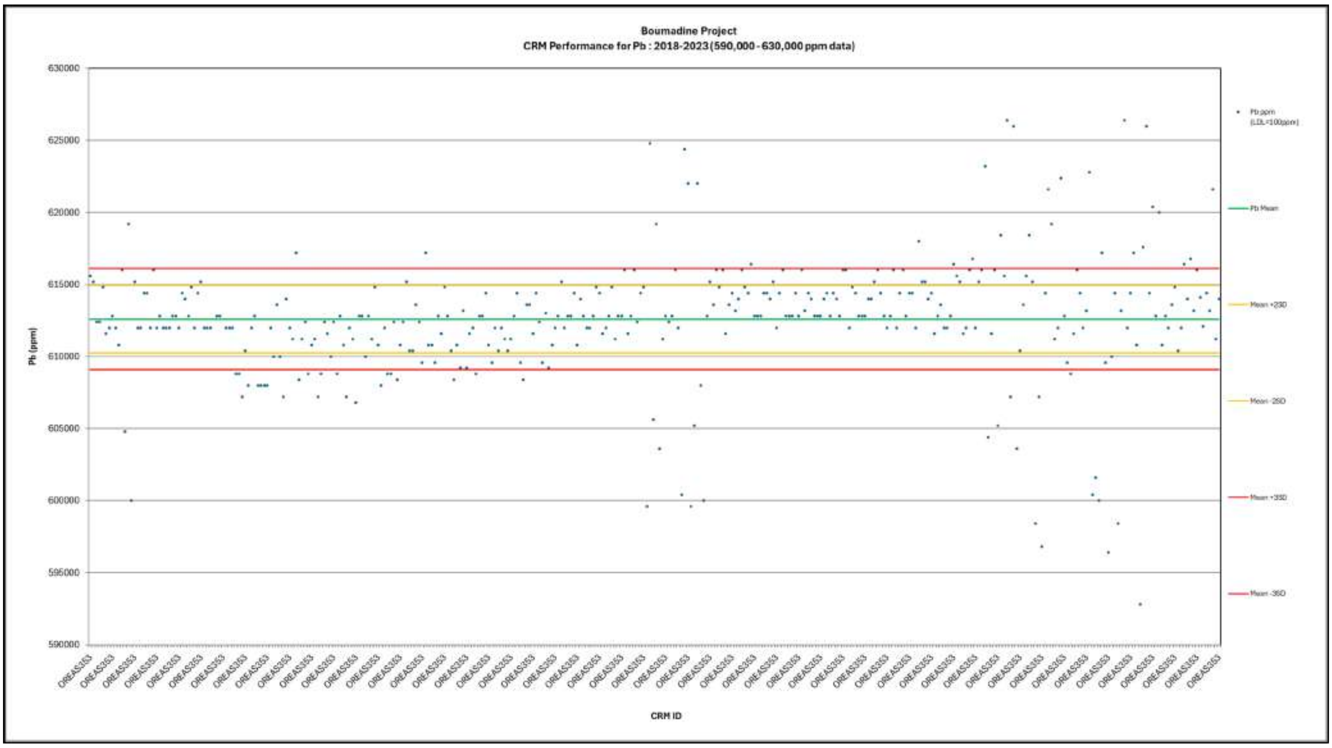
Source: *P&E (2024)*

OREAS CRMs for Pb (12,000 to 140,000 ppm)



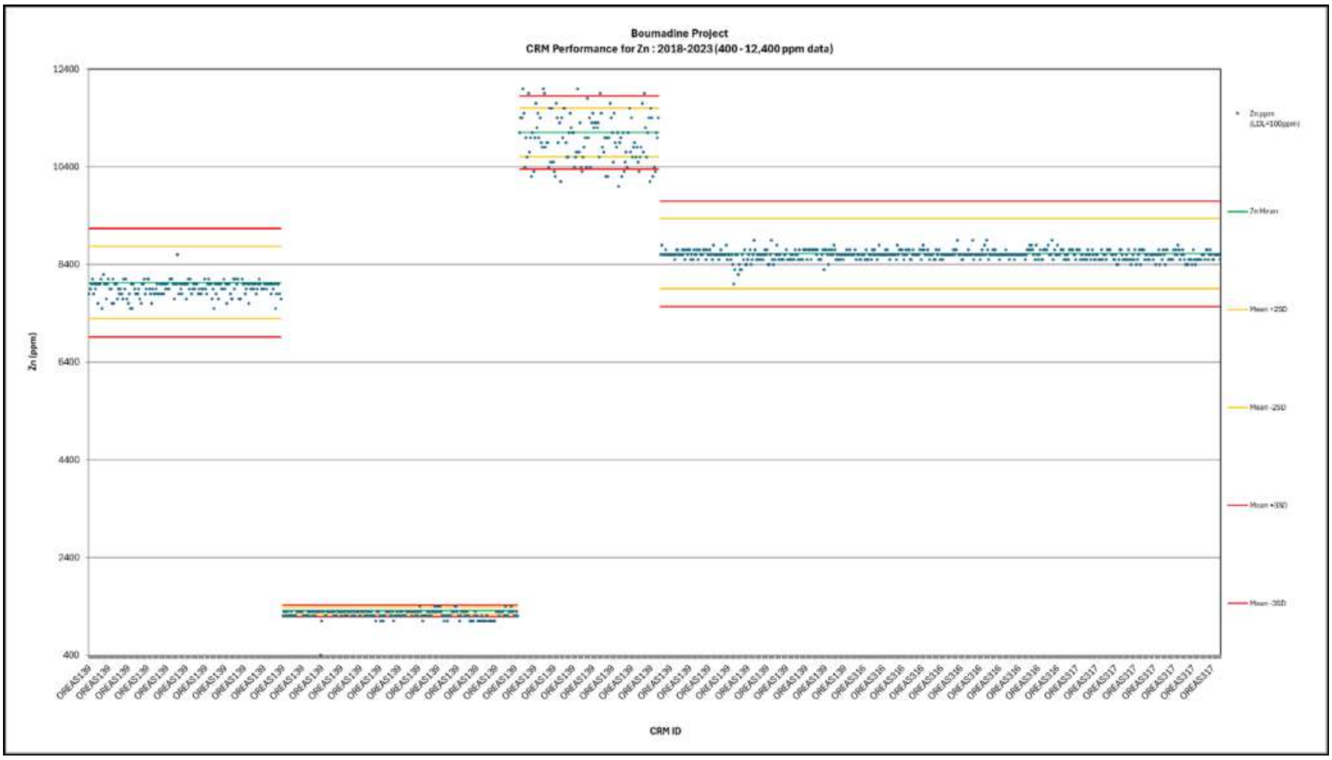
Source: *P&E (2024)*

OREAS CRMs for Pb (590,000 to 630,000 ppm)



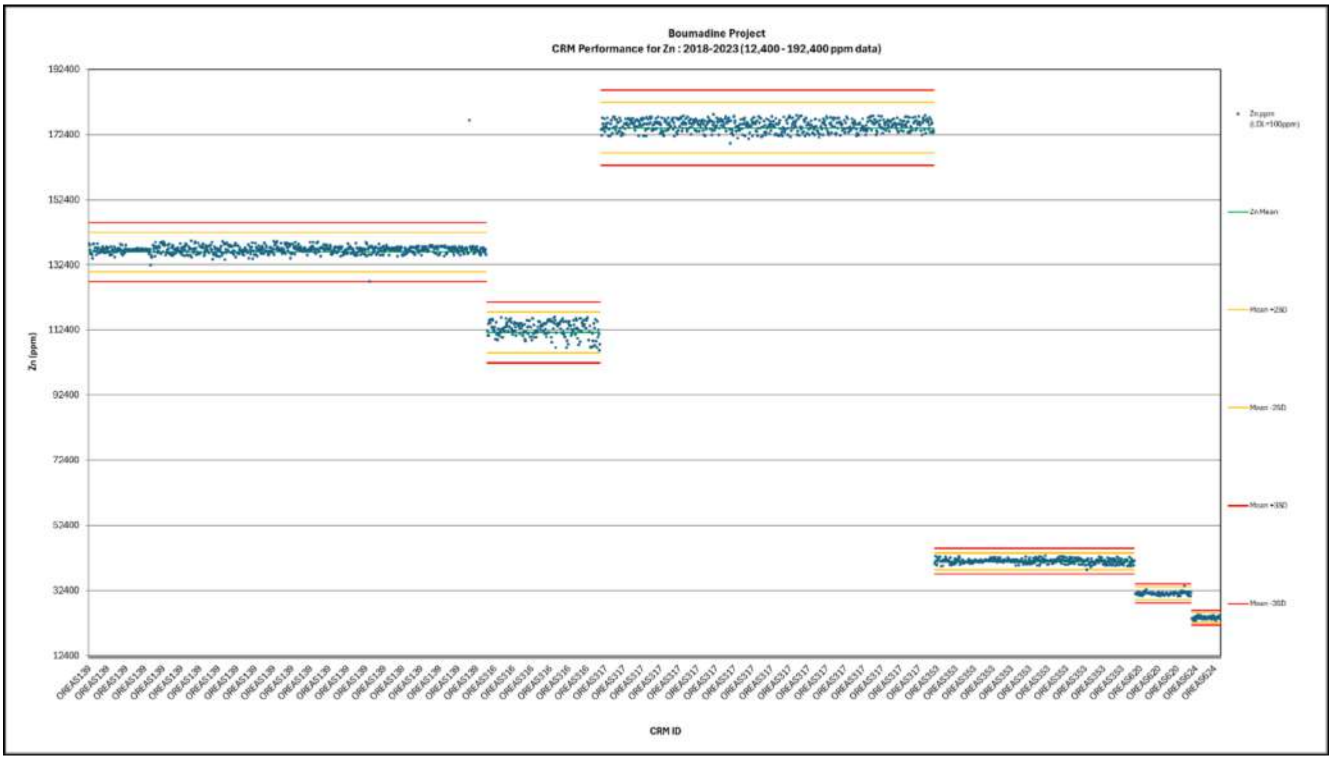
Source: *P&E (2024)*

OREAS CRMs for Zn (400 to 12,400 ppm)



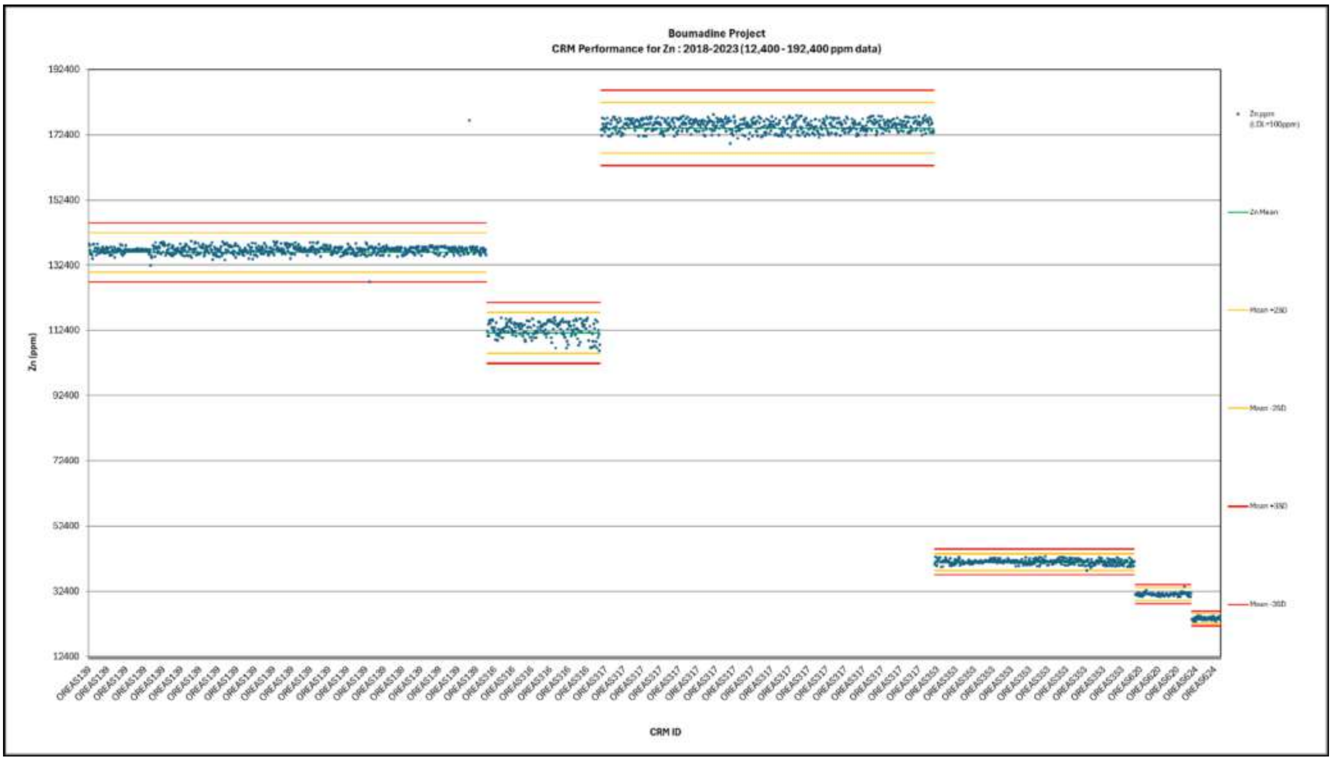
Source: *P&E (2024)*

OREAS CRMs for Zn (12,400 to 192,400 ppm)



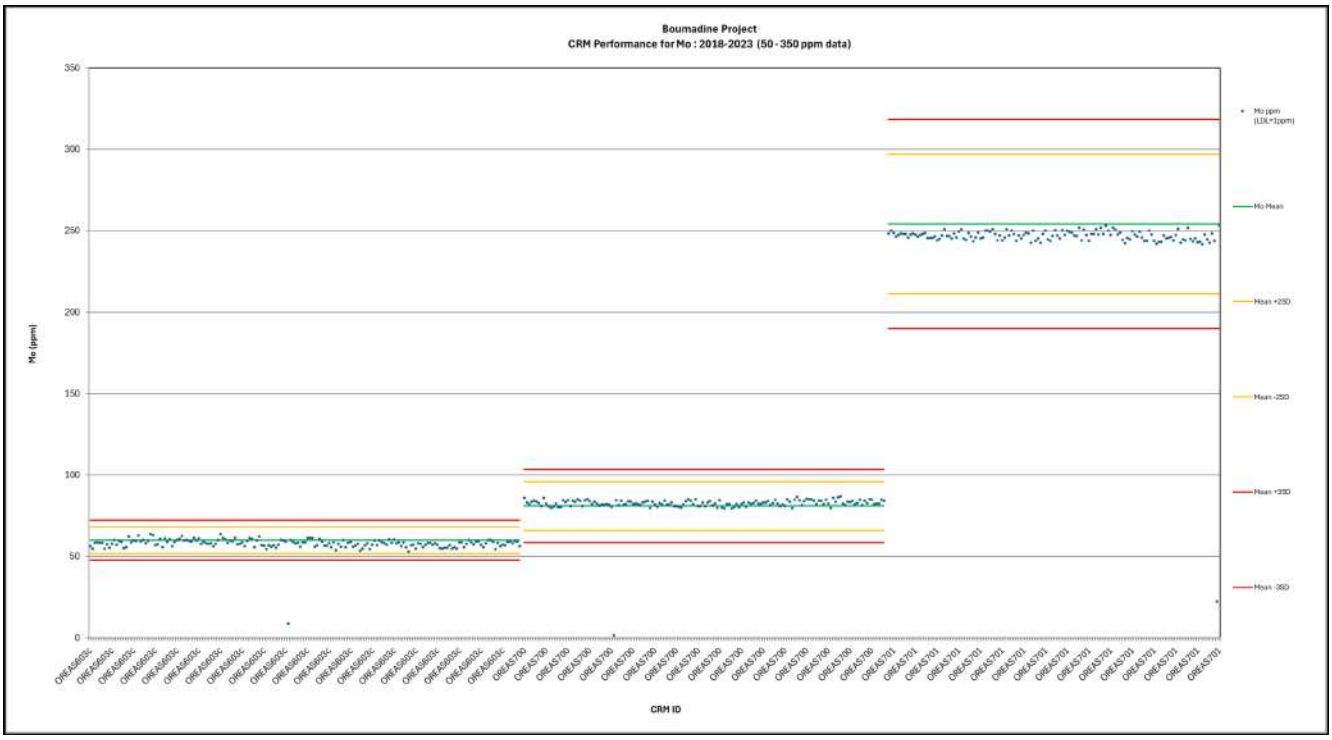
Source: *P&E (2024)*

OREAS CRMs for Mo (0 to 50 ppm)



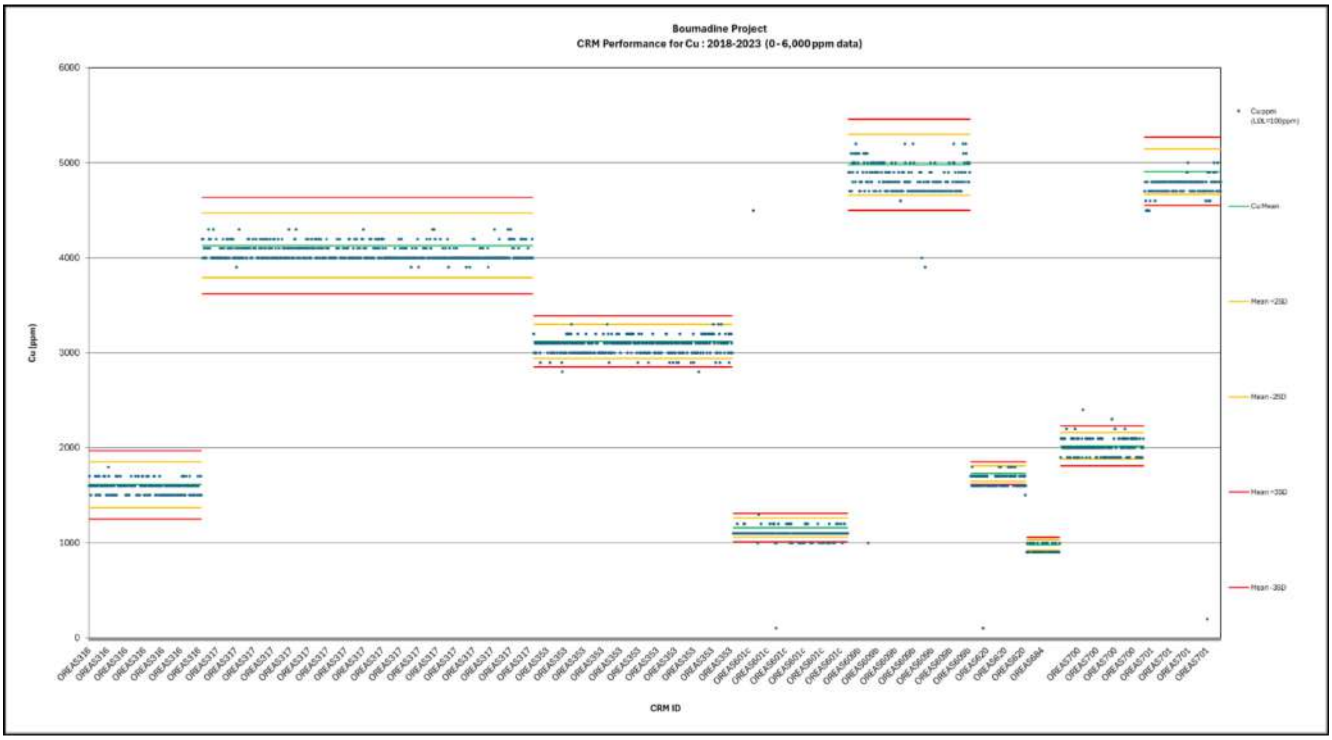
Source: P&E (2024)

OREAS CRMs for Mo (50 to 350 ppm)



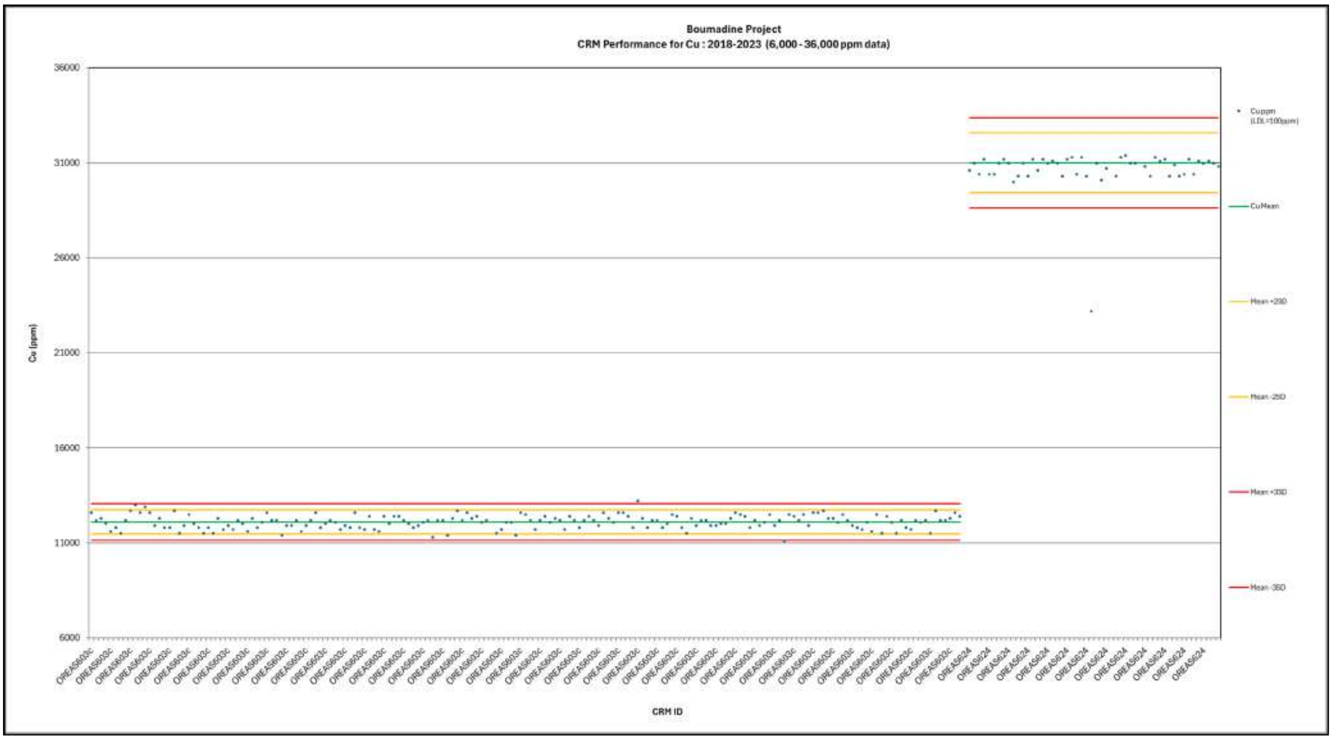
Source: *P&E (2024)*

OREAS CRMs for Cu (0 to 6,000 ppm)



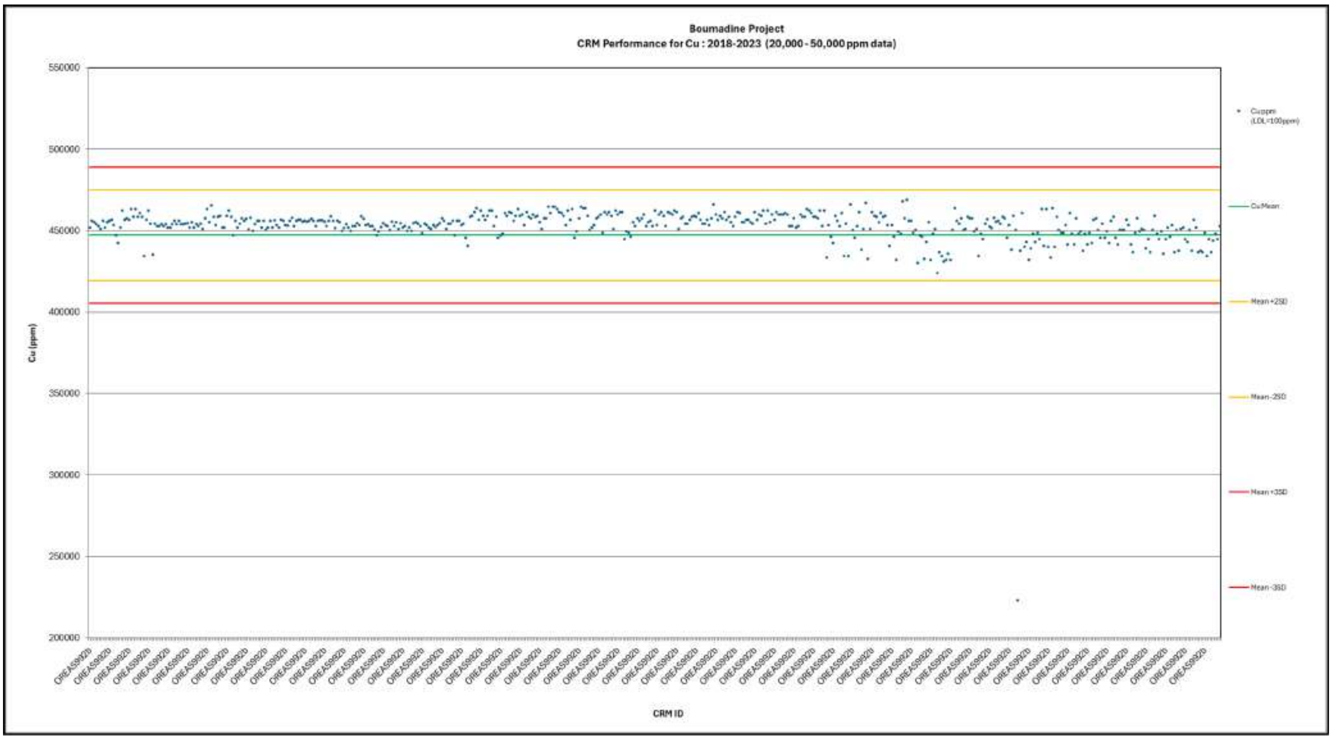
Source: *P&E (2024)*

OREAS CRMs for Cu (6,000 to 36,000 ppm)



Source: *P&E (2024)*

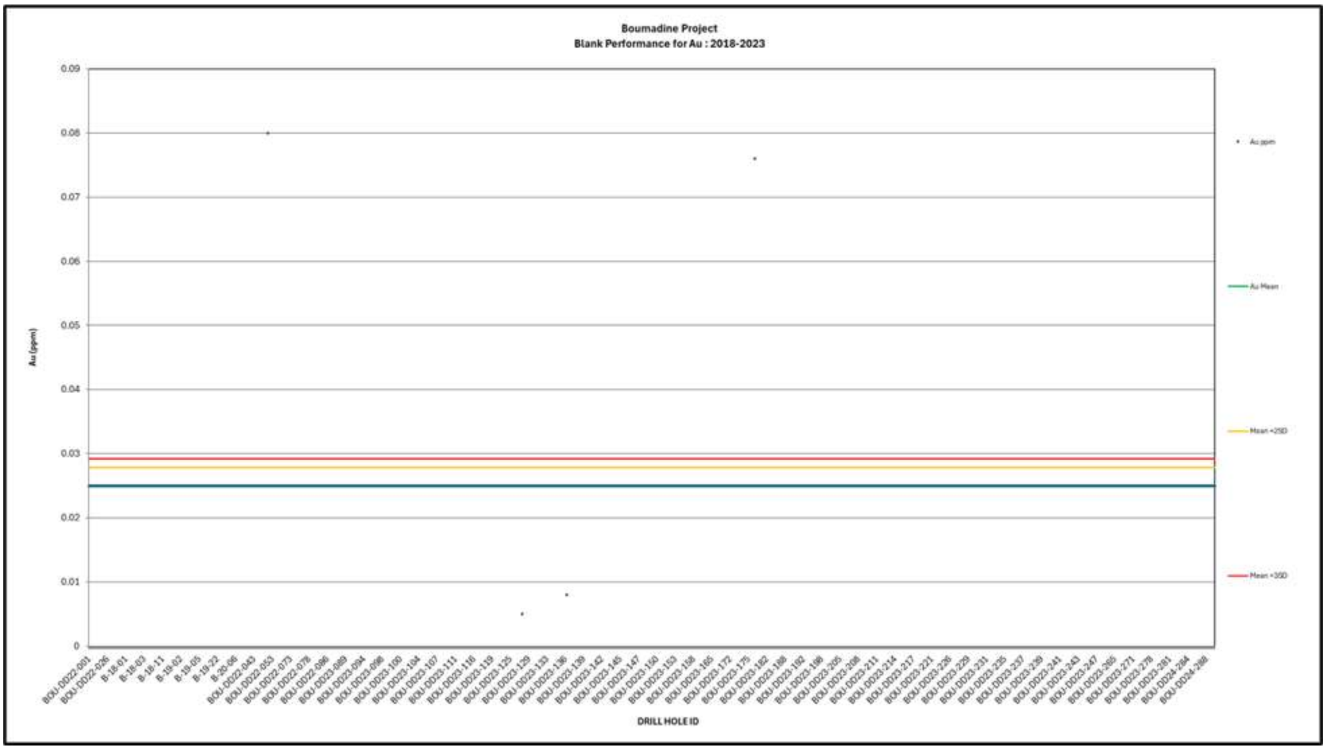
OREAS CRMs for Cu (20,000 to 50,000 ppm)



Source: *P&E (2024)*

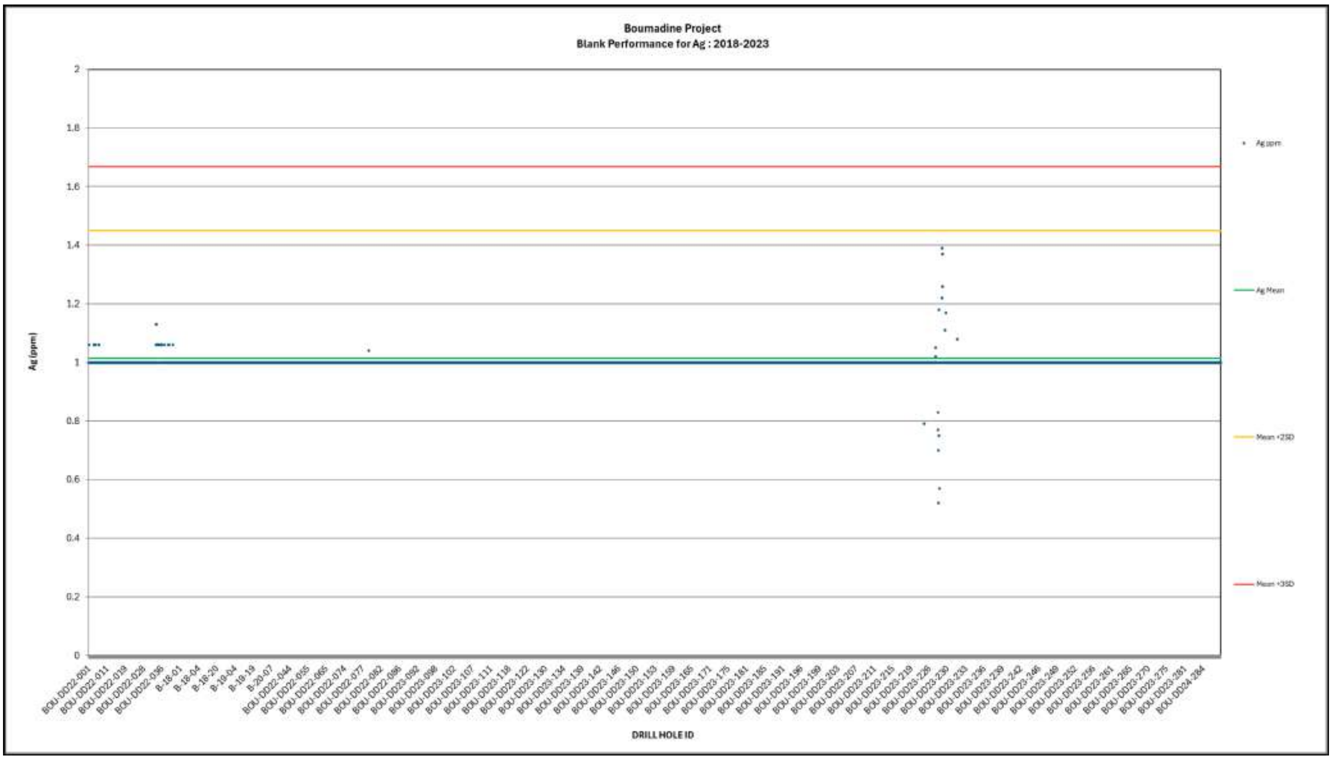
Performance of Blanks – 2018 to 2024

Performance of Blanks for Au



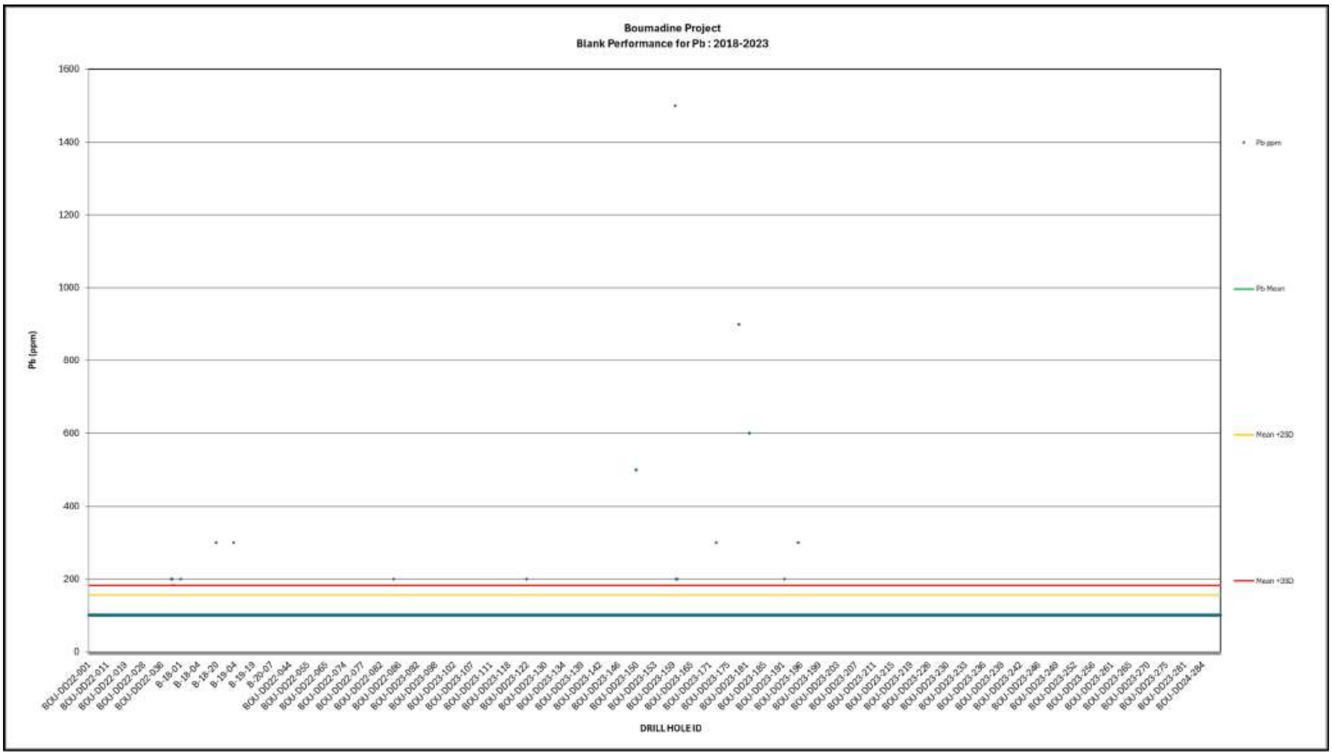
Source: *P&E (2024)*

Performance of Blanks for Ag



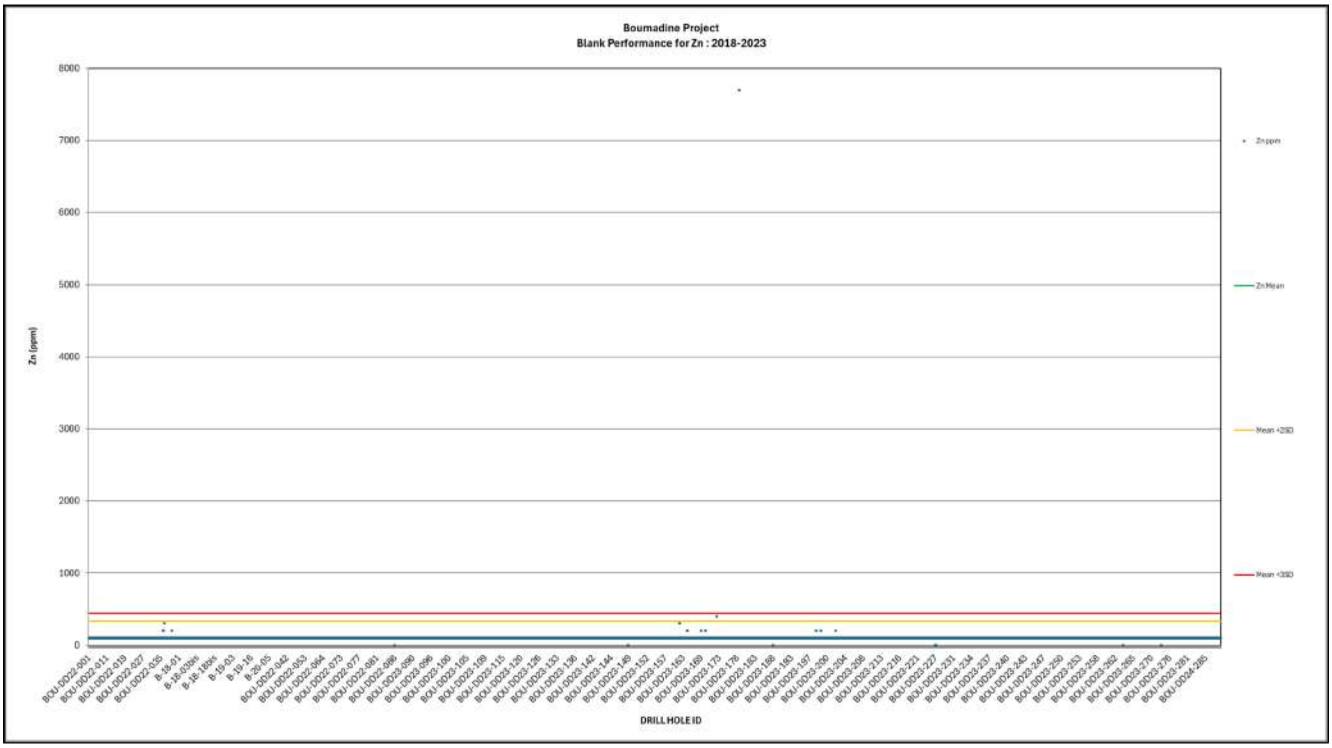
Source: *P&E (2024)*

Performance of Blanks for Pb



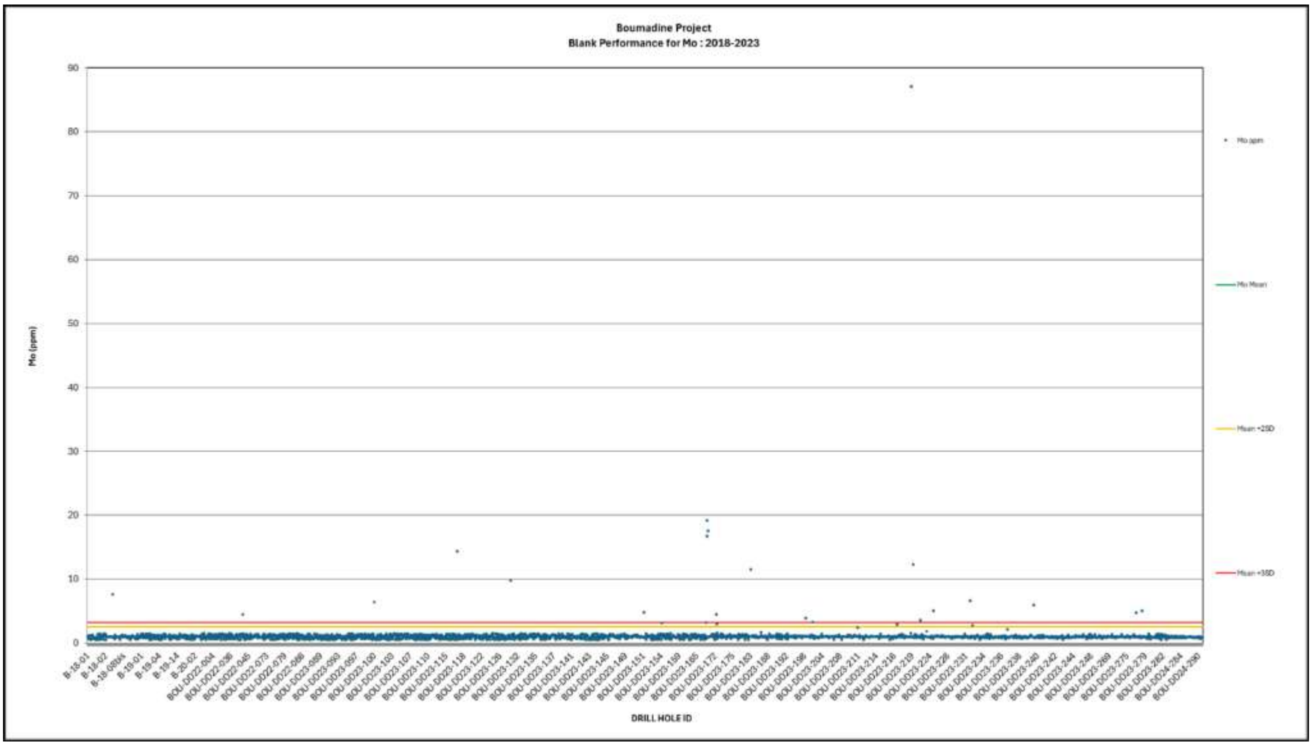
Source: *P&E (2024)*

Performance of Blanks for Zn



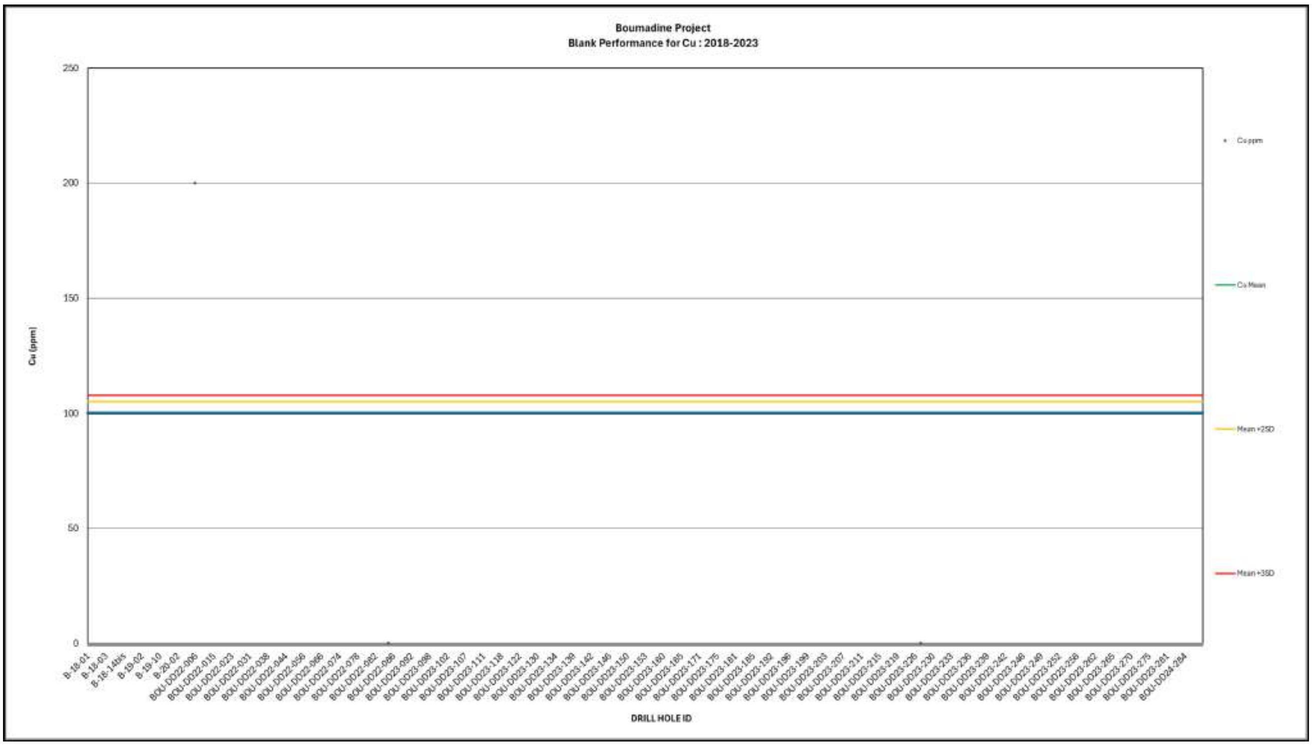
Source: *P&E (2024)*

Performance of Blanks for Mo



Source: *P&E (2024)*

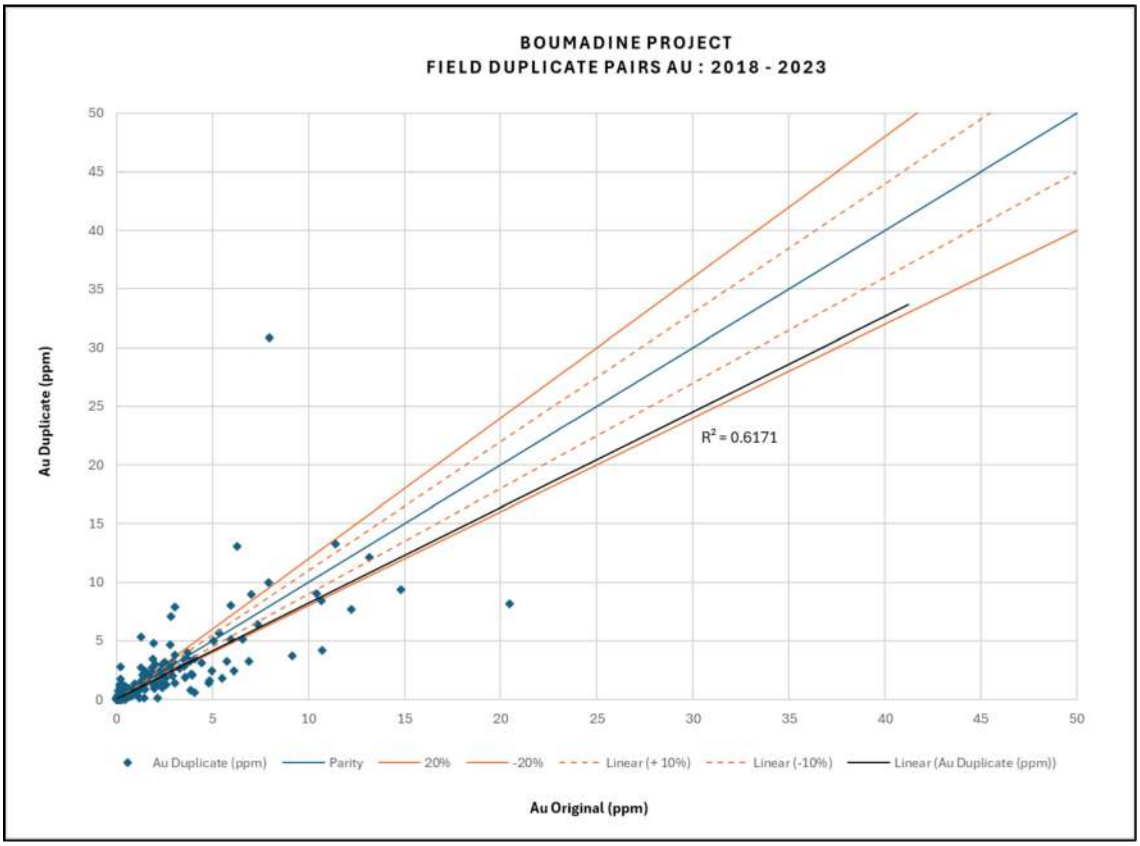
Performance of Blanks for Cu



Source: *P&E (2024)*

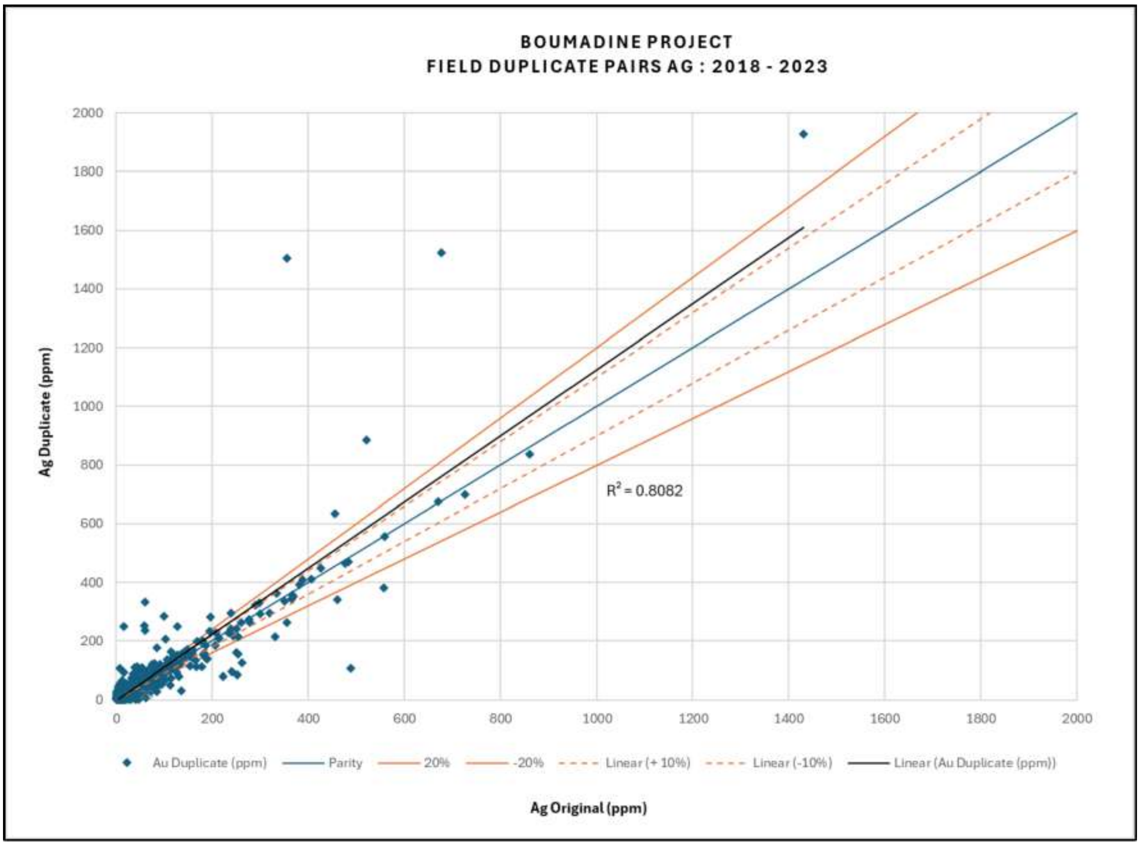
Performance of Field Duplicates – 2018 to 2024

Performance of Field Duplicates for Au



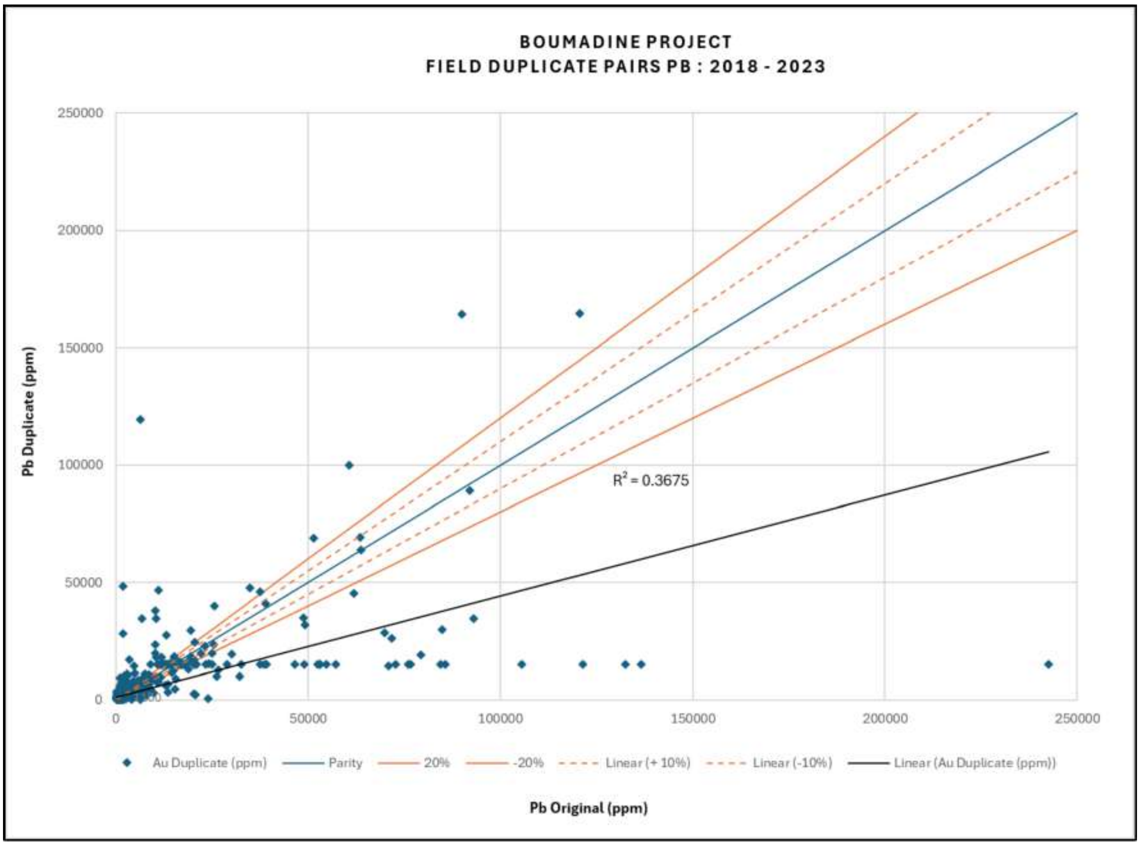
Source: *P&E (2024)*

Performance of Field Duplicates for Ag



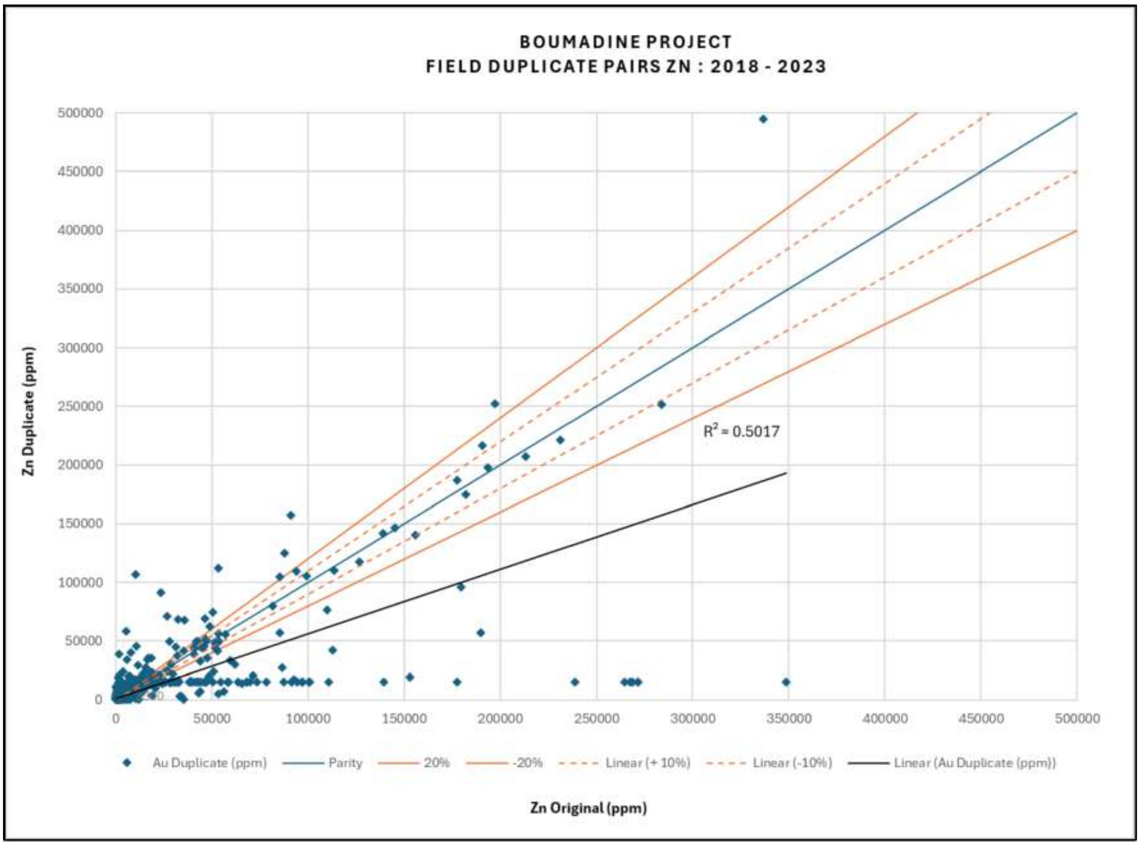
Source: *P&E (2024)*

Performance of Field Duplicates for Pb



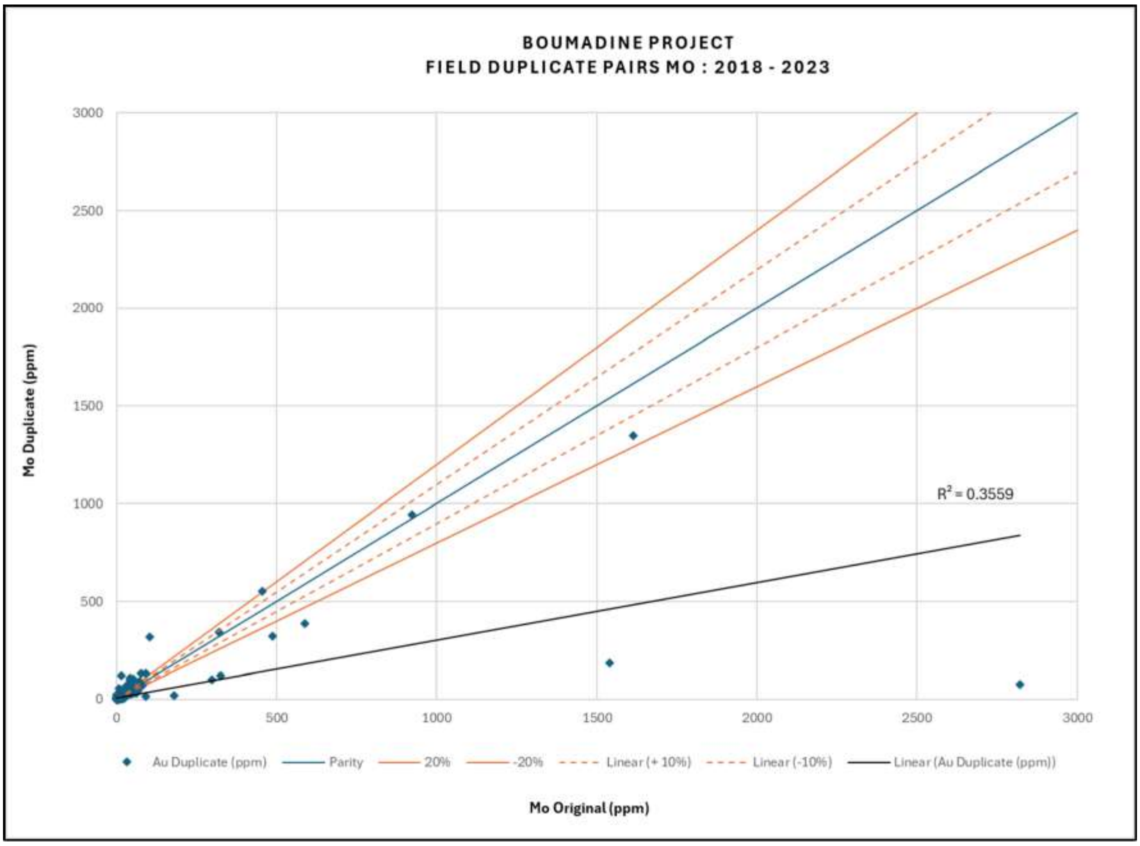
Source: *P&E (2024)*

Performance of Field Duplicates for Zn



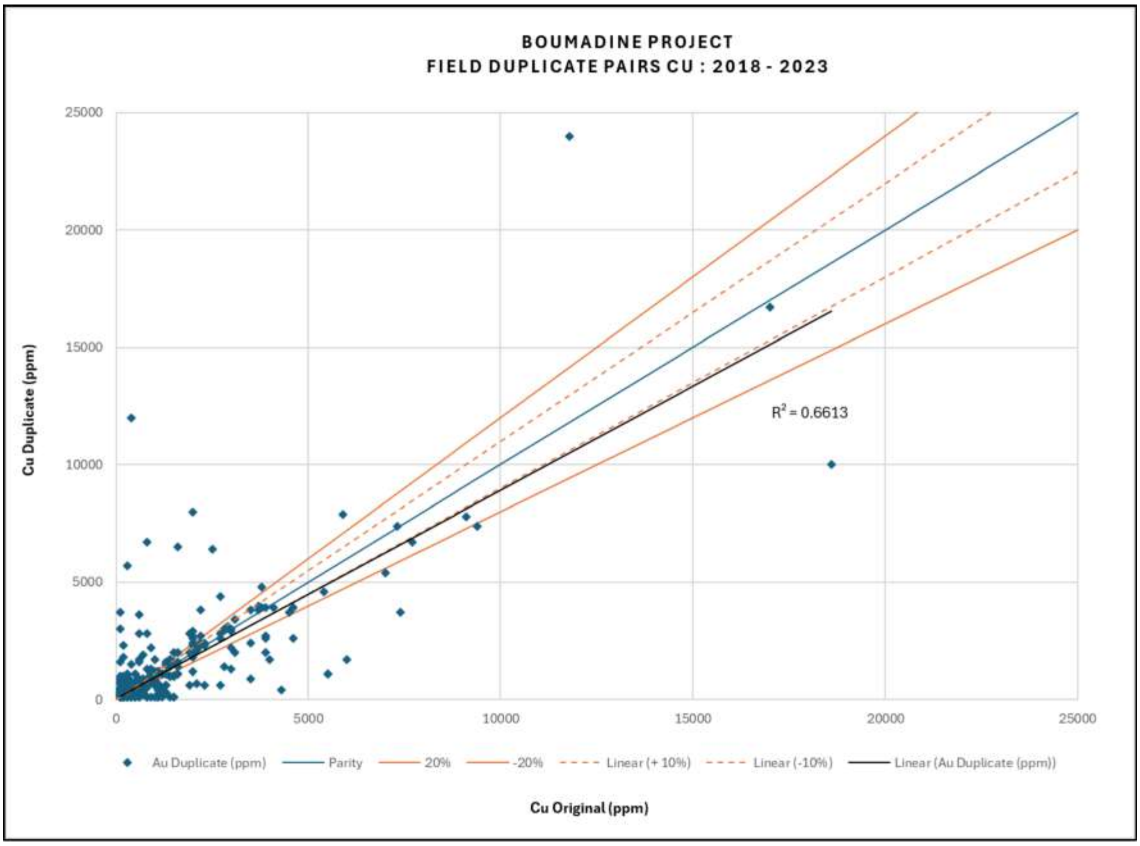
Source: *P&E (2024)*

Performance of Field Duplicates for Mo



Source: *P&E (2024)*

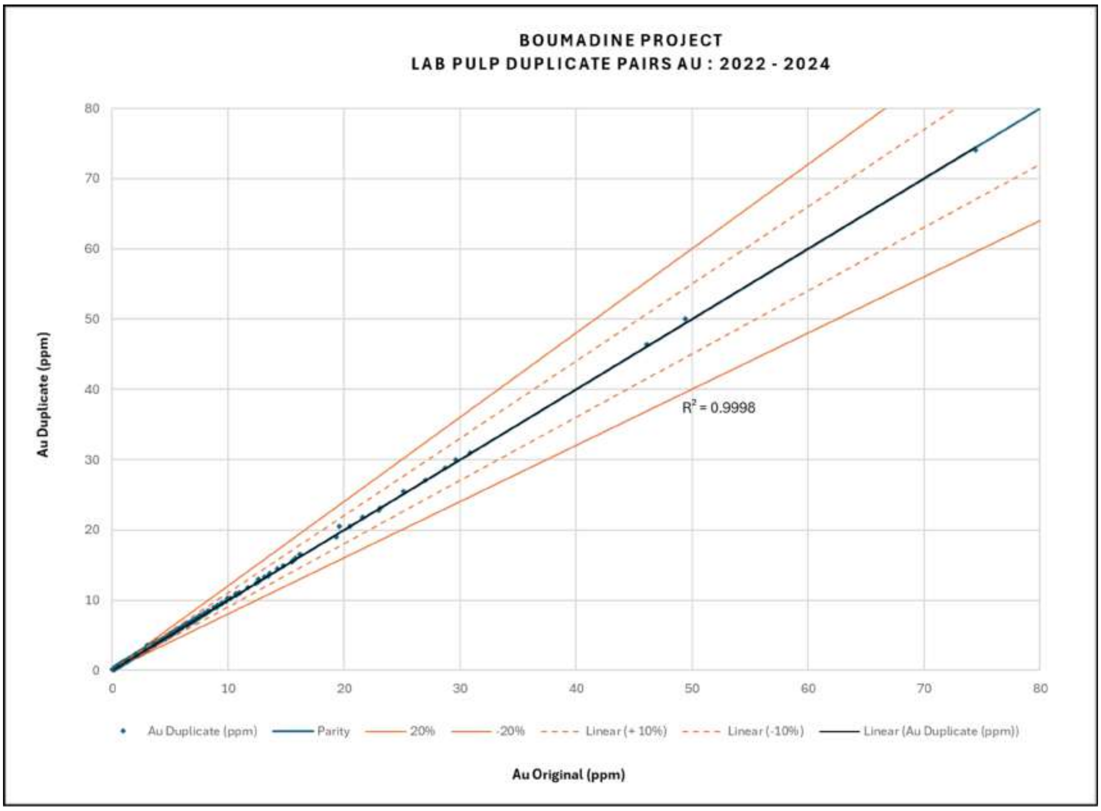
Performance of Field Duplicates for Cu



Source: *P&E (2024)*

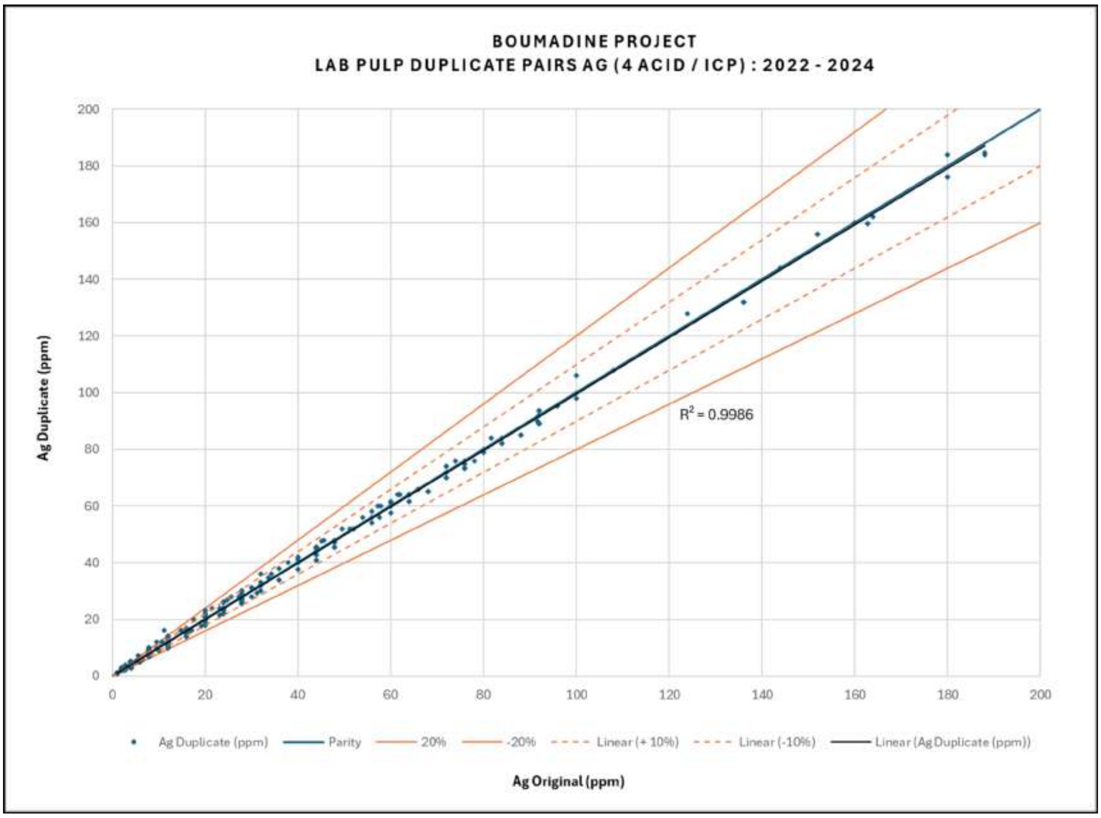
Performance of Lab Pulp Duplicates – 2018 to 2024

Performance of Lab Pulp Duplicates for Au



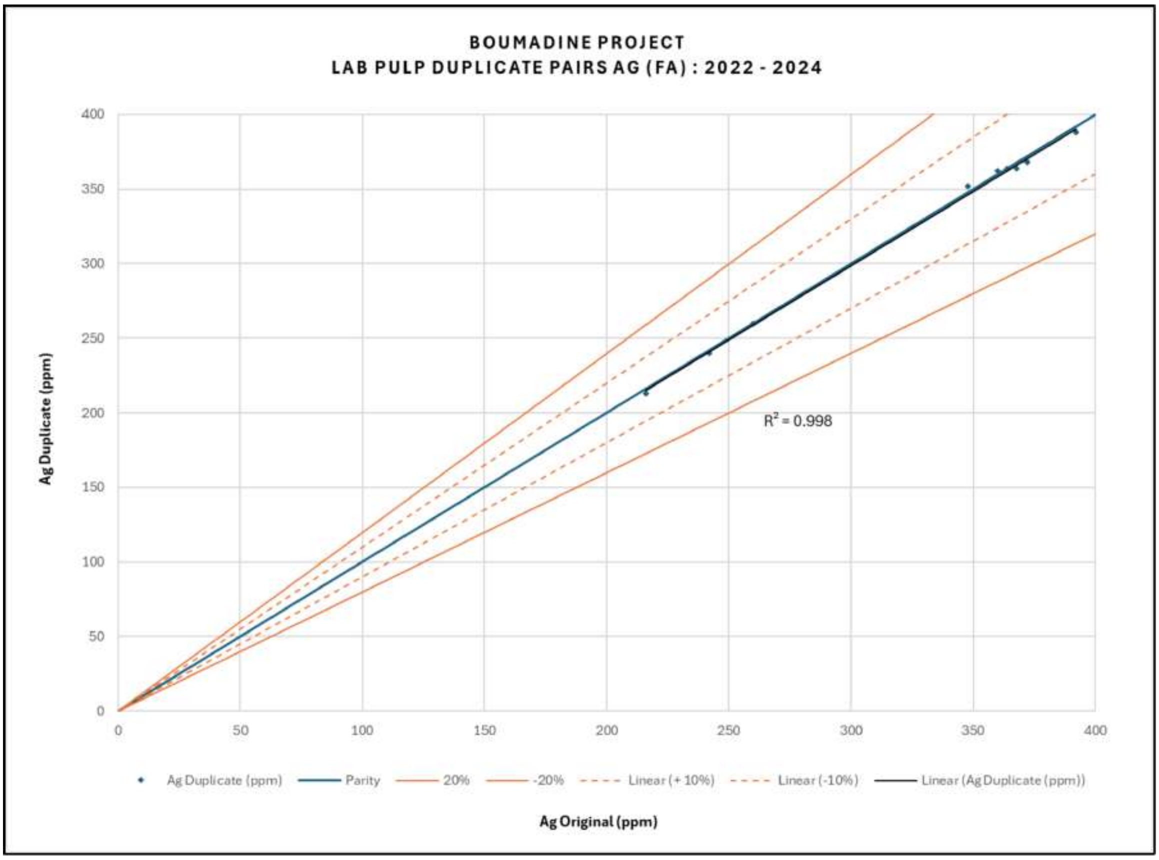
Source: *P&E (2024)*

Performance of Lab Pulp Duplicates for Ag (4 Acid/ICP)



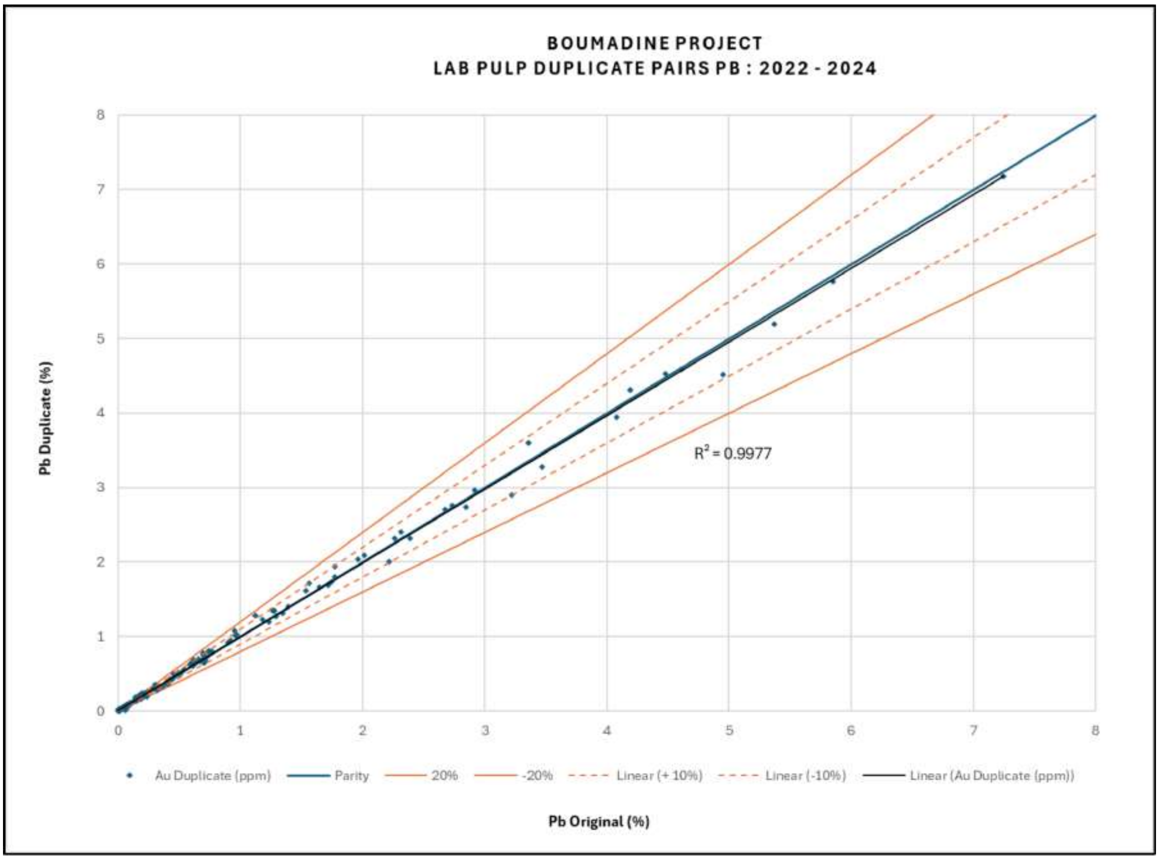
Source: *P&E (2024)*

Performance of Lab Pulp Duplicates for Ag (Fire Assay)



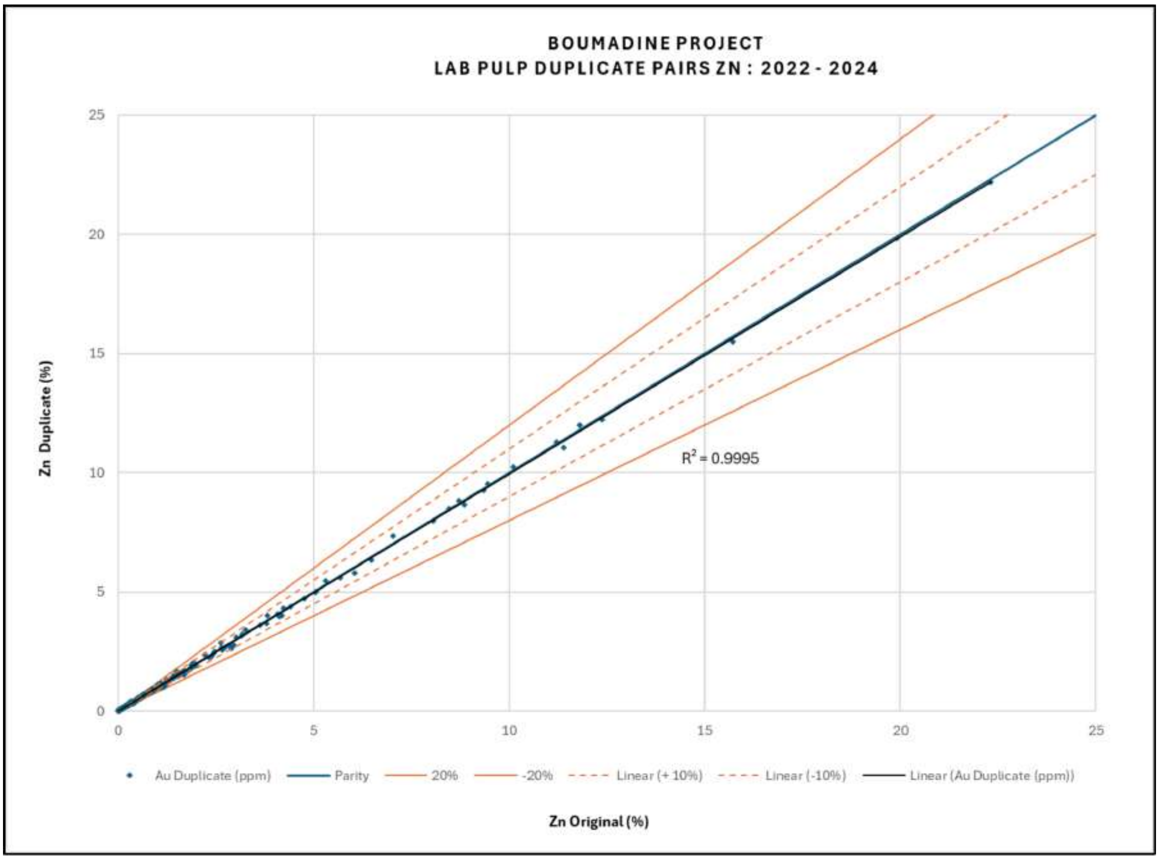
Source: *P&E (2024)*

Performance of Lab Pulp Duplicates for Pb



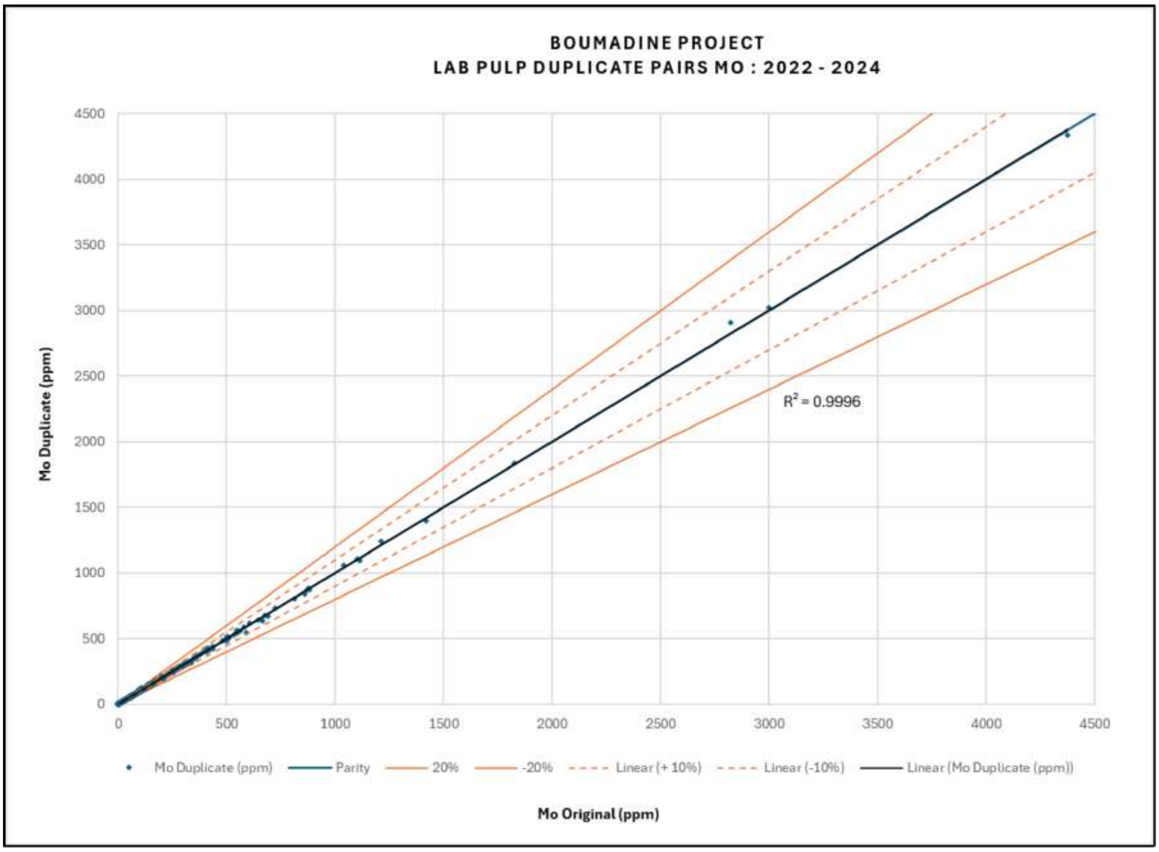
Source: *P&E (2024)*

Performance of Lab Pulp Duplicates for Zn



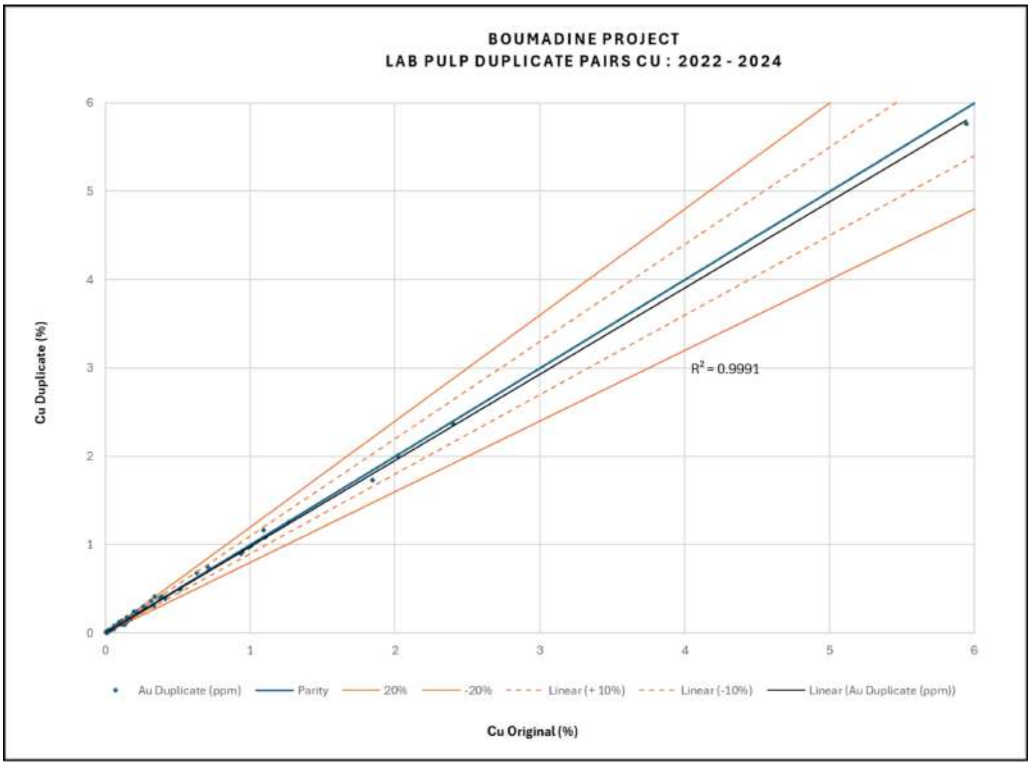
Source: P&E (2024)

Performance of Lab Pulp Duplicates for Mo



Source: P&E (2024)

Performance of Lab Pulp Duplicates for Cu



Source: *P&E (2024)*