Source: Todd McCracken, 2023

NI 43-101 Technical Report

Mineral Resource Estimate for the Samapleu and Grata Deposits Project

Prepared for:

Sama Nickel Corporation

Effective Date: **June 27, 2023**

Signature Date: **August 11, 2023**

Prepared by the following Qualified Persons:

- Todd McCracken, P.Geo. — BBA International Inc.
- Chris Martin, C. Eng. — Independent Consultant

Date and Signature Page

This technical report is effective as of the 27th day of June 2023.

Original signed and sealed on file	August 11, 2023
Todd McCracken, P.Geo. BBA International Inc.	Date

Original signed and sealed on file	August 11, 2023
Chris Martin, C.Eng. Independent Consultant.	Date

1010 Lorne Street, Unit 101
Sudbury, ON P3C 4R9
T +1 705 265-1119 F +1 450 464-0901

BBA.CA

CERTIFICATE OF QUALIFIED PERSON

Todd McCracken, P.Geo.

This certificate applies to the NI 43-101 Technical Report entitled "Mineral Resource Estimate for the Samapleu and Grata Deposits", Côte d'Ivoire, West Africa (the "Technical Report"), prepared for Sama Nickel Corporation, dated August 11, 2023, with an effective date of June 27, 2023.

I, Todd McCracken, P.Geo., as a co-author of the Technical Report, do hereby certify that:

1. I am Senior Geologist and Director of Mining and Geology at BBA International Inc., located at 1010 Lorne Street, Unit 101, Sudbury, ON, P3C 4R9.
2. I am a graduate from University of Waterloo in 1992, of Ontario. with a bachelor's degree in Honors Applied Earth Sciences. I have practiced my profession continuously since my graduation.
3. I am a member in good standing of Association of Professional Geoscientists of Ontario and License (PGO No. 0631).
4. My relevant experience includes: 30 years in exploration, operations and consulting, including resource estimation on nickel sulphide deposits. This also includes 10 years experience overseeing mining studies as department manager.
5. I have read the definition of "Qualified Person" set out in the NI 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association, and past relevant work experience, I fulfill the requirements to be a Qualified Person for the purposes of NI 43-101.
6. I am independent of the issuer applying all the tests in Section 1.5 of NI 43-101.
7. I am author and responsible for the preparation of Chapters 1 to 12 and 14 to 27 of the Technical Report.
8. I personally visited the Property that is the subject of the Technical Report from June 14 to June 17, 2023.
9. I have no prior involvement with the property that is the subject of the Technical Report.
10. I have read NI 43-101, and the sections of the Technical Report for which I am responsible have been prepared following NI 43-101 rules and regulations.
11. As at the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the portions of the Technical Report for which I am responsible not misleading.

Signed and sealed this 11th day of August, 2023.

Original signed and sealed on file

Todd McCracken, P.Geo.
BBA International Inc.

Independent Consultant
3573 Shelby Lane
Nanoose Bay
BC V9P 9J8

CERTIFICATE OF QUALIFIED PERSON

Chris Martin, C.Eng.

This certificate applies to the NI 43-101 Technical Report entitled "Mineral Resource Estimate for the Samapleu and Grata Deposits", Côte d'Ivoire, West Africa (the "Technical Report"), prepared for Sama Nickel Corporation, dated August 11, 2023, with an effective date of June 27, 2023.

I, Chris Martin, C.Eng., as a co-author of the Technical Report, do hereby certify that:

1. I am an independent consultant located at 3573 Shelby Lane, Nanoose Bay, BC V9P 9J8.
2. I am a graduate from Camborne School of Mines (BSc(hons).ACSM, Mineral Processing Technology (1984) and McGill University, M.Eng., Metallurgical Engineering, (1988).
3. I am a member in good standing of Institute of Materials, Minerals and Mining (IMMM).
4. My relevant experience includes 39 years experience in mineral processing specializing in grinding and flotation of base metal sulphides, including flowsheet development of several hundred projects located worldwide.
5. I have read the definition of "Qualified Person" set out in the NI 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association, and past relevant work experience, I fulfill the requirements to be a Qualified Person for the purposes of NI 43-101.
6. I am independent of the issuer applying all the tests in Section 1.5 of NI 43-101.
7. I am author and responsible for the preparation of Chapter 13. I am also co-author and responsible for the relevant portions of Chapters 1, 2, 25, 26 and 27 of the Technical Report.
8. I personally did not visit the site that is the subject of the Technical Report.
9. I have no prior involvement with the property that is the subject of the Technical Report.
10. I have read NI 43-101, and the sections of the Technical Report for which I am responsible have been prepared following NI 43-101 rules and regulations.
11. As at the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the portions of the Technical Report for which I am responsible not misleading.

Signed and sealed this 11th day of August, 2023.

Original signed and sealed on file

Chris Martin, C.Eng.
independent Consultant.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

List of Abbreviations and Units of Measurement	
Abbreviation	**Description**
$ or USD	United States Dollar (examples of use: USD 2.5M / $2.5M)
$/t	US dollars per tonne
%	percent
°	degree
°C	degrees Celsius
3D	three dimensional
a	annum (year)
Abitibi	*Abitibi Géophysique*
AC	Advisory Committee
Actlabs	Activation Laboratories Ltd.
Ag	silver
Al	aluminium
AMPD	Absolute Mean Percentage Difference
As	arsenic
Au	gold
Ba	barium
BBA	BBA Inc.
Be	beryllium
BFA	Bankable Feasibility Study
Bi	bismuth
BVML	Bureau Veritas Mineral Laboratories
Ca	calcium
CAD	Canadian Dollar (examples of use: CAD 2.5M / $2.5M)
Cd	cadmium
CFA	*Coopération financière en Afrique centrale* (Financial Cooperation in Central Africa)
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
cm	centimetre
CMB	*Compagnie minière du Bafing SA*
CMC	carboxy methyl cellulose
Co	cobalt
COG	Cut-off grade
conc.	concentrate
Cr	chromium
CTMP	*Centre de Technologie Minérale et de Plasturgie Inc.*

List of Abbreviations and Units of Measurement	
Abbreviation	**Description**
Cu	copper
d	day (24 hours)
dB/dt	amplitude of a magnetic field (dB) / time required to make that change (dt)
DDH	diamond drill hole
DETA	diethylenetriamine
DTM	Digital Terrain Model
EE	Exploitation Entity (*Entité d'Exploration*)
Eq	equivalent
et al.	and others
Ext 1	Extension 1 deposit
F.CFA	West African CFA Franc (currency)
Fe	iron
FS	feasibility study
Furgo	Fugro Airborne Surveys
g	gram
G&A	general and administration
Ga	gallium
Ga	giga annum
Ge	germanium
h	hour (60 minutes)
Hf	hafnium
HTEM	helicopter borne time domain electromagnetics
ICP-OES	Inductively Coupled Plasma Optical Emission Spectroscopy
ID2	inverse distance squared
In	indium
in. or "	inch
IVNE	IVNE Ivory Coast Inc. (previously HPX Ivory Coast Holdings Inc.)
JV	joint venture
K	potassium
km	kilometre
km^2	square kilometre
kWh	kilowatt-hour
Landen	Landen Capital Corporation
lb	pound(s)
LCT	locked cycle testing

List of Abbreviations and Units of Measurement	
Abbreviation	**Description**
LG	Lerchs-Grossmann
Li	lithium
m	metre
Ma	mega annum (million years)
Mg	magnesium
MgO	magnesium oxide
min	minute
mm	millimetre
Mn	manganese
Mo	molybdenum
MRE	mineral resource estimate
Mt	million tonnes
Na	sodium
Nb	niobium
Ni	nickel
NN	nearest neighbour
No	number
NOCI	*Nickel de l'Ouest Côte d'Ivoire*
NSR	net smelter return
NW	northwest
OK	ordinary kriging
OTC	over-the-counter (stock market)
oz	troy ounce
P	phosphorus
Pb	lead
Pd	palladium
PEA	preliminary economic assessment
PGE	platinum-group elements
pH	potential of hydrogen
ppb	parts-per billion
ppm	parts-per million
PR	*Permis de recherche minière* (exploration permit)
PR300	Zérégouiné property
PR604	Grata property
PR837	Zoupleu property

List of Abbreviations and Units of Measurement	
Abbreviation	**Description**
PR838	Samapleu-East property
PR839	Samapleu-West property
Pt	platinum
QA/QC	quality assurance / quality control
QP	qualified person
Rb	rubidium
Re	rhenium
RMIT	Royal Melbourne Institute of Technology
S	sulphur
Sama Resources Inc.	Sama
SANAS	South African National Accreditation System
Sb	antimony
SCC	Standards Council of Canada
Se	selenium
SG	specific gravity
SMC	SAG Mill Comminution
SMT	*Société Minière du Tonkpi*
Sn	tin
SNC or the Company	Sama Nickel Corporation
SNG	*Société Nouvelle de Géophysique*
SODEGO	*Société de Développement de Gouessesso*
SODEMI	*Société pour le développement minier de la Côte d'Ivoire*
Sr	strontium
SW	southwest
t	tonne (1,000 kg) (metric ton)
Ta	tantalum
Te	tellurium
Th	thorium
Ti	titanium
Tl	thallium
UTM	Universal Transverse Mercator
V	vanadium
vs	versus
VTEM	Versatile Time-Domain Electromagnetic
W	tungsten

List of Abbreviations and Units of Measurement	
Abbreviation	**Description**
WAC	West-African Archean craton
Xcalibur	Xcalibur Airborne Geophysics
y	year
Zn	zinc
Zr	zirconium

1. Summary

Sama Nickel Corporation ("SNC") retained BBA International Inc. (BBA) to prepare a Mineral Resource Estimate ("MRE") in accordance with National Instrument 43 101 ("NI 43-101") for SNC's Samapleu and Grata deposits herein referred to as the "project", located in Cote d'Ivoire.

This report was prepared by independent consultants: Todd McCracken, P.Geo., of BBA, and Chris Martin, C.Eng.

Unless otherwise specified or noted, the units used in this report are metric. Every effort has been made to clearly display the appropriate units being used throughout the report. Currency is in United States Dollars (USD or $), unless otherwise noted.

The Issue Date of this report is August 11, 2023. The Effective Date of the MRE is June 27, 2023.

1.1 Property Description and Location

SNC's main exploration and evaluation projects, PR838 (Samapleu-Est), PR839 (Samapleu-Ouest), PR300 (Zérégouiné), PR604 (Grata) and PR837 (Zoupleu) are located in Côte d'Ivoire, West Africa and covers a total area of 839 km².

1.2 Accessibility, Climate, Local Resources, Infrastructure and Physiography

Access to the property from Abidjan is via 225 km of a paved four-lane highway to Yamoussoukro, followed by paved roads to Daloa and Duékoué to the west and north to Man and Biankouma. From Biankouma, the village of Yorodougou, where the Samapleu exploration camp is located, is accessed by a dirt road over approximately 35 km toward the W-NW.

The project area falls within the Guineo-Soudanian climatic zone, which is a transition zone between equatorial and tropical climates and has distinct rainy and dry seasons.

A variety of mining activities has occurred in western Côte d'Ivoire over the years. Consequently, some services and expertise related to the mining industry are available in the region.

The project benefits from a road network leading in the area and basic services are available in the towns of Man and Biankouma.

The project area is characterized by rolling hills covered with tropical forest, low grasslands and valleys. Steep scarps are present locally. The elevations range from 400 m above sea level in the low grasslands to slightly above 1,200 m on the mountain ridges. A gradual transition from the sector of forested hills to a savannah plain is observed towards the north of the property.

1.3 History

Discovery of nickel mineralization occurred in the 1970s. SNC has been actively exploring since 2009 with various geophysical surveys, geochemical surveys, and diamond drill programs.

1.4 Geological Setting and Mineralization

The project area is located in western Côte d'Ivoire, which constitutes the eastern limit of the West-African Archean craton ("WAC"). The WAC is represented by two Precambrian shields: Reguibat to the north and Man to the south. The Man shield is subdivided into a western domain, predominantly of Archean age (Kénéma-Man), and an east-central domain (Baoulé-Mossi) composed of Paleoproterozoic rocks.

The Yacouba Complex is characterized by a series of feeder systems of magmatic material assimilating the Archean country rock thus creating magmatic migmatite complex with locally well-preserved peridotite, pyroxenite, chromitite and minor gabbro or gabbro-norite units. The Yacouba Complex is often seen vertically crosscutting the Archaean gneiss and granulite, especially in the Samapleu and Grata areas.

Samapleu and Grata exploration properties (PR838 & PR604) are underlain by gneissic granulite, mafic granulite, charnockite, aluminous garnet and magnetite gneiss, garnet jotunite/enderbite, biotitite and grenatite. All have been affected by high-grade facies of metamorphism under granulitic P and T conditions.

Mineralization in the Samapleu and Grata deposits consists predominantly of pyrrhotite, pentlandite and chalcopyrite, with subordinate amounts of pyrite, PGE and chromite. Sulphide mineralization types are matrix textures, net-textures, droplets, breccia, dragged sulphide sometimes with semi-massive sulphides, massive, veins, and veinlets.

1.5 Deposit Types

Samapleu and Grata deposit types are part of a typical ultramafic sequence with the sulphide droplets often forming within the ultramafic intrusion through contamination of the parental, mantle-derived magma with sulphur from adjacent rock units or by assimilation from the crust.

1.6 Exploration

SNC had conducted exploration on the property since 2009 in the form of geophysics, geological and geochemical surveys. In addition to the Samapleu and Grata deposits, over 20 targets have been identified on the concessions.

1.7 Drilling

Since 2010, SNC has completed 474 diamond drill holes totalling 77,920 m of which 250 holes totalling 50,229 m was focused on the Samapleu and Grata deposits.

1.8 Sample Preparation, Analyses and Security

Sample preparation and analysis of the diamond drill programs has been completed by various independent commercial laboratories. All the laboratories used are certified.

Appropriate QA/QC programs have been in place since 2010 with the use of blanks, duplicates and standards.

1.9 Data Verification

Data validation to support the resource estimation has been conducted. This includes site visits, collar location validation, and database validation.

1.10 Mineral Processing and Metallurgical Testing

Several metallurgical test programs including hardness, mineralogy and flotation have been completed on the project to generate either a bulk copper/nickel concentrate or a separate copper concentrate and nickel concentrate.

Recovery equations for the various elements in each of the concentrates were developed and use in the pit shell constraints.

1.11 Mineral Resource Estimate

Mineral resource estimates have been completed for the Samapleu and Grata deposits using industry standard best practices. Diamond drilling were used to generate 3D mineral solids for the various mineral domains, with the appropriate compositing and grade capping applied. Estimations were completed with a multi-pass estimation strategy using ordinary kriging. The mineral resources were constrained with pit shells using appropriate parameters to be considered as reasonable prospect for eventual economic extraction. Table 1-1 summarizes the mineral resource estimate. Table 1-2 summaries the pit constrained in situ pit contained metal.

Table 1-1: Samapleu Mineral Resource Summary

Classification	Deposit	Tonne	Ni (%)	Cu (%)	Pt (g/t)	Pd (g/t)	Au (g/t)	Co (%)
Indicated	Main	13,425,000	0.24	0.22	0.10	0.31	0.04	0.02
	Extension	201,000	0.28	0.18	0.10	0.55	0.02	0.02
	Grata	1,363,000	0.29	0.27	0.11	0.29	0.04	0.02
	Total	**14,989,000**	**0.25**	**0.22**	**0.10**	**0.31**	**0.04**	**0.02**
Inferred	Main	22,343,000	0.25	0.20	0.08	0.28	0.04	0.02
	Extension	11,119,000	0.28	0.22	0.10	0.47	0.02	0.02
	Grata	68,424,000	0.24	0.25	0.10	0.26	0.04	0.01
	Total	**101,886,000**	**0.25**	**0.23**	**0.10**	**0.29**	**0.04**	**0.01**

Table 1-2: Samapleu Mineral Resource Contained Metal

Classification	Deposit	Tonnes	Ni ('000 lb)	Cu ('000 lb)	Pt (oz)	Pd (oz)	Au (oz)	Co ('000 lb)
Indicated	Main	13,425,000	71,800	64,000	44,100	133,300	16,800	4,900
	Extension	201,000	1,200	800	600	3,500	100	100
	Grata	1,363,000	8,600	8,100	4,800	12,600	1,900	500
	Total	**14,989,000**	**81,600**	**72,900**	**49,500**	**149,400**	**18,800**	**5,500**
Inferred	Main	22,343,000	121,300	100,300	54,400	201,800	26,600	7,700
	Extension	11,119,000	68,400	53,200	34,400	168,200	8,600	4,300
	Grata	68,424,000	368,900	373,300	222,600	569,400	84,500	21,400
	Total	**101,886,000**	**558,600**	**526,800**	**311,400**	**939,400**	**119,700**	**33,400**

1.12 Mineral Reserve Estimate

Not applicable.

1.13 Mining Methods

Not applicable.

1.14 Recovery Methods

Not applicable.

1.15 Project Infrastructure

Not applicable.

1.16 Market Studies and Contracts

Not applicable.

1.17 Environmental Studies, Permitting and Social or Community Impact

Not applicable.

1.18 Capital and Operating Costs

Not applicable.

1.19 Economic Analysis

Not applicable.

1.20 Adjacent Properties

Adjacent properties nickel-PGE prospects of various exploration companies. None of the adjacent properties are at an advanced stage of exploration.

1.21 Other Relevant Data and Information

To the best of the authors' knowledge, there is no other relevant data, additional information or explanation necessary to make the report understandable and not misleading.

1.22 Interpretations and Conclusions

This mineral resource estimate demonstrates that the Samapleu and Grata has the size and grade potential advance to a Preliminary Economic Assessment.

1.23 Recommendations

To advance the project to the next stage of engineering, a two-phase budget is proposed.

Phase 1, estimated at $0.96M, involves additional infill diamond drilling, metallurgical testing, waste and water management studies and a Preliminary Economic Assessment.

Phase 2, estimated at $4.8M, involves additional exploration drilling, geotechnical drilling, hydrogeological drilling, geotechnical study, hydrogeology study, hydrology study, geology and metallurgical test work.

1.24 References

All references in this report can be found in Chapter 27.

2. Introduction

BBA international Inc. (“BBA”), in conjunction with Chris Martin, an independent consultant has prepared this technical report on the project at the request of Sama Nickel Corporation (“SNC” or the "Company").

The purpose of this report is to provide a technical report of the Samapleu-Grata Nickel Project (the "project") in accordance with the guidelines of the Canadian Securities Administrators National Instrument 43-101 (“NI 43-101”) and Form 43-101 F1

2.1 Basis of Technical Report

The following report presents the results of the Mineral Resource Estimate (“MRE”) for the Samapleu and Grata Deposits. Sama Nickel Corporation (“SNC”) mandated engineering consulting group BBA International Inc. to lead and perform the Mineral Resource Estimate.

As of the date of this report, SNC is a Canadian mineral exploration company. SNC is owned at 70% by Sama Resources Inc. (“Sama”) and 30% by Ivanhoe Electric.

The Samapleu exploration permit (PR838) operates under a Joint Venture (JV) agreement between SNC (66⅔% share; operator) and SODEMI (33⅓ %). The Grata exploration permit (PR604) is 100% owned by SNC.

Sama Resources trades on the TSX under the trading symbol SME, and on the OTC Markets (QX) under the trading symbol SAMMF, with its head office situated at:

Corporate Head Office
Sama Resources Inc. / Ressources Sama Inc.
1320 Graham, Suite 132
Ville Mont-Royal, QC, H3P 3C8

This report, titled “Mineral Resource Estimate for the Samapleu and Grata Deposits”, was prepared by qualified persons (“QPs”) following the guidelines of NI 43-101 and of the Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) Standards on Mineral Resources and Reserves.

2.2 Report Responsibility and Qualified Persons

The following individuals, by virtue of their education, experience and professional association, are considered as qualified persons as defined in NI 43-101 and are members in good standing of appropriate professional institutions.

- Todd McCracken, P.Eng. BBA International Inc.
- Chris Martin, C.Eng. Independent Consultant

The QPs have contributed to the writing of this report and have provided a QP Certificate, included at the beginning of this report. The information contained in the certificates outlines the sections in this report for which each QP is responsible. Each QP has also contributed figures, tables, and portions of Chapters 1 (Summary), 2 (Introduction), 25 (Interpretation and Conclusions), 26 (Recommendations), and 27 (References). Table 2-1 outlines the responsibilities for the various sections of the report and the name of the corresponding qualified person.

Table 2-1: Qualified persons and areas of report responsibility

Chapter	Description	Qualified Person	Company	Comments and exceptions
1.	Summary	T. McCracken, P.Geo.	BBA	All QPs contributed based on their respective scope of work and the Chapters/Sections under their responsibility.
2.	Introduction	T. McCracken, P.Geo.	BBA	All QPs contributed based on their respective scope of work and the Chapters/Sections under their responsibility.
3.	Reliance on Other Experts	T. McCracken, P.Geo.	BBA	
4.	Project Property Description and Location	T. McCracken, P.Geo.	BBA	
5.	Accessibility, Climate, Local Resource, Infrastructure and Physiography	T. McCracken, P.Geo.	BBA	
6.	History	T. McCracken, P.Geo.	BBA	
7.	Geological Setting and Mineralization	T. McCracken, P.Geo.	BBA	
8.	Deposit Types	T. McCracken, P.Geo.	BBA	
9.	Exploration	T. McCracken, P.Geo.	BBA	
10.	Drilling	T. McCracken, P.Geo.	BBA	
11.	Sample Preparation, Analyses and Security	T. McCracken, P.Geo.	BBA	
12.	Data Verification	T. McCracken, P.Geo.	BBA	

Chapter	Description	Qualified Person	Company	Comments and exceptions
13.	Mineral Processing and Metallurgical Testing	C. Martin, C.Eng.	Consultant	
14.	Mineral Resource Estimate	T. McCracken, P.Geo.	BBA	
15.	Mineral Reserve Estimate	T. McCracken, P.Geo.	BBA	
16.	Mining Methods	T. McCracken, P.Geo.	BBA	
17.	Recovery Methods	T. McCracken, P.Geo.	BBA	
18.	Project Infrastructure	T. McCracken, P.Geo.	BBA	
19.	Market Studies and Contracts	T. McCracken, P.Geo.	BBA	
20.	Environmental Studies, Permitting, and Social or Community Impact	T. McCracken, P.Geo.	BBA	
21.	Capital and Operating Costs	T. McCracken, P.Geo.	BBA	
22.	Economic Analysis	T. McCracken, P.Geo.	BBA	
23.	Adjacent Properties	T. McCracken, P.Geo.	BBA	
24.	Other Relevant Data and Information	T. McCracken, P.Geo.	BBA	
25.	Interpretation and Conclusions	T. McCracken, P.Geo.	BBA	All QPs contributed based on their respective scope of work and the Chapters/Sections under their responsibility.
26.	Recommendations	T. McCracken, P.Geo.	BBA	All QPs contributed based on their respective scope of work and the Chapters/Sections under their responsibility.
27.	References	T. McCracken, P.Geo.	BBA	All QPs contributed based on their respective scope of work and the Chapters/Sections under their responsibility.

2.3 Effective Dates and Declaration

This technical report is in support of SNC's press release dated June 27, 2023, entitled "Sama Resources Doubles Mineral Resources at the Samapleu-Grata Nickel-Copper Deposits in Côte d'Ivoire, West Africa. Metallurgical Copper Recovery up to 88% in a 26% Copper Grade Concentrate and up to 72% Nickel Recovery in a 13% Nickel Grade Concentrate". The overall effective date of this report is June 27, 2023.

2.4 Sources of Information

This report is based in part on internal company reports, maps, published government reports, company letters and memoranda, and public information, as listed in Chapter 27 “References” of this report. Sections from reports authored by other consultants may have been directly quoted or summarized in this report and are so indicated, where appropriate.

The QPs have no known reason to believe that any of the information used to prepare this report and evaluate the mineral resources presented herein is invalid or contains misrepresentations. The author sourced the information for this report from the collection of documents listed in Chapter 27.

2.5 Site Visits

Todd McCracken, QP, (BBA), visited the property from June 14 to June 17, 2023.

2.6 Currency, Units of Measure, and Calculations

Unless otherwise specified or noted, the units used in this report are metric. Every effort has been made to clearly display the appropriate units being used throughout this report.

Currency is in United Stated Dollars (“USD” or “$”), unless otherwise stated.

This report may include technical information that required subsequent calculations to derive subtotals, totals, and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, the QP considers them immaterial.

3. Reliance on Other Experts

The QP (qualified person) has reviewed and analyzed data and reports provided by SNC, together with publicly available data, drawing its own conclusions augmented by direct field examination.

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

- Todd McCracken, P.Geo., relied on Marc-Antoine Audet, P.Geo., President for Sama Nickel for matters pertaining to mineral concessions, surface rights and mining leases as disclosed in Chapter 4 (7762001_043101-40-ERA-0004-Samapleu-Grata.docx, dated June 19, 2023).

The QP has assumed and relied on the fact that all the information and existing technical documents listed in the References Chapter 27 of this report are accurate and complete in all material aspects. While the QP reviewed all the available information presented, we cannot guarantee its accuracy and completeness. The QP reserves the right, but will not be obligated, to revise the report and conclusions, if additional information becomes known subsequent to the date of this report.

4. Property Description and Location

SNC's main exploration and evaluation projects, PR838 (Samapleu-Est), PR839 (Samapleu-Ouest), PR300 (Zérégouiné), PR604 (Grata) and PR837 (Zoupleu) are located in Côte d'Ivoire, West Africa and covers a total area of 839 km².

4.1 Location

SNC Exploration Permits ("Permis de recherche minière") including the Samapleu East Exploration Permit 838 (PR838), PR300, PR837, PR839 and the Grata Exploration Permit 604 (PR604), are located approximately 650 road km northwest of Abidjan, the economic capital of Ivory Coast (Côte d'Ivoire), West Africa. SNC's exploration permits are close to the village of Yorodougou, in west-central Côte d'Ivoire, Montagnes District, Tonkpi Region. The project is about 50 km west of Biankouma and 25 km east of the border with Guinea.

4.2 Mineral Disposition

PR838 has an irregular shape with a maximum N-S extent of 24 km and 16 km along the E-W direction, for a total area of 258 km². The permit is approximately centred on latitude 7° 43' 00" N and longitude 7° 55' 00" W (UTM 619,800E; 854,000N).

PR604 has a rectangular shape of 9 km x 10 km for a total area of 92 km². The permit is approximately centred on latitude 7° 46' 00" N and longitude 7° 50' 00" W (UTM 628,000E; 859,000N).

PR300 has an irregular shape of roughly 17.7 km by 18 km for a total area of 290 km². The permit is approximately centred on latitude 7° 32' 00" N and longitude 7° 59' 00" W (UTM 608,300E; 836,300N).

PR837 has an irregular shape for a total area of 135 km² flanked to the west by the Ivorian-Guinean boarder. The permit is approximately centred on latitude 7° 36' 00" N and longitude 8° 01' 00" W (UTM 601,600E; 850,000N).

PR839 has a rectangular shape with an irregular western limit due to the Ivorian-Guinean boarder.

The permit is 60 km² with a 10 km x 6 km N-S and E-W trends respectively, centred on latitude 7° 46' 00" N and longitude 8° 00' 00" W (UTM 601,600E; 859,000N).

Property boundaries are not surveyed in the field, but they are expressed officially by straight lines connecting the apices defined by their latitude-longitude or UTM coordinates (Figure 4-1).

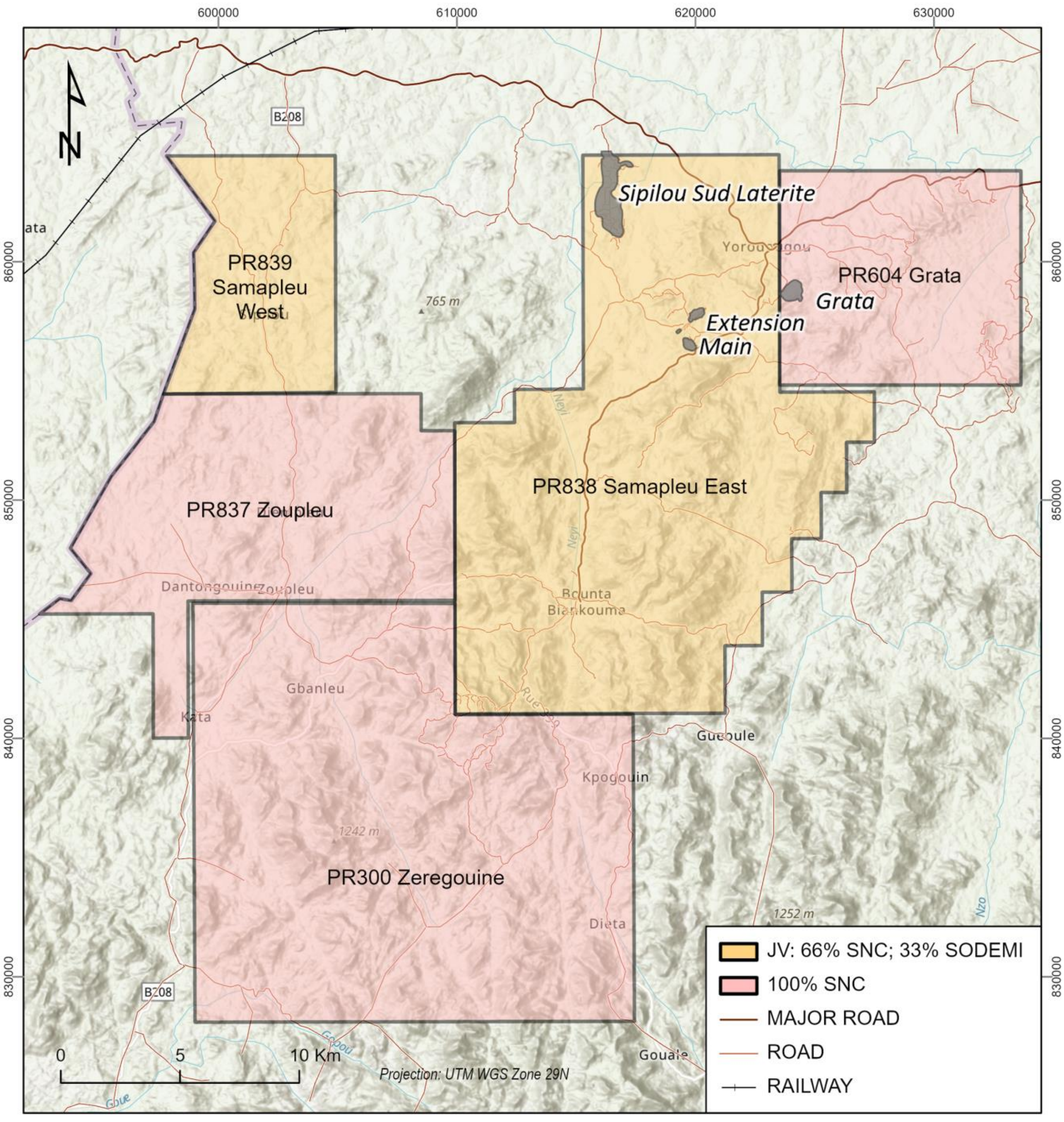

Figure 4-1: Samapleu East (PR838) Claim Vertices (UTM Coordinates; WGS84, Zone 29 North)
SNC, 2019

4.3 Tenure Rights

Land in Côte d'Ivoire is federally owned and an application through the Department of Mines and Energy is required to obtain an exploration permit.

Exploration permits in Côte d'Ivoire granted by the Department of Mines and Energy are based on the work program proposed by the applicants. As of the 2015 mining code, an exploration permit is first issued for a 4-year period, with two possible renewal periods of 3 years each, followed by an additional 2-year period, based on results and merits. At each renewal, a work program with a budget commitment is submitted by the Department of Mines and Energy and the Applicant. The title holder is required to submit monthly activity reports as well as an annual activity report to the Department of Mines and Energy.

Pursuant to a request by the *Société pour le développement minier en Côte d'Ivoire* ("SODEMI"), the *République de la Côte d'Ivoire* awarded SODEMI the PR123 permit by decree No 97-375 dated July 2, 1997. This permit was renewed pursuant to decree No 014/MME/DM dated May 13, 2008. Thereafter, a joint venture agreement was signed on January 15, 2009 between SODEMI and Sama Nickel Corporation ("SNC"), a private Canadian company, in order to explore PR123.

Landen Capital Corp. ("Landen") acquired 100% of Sama Nickel Corporation on March 29, 2010, in a reverse merger transaction. Landen assumed all of SNC's obligations through a wholly owned subsidiary, Sama Nickel Côte d'Ivoire SARL. In consideration for the SNC shares, Landen issued an aggregate of 12,500,000 common shares to Sama shareholders, who will retain a 1% net smelter royalty on SNC's portion of the project (Source: Press Release, Landen; March 29, 2010 [Landen, 2010]). In mid-2010, Landen changed its name to Sama Resources Inc. ("Sama")

On October 25, 2010, PR123 was renewed for 2 years by decree No 008/MME/DGMG/DDM. To comply with the mining rules and regulations, the surface area was reduced from the initial 750 km² to 298 km², to which a block of 151 km² was added to the renewed PR123 on the northwest (decree No 2013-856), bringing the total to 449 km². The request for the PR123 renewal, for an additional 3 years was granted on October 31, 2012, under Arrêté MMPE/DGMG/DDM No 091. PR123 was renewed to June 2017 by Arrêté No 2015-124/MIM/DGMG dated November 26, 2015.

On December 17, 2012, the Company was granted with the Zerégouiné Exploration Permit No 300 (PR300) covering 290 km² and expiring on December 17, 2021. In accordance with PR300, SNC was required to complete an exploration program before the term of the exploration permit. This exploration program was completed on September 20, 2021, the Company filed the required documentation with the Department of Mines in Côte d'Ivoire, for the exceptional renewal of PR300, which should expire on December 18, 2023. The Company has the option to request a new Exploration Permit with a 12-year lifetime instead of requesting a 2-year exceptional extension. Both scenarios are currently being investigated.

On December 09, 2015, the Company was granted with the Grata PR604, which covers 92 km² expiring on December 7, 2022. The PR604 was renewed for an additional 3 years on April 13, 2023 (Arrêté No 2023-131/MIM/DGMG dated April 13, 2023).

In March 2021, the Company signed an earn-in and joint venture agreement with IVNE Ivory Coast Inc. or "IVNE" (previously HPX Ivory Coast Holdings Inc. or "HPX") in order to develop its nickel-copper and cobalt projects in Côte d'Ivoire, West Africa.

On June 18, 2019, the two new exploration permits, Samapleu East (PR838 – Decree No 2019-526) and Samapleu West (PR839 – Decree No 2019-527) covering 318 km² were granted. Both PRs expired on June 19, 2023, with possible renewal periods totalling up to 12 years. SODEMI, under the guidance of SNC, has applied for the next renewal period. As of the effective date, there is no indication that the exploration permit will not be renewed, or the new exploration permit not be granted.

In August 2021, IVNE reached the first threshold of the earn-in and joint venture agreement by incurring expenditures of $15,000,000. Therefore, IVNE acquired a 30% interest in SNC. Currency ($) is in United States Dollars unless otherwise stated.

4.3.1 Samapleu Exploration Permit (PR838 & PR389)

The original PR123 was granted to SODEMI by decree No 97-375 of July 2, 1997 and was renewed several times to June 2017. The PR123 was replaced by two new exploration permits, the Samapleu East (PR838) and the Samapleu West (PR839). The Samapleu East PR838 gives SNC the right to explore for base metal commodities (including but not limited to Cu, Ni, Co, Pd and Pt).

Traditional land tenure systems are generally based on communal ownership of land. At the same time, individual families are granted rights to cultivate plots of land to insure their household's subsistence. These rights include some form of inheritance within the family. However, unclaimed or unused lands revert to the community. In 1902, the French introduced the concept that individuals or corporations could hold legal title to land with exclusive rights, but it appears that most of the rural lands are still managed communally on a village-by-village basis.

Within PR838, the surface rights belong either to individuals, as lots defined in villages, or to tribal groups through family clans, outside of villages.

However, the permit holder has the access right to conduct exploration or mining, but fair compensation must be paid to the surface right owner(s) if damages or nuisances are caused by exploration works. The Mining Code provides for a system of arbitration if no agreement can be reached by the two parties.

4.3.2 Grata Exploration Permit (PR604)

SNC owns the exploration permit No 604 (PR604), which covers 92 km^2 of property in Côte d'Ivoire and expired on December 9, 2022. SNC filed the required documentation with the Department of Mines in Côte d'Ivoire, for the renewal of PR604. PR604 has been renewed on April 13, 2023, which now expires on December 9, 2024.

The property is located adjacent to the north-eastern boundary of the Samapleu East (PR838) permit (Figure 4-1).

4.4 Joint Venture Agreement (PR838 & PR839)

A Memorandum of Agreement (the "Joint Venture"; "JV") between SODEMI and Sama Nickel Corporation was signed on January 15, 2009. Under the terms of the agreement, SNC is the operator of the JV through Sama Nickel Côte d'Ivoire SARL. The JV is controlled by SNC (66⅔% share) and by SODEMI (remaining 33⅓%).

The JV and the initial PR123 project (now replaced by PR838 and PR839) are managed by a joint Management Committee made up of SODEMI and Sama's representatives. Several Management Committee meetings have taken place since 2009 and all the proposed work programs and budgets have been approved since.

On October 25, 2015, SNC and SODEMI extended certain terms of PR123 resulting in an exploration license extension to June 25, 2017.

In March 2018, SODEMI applied for two new exploration permits covering a total area of 318 km^2 (Samapleu East and Samapleu West) to replace the former PR123 (Figure 4-1). According to a new regulation in Ivory Coast, classified forests must be removed from any new application. Therefore, the total surface area covered by the two new exploration permits is smaller than the initial area covered by the former PR123.

On June 19, 2019, the two new exploration permits, Samapleu East (PR838 – Decree No 2019-526) and Samapleu West (PR839 – Decree No 2019-527) covering 318 km^2 were granted. The first period of renewal of 4 years expired on June 19, 2023 for both PRs. There will be two additional renewal periods of 3 years each and a possible 2-year extension, totalling up to 12 years. In accordance with both exploration permits, SNC agreed to complete an exploration program evaluated at F.CFA 2,315,000,000 for PR838 (approximately $5,257,421) as of June 30, 2019), and F.CFA 760,000,000 for PR839 (approximately $1,725,978 as of June 30, 2019) before the term of the exploration permits. SNC applied for the second 3 years renewal for both permits, as of the time of writing this reports, there is no indication that the exploration permit will not be granted.

Upon completion of a Feasibility Study, the Advisory Committee ("AC"), which consists of two SNC representatives and two SODEMI representatives, will conclude on the feasibility of the project. If the AC decides to proceed with the project, an Exploitation Entity ("EE") will be established whereby future funding will be split between SNC and SODEMI at 66.7% and 33.3%, respectively. The EE will reimburse SODEMI for all costs associated with previous exploration work conducted until January 15, 2009, up to a maximum of F.CFA 834,999,457 (approximately $1,896,304 as of June 30, 2019) and will reimburse SNC for costs associated with exploration work conducted between the Effective Date and the approval of the FS subject to the approval of the AC, which represents a total amount of $26,830,000 as of March 31, 2023.

On September 20, 2019, SODEMI and SNC signed the continuation of the JV on the new PR838 and PR839 (replacing the PR123) with the consideration that, due to the significant investments made by SNC in research work on the territory covering the previous PR123 since the signing date of the JV dated January 15, 2009, confirm SNC's absolute, unequivocal and direct interest in the PR838 and PR839 of 66.67% and SODEMI at 33.33%, and this notwithstanding any possible application for an Operating Permit.

Financing the various exploration programs for the JV is SNC's obligation until a technical study for the Samapleu Project is finalized. SODEMI will not contribute financially to the exploration work. Upon filing the technical report, an AC made up of two representatives of SNC and two from SODEMI will decide on the next course of action.

If the AC decides to follow up with the project, an Operating Group ("*Entité d'Exploitation*", "EE") will be set up with JV partners Sama Nickel and SODEMI holding a shared management of 66⅔% and 33⅓%, respectively. The EE will reimburse SODEMI for the expenditures in connection with the historical exploration work up to a maximum of F.CFA934,999,457 (about $1,880,419) and will reimburse Sama Nickel for the costs related to the exploration work completed between January 15, 2009, and the approval date of the Bankable Feasibility Study ("BFS"), contingent upon the approval from the AC. The financial participation of the future EE will be as follows:

- Sama Nickel Corp. (SNC): 60%
- SODEMI: 30%
- Ivorian Government: 10%
- Total: 100%

If the AC decides not to follow up on the project, SODEMI has the option, at its own discretion, to terminate the JV and SODEMI will own all the results from the exploration work and all the studies related to the infrastructure, without financial compensation.

4.5 Joint Venture Agreement Ivanhoe Electric Inc.

In March 2021, SNC signed an earn-in and joint venture agreement with IVNE Ivory Coast Inc. or "IVNE" (previously HPX Ivory Coast Holdings Inc.) in order to develop its nickel-copper and cobalt projects in Côte d'Ivoire, West Africa.

Pursuant to the terms of the earn-in and joint venture agreement, IVNE can earn, through SNC, up to 60% interest in the Côte d'Ivoire projects, over a maximum of 6 years as follows:

- By incurring expenditures of $15,000,000 for an interest of 30%;
- By incurring expenditures of $10,000,000, including amongst others, the financing of a feasibility study on part of the Côte d'Ivoire projects for an additional interest of 30%.

In August 2021, IVNE reached the first threshold of the earn-in and joint venture agreement by incurring expenditures of $15,000,000. Therefore, IVNE acquired a 30% interest in SNC.

4.6 Royalties

Details on the agreement to complement the above general information are provided on SNC's website and filed documents.

In consideration for the acquisition of Sama Nickel Corporation by Landen, the Sama Nickel Corporation's first four owners retain a 1% net smelter royalty on SNC's portion of the project and an area of mutual interest (Landen, 2010).

4.7 Permits

No other permits are needed for either SODEMI or SNC to perform exploration work within the PR838 and PR604 or any other recherche permit areas. Significant exploration and drilling activities have already been permitted and performed by SNC on the property.

4.8 Liabilities and Other Relevant Factors

BBA is not aware of environmental liabilities related to the project area. In addition, BBA is unaware of significant factors or risks that may affect access, title or right or ability to perform work on the property.

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

5.1 Access

Côte d'Ivoire is located in West Africa and borders Guinea and Liberia to the west, Burkina Faso and Mali to the north, Ghana to the east, and the Gulf of Guinea (Atlantic Ocean) to the south.

Access to the Property from Abidjan is via 225 km of a paved four-lane highway to Yamoussoukro, followed by paved roads to Daloa and Duékoué to the west and north to Man and Biankouma. From Biankouma, the village of Yorodougou, where the Samapleu exploration camp is located, is accessed by a dirt road over approximately 35 km toward the W-NW.

This road continues through the town of Sipilou approximately 25 km to the west of Yorodougou, and over a further 3 km to a border post between the Côte d'Ivoire and Guinea. This road provides access to a highway leading to Lola in Guinea, 50 km west of the border. Access from Yorodougou to the Samapleu Deposits is via bush tracks servicing small villages and roads constructed by SNC (Figure 5-1).

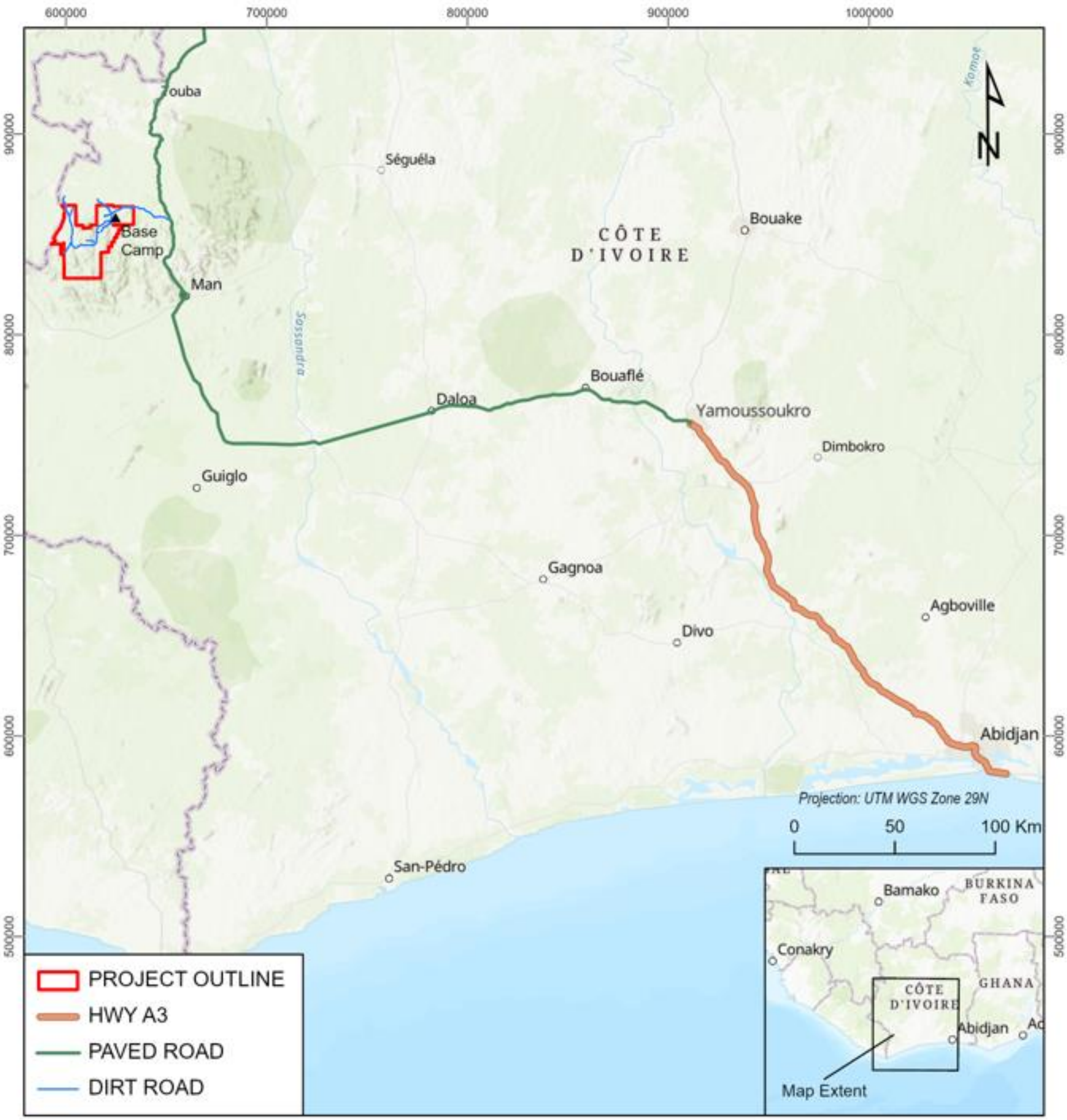

Figure 5-1: Access Map

5.2 Climate

The project area falls within the Guineo-Soudanian climatic zone, which is a transition zone between equatorial and tropical climates and has distinct rainy and dry seasons. The dry season extends from November to March, while the wet season covers the period from March to October. The rainfall in the project area averages 1,600 mm to 1,800 mm of rain per annum. Temperatures range from about 10°C to 35°C (Table 5.1). The Lola weather station in Guinea is the station closest to the project with complete record over extended periods.

Although some specific exploration work might be affected during the rainy season, companies operate mines year-round in similar climate conditions in West Africa, as is the case for the iron mines in Liberia.

Table 5.1: Historical Climate Conditions at the Lola Weather Station, Guinea

Month	Temperature (°C)			Precipitations (mm)			Wind Speed
	Average	Min.	Max.	Average	Min.	Max.	(km/h)
January	23.3	10.8	33.7	17.6	0.0	86.6	4.3
February	24.7	13.2	34.7	55.8	0.0	189.3	4.7
March	25.6	16.5	34.4	121.7	47.9	223.4	5.0
April	25.8	18.4	33.1	167.0	85.6	273.5	5.0
May	25.4	18.4	32.1	179.5	80.5	295.0	5.0
June	24.4	18.1	31.1	199.9	92.1	374.1	6.5
July	23.5	18.0	29.5	234.3	112.0	476.9	6.8
August	23.5	18.6	29.4	294.6	183.5	400.4	6.5
September	24.1	18.3	30.0	271.7	155.2	417.3	5.4
October	24.5	17.8	30.9	164.2	74.5	348.7	4.7
November	24.5	16.0	31.3	61.0	11.8	166.3	5.0
December	23.3	12.4	31.5	13.6	0.0	75.1	4.0

Sources: Temperatures: WMO; data for the period 1961-1990; Precipitations Etude Climatologique des Sites de Lola et de N'zerekore 2017; Mamadou Tounkara; Direction Nationale de la Météorologie; Décembre 2017, data collected in 1979-2009; Wind speed: www.weatherbase.com; Years on Record: 112

Exploration works can proceed year-round if required yet can be sporadically affected by heavy rains during the rain seasons.

5.3 Local Resources

In 2022, Côte d'Ivoire had an estimated population of 28,873,034 and a population density of 91 people per km² (http://worldpopulationreview.com/countries/ivory-coast-population/). However, the population density is estimated at less than three persons per km² in the project area.

The largest city is Abidjan, a port city with a population estimated at 4.5 million and a metro population exceeding 5.1 million (Ivory Coast Population 2023 (worldpopulationreview.com)). The capital of Ivory Coast is Yamoussoukro, which, in 2023, has an estimated population of 253,348 (Yamoussoukro Population 2023 (worldpopulationreview.com)).

The population of Côte d'Ivoire is composed of different ethnic groups, the main ones being Akan (primarily Baoulé and Agni), Krou (Bété, Wê), Mandé (Malinké), Dan (Yacouba, Gouro) and Gour (Senoufo). The Akan ethnic group represents about 35% of the total population of the country.

The predominant ethnic groups in the SNC's exploration permits area are the Yacouba, Wê, Toura and Malinké. Religious communities from these groups consist of a combination of Moslem, Christian or animist creeds.

French is the official language, but the main native languages in the project area are Lobi, Senoufo, Baoulé, Yacouba and Dioula (a vernacular language). Yacouba is the principal language in the immediate PR838 and PR604 areas.

Biankouma and Sipilou are the largest local urban centre in the project area. They are serviced by the larger town of Man (population of approximately 250,000) located about 45 km to the south of Biankouma and has a domestic airport. These three towns, in addition to the village of Yorodougou, are home of the State Authority represented by a Regional Prefect ("*Préfet de Région*") in Man, two Department Prefects ("*Préfets de Département*") in Biankouma and Sipilou and one Sub-Prefect ("Sous-préfet") at Yorodougou.

Other communities outside of these centres and of the Yorodougou sub-prefecture consist of villages, often with less than 100 inhabitants, or hamlets.

The economy in the project area is primarily agricultural and much of it is on a subsistence basis. Coffee and cocoa crops represent the main source of the cash economy related to agriculture. Logging is another pillar of the local economy.

A variety of mining activities has occurred in western Côte d'Ivoire over the years. Consequently, some services and expertise related to the mining industry are available in the region.

Since the 1970s, a number of deposits were discovered in the Man region, such as the Mount Klahoyo (35 km to the SE of Man; 700 Mt at 33% Fe) and Mont Gao (80 km SW of Man; 510 Mt at 40% Fe) iron deposits (Source: *Rôle de la Sodemi dans le développement du secteur minier; Yao Kouané Raoul; Présentation, 8 juin 2010* (Raoul, 2010)) and the Biankouma-Touba-Sipilou nickel laterite deposits. The Sipilou North, Foungouesso, Moyango and Viala nickel laterite projects were acquired by Compagnie minière du Bafing SA ("CMB"). Production at the Foungouesso nickel mine started in April 2017, with about 380,000 tonnes extracted in 2017 (DGPE, 2018). Foungouesso contains a reported estimated resource of 60 Mt at 1.84% Ni.

In the 1970s, low-grade iron deposits were identified at Bangolo (South of Man), while the Bobi diamond mine near Seguela (NW of Man) produced 270,000 carats per year until 1979, followed by artisanal mining of primary and placer diamonds around Dualla-Bobi-Diarabam.

In 1991, a gold mine was developed at Ity, near Danané (approximately 100 km SW of Biankouma). Ity has produced more than 1.2 million ounces of gold in its 20-plus years of operation (Source: Endeavour Mining website).

The qualified person has been unable to verify the historical information and the information is not necessarily indicative of the mineralization on the property that is mentioned.

5.4 Infrastructure

The project benefits from a road network leading in the area and basic services are available in the towns of Man and Biankouma.

There are two deep-sea ports in the Côte d'Ivoire: one in Abidjan and one in San Pedro. The distance to Abidjan is about 650 km while San Pedro is less than 550 km away.

The port of San Pedro has a packaged goods terminal with a 4,000 m^2 warehouse opening directly onto the dock. The port can accommodate vessels up to approximately 20,000 DWT with a certified draft depth of 9 m.

5.4.1 Power Supply

A 225-kilovolt power line runs parallel to the paved road between Man and Biankouma, and a 33 kilovolt power line passing by Yorodougou village servicing the town of Sipilou 35 km to the west.

5.4.2 Water Supply

There is no water utility in the region. Several continuous waterways exist in the project area, four of which have been monitored for rate of flow and elevation over the past few years. The Méné River is considered as the largest potential source of water.

5.5 Physiography

The terrain in the Côte D'Ivoire can be described as a large plateau rising gradually from sea level in the south to almost 500 m elevation in the north, with the highest point at Mount Nimba (1,752 m) on the Guinean border to the west.

The PR838 area is characterized by rolling hills covered with tropical forest, low grasslands and valleys. Steep scarps are present locally. The elevations range from 400 m above sea level in the low grasslands to slightly above 1,200 m on the mountain ridges. A gradual transition from the sector of forested hills to a savannah plain is observed near the northern edge of PR838.

PR838 and PR604 areas are located in the transition zone between the tropical forest area and the northern savannah, where grassy woodland and occasional dry scrub are predominant. The tropical forest covers nearly one-third of Ivory Coast, from the coastline to the town of Man in the north and to the west between the Sassandra River and the mouth of the Cavally River. The northern savannah is underlain by lateritic or sandy soils with a gradual decrease of vegetation cover from the south northward. The vegetation communities observed in the PR838 area can be divided into three main habitat types which reflect a combination of terrain, drainage and vegetation cover. These vegetation communities are:

- Tropical forest with dense closed canopy.
- Grasslands with scattered trees and shrubs with moderate to open canopy.
- Degraded tropical savannah and forest due to plantation and agriculture (cleared and/or burnt forest).

6. History

Sama Resources Inc. through its fully owned subsidiary Sama Nickel Corporation Inc ("SNC"), started drilling at the known small showing called "Samapleu" in 2010. A few months later, SNC discovered the "Samapleu Extension 1". Samapleu Main and Samapleu Extension 1 are known collectively as Samapleu deposits.

Following the initial discovery in 2010, SNC sponsored Mr. Franck Gouedji, SNC's geologist, to complete a PhD study with University of Franche Comté, France. SNC took the initiative to launch a baseline environmental study.

In 2013, the Company discovered the Yepleu sector, located 25 km SW of the original Samapleu deposit. The discovery followed the large Helicopter HTEM survey performed by Fugro in the early months of 2013.

In June 2021, SNC discovered the Grata deposit.

6.1 Exploration History

The Samapleu mineralization was discovered by SODEMI in 1976 through a regional stream sediment sampling program that was part of a Geomine's Iron-Titanium-Vanadium exploration program. Geomine Ltd. is a defunct exploration company that explored western Côte d'Ivoire in the 1970s in association with SODEMI. Falconbridge Ltd., in association with SODEMI, also explored for Ni-Co laterite deposits in the area adjacent to the former PR123.

The results from the regional stream sediment sampling program outlined most of the major Ni-Co laterite deposits known today, including Sipilou, Foungouesso, Moyango, Touoba and Sipilou South, and identified the potential of the Samapleu Ni-Cu mineralization.

Following on Geomine's encouraging results, SODEMI narrowed down the search area in the vicinity of Samapleu village and performed line-cutting and a detailed soil sampling program. A total of 2,731 samples were collected and analyzed for Ni, Cu and Au at SODEMI's laboratory in Abidjan. Exploration at Samapleu continued until 1998, but was followed by a dormant period until 2009 when SODEMI and SNC resumed exploration on the project.

Subsequent exploration included geochemical sampling, geophysical surveying and several phases of core drilling, as summarized in Table 6-1. Little information is available on the specifications for the various "in-house" drilling campaigns performed by SODEMI with their own rigs, except that all the cores were of BQ diameter (36.5 mm). The drill holes intersected disseminated, semi-massive and massive sulphide mineralization containing up to 8.0% Cu, 4.0% Ni and elevated PGE values.

In March 2010, SNC started several drilling programs aimed at targets within PR123 and in the region. Several research projects, namely on the Yacouba complex or on the Ni-Cu-PGE and chromite mineralization have been sponsored by SNC and performed by Professor C. Picard, F. Gouedji, N. Ouattara, B. Bakayoko., M.A. Audet, and others (Prof. Picard et al., 2010).

Table 6-1: Summary of Exploration and Development Work

Company	Year	Activity	Results
Geomine Ltd.	1970s	Stream sediment sampling; 6,373 samples.	Discovery of Ni-Co deposits, including Sipilou South
SODEMI	1970s	Line-cutting. Soil sampling; 2,731 samples, 674 rock samples.	
	1978	Drilling (Sipilou South) 3 holes for 75 m; Induced Polarization survey, 32 line/km (over Ni in soil anomalies near Samapleu village).	Mineralization confirmed
	1982	Drilling 14 holes for 2,812 m.	
	1986-87	Drilling 23 holes for 2,824 m.	
Trillion Res.	1991	Geological review.	
SODEMI	1993	IP survey 13 line/km. Max-Min electromagnetic survey (100 line km). Ground magnetic survey.	
	1996-97	Drilling 5 holes for 780 m.	
	1998	Stream sediment sampling; 2,067 samples (regional and south of PR123).	
SODEMI-Sama Nickel	2009	Joint venture agreement signed in January.	
Sama Nickel	2010-13	Drilling 252 holes for a total of 30,025 m over PR123 & regional exploration. 2012: Magnetic + Radiometric airborne survey. 2013: Electromagnetic airborne survey.	
	2013	First mineral resource estimate by WSP; NI 43-101 report (Ayad et. al., 2013).	
	2014-15	Drilling 24 holes for 6,402 m. Updated mineral resource estimate by WSP; NI 43-101 report (Ayad et. al., 2015).	

Company	Year	Activity	Results
	2017-19	Drilling 44 holes for 9,737 m. Geotechnical study for Samapleu, by Mine Design Engineering. 2018: Additional electromagnetic airborne survey. 2018: HPX's Typhoon ground surveys. 2019: Drilling at Samapleu and Yepleu. 2018-19: PEA study (Gagnon et. al., 2020).	Discovery of a mineralized zone at Zepleu located 650m below surface
	2020-22	Drilling 90 holes for 28,750 m. Down-hole geophysics.	Discovery of the Grata deposit

6.2 Historical Resource Estimates

The first mineral resource estimate ("MRE") for the Samapleu deposits is presented in NI 43-101 Technical Report dated July 20, 2012 (Rivard et al., 2012). The estimate was based on 102 boreholes for a total of 15,849 m, using a cut-off grade ("COG") of 0.10% Ni. The results are presented as in situ resources (Table 6-2).

Table 6-2: Samaplue Deposits Mineral Resources at 0.10% Nickel COG (July 2012)

Category	Tonnes (x1,000)	Ni (%)	Cu (%)	Co (%)	Pt (ppm)	Pd (ppm)
Indicated	12,467	0.24	0.22	0.02	0.11	0.30
Inferred	7,986	0.23	0.17	0.02	0.08	0.31

The original resource estimate was updated in December 2012 (Ayad et.al., 2013) and included the results from previously unsampled intervals and eight holes that were drilled after the initial mineral resource estimation of July 2012. These holes raised the total length of the core to 17,273 m. The results from this estimate are presented in a technical report by WSP re-issued on December 22, 2015 (Ayad et al., 2015). The estimated tonnes and grades are reported as in situ resources, without pit constraints, using a cut-off grade of 0.10% Ni (Table 6-3).

Table 6-3: Samepleu Deposits Mineral Resources at 0.10% Nickel COG (December 2015)

Category	Tonnes (x1,000)	Ni (%)	Cu (%)	Co (%)	Pt (ppm)	Pd (ppm)
Indicated	14,159	0.24	0.20	0.02	0.11	0.29
Inferred	26,480	0.24	0.18	0.01	0.09	0.31

On March 2020, DRA/Met-Chem of Montreal, QC, Canada, produced a revised Mineral Resources for the Samapleu deposits (Gagnon et al., 2020) within an optimized pit shell developed using the Lerchs-Grossmann ("LG") algorithm implemented in the HxGN MinePlan 3D (Table 6-4).

Table 6-4: Summary of the Mineral Resources (COG of 0.1% NiEq) (March 2020)

Category	Resources (Mt)	NiEq (%)	Ni (%)
Measured	-	-	-
Indicated	33.18	0.27	0.24
Measured + Indicated	**33.18**	**0.27**	**0.24**
Inferred	17.78	0.25	0.22

The reader is cautioned that the historical estimates of July 2012, December 2012 and March 2020 are not relevant to the current estimate which is based on a larger amount of drilling and geoscientific information gathered since the issue of the previous resource estimates.

These historical estimates are presented here to inform the public that the project has a significant amount of work completed. The estimate presented in Chapter 14 of this report supersedes the 2012 and 2020 estimates that the issuer and BBA are considering as no longer current.

A qualified person has not done sufficient work to classify the historical estimates as current mineral resource.

Mineral resources are not mineral reserves and do not have a demonstrated economic viability. There is no certainty that all or any part of the mineral resources will be converted into mineral reserves.

7. Geological Setting and Mineralization

7.1 Regional Geology

The project area is located in western Côte d'Ivoire, which constitutes the eastern limit of the West-African Archean craton ("WAC") (Figure 7-1).

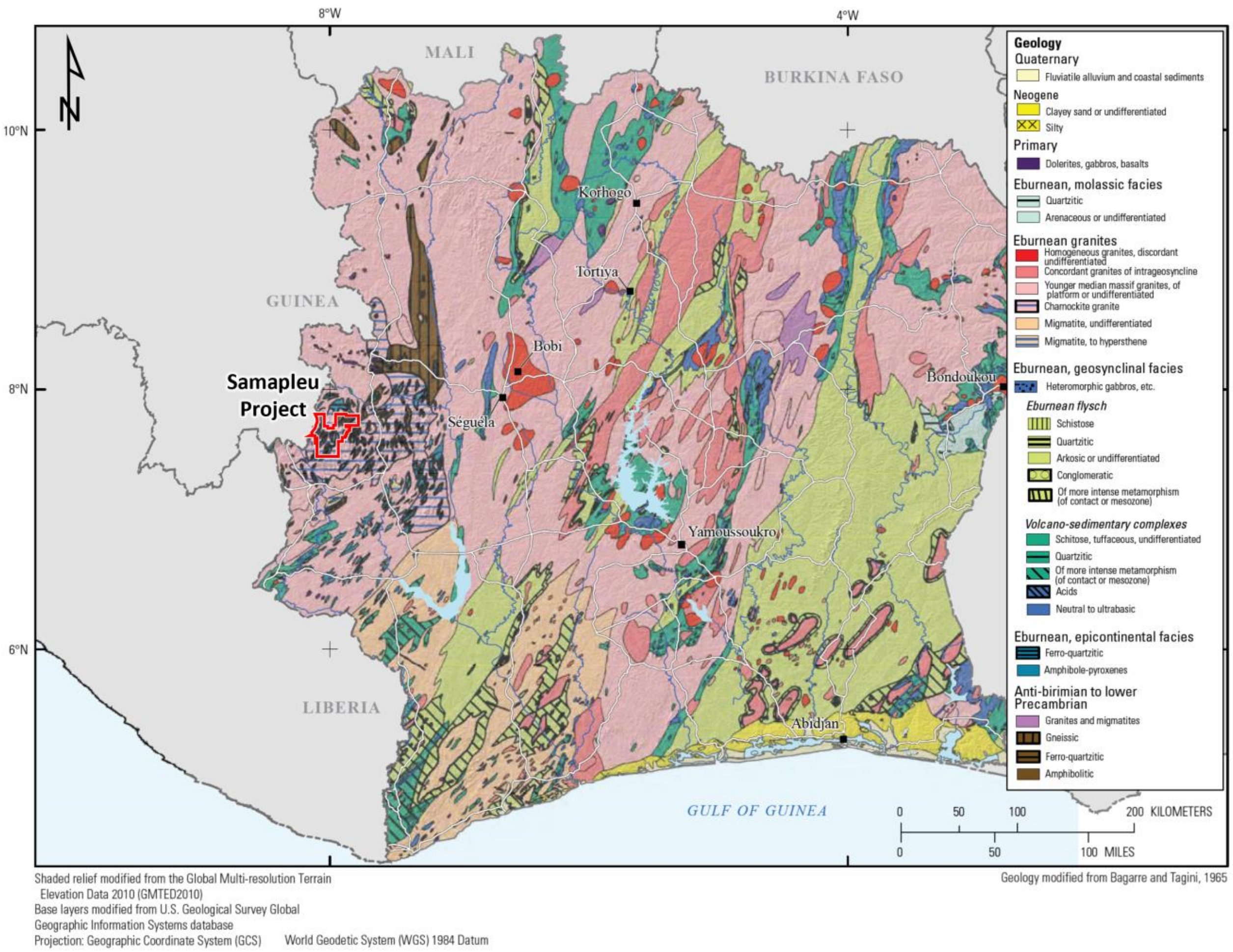

Figure 7-1: Regional Geology

The WAC is represented by two Precambrian shields: Reguibat to the north and Man to the south. The Man shield is considered to be a remnant of a much larger craton that includes the Guyana craton of South America that split by continental breakup in the Jurassic period.

The Man shield is subdivided into a western domain, predominantly of Archean age (Kénéma-Man), and an east-central domain (Baoulé-Mossi) composed of Paleoproterozoic rocks. The two domains are separated by the major, sub-meridian, strike-slip Sassandra fault. The Archean formations outcrop continuously in the western part of the WAC, from Sierra Leone to western Ivory Coast.

The Archean rocks were shaped by two major tectono-thermal events whose respective chronology is uncertain: the earlier Leonian orogeny (3.4-3.1 Ga) and the Liberian orogeny (2.85-2.7 Ga). This was followed by the polycyclic Eburnean orogeny comprised of a series of events: collision at the margin of the craton and two phases of transcurrent tectonism (2.2-2.0 Ga) (Koffi et al., 2020).

Work from Nahon et al. (1982), Camil (1984) and Kouamelan et al. (1997) indicates that Paleoproterozoic reworking has been found in the Man area during the Birimian event (2.1 Ga) and has produced an important amount of juvenile magmatism. The effects of Eburnean ductile deformation along NE-SW, NW-SE and N-S trends can be observed in the region.

The project lies within the Kénéma-Man domain, which consists chiefly of Archean granulitic and migmatitic gneiss with subordinate granitoids, and relic supracrustal belts with mafic to ultramafic rocks and iron formation. The formations are metamorphosed to granulitic facies.

The Kénéma-Man domain is separated in two by the E-NE Man-Danané fault, on the basis of tectono-metamorphic criteria:

- The northern domain (Province of Man), representing the base of the Archean shield where the predominant facies are of high metamorphic grade and of granulitic type;
- The southern domain of granulitic and migmatitic rocks, composed of charnokitic gneiss, biotite migmatitic gneiss, leptynite and granite.

The southern domain has a stronger tectono-metamorphic overprint caused by the Birimian event than the northern domain where the Archean features are less reworked.

The project is located 50 km north of the Man-Danané fault and 100 km west of the Sassandra fault.

A mafic and ultramafic Layered Complex (Ouattara, 1998) of Eburnean age (2.09 Ga), the Yacouba Complex, has intruded the older gneissic assemblage of the WAC (Chisholm, 1991; Ouattara, 1998). The Yacouba Complex can be traced discontinuously along a NE-SW corridor of at least 30 km long by 10 km wide between villages of Zeregouiné in the SW, Yorogoudou in the NE and Santa to the East. The Yacouba Complex hosts demonstrated magmatic sulphide mineralization at several locations including Samapleu and Grata.

The Yacouba Complex is characterized by a series of feeder systems of magmatic material assimilating the Archean country rock magmatic migmatite complex with locally well-preserved peridotite, pyroxenite, chromitite and minor gabbro or gabbro-norite units. The Yacouba Complex is often seen vertically crosscutting the Archaean gneiss and granulite, especially in the Samapleu and Grata areas (SODEMI, 1976; Ouattara, 1998; Gouedji, 2014, Gouedji et al.; 2014). At the Yepleu sector, 25 km SW of the Samapleu deposit, the intrusive complex displays magmatic migmatite with distinct sub-horizontal layering or magmatic bedding. There also, the migmatite is seen together with a succession of noritic to anorthositic assemblages.

The Yacouba complex intrusive successions are the host of Ni-Cu sulphides (mainly pyrrhotite-pentlandite and chalcopyrite), disseminated Pt and Pd minerals and massive chromite layers.

Figure 7-1 shows a 3D representation of the Yacouba intrusive complex together with target mineralization as accumulations of massive sulphides in traps and embayment (northeast is toward the upper right corner).

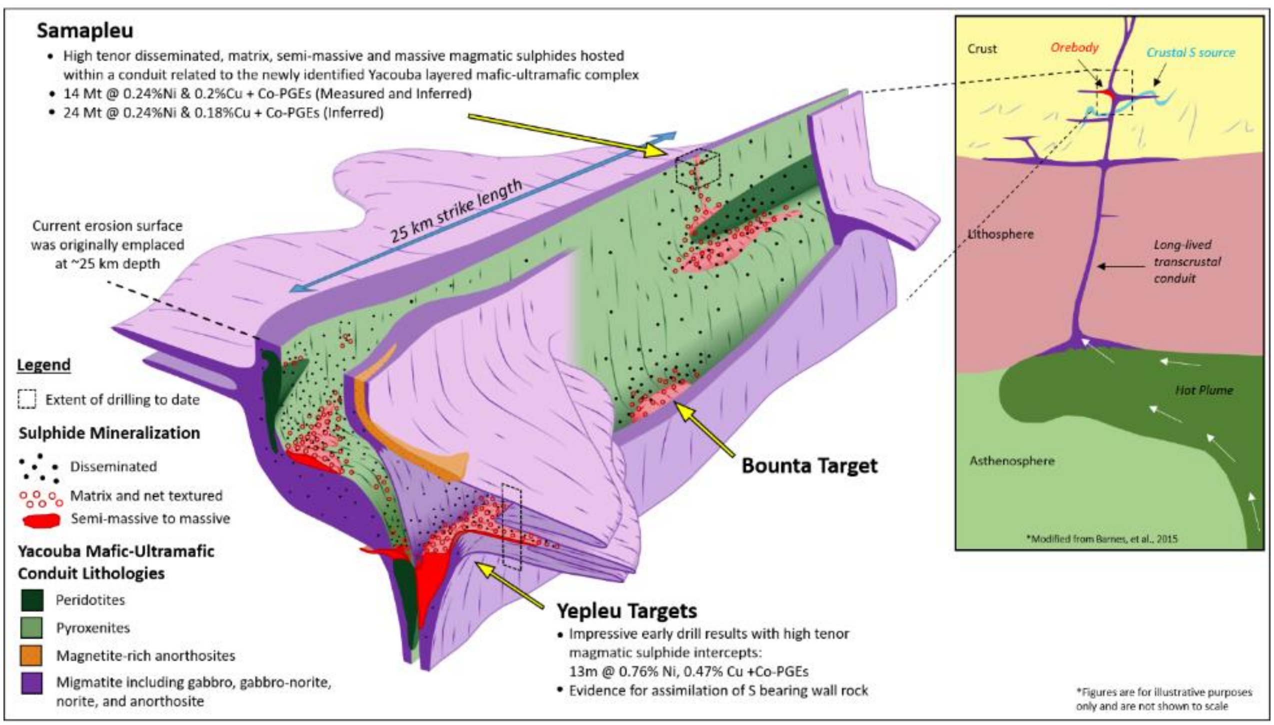

Figure 7-2: 3D Representation of the Yacouba Intrusive Complex (IVNE, 2019)

7.2 Project Geology

The laterite profile at Samapleu Main is very thin over the summits overlying the gabbro layer and becomes thicker down slope over the pyroxenite units, reaching approximately 35 m. At the Samapleu Extension 1 Deposit, the thickness of the laterite profile is typically between 30 m and 40 m. At the Grata deposit, the surface laterite cover varies from 10 m to 50 m with few exceptions reaching 75 m. As a consequence of this highly developed lateritization profile, the surface geological data remain scarce and most of the geological information is derived from drilling and geophysical data.

Samapleu and Grata exploration properties (PR838 & PR604) are underlain by gneissic granulite, mafic granulite, charnockite, aluminous garnet and magnetite gneiss, garnet jotunite/enderbite, biotitite and grenatite (Figure 7-3). All have been affected by high-grade facies of metamorphism under granulitic P and T conditions.

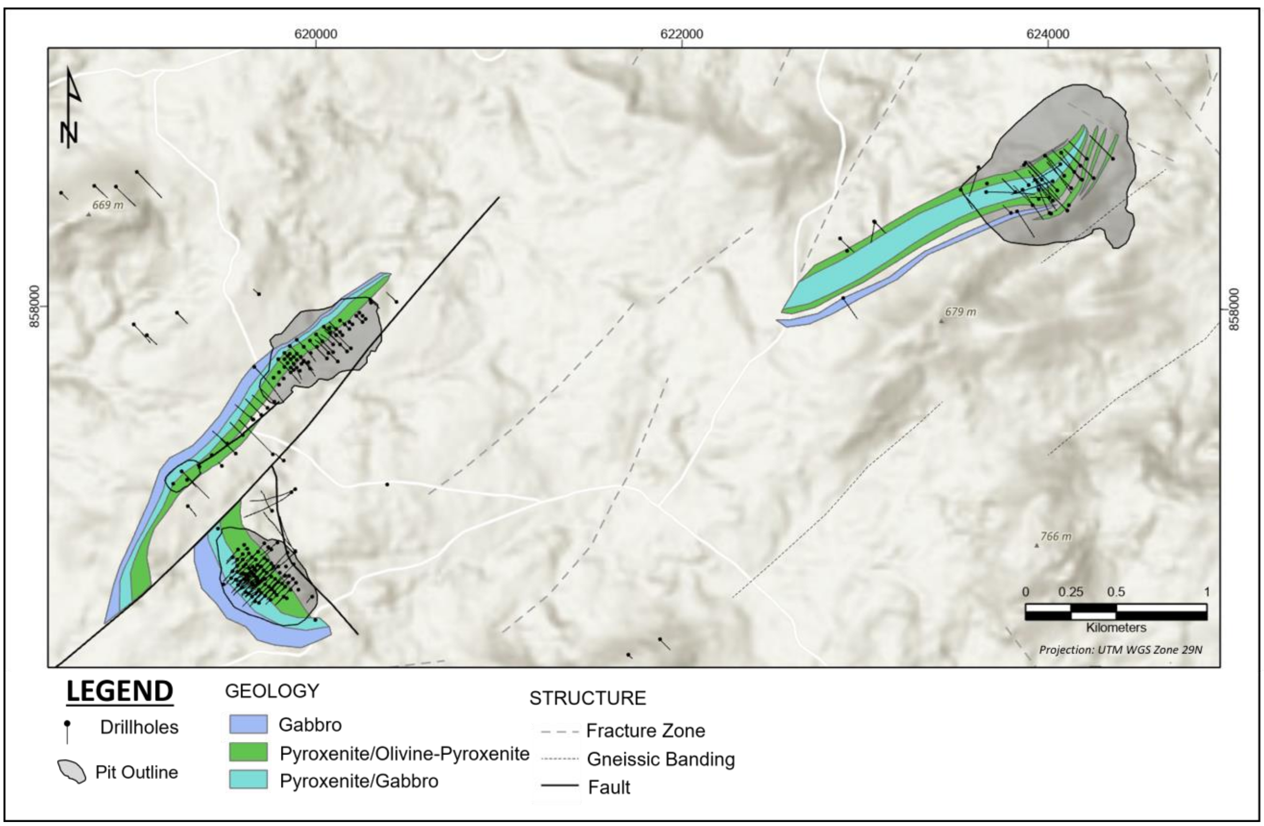

Figure 7-3: Surface Geology in the Vicinity of Sama's Land Package

The Yacouba mafic and ultramafic intrusive complex was recognized by drill holes at the Samapleu Main, Samapleu Extension and Grata deposits, it was also recognized in several locations within the exploration permits package including areas called Bounta, Santa and Yepleu. The airborne HTEM survey flown in 2013 and the VTEM survey in 2018 have outlined more than 20 prospective areas for follow-up (Figure 7-4).

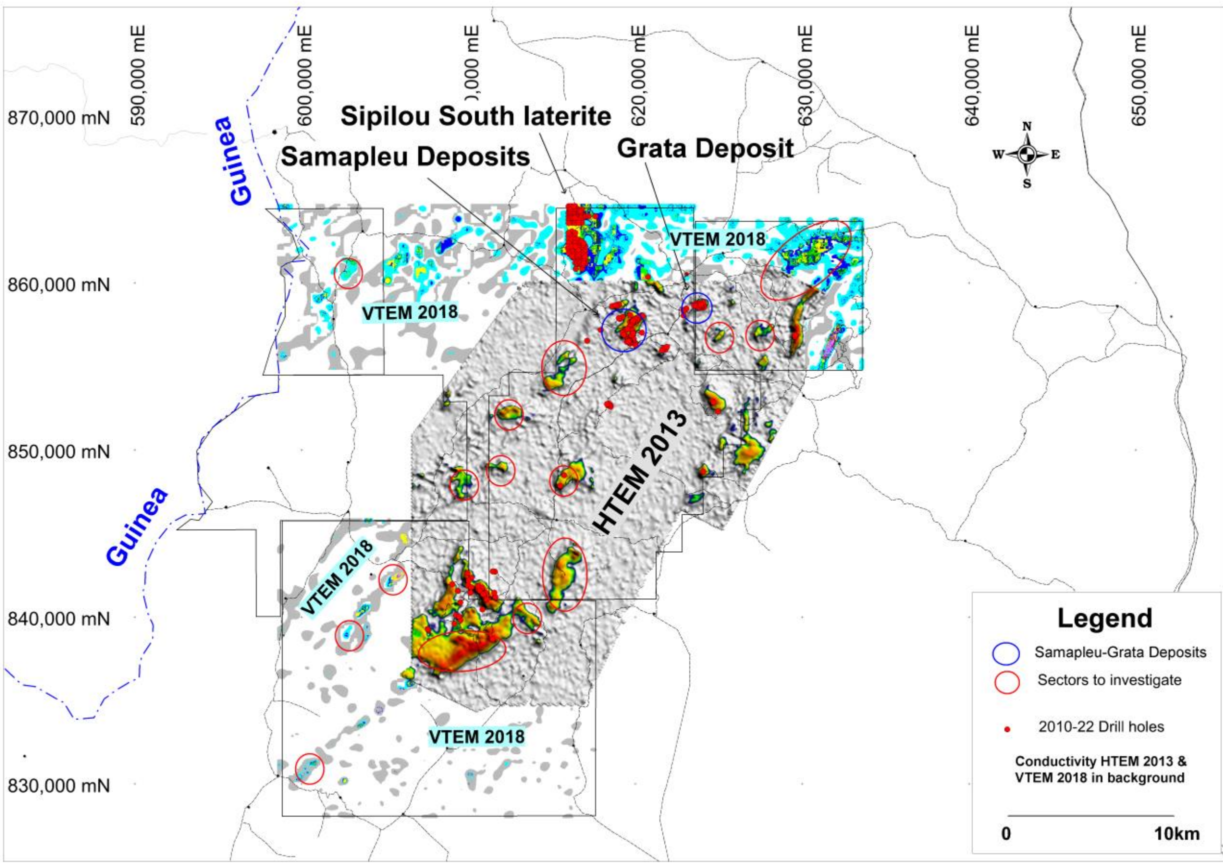

Figure 7-4: 2013 HTEM & 2018 VTEM Conductivity Responses Outlined more than 20 Prospective Areas for Follow-up Exploration Works

The Samapleu intrusion is interpreted to represent a magmatic conduit as one of the Yacouba complex feeders' system.

The lithological assemblage at the Main Deposit includes the following facies succession from the surface down: laterite; pyroxenite interlayered with peridotite units; gabbro. The ultramafic series is composed of an irregular sequence ranging from 2 m to 60 m in thickness, with a succession of facies from stratigraphic bottom to top made up of chromitite, olivine cumulate, and pyroxene cumulate. The ultramafic and mafic sequences display plagioclase cumulates at the top (Ouattara, 1998). Contacts between various geological units are generally sharp and well-defined. The sequence contains massive chromite and nickel-copper sulphide-rich layers exposed at surface at several locations.

The geological succession at the Samapleu Extension 1 Deposit is fairly similar to the Samapleu Main Deposit succession with, from top to bottom: surface laterite; peridotite (dunite, lherzolite); pyroxenite (websterite); plagioclase rich websterite/gabbro.

According to Gouedji's PhD study (2014) the intrusive mafic-ultramafic complex is dated 2.09 Ga at the Samapleu deposits with an estimated depth of emplacement of 25 km below surface at upper amphibolite to granulite facies P-T conditions (~7-8 Kbar and 700 to 900°C) within the Archean granulite's (3.6-2.7 Ga). The calculated tholeiitic (depleted relative to MORB) parental magma MgO content of ~10% with Mg# 80-83.

Gouedij et al. (2014) also suggested that the sulphur isotope data and mineral assemblages indicate that significant assimilation of Archean metamorphic country rocks occurred during emplacement and was likely involved in generation of an immiscible sulphide melt.

7.3 Structural Geology

The magnetic data highlight a general NE-SW fabric of the formations that could be attributed to ductile deformation zones. Large-scale sigmoidal- or rhomboidal-shaped dilatational jog may form at the loci of curvature along the shears that would favour the emplacement of the mafic and ultramafic intrusions such as those at Samapleu or Yepleu.

The N-S Bounta fault, cross-cutting the exploration land package in the middle (Figure 7-3), appears to be the last major N-S oriented feature going west from the N-S oriented regional scaled Sassandra fault located 150 km east. The Sassandra faults marks the boundary between the Archean West-Africa Craton and the eastern Birimian greenstone assemblage.

The area appears to have been affected by at least two phases of deformation that may have formed dome and basin type of folds, although this has not been demonstrated within the PR838 area.

7.4 Petrology

Detailed petrological and mineralogical determinations of the various lithological units observed at the Samapleu deposits were performed by Mr. Gouedji in 2014 as part of a Ph.D. research program and are summarized as follows:

- Peridotite: mainly dunite and serpentinized lherzolite. The dunite is composed of olivine, magnetite (derived from olivine during serpentinization) and minor amounts of orthopyroxene. The lherzolite consists of partially serpentinized olivine (>70%), ortho-, clinopyroxene and rare amphiboles. Minor amounts of sulphides and massive chromite are also present.
- Pyroxenite: includes websterite, spinel-rich and olivine-rich websterite. The websterite is composed of orthopyroxene (60%) and clinopyroxene (<20%) and amphiboles. The pyroxenite facies can carry disseminated semi-massive and massive sulphide mineralization. Green spinels (hercynite) are also present.
- Massive chromite: found as thin layers within the pyroxenite assemblage. Massive chromite exhibits an interstitial habit and typical net texture surrounding pyroxene minerals. Biotite, muscovite, rare amphibole and sulphides are also present and account for less than 5%.
- Plagioclase-rich websterite: progressive enrichment in plagioclase toward the footwall gabbro (stratigraphic top). The sulphide phases are somewhat less abundant.
- Gabbro: includes gabbro, anorthosite, gabbronorite and sapphirine-rich mafic rocks. It represents mafic cumulates of the upper part of the intrusion.

7.5 Mineralization

Mineralization in the Samapleu and Grata deposits consists predominantly of pyrrhotite, pentlandite and chalcopyrite, with subordinate amounts of pyrite, PGE and chromite. According to Gouedji (2014), and based on drill data, mineralization is preferably hosted in pyroxenite, although local zones rich in sulphides were identified within the peridotite units. In addition, strong sulphide mineralization also occurs at the gabbro-norite contact of the main zone of Samapleu.

Sulphide mineralization types at Samapleu and Grata deposits are matrix textures, net-textures, droplets, breccia, dragged sulphide sometimes with semi-massive sulphides, massive, veins, veinlets and are characteristics of magmatic mineralization types. Samapleu and Grata sulphides are formed by immiscibility due to the production of early sulphide liquid from mafic and ultramafic silicate melts.

The textural relationships reflect typical magmatic sulphide processes whereby the parent melt reached sulphur saturation leading to development of an immiscible sulphide melt; this sulphide melt sequestered the chalcophile elements from the residual silicate magma during emplacement of the mafic-ultramafic complex.

Information obtained from SNC's geological mapping, geophysical survey data and detailed borehole observations suggests that the Samapleu Main Deposit is composed of an Upper and Lower mafic-ultramafic blocks. The Upper block extends from surface to a maximum depth of 150 m. The Lower block is separated from the Upper block by a shallowly southwest dipping fault causing a displacement of approximately 75 m.

Figure 7-5 displays the various types of mineralization encountered on the property as of the effective date of this report.

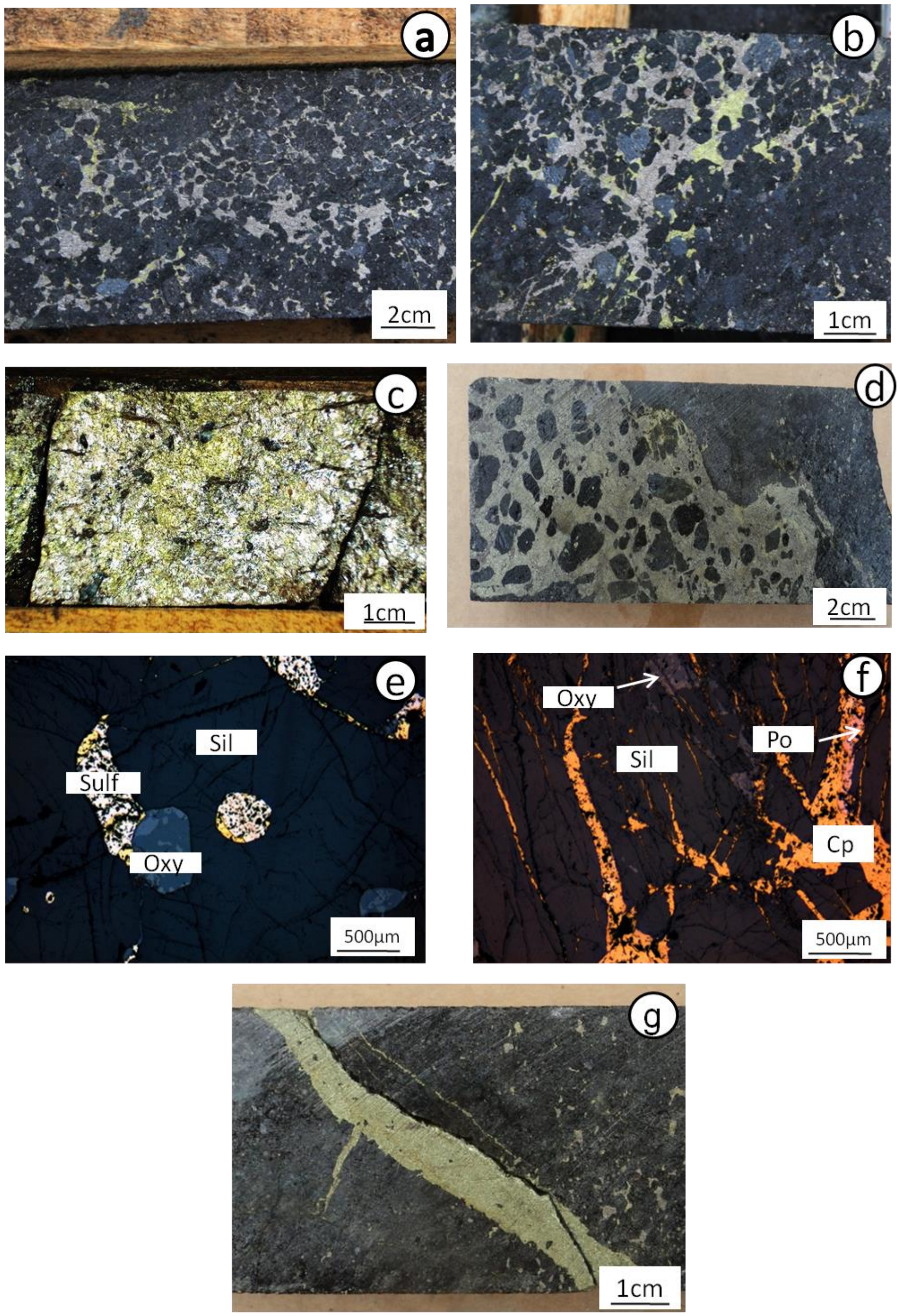

Figure 7-5: Photographs and Microphotographs of Various Forms of Sulphides from the Samapleu Deposits a. net texture; b. matrix texture; c. massive sulphide; d. semi-massive; e. coarse disseminated; f. vein breccia; g. veins; Pyrrhotite (Po), chalcopyrite (Cp), silicates (Sil), sulphide (Sulf), oxides (Oxy). (modified from Gouedji, 2014)

Platinum-group elements are also present (palladium, platinum, and rhodium) and are associated with the sulphide phases, either as a distinct mineral phase or included within the structure of the principal sulphides. The specific members of the platinum group minerals identified are:

- Michenerite (PdBiTe);
- Mocheite ($PtTe_2$);
- Rh-Cobaltite-Gersdorthite (NiAsS);
- Irarsite ((Ir, Ru, Rh, Pt)AsS);
- Hollingworthite ((Rh, Pt, Pd)AsS);
- Merenskyite ($PdTe_2$).

8. Deposit Types

The magmatic nickel-copper-PGE deposits occur as sulphide concentrations in a variety of magmatic mafic and ultramafic rocks.

Sulphide droplets often form within the ultramafic intrusion through contamination of the parental, mantle-derived magma with sulphur from adjacent rock units or by assimilation from the crust. As these sulphide droplets circulate through the magma by convection, they scavenge nickel, copper and the platinum group elements from the magma, as these elements have a strong chemical affinity for sulphur. As the sulphides are heavier than the magma, they sink through the magma and accumulate at the base of the intrusion as pockets or layers of sulphides that crystallize during cooling of the magma to form mineral deposits.

According to classical classifications of nickel sulphide deposits, the Samapleu and Yepleu deposits are interpreted to be part of a differentiated, ultramafic and mafic feeder dykes system of the recently discovered layered Yacouba complex (Gouedji et al., 2014). These rare intrusion types are host to the largest nickel and copper deposits in the world, such as the Jinchuan (China), Voisey's Bay (Canada), Kabanga(Tanzania), Eagle (USA), Eagles Nest (Canada), Kalatongke (China), and N'komati (South Africa).

The Samapleu license is located adjacent to the large nickel-cobalt laterite deposits of Sipilou North, Foungouesso, Moyango and Viala.

As is common in numerous documented intrusions, the emplacement of the Samapleu sequences is related to intense tectonic activity. However, the specific character of the Samapleu sequences is the fact that the magmatic intrusion originated from the lower continental crust at a depth of about 25 km.

The magmatic Ni, Cu and PGE deposits are subdivided into two main groups: 1) the deposits in association with ultramafic; and 2) the deposits with gabbroic sequences (Eckstrand, 1984).

The Samapleu mineralization is part of a typical ultramafic sequence. When compared, all the Ni-Cu sulphides share some characteristics (Naldrett, 1999):

- An ultramafic to picritic parent magma:
- Proximity to a major tectonic structure;
- Presence of rocks enriched in sulphides;
- Depletion in chalcophile elements in the intrusive rocks;
- Geochemical evidences of interaction between the magma and the host rocks and presence of, or proximity to, a dynamic magmatic conduit (feeder dykes).

It seems that most of the above criteria are present in the Samapleu deposits. In addition, the massive sulphide lenses in the Samapleu deposits have been recognized as sharing several additional characteristics that suggest that they belong to a major mineralization system:

- Extreme variations of the Ni:Cu ratio, indicative of sulphide fractionation;
- Local occurrence of large quantities of sulphides, which suggest that fractionation took place before their emplacement;
- Highly variable textures in the sulphides and the presence of breccia zones;
- Presence of a rare texture, the "loop texture": large pyrrhotite crystals fringed by chalcopyrite and pentlandite forming a loop around pyrrhotite. These textures are particularly conspicuous in the Norilsk and Voisey's Bay deposits;
- Abundant inclusions of sulphides under the form of blebs-droplets in the pyroxene crystals, which indicates sulphur saturation of the magma prior to crystallization.

9. Exploration

SNC spent a total of approximately $26.83M United States Dollars ("USD" or "$") in exploration work on the Samapleu property (PR838) and $4.1M at the Grata property (PR604) between the first exploration activities in 2009 until March 31, 2023. SNC spent a total of $40.9M in exploration works on all five exploration permits from 2010 to 2023.

Table 9-1 presents the annual exploration expenditures in Côte d'Ivoire at the PR838, PR604, and the five Exploration Permits combined since 2009.

Table 9-1: Consolidated Exploration Expenditures Over PR123 (New PR838) and for Combined all PRs in Côte d'Ivoire between 2009 and 2023 (in US Dollar)

Year	PR838 & PR839		PR604		All PRs	
	$M	Cum. $M	$M	Cum. $M	$M	Cum. $M
2010 (Sept. 30)[1]	6.5	6.5	-	-	6.7	6.7
2011 (Sept. 30)	3.3	9.8	-	-	3.4	10.1
2012 (Sept. 30)	2.8	12.6	-	-	2.8	12.9
2013 (Sept. 30)	2.9	15.5	-	-	3.1	16.0
2014 (Sept. 30)	1.4	16.9	-	-	1.8	17.8
2015 (Dec. 31)	0.8	17.6	-	-	1.1	18.9
2016 (Dec. 31)	0.3	17.9	-	-	0.6	19.5
2017 (Dec. 31)	1.7	19.7	-	-	1.9	21.4
2018 (Dec. 31)	0.7	20.4	-	-	3.7	25.1
2019 (Dec. 31)	0.4	20.8	-	-	3.5	28.6
2020 (Dec. 31)	3.1	23.9	-	-	3.9	32.5
2021 (Dec. 31)	0.9	24.8	0.5	0.5	2.2	34.7
2022 (Dec. 31)	1.6	26.4	3.3	3.8	5.4	40.1
2023 (March 31)	0.43	26.83	0.28	4.1	0.8	40.9
Total		**26.83**		**4.1**		**40.9**

Notes:
(1) 2009 and 2010 expenditures are combined
The totals may not add-up due to rounding errors.

Exploration activities by SNC since March 2010 are presented in Table 9-2

Table 9-2: Summary of Exploration Work to Date - All PRs

Activity	Unit	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Cum.
Geophysics MAG & Radiometric	km	-	-	-	13,556	-	-	-	-	-	-	-	-	-	**13,556**
Geophysics HTEM	line-km	-	-	-	3,300	-	-	-	-	-	-	-	-	-	**3,300**
Geophysics VTEM	line-km	-	-	-	-	-	-	-	-	2,889	-	-	-	-	**2,889**
Line cutting	km	183	21	49	71	14	12	-	-	166	321	20	12.1	10.6	**879.7**
Geophysics InfiniTEM	line-km	-	-	-	54	-	-	-	-	-	-	-	-	-	**54**
Geophysics IP/ Ground Survey	km	85	39	23	-	-	-	-	-	-	-	-	-	-	**146**
Geophysics Mag/ Ground Survey	km	76	52	23	-	-	-	-	-	-	-	-	-	-	**150**
Geophysics MAX-MIN	km	-	-	-	-	6	8	-	-	-	-	0	11.6	4.2	**29.8**
Geophysics: Down-Hole EM	#	-	-	-	-	3	-	2	-	-	3	5.16	-	10.77	**23.93**
Field Mapping	km	56	21	49	77	57	43	-	-	-	-	-	-	-	**303**
Soil Geochemistry	#	-	-	-	821	-	-	-	-	-	-	-	-	-	**821**
Rock samples		-	-	-	-	-	-	-	-	-	-	-	-	812	**812**
Access roads	km	55	16	36	41	1	31		50	20	124	41.5	41.75	34.3	**491.55**
Pits (m)	#	12	1	-	-	-	-	-	-	-	-	-	-	-	**13 (104 m)**
Trenches (m)	#	-	-	8	-	-	-	-	-	-	-	-	-	-	**8 (550 m)**
Geophysics Typhoon™	line-km	-	-	-	-	-	-	-	-	1,130	2,695	737	-	-	**4 560**

The totals may not add-up due to rounding errors.

9.1 2009 Summary

Exploration by SNC over the previous PR123, now PR838, commenced in March 2009 when a line grid was established over the main Samapleu showing and along its possible extension. The grid also covered Ni-and-Cu-in-soil anomalies in the vicinity of Yorodougou village and in the northwest corner of the property, over the Sipilou South Ni-Co laterite deposit.

In September and October 2009, 60 line-km of IP survey was completed over the three grids by Société Nouvelle de Géophysique ("SNG") of Abidjan, Côte d'Ivoire. Readings were taken at 50 m intervals on 100 m to 150 m spaced lines. SNG collected the data and performed the interpretation. The survey outlined six features with strong conductivities at both the Samapleu and the Yorodougou grids. Thereafter, Abitibi Géophysique ("Abitibi"), Val d'Or, Québec, Canada, audited SNG's results and interpretation and confirmed the size and location of SNG's interpreted IP anomalies. The Samapleu Extension 1 deposit was discovered by SNC in June 2010 after drilling an IP anomaly.

9.2 2010 Summary

In January 2010, SNG performed a total of 48 line-km of ground magnetic survey over the Samapleu and the Yorodougou grids. The readings were taken at 12.5-m intervals on the lines. The aim of the ground magnetic survey was to define the contacts between the ultramafic units with higher accuracy.

A stream sediment sampling program was completed in 2010 in the northwestern corner of the original PR123 (now Samapleu West (PR839)).

9.3 2011 Summary

Numerous chromite occurrences and mineralized blocks scattered over 10 km along the Bounta-Gangbapleu Ridge were discovered by mapping in November 2011.

9.4 2012 Summary

In April 2012, Xcalibur Airborne Geophysics ("Xcalibur"), South Africa, performed 13,556 line-km of airborne magnetometer and radiometric survey. The survey covered the entire previous PR123 as well as part of Sama's Lola property in neighbouring Guinea. In addition to delineating thrust fronts and faults, the survey generated several areas of exploration interest (Figure 9-1 to Figure 9-3). Geological reconnaissance over these targets took place from December 2012 to January 2013.

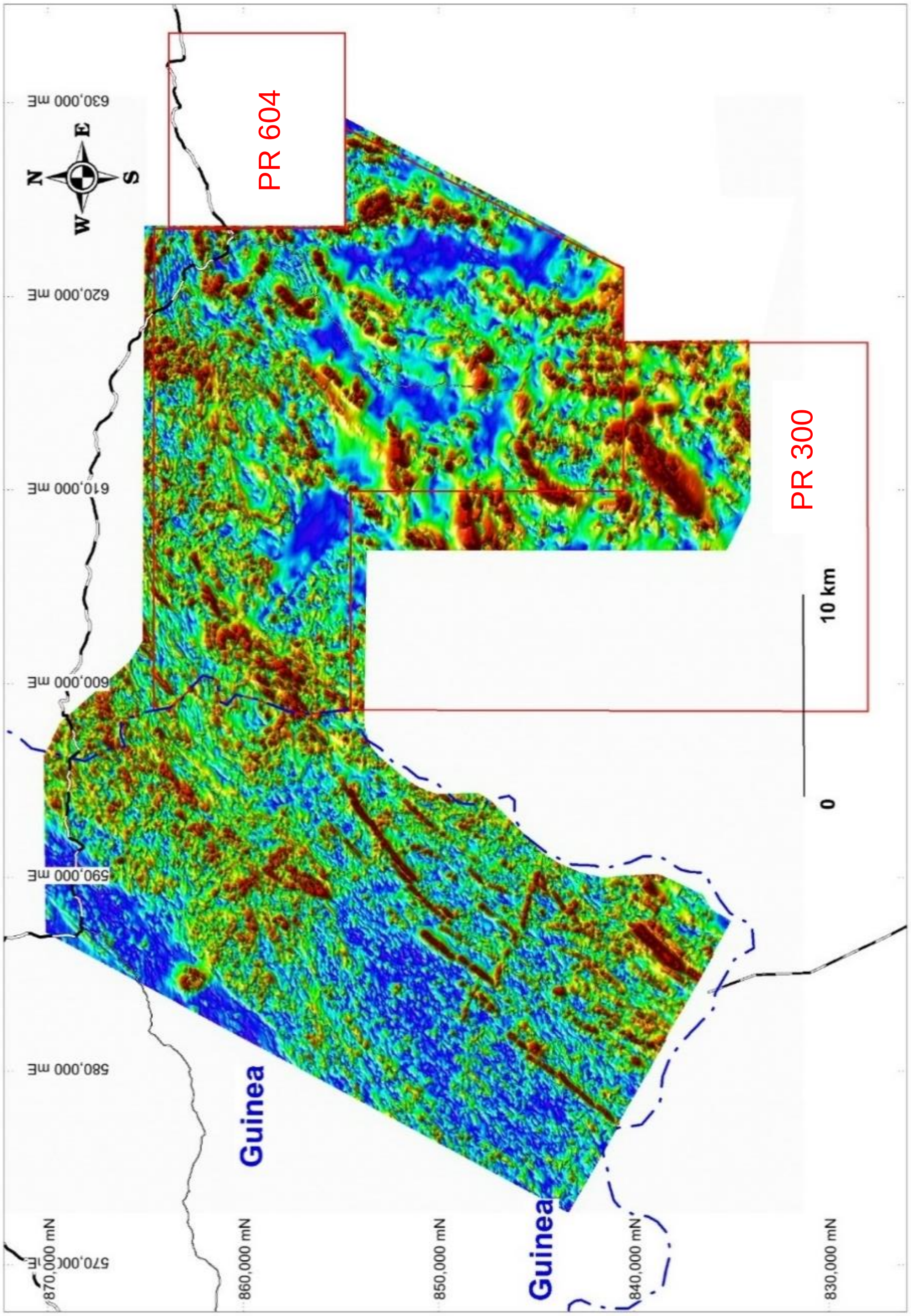

Figure 9-1: Xcalibur, High Resolution Airborne Magnetic Survey - Magnetic Signal (SNC, 2015)

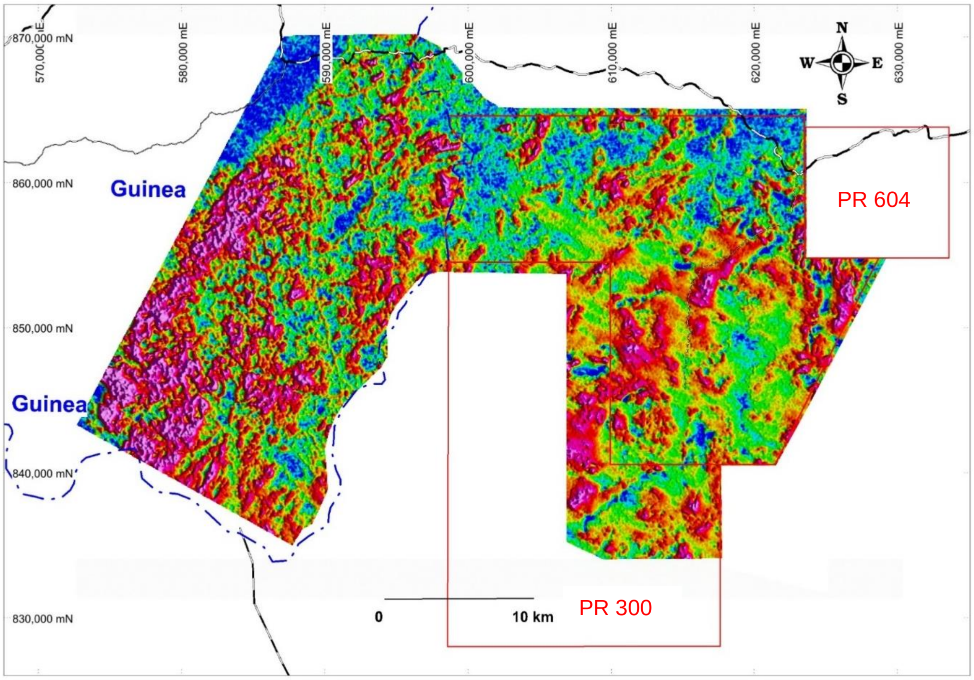

Figure 9-2: Xcalibur, High Resolution Airborne Geophysical Survey, Radiometrics, Potassium (K) (SNC, 2015)

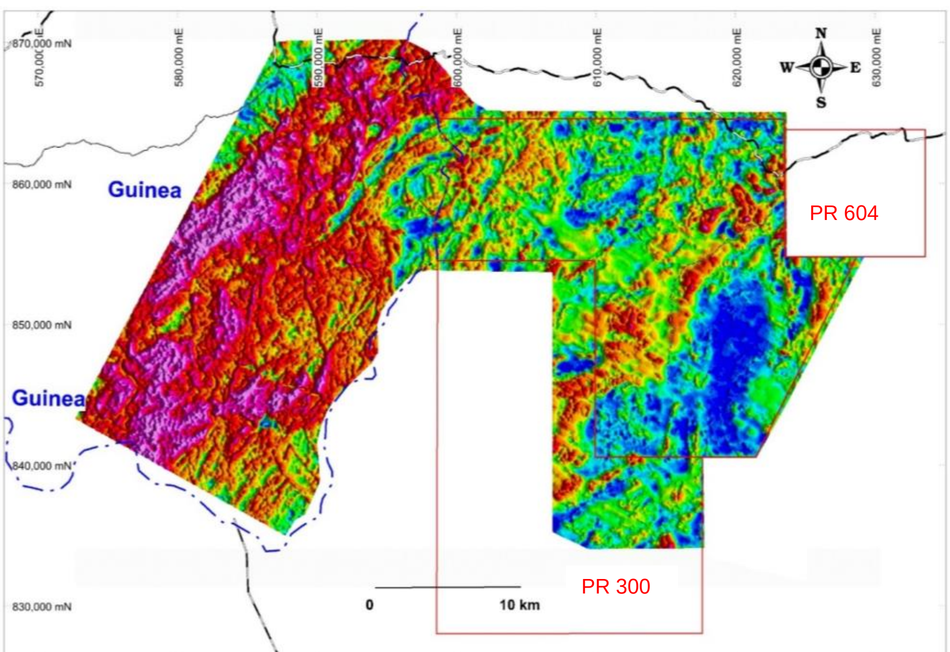

Figure 9-3: Xcalibur, High Resolution Airborne Geophysical Survey, Radiometrics, Thorium (Th) (SNC, 2015)

From December 2012 to January 2013, Fugro Airborne Surveys ("Furgo"), a geophysical survey company based in South Africa, performed an electromagnetic and magnetic helicopter survey covering a total of 3,300 line-km ("HTEM"), on a combination of flight lines at 100 m and 200 m spacing, covering the most promising areas of the PR123 license (Figure 9-4 to Figure 9-7).

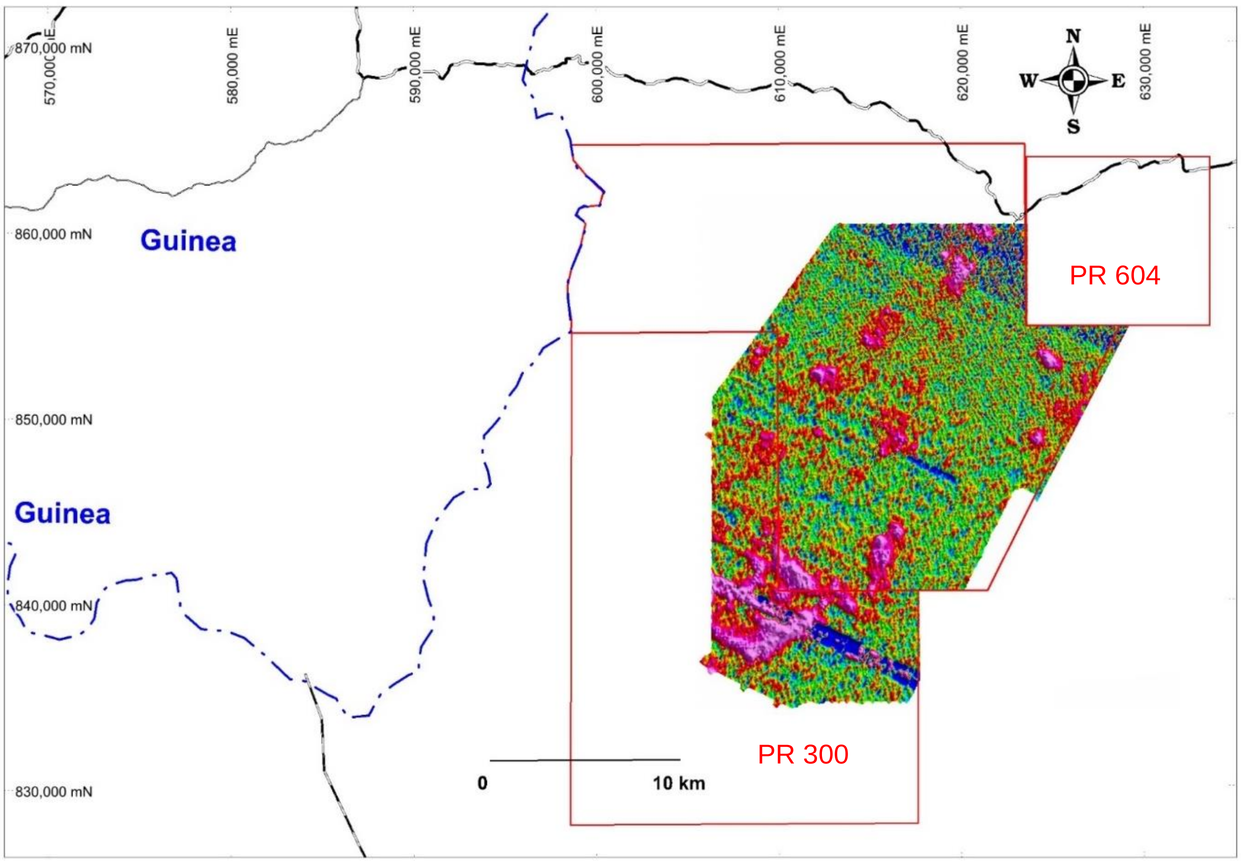

Figure 9-4: Furgo 2013, High Resolution Heliborne HTEM Survey, Raw Data (SNC, 2015)

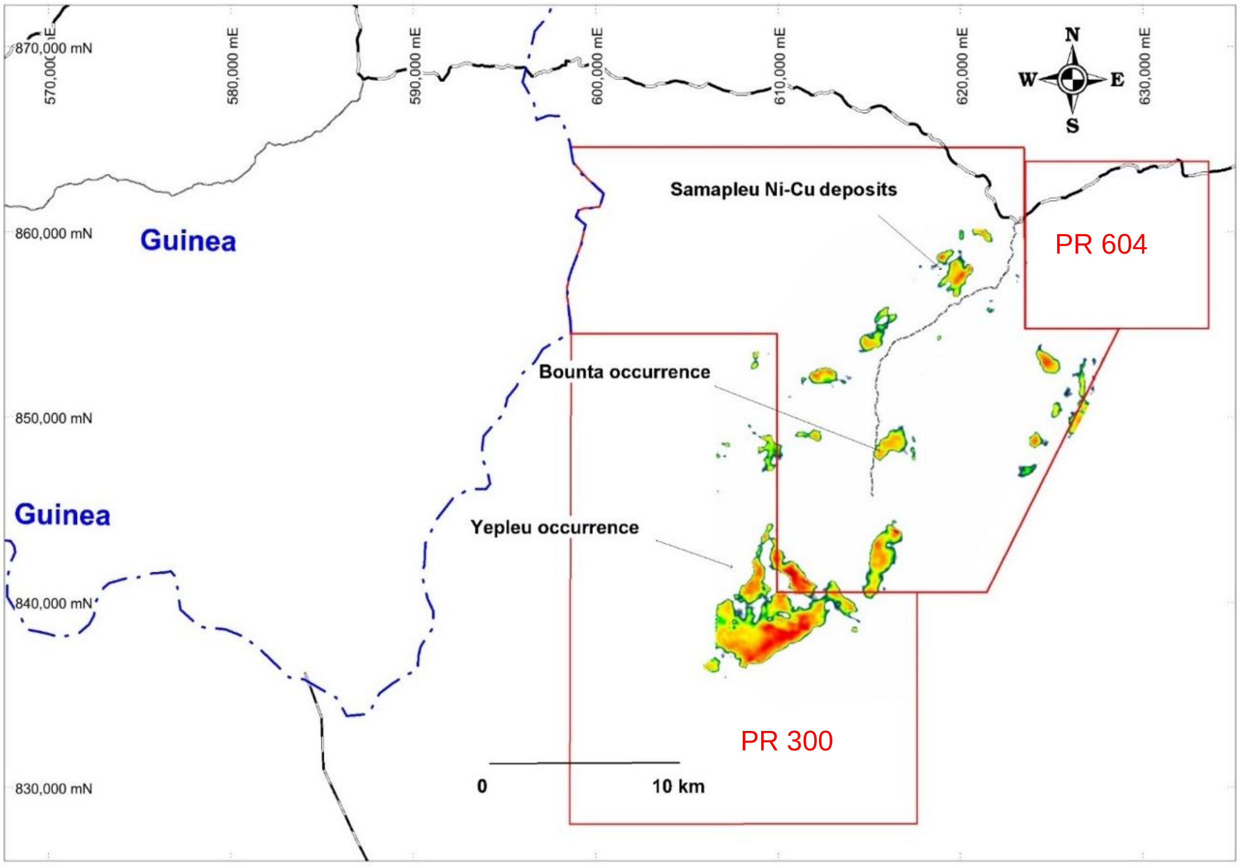

Figure 9-5: Furgo 2013, High Resolution Heliborne HTEM Survey, Plot of Conductivity (SNC, 2015)

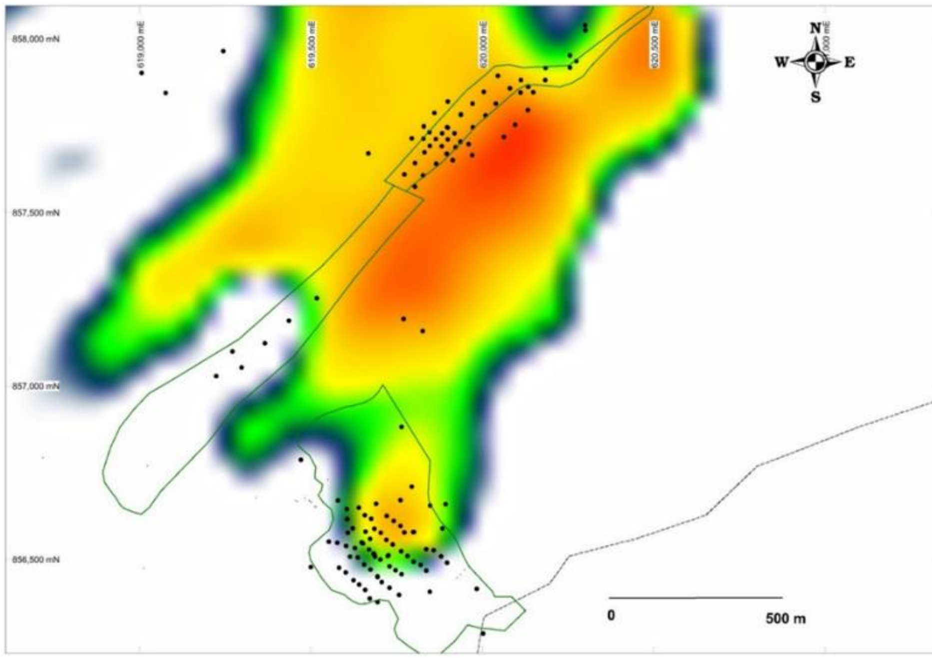

Figure 9-6: Furgo 2013, High Resolution Heliborne HTEM Survey, Plot of Conductivity over the Samapleu Deposits and Location of Completed Drill Holes (SNC, 2015)

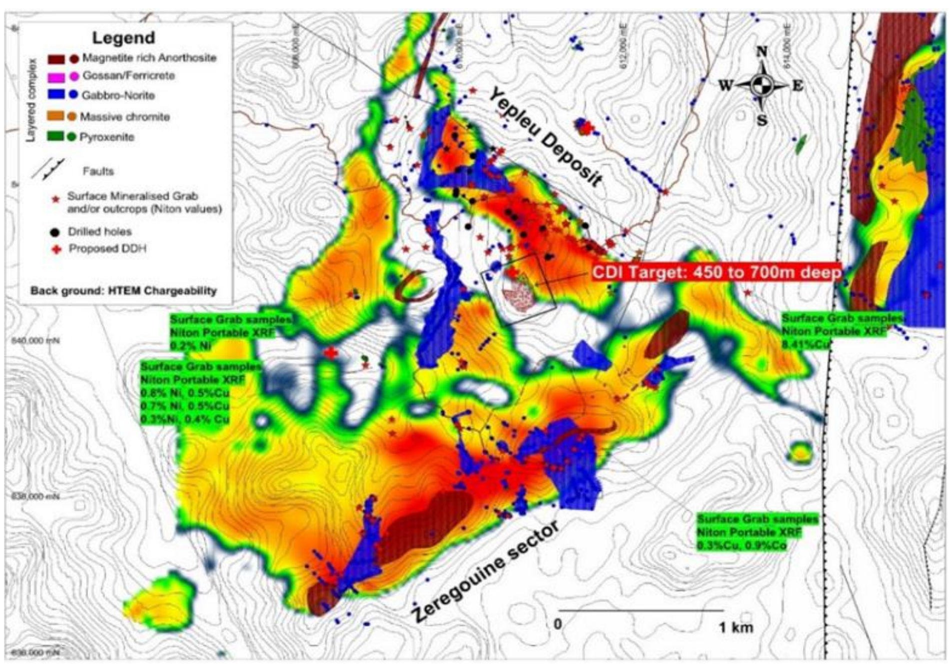

Figure 9-7: Furgo 2013, High Resolution Heliborne HTEM Survey, Plot of Conductivity over Yepleu (SNC, 2015)

A total of 59 holes were completed in 2012 in different areas of PR123 with a portable Pionjar drill. The technique was used as a reconnaissance exploration tool to recover samples over a few tens of metres below surface, the content of which was determined by a Niton™ portable XRF analyzer. Pionjar drilling is completed with a sampling tube approximately 15 cm long and 2.5 cm in diameter attached to the drill stem. The tube has a side opening through which the material flows as the tool is pushed downward. The last material that enters the sampler is retrieved whenever the rods are pulled out.

Geological mapping performed by SNC's team has identified additional mafic and ultramafic complexes throughout the Permit, from which two new sectors were outlined as highly prospective for additional mineralization:

- Within the southwest member of the 2.2 km long host of Extension 1;
- A 1.5 km long structure, the Yorodougou Dyke.

A total of 282 km of line cutting was performed by SNC in support of various exploration activities, including geological mapping and geophysical surveying. Since the project area is in a fairly remote and mountainous sector with poor infrastructure, SNC opened more than 350 km of roads in order to provide access to field crews and to drilling equipment to various areas of SNC's land package.

9.5 2013 Summary

The detailed interpretation of the 2013 HTEM airborne survey identified more than 20 priority targets for nickel, copper, and palladium exploration (Figure 9-5 to Figure 9-7). HTEM targets have been identified at Samapleu Main, Samapleu Extension 1 and Grata, as well as along a corridor of more than 30 km, oriented northeast to southwest. Mapping has shown that the Samapleu project contains differentiated mineralized intrusions in nickel, copper, cobalt, platinum, palladium and rhodium. This mineralization is analogous to the large known world-class deposits: Noril'sk, Jinchuan, Kabanga, N'Komatie, etc.

Interpretation from the 2013 HTEM geophysical survey delineated numerous areas with high potential for finding accumulations of disseminated to massive polymetallic rich sulphides. The Company carried out several regional mapping and sampling campaigns as follow-up on a few of these identified areas.

A soil sampling program over the Yepleu occurrence and the Mossikro prospect was completed in 2013. A total of 821 samples were collected and analyzed with a Niton™ portable XRF instrument. The results for Ni are presented in Figure 9-10, overlaid upon the 2013 HTEM signal.

9.6 2014 Summary

In August 2014, Abitibi conducted a total of 30 line-km of ground InfiniTEM® II ("InfiniTEM") geophysical survey overlaying Samapleu Main and Extension 1. InfiniTEM surveys are using the ARMIT sensor combining B-field and dB/dt sensor developed for Abitibi Geophysic by Dr. James Macnae of the Royal Melbourne Institute of Technology ("RMIT"). ARMIT (Abitibi-RMIT) has a noise ratio in the same range as a SQUID sensor, is robust and reliable from -40°C to +50°C, and does not require any hazardous cryogenic liquid. ARMIT is measuring B-field and dB/dt simultaneously, insuring detection of broad range of conductivities:

- B-field for highly conductive targets like massive Ni mineralization
- dB/dt for poorly conducting targets like disseminated to semi-massive Ni mineralization

In September 2014, Abitibi completed an InfiniTEM survey of 24-line-km in the newly discovered Yepleu area, located 18 km southwest of the Samapleu deposits (Figure 9-8 and Figure 9-9).

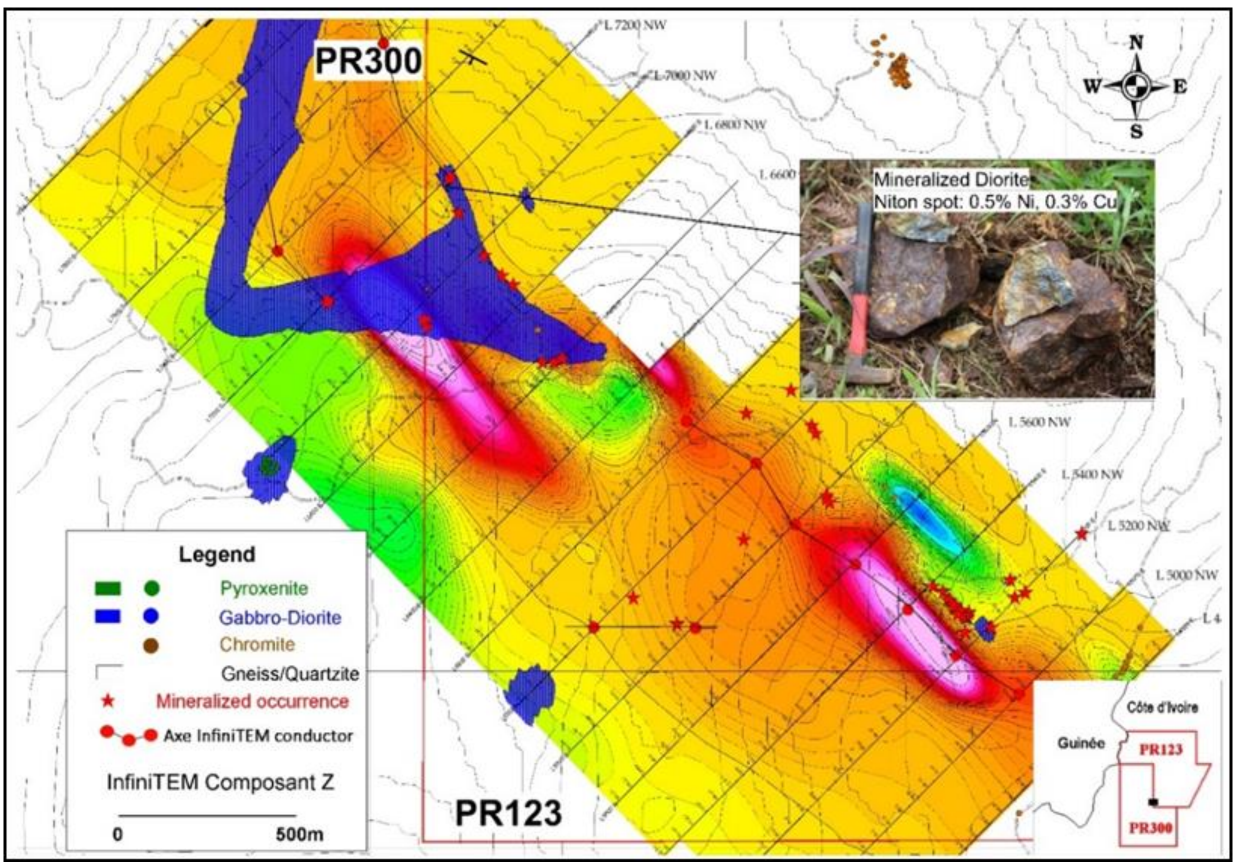

Figure 9-8: Abitibi Geophysics, InfiniTEM Survey at Yepleu in 2013 (PR123 (PR838) & PR300) (SNC, 2015)

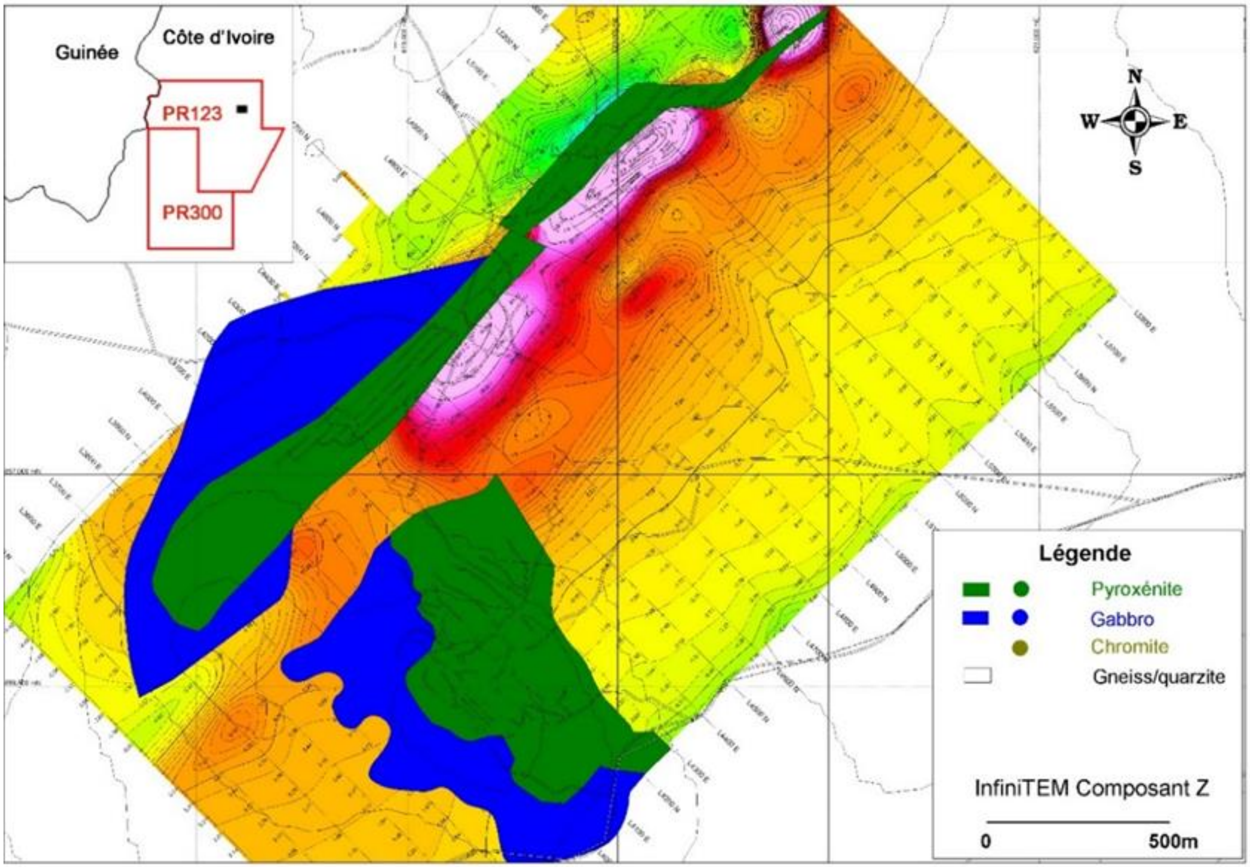

Figure 9-9: Abitibi Geophysics, InfiniTEM Survey at Samapleu in 2013 (PR123 (PR838)) (SNC, 2015)

9.7 2018 Summary

In January and February 2018, Geotech Ltd., completed a 2,889-line-km HTEM survey over the Samapleu and Yepleu areas (PR300). The HTEM survey was flown over the area at 200-line-m spacing, using their Versatile Time-Domain Electromagnetic geophysical system. The survey was completed in February 2018 (Figure 9-9 and Figure 9-10).

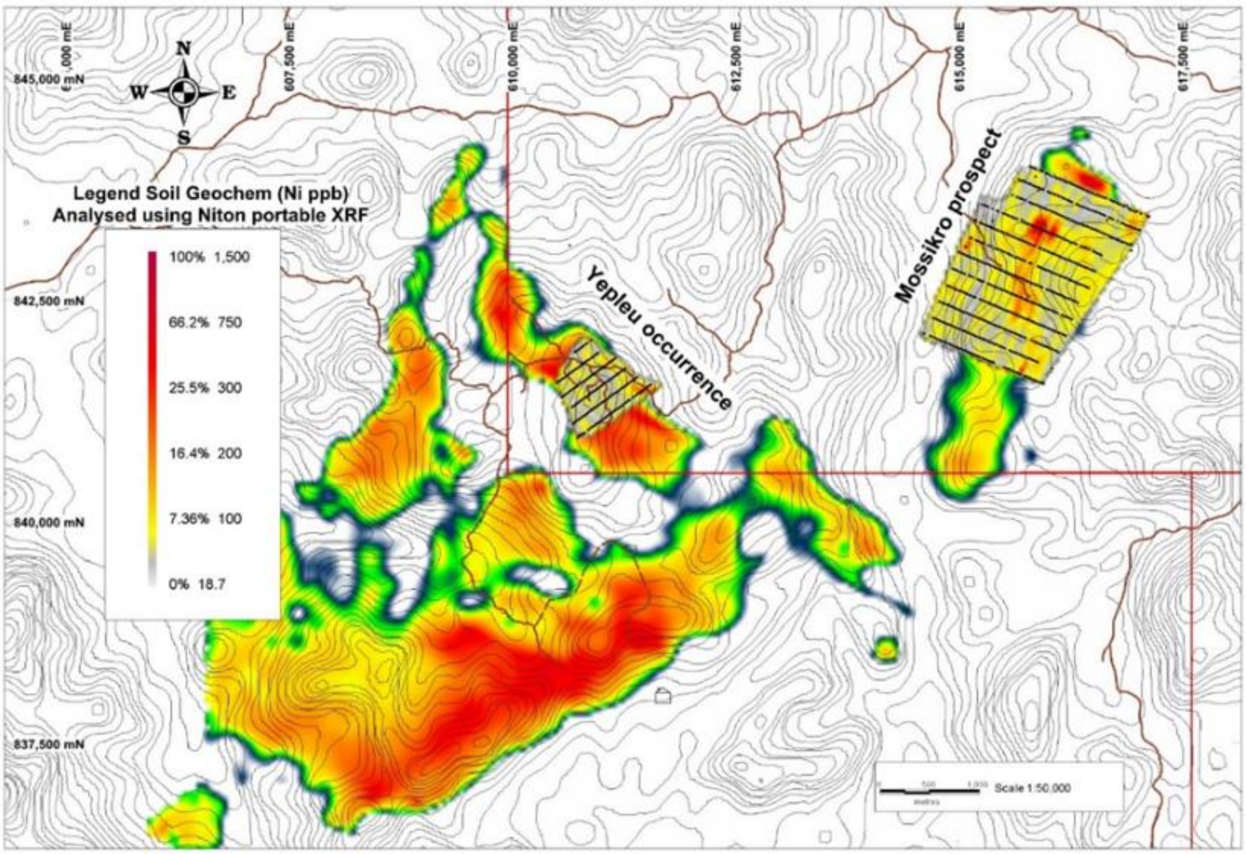

Figure 9-10: Soil Sampling Program at Mossikro and Yepleu Overlain upon the Interpreted HTEM Conductivity Signal (SNC, 2015)

From January to March 2018, the Company mandated Geotech Ltd., for a Versatile Time-Domain Electromagnetic ("VTEM") survey as a complement to the 2013 HTEM survey. The VTEM survey was flown on 200-line-m spacing and covered the prospective Yepleu sector as well as sectors that were not covered by the previous HTEM survey flown by Fugro in 2013 (Figure 9-11 and Figure 9-12).

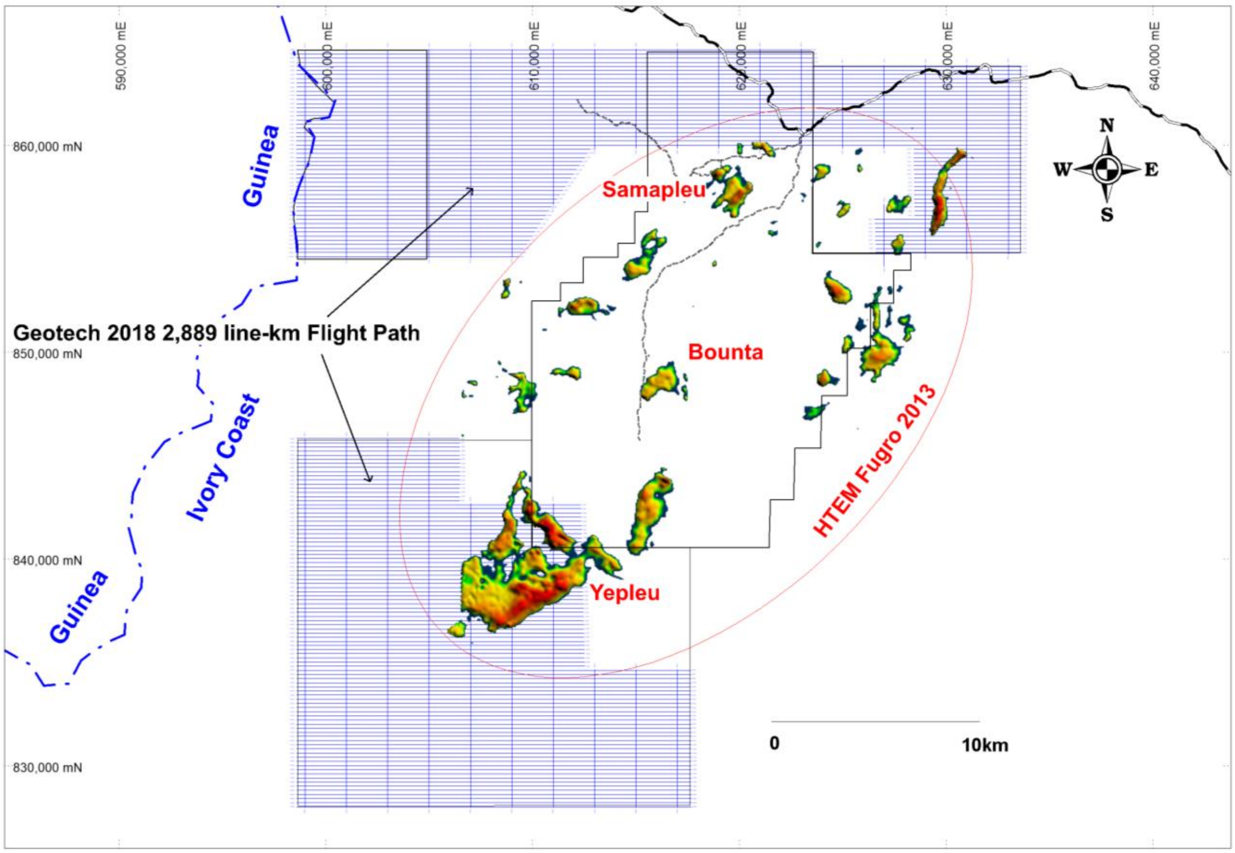

Figure 9-11: Geotech Ltd., 2018 VTEM Flight Line
(SNC, 2018)

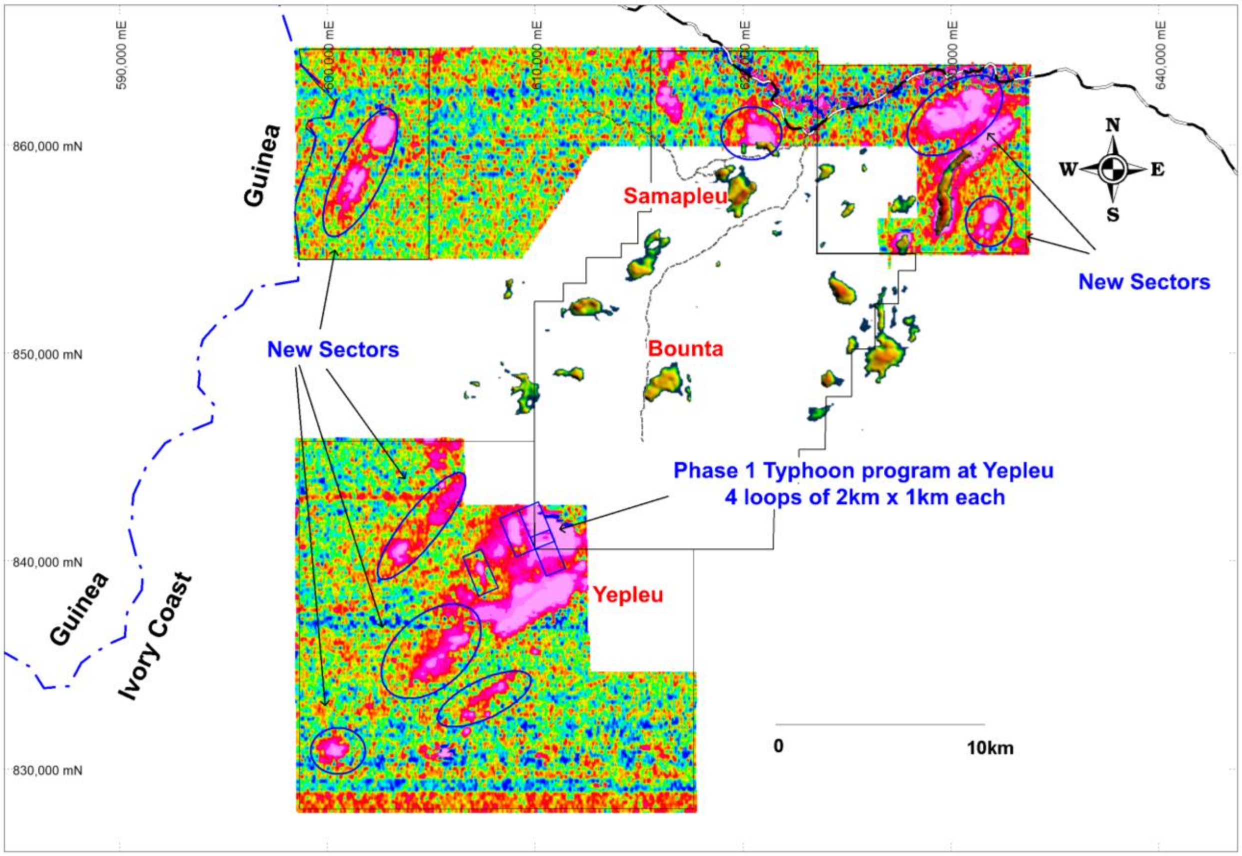

Figure 9-12: 2018 VTEM Compilation and Location for the Phase 1 2018 Typhoon™ Program at the Yepleu Sector (SNC, 2018)

9.8 2019 Summary

In August 2019, the Company launched the phase 1 Typhoon™ electromagnetic geophysical survey at the Yepleu areas for a total 1,130 line-km of survey. The Typhoon™ survey was planned for following the positive results from the 2,889-line-km 2013 HTEM survey completed in February 2018 over the Samapleu and Yepleu areas with the Geotech's VTEM. Subsequently to the Typhoon™ Phase 1 program, the Company performed additional Typhoon™ surveys at Samapleu deposits and on few other surface prospects, 2,695 line-km in 2019 and 737 line-km in 2020.

9.9 2020 Summary

The Typhoon™ Transmitter was also used for downhole electromagnetic surveys in 2020 at Samapleu and Yepleu areas.

10. Drilling

The first SNC's 2010-2012 drilling programs were contracted to Orex Africa SARL of Abidjan, using a track-mounted YDX-3L wire line drill rig. In January 2013, SNC purchased a Coreteck track mounted CSD1300G wire line drill rig and another one in 2014. Since then, most of the drilling activities were performed internally. In November 2018, SNC contracted Capital Drilling for deep-hole drilling (+700 m long) at the Yepleu prospect. In August 2019, the Company purchased a new Coreteck SCD3000 drill rig, allowing drilling down to 1,500 m from surface. In June 2022, SNC contracted Foraco Drilling, based in Abidjan, to supply two drill rigs for six weeks at the Grata property. These two rigs were in addition to the three SNC-owned rigs already in operation.

Figure 10-1 illustrates a compilation of boreholes drilled to date per sector. SNC drilled 474 boreholes for a total of 77,920 m from July 2010 to November 2022, Table 10-1 gives a detailed compilation.

Table 10-1: Drilling Programs from July 2010 to November 2022

Area	Drilling Contractor		SNC Drilling		Total length
	Borehole	(m)	Borehole	(m)	(m)
Samapleu Main & Ext 1	148	21,438	59	14,590	**36,028**
Yepleu	6	4,993	46	11,210	**16,203**
Bounta	-	-	2	933	**933**
Sipilou Sud Laterite	80	2,688	55	1,818	**4,506**
Grata	17	5,466	26	8,735	**14,201**
Santa	-	-	5	952	**952**
Regional	22	3,117	8	1,980	**5,097**
Total	**273**	**37,702**	**201**	**40,218**	**77,920**

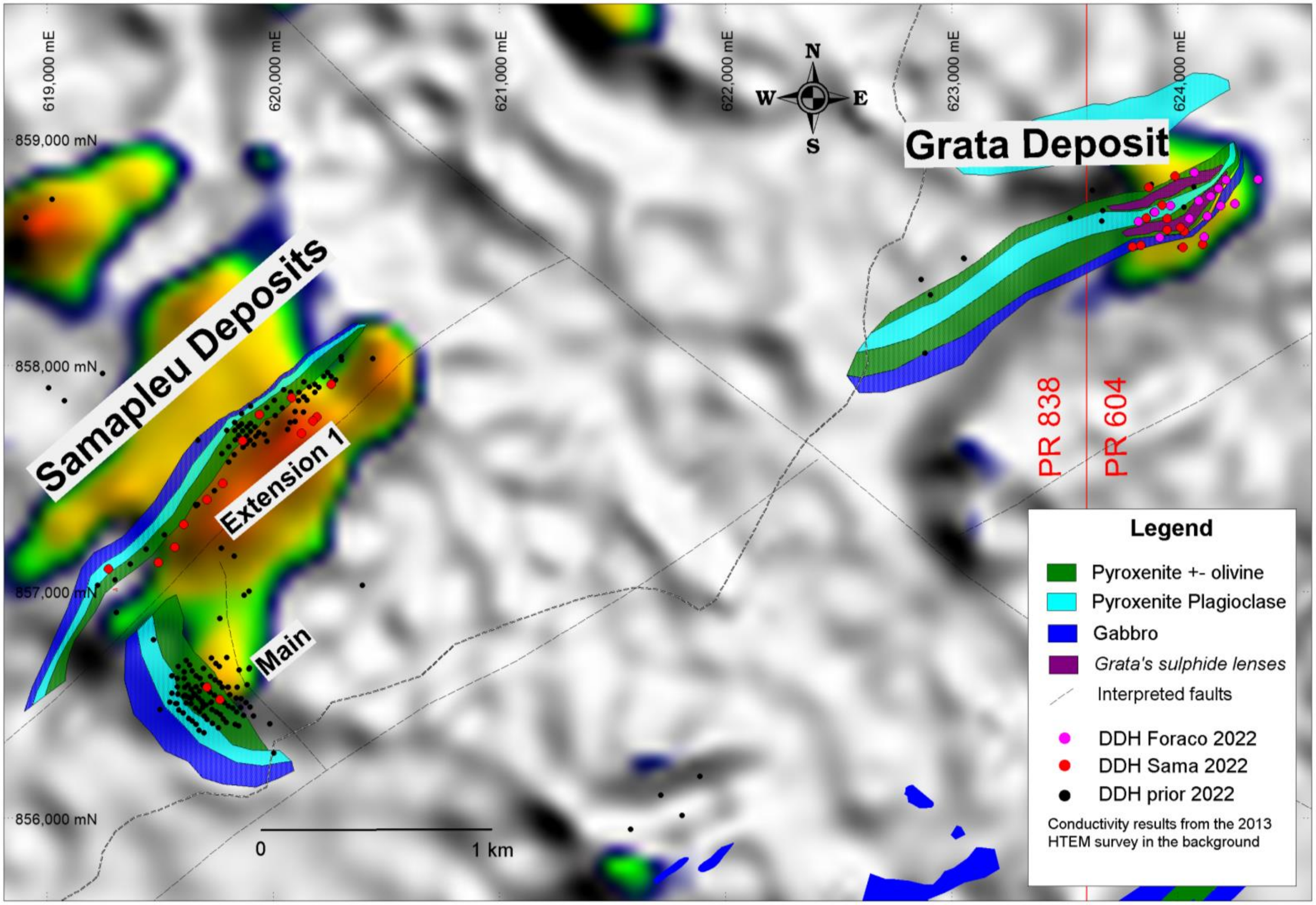

Figure 10-1: Samapleu and Grata Deposits; Drill Holes Location and Geology

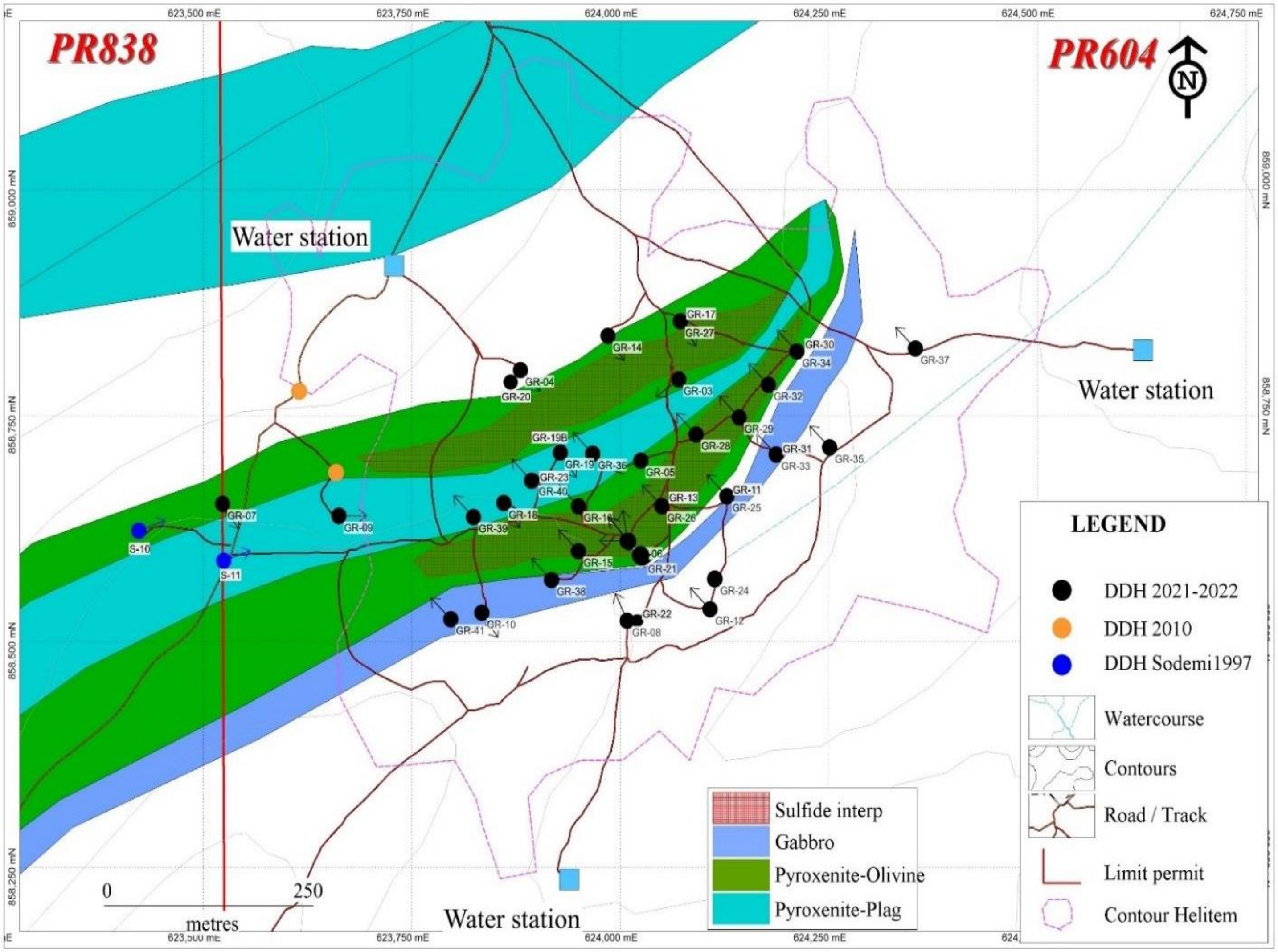

Figure 10-2: Grata New Discovery: Drill Holes Location and Geology

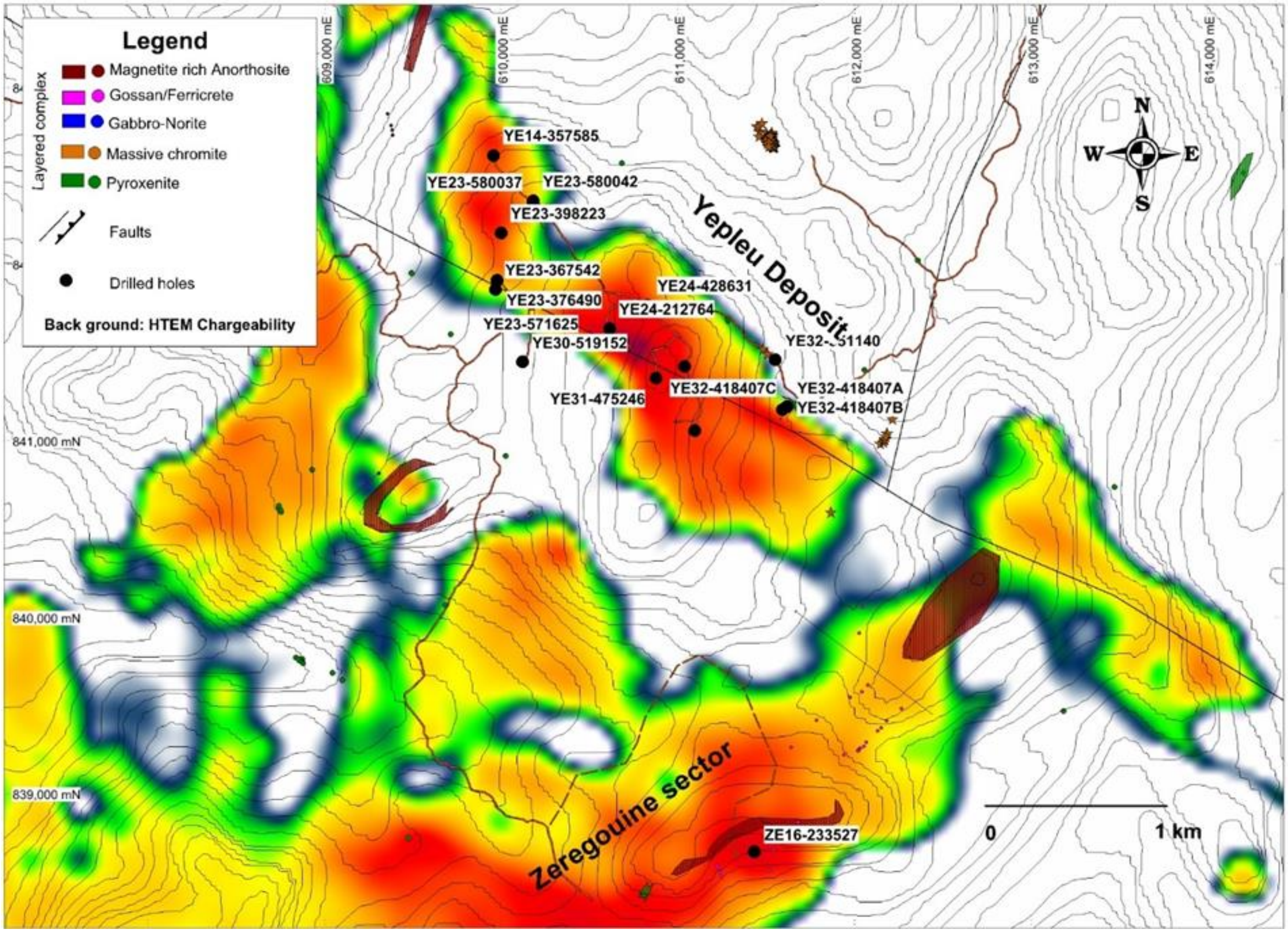

Figure 10-3: Yepleu Occurrence – Surface Map Showing the Completed Drill Holes and the 2013 HTEM Conductivity

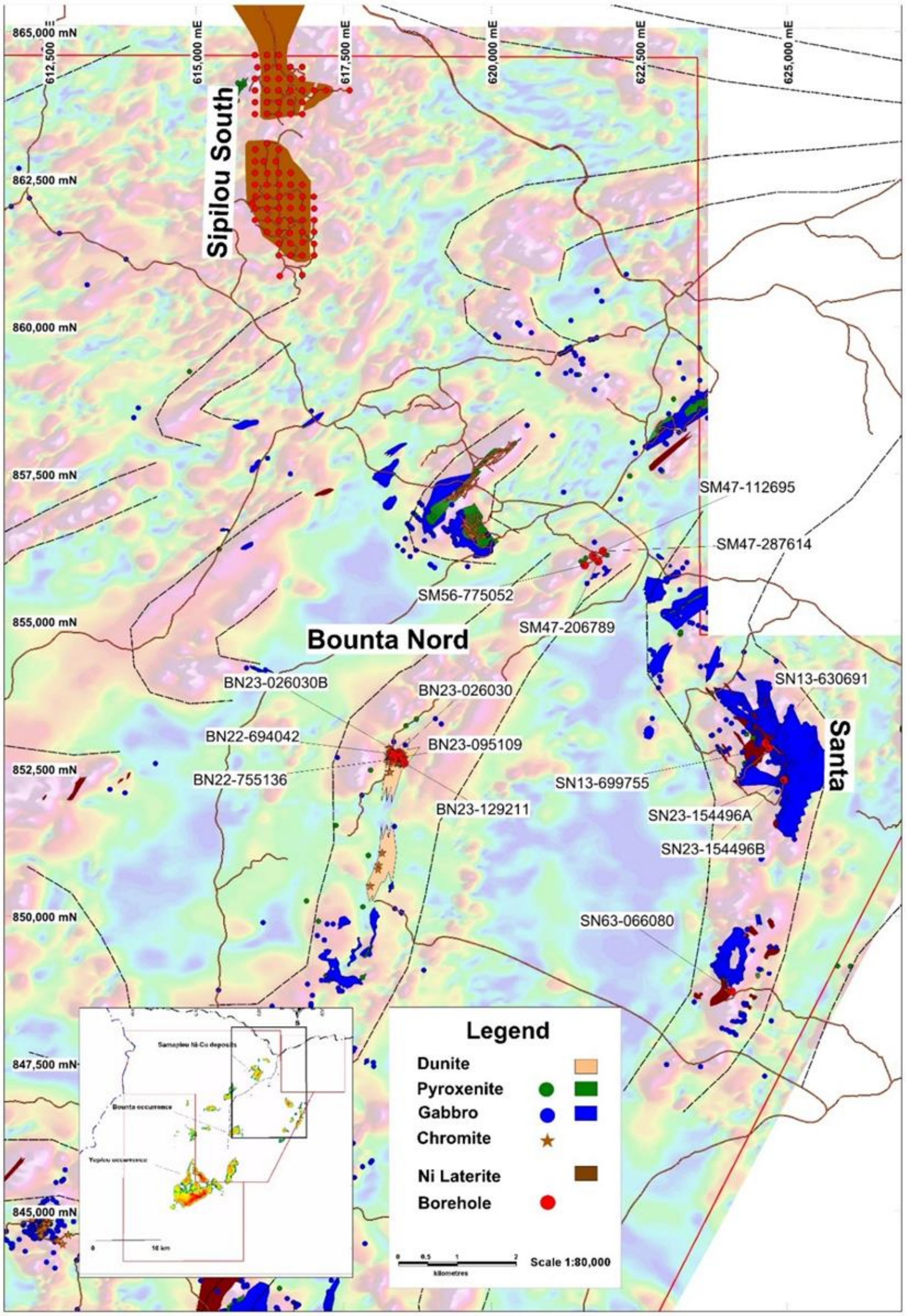

Figure 10-4: Drilling at Santa and Bounta North; 2012 Airborne Magnetic Survey Data in Background (SNC, 2020)

10.1 Drilling Campaigns

The Project is considered an advanced property having a historic preliminary economic assessment issued 2020 (Gagnon, et. al., 2020), therefore is not subject to Item 10 (c) for NI 43-101F1.

10.1.1 2010-2012 Drilling Programs

SNC's 2010-2012 drilling programs were contracted to Orex Africa SARL of Abidjan, Côte d'Ivoire. A track-mounted YDX-3L wire line drill rig was used.

Three drilling programs were carried out. First between March 2010 and the end of July 2010, then from November 2010 to November 2011, and the third program from May 2012 to December 2012.

Table 10-2 provides details on these drilling programs.

Area	Target	Drill Holes	Total Lengths (m)
PR123	Samapleu Main & Ext 1	115	17,643
	Sipilou South	80	2,688
	Regional	24	3,407
	Total 2010-2012	**219**	**23,738**

SNC performed a total of 219 boreholes for a total of 23,738 m from March 2010 to December 2012.

Seventy-two (72) holes for 10,635 m were drilled at the Samapleu Main Deposit, 43 holes for 7,008 m were drilled at the Samapleu Extension 1 Deposit, and 80 boreholes for 2,688 m were done at the Sipilou South laterite deposit located 4.5 km NW of Samapleu deposit.

10.1.2 2013 Drilling Program

In January 2013, SNC purchased its first Coreteck track mounted CSD1300G wireline drill rig and second one in 2014. Since then, all the drilling has been performed internally.

A total of 14 holes were drilled for 2,721 m at the Samapleu Extension 1, five holes were drilled for 952 m at the Santa target area and 17 holes were performed at the newly discovered Yepleu target between January and December 2013.

Table 10-3: Drilling - January to December 2013

Area	Target	Drill Holes	Total Lengths (m)
PR123-300	Samapleu Extension 1	14	2,721
	Yepleu	17	2,937
	Santa	5	952
	Total 2013	**36**	**6,610**

10.1.3 2014 Drilling Program

SNC drilled eight holes between January to December 2014 (Table 10-4).

Table 10-4: Summary of Drilling in 2014

Area	Target	Drill Holes	Total Lengths (m)
PR123-300	Samapleu Main & Ext 1	5	2,525
	Yepleu	3	1,105
	Total 2014	**8**	**3,630**

SNC drilled 13 holes between March and November 2015 (Table 10-5).

Table 10-5: Summary of Drilling in 2015-2016

Area	Target	Drill Holes	Total Lengths (m)
PR123-300	Samapleu Main & Ext 1	6	856
	Yepleu	4	825
	Regional	3	790
	Total 2015-2016	**13**	**2,473**

10.1.4 2017-2019 Drilling Programs

SNC drilled 45 holes during the period of July 2017 to August 2019 (Table 10-6)

Table 10-6: Summary of Drilling in 2017-2019

Area	Target	Drill Holes	Total Lengths (m)
PR838-300-604	Main & Extension 1	38	4,403
	Yepleu	6	4,993
	Bounta	1	376
	Total 2017-2019	**45**	**9,772**

10.1.5 2019-2022 Drilling Program

SNC drilled 153 holes during the period of September 2019 to November 2022 (Table 10-7).

A total of 136 holes were drilled with SNC's drill rigs and 17 holes were performed by Foraco-CI at the Grata deposit.

Table 10-7: Summary of Drilling in 2019-2022

Area	Target	Drill Holes	Total Lengths (m)
PR838-300-604	Main & Extension 1	29	7,880
	Yepleu	22	6,343
	Grata	26	8,735
	Grata - Foraco	17	5,466
	Bounta	1	557
	Sipilou South	55	1,818
	Regional	3	899
	Total 2019-2020	**153**	**31,698**

10.2 Borehole Naming Convention

The system adopted by SNC to identify drill holes primarily consists of subdividing the entire area in blocks of 800 m x 800 m based on UTM coordinates. The borehole names are formed using a 10-digit alphanumeric number as per the following template: SMWW-XXXYYY. The first two digits, 'SM', represent the Samapleu Deposits prospect area within PR123; 'WW' represents the block number; 'XXX' and 'YYY' represent the distance going east from the specific block's top left corner and the measure going south from the block's top left corner. This system links the borehole name to its exact position in the field to the closest metre. For example, Hole SM44-423357 is located in Block 44, 423 m east and 357 m south of the upper left corner.

In addition to the above naming convention for boreholes, each hole receives a unique sequential number related to the area drilled.

10.3 Methodology

A GPS was used by SNC's geologists to locate and peg the drill holes and to align the rig, on pre-prepared drill pads. In addition to site leveling, drill pad preparation also involved hand-digging unlined sumps to capture and store return waters.

The rigs were equipped to retrieve NQ sized core (47.6 mm diameter) through the entire length of the boreholes. The depth of weathering typically ranged from a few metres to 45 m. Upon completion of the hole, the steel casing was extracted, and a 3 m long casing rod was left in order to keep the hole open for possible borehole survey or re-entry. The drill holes are marked with concrete monuments inscribed with the drill hole number, the orientation and the length of the hole.

A geologist is permanently present at the drill site to supervise the drilling operations, close the holes and ensure proper placing of the core and of the depth markers into the boxes. In addition, the geologist is responsible for measuring the core recovery, recording the core runs and marking the core boxes. The soft core is immediately wrapped in thick plastic to retain its humidity until the density measurements are completed.

The core boxes are securely closed and transported to the camp by Sama's personnel, thus preserving the chain of custody. Eventually, the boxes are clearly identified by an embossed aluminum strip stapled on the end plate of the boxes.

The drill sites were reclaimed upon completion of the drilling. All refuse or surplus material was removed, and all water sumps were filled in and the site was leveled. The site was then inspected by a geologist/technician and the driller's foreman. A detailed environmental inspection checklist was completed, and photographs were taken to provide a record of the reclamation of the site.

10.3.1 Collar Survey

Survey – Collars and Deviation SNC commissioned Envi Tech Surveyors from Abidjan, in 2019 and in 2022, to survey the borehole collars. Several topographic control points were established for future collar surveys. Downhole deviation for each drill hole was measured using a Flexi MultiMate survey tool.

10.3.2 Downhole Survey

Downhole deviation for each drill hole was measured using a Flexi MultiMate survey tool. When the downhole tool was not operational, an estimated deviation was applied to the hole to account for potential deviation.

10.4 Core Logging and Sampling Procedures

Core logging and sampling were performed at SNC's facility at Yorodougou. Internationally accepted procedures and standards were applied by SNC's technical team.

Digital photographs of the core were taken and the core recovery, RQD and basic geotechnical information were recorded in the drill logs, as well as the geological and structural elements. Three magnetic susceptibility readings were taken at 1-m intervals and the samples for density determination were selected.

Logging was done in hand-written format and all the information was transferred to Excel spreadsheets. This method provides duplicate records of all the logging and sampling information and facilitates data verification and validation. SNC believes that these advantages outweigh the additional time required to copy the data.

Nominal sample intervals were 1.0 m and 1.5 m, but were adjusted, generally between 0.3 m and 2.0 m, to respect lithological contacts or abrupt changes in mineralization. The geologists marked a reference line on the core prior to sampling to ensure that the samples were cut perpendicularly to the fabrics.

The soft core was cut in two with a spatula and the hard core was split using a diamond blade saw. The contacts between the samples were cut with the rock saw and the operator of the saw cut the core along the line drawn by the geologists.

One half of the core was placed into a polyethylene bag with a sample tag and sent to the laboratory for analysis, while the other half was carefully placed into the core boxes, with the arrow drawn by the geologist always pointing down the hole, for future reference. The paper sample tags are stapled to the boxes at the end of the sample intervals. Sample books with pre-recorded, unique sequential number and tags reserved for QC samples at pre-determined locations were used by SNC.

10.5 Qualified Person's Opinion

The QP is of the opinion that the drilling and logging procedures put in place by SNC meet acceptable industry standards and that the information can be used for geological and resource modelling.

11. Sample Preparation, Analysis and Security

Since exploration started in 2010, the Company sent a total of 28,196 core samples for analysis and a total of 2,223 samples as quality assurance/quality controls ("QA/QC") for approximately 7.8% of the total. An additional 1,208 samples were sent for check assays to secondary laboratories.

From 2010 to 2012 and during the initial phase of drilling, all core samples were analyzed at SGS South-Africa for the 2010 first phase drilling and at either Veritas laboratory in Australia or in South-Africa for the 2011-12 second phase drilling program. From 2013, all core samples were analyzed by Activation Laboratories Ltd. ("Actlabs"), whose headquarters are located in Ancaster, Ontario, Canada. Actlabs is independent from Sama and SRQ. Its services were retained by Sama on a contractual basis for the sole purpose of analyzing the Samples collected at the Samapleu and Grata projects.

Actlabs has been assessed by the Standards Council of Canada ("SCC") and found to conform with the requirements of ISO/IEC 17025:2017 and the conditions for accreditation established by SCC, and therefore was recognized as an "Accredited Testing Laboratory" as of February 27, 1998 (most recently re-accredited on March 19, 2022). The accreditation is valid through February 26, 2026. The scope of the accreditation includes, but is not limited to, the following tests which were performed on the 24 Samples: QOP PGE-OES (Fire Assay ICP-OES) and, QOP INAAGEO/QOP Total (INAA/Total Digestion ICP-OES).

Core samples were analyzed by Actlabs using Fire Assay finish ICP-OES for palladium, platinum and gold, and INAA/total digestion finish ICP-OES for the other elements (nickel, copper, cobalt, iron, and sulfur). In addition to Sama's inserted QA/QC samples, Actlabs performed their own QA/QC with inserted blanks, standards and duplicates. The QA/QC were performed in accordance with the internal controls of Actlabs and yielded results deemed satisfactory.

11.1 Core Logging and Sampling

Since 2010, core logging and sampling were performed at SNC's facility at Yorodougou village. Internationally accepted procedures and standards were applied by SNC's technical team.

Core handling and processing involved the following steps:

- The core is placed in clearly marked 4 m wooden boxes;
- The core is secured and transported to the Yorodougou base camp;
- The core is photographed;
- Geological logging;
- Bulk density measurements are taken;

- Magnetic susceptibility measurements are taken every metre;
- The core is marked and sampled; and
- The retained core is stored in an on-site core storage facility.

Digital photographs of the core were taken, and the core recovery, RQD and basic geotechnical information were recorded in the drill logs, as were the geological and structural elements. Three magnetic susceptibility readings were taken at 1-m intervals and the samples for density determination were selected.

Logging was done in hand-written format and all the information was transferred onto Excel spreadsheets. This method provides duplicate records of all the logging and sampling information and facilitates data verification and validation. SNC believes that these advantages outweigh the additional time required to copy the data.

Nominal sample intervals were 1.0 m and 1.5 m, but were adjusted, generally between 0.3 m and 2.0 m, to respect lithological contacts or abrupt changes in mineralization. The geologists marked a reference line on the core prior to sampling to ensure that the samples were cut perpendicularly to the fabrics.

The soft core was cut in two with a spatula and the hard core was split using a diamond blade saw. The contacts between the samples were cut with the rock saw and the operator of the saw cut the core along the line drawn by the geologists.

One half of the core was placed into a polyethylene bag with a sample tag and sent to the laboratory for analysis, while the other half was carefully placed into the core boxes, with the arrow drawn by the geologist always pointing down the hole, for future reference. The paper sample tags were stapled to the boxes at the end of the sample intervals. Sample books with pre-recorded, unique sequential numbers and tags reserved for QC samples at pre-determined locations were used by Sama.

11.2 Density Determination

Density determination was performed by SNC's geologists using the immersion method. This was completed in a dedicated room where the equipment is protected from disturbances, notably drafts blowing onto the scale. The immersion method is appropriate to determine the in-situ density of rocks.

SNC’s protocol calls for determination of wet (moisture percent) and dry densities on visually mineralized and barren samples. Full core stubs of about 10 cm to 15 cm are used for the determinations. Once this is done, the core is split, and one half is returned to the original locations in the core boxes with a piece of flagging tape stapled to the boxes to identify them.

Frequent calibration of the scale took place and measurements of a standard were taken for every five samples, but the results were not recorded.

11.3 Preparation and Analysis

Sample preparation for the 2010-2012 phase 1 drilling program was performed at the *Société de Développement de Gouessesso* ("SODEGO") facilities in Gouessesso village (Figure 11-1). Thereafter, sample preparation was conducted by Bureau Veritas in Abidjan.

The samples from the different drill programs were analyzed by independent, certified laboratories in Australia, South Africa and Canada, as summarized in Table 11-1.

Figure 11-1: Sample Preparation at the SODEGO in 2011

All the laboratories used the same analytical technique based on fusion of the sample followed by Inductively Coupled Plasma Optical Emission Spectroscopy ("ICPOES") analysis for the major elements (Ni, Co, Cu,). The samples are fused with sodium peroxide and the melt is dissolved in hydrochloric acid and the resulting solution is analyzed. The electromagnetic emission spectra of a sample serve to identify and quantify the elements present.

The precious metals (Au, Pt and Pd) were determined by Fire Assay with an OES analytical finish. Actlabs used 30-g aliquots for the fire assays.

Table 11-1: Summary of the Laboratories, Accreditation, and Analytical Methods

Drill Program	Sample Preparation	Analytical Laboratory	Analytical Methods	Accreditation
Phase 1	SODEGO	SGS South Africa Pty via SGS South Africa Pty in Yamoussoukro	▪ Peroxide fusion & ICP-OES (Ni, Co, Cu,..) ▪ Fire Assay & ICP-OES for Pt, Pd, Au.	ISO 17205
Phase 2	SODEGO	Ultra Trace Pty, Perth, Australia via Bureau Veritas Mineral Laboratories ("BVML"), Abidjan	▪ Sodium Peroxide fusion & ICP-OES (Ni, Co, Cu, Fe, S, Pt, Pd, Rh).	BVML: ISO 900 :2008 (certificate FS 34143); Ultra Trace Pty: ISO/IEC 17025 : 2005 (Accreditation 14492)
June to September 2012	Veritas Abidjan	BVML, Rustenburg, South Africa; Some samples re-analyzed at BVML Ultra Trace Pty, Perth		Rustenberg: South African National Accreditation System ("SANAS") and ISO/IEC 17025 : 2005 (No. T0551).
2014-22	Veritas Abidjan	Actlabs, Lancaster, Ontario, Canada	▪ Sodium Peroxide fusion & ICP-OES (Ni, Cu, Co, Fe, S); ▪ Fire Assay & ICP OES for Pt, Pd, Au.	ISO 17025 (Lab 266) and ISO 9001 : 2008

11.4 Security – Chain of Custody

Core handling was under SNC's control from the drill site where the geologists supervised the operations to the Yorodougou base camp where the core boxes were transported at the end of each shift, and the samples were transported to the laboratory by SNC, thus preserving constant chain of custody.

Once logging and sampling were completed, the boxes are safely stored in a secured warehouse at Yorodougou, with the coarse rejects and pulps returned from the laboratories. Prior to use, the core boxes had been soaked in a solution to protect them from wood-eating termites.

11.5 QA/QC Protocol by Sama

As required by NI 43-101, SNC used a quality control system to monitor laboratory performance, in addition to the internal QA-QC system enforced by the laboratories. SNC used standards, blanks and duplicate samples to be inserted as Quality Control ("QC") samples into the batches of core samples (Table 11-2). The proportion of SNC's QC samples relative to the core samples is adequate for a Ni-Co project and in line with industry standards.

Table 11-2: Summary of the QC Samples Used by Sama

Drilling Period	Standards (n=)	Standard Material	Blanks (n=)	Blank Material	Duplicates (n=)
March - July 2010	53	In-house pulp	26	▪ Quartz-feldspar ▪ Commercial blank	42
Nov. 2010 - Nov. 2011	209	▪ In-house (1) ▪ Commercial (2)	105	Commercial blank	209
May 2012 - July 2012	14		11	Commercial blank	
2013-2017	344	OREAS 73 a	148	Qtz vein	611
2017-2018	128	OREAS 73 b	63	Qtz vein	
2019-2022	417	▪ OREAS 73 ▪ OREAS 680	168	Qtz vein	

In-house and certified, commercial blanks and standards were used (Table 11-2). Standards with high, medium, and low nickel values were used.

The blanks performed well, and the standards showed lack of correlation with the original assays on batches sent to Veritas in South Africa. These batches were reanalyzed by Veritas in Australia and acceptable variations were obtained form the standards.

Selected samples were submitted for check assays, using second laboratories (umpire), which is part of best industry practices.

Check assays were conducted, initially, at Ultra Trace Pty in Perth, Australia, and then at SGS Canada's laboratory in Lakefield, Ontario, Canada.

For the first phase of drilling, the assay techniques were slightly different from those of SGS SA and Ultra Trace Pty, which explains some of the observed variations (Ayad, 2015). Identical analytical techniques were used by Ultra Trace Pty, Australia, and SGS, Lakefield, for the second drilling program.

A total of 344 check samples were submitted to SGS Canada during the 2010-12 drilling campaign, representing 4.1% of the total batch of samples.

SGS Laboratory in Canada has returned systematic lower bias in nickel and copper when assaying OREAS 73a standards, which explained some discrepancies observed between Veritas and SGS Canada for check samples. SGS Canada commented that the slight low bias on the OREAS 73a is similar to that shown by BVML and that the certification for OREAS 73a was done primarily by laboratories using Borate Fusion XRF and ICP-OES. SGS Canada's use of peroxide fusion could be a contributing factor to the low bias.

SGS Canada believes that it can confirm BVML data for the core samples but accepts the low biased on the OREAS 73a analyses. From a review of the laboratory certificates and procedures, it appears that the laboratory followed the industry's best practices as regards the analytical method, the detection limits and the units used.

SNC agreed that the check assays demonstrate an acceptable precision in the repeatability of the assays.

11.5.1 Blanks

11.5.1.1 First Drilling Period: March to July 2010

Two different blank sample types were used as blank material, inserted at approximate intervals of 1 for every 60 samples, and submitted to BVML. A total of 28 blanks were used by SNC in the exploration program in 2010, comprising 1.6% of the total samples submitted for analysis.

During the first drilling sequence, SNC used pulverized blank material collected from a stock of blank quartz/feldspar material collected in the vicinity. Approximately 125 g blank material samples were inserted in the sample run.

The assay results from blank samples were considered to be satisfactory.

11.5.1.2 Second Drilling Period: November 2010 to November 2011

Two different blank samples types were used as blank material, inserted at approximate intervals of 1 for every 60 samples, and submitted to BVML. A total of 79 blanks were used by SNC in the exploration program in 2011, comprising 1.6% of the total samples submitted for analysis.

During the subsequent drilling periods, pre-prepared blank material was supplied by BVML. Approximately 125 g blank material samples were inserted in the sample run.

The assay results from blank samples were considered to be satisfactory.

11.5.2 Standards

From 2010 to April 2022, three pre-prepared standards were used. The in-house standard ("SAMNI"), as per the first drilling phase in 2010 (Figure 11-2 and Figure 11-3) and the 2010-2011 second phase drilling (Figure 11-4 and Figure 11-5), a standard material supplied by Veritas (Figure 11-4 and Figure 11-7), and a pre-prepared pulp standard material purchased from OREAS, Perth, Australia (Figure 11-8 and Figure 11-9). Only the OREAS standard material has been used since June 2011 until 2022.

OREAS 73b and OREAS 680 are prepared by Ore Research & Exploration P/L, Australia, from high nickel sulphide ore. Those CRMs provide the certified value for forty elements determined by Fusion-ICP analysis, some of which are described in Table 11-3.

Table 11-3: Analytical Results from CRM OREAS 73A, OREAS 73B and OREAS 680 Inserted into the QP Check Samples vs Their Certified Values

Constituent (Selected)	Certified Values (OREAS 73A, Sodium Borate Fusion & ICP)		
	Certified Value (%)	95% Confidence Level	
		High (%)	Low (%)
Co	0.0302	0.0313	0.0292
Cu	0.915	0.0970	0.0861
Fe	9.24	9.30	9.18
Ni	1.44	1.48	1.39
S	3.02	3.13	2.91

Constituent (Selected)	Certified Values (OREAS 73b, Sodium Borate Fusion & ICP)		
	Certified Value (%)	95% Confidence Level	
		High (%)	Low (%)
Co	0.0252	0.0243	0.0262
Cu	0.0439	0.0420	0.0459
Fe	8.74	8.57	8.91
Ni	1.50	1.47	1.52
S	2.90	2.81	3.00

Constituent (Selected)	Certified Values (OREAS 680, Sodium Borate Fusion & ICP)		
	Certified Value (%)	95% Confidence Level	
		High (%)	Low (%)
Co	0.0334	0.0346	0.0322
Cu	0.904	0.912	0.896
Fe	11.93	12.20	11.67
Ni	2.15	2.18	2.13
S	4.98	5.05	4.91

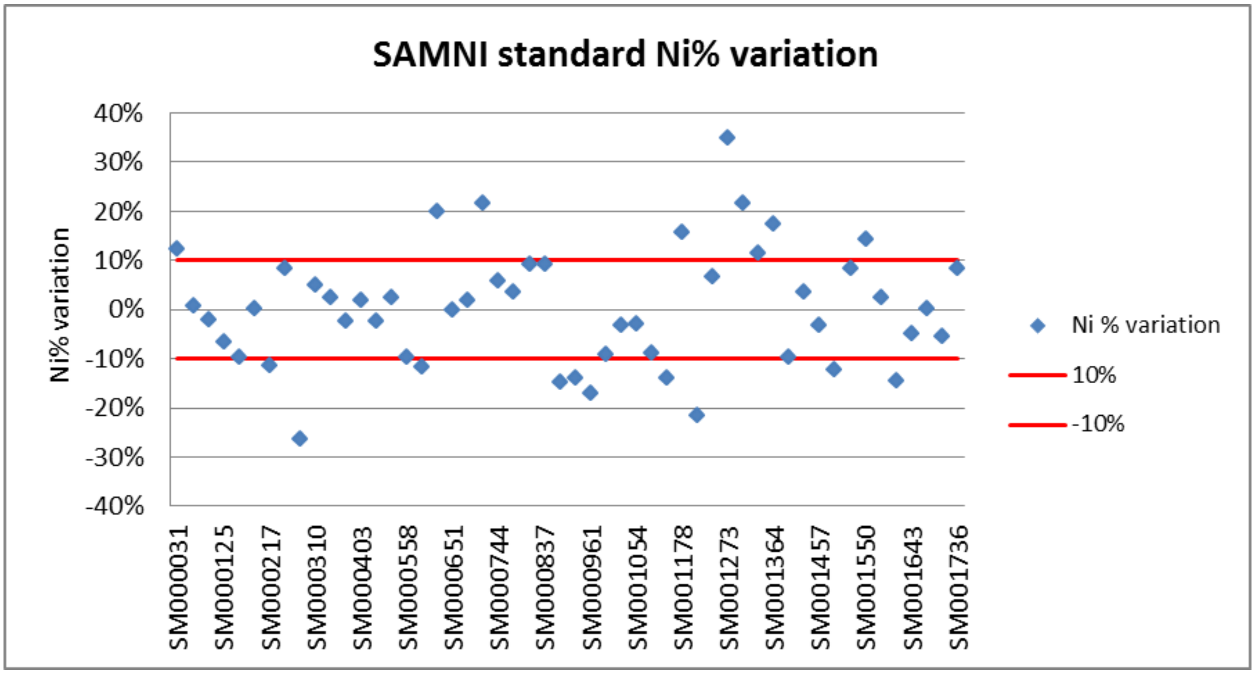

Figure 11-2: SNC In-House Standard Variability, 2010 – Nickel

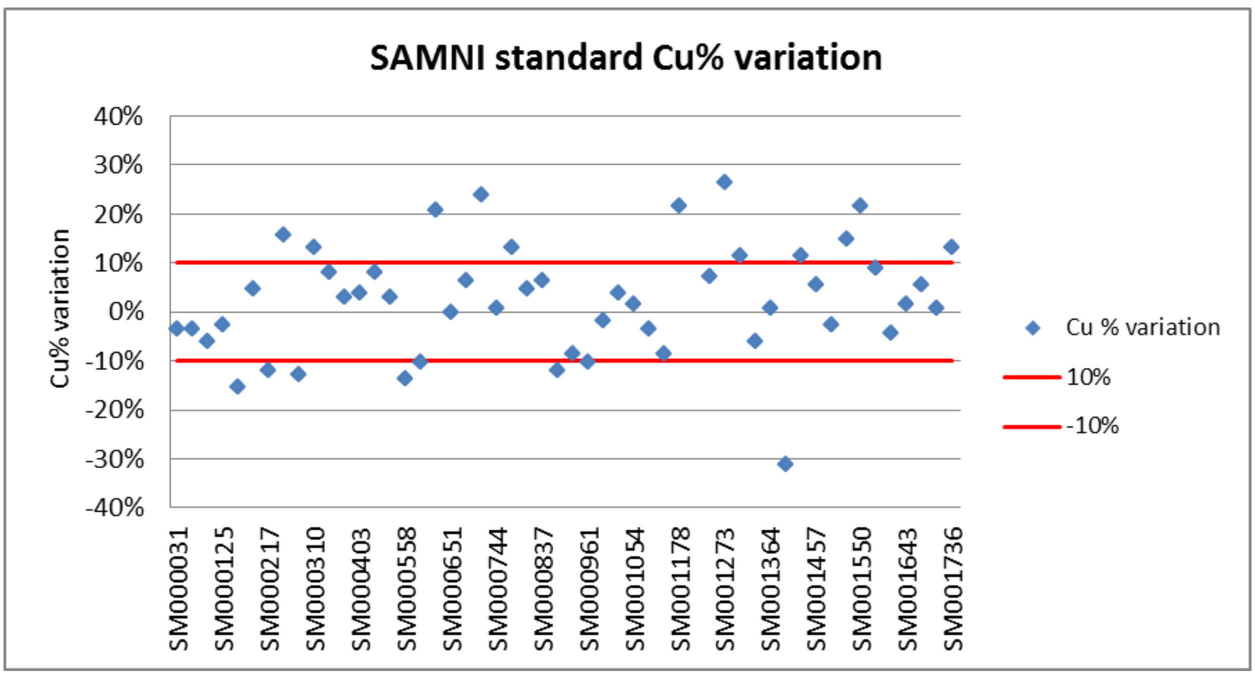

Figure 11-3: SNC In-House Standard Variability, 2010 – Copper

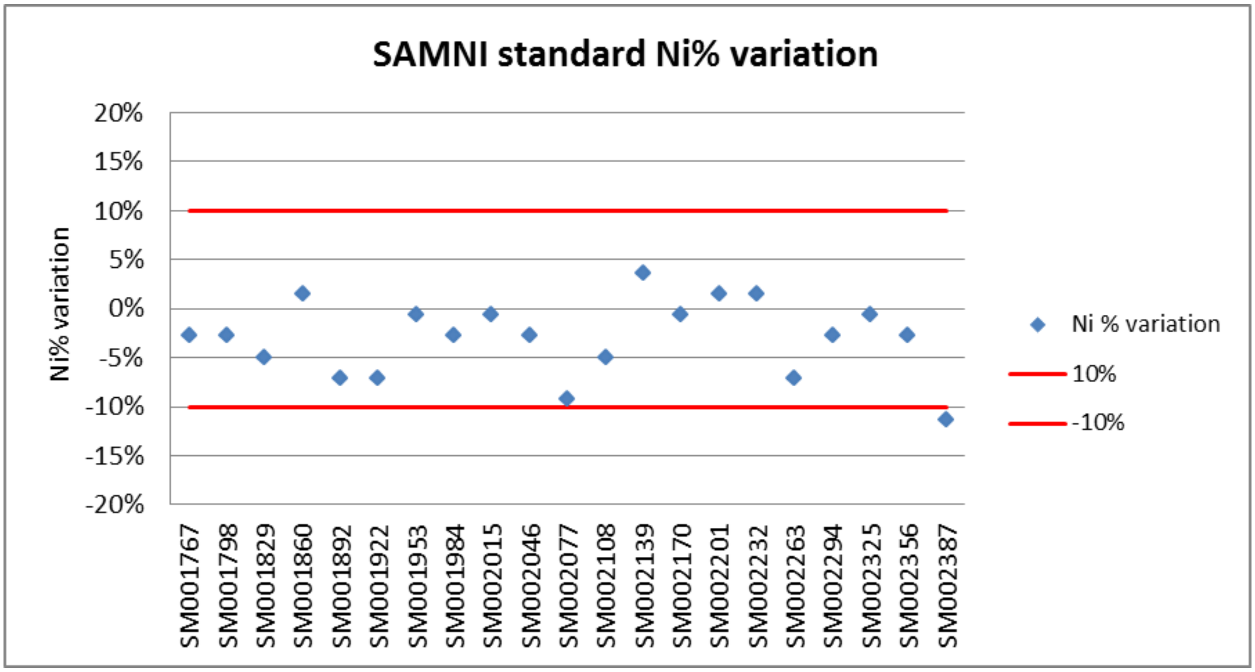

Figure 11-4: SNC In-House Standard Variability, Second Period – Nickel

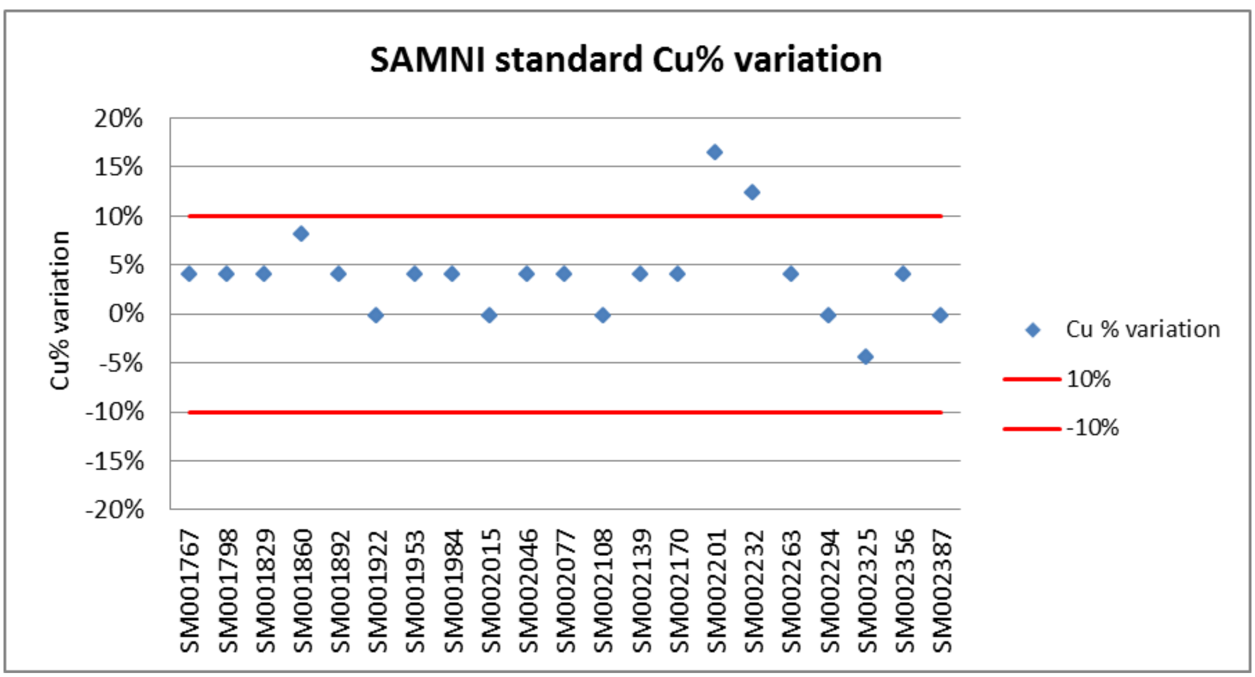

Figure 11-5: SNC In-House Standard Variability, Second Period – Copper

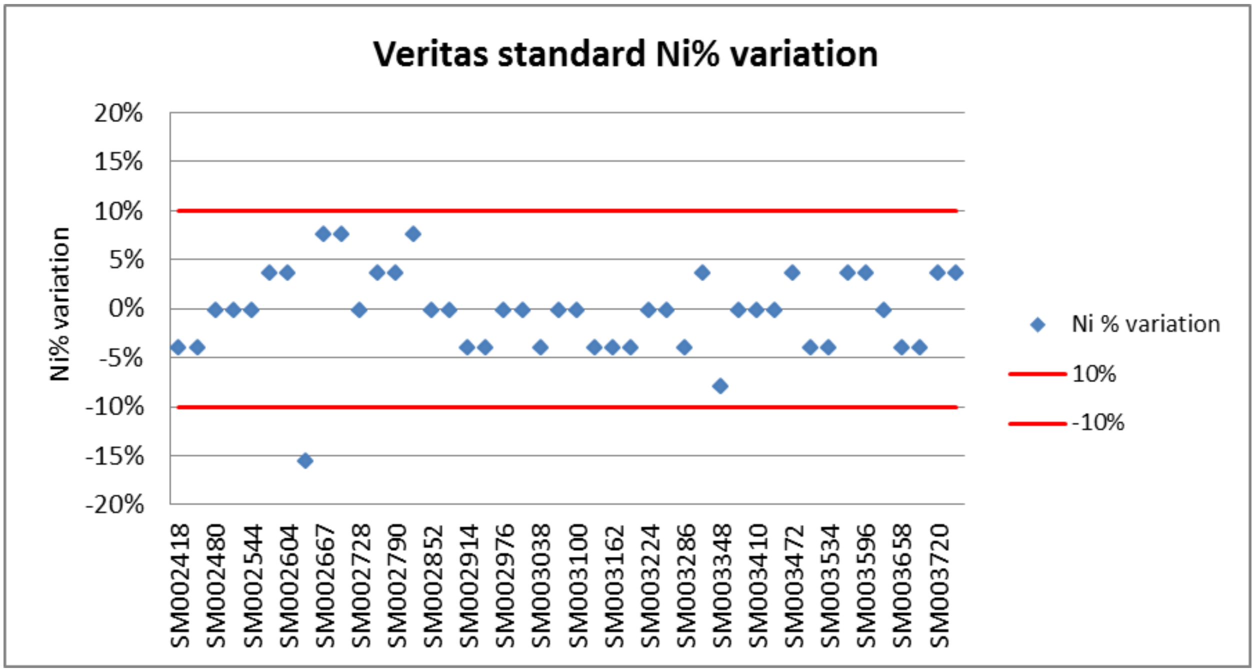

Figure 11-6: Veritas CRM Variation – Nickel

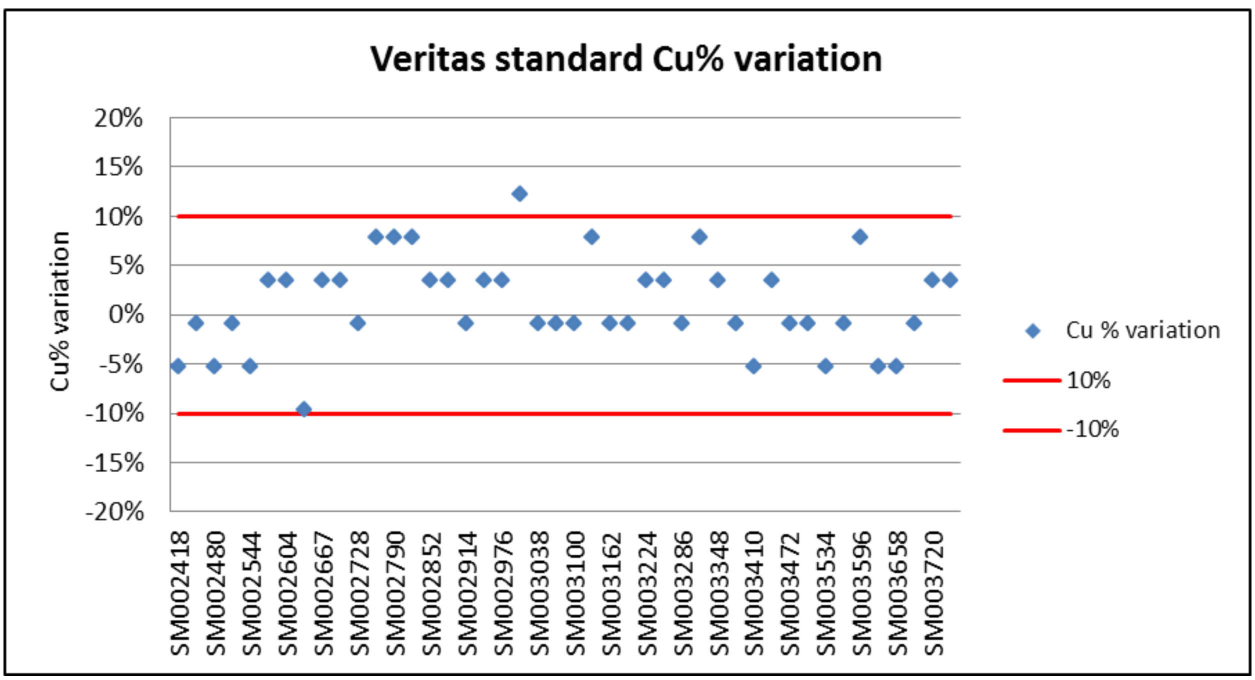

Figure 11-7: Veritas CRM Variation – Copper

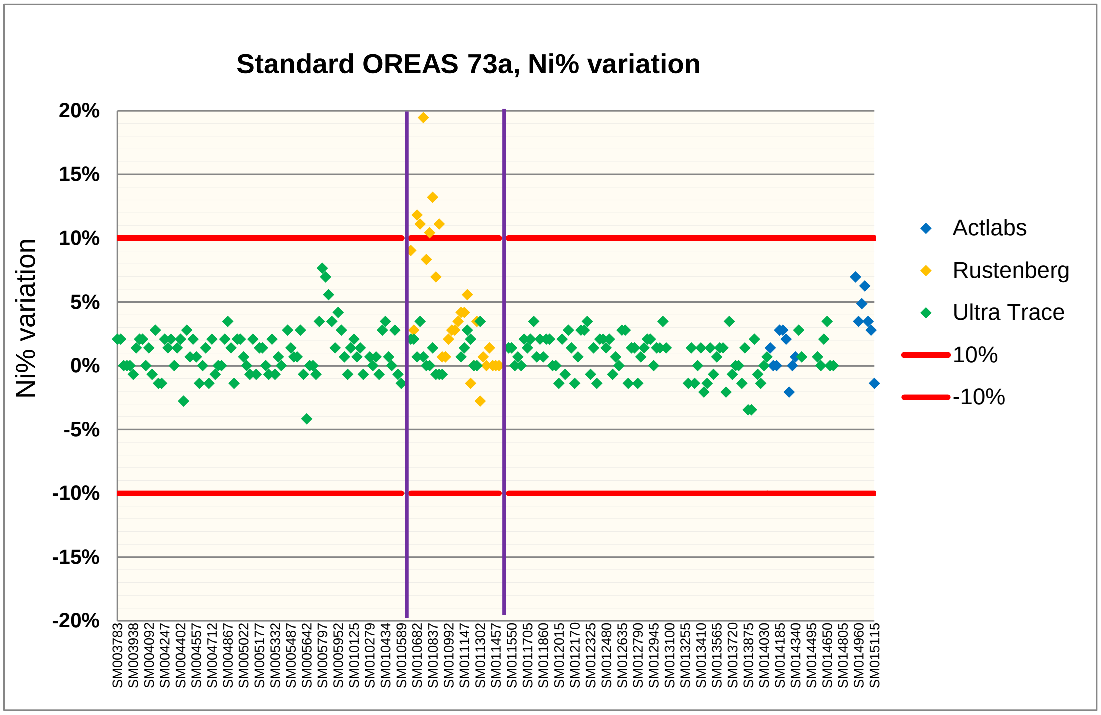

Figure 11-8: OREAS CRM Variation – Nickel

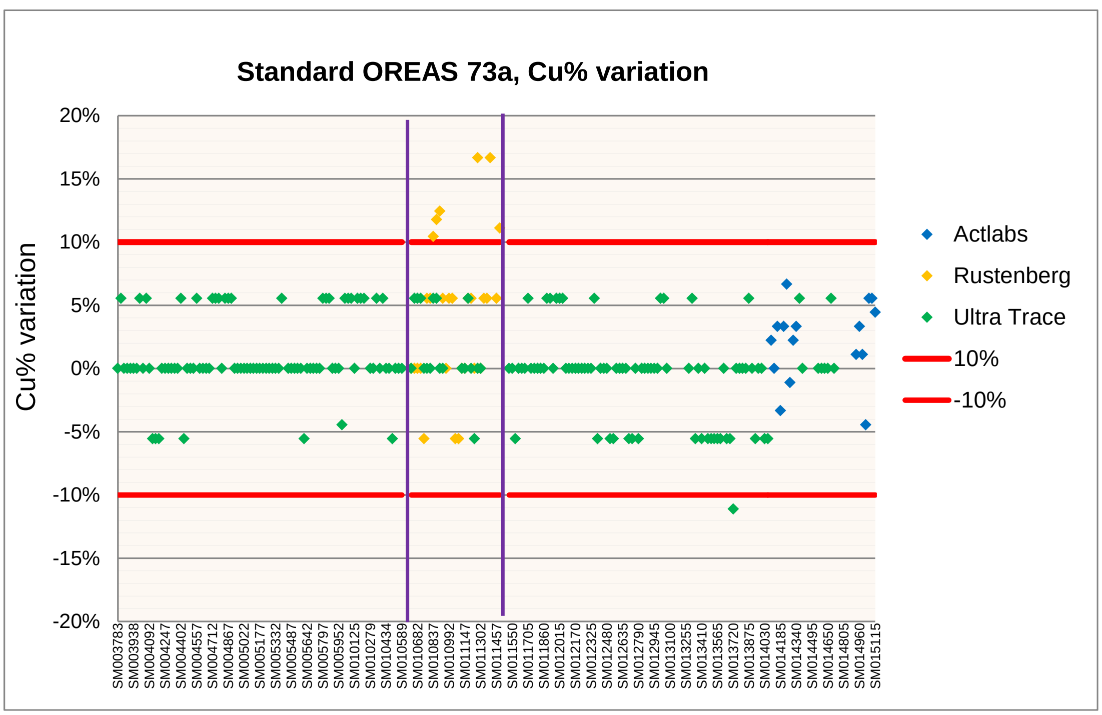

Figure 11-9: OREAS CRM Variation – Copper

Due to the lack of good correlation on inserted standard samples within the batches sent to Veritas Rustenburg laboratory, RSA, in 2012, SNC has requested BMVL to re-assay these batches at its Ultra Trace laboratory in Australia. Table 11-4 shows the batch and the number of samples that have been requested for re-assay. Figure 11-10 and Figure 11-11 show that despite discrepancies observed with standards inserted within these batches, the resultant re-assay shows acceptable variations.

Table 11-4: 2012 Veritas-Rustenburg vs Ultra Trace

	Batch	No. Samples	N° Certificate
Sulphide Samapleu	SM010606-SM010836	231	u100708
Sulphide Samapleu	SM011103-SM011302	200	u100997

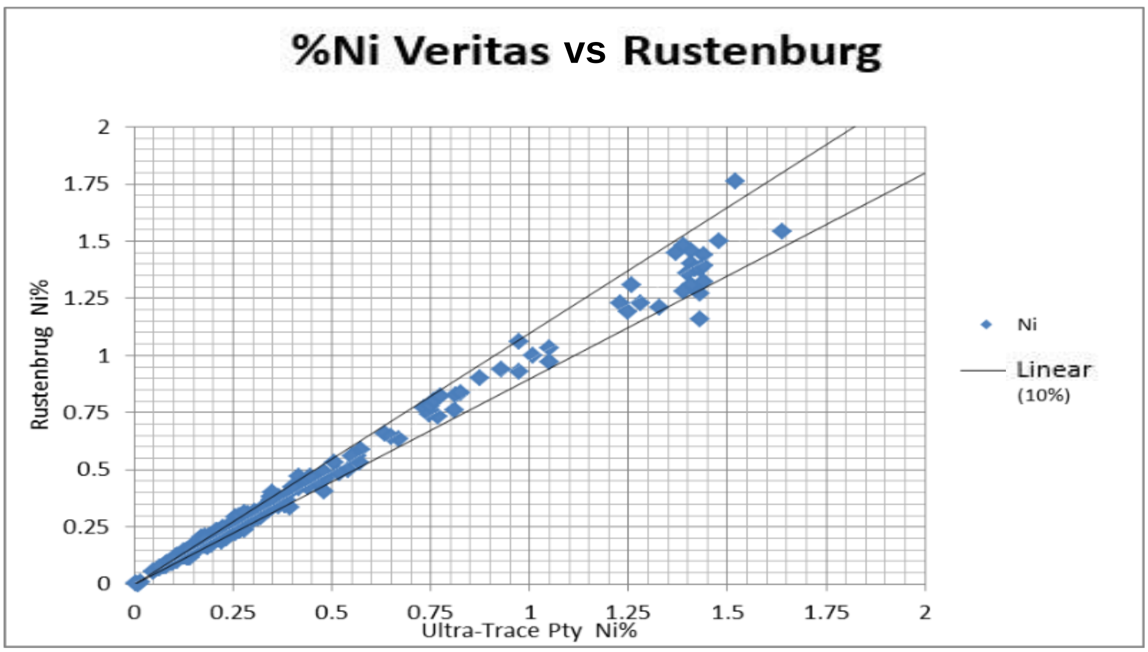

Figure 11-10: Veritas Rustenburg CRM vs Ultra Trace Pty Correlation – Nickel

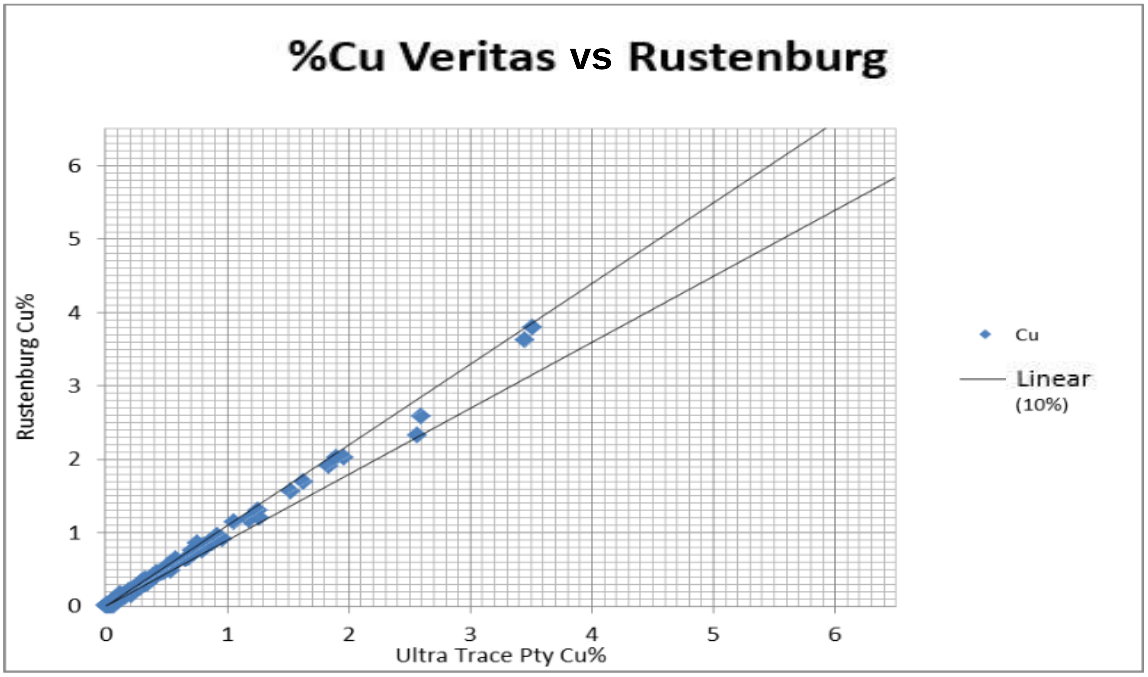

Figure 11-11: Veritas Rustenburg CRM vs Ultra Trace Pty Correlation – Copper

11.5.3 Duplicate Samples

A total of 611 duplicates were used since the beginning of the project in 2010, for approximately 2.2% of all analyzed samples.

- 2010-2012: Phase 1 drilling; 42 duplicates at SGS Laboratory in RSA
- 2012-2013: Phase 2 drilling: 204 duplicates at Veritas Laboratory
- 2013-2022: 365 duplicates at the Actlabs Laboratory

Figure 11-12 to Figure 11-17 show results for all those duplicates.

The assay results from duplicate samples were considered to be satisfactory.

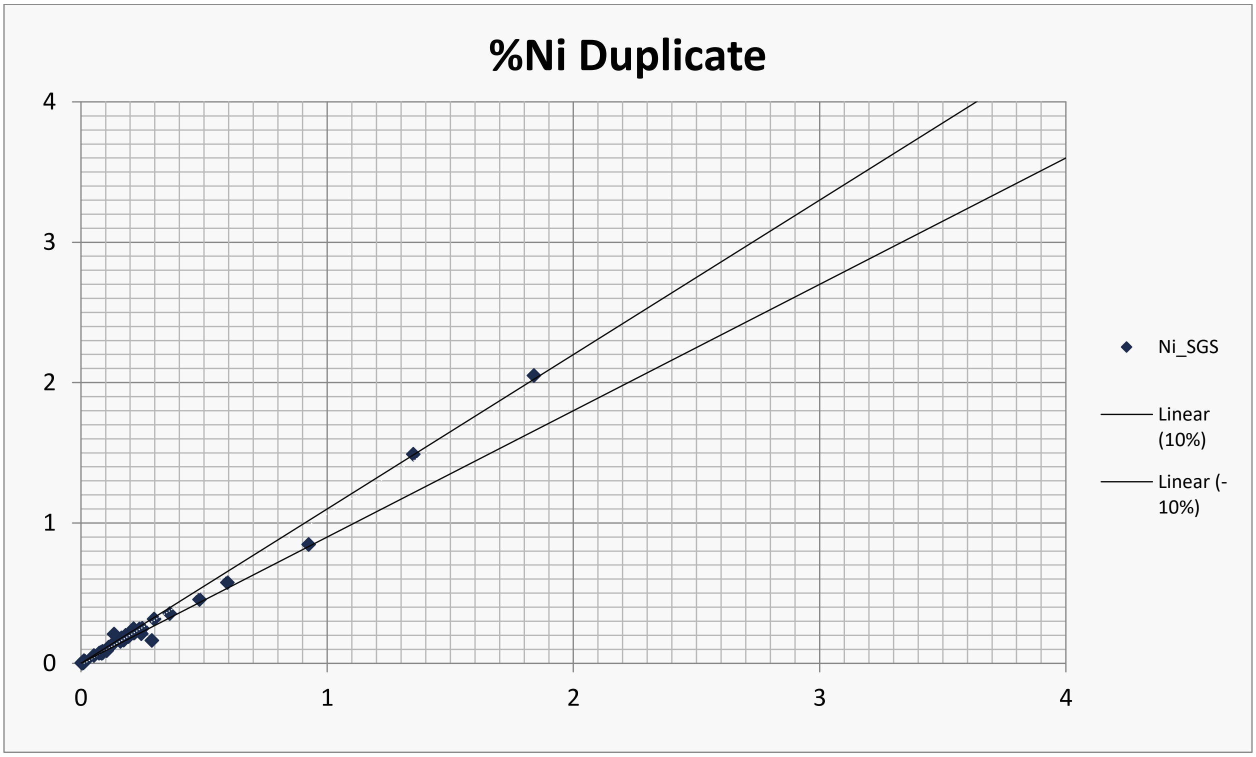

Figure 11-12: Phase 1 SGS Laboratory 2010-2012, Duplicates Samples Results for Nickel %

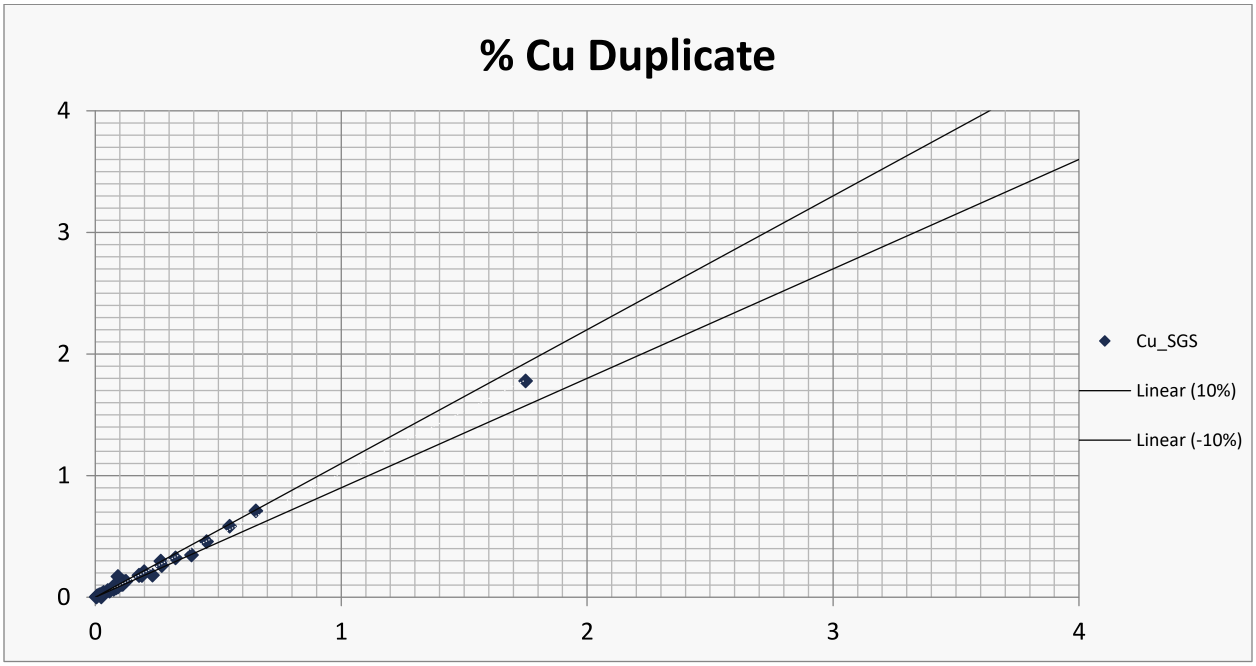

Figure 11-13: Phase 1 SGS Laboratory 2010-2012, Duplicates Samples Results for Copper %

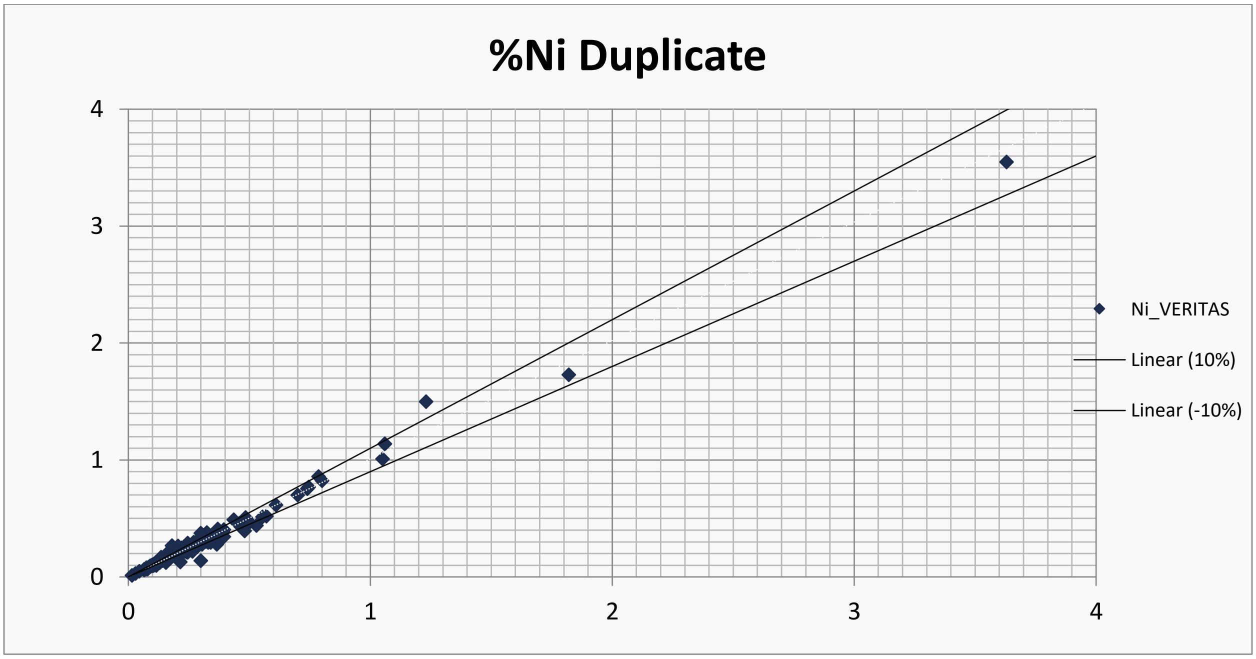

Figure 11-14: Phase 2 Veritas Laboratory 2011-2012, Duplicates Samples Results for Nickel %

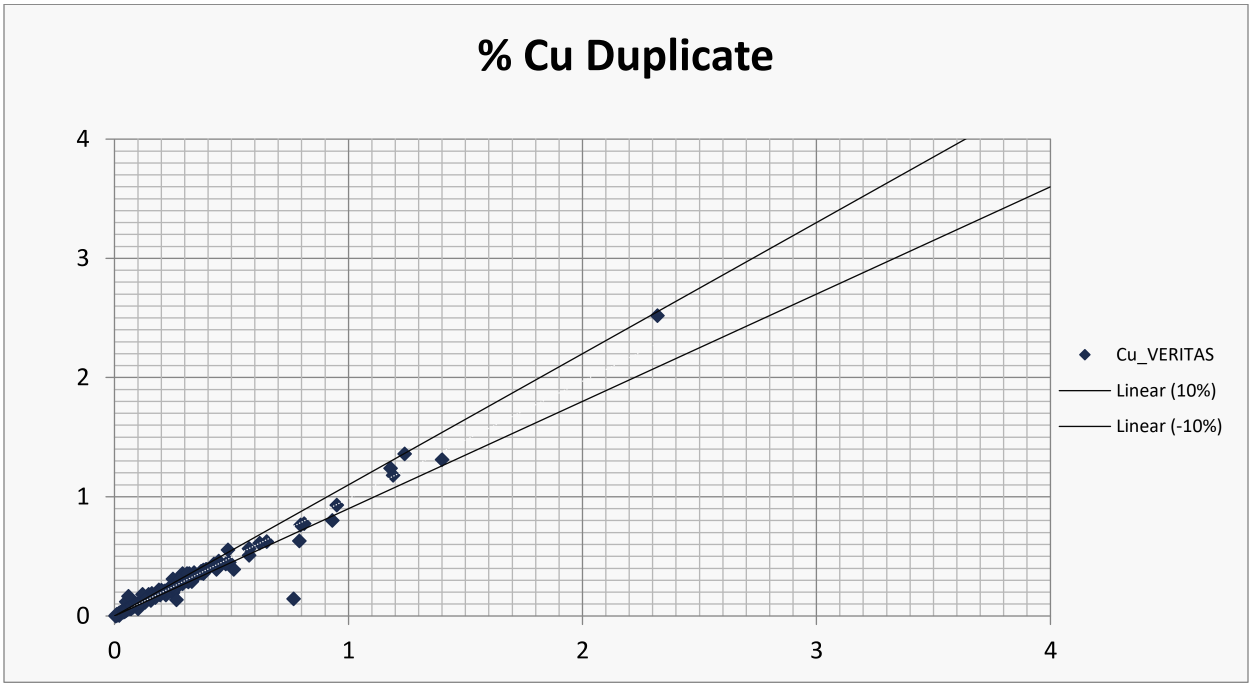

Figure 11-15: Phase 2 Veritas Laboratory 2011-2012, Duplicates Samples Results for Copper %

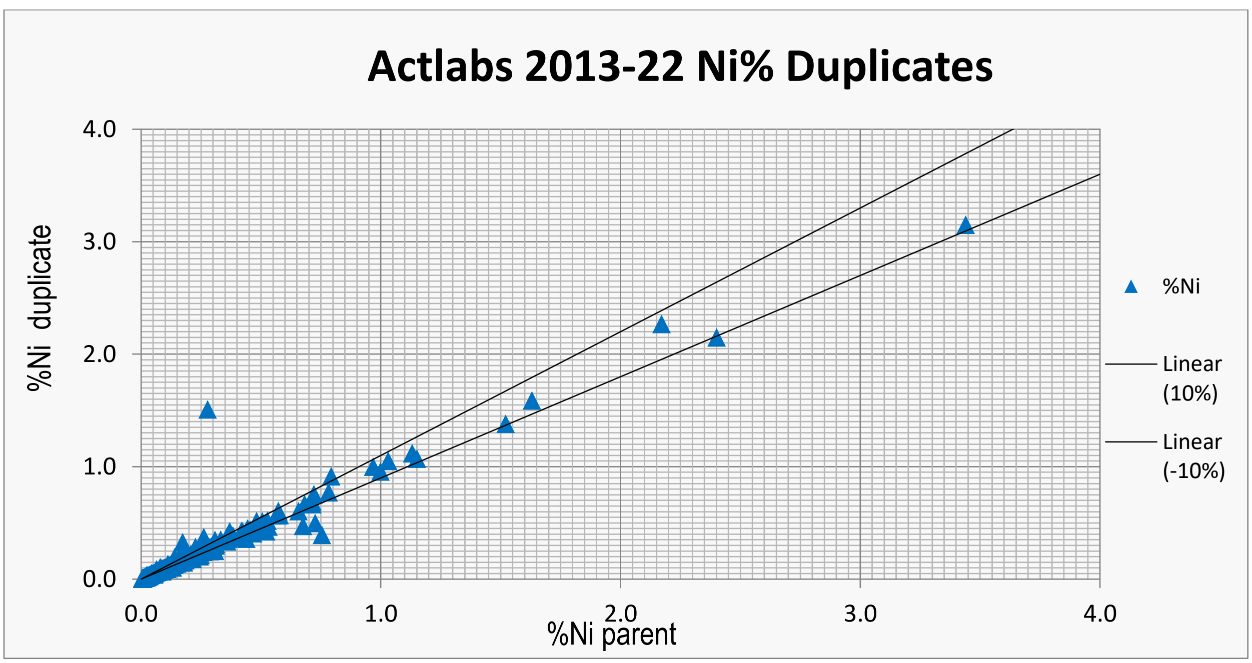

Figure 11-16: Actlabs Laboratory 2013-2022, Duplicates Results for Nickel %

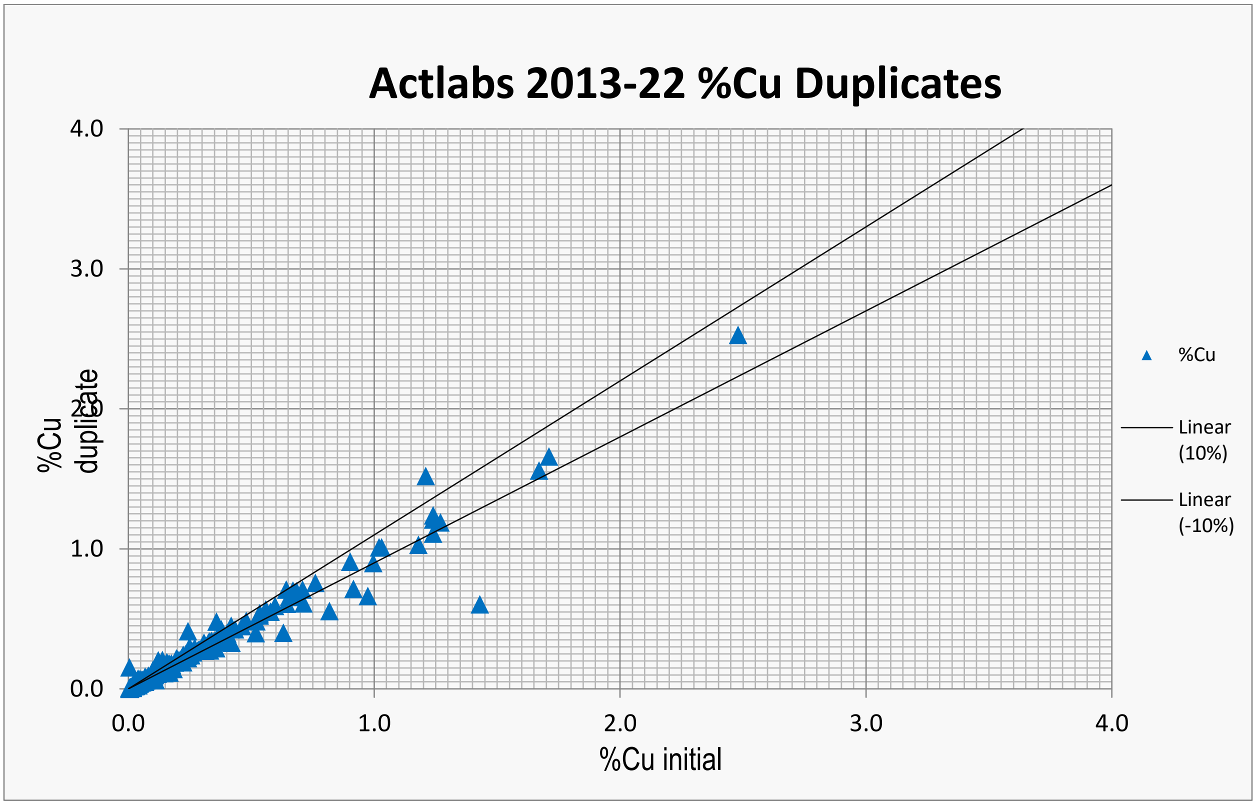

Figure 11-17: 2013-22 Actlabs Laboratory, Duplicates Results for Copper %

11.6 2019 DRA Check Samples

11.6.1 Sample Selection

In 2019, an independent check analysis was performed by DRA/MetChem with splits of 16 coarse rejects from drill core samples from eight holes for independent analysis. Six half core samples were used instead of the coarse rejects (Table 11-5).

Table 11-5: Description of the Material Used for Check Sampling Purposes

Main Deposit		Extension 1 Deposit	
Sample ID	Material	Sample ID	Material
SM016890	Rejects	SM015899	Rejects
SM016930	Half Core	SM015900	Rejects
SM017121	Standard	SM016017	Rejects

Main Deposit		Extension 1 Deposit	
Sample ID	Material	Sample ID	Material
SM017222	Half Core	SM016018	Rejects
SM017223	Half Core	SM016075	Standard
SM017632	Rejects	SM016130	Rejects
SM017633	Rejects	SM016131	Rejects
SM017801	Standard	SM016569	Half Core
SM017807	Rejects	SM016570	Half Core
SM017808	Half Core		

The coarse rejects are of superior quality in terms of repeatability than quarter core samples as field duplicates. The small split quarter core samples introduce a volume variance and producing mirror images from two quarter core samples can be difficult. Therefore, the second core halves left in the boxes were used to replace the coarse rejects with too low a mass.

The samples were selected in an attempt to represent both a fair distribution in the three dimensions (X, Y and Z) of the Main deposit and of the Extension 1 deposit and to cover a full range of nickel grades. Half of the samples were selected for their grades being close to the cut-off grade (0.10% Ni) and the average grade of the deposit (0.24% Ni).

11.6.2 DRA/MetChem Check Samples Analysis

The pulps from the coarse rejects and from the core halves were prepared by *Société Veritas's* sample preparation facility in Abidjan and shipped to Actlabs, Lancaster, Ontario, Canada for analysis. The same preparation and analytical procedures used on Sama's original samples were applied to these check samples.

The method used for the major elements involved sodium peroxide fusion of the samples, followed by acid dissolution and analysis by ICP-OES (Code: 8 - Peroxide Fusion - ICP-OES). Au, Pt and Pd were determined by fire assaying on 30-g aliquots (Code: 1C-OES Fire Assay).

Actlabs is independent of Sama, is fully certified and accredited to international standard ISO/IEC 17025, and operates under a quality management system that complies with the requirements of ISO 9001: 2008.

11.6.3 Results

The analytical results and the basic statistical parameters for nickel and copper in the original and check samples are presented in Table 11-6. The plot of the Ni% results on a scatter diagram shows a good degree of correlation and a systematic positive bias toward the duplicate analyses (Figure 11-18).

Table 11-6: Analytical results for Ni and Cu in the Original and Duplicate QP Check Samples

Sector	Sample_ID	Estimated Sulphides (*) (%)	Ni - Original (%)	Ni - Check (%)	Cu - Original (%)	Cu - Check (%)
MAIN	SM016890	80-100	3.290	4.430	2.780	2.830
	SM016930	1-5	0.100	0.118	0.047	0.097
	SM017121	Standard	1.500	1.640	0.044	0.044
	SM017222	50-70	1.820	2.520	0.133	0.248
	SM017223	5-10	0.368	0.449	0.121	0.176
	SM017632	n/a	0.295	0.295	0.199	0.186
	SM017633	5-10	0.240	0.215	0.148	0.112
	SM017801	Standard	1.500	1.660	0.044	0.045
	SM017807	5-10	0.357	0.365	0.201	0.219
	SM017808	10-15	0.497	0.506	0.541	0.521
EXTENSION 1	SM015899	1-5	0.112	0.121	0.046	0.048
	SM015900	5-10	0.139	0.143	0.128	0.113
	SM016017	40-50	1.600	1.490	0.143	0.164
	SM016018	1-5	0.221	0.249	0.054	0.060
	SM016075	Standard	1.500	1.640	0.044	0.047
	SM016130	5-10	0.210	0.224	0.117	0.115
	SM016131	30-60	0.867	0.881	2.470	3.370
	SM016569	5-10	0.246	0.223	0.162	0.133
	SM016570	20-30	0.984	1.490	0.289	0.354
ALL		**MAX**	**3.290**	**4.430**	**2.780**	**3.370**
		MIN	**0.100**	**0.118**	**0.046**	**0.048**
		AVG	**0.709**	**0.857**	**0.474**	**0.547**
		STD	**0.865**	**1.165**	**0.850**	**1.008**

(*) As recorded in the Sama geologists' original logs.

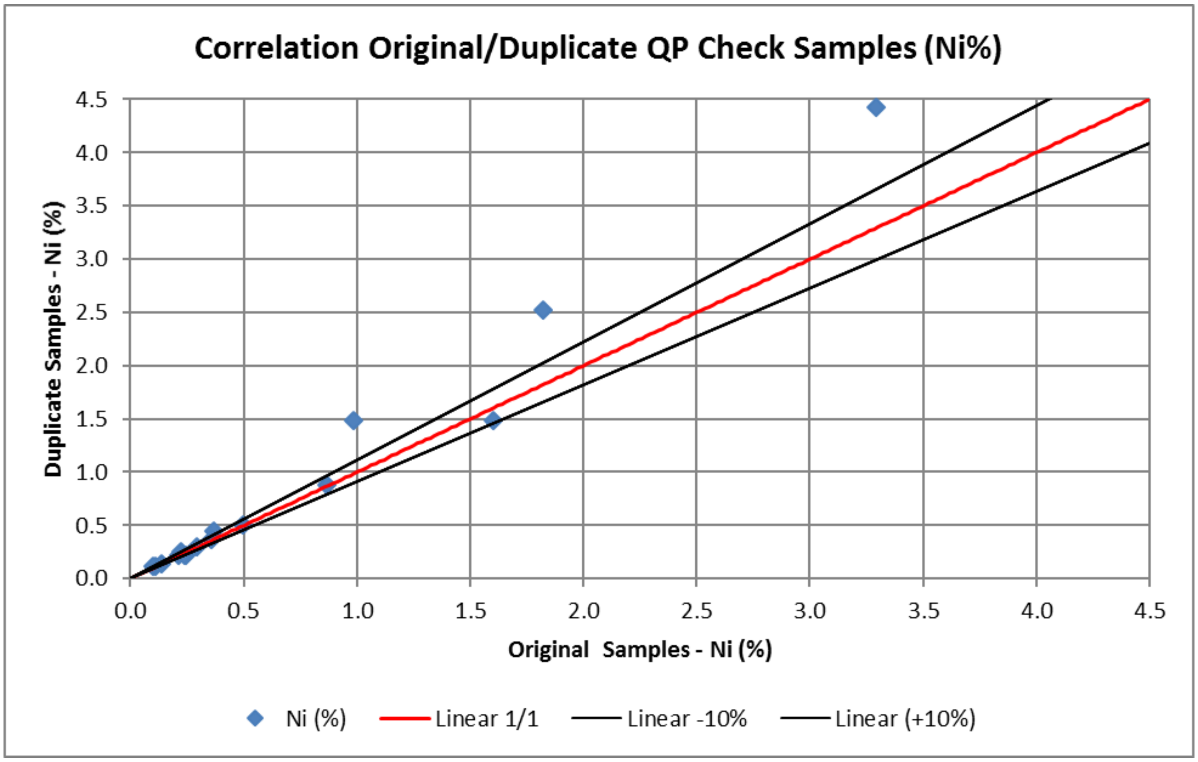

Figure 11-18: Scatter Diagram of the Original and Duplicate Sample – Ni (%) Analyses

Five sample pairs out of 16 significantly exceed the 10% difference between the original and duplicate analysis. However, relatively low figures are sensitive to differences expressed in percentage, a fact that is illustrated by the results generated by another rule effective at identifying pairs of results that are passable. Indeed, a widely used criterion in the mining industry, the Absolute Mean Percentage Difference ("AMPD"), was calculated and revealed that three pairs out of 16 exceeded the 20% relative difference, which is somewhat high, but not of major concern.

A generally accepted fail/pass threshold for coarse reject duplicate analyses stipulates that a 20% relative difference for individual pairs should not be exceeded in 90% of cases. The average of all the original assays, expressed in percentage on low values, is significantly higher than the recommended 5% of the average for the duplicate analyses. However, by removing the influence of the highest two pairs, the average of the two populations is the same. The criteria for duplicate assays on second half core are not well established, but are often set at 30% relative difference.

The same positive bias is observable in the results from the three CRMs, although the differences for the nickel values remain close to +10% (9.3% and 10.6%).

No duplicates from the QP check samples were requested. However, one sample (SM016131) duplicated by Actlabs as part of its internal QA system, as well as a split from SM017807, closely reproduced the original values. Good agreement is observable between the certified values and the analytical results from the CRMs used by the laboratory for its internal quality control.

It has to be stressed that part of the variability between the original and the duplicate analyses on the QP samples may originate from the fact that the QP samples were from both the oxide and the sulphide zone and consisted of a mix of coarse rejects and of the second halves of the original core. Consequently, even though the repeatability shown by the QP check samples is not outstanding, we believe that the original results from Actlabs can be used in a resource estimate.

11.6.4 Short Distance Variability – Closely Spaced Drill Holes

No twin holes were drilled by Sama to assess the short-range variability of the mineralization. In this perspective, DRA/MetChem examined the results from four holes drilled from the same setup (Table 11-7). Although the holes were drilled into different directions and plunges, they may be considered as twin holes, particularly in their upper portion, where the distance between them is relatively short. The correlation between the two mineralized zones is illustrated by two of the four "quasi-twin" holes in Figure 11-19. The apparent offset of the mineralized zones is caused by the different distance from holes drilled at different plunges to reach the same mineralized zone.

Table 11-7: Location and Attitude of Four Drill Holes Started from the Same Setup

HOLE-ID		UTM_LOCATION			LENGTH	AZIMUTH	PLUNGE	START
Current	Original	X (m)	Y (m)	Z (m)	(m)	(°)	(°)	DATE
SM44-487292	P3-10500b	619687	856508	607	168	230	-65	Nov. 20, 2010
SM44-487292b	P3-10500c	619685	856515	607	189	210	-70	Nov. 22, 2010
SM44-487292c	P3-10500	619683	856516	606	165	225	-50	Nov. 24, 2010
SM44-487292d	P3-10500d	619683	856517	606	141	240	-65	Jan. 19, 2011

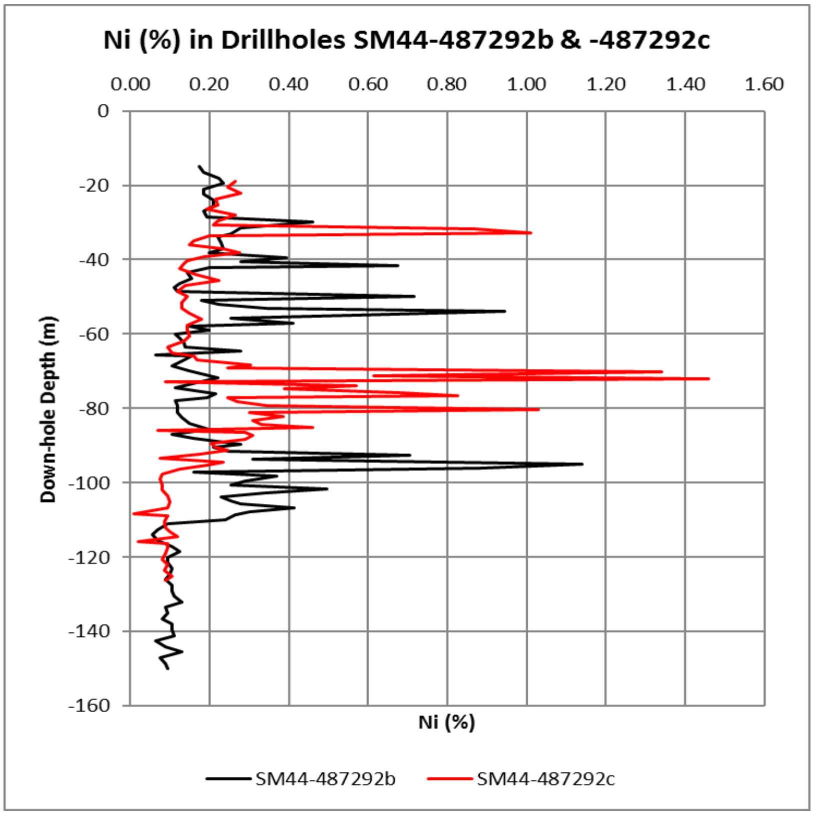

Figure 11-19: Line Diagram of Two Quasi-Twin Holes – Ni (%) Analyses

DRA in 2019 indicated that no new material scientific or technical information that could impact the present resources estimate has been collected about the property between that personal inspection and the filing date of the technical report.

11.7 Check Samples

11.7.1 Phases 1 & 2 Drilling Programs

Check assays were conducted on selected samples, initially at Ultra Trace Pty in Perth, Australia, and then at SGS Canada's laboratory in Lakefield, Ontario, Canada.

For the 2010 to 2012 phases of drilling, the assay techniques were slightly different between those of SGS SA and Ultra Trace Pty, which explains some of the variations observed (Figure 11-20 and Figure 11-21). Identical assay methodologies were used by Ultra Trace Pty in Perth, Australia, and SGS Canada's laboratory in Lakefield, Ontario, Canada, for the second drilling program (Figure 11-22 and Figure 11-23).

A total of 344 check samples were submitted to SGS Canada during the 2010-2012 drilling campaign, representing 3.0% of all samples analyzed.

In 2012, SGS Laboratory in Canada had returned systematic lower bias in nickel and copper when assaying OREAS 73A standards (Figure 11-24 and Figure 11-25), which explains some discrepancies observed between Veritas and SGS Canada for check samples.

According to SGS Canada, the Ni shows a slight low bias on the OREAS 73A due to analytical certification for OREAS 73A done primarily by laboratories using Borate Fusion XRF and ICP-OES. SGS Canada's use of peroxide fusion could be a contributing factor to the low bias.

Regarding the review of the laboratory certificates to check for eventual anomalous results and/or faulty procedures (sample weights on reception, elements assays, report assay formats, etc.), it appears that the laboratory certificates are in accordance with industry best practices concerning the format of the certificates, the elements used, the method used for assaying, the detection limits, and the units used. No major anomalies were detected.

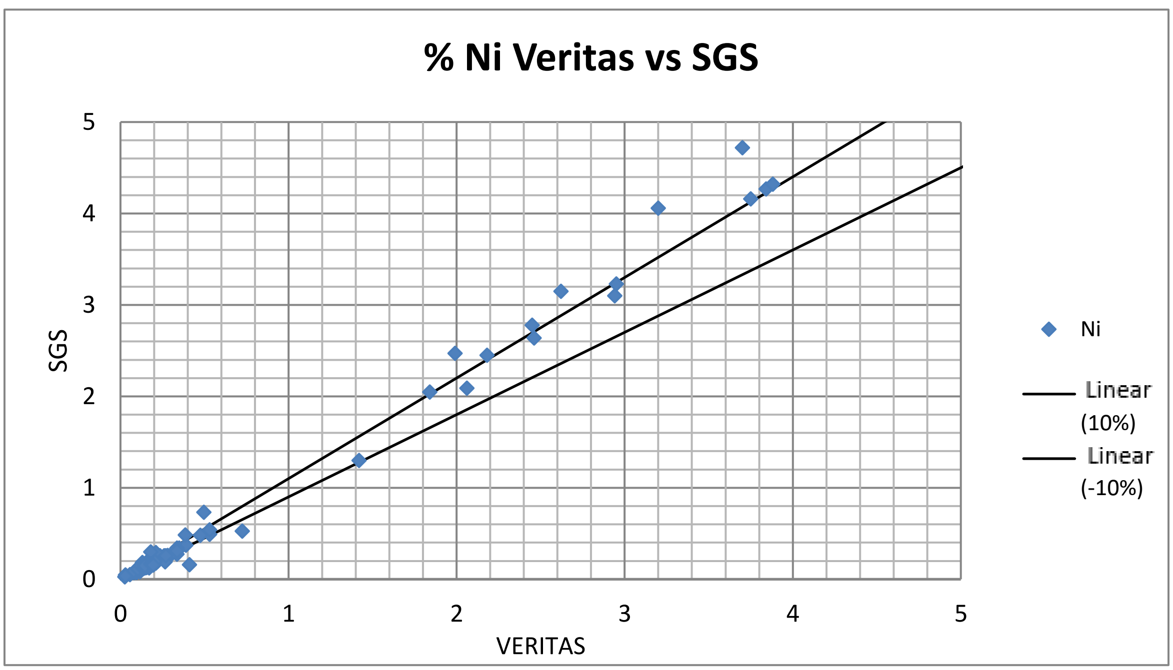

Figure 11-20: Check Samples: SGS SA vs Veritas, Nickel % Values; 2010-2011 (n: 116)

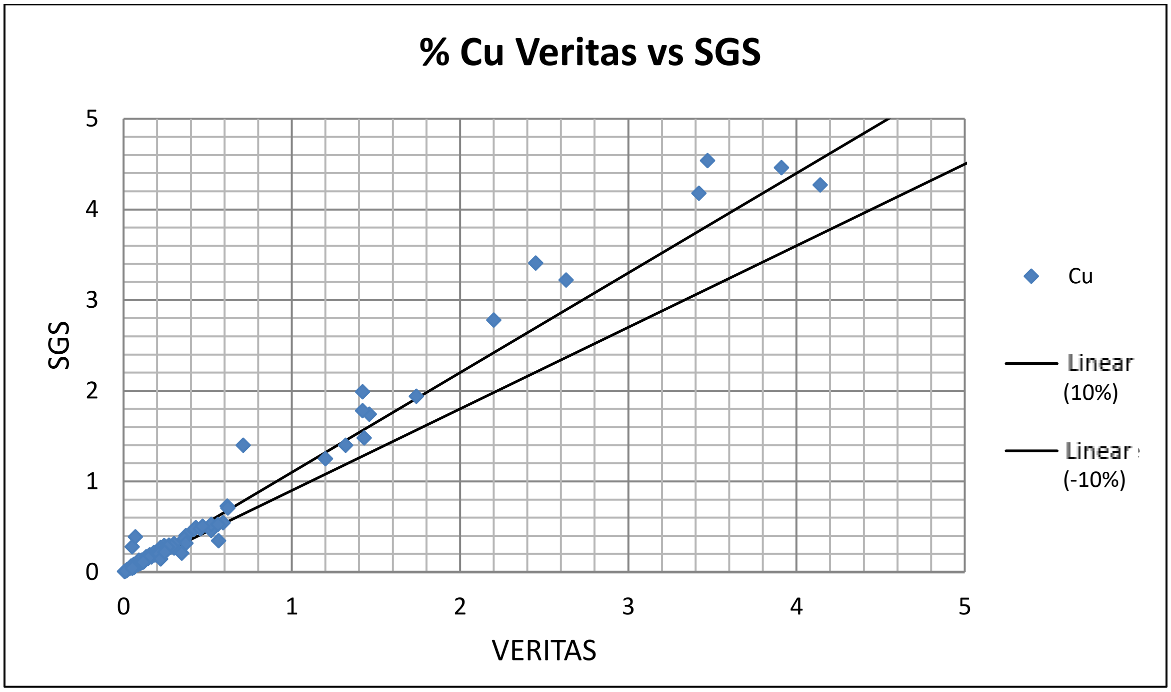

Figure 11-21: Check Samples: SGS SA vs Veritas, Copper % Values; 2010-2011

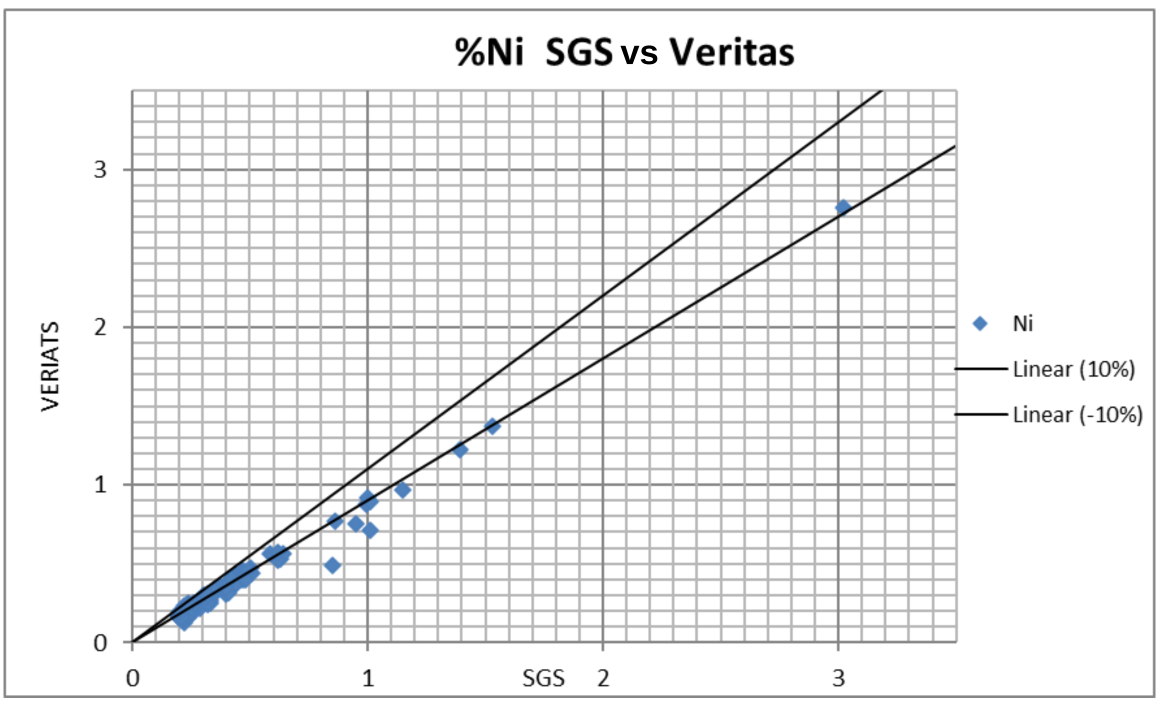

Figure 11-22: Check Sample: Veritas vs SGS Canada, Nickel % Values; 2012 (n: 157)

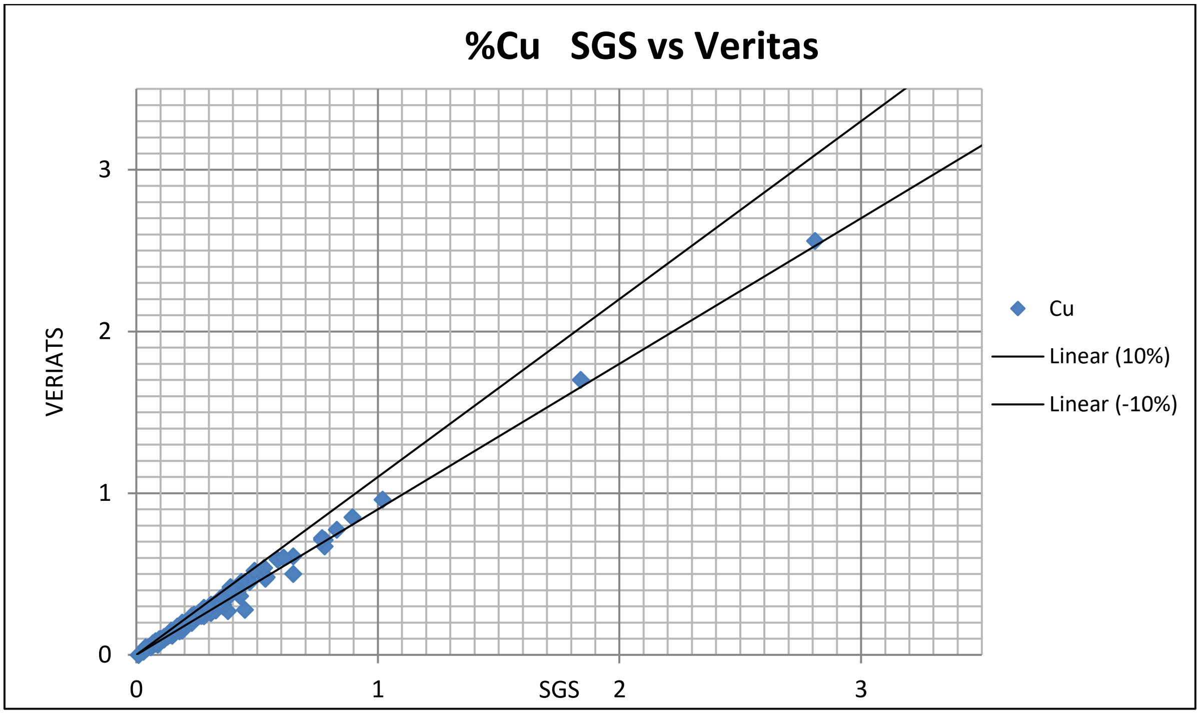

Figure 11-23: Check Sample: Veritas vs SGS Canada, Copper % Values; 2012

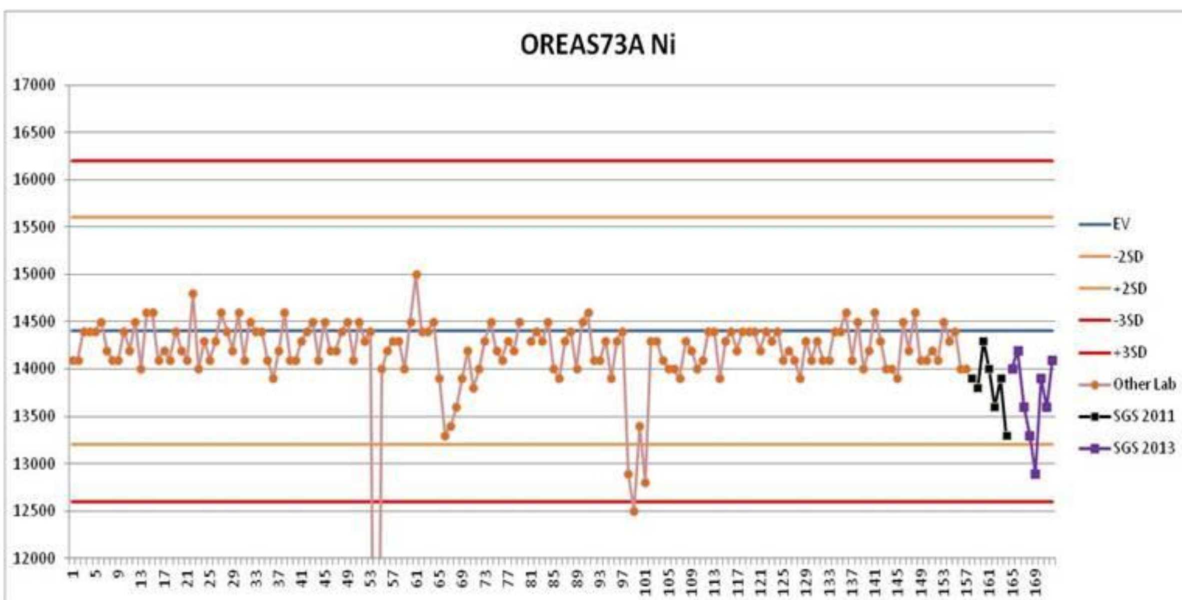

Figure 11-24: OREAS CRM – Nickel Continuity Lab Comparison

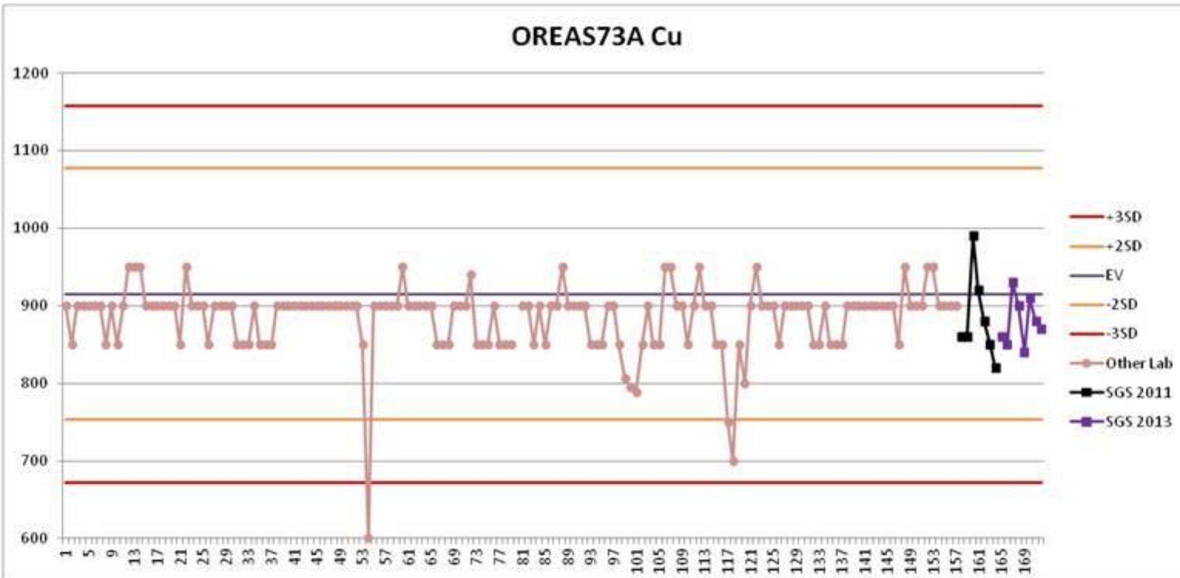

Figure 11-25: OREAS 73A Nickel and Copper CRM values/SGS Canada and BVML Labs

11.7.2 2020-2022 Drilling Campaign

A total of 864 check samples were sent to SGS Lakefield covering the 2020 to 2022 drilling campaign representing 5% of the total sample collected during that period. The analytical results had not been returned at the time this report was issued.

11.8 QP Opinion

It is the QP's opinion that the sample preparation and analytical procedures put in place by SNC meet acceptable industry standards and that the information can be used for geological and resource modelling.

No factors that could compromise the reliability of the resources estimate or completion of the required work was observed during the site visit.

12. Data Verification

12.1 Site Investigation

Mr. Todd McCracken, P.Geo., visited the property on the following dates:

- June 14 to 17, 2023.

Mr. McCracken, QP, examined the project setting, the deposit locations, general terrain of the region. He reviewed numerous drill collar sites and inspected the geology and the drilling logging, and sampling procedure.

12.2 Drill Collar Validation

The QP confirmed the locations of 59 surface borehole collars during the site visit in 2023. The QP collected the collar locations using a handheld GPS unit. All collar locations were located within the acceptable error limit of the handheld GPS unit (Table 12-1).

Table 12-1: Drill Collar Validation

Drill Collar	Sama Original		BBA Validation		Delta
	Easting	Northing	Easting	Northing	
SM24-663733B	619862	857666	619865	857670	4.72
SM24-679708	619882	857691	619882	857694	3.50
SM24-683671	619882	857728	619882	857730	2.10
SM24-699690	619899	857710	619901	857711	2.10
SM24-737618	619937	857783	619935	857779	4.25
SM25-039587	620036	857811	620034	857813	2.99
SM25-080542	620078	857856	620079	857856	1.42
SM34-459218	619658	857380	619654	857379	4.05
SM34-506193	619703	857406	619702	857407	1.92
SM34-575121	619773	857481	619768	857481	5.18
SM44-405257	619603	856539	619601	856536	3.75
SM44-417263	619619	856535	619602	856537	16.62
SM44-428267	619625	856534	619625	856532	1.68
SM44-451301	619636	856507	619632	856513	7.62
SM44-454256	619654	856544	619650	856544	3.72

Drill Collar	Sama Original		BBA Validation		Delta
	Easting	Northing	Easting	Northing	
SM44-454315	619655	856486	619652	856488	3.71
SM44-474334	619674	856471	619673	856471	1.01
SM44-487292D	619683	856517	619683	856515	2.22
SM44-492354	619694	856452	619692	856451	2.17
SM44-494422	619694	856378	619691	856374	4.55
SM44-502299	619702	856500	619702	856496	4.19
SM44-506367	619707	856435	619707	856436	0.93
SM44-507225B	619705	856580	619708	856580	3.13
SM44-523243	619720	856557	619721	856559	2.37
SM44-533379	619730	856419	619730	856421	2.13
SM44-540257	619738	856543	619739	856547	3.96
SM44-563275B	619762	856526	619759	856524	3.75
SM44-579363	619779	856437	619778	856430	7.04
SS44-100500	616095	864297	616093	864300	3.70
SS44-100700	616099	864105	616095	864108	4.83
SS44-200400	616199	864396	616195	864399	4.61
SS44-200500	616198	864301	616199	864307	5.71
SS44-200700	616198	864096	616201	864100	5.10
SS44-300700	616303	864104	616304	864108	3.98
SS44-400400	616400	864401	616399	864406	5.54
SS44-400700	616400	864101	616404	864105	5.31
SS44-500500	616497	864302	616499	864307	5.66
SS44-500700	616501	864100	616504	864099	3.26
SS44-600700	616604	864099	616610	864099	6.10
SS64-200800	616198	862401	616199	862401	0.75
SS73-800400	615999	861999	616000	862004	4.72
SS74-200200	616200	862199	616202	862201	3.05
SS74-200400	616199	862001	616199	862005	4.38
SS74-400200	616400	862201	616400	862204	3.41
SS74-400400	616399	862000	616403	862002	4.30
SM20-070410	624068	858788	624066	858788	1.89
SM20-025500	624027	858705	624026	858704	1.86
SM20-010590	624008	858612	624002	858616	7.48

Drill Collar	Sama Original		BBA Validation		Delta
	Easting	Northing	Easting	Northing	
SM20-050550	624049	858652	624043	858650	6.86
SM19-750600	623951	858599	623949	858602	3.20
SM19-750550	623951	858649	623950	858655	6.37
SM19-660547	623859	858655	623858	858657	2.22
SM20-091471	624091	858726	624088	858734	8.67
SM20-143452	624145	858751	624148	858751	2.93
SM19-718632	623917	858568	623914	858570	4.04
SM20-187493	624185	858709	624180	858715	7.77
SM20-251485	624251	858716	624250	858719	2.77
SM19-624562	623822	858637	623823	858641	4.49
SM19-696521	623896	858677	623898	858681	4.69

12.3 Database Validation

The QP validated 10% of the digital database against the drill logs and assay certificates. No errors were identified.

12.4 Independent Sampling

The QP did not collect any independent samples from drill core. The QP inspected drill holes from all three deposits and visually identified the sulphides in the drill core and compared quantity of sulphides with the assays results. The QP did not observe any discrepancies in the assay results compare the sulphide content in the drill core.

12.5 Qualified Person's Opinion

It is the QP's opinion that the sampling practices of SNC meet current industry standards. The QP also believes that the sample database provided by SNC and validated by the QP is suitable to support the Mineral Resource Estimation.

13. Mineral Processing and Metallurgical Testing

13.1 Historical Testing

Several rounds of test work were conducted on samples from the Samapleu project starting in 2011 and continuing through 2020. The prevailing approach to flotation metallurgy at the time was to produce a bulk flotation concentrate, and locked cycle testing focused on this.

The initial program was conducted at SGS-Vancouver in 2011/12. This program focused on the testing of a blend of disseminated and semi-massive sulphide ores at a ratio of ~ 4:1. The blended composite assayed roughly 0.52% for both Cu and Ni. SGS also conducted limited testing on a semi-massive sample and a fully disseminated sample.

This test program included mineralogical examination and flotation testing, culminating in a locked cycle test ("LCT") on the blended sample. This initial work focused entirely on the production of a bulk copper/nickel flotation concentrate and while the production of separate concentrates appeared from the mineralogy to be feasible it was not explored at all at the time. Locked cycle testing yielded 89% Cu recovery and 75% Ni recovery to a concentrate assaying 9.8% Cu and 8.7% Ni. This concentrate also assayed 6.8 g/t Pd and 1.1 g/t Pt.

A second program was conducted at the CTMP (*Centre de Technologie Minérale et de Plasturgie Inc.*) in Thetford Mines, Québec, in 2013 on a low-grade composite assaying about 0.26% Cu and 0.28% Ni. This yielded 80% Cu recovery and 72% Ni recovery, but to a low-grade bulk Cu/Ni concentrate likely to require further processing prior to sale.

Further flotation work was conducted in 2019 on a composite assaying 0.43% Cu and 0.31% Ni. One LCT yielded a concentrate assaying 11.6% Cu and 6.4% Ni at 89% Cu recovery and 68% Ni recovery, a second yielded a higher-grade bulk concentrate but nickel recovery dropped to 50%. In both cases, Cu/Ni flotation separation was attempted on the locked cycle concentrates, but the separation was poor with the copper concentrate containing only 46% and 51% of the copper. No separation test was run in closed circuit, which probably adversely impacted the resulting recoveries.

Follow up work included a third Cu/Ni separation test, which also incorporated nickel and pyrrhotite scavenging. This yielded good recoveries to a low-grade nickel product, but only 28% Cu recovery to the copper concentrate.

The bulk flotation and copper/nickel separation process was thus ultimately not fully demonstrated in the laboratory, so the 2020 Preliminary Economic Assessment ("PEA") studies (Gagnon et al., 2020) used assumed metallurgy based on "industry experience" rather than hard data.

In 2017, the potential for carbonyl powder production was evaluated at CVMR Corporation in Toronto. Most of this work was done on a bulk flotation concentrate assaying 4.2% Cu, 3.2% Ni and 0.15% Co and involved roasting for sulphur removal, reduction using hydrogen and then carbonylation, the latter yielding a nickel product, and iron product and a residue containing residual copper, cobalt and precious metals. It was unclear if this latter product would be marketable and the assumption for the 2020 PEA was it would be disposed. The test work demonstrated on a preliminary basis that the process could be feasible, and this became the base case for the 2020 PEA report by DRA/Met-Chem (Gagnon et al., 2020). The flowsheet adopted by DRA/Met Chem in the 2020 study is shown in Figure 13-1.

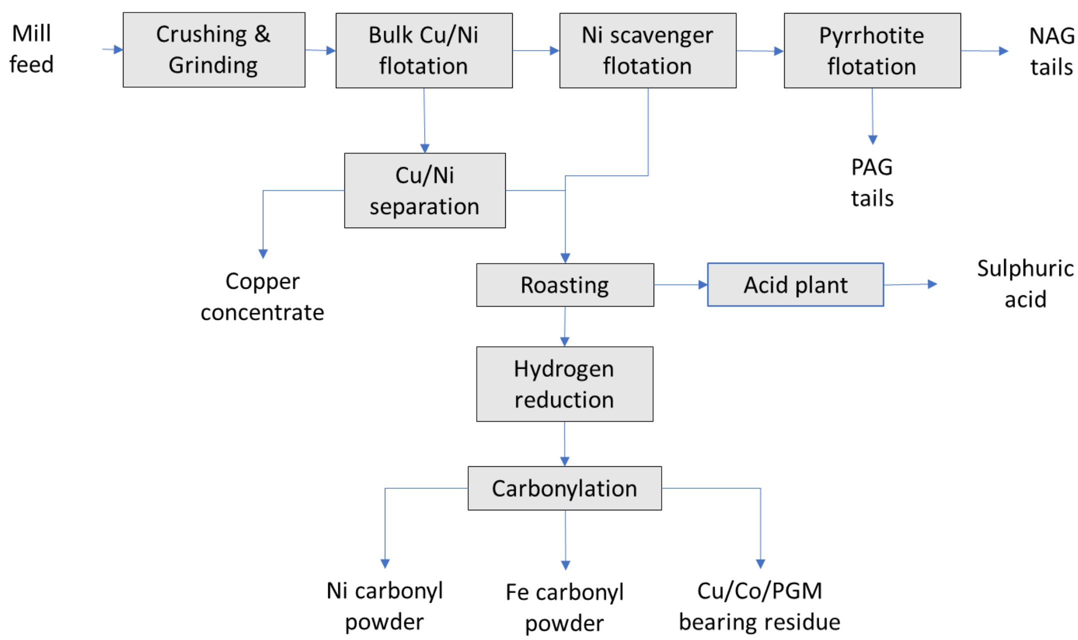

Figure 13-1: Simplified Flow Diagram of Process used for the 2020 PEA

The above work has been described in more detail in the NI 43-101 report on the 2020 Preliminary Economic Assessment (Gagnon et al., 2020).

In summary, the flowsheet as described in 2020 showed promise but also had several potential drawbacks. Despite several attempts, the Cu/Ni separation process had not been demonstrated and this led to uncertainties over the real copper recovery. Furthermore, no revenue was assumed for cobalt and precious metals, much of which would have been lost to the carbonylation residue. Finally, it was unclear if such a complex and relatively novel process could be run effectively on a remote mine site, so the technical risk associated with the process was seen as quite high.

Accordingly, in the work started in 2022, the focus turned to the creation of a process that would preserve or enhance copper and nickel recoveries and allow for revenue to be earned from the cobalt and precious metals. It should be more straightforward and carry a lower perceived technical risk. This process would focus entirely on flotation, and the production of separate copper and nickel concentrates that could be sold directly to third parties without further on-site processing. Unlike the carbonylation process, it would not generate revenue from the contained iron.

Finally, the program expanded testing to include the Grata resource and the Extension zone.

13.2 Testing Since 2022

13.2.1 Composite Design

Three composites were developed for this program of testing. The Samapleu "Main" composite was formed from 11 intervals chosen from three holes located widely distributed around the Main Zone, and mostly within the pit boundary as defined for the 2020 PEA. The composite assayed 0.3% Cu, 0.31% Ni, 0.33 g/t Pd, 0.19 g/t Pt, and 0.04 g/t Au (Figure 13-2).

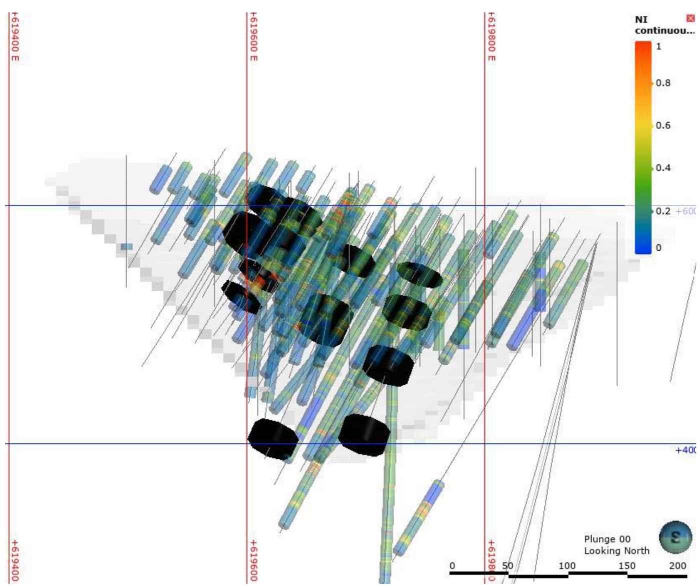

Figure 13-2: Source of Samples for the Samapleu Main Composite

The Samapleu Extension composite was created from ten intervals located in five different holes. All but two intervals were located within the 2020 pit boundaries. This composite assayed 0.18% Cu, 0.25% Ni, 0.48 g/t Pd, 0.14 g/t Pt, and 0.03 g/t Au.

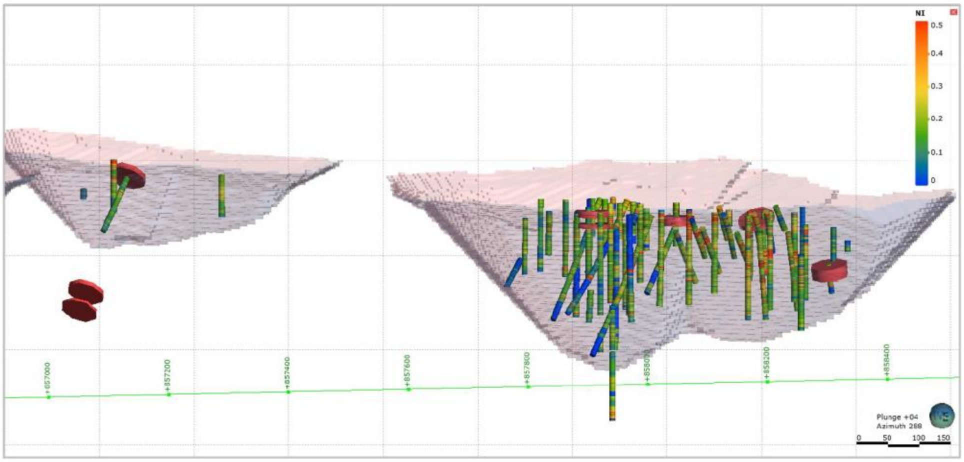

Figure 13-3: Source of Samples for the Samapleu Extension Composite

The Grata composite included material taken from three drill holes, and taken from different depths and a mix of sulphide textures.

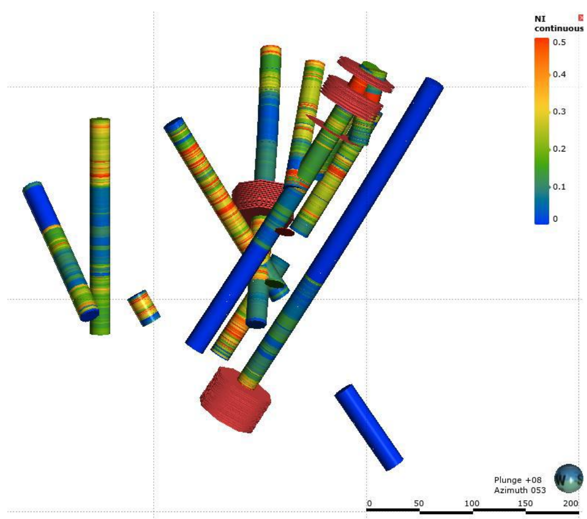

Figure 13-4: Source of Samples for the Grata Composite

13.2.2 Hardness Testing

Comminution test work showed the composites all had similar hardness levels with Bond Ball Mill Work Index values of 18.2 kWh/t, and SAG Mill Comminution ("SMC") test Axb values of ~50. These values place the composites as medium-hard but likely well suited to a conventional SAG mill-based grinding circuit.

13.2.3 Mineralogy

The modal mineralogy of the three composites, established using QEMSCAN analysis, is described in Table 13-1.

Table 13-1: Percent Modal Mineralogy of the Three Composites

	Grata	Extension	Main
Chalcopyrite	1.07	0.66	1.30
Pyrite	0.62	1.28	1.82
Pyrrhotite	2.77	2.98	2.75
Pentlandite	0.46	0.70	0.76
Iron oxides	0.90	2.20	0.56
Fe-Cr Spinels	0.32	3.93	0.83
Quartz	1.60	0.37	0.13
Plagioclase	9.67	0.62	2.60
K Feldspar	0.18	0.02	0.00
Biotite	4.60	0.27	0.11
Muscovite	0.38	0.07	0.03
Chlorite	2.29	2.72	1.33
Amphibole	4.20	3.57	3.01
Ca-Mg-Fe Pyroxene	16.59	18.79	18.96
Mg-Fe Pyroxene	36.21	8.51	30.69
Mg-Fe Silicate	7.07	32.75	21.17
Serpentine	7.44	14.89	10.60
Olivine	0.18	0.60	0.73
Talc	0.19	0.89	0.18
Si-Al Clays	0.62	0.27	0.49
Calcite	0.85	2.14	0.61
Fine textures of sulphides and silicates	1.31	1.15	0.78
Others	0.36	0.56	0.48
Total	**100**	**100**	**100**

Copper is mostly hosted in chalcopyrite, which at a grind size of 80% passing 140 microns, is over 70% liberated in the Samapleu Main and Grata composites, but only 58% liberated in the Extension composite. Nickel predominantly occurs in sulphide form. Pentlandite is the main host of nickel and is also well liberated at the planned grind size, ranging from 62% liberated in the Extension composite to 72% liberated in the Samapleu Main composite.

While all three composites exhibit good sulphide liberation at the grind size of 140 microns, the somewhat poorer liberation in the Extension composite can be expected to lead to somewhat poorer metallurgy.

The iron sulphides are a mix of pyrrhotite and pyrite. The host rock is siliceous, with pyroxenes being the largest constituent. Talc comprises less than 1% of each of the composites, and serpentine ranges from 7-15%.

13.2.4 Flotation

The primary objective of the flotation program was to develop and demonstrate a conventional process solely using froth flotation to produce separate copper and nickel concentrates, both of which would attract good pay on both the base and precious metals.

To this end, and in contrast with earlier work, the focus has been on sequential copper and nickel rougher flotation, with separate cleaner flotation schemes developed for the respective rougher concentrates as shown in Figure 13-5. In practice, it is perceived that a pyrrhotite flotation step may be added to separate the acid generating sulphides from the majority of the tails, however this was not tested extensively in the recent work.

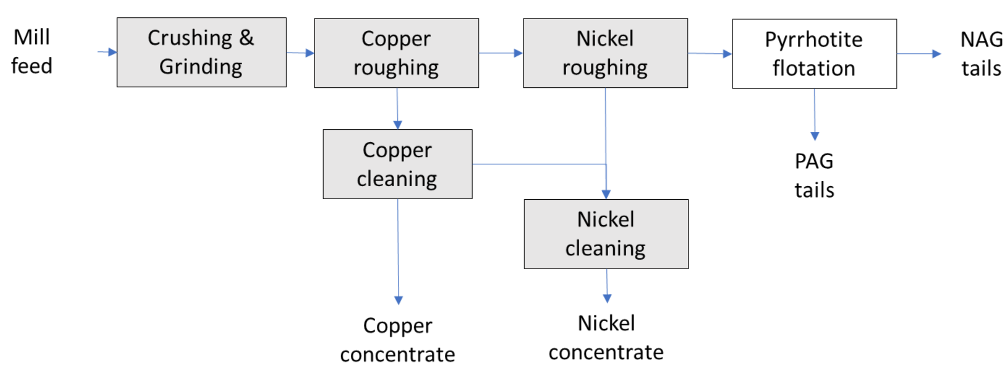

Figure 13-5: Simplified Flowsheet Used in Testing Since 2022

From the first tests in this program, it became clear that these composites would respond favourably to an approach more focused on sequential flotation.

The 43-test flotation development program led to a procedure that employed sodium sulphite and diethylenetriamine ("DETA") as depressants for pentlandite in the copper flotation circuit, with the Solvay reagent AEROPHINE 3418A as the collector, with lime used to modify the pH. Copper cleaner flotation also used small doses of a carboxy methyl cellulose ("CMC")-based talc depressant.

Nickel flotation employed isopropyl xanthate as a collector and a slightly higher dose of the CMC gangue depressant. This is a conventional reagent scheme commonly used commercially in nickel flotation worldwide and its adoption for a project in a remote part of the world represents relatively little technical risk.

Locked cycle tests were run on both the Sama Main and Grata composites. The robustness of the flowsheet is assessed from locked cycle data by how the metal balances stabilize with each advancing cycle. Figure 13-6 below shows how the flow of copper and nickel in the products accounts for the 90-110% range of that feeding the test after just three cycles. This is a strong indicator of a robust and reliable treatment scheme.

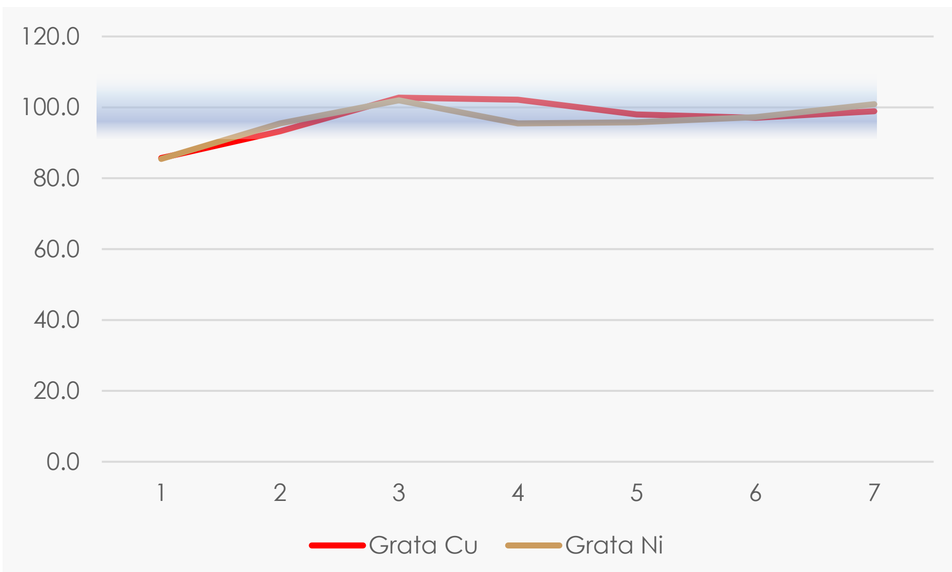

Figure 13-6: Locked Cycle Test Stability Assessment (100 = fully stable)

These tests yielded the metallurgy shown in Table 13-2. Copper flotation from the Main and Grata composites yielded 26% and 25% Cu concentrates at 91% and 83% Cu recovery respectively. Nickel assayed roughly 1% in both concentrates. Nickel flotation yielded 13% Ni assays in both the Main and Grata nickel concentrates, at nickel recoveries of 67% and 72%. Some 50-60% of the cobalt also floated to the nickel concentrate, while combined recoveries of platinum and palladium to both concentrates typically ranged from 60-70%. Gold recoveries were slightly lower.

Table 13-2: Projected Locked Cycle Test Metallurgy from Flotation of Grata and Main Composites

Main (LCT-3)								
Product	Assays %, g/t				% Distribution			
	Cu	Ni	Fe	S	Cu	Ni	Fe	S
Copper Cleaner 3 Conc	25.7	1.2	32.9	31.3	83.1	3.36	2.5	14.2
Nickel Cleaner 3 Conc	1.58	12.6	34.8	25.2	9.3	66.9	4.9	20.9
Nickel Cleaner 1 Tail	0.19	0.42	13.2	2.2	3.2	6.6	5.4	5.4
Rougher Tail	0.01	0.09	12.1	1.4	4.4	23.2	87.1	59.5
Feed	**0.31**	**0.34**	**12.8**	**2.17**	**100.0**	**100.0**	**100.0**	**100.0**
Product	Co	Pt	Pd	Au	Co	Pt	Pd	Au
Copper Cleaner 3 Conc	0.05	2.1	6.4	1.42	2.6	12.9	18.9	26.4
Nickel Cleaner 3 Conc	0.51	5.2	7.6	0.30	50.6	58.0	40.7	10.2
Nickel Cleaner 1 Tail	0.02	0.51	0.67	0.08	6.3	16.9	10.4	7.9
Rougher Tail	0.01	0.02	0.11	0.03	40.5	12.2	30.0	55.5
Feed	**0.02**	**0.16**	**0.34**	**0.05**	**100.0**	**100.0**	**100.0**	**100.0**

Grata (LCT-4)								
Product	Assays %, g/t				Distribution %			
	Cu	Ni	Fe	S	Cu	Ni	Fe	S
Copper Cleaner 3 Conc	26.8	1.06	32.2	31.3	88.1	4.4	3.9	16.5
Nickel Cleaner 3 Conc	1.27	12.5	42.0	29.6	5.7	71.5	7.0	21.4
Nickel Cleaner 1 Tail	0.19	0.36	14.2	3.2	2.2	5.4	6.2	6.1
Rougher Tail	0.02	0.08	12.5	1.9	4.0	18.7	82.9	56.0
Feed	**0.50**	**0.40**	**13.6**	**3.13**	**100.0**	**100.0**	**100.0**	**100.0**
Product	Co	Pt	Pd	Au	Co	Pt	Pd	Au
Copper Cleaner 3 Conc	0.04	1.12	7.34	1.23	3.5	21.9	22.6	43.4
Nickel Cleaner 3 Conc	0.53	1.48	8.69	0.26	60.8	39.7	36.7	12.3
Nickel Cleaner 1 Tail	0.02	0.17	0.87	0.05	5.5	11.8	9.6	6.6
Rougher Tail	0.01	0.02	0.18	0.02	30.1	26.6	31.1	37.7
Feed	**0.02**	**0.08**	**0.54**	**0.05**	**100.0**	**100.0**	**100.0**	**100.0**

Given the preliminary nature of these investigations, combined with a shortness of time and sample, locked cycle testing was not applied to the Extension composite. At this time, the metallurgy of the Extension composite is best described by the batch cleaner test F-37.

For this test, for the two circuits, the key copper and nickel grade vs metal recovery performances are shown in Figure 13-7.

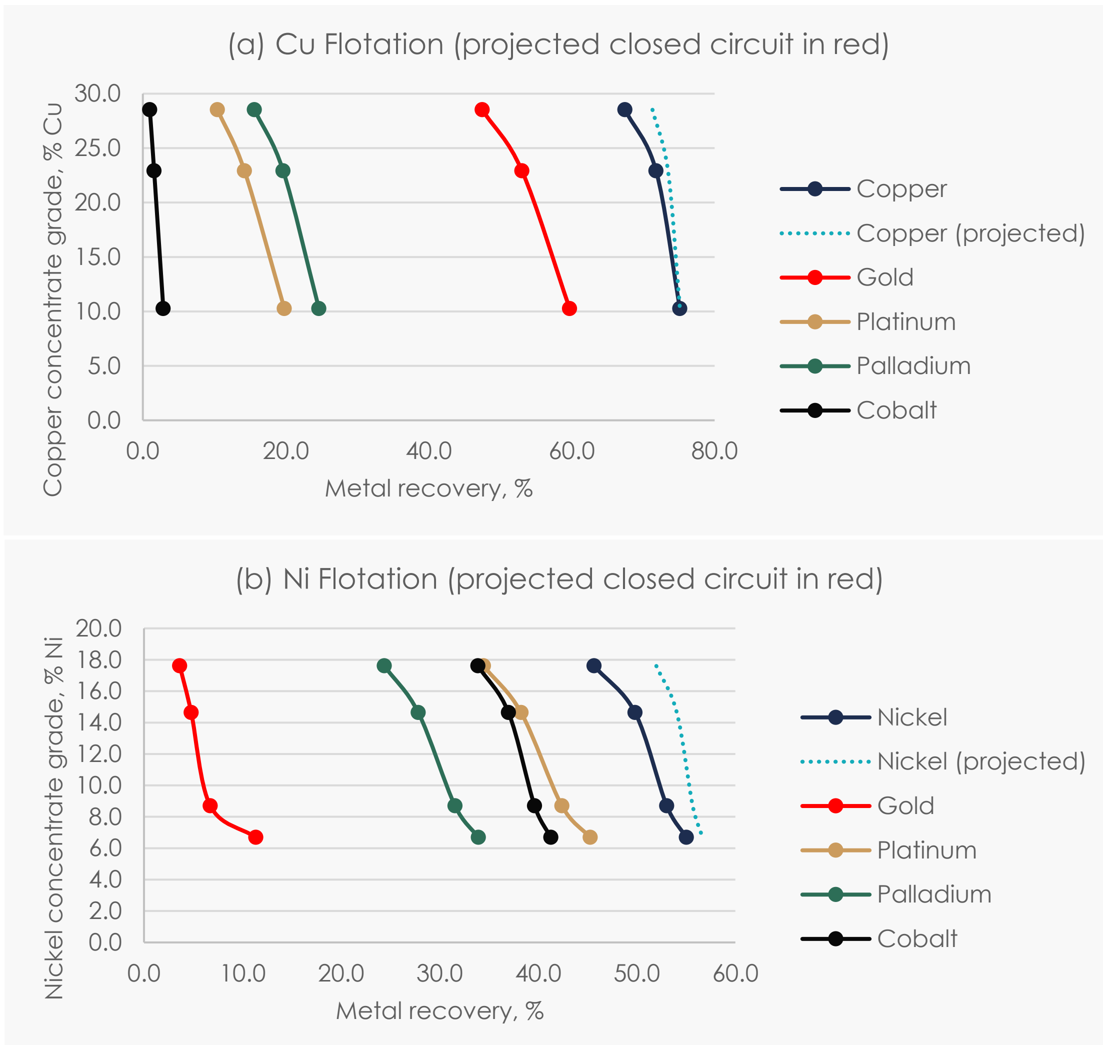

Figure 13-7: Metal Recoveries in Copper and Nickel Flotation from Extension Composite (projected closed circuit recoveries in red)

It should be noted that nickel concentrate grades of about 13% were deemed a reasonable target for these locked cycle tests; however, batch testing suggested the flexibility to achieve higher concentrate grades should this be necessary (at a modest cost in recovery). However, concentrate grades of 13% Ni would make Samapleu competitive in quality with most concentrates produced worldwide, so these were deemed acceptable for the current work.

13.2.5 Concentrate Quality and By-products

In the past, copper concentrates have needed to assay no more than 1% Ni to be deemed acceptable for sale. This may be changing somewhat with the changing dynamics in the nickel market, but prudence dictates that this should remain the target. Industrial experience, however, has consistently shown that the commercial use of column or Jameson cell flotation leads to better nickel rejection in copper flotation than seen in the laboratory. This typically leads to a 30% drop in nickel misplacement to the copper concentrate. This would put these concentrates comfortably within current spec for copper smelters. Further, common penalty elements in copper concentrates such as antimony and arsenic are at very low levels in these concentrates.

Nickel concentrates typically need to assay below 10% MgO for saleability, and below 5% MgO to avoid all MgO-associated penalties. The locked cycle nickel concentrates typically assayed 2-5% MgO, so they fall well within specification for sale to nickel smelters.

Cobalt, platinum and palladium in the nickel concentrates are at levels that will attract good payment terms from the smelters, while palladium and perhaps platinum, silver and gold may attract limited pay in some cases. Full minor element scans on concentrates from the three zones are shown in Table 13-3.

Table 13-3: Multi-element Analyses of Copper and Nickel Concentrates

Element	Unit	Copper Concentrate			Nickel Concentrate		
		LCT-3 (Main)	LCT-4 (Grata)	F-11 (Extension)	LCT-3 (Main)	LCT-4 (Grata)	F-11 (Extension)
Ag	ppm	49.0	39.9	46.3	12.4	29.2	<0.2
Al	%	0.3	0.3	0.3	0.9	0.8	0.4
As	ppm	<2	68	56	<2	<2	<2
Ba	ppm	12	12	7	15	29	14
Be	ppm	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bi	ppm	<2	<2	<2	<2	<2	<2
Ca	%	0	0	0	1	1	1
Cd	ppm	<0.2	<0.2	14	<0.2	<0.2	33
Co	ppm	505	456	251	4905	4891	5165
Cr	ppm	257	152	122	674	353	273
Fe	%	32	31	29	35	39	42
Ga	ppm	<20	<20	<20	<20	<20	<20
Ge	ppm	<20	<20	<20	<20	<20	<20
Hf	ppm	<20	<20	<20	<20	<20	<20

Element	Unit	Copper Concentrate			Nickel Concentrate		
		LCT-3 (Main)	LCT-4 (Grata)	F-11 (Extension)	LCT-3 (Main)	LCT-4 (Grata)	F-11 (Extension)
In	ppm	<20	<20	<20	<20	<20	58
K	%	<0.01	0	<0.01	0	0	<0.01
Li	ppm	<2	<2	2	2	3	2
Mg	%	1	1	3	4	2	2
Mn	ppm	219	220	285	553	399	352
Mo	ppm	<1	10	155	56	351	210
Na	%	0	0	0	0	0	0
Nb	ppm	<10	<10	<10	<10	<10	<10
P	%	<0.002	<0.002	0	<0.002	<0.002	0
Pb	ppm	<2	<2	126	<2	<2	168
Rb	ppm	<20	<20	21	<20	<20	61
Re	ppm	<20	<20	107	<20	<20	138
S	%	11	10	10	14	16	16
Sb	ppm	17	18	<2	14	15	<2
Se	ppm	72	60	80	58	31	50
Sn	ppm	<10	<10	59	<10	<10	46
Sr	ppm	5	6	4	14	14	7
Ta	ppm	10	19	23	<10	21	35
Te	ppm	<10	<10	<10	<10	<10	<10
Ti	%	0	0	0	0	0	0
Tl	ppm	<2	<2	<2	<2	<2	16
V	ppm	13	12	<1	45	39	<1
W	ppm	<10	14	<10	26	29	<10
Zn	ppm	549	698	538	603	693	523
Zr	ppm	7	6	6	8	9	11

13.2.6 Metallurgical Projections for Updated Resource Estimate

For the sake of the current estimate, it has been assumed that the three composites represent material described in the same feed grade versus recovery relationships. Plotting the key results from the two locked cycle tests and the projected metallurgy from F-37 supports this assumption, as they seem to fit well onto reasonable head grade-recovery curves.

Accordingly, in Figure 13-8, copper and nickel recovery to the respective concentrates are described in the curves shown in blue, as a best fit to the actual test datapoints described in orange. The nickel recoveries are capped at 76%.

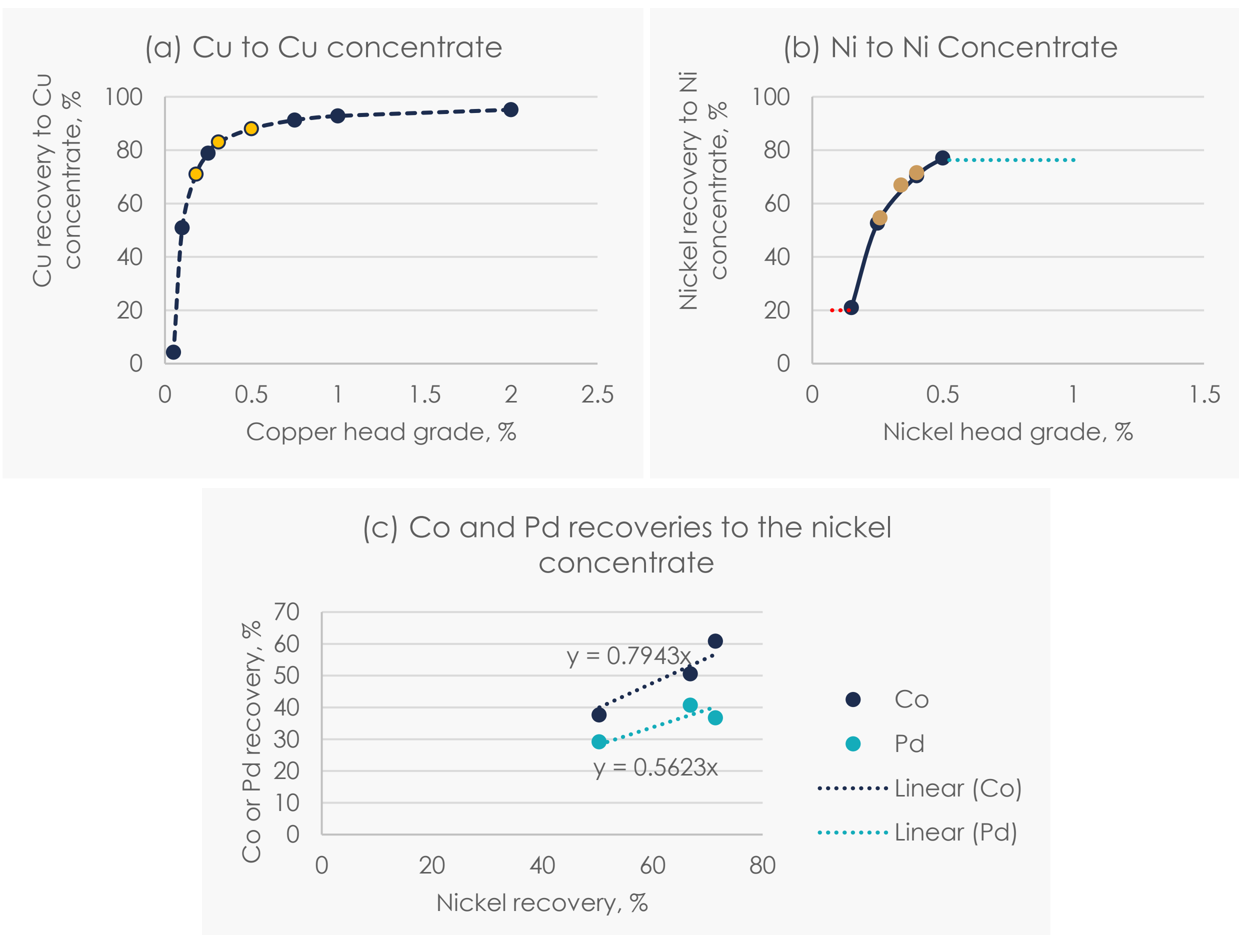

Figure 13-8: Fitting the Metallurgical Forecasting Algorithms to the Test Data

All minor element grade and recovery formulas used in this technical report are shown in Table 13-4.

Table 13-4: Minor Element Grade and Recovery Algorithms for the Metallurgical Forecast

Co, Pt, Pd, Au, Rh and Ag recoveries		Formula
Cobalt	To copper conc:	Fixed at 2.7%
	To nickel conc: Link to Ni recovery:	Ni recovery * 0.794
Platinum	To copper conc:	Recovery fixed at 16%
	To nickel conc:	Recovery fixed at 38%
Palladium	To copper conc:	Recovery fixed at 20.5%
	To nickel conc: Link to Ni recovery:	Ni recovery * 0.562
Gold	To copper conc:	Fixed at 41%
	To nickel conc:	Fixed at 10%
Rhodium	Cu and Ni concentrate grades 0.3 ppm	Assumed fixed
Silver	Cu conc grade 45 g/t	Assumed fixed
	Ni conc grade 20 g/t	Assumed fixed

14. Mineral Resource Estimates

BBA was retained by Sama Nickel Corporation ("SNC") to complete a Mineral Resource Estimate ("MRE") of the Grata Deposit Project. Mr. Todd McCracken acted as the QP and completed the MRE following the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (CIM, 2019). The QP completed a resource estimation with an effective date of June 16, 2023. The resource estimation was conducted using Datamine Studio RM™ version 1.12.113.0.

A summary of the mineral resource is summarized in Table 14-1. Table 14-2 summarizes the in situ contained metal with the pit shells

Table 14-1: Samapleu and Grata Mineral Resource Summary

Classification	Deposit	Tonne	Ni (%)	Cu (%)	Pt (g/t)	Pd (g/t)	Au (g/t)	Co (%)
Indicated	Main	13,425,000	0.24	0.22	0.10	0.31	0.04	0.02
	Extension	201,000	0.28	0.18	0.10	0.55	0.02	0.02
	Grata	1,363,000	0.29	0.27	0.11	0.29	0.04	0.02
	Total	**14,989,000**	**0.25**	**0.22**	**0.10**	**0.31**	**0.04**	**0.02**
Inferred	Main	22,343,000	0.25	0.20	0.08	0.28	0.04	0.02
	Extension	11,119,000	0.28	0.22	0.10	0.47	0.02	0.02
	Grata	68,424,000	0.24	0.25	0.10	0.26	0.04	0.01
	Total	**101,886,000**	**0.25**	**0.23**	**0.10**	**0.29**	**0.04**	**0.01**

Table 14-2: Samapleu and Grata In Situ Metal with Pit Shells

Classification	Deposit	Tonne	Ni ('000 lb)	Cu ('000 lb)	Pt (oz)	Pd (oz)	Au (oz)	Co ('000 lb)
Indicated	Main	13,425,000	71,800	64,000	44,100	133,300	16,800	4,900
	Extension	201,000	1,200	800	600	3,500	100	100
	Grata	1,363,000	8,600	8,100	4,800	12,600	1,900	500
	Total	**14,989,000**	**81,600**	**72,900**	**49,500**	**149,400**	**18,800**	**5,500**
Inferred	Main	22,343,000	121,300	100,300	54,400	201,800	26,600	7,700
	Extension	11,119,000	68,400	53,200	34,400	168,200	8,600	4,300
	Grata	68,424,000	368,900	373,300	222,600	569,400	84,500	21,400
	Total	**101,886,000**	**558,600**	**526,800**	**311,400**	**939,400**	**119,700**	**33,400**

14.1 Main Resource Estimate

14.1.1 Deposit Database

The Project database totals 474 surface-collared diamond drill holes ("DDH"), of which 258 DDH were used to model Main, Extension and Grata deposits, totalling 52,080 m in length. A subset of 108 DDH was used to build the Main model, totalling 18,824 m in length. There are a total of 8,338 assay records in the Main database.

The six geological domains at Main are summarized in Table 14-3. The domain naming convention is used consistently through this disclosure.

Table 14-3: Main Deposit Geological Domains

Domain	Rock type
100	Saprolite
200	Olivine Pyroxenite
300	Pyroxenite
400	Gabbro
700	FW Granulite
800	HW Granulite

Table 14-4 summarizes the borehole within each geological unit. The drill hole database was validated before proceeding to the resource estimation phase, and the validation steps are detailed in Chapter 12.

SNC maintains all borehole data in a Microsoft Access® relational database. Header, survey, assay, and lithology information are saved as individual tables in the database. The database information in CSV format was provided to the QP originally on April 14, 2023.

The QP believes that the database is appropriate for the purposes of mineral resource estimation and the sample density allows a reliable estimate of the tonnage and grade of the mineralization in accordance with the level of confidence established by the mineral resource categories as defined in the CIM Guidelines.

Table 14-4: Main Deposit Borehole Statistics by Domain

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
100	Au	23	119	0.00	0.12	0.03	0.00
	Co	23	119	0.01	0.02	0.01	0.00
	Cr	10	132	0.11	0.70	0.21	0.02
	Cu	23	119	0.02	1.17	0.15	0.04
	Fe	23	119	7.78	15.80	13.12	4.95
	Mn	10	132	0.13	0.29	0.19	0.00
	Ni	23	119	0.08	0.46	0.19	0.01
	Pd	23	119	0.03	1.04	0.20	0.04
	Pt	23	119	0.03	0.34	0.08	0.00
	S	23	119	0.02	5.16	0.60	0.94
	Length	142	0.	0.05	90.00	17.45	277.87
200	Au	2,582	59	0.00	0.95	0.03	0.00
	Co	2,582	59	0.00	0.18	0.02	0.00
	Cr	979	1,662	0.01	15.00	0.62	0.44
	Cu	2,582	59	0.00	6.55	0.14	0.05
	Fe	2,337	304	0.34	42.30	11.31	4.23
	Mn	979	1,662	0.01	0.31	0.16	0.00
	Ni	2,582	59	0.01	4.99	0.23	0.03
	Pd	2,584	57	0.00	5.72	0.36	0.17
	Pt	2,584	57	0.00	3.60	0.09	0.02
	S	2,337	304	0.01	28.00	0.89	2.40
	Length	2,641	0	0.05	73.02	1.36	5.79
200HG	Au	66	0	0.00	0.73	0.07	0.01
	Co	66	0	0.04	0.18	0.06	0.00
	Cr	15	51	0.02	1.07	0.29	0.07
	Cu	66	0	0.04	4.01	0.89	0.40
	Fe	59	7	13.50	42.30	22.86	21.00
	Mn	15	51	0.08	0.24	0.12	0.00
	Ni	66	0	0.90	4.99	1.45	0.37
	Pd	66	0	0.04	5.72	2.03	0.71
	Pt	66	0	0.01	2.92	0.29	0.27
	S	59	7	4.43	28.00	11.12	16.04
	Length	66	0	0.11	1.05	0.54	0.08

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
300	Au	4,931	85	0.00	2.56	0.04	0.01
	Co	4,934	82	0.00	0.19	0.02	0.00
	Cr	1,316	3,700	0.01	0.73	0.19	0.00
	Cu	4,934	82	0.00	12.80	0.24	0.15
	Fe	4,615	401	0.67	52.90	12.62	16.38
	Mn	1,316	3,700	0.02	0.28	0.18	0.00
	Ni	4,934	82	0.00	5.16	0.25	0.16
	Pd	4,934	82	0.00	4.16	0.24	0.12
	Pt	4,931	85	0.00	30.40	0.11	0.25
	S	4,615	401	0.01	37.50	1.66	10.55
	Length	5,016	0	0.05	76.00	1.27	4.28
300HG	Au	190	0	0.00	2.56	0.09	0.06
	Co	190	0	0.03	0.19	0.09	0.00
	Cr	41	149	0.01	0.65	0.12	0.02
	Cu	190	0	0.05	12.80	1.51	1.83
	Fe	172	18	14.80	52.90	30.40	135.45
	Mn	41	149	0.02	0.22	0.10	0.01
	Ni	190	0	0.90	5.16	2.17	1.62
	Pd	190	0	0.05	4.16	1.72	1.12
	Pt	189	1	0.00	11.60	0.25	1.04
	S	172	18	4.56	37.50	17.32	110.89
	Length	190	0	0.08	1.30	0.74	0.08
700	Au	0	3	-	-	-	-
	Co	0	3	-	-	-	-
	Cr	0	3	-	-	-	-
	Cu	0	3	-	-	-	-
	Fe	0	3	-	-	-	-
	Mn	0	3	-	-	-	-
	Ni	0	3	-	-	-	-
	Pd	0	3	-	-	-	-
	Pt	0	3	-	-	-	-
	S	0	3	-	-	-	-
	Length	3	0	4.12	29.62	13.23	134.89

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
800	Au	45	110	0.00	0.08	0.01	0.00
	Co	45	110	0.00	0.02	0.01	0.
	Cr	41	114	0.01	1.05	0.21	0.09
	Cu	45	110	0.01	0.18	0.06	0.00
	Fe	45	110	1.82	12.90	6.24	13.69
	Mn	41	114	0.02	0.19	0.10	0.00
	Ni	45	110	0.00	0.31	0.08	0.01
	Pd	45	110	0.00	0.61	0.12	0.02
	Pt	45	110	0.00	0.22	0.04	0.00
	S	45	110	0.09	1.68	0.43	0.08
	Length	155	0	0.06	180.50	20.85	733.85

14.1.2 Specific Gravity

SNC collected a total of 625 samples from the diamond drill holes in the Main deposit for specific gravity ("SG") measurements.

SNC used the following procedure to determine the average SG for each of the mineral domains:

- Sample selected for SG measurement;
- The Borehole ID, row number, From, To and rock type were entered into a spreadsheet;
- The sample was weighted dry on the scale;
- The sample was then weighted submerged saturated in tap water at a constant 22°C;
- The specific gravity is determined using the following equation:

$$SG = Wd/(Wd - Ws) * CF$$

Wd = Dry weight, Ws = Submerged weight, CF = Correction factor for water temperature

A regression formula based on the iron content within the samples was generated for each domain. Blocks were assigned SG based on the appropriate regression formula or a default SG if a regression formula could not be developed. Table 14-5 summarizes the results of the SG measurements.

Table 14-5: Main Deposit-Specific Gravity Summary

Domain	Rock Type	Number of samples	Regression formula	Default
100	Saprolite	1		1.87
200/300	Pyroxenite	379	SG=0.031Fe+2.954	
400	Gabbro	90	SG=0.056Fe+2.715	
700	FW Granulite	4		2.72
800	HW Granulite	151		2.56

14.1.3 Topography Data

Topographic data was generated as a Digital Terrain Model ("DTM") created using total station surveys on 5-m contours. The area covered by the DTM is sufficient to cover the area defined by the current resource model.

14.1.4 Geological Interpretation

Three-dimensional wireframe models of mineralization were developed in Leapfrog under the supervision of the QP. The wireframes were based on the geological interpretation of the zones as distinct domains and not strictly on grade intervals.

The wireframe solids were imported from Leapfrog into Datamine Studio RM™ in .dwg format. The solids were validated within Datamine. The modelling is broken down into five separate zones based on geology.

Table 14-6 summarizes the solids and associated volumes. Figure 14-1 illustrates the model solids for each of the domains.

Table 14-6: Main Deposit Wireframe Summary

Domain	Rock type	Wireframe volume (m^3)
100	Saprolite	14,260,777
200	Olivine Pyroxenite	34,594,486
300	Pyroxenite	37,506,304
400	Gabbro	75,921,226
700	FW Granulite	252,508,014
800	HW Granulite	131,737,513

The wireframes extend at depth, below the deepest diamond drill holes. This is to provide a target for future exploration. The resource model did not estimate grades into the full volume of the wireframes due to the sheer size of the wireframes.

The non-assayed intervals were assigned a void (-) value.

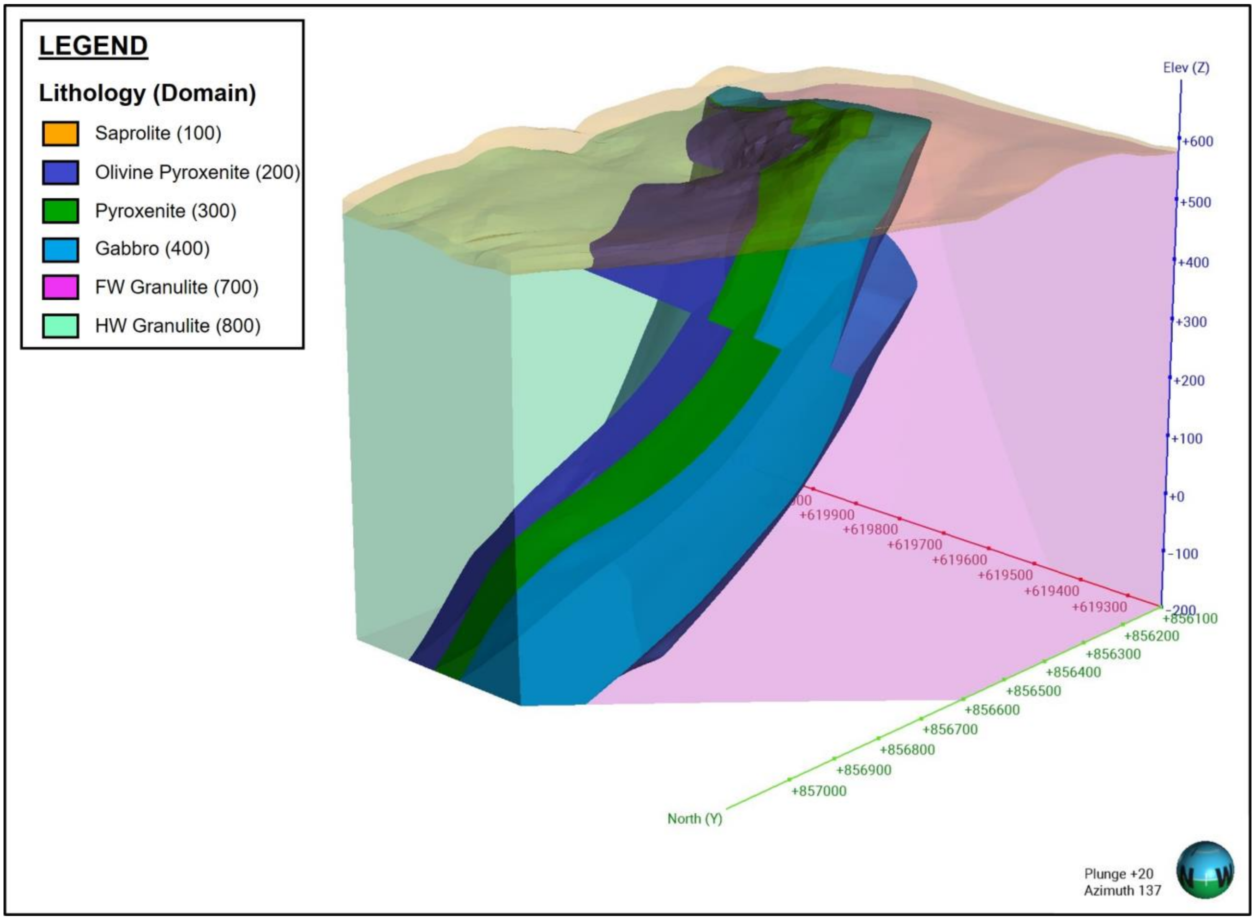

Figure 14-1: Interpretation of Domains (Inclined View not to Scale)

14.1.5 Exploratory Data Analysis

14.1.5.1 Assays

The six domains included in the mineral resource were sampled for a total of 8,248 for nickel, copper, and cobalt assays, 8,250 samples for palladium, and 8,246 samples for platinum. The assay intervals within each mineral domain were captured using the Leapfrog Geo™ routine to flag the intercept into a new table in the database. These intervals were reviewed to ensure all the proper assay intervals were captured. Table 14-7 summarizes the basic statistics for the assay intervals for each of the mineral domains on the property.

Table 14-7: Basic Statistics on Assay Intervals for Each Domain

Element	Number of Samples
Ni	8,248
Cu	8,248
Co	8,248
Pt	8,246
Pd	8,250
Au	8,245
Cr	2,709
Fe	7,631
Mn	2,709
S	7,631

14.1.5.2 Grade Capping

The composite assay data for each element within the domain was examined to assess the amount of metal that is bias from high-grade assays. A combination of viewing the decile tables histogram, QQ, and cumulative frequency plots was used to assist in determining if grade capping was required on each element in the domain.

The capping analysis concluded capping was required for various elements in domains 200, 300, and 400. Table 14-8 summarizes the capping applied to each domain by the QP.

Table 14-8: Capping Summary for Grata Deposit

Domain	Element	Capping Value
200/300	Ni	1.20
	Au	0.80
	Pt	1.55
400	Ni	0.40
	Cu	0.30
	Pd	0.40
	Pt	0.60

14.1.5.3 Composting

Compositing of all the assay data within the domain was completed on downhole intervals honouring the interpretation of the geological solids. Statistics indicate that a majority of the samples were collected at 1.5-m intervals. Composites were generated at a 3-m best fit option, allowing all the material to be used in the compositing process. A 1-m composite was used for high-grade nickel sub-domains (i.e. 200 HG, 300 HG, etc.) to locally estimate higher grade intervals within each wireframe domain. Datamine's backstitch option distributed the "tails" of the composite equally across all the composites in the hole to ensure all the sample material was used in the estimate. Table 14-9 summarizes the statistics for the boreholes after compositing.

Table 14-9: Basics Statistics of Composites Used for Estimation

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
100	Ni_cap	2	792	0.17	0.23	0.2	0
	Cu_cap	2	792	0.07	0.11	0.09	0
	Co_cap	2	792	0.01	0.01	0.01	0
	Pt_cap	2	792	0.07	0.07	0.07	0
	Pd_cap	2	792	0.11	0.16	0.13	0
	Au_cap	2	792	0.02	0.04	0.03	0
	Cr_cap	1	793	0.15	0.15	0.15	-
	Fe_cap	2	792	13.64	15.2	14.37	0.61
	S_cap	2	792	0.09	0.51	0.29	0.04
	length	794	0	2	3.6	2.98	0.02

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
200	Ni_cap	1,031	165	0.04	0.91	0.23	0.01
	Cu_cap	1,031	165	0	1.64	0.14	0.03
	Co_cap	1,031	165	0	0.05	0.02	0
	Pt_cap	1,031	165	0	0.74	0.09	0.01
	Pd_cap	1,031	165	0.01	3.12	0.36	0.1
	Au_cap	1,031	165	0	0.36	0.03	0
	Cr_cap	362	834	0.06	7.43	0.62	0.24
	Fe_cap	943	253	2.72	20.54	11.31	2.21
	S_cap	943	253	0.01	9.3	0.9	1.16
	Length	1,196	0	2.25	4.49	3.01	0.01
200 HG	Ni_cap	36	0	0.91	2.2	1.36	0.12
	Cu_cap	36	0	0.13	3.01	0.92	0.37
	Co_cap	36	0	0.04	0.09	0.06	0
	Pt_cap	36	0	0.03	2.42	0.27	0.18
	Pd_cap	36	0	0.52	3.54	1.93	0.3
	Au_cap	36	0	0.01	0.43	0.07	0.01
	Cr_cap	6	30	0.02	0.61	0.27	0.04
	Fe_cap	32	4	16.7	31.08	22.32	10.69
	S_cap	32	4	6.11	15.38	10.62	6.58
	Length	36	0	0.5	1.25	0.8	0.04
300	Ni_cap	1,839	281	0.02	1.2	0.23	0.03
	Cu_cap	1,839	281	0	4.54	0.24	0.09
	Co_cap	1,839	281	0	0.16	0.02	0
	Pt_cap	1,839	281	0	0.94	0.1	0.01
	Pd_cap	1,839	281	0	4.09	0.24	0.08
	Au_cap	1,839	281	0	0.6	0.04	0
	Cr_cap	463	1,657	0.02	0.57	0.19	0
	Fe_cap	1,730	390	3.24	48.46	12.62	11.63
	S_cap	1,730	390	0.01	33.65	1.66	7.29
	Length	2,120	0	2.73	3.17	3	0

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
300 HG	Ni_cap	143	0	0.9	5.03	2.15	1.49
	Cu_cap	143	0	0.05	6.85	1.5	1.46
	Co_cap	143	0	0.03	0.18	0.09	0
	Pt_cap	142	1	0	11.6	0.24	1.06
	Pd_cap	143	0	0.11	4.14	1.71	1.08
	Au_cap	143	0	0	2.56	0.09	0.06
	Cr_cap	30	113	0.01	0.42	0.11	0.011
	Fe_cap	131	12	14.8	52.6	30.3	129.55
	S_cap	131	12	4.56	37.12	17.23	104.91
	Length	143	0	0.5	1.4	0.92	0.03
400	Ni_cap	161	835	0.01	0.27	0.07	0
	Cu_cap	161	835	0	0.26	0.04	0
	Co_cap	161	835	0	0.04	0.01	0
	Pt_cap	161	835	0	0.21	0.02	0
	Pd_cap	161	835	0	0.65	0.03	0.01
	Au_cap	161	835	0	0.09	0.01	0
	Cr_cap	121	875	0.01	0.22	0.09	0
	Fe_cap	150	846	3.87	12.38	7.67	5.35
	S_cap	150	846	0.01	3.86	0.2	0.18
	Length	996	0	2	3.5	3.01	0.01
700	Ni_cap	0	13	-	-	-	-
	Cu_cap	0	13	-	-	-	-
	Co_cap	0	13	-	-	-	-
	Pt_cap	0	13	-	-	-	-
	Pd_cap	0	13	-	-	-	-
	Au_cap	0	13	-	-	-	-
	Cr_cap	0	13	-	-	-	-
	Fe_cap	0	13	-	-	-	-
	S_cap	0	13	-	-	-	-
	Length	13	0	2.96	4.12	3.05	0.1

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
800	Ni_cap	18	1,058	0	0.28	0.08	0.01
	Cu_cap	18	1,058	0.01	0.14	0.06	0
	Co_cap	18	1,058	0	0.01	0.01	0
	Pt_cap	18	1,058	0	0.19	0.04	0
	Pd_cap	18	1,058	0	0.5	0.12	0.02
	Au_cap	18	1,058	0	0.05	0.01	0
	Cr_cap	17	1,059	0.01	0.78	0.21	0.08
	Fe_cap	18	1,058	2.05	10.82	6.27	12.3
	S_cap	18	1,058	0.13	0.74	0.4	0.03
	Length	10,76	0	2.37	3.62	3	0

14.1.5.4 Spatial Analysis

Variograms for each element were created to inform the search ellipse dimensions. The variograms were also used to assign kriging weights during the estimation process.

The variography for SNC was determined using Snowden Supervisor™ version 8.14.1 software. Each element was modelled using a downhole variogram to determine the nugget effect, then a spherical pair-wise variogram was used to determine spatial continuity in the domain.

Table 14-10 summarizes the results of the variogram models for each element.

Table 14-10: Variogram Parameters

Zone	Element	Nugget (C_0)	First structure (spherical)				Second structure (spherical)			
			C_1	Range 1 (m)	Range 2 (m)	Range 3 (m)	C_2	Range 1 (m)	Range 2 (m)	Range 3 (m)
200 300	Ni	0.1	0.87	30	15	15	0.03	150	90	20
	Cu	0.1	0.82	32	22	20	0.08	140	100	40
	Co	0.1	0.87	30	15	15	0.03	150	90	20
	Pt	0.35	0.63	12	20	12	0.02	90	50	20
	Pd	0.1	0.68	67	31	20	0.22	120	80	25
	Au	0.1	0.6	10	27	20	0.3	150	70	26
	Cr	0.04	0.15	292	82	20	0.81	300	180	100
	Fe	0.1	0.87	30	15	15	0.03	150	90	20
	S	0.1	0.87	30	15	15	0.03	150	90	20

Zone	Element	Nugget (C_0)	First structure (spherical)				Second structure (spherical)			
			C_1	Range 1 (m)	Range 2 (m)	Range 3 (m)	C_2	Range 1 (m)	Range 2 (m)	Range 3 (m)
400	Ni	0.19	0.71	33	20	20	0.1	108	40	30
	Cu	0.07	0.32	20	14	20	0.61	200	60	40
	Co	0.19	0.71	33	20	20	0.1	108	40	30
	Pt	0.04	0.23	64	255	19	0.73	133	256	20
	Pd	0.05	0.71	8	149	34	0.24	60	150	159
	Au	0.35	0.32	39	41	20	0.33	100	100	30
	Cr	0.02	0.33	33	20	20	0.65	100	120	40
	Fe	0.19	0.71	33	20	20	0.1	108	40	30
	S	0.19	0.71	33	20	20	0.1	108	40	30
200 300	HG Ni	0.1	0.87	30	15	15	0.03	150	90	20

14.1.6 Resource Block Model

14.1.6.1 Parent Model

A separate block model was established in Datamine Studio RM™ for the Extension deposit. The model was rotated around the Z axis.

A block size of 10 m x 10 m x 10 m was selected in order to accommodate a small-scale open-pit mining potential. Sub-blocking of the blocks was used to further divide the blocks to fill the volume.

A block size of 1.25 m x 1.25 m x 1.25 m was selected for the local high-grade sub-domains and subsequently superimposed onto the parent model.

Table 14-11 summarizes details of the parent block model.

Table 14-11: Block Model Parameters

Properties	X (column)	Y (row)	Z (level)
Origin coordinates	617000	855760	-250
Number of blocks	280	560	140
Block size (m)	10	10	10
Sub-block size(m)	1.25	1.25	1.25
Rotation	45 degrees around Z axis		

14.1.6.2 Estimate Parameters

An isotropic search ellipse was used for the estimation. Only the samples within the domain wireframe were used in the estimation.

The interpolations of the zones were completed using the estimation methods ordinary kriging ("OK"), nearest neighbour ("NN"), and inverse distance squared ("ID²"). The estimations were designed for multiple passes. In each estimation pass, a minimum and maximum number of samples were required, as well as a maximum number of samples from a borehole in order to satisfy the estimation criteria. A local high-grade Nickel sub-domain within the 200 and 300 wireframe domains was interpolated within the first pass only (200 HG Ni, 300 HG Ni, etc.).

Table 14-12 summarizes the interpolation criteria.

Table 14-12: Interpolation Parameters

Domain	Element	Pass 1				Pass 2				Pass 3			
		Min Comp	Max Comp	Max Comp/ DDH	Search Size	Min Comp	Max Comp	Max Comp/ DDH	Search Size	Min Comp	Max Comp	Max Comp/ DDH	Search Size
200 300	Ni	4	10	2	0.5	3	12	2	1.6	3	12	2	2.2
	Cu	4	10	2	0.5	3	12	2	1.6	3	12	2	2.2
	Co	4	10	2	0.5	3	12	2	1.6	3	12	2	2.2
	Pt	4	10	2	0.5	3	12	2	1.6	3	12	2	2.2
	Pd	4	10	2	0.5	3	12	2	1.6	3	12	2	2.2
	Au	4	10	2	0.5	3	12	2	1.6	3	12	2	2.2
	Cr	4	10	2	0.5	3	12	2	1.6	3	12	2	2.2
	Fe	4	10	2	0.5	3	12	2	1.6	3	12	2	3.5
	S	4	10	2	0.5	3	12	2	1.6	3	12	2	3.5
400	Ni	4	10	2	0.5	3	12	2	1.6	3	12	2	2.2
	Cu	4	10	2	0.5	3	12	2	1.6	3	12	2	2.2
	Co	4	10	2	0.5	3	12	2	1.6	3	12	2	2.2
	Pt	4	10	2	0.5	3	12	2	1.6	3	12	2	2.2
	Pd	4	10	2	0.5	3	12	2	1.6	3	12	2	2.2
	Au	4	10	2	0.5	3	12	2	1.6	3	12	2	2.2
	Cr	4	10	2	0.5	3	12	2	1.6	3	12	2	2.2
	Fe	4	10	2	0.5	3	12	2	1.6	3	12	2	3.5
	S	4	10	2	0.5	3	12	2	1.6	3	12	2	3.5
200 300	HG	4	10	2	0.1	0	0	0	0	0	0	0	0

14.1.7 Resource Classification

Several factors are considered in the definition of a resource classification:

- NI 43-101 requirements;
- Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Estimation of Mineral Resource and Mineral Reserve Best Practice Guidelines (CIM, 2019);
- Author's experience with sulphide deposits;
- Spatial continuity based on the assays within the drill holes;
- Understanding of the geology of the deposit;
- Drill hole spacing, data quality and the estimation runs required to estimate the grades in a block.

A wireframe was created taking the above points into consideration to capture the mineral resource classified as Indicated (Figure 14-2). All remaining blocks were classified as Inferred. No material in the block model was considered as Measured.

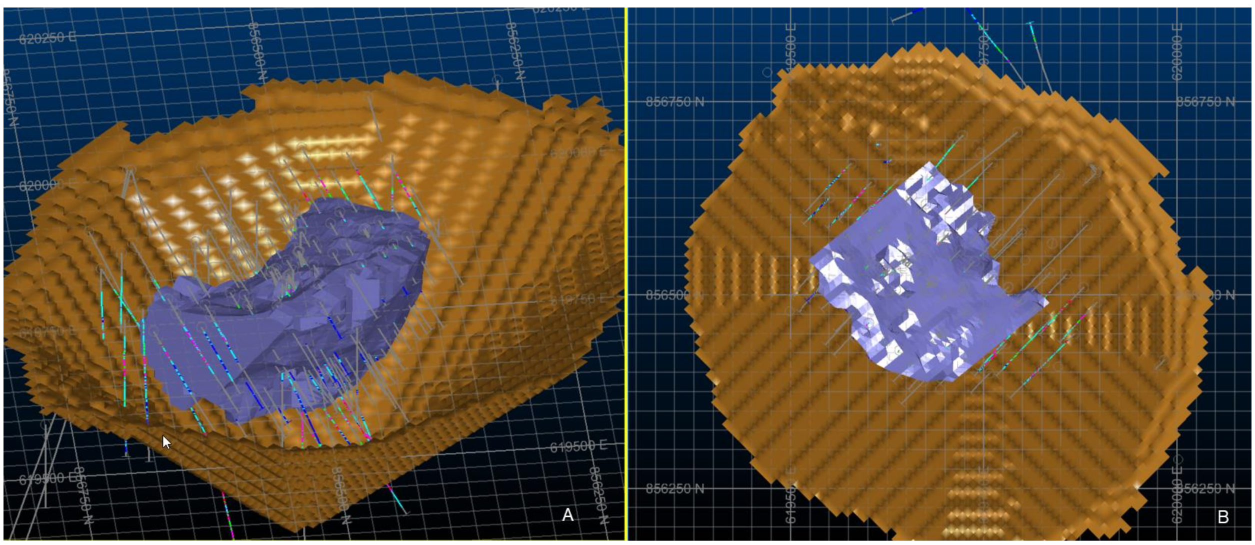

Figure 14-2: Wireframe Created to Classify Blocks as Indicated Mineral Resource
A) Inclined View Looking Northwest (not to scale); B) Plan View

No environmental, permitting, legal, title, taxation, socio-economic, marketing, or other relevant issues are known to the QP which may affect the estimate of mineral resources. Mineral reserves can be estimated only on the basis of an economic evaluation that is used in a Preliminary Feasibility Study or a Feasibility Study of a mineral project; thus, no reserves have been estimated. As per NI 43-101, mineral resources that are not mineral reserves do not have to demonstrate economic viability.

14.1.8 Mineral Resource Tabulation

The resource reported is effective as of June 27, 2023 and has been tabulated in terms of a pit-constrained NSR cut-off grade of USD16.34/tonne milled.

Table 14-13 summarizes the parameters used to develop the pit constraints for a reasonable prospect of economic extraction.

Table 14-13: Pit Constraint Parameters

Input	Unit	Variable
Metal Price	Cu (USD/lb)	3.75
	Ni (USD/lb)	8.70
	Co (USD/lb)	25.10
	Pt (USD/oz)	1,140.00
	Pd (USD/oz)	1,300.00
	Au (USD/oz)	1,690.00
Mining Cost (CAD/t)	Saprolite (USD/t)	1.68
	Fresh (USD/t)	2.26
	Incremental (USD/t per 10 bench)	0.05
	Sustaining capital (USD/t)	0.09
Pit Angle	Saprolite (degree)	25
	Fresh (degree)	45
Processing Cost (CAD/t)	Processing cost (USD/t milled)	13.02
G&A (CAD/t)	(USD/t milled)	3.32
Treatment Charge	Cu conc. (USD/t conc.)	105.00
	Ni conc. (USD/t conc.)	346.00
Freight to Smelter	USD/t conc.	63.00
Metallurgical Recoveries	Based on conc. and grades	variable
Mine Dilution	(%)	5
Mine Recovery	(%)	5

The pit-constrained mineral resource for the Sama Main deposit is summarized in Table 14-14. Table 14-15 summarized the in situ contained metal with the pit shell.

Table 14-14: Sama Main Resource Summary

Classification	Deposit	Tonne	Ni (%)	Cu (%)	Pt (g/t)	Pd (g/t)	Au (g/t)	Co (%)
Indicated	Main	13,425,000	0.24	0.22	0.10	0.31	0.04	0.02
Inferred		22,343,000	0.25	0.20	0.08	0.28	0.04	0.02

Table 14-15: Sama Main In Situ Contained Metal in a Pit Shell

Classification	Deposit	Tonne	Ni ('000 lb)	Cu ('000 lb)	Pt (oz)	Pd (oz)	Au (oz)	Co ('000 lb)
Indicated	Main	13,425,000	71,800	64,000	44,100	133,300	16,800	4,900
Inferred		22,343,000	121,300	100,300	54,400	201,800	26,600	7,700

A mineral resource was prepared in accordance with NI 43-101 and the CIM Definition Standards (2019). Mineral resources that are not mineral reserves do not have demonstrated economic viability. This estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.

14.1.9 Model Validation

The Main model was validated by two methods:

- Visual comparison of colour-coded block model grades with composite grades on section;
- Comparison of the global mean block grades for ID^2, NN, and composites.

14.1.9.1 Visual Validation

The visual comparisons of ordinary kriging block model grades and composite drill holes show a reasonable correlation between the values (Figure 14-3). No significant discrepancies were apparent from the sections reviewed, yet grade smoothing was apparent in some of the lower elevations due to the distance between drill samples being broader in these regions.

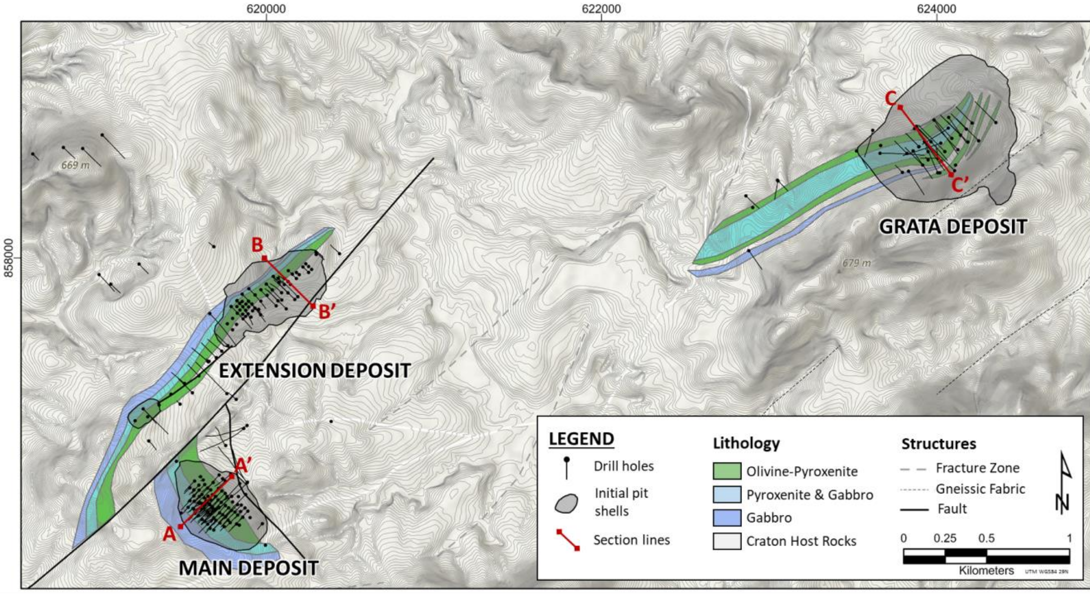

Figure 14-3: Surface Plan Showing Optimized Pits for Samapleu and Grata Deposits

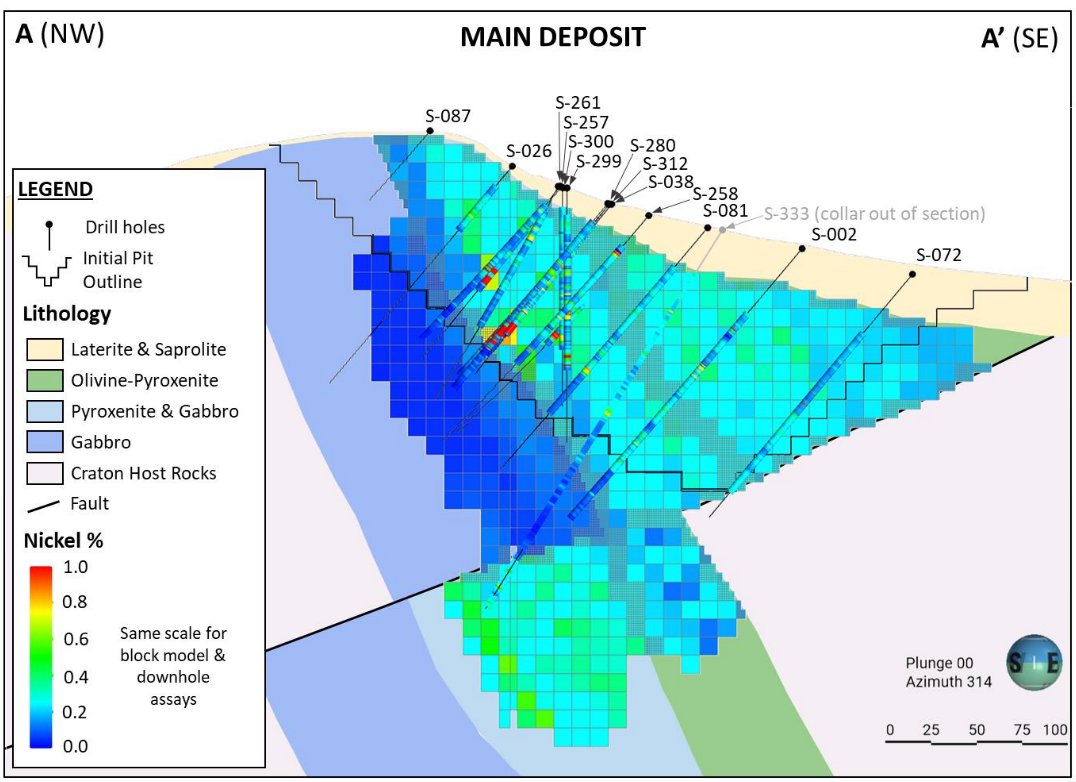

Figure 14-4: Main Deposit Visual Validation Through A-A'

14.1.9.2 Global Statistics

The global block model statistics for the OK model were compared to the global NN and ID² model. Table 14-16 shows this comparison of the global estimates for the three estimation method calculations. Comparisons were made using all blocks above an NSR value of $0.

Table 14-16: Main Global Statistics Comparison

Element	NN	ID²	OK
Ni (%)	0.21	0.21	0.21
Cu (%)	0.16	0.16	0.16
Co (%)	0.01	0.01	0.01
Pt (g/t)	0.09	0.09	0.09
Pd (g/t)	0.25	0.26	0.25
Au (g/t)	0.03	0.03	0.03

14.1.10 Previous Estimates

A comparison between the historic Mineral Resource Statement in 2020 (Gagnon et. al., 2020) and the current Mineral Resource Statement disclosed in this report is not possible as the historic mineral resource in 2020 did not report the Main and Extension deposits separately and did not report the Cu, Co, Pt, Pd, and Au values.

There are several differences between the 2020 and 2023 mineral resource statements, including, yet not limited to:

- The current estimate is based on an NSR cut-off grade and the historic estimate was based on a nickel equivalency;
- 29 additional drill holes;
- A re-interpretation of the geology;
- A re-interpretation of the SG data;
- Different metal pricing, smelter terms and pit parameters.

14.2 Extension Resource Estimate

14.2.1 Deposit Database

The Project database totals 474 surface-collared diamond drill holes ("DDH"), of which 258 DDH were used to model Main, Extension and Grata deposits, totalling 52,080 m in length. A subset of 100 DDH was used to build the Extension model, totalling 17,753 m in length. There are a total of 7,992 assay records in the Extension database.

The six geological domains at Extension are summarized in Table 14-17. The domain naming convention is used consistently through this disclosure.

Table 14-17: Main Deposit Geological Domains

Domain	Rock Type
100	Saprolite
200	Olivine Pyroxenite
400	Gabbro
600	Olivine Pyroxenite
700	FW Granulite
800	HW Granulite

Table 14-18 summarizes the borehole within each geological unit. The drill hole database was validated before proceeding to the resource estimation phase, and the validation steps are detailed in Chapter 12.

SNC maintains all borehole data in a Microsoft Access® relational database. Header, survey, assays, and lithology information are saved as individual tables in the database. The database information in CSV format was provided to the QP originally on April 14, 2023.

The QP believes that the database is appropriate for the purposes of mineral resource estimation and the sample density allows a reliable estimate of the tonnage and grade of the mineralization in accordance with the level of confidence established by the mineral resource categories as defined in the CIM Guidelines.

Table 14-18: Summary of the Borehole Within Each Geological Unit

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
100	Ni	49	224	0	0.54	0.12	0.02
	Cu	49	224	0.01	0.51	0.07	0.01
	Co	49	224	0	0.04	0.01	0.00
	Pt	49	224	0	0.22	0.04	0.00
	Pd	49	224	0	0.55	0.1	0.01
	Au	49	224	0	0.14	0.01	0.00
	Cr	45	228	0.01	1.05	0.23	0.08
	Fe	49	224	1.39	29.3	8.58	57.30
	Mn	45	228	0.01	0.35	0.11	0.01
	S	49	224	0.01	3.04	0.18	0.15
	Length	273	0	0.03	40.3	10.93	116.84
200	Ni	4,758	107	0	3.53	0.23	0.06
	Cu	4,758	107	0	13.3	0.17	0.11
	Co	4,758	107	0	0.23	0.02	0.00
	Pt	4,726	139	0	9.95	0.09	0.06
	Pd	4,726	139	0	4.9	0.38	0.23
	Au	4,715	150	0	2.53	0.02	0.00
	Cr	1,850	3,015	0	16.2	0.61	1.27
	Fe	4,322	543	0.13	50.4	11.63	12.49
	Mn	1,850	3,015	0.01	0.3	0.16	0.00
	S	4,290	575	0.01	31.6	1.5	7.15
	Length	4,865	0	0.01	73.05	1.15	2.47
400	Ni	1,713	80	0	2.35	0.13	0.02
	Cu	1,713	80	0	2.53	0.07	0.02
	Co	1,713	80	0	0.12	0.01	0.00
	Pt	1,677	116	0	2.77	0.05	0.01
	Pd	1,677	116	0	3.08	0.14	0.05
	Au	1,677	116	0	0.32	0.01	0.00
	Cr	852	941	0.01	0.29	0.12	0.00
	Fe	1,573	220	2.16	29.5	9.66	9.62
	Mn	852	941	0.04	0.26	0.14	0.00
	S	1,537	256	0.01	15.9	0.56	1.49
	Length	1,793	0	0.05	48.65	1.4	4.50

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
600	Ni	1,530	86	0	2.31	0.19	0.03
	Cu	1,530	86	0	4.67	0.13	0.04
	Co	1,530	86	0	0.1	0.01	0.00
	Pt	1,530	86	0	2.77	0.07	0.01
	Pd	1,530	86	0	5.23	0.27	0.15
	Au	1,530	86	0	0.45	0.02	0.00
	Cr	616	1,000	0.01	7.63	0.3	0.18
	Fe	1,389	227	0.71	35	10.96	7.23
	Mn	616	1,000	0.01	0.33	0.16	0.00
	S	1,389	227	0.01	22.1	0.97	2.20
	Length	1,616	0	0.02	36.3	1.36	4.16
700	Ni	153	99	0	0.79	0.08	0.02
	Cu	153	99	0	1.02	0.08	0.02
	Co	153	99	0	0.04	0.01	0.00
	Pt	153	99	0	0.65	0.02	0.00
	Pd	153	99	0	1.31	0.11	0.04
	Au	153	99	0	0.1	0.01	0.00
	Cr	87	165	0.01	0.19	0.02	0.00
	Fe	153	99	0.87	19.5	6.9	21.07
	Mn	87	165	0.01	0.31	0.08	0.01
	S	153	99	0.01	8.38	0.73	1.35
	Length	252	0	0.01	49.3	3.47	38.29
800	Ni	383	321	0	1.59	0.05	0.02
	Cu	383	321	0	1.18	0.06	0.01
	Co	383	321	0	0.1	0.01	0.00
	Pt	371	333	0	0.46	0.03	0.00
	Pd	371	333	0	1.64	0.07	0.03
	Au	371	333	0	0.19	0.01	0.00
	Cr	256	448	0	0.89	0.08	0.02
	Fe	321	383	0.93	23.1	6.41	15.58
	Mn	256	448	0.01	0.36	0.1	0.01
	S	309	395	0.01	8.79	0.43	0.56
	Length	704	0	0.05	87.7	4.14	85.44

14.2.2 Specific Gravity

SNC collected a total of 911 samples from the diamond drill holes in the Extension deposit for SG measurements.

SNC used the same procedure to collect the data as disclosed in Section 14.1.2. Table 14-19 summarizes the results of the SG measurements for the Extension deposit.

Table 14-19: Extension-Deposit Specific Gravity Summary

Domain	Rock Type	Number of Samples	Regression Formula	Default
100	Saprolite	2		1.87
200/600	Pyroxenite	579	SG=0.032Fe+2.947	
400	Gabbro	125	SG=0.047Fe+2.764	
700	FW Granulite	47		2.45
800	HW Granulite	158		2.60

14.2.3 Topography Data

Topographic data was generated as a Digital Terrain Model ("DTM") created using total station survey on 5-m contours. The area covered by the DTM is sufficient to cover the area defined by the current resource model.

14.2.4 Geological Interpretation

Three-dimensional wireframe models of mineralization were developed in Leapfrog under the supervision of the QP. The wireframes were based on the geological interpretation of the zones as distinct domains and not strictly on grade intervals.

The wireframe solids were imported from Leapfrog into Datamine Studio RM™ in .dwg format. The solids were validated within Datamine.

The modelling is broken down into six separate zones based on geology. Table 14-20 tabulates the solids and associated volumes. Figure 14-5 illustrates the model solid for each of the domains.

Table 14-20: Solids and Associated Volumes

Zone	Rock type	Wireframe vol (m^3)
100	Saprolite	47,679,435
200	Olivine Pyroxenite	88,662,478
400	Gabbro	89,402,239
600	Olivine Pyroxenite	47,681,876
700	FW Granulite	1,093,438,209
800	HW Granulite	131,819,278

The wireframes extend at depth, below the deepest diamond drill holes. This is to provide a target for future exploration. The resource model did not estimate grades into the full volume of the wireframes due to sheer size of the wireframes.

The non-assayed intervals were assigned a void (-) value.

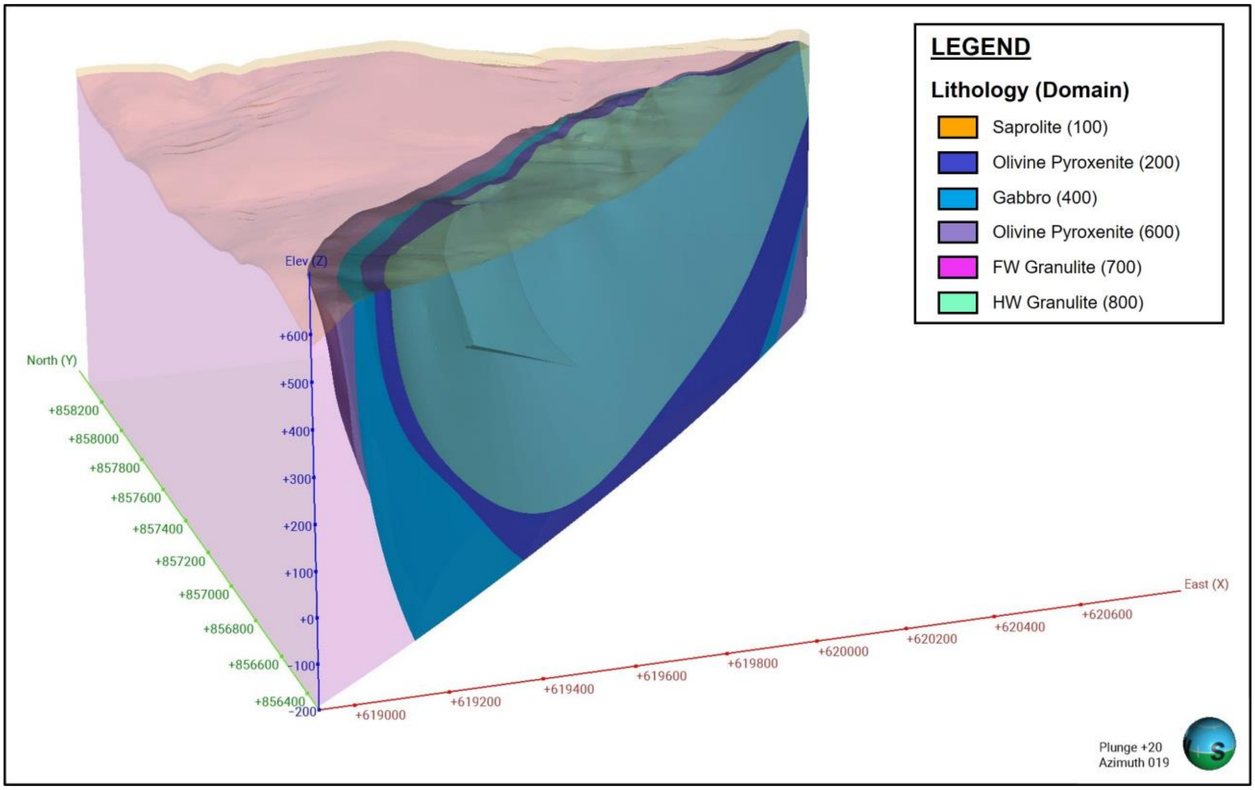

Figure 14-5: Interpretation of Domains (Inclined View not to Scale)

14.2.5 Exploratory Data Analysis

14.2.5.1 Assays

The six domains included in the mineral resource were sampled by a total of 8,586 for nickel, copper and cobalt assays, and 8,506 samples for palladium and platinum. The assay intervals within each mineral domain were captured using Leapfrog Geo™ routine to flag the intercept into a new table in the database. These intervals were reviewed to ensure all the proper assay intervals were appropriately captured. Table 14-21 summarizes the basic statistics for the assay intervals for each of the mineral domains on the property.

Table 14-21: Basic Statistics on Assays Intervals for Each Domain

Element	Number of Samples
Ni	8,586
Cu	8,586
Co	8,586
Pt	8,506
Pd	8,506
Au	8,495
Cr	3,706
Fe	7,807
Mn	3,706
S	7,727

14.2.5.2 Grade Capping

The composite assay data for each element within the domain was examined to assess the amount of metal that is bias from high-grade assays. A combination of viewing the decile tables the histogram, QQ, and cumulative frequency plots was used to assist in determining if grade capping was required on each element in the domain.

The capping analysis concluded capping was required in domain 200 on Pt since the CV is higher than 2.0. The QP applied a top cut at 2.5. No capping was required to other domains.

14.2.5.3 Composting

Compositing of all the assay data within the domain was completed on downhole intervals honouring the interpretation of the geological solids. Statistics indicate that a majority of the samples was collected at 1.5-m intervals. Composites were generated at 3-m best-fit option, allowing all the material to be used in the compositing process. Datamine's backstitch option distributed the "tails" of the composite equally across all the composites in the hole to ensure all the sample material was used in the estimate. Table 14-22 summarizes the statistics for the boreholes after compositing.

Table 14-22: Basics Statistics of Composites Used for Estimation

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
100	Ni_cap	16	984	0	0.37	0.11	0.02
	Cu_cap	16	984	0.01	0.25	0.08	0.01
	Co_cap	16	984	0	0.03	0.01	0.00
	Pt_cap	16	984	0	0.11	0.03	0.00
	Pd_cap	16	984	0	0.31	0.1	0.01
	Au_cap	16	984	0	0.04	0.01	0.00
	Cr_cap	16	984	0.01	0.89	0.2	0.07
	Fe_cap	16	984	1.7	25.32	8.4	60.17
	S_cap	16	984	0.01	1.65	0.19	0.16
	Length	1,000	0	2.7	3.25	2.98	0.01
200	Ni_cap	1,686	188	0	2.09	0.23	0.03
	Cu_cap	1,686	188	0	3.73	0.17	0.05
	Co_cap	1,686	188	0	0.14	0.02	0.00
	Pt_cap	1,673	201	0	1.72	0.09	0.01
	Pd_cap	1,673	201	0	3.19	0.38	0.15
	Au_cap	1,670	204	0	0.59	0.02	0.00
	Cr_cap	594	1,280	0.01	12.31	0.61	0.82
	Fe_cap	1,533	341	0.19	35.98	11.62	7.52
	S_cap	1,520	354	0.01	22.46	1.5	4.13
	Length	1,874	0	2.75	4	3	0.00

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
400	Ni_cap	676	165	0	1.07	0.13	0.01
	Cu_cap	676	165	0	1.26	0.07	0.01
	Co_cap	676	165	0	0.08	0.01	0.00
	Pt_cap	658	183	0	0.87	0.05	0.00
	Pd_cap	658	183	0	1.27	0.14	0.04
	Au_cap	658	183	0	0.24	0.01	0.00
	Cr_cap	337	504	0.02	0.26	0.12	0.00
	Fe_cap	623	218	3.66	19.27	9.66	7.90
	S_cap	605	236	0.01	7.92	0.56	0.90
	Length	841	0	1.65	4.25	2.98	0.01
600	Ni_cap	570	161	0.01	1.23	0.19	0.02
	Cu_cap	570	161	0	1.08	0.13	0.02
	Co_cap	570	161	0	0.06	0.01	0.00
	Pt_cap	570	161	0	1.09	0.07	0.01
	Pd_cap	570	161	0	3.1	0.27	0.10
	Au_cap	570	161	0	0.24	0.02	0.00
	Cr_cap	207	524	0.01	2.45	0.3	0.11
	Fe_cap	517	214	3.64	19.84	10.95	5.09
	S_cap	517	214	0.01	10.71	0.97	1.26
	Length	731	0	2.5	4	2.99	0.01
700	Ni_cap	56	237	0	0.46	0.08	0.01
	Cu_cap	56	237	0.01	0.57	0.07	0.01
	Co_cap	56	237	0	0.03	0.01	0.00
	Pt_cap	56	237	0	0.16	0.02	0.00
	Pd_cap	56	237	0	0.75	0.11	0.03
	Au_cap	56	237	0	0.05	0.01	0.00
	Cr_cap	33	260	0.01	0.1	0.02	0.00
	Fe_cap	56	237	1.18	14.72	6.81	16.08
	S_cap	56	237	0.05	4.69	0.74	0.76
	Length	293	0	1.9	3.85	2.99	0.04

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
800	Ni_cap	140	833	0	0.85	0.05	0.01
	Cu_cap	140	833	0	0.51	0.06	0.01
	Co_cap	140	833	0	0.04	0.01	0.00
	Pt_cap	135	838	0	0.23	0.02	0.00
	Pd_cap	135	838	0	0.87	0.07	0.02
	Au_cap	135	838	0	0.1	0.01	0.00
	Cr_cap	84	889	0	0.72	0.07	0.01
	Fe_cap	112	861	1.16	16.36	6.32	12.83
	S_cap	107	866	0.02	4.6	0.43	0.34
	Length	973	0	2.63	4.25	2.99	0.01

14.2.5.4 Spatial Analysis

Variograms for each element were created to generate the search ellipse dimensions. The variograms were also used to assign kriging weights during the estimation process.

The variography for SNC was determined using Snowden Supervisor™ version 8.14.1 software. Each element was modelled using a downhole variogram to determine nugget effect, then a spherical pair-wise variogram was used to determine spatial continuity in the domain.

Table 14-23 summarizes the results of the variogram models for each element. The variogram rotation and maximum range governed the search ellipse rotation and size.

Table 14-23: Variogram Parameters

Zone	Element	Nugget (C_0)	First Structure (Spherical)				Second Structure (Spherical)			
			C_1	Range 1 (m)	Range 2 (m)	Range 3 (m)	C_2	Range 1 (m)	Range 2 (m)	Range 3 (m)
200 & 600	Ni	0.25	0.11	33	27	15	0.64	45	47	18
	Cu	0.286	0.52	34	25	35	0.194	72	33	38
	Co	0.25	0.11	33	27	15	0.64	45	47	18
	Pt	0.54	0.27	36	24	4	0.19	73	94	9
	Pd	0.21	0.11	8	8	5	0.68	50	39	40
	Au	0.49	0.17	33	46	63	0.34	114	73	64
	Cr	0.33	0.01	145	43	19	228	60	20	0.66
	Fe	0.25	0.11	33	27	15	0.64	45	47	18
	S	0.25	0.11	33	27	15	0.64	45	47	18

Zone	Element	Nugget (C_0)	First Structure (Spherical)				Second Structure (Spherical)			
			C_1	Range 1 (m)	Range 2 (m)	Range 3 (m)	C_2	Range 1 (m)	Range 2 (m)	Range 3 (m)
And 400	Ni	0.22	0.73	17	39	10	0.05	40	91	17
	Cu	0.22	0.73	17	39	10	0.05	40	91	17
	Co	0.22	0.73	17	39	10	0.05	40	91	17
	Pt	0.22	0.73	17	39	10	0.05	40	91	17
	Pd	0.22	0.73	17	39	10	0.05	40	91	17
	Au	0.34	0.4	26	48	68	0.26	46	60	79
	Cr	0	0.79	21	64	45	0.21	43	66	60
	Fe	0.22	0.73	17	39	10	0.05	40	91	17
	S	0.22	0.73	17	39	10	0.05	40	91	17

14.2.6 Resource Block Model

14.2.6.1 Parent Model

A separate block model was established in Datamine Studio RM™ for the Extension deposit. The model was rotated around the Z axis.

A block size of 10 m x 10 m x 10 m was selected in order to accommodate a small-scale open-pit mining potential. Sub-blocking of the blocks was used to further divided the blocks to fill the volume.

Table 14-24 summarizes details of the parent block model.

Table 14-24: Block Model Parameters

Properties	X (column)	Y (row)	Z (level)
Origin coordinates	617000	855760	-250
Number of blocks	280	560	140
Block size (m)	10	10	10
Sub-block size(m)	1.25	1.25	5.00
Rotation	45 degrees around Z axis		

14.2.6.2 Estimate Parameters

An isotropic search ellipse was used for the estimation. Only the samples within the domain wireframe were used in the estimation.

The interpolations of the zones were completed using the estimation methods ordinary kriging ("OK"), nearest neighbour ("NN"), and inverse distance squared ("ID²"). The estimations were designed for multiple passes. In each estimation pass, a minimum and maximum number of samples were required as well as a maximum number of samples from a borehole in order to satisfy the estimation criteria.

Table 14-25 summarizes the interpolation criteria.

Table 14-25: Interpolation Parameters

Domain	Element	Pass1				Pass2				Pass3			
		Min Comp	Max Comp	Max Comp /DDH	Search Size	Min Comp	Max Comp	Max Comp/ DDH	Search Size	Min Comp	Max Comp	Max Comp / DDH	Search Size
200 & 600	Ni	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Cu	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Co	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Pt	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Pd	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Au	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Cr	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Fe	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	S	4	10	2	0.5	3	12	2	1.6	3	12	2	3
400	Ni	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Cu	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Co	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Pt	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Pd	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Au	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Cr	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Fe	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	S	4	10	2	0.5	3	12	2	1.6	3	12	2	3

14.2.7 Resource Classification

Several factors are considered in the definition of a resource classification:

- NI 43-101 requirements;
- Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Estimation of Mineral Resource and Mineral Reserve Best Practice Guidelines (CIM, 2019);
- Author's experience with sulphide deposits;
- Spatial continuity based on the assays within the drill holes;
- Understanding of the geology of the deposit;
- Drill hole spacing, data quality and the estimation runs required to estimate the grades in a block.

A wireframe was created taking the above points into consideration to capture the mineral resource classified as Indicated (Figure 14-6). All remaining blocks were classified as Inferred. No material in the block model was considered as Measured.

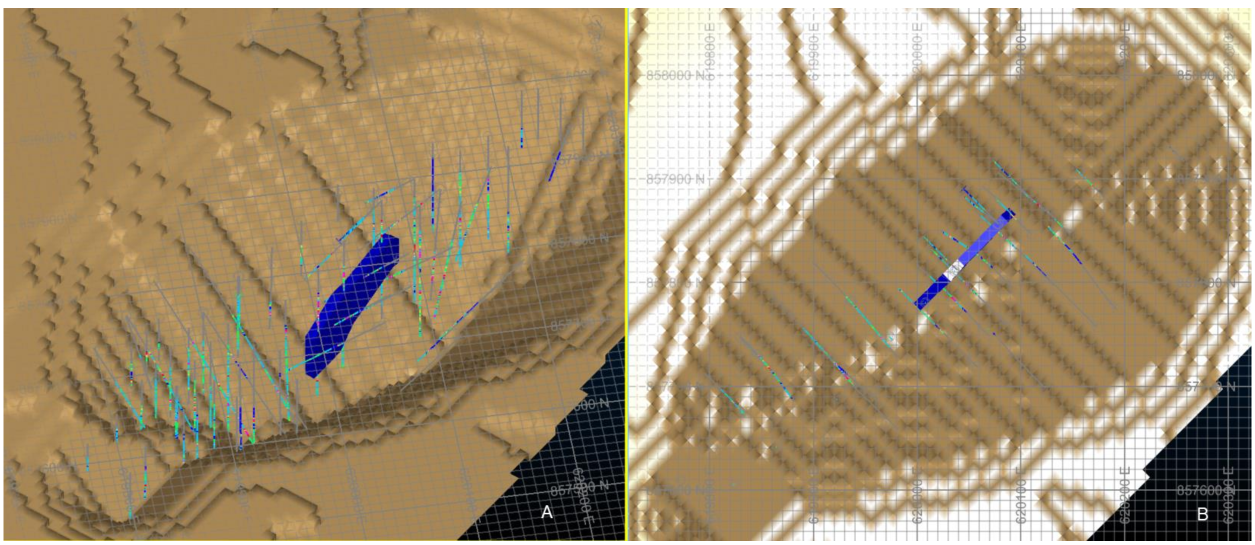

Figure 14-6: Wireframe Created to Classify Blocks as Indicated Mineral Resource A) Inclined View Looking Northwest (not to scale); B) Plan View

No environmental, permitting, legal, title, taxation, socio-economic, marketing, or other relevant issues are known to the QP which may affect the estimate of mineral resources. Mineral reserves can be estimated only on the basis of an economic evaluation that is used in a preliminary Feasibility Study or a Feasibility Study of a mineral project; thus, no reserves have been estimated.

As per NI 43-101, mineral resources that are not mineral reserves do not have to demonstrate economic viability.

14.2.8 Mineral Resource Tabulation

The resource reported is effective as of June 27, 2023 and has been tabulated in terms of a pit-constrained NSR cut-off grade of USD16.34/tonne milled.

Table 14-26 summarizes the parameters used to develop the pit constraints for a reasonable prospect of economic extraction.

Table 14-26: Pit Constraint Parameters

Input	Unit	Variable
Metal Price	Cu (USD/lb)	3.75
	Ni (USD/lb)	8.70
	Co (USD/lb)	25.10
	Pt (USD/oz)	1,140.00
	Pd (USD/oz)	1,300.00
	Au (USD/oz)	1,690.00
Mining Cost (CAD/t)	Saprolite (USD/t)	1.68
	Fresh (USD/t)	2.26
	Incremental (USD/t per 10 bench)	0.05
	Sustaining capital (USD/t)	0.09
Pit Angle	Saprolite (degree)	25
	Fresh (degree)	45
Processing Cost (CAD/t)	Processing cost (USD/t milled)	13.02
G&A (CAD/t)	(USD/t milled)	3.32
Treatment Charge	Cu conc. (USD/t conc.)	105.00
	Ni conc. (USD/t conc.)	346.00
Freight to Smelter	USD/t conc.	63.00
Metallurgical Recoveries	Based on conc. and grades	variable
Mine Dilution (%)	Mine dilution (%)	5

The pit-constrained mineral resource for the Sama Extension deposit is summarized in Table 14-27. Table 14-28 summarized the in situ contained metal with the pit shell.

Table 14-27: Sama Extension Mineral Resource Summary

Classification	Deposit	Tonne	Ni (%)	Cu (%)	Pt g/t)	Pd (g/t)	Au (g/t)	Co (%)
Indicated	Extension	201,000	0.28	0.18	0.10	0.55	0.02	0.02
Inferred		11,119,000	0.28	0.22	0.10	0.47	0.02	0.02

Table 14-28: Sama Extension In Situ Contained Metal in a Pit Shell

Classification	Deposit	Tonne	Ni ('000 lb)	Cu ('000 lb)	Pt (oz)	Pd (oz)	Au (oz)	Co ('000 lb)
Indicated	Extension	201,000	1,200	800	600	3,500	100	100
Inferred		11,119,000	68,400	53,200	34,400	168,200	8,600	4,300

A mineral resource was prepared in accordance with NI 43-101 and the CIM Definition Standards (2019). Mineral resources that are not mineral reserves do not have demonstrated economic viability. This estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.

14.2.9 Model Validation

The Extension model was validated by two methods:

- Visual comparison of colour-coded block model grades with composite grades on section;
- Comparison of the global mean block grades for ID^2, NN, and composites.

14.2.9.1 Visual Validation

The visual comparisons of ordinary kriging block model grades and composite drill holes show a reasonable correlation between the values (Figure 14-7). No significant discrepancies were apparent from the sections reviewed, yet grade smoothing was apparent in some of the lower elevations due to the distance between drill samples being broader in these regions.

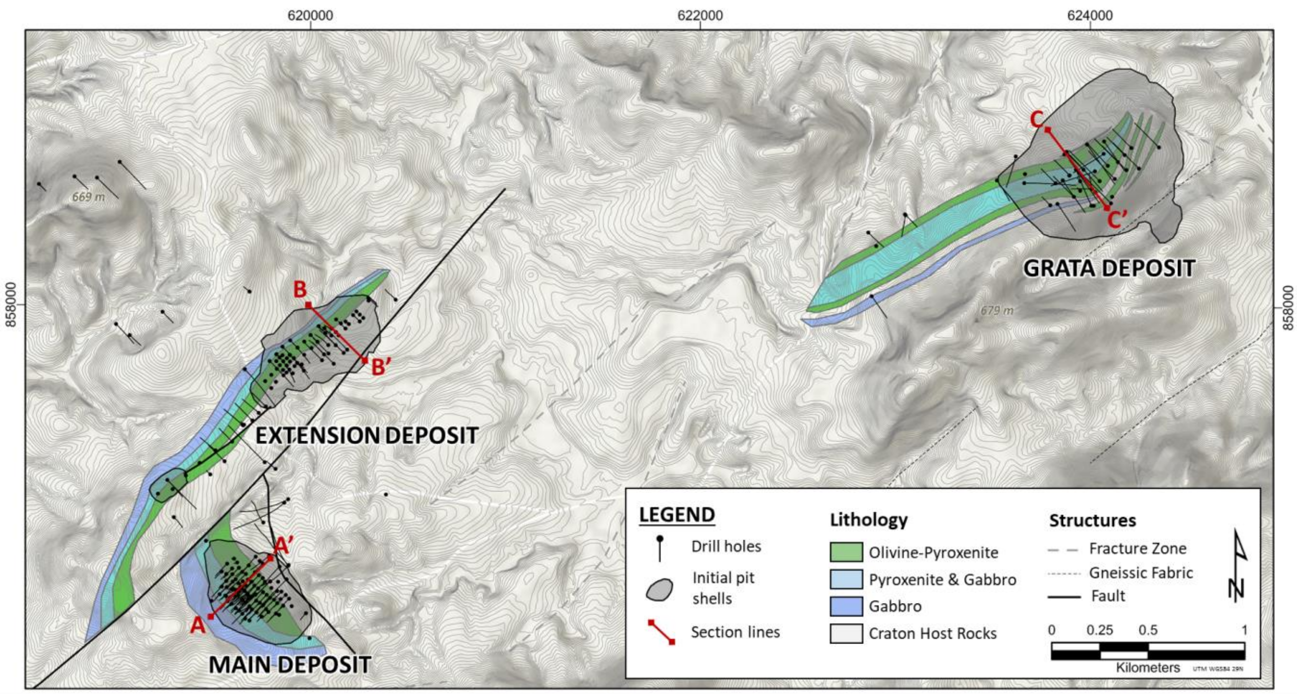

Figure 14-7: Surface Plan Showing Optimized Pits for Samapleu and Grata Deposits

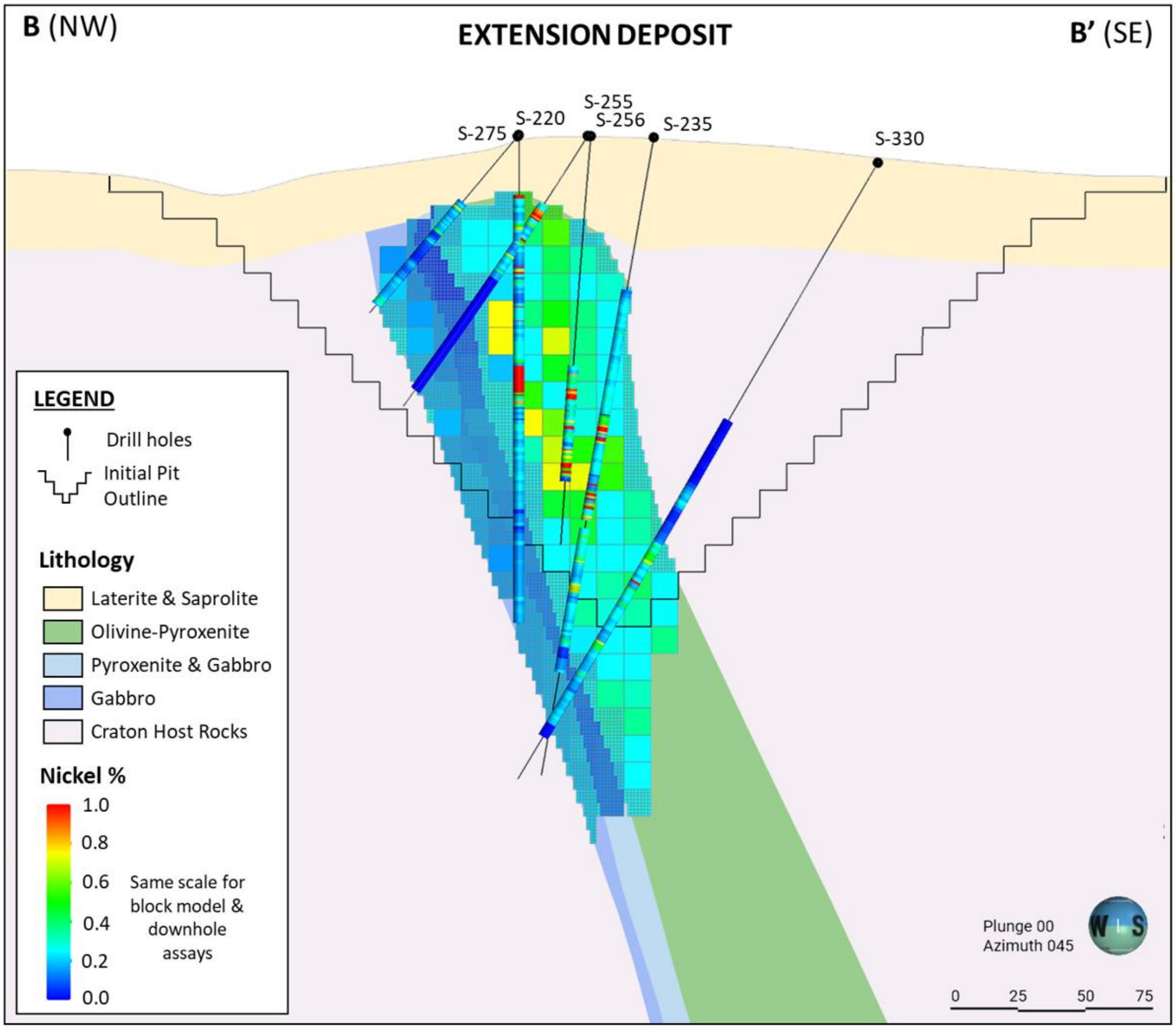

Figure 14-8: Extension Deposit Visual Validation Through B-B'Global Statistics

The global block model statistics for the OK model were compared to the global NN and ID^2 model. Table 14-29 shows this comparison of the global estimates for the three estimation method calculations. Comparisons were made using all blocks at above an NSR value of $0.

Table 14-29: Extension Global Statistics Comparison

Element	NN	ID^2	OK
Ni (%)	0.17	0.18	0.18
Cu (%)	0.12	0.12	0.12
Co (%)	0.01	0.01	0.01
Pt (g/t)	0.07	0.07	0.07
Pd (g/t)	0.25	0.26	0.25
Au (g/t)	0.02	0.02	0.02

14.2.10 Previous Estimates

A comparison between the historic Mineral Resource Statement in 2020 (Gagnon et. al., 2020) and the current Mineral Resource Statement disclosed in this report is not possible as the historic Mineral Resource in 2020 did not report the Main and Extension deposits separately and did not report the Cu, Co, Pt, Pd, and Au values.

There are several differences between the 2020 and 2023 mineral resource statements, including, yet not limited to:

- The current estimate is based on an NSR cut-off grade and the historic estimate was based on a nickel equivalency;
- 29 additional drill holes;
- A re-interpretation of the geology
- A re-interpretation of the SG data;
- Different metal pricing, smelter terms and pit parameters;

14.3 Grata Resource Estimate

14.3.1 Deposit Database

The Project database totals 474 surface-collared diamond drill holes ("DDH"), of which 258 DDH was used to model Main, Extension and Grata deposits, totalling 52,080 m in length. A subset of 50 DDH were used to build the Grata model, totalling 15,503 m in length. There are a total of 11,192 assays records in the Grata database.

The six geological domains at Main are summarized in Table 14-30. The domain naming convention is used consistently through this disclosure.

Table 14-30: Main Deposit Geological Domains

Domain	Rock type
100	Saprolite
200	Olivine Pyroxenite
300	Pyroxenite
400	Gabbro
500	Pyroxenite
600	Olivine Pyroxenite
700	FW Granulite
800	HW Granulite

Table 14-31 summarizes the borehole within each geological unit. The drill hole database was validated before proceeding to the resource estimation phase, and the validation steps are detailed in Chapter 12.

SNC maintains all borehole data in a Microsoft Access® relational database. Header, surveys, assays, and lithology information are saved as individual tables in the database. The database information in CSV format was provided to the QP originally on April 14, 2023.

The QP believes that the database is appropriate for the purposes of mineral resource estimation and the sample density allows a reliable estimate of the tonnage and grade of the mineralization in accordance with the level of confidence established by the mineral resource categories as defined in the CIM Guidelines.

Table 14-31: Summary of the Borehole Within Each Geological Unit

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
100	Ni	782	53	0	3.92	0.42	0.22
	Cu	782	53	0	1.77	0.21	0.10
	Co	782	53	0	0.15	0.02	0.00
	Pt	743	92	0	3.15	0.08	0.05
	Pd	743	92	0	4.02	0.22	0.17
	Au	743	92	0	0.44	0.03	0.00
	Cr	767	68	0.01	2.3	0.3	0.12
	Fe	782	53	1.27	54.5	16.5	127.80
	Mn	782	53	0.02	1.19	0.23	0.03
	S	743	92	0.01	4.93	0.09	0.11
	Length	835	0	0.1	59.5	2.32	26.65
200	Ni	555	0	0	2.84	0.24	0.06
	Cu	555	0	0	10.3	0.22	0.34
	Co	555	0	0	0.11	0.01	0.00
	Pt	532	23	0	1.03	0.09	0.01
	Pd	532	23	0	2.37	0.3	0.08
	Au	532	23	0	0.52	0.03	0.00
	Cr	465	90	0.01	5.1	0.42	0.16
	Fe	465	90	0.82	34.9	11.35	11.65
	Mn	465	90	0.02	0.32	0.16	0.00
	S	442	113	0.01	20.5	1.38	4.82
	Length	555	0	0.05	1.6	0.98	0.17
200 HG	Ni	35	0	0.61	2.84	1.16	0.36
	Cu	35	0	0.31	10.3	1.73	5.93
	Co	35	0	0.03	0.11	0.05	0.00
	Pt	34	1	0.02	0.58	0.15	0.02
	Pd	34	1	0.33	2.37	1.11	0.32
	Au	34	1	0.01	0.24	0.07	0.00
	Cr	33	2	0.03	3.03	0.21	0.12
	Fe	33	2	14	34.9	20.24	27.07
	Mn	33	2	0.08	0.27	0.15	0.00
	S	32	3	3.49	20.5	9.04	25.66
	Length	35	0	0.1	1.15	0.58	0.09

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
300	Ni	2,423	6	0	3.21	0.24	0.04
	Cu	2,423	6	0	3.94	0.21	0.06
	Co	2,423	6	0	0.11	0.01	0.00
	Pt	2,340	89	0	2.79	0.1	0.01
	Pd	2,340	89	0	2.55	0.21	0.04
	Au	2,340	89	0	0.64	0.04	0.00
	Cr	2,419	10	0.01	7.42	0.24	0.05
	Fe	2,423	6	1.21	37	11.54	7.93
	Mn	2,423	6	0.03	0.32	0.17	0.00
	S	2,340	89	0.01	22.6	1.28	2.50
	Length	2,429	0	0.05	23	1.12	0.81
300 HG	Ni	133	0	0.6	3.21	1.05	0.35
	Cu	133	0	0.1	3.94	0.88	0.51
	Co	133	0	0.02	0.11	0.04	0.00
	Pt	133	0	0.01	2.79	0.12	0.05
	Pd	133	0	0.07	2.55	0.76	0.23
	Au	133	0	0.01	0.48	0.06	0.00
	Cr	133	0	0.03	0.51	0.18	0.01
	Fe	133	0	8.21	37	19.03	21.32
	Mn	133	0	0.04	0.23	0.16	0.00
	S	133	0	3.58	22.6	7.24	15.25
	Length	133	0	0.05	1.5	0.52	0.09
400	Ni	2,144	5	0	1.99	0.1	0.01
	Cu	2,144	5	0	2.39	0.05	0.01
	Co	2,144	5	0	0.09	0.01	0.00
	Pt	1,335	814	0	1.54	0.04	0.00
	Pd	1,335	814	0	2.4	0.07	0.02
	Au	1,335	814	0	0.76	0.02	0.00
	Cr	2,032	117	0.01	1.1	0.12	0.01
	Fe	2,144	5	0.37	26.3	9.01	9.95
	Mn	2,144	5	0.01	0.32	0.15	0.00
	S	1,335	814	0.01	14	0.37	0.53
	Length	2,149	0	0.05	169.35	1.34	13.99

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
500	Ni	4,443	7	0	6.11	0.21	0.06
	Cu	4,443	7	0	10.9	0.2	0.12
	Co	4,443	7	0	0.19	0.01	0.00
	Pt	4,295	155	0	30	0.11	0.37
	Pd	4,295	155	0	8.64	0.27	0.19
	Au	4,295	155	0	1.69	0.04	0.00
	Cr	4,438	12	0.01	14.1	0.19	0.16
	Fe	4,443	7	0.08	44.2	11.33	16.95
	Mn	4,443	7	0.01	0.33	0.16	0.00
	S	4,294	156	0.01	30.4	1.19	4.23
	Length	4,450	0	0.05	76.15	1.01	3.42
500 HG	Ni	357	0	0.6	6.11	1.11	0.30
	Cu	357	0	0.1	10.9	1.18	0.96
	Co	357	0	0	0.19	0.04	0.00
	Pt	356	1	0	3.18	0.15	0.09
	Pd	356	1	0	8.64	1.44	0.67
	Au	356	1	0	1.69	0.08	0.02
	Cr	357	0	0.01	0.81	0.12	0.02
	Fe	357	0	0.08	44.2	21.18	29.23
	Mn	357	0	0.02	0.26	0.15	0.00
	S	356	1	0.15	30.4	9.02	19.06
	Length	357	0	0.05	1.5	0.48	0.10
600	Ni	428	0	0	2.78	0.2	0.03
	Cu	428	0	0	6.03	0.16	0.08
	Co	428	0	0	0.1	0.01	0.00
	Pt	360	68	0	13.4	0.11	0.29
	Pd	360	68	0	3.48	0.26	0.10
	Au	360	68	0	0.71	0.04	0.00
	Cr	406	22	0.01	2.12	0.23	0.05
	Fe	428	0	1.68	45.04	10.75	35.41
	Mn	428	0	0.02	0.69	0.16	0.01
	S	360	68	0.01	25.5	0.92	2.37
	Length	428	0	0.05	1.5	1.13	0.17

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
600 HG	Ni	17	0	0.71	2.78	1.1	0.21
	Cu	17	0	0.37	6.03	1.28	1.11
	Co	17	0	0.02	0.1	0.04	0.00
	Pt	17	0	0.01	0.95	0.16	0.02
	Pd	17	0	1.1	3.48	1.54	0.17
	Au	17	0	0.02	0.71	0.07	0.01
	Cr	17	0	0.01	0.55	0.22	0.04
	Fe	17	0	12.1	40.1	19.94	27.57
	Mn	17	0	0.06	0.18	0.14	0.00
	S	17	0	4.59	25.5	8.93	14.45
	Length	17	0	0.1	0.95	0.46	0.08
700	Ni	219	33	0	1.41	0.1	0.02
	Cu	219	33	0	0.58	0.03	0.00
	Co	219	33	0	0.06	0.01	0.00
	Pt	89	163	0	0.74	0.04	0.01
	Pd	89	163	0	2.42	0.14	0.06
	Au	89	163	0	0.12	0.02	0.00
	Cr	139	113	0.01	2	0.2	0.06
	Fe	195	57	0.99	18.2	6.22	11.67
	Mn	195	57	0.01	0.36	0.1	0.01
	S	65	187	0.01	6.38	0.47	0.42
	Length	252	0	0.25	190.1	5.88	428.79
800	Ni	198	15	0	0.54	0.03	0.00
	Cu	198	15	0	0.7	0.03	0.00
	Co	198	15	0	0.04	0	0.00
	Pt	98	115	0	0.32	0.03	0.00
	Pd	98	115	0	1.11	0.05	0.01
	Au	98	115	0	0.15	0.01	0.00
	Cr	136	77	0.01	0.49	0.04	0.00
	Fe	198	15	0.93	41.99	5.49	21.34
	Mn	198	15	0	0.52	0.07	0.00
	S	98	115	0.01	4.57	0.22	0.19
	Length	213	0	0.05	120.95	4.46	189.20

14.3.2 Specific Gravity

SNC collected a total of 1,240 samples from the diamond drill holes in the Grata deposit for SG measurements.

SNC used the same procedure to collect the data as disclosed in Section 14.1.2. Table 14-32 summarizes the results of the SG measurements for the Grata deposit.

Table 14-32: Grata-Deposit Specific Gravity Summary

Domain	Rock Type	Number of Samples	Regression Formula	Default
100	Saprolite	149		1.87
200/300/500/600	Olivine Pyroxenite & Pyroxenite	705	SG=0.033Fe+2.861	
400	Gabbro	268		3.05
700	FW Granulite	52		2.56
800	HW Granulite	66		2.59

14.3.3 Topography Data

Topographic data was generated as a Digital Terrain Model ("DTM") created using total station survey on 5-m contours. The area covered by the DTM is sufficient to cover the area defined by the current resource model.

14.3.4 Geological Interpretation

Three-dimensional wireframe models of mineralization were developed in Leapfrog under the supervision of the QP. The wireframes were based on the geological interpretation of the zones as distinct domains and not strictly on grade intervals.

The wireframe solids were imported from Leapfrog into Datamine Studio RM™ in .dwg format. The solids were validated within Datamine. The modelling is broken down into eight separate zones based on geology.

Table 14-33 tabulates the solids and associated volumes. Figure 14-9 illustrates the model solids for each of the domains.

Table 14-33: Solids and Associated Volumes

Zone		Wireframe vol (m³)
100	Saprolite	284,842,510
200	Olivine Pyroxenite	9,793,766
300	Pyroxenite	25,976,005
400	Gabbro	204,026,664
500	Pyroxenite	41,106,530
600	Olivine Pyroxenite	4,223,738
700	FW Granulite	1,061,722,979
800	HW Granulite	1,930,565,052

The wireframes extend at depth, below the deepest diamond drill holes. This is to provide a target for future exploration. The resource model did not estimate grades into the full volume of the wireframes due to sheer size of the wireframes.

The non-assayed intervals were assigned a void (-) value.

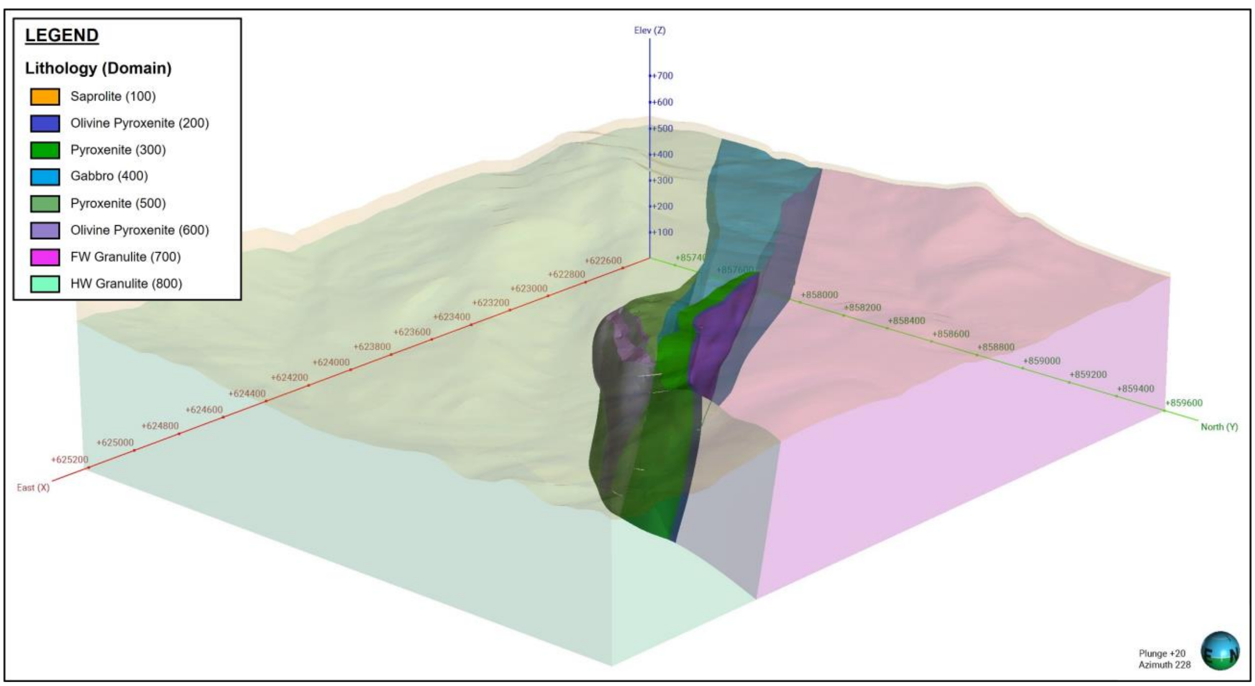

Figure 14-9: Interpretation of Domains (Inclined View not to Scale)

14.3.5 Exploratory Data Analysis

14.3.5.1 Assays

The eight domains included in the mineral resource were sampled by a total of 11,734 for nickel, copper and cobalt assays, and 10,332 samples for palladium and platinum. The assay intervals within each mineral domain were captured using Leapfrog Geo™ routine to flag the intercept into a new table in the database. These intervals were reviewed to ensure all the proper assay intervals were appropriately captured. Table 14-34 summarizes the basic statistics for the assay intervals for each of the mineral domains on the property.

Table 14-34: Basic Statistics on Assays Intervals for Each Domain

Element	Number of Samples
Ni	11,734
Cu	11,734
Co	11,734
Pt	10,332
Pd	10,332
Au	10,332
Cr	11,342
Fe	11,618
Mn	11,618
S	10,215

14.3.5.2 Grade Capping

The composite assay data for each element within the domain was examined to assess the amount of metal that is bias from high-grade assays. A combination of viewing the decile tables, histogram, QQ, and cumulative frequency plots was used to assist in determining if grade capping was required on each element in the domain.

The capping analysis concluded capping was required in domains 200, 300, 400, 500 and 600. Table 14-35 summarizes the capping applied to each domain by the QP.

Table 14-35: Capping Summary for Grata Deposit

Domain	Element	Capping Value
200/300	Ni	1.35
	Pt	0.70
400	Cu	0.55
	Au	0.20
	Pd	0.75
500/600	Ni	1.70
	Pt	3.00

14.3.5.3 Composting

Compositing of all the assay data within the domain was completed on downhole intervals honouring the interpretation of the geological solids. Statistics indicate that a majority of the samples was collected at 1.5-m intervals. Composites were generated at 3-m best-fit option, allowing all the material to be used in the compositing process. A 1-m composite was used for high-grade Nickel sub-domains (i.e. 200 HG, 300 HG, etc.) used to locally estimate higher grade intervals within each wireframe domain. Datamine's backstitch option distributed the "tails" of the composite equally across all the composites in the hole to ensure all the sample material was used in the estimate. Table 14-22 summarizes the statistics for the boreholes after compositing.

Table 14-36: Basics Statistics of Composites Used for Estimation

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
100	Ni_cap	363	266	0	2.81	0.42	0.18
	Cu_cap	363	266	0	1.48	0.21	0.09
	Co_cap	363	266	0	0.12	0.02	0.00
	Pt_cap	344	285	0	1.63	0.08	0.02
	Pd_cap	344	285	0	3.13	0.22	0.14
	Au_cap	344	285	0	0.35	0.03	0.00
	Cr_cap	357	272	0.01	2.12	0.3	0.10
	Fe_cap	363	266	1.52	49.44	16.54	112.42
	S_cap	344	285	0.01	3.75	0.09	0.08
	Length	629	0	2.78	3.28	3	0.01

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
200	Ni_cap	182	0	0.03	0.84	0.23	0.02
	Cu_cap	182	0	0.01	2.92	0.22	0.11
	Co_cap	182	0	0	0.05	0.01	0.00
	Pt_cap	173	9	0	0.57	0.08	0.00
	Pd_cap	173	9	0	1.05	0.3	0.03
	Au_cap	173	9	0	0.24	0.03	0.00
	Cr_cap	149	33	0.03	1.79	0.42	0.10
	Fe_cap	149	33	3.25	20.85	11.35	6.68
	S_cap	140	42	0.04	8.89	1.38	1.97
	Length	182	0	2.71	4.45	2.99	0.03
200 HG	Ni_cap	21	0	0.69	2.84	1.17	0.39
	Cu_cap	21	0	0.31	10.3	1.9	6.82
	Co_cap	21	0	0.03	0.11	0.05	0.00
	Pt_cap	20	1	0.03	0.57	0.16	0.02
	Pd_cap	20	1	0.42	2.37	1.11	0.34
	Au_cap	20	1	0.01	0.24	0.07	0.00
	Cr_cap	21	0	0.03	0.52	0.17	0.02
	Fe_cap	21	0	14.6	34.9	20.41	28.25
	S_cap	20	1	4.62	20.5	9.29	27.84
	Length	21	0	0.5	1.25	0.82	0.04
300	Ni_cap	874	29	0.01	1.13	0.23	0.02
	Cu_cap	874	29	0	1.52	0.21	0.04
	Co_cap	874	29	0	0.06	0.01	0.00
	Pt_cap	836	67	0	0.44	0.1	0.00
	Pd_cap	836	67	0	1.49	0.21	0.03
	Au_cap	836	67	0	0.34	0.04	0.00
	Cr_cap	872	31	0.01	2.88	0.24	0.03
	Fe_cap	874	29	2.32	24.1	11.55	5.85
	S_cap	836	67	0.01	12.34	1.28	1.50
	Length	903	0	2.88	3.13	3	0.00
300 HG	Ni_cap	70	0	0.61	3.11	1.02	0.27
	Cu_cap	70	0	0.27	3.29	0.85	0.43
	Co_cap	70	0	0.02	0.11	0.04	0.00
	Pt_cap	70	0	0.02	0.53	0.12	0.01
	Pd_cap	70	0	0.07	2.51	0.76	0.19
	Au_cap	70	0	0.01	0.26	0.05	0.00
	Cr_cap	70	0	0.04	0.49	0.18	0.01

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
	Fe_cap	70	0	11.93	36.24	18.84	17.22
	S_cap	70	0	3.58	22.08	7.08	12.29
	Length	70	0	0.5	1.4	0.81	0.05
400	Ni_cap	882	83	0	0.71	0.1	0.01
	Cu_cap	882	83	0	0.48	0.05	0.01
	Co_cap	882	83	0	0.03	0.01	0.00
	Pt_cap	500	465	0	0.49	0.04	0.00
	Pd_cap	500	465	0	1.15	0.07	0.01
	Au_cap	500	465	0	0.11	0.02	0.00
	Cr_cap	839	126	0.01	0.63	0.12	0.01
	Fe_cap	882	83	1.75	15.92	9.01	8.44
	S_cap	500	465	0.01	3.76	0.37	0.32
	Length	965	0	2.87	3.14	2.99	0.00
500	Ni_cap	1,418	85	0.01	1.47	0.2	0.02
	Cu_cap	1,418	85	0	2.24	0.2	0.05
	Co_cap	1,418	85	0	0.06	0.01	0.00
	Pt_cap	1,348	155	0	1.46	0.1	0.01
	Pd_cap	1,348	155	0	5.02	0.27	0.10
	Au_cap	1,348	155	0	0.52	0.04	0.00
	Cr_cap	1,418	85	0.01	4.76	0.19	0.08
	Fe_cap	1,418	85	2.96	28.32	11.33	12.27
	S_cap	1,348	155	0.01	14.61	1.19	2.13
	Length	1,503	0	2.66	3.63	3	0.00
500 HG	Ni_cap	172	0	0.6	2.61	1.1	0.16
	Cu_cap	172	0	0.17	3.98	1.13	0.47
	Co_cap	172	0	0	0.1	0.04	0.00
	Au_cap	170	2	0.01	1.28	0.07	0.01
	Pt_cap	170	2	0.01	1.7	0.15	0.05
	Pd_cap	170	2	0.28	4.97	1.4	0.40
	Cr_cap	172	0	0.02	0.74	0.11	0.01
	Fe_cap	172	0	0.08	35.5	21.34	19.86
	S_cap	170	2	0.15	19.52	9.03	12.08
	Length	172	0	0.5	1.45	0.85	0.04

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
600	Ni_cap	162	0	0	0.73	0.2	0.01
	Cu_cap	162	0	0	1.06	0.16	0.04
	Co_cap	162	0	0	0.03	0.01	0.00
	Pt_cap	135	27	0	0.79	0.09	0.02
	Pd_cap	135	27	0	1.17	0.25	0.06
	Au_cap	135	27	0	0.2	0.04	0.00
	Cr_cap	155	7	0.01	1.04	0.23	0.04
	Fe_cap	162	0	2.18	44.06	10.77	29.45
	S_cap	135	27	0.01	5.97	0.92	1.12
	Length	162	0	2.3	4.05	2.97	0.02
600 HG	Ni_cap	9	0	0.71	2.07	1.04	0.15
	Cu_cap	9	0	0.37	4.09	1.2	0.80
	Co_cap	9	0	0.02	0.07	0.04	0.00
	Pt_cap	9	0	0.04	0.35	0.18	0.01
	Pd_cap	9	0	1.1	2.34	1.49	0.11
	Au_cap	9	0	0.02	0.25	0.07	0.00
	Cr_cap	9	0	0.02	0.55	0.24	0.04
	Fe_cap	9	0	12.1	28	19.32	20.95
	S_cap	9	0	4.59	13.7	8.32	8.93
	Length	9	0	0.5	1.1	0.77	0.04
700	Ni_cap	94	402	0	0.41	0.1	0.01
	Cu_cap	94	402	0	0.21	0.03	0.00
	Co_cap	94	402	0	0.04	0.01	0.00
	Pt_cap	38	458	0	0.22	0.04	0.00
	Pd_cap	38	458	0	0.73	0.14	0.03
	Au_cap	38	458	0	0.07	0.02	0.00
	Cr_cap	63	433	0.01	1.02	0.2	0.05
	Fe_cap	84	412	1.29	12.48	6.3	9.76
	S_cap	28	468	0.01	1.65	0.46	0.20
	Length	496	0	2.5	3.42	2.99	0.01

Zone	Element	Number Samples	Missing Intervals	Minimum	Maximum	Mean	Variance
800	Ni_cap	88	228	0	0.21	0.03	0.00
	Cu_cap	88	228	0	0.2	0.03	0.00
	Co_cap	88	228	0	0.02	0	0.00
	Pt_cap	44	272	0	0.32	0.03	0.00
	Pd_cap	44	272	0	0.42	0.05	
	Au_cap	44	272	0	0.12	0.01	0.00
	Cr_cap	60	256	0.01	0.19	0.04	0.00
	Fe_cap	88	228	1.6	33.01	5.49	17.56
	S_cap	44	272	0.01	1.47	0.22	0.11
	Length	316	0	2.3	3.56	3	0.01

14.3.5.4 Spatial Analysis

Variograms for each element were created to be used to generate the search ellipse dimensions. The variograms were also used to assign kriging weights during the estimation process.

The variography for SNC was determined using Snowden Supervisor™ version 8.14.1 software. Each element was modelled using a downhole variogram to determine nugget effect, then a spherical pair-wise variogram was used to determine spatial continuity in the domain.

Table 14-37 summarizes the results of the variogram models for each element.

Table 14-37: Variogram Parameters

Zone	Element	Nugget (Co)	First structure(spherical)				Second structure(spherical)			
			C1	Range 1 (m)	Range 2 (m)	Range 3 (m)	C2	Range 1 (m)	Range 2 (m)	Range 3 (m)
200 300 500 600	Ni	0.17	0.48	29	13	9	0.35	150	70	20
	Cu	0.11	0.38	37	25	19	0.51	150	90	20
	Co	0.17	0.48	29	13	9	0.35	150	70	20
	Pt	0.25	0.54	42	18	29	0.21	140	70	30
	Pd	0.07	0.83	75	22	11	0.1	120	60	20
	Au	0.21	0.52	20	63	19	0.27	120	80	20
	Cr	0.06	0.86	75	57	19	0.08	150	90	25
	Fe	0.17	0.48	29	13	9	0.35	150	70	20
	S	0.17	0.48	29	13	9	0.35	150	70	20

Zone	Element	Nugget (Co)	First structure(spherical)				Second structure(spherical)			
			C1	Range 1 (m)	Range 2 (m)	Range 3 (m)	C2	Range 1 (m)	Range 2 (m)	Range 3 (m)
400	Ni	0.13	0.66	73	51	6	0.21	150	90	15
	Cu	0.04	0.27	13	15	6	0.69	170	120	15
	Co	0.13	0.66	73	51	6	0.21	150	90	15
	Pt	0.07	0.26	14	35	10	0.67	90	90	15
	Pd	0.04	0.56	43	67	7	0.4	120	100	15
	Au	0.04	0.49	9	20	5	0.47	100	60	15
	Cr	0.04	0.34	26	15	8	0.62	150	60	20
	Fe	0.13	0.66	73	51	6	0.21	150	90	15
	S	0.13	0.66	73	51	6	0.21	150	90	15
200 300 500 600	HG Ni	0.17	0.48	29	13	9	0.35	150	70	20

14.3.6 Resource Block Model

14.3.6.1 Parent Model

A separate block model was established in Datamine Studio RM™ for the Grata deposit. The model was rotated around the Z axis.

A block size of 10 m x 10 m x 10 m was selected in order to accommodate a small-scale open-pit mining potential. Sub-blocking of the blocks was used to further divided the blocks to fill the volume.

A block size of 1.25 m x 1.25 m x 1.25 m was selected for the local high-grade Nickel sub-domains and subsequently superimposed onto the parent model.

Table 14-38 summarizes details of the parent block model.

Table 14-38: Block Model Parameters

Properties	X (column)	Y (row)	Z (level)
Origin coordinates	621500	858400	000
Number of blocks	294	280	70
Block size (m)	10	10	10
Sub-block size(m)	1.25	1.25	1.25
Rotation	45 degrees around Z axis		

14.3.6.2 Estimate Parameters

An isotropic search ellipse was used for the estimation. Only the samples within the domain wireframe were used in the estimation.

The interpolations of the zones were completed using the estimation methods ordinary kriging ("OK"), nearest neighbour ("NN"), and inverse distance squared ("ID²"). The estimations were designed for multiple passes. In each estimation pass, a minimum and maximum number of samples were required as well as a maximum number of samples from a borehole in order to satisfy the estimation criteria. A local high-grade Nickel sub-domain within each wireframe domain was interpolated within the first pass only (200 HG Ni, 300 HG Ni, etc.).

Table 14-39 summarizes the interpolation criteria.

Table 14-39: Interpolation Parameters

Domain	Element	Pass1				Pass2				Pass3			
		Min Comp	Max Comp	Max Comp/ DDH	Search Size	Min Comp	Max Comp	Max Comp/ DDH	Search Size	Min Comp	Max Comp	Max Comp/ DDH	Search Size
200 300 500 600	Ni	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Cu	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Co	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Pt	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Pd	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Au	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Cr	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Fe	4	10	2	0.5	3	12	2	1.6	3	12	2	5
	S	4	10	2	0.5	3	12	2	1.6	3	12	2	5

Domain	Element	Pass1				Pass2				Pass3			
		Min Comp	Max Comp	Max Comp/ DDH	Search Size	Min Comp	Max Comp	Max Comp/ DDH	Search Size	Min Comp	Max Comp	Max Comp/ DDH	Search Size
400	Ni	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Cu	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Co	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Pt	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Pd	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Au	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Cr	4	10	2	0.5	3	12	2	1.6	3	12	2	3
	Fe	4	10	2	0.5	3	12	2	1.6	3	12	2	5
	S	4	10	2	0.5	3	12	2	1.6	3	12	2	5
200 300 500 600	HG Ni	2	4	2	0.1	0	0	0	0	0	0	0	0

14.3.7 Resource Classification

Several factors are considered in the definition of a resource classification:

- NI 43-101 requirements;
- Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Estimation of Mineral Resource and Mineral Reserve Best Practice Guidelines (CIM, 2019);
- Author's experience with sulphide deposits;
- Spatial continuity based on the assays within the drill holes;
- Understanding of the geology of the deposit;
- Drill hole spacing, data quality and the estimation runs required to estimate the grades in a block.

A wireframe was created taking the above points into consideration to capture the mineral resource classified as Indicated (Figure 14-10). All remaining blocks were classified as Inferred. No material in the block model was considered as Measured.

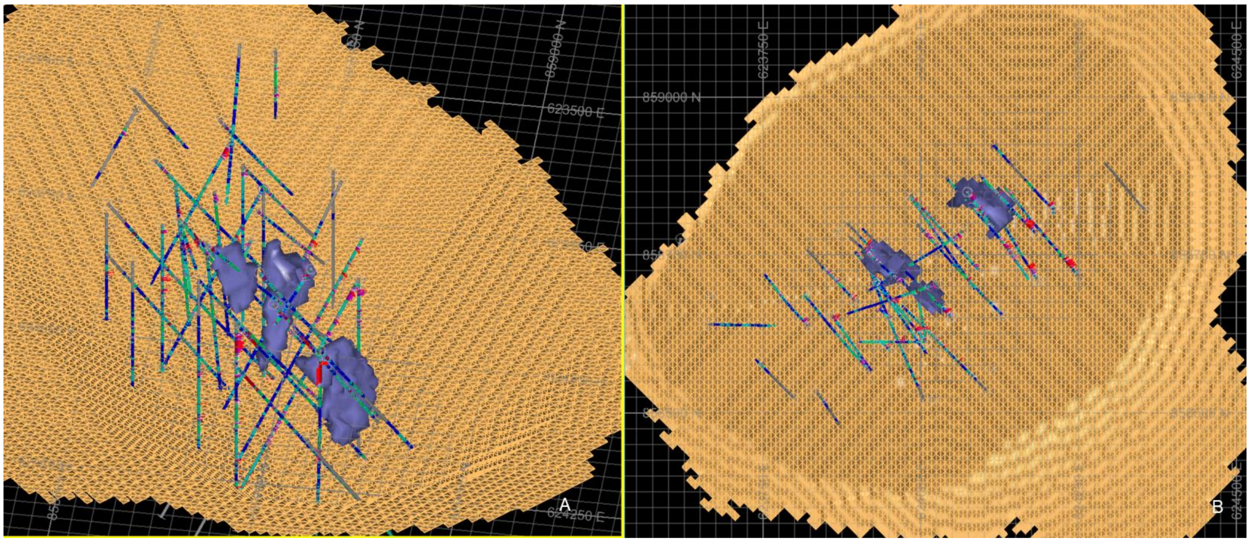

Figure 14-10: Wireframe Created to Classify Blocks as Indicated Mineral Resource
A) Inclined View Looking Southwest (not to scale); B) Plan View

No environmental, permitting, legal, title, taxation, socio-economic, marketing, or other relevant issues are known to the QP which may affect the estimate of mineral resources. Mineral reserves can be estimated only on the basis of an economic evaluation that is used in a preliminary Feasibility Study or a Feasibility Study of a mineral project; thus, no reserves have been estimated. As per NI 43-101, mineral resources that are not mineral reserves do not have to demonstrate economic viability.

14.3.8 Mineral Resource Tabulation

The resource reported is effective as of June 27, 2023 and has been tabulated in terms of a pit-constrained NSR cut-off grade of USD16.34/tonne milled.

Table 14-40 summarizes the parameters used to develop the pit constraints for a reasonable prospect of economic extraction.

Table 14-40: Pit Constraint Parameters

Input	Unit	Variable
Metal Price	Cu (USD/lb)	3.75
	Ni (USD/lb)	8.70
	Co (USD/lb)	25.10
	Pt (USD/oz)	1,140.00
	Pd (USD/oz)	1,300.00
	Au (USD/oz)	1,690.00
Mining Cost (CAD/t)	Saprolite (USD/t)	1.68
	Fresh (USD/t)	2.26
	Incremental (USD/t per 10 bench)	0.05
	Sustaining capital (USD/t)	0.09
Pit Angle	Saprolite (degree)	25
	Fresh (degree)	45
Processing Cost (CAD/t)	Processing cost (USD/t milled)	13.02
G&A (CAD/t)	(USD/t milled)	3.32
Treatment Charge	Cu conc. (USD/t conc.)	105.00
	Ni conc. (USD/t conc.)	346.00
Freight to Smelter	USD/t conc.	63.00
Metallurgical Recoveries	Based on conc. and grades	variable
Mine Dilution (%)	Mine dilution (%)	5

The pit-constrained mineral resource for the Grata deposit is summarized in Table 14-41. Table 14-42 summarized the in situ contained metal with the pit shell.

Table 14-41: Grata Mineral Resource Summary

Classification	Deposit	Tonne	Ni (%)	Cu (%)	Pt (g/t)	Pd (g/t)	Au (g/t)	Co (%)
Indicated	Grata	1,363,000	0.29	0.27	0.11	0.29	0.04	0.02
Inferred		68,424,000	0.24	0.25	0.10	0.26	0.04	0.01

Table 14-42: Grata In Situ Contained Metal in a Pit Shell

Classification	Deposit	Tonne	Ni ('000 lb)	Cu ('000 lb)	Pt (oz)	Pd (oz)	Au (oz)	Co ('000 lb)
Indicated	Grata	1,363,000	8,600	8,100	4,800	12,600	1,900	500
Inferred		68,424,000	368,900	373,300	222,600	569,400	84,500	21,400

A mineral resource was prepared in accordance with NI 43-101 and the CIM Definition Standards (2019). Mineral resources that are not mineral reserves do not have demonstrated economic viability. This estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.

14.3.9 Model Validation

The Grata model was validated by two methods:

- Visual comparison of colour-coded block model grades with composite grades on section;
- Comparison of the global mean block grades for ID^2, NN, and composites.

14.3.9.1 Visual Validation

The visual comparisons of ordinary kriging block model grades and composite drill holes show a reasonable correlation between the values (Figure 14-11). No significant discrepancies were apparent from the sections reviewed, yet grade smoothing was apparent in some of the lower elevations due to the distance between drill samples being broader in these regions.

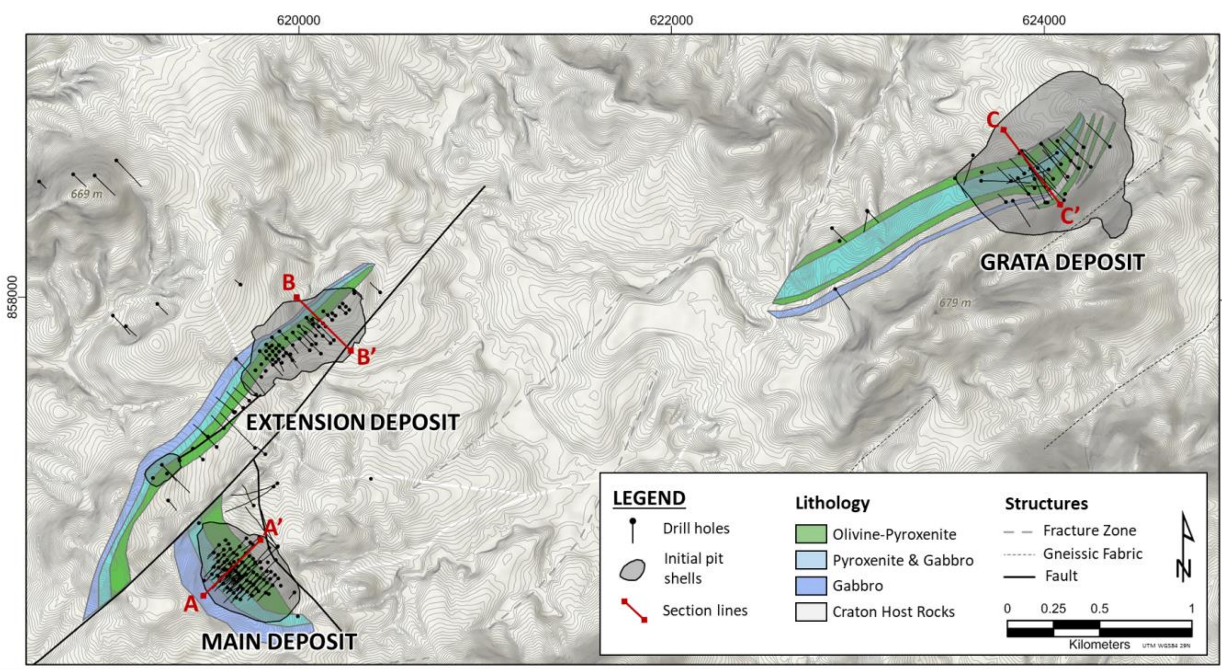

Figure 14-11: Surface Plan Showing Optimized Pits for Samapleu and Grata Deposits

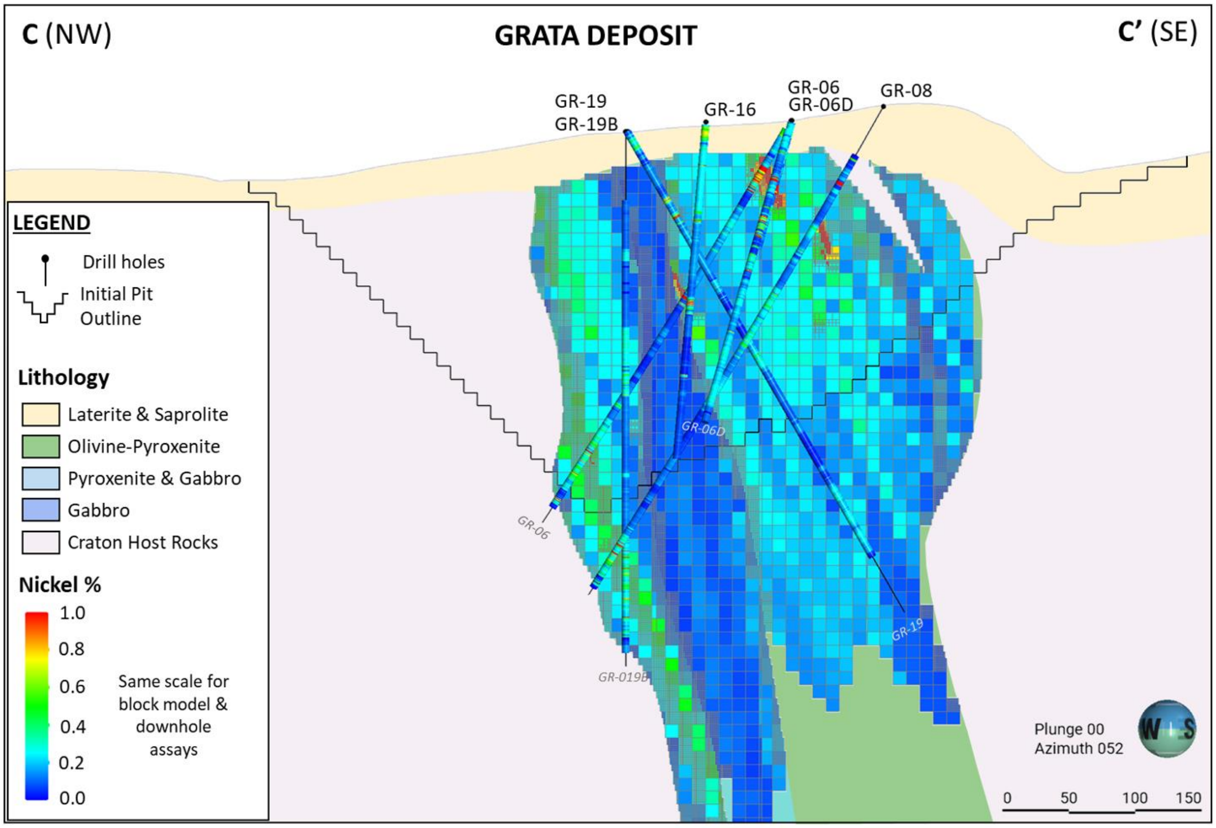

Figure 14-12: Grata Deposit Visual Validation through C-C'

14.3.9.2 Global Statistics

The global block model statistics for the OK model were compared to the global NN and ID^2 model. Table 14-43 shows this comparison of the global estimates for the three estimation method calculations. Comparisons were made using all blocks at above an NSR value of $0.

Table 14-43: Grata Global Statistics Comparison

Element	NN	ID^2	OK
Ni (%)	0.21	0.21	0.21
Cu (%)	0.18	0.19	0.18
Co (%)	0.01	0.01	0.01
Au (g/t)	0.03	0.03	0.03
Pd (g/t)	0.22	0.22	0.22
Pt (g/t)	0.08	0.08	0.08

14.3.10 Previous Estimates

Refer to Section 14.1.10 for a comparison of the previous estimate.

The Grata mineral resource estimate is a maiden resource. There are no previous estimates to compare to.

15. Mineral Reserve Estimates

Not applicable.

16. Mining Methods

Not applicable.

17. Recovery Methods

Not applicable.

18. Project Infrastructure

Not applicable.

19. Market Studies and Contracts

Not applicable.

20. Environmental Studies, Permitting, and Social or Community Impact

Not applicable.

21. Capital and Operating Costs

Not applicable.

22. Economic Analysis

Not applicable.

23. Adjacent Properties

The Samapleu East Exploration Permit 838 ("*Permis de recherche minière*"; PR838) is close to the village of Yorodougou, in west-central Ivory Coast, Montagnes District, Tonkpi Region. The project is about 50 km west of Biankouma and 25 km east of the border with Guinea.

PR838 has an irregular shape with a maximum N-S extent of 24 km and 16 km along the E-W direction, for a total area of 258 km² (Figure 23-1). The permit is approximately centred on latitude 7° 43' 00" N and longitude 7° 55' 00" W (UTM 619,800E; 854,000N).

The reader is referred to the Public Mining Cadastre Portal for Ivory Coast (*Portail du Cadastre Minier de la Côte d'Ivoire*) for official and up to date information on the adjacent properties, at the following link: http://portals.flexicadastre.com/CoteDIvoire/FR/. The reader is cautioned that the information on adjacent properties is not necessarily indicative of the mineralization on the property.

The qualified person has been unable to verify the information about the adjacent properties, but the reader can find official information on the publicly available website of the mining registry by following the link provided above.

23.1 NOCI Exploration Permits PR585

SNC's properties are bounded to the north by the SODEMI/NOCI's Exploration Permit PR585 (*Nickel de l'Ouest Côte d'Ivoire* ("NOCI")), which contains the Sipilou North Ni-Co laterite deposit and the northern part of the Sipilou South deposit (Figure 4-1 and Figure 23-1). The Sipilou South deposit extends partially into SNC's properties.

The property was worked by Falconbridge, under a Joint Venture agreement, between 1993 and 2002. The Sipilou North nickel-cobalt laterite deposit is up to 10 km long by 1.5 km wide and was well delineated by drilling.

The property also includes the Sipilou South nickel-cobalt deposit with approximately 70% of the global surface area laying with the PR585 and the remaining within the Samapleu PR838.

23.2 Exploration Permits in Application

There are four Exploration Permits in application with the Department of Mines surrounding the SNC's PRs, they are as follow:

1. Sama Nickel Côte d'Ivoire SARL: Sector Grata North (NE of Sama's PR's);
2. Société Minière du Tonkpi SARL ("SMT"): Sector Daleu (SW of Sama's PR's);
3. Yams Mining: East of Sama's PR's;
4. Force Ivoire: South-East of Sama's PR's.

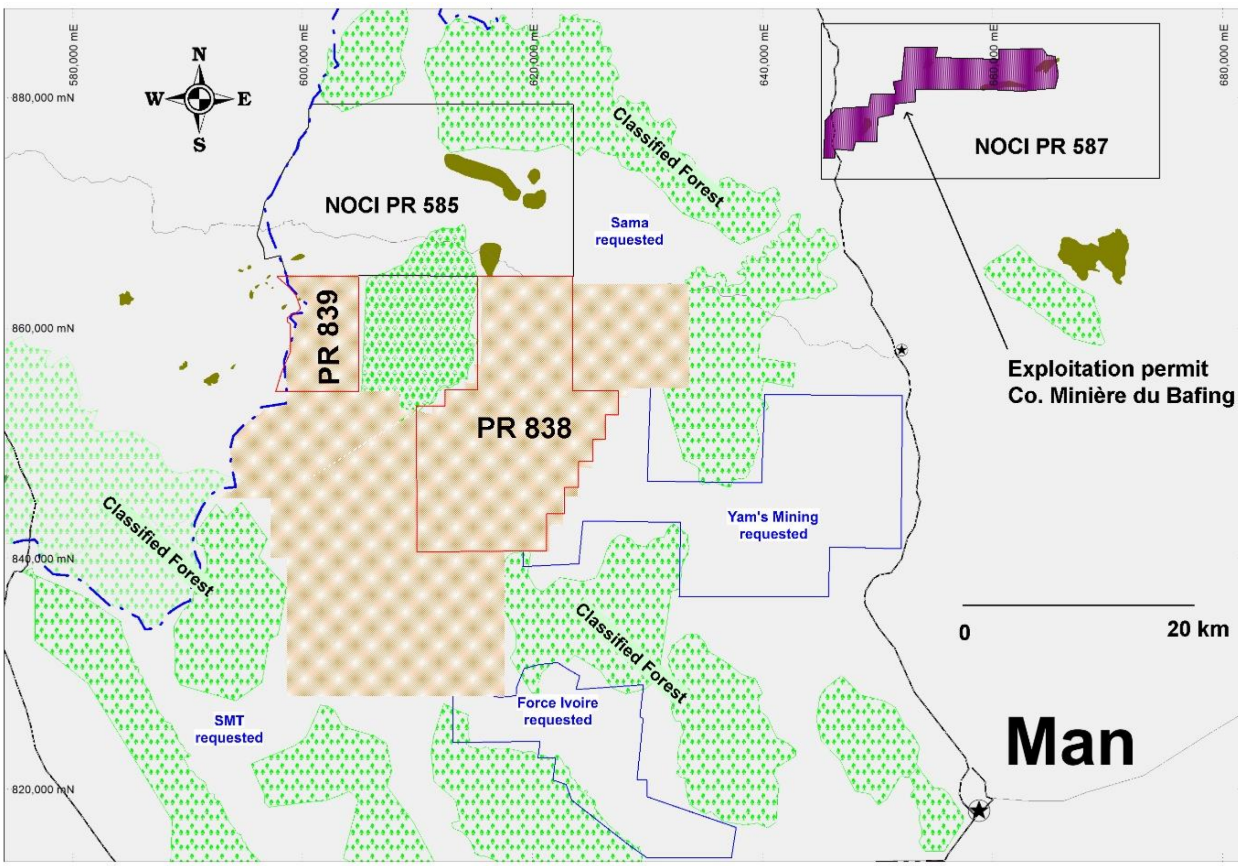

Figure 23-1: Adjacent Property Map

24. Other Relevant Data and Information

There is no other relevant data and information to disclose as of the effective date of this technical report.

25. Interpretation and Conclusions

25.1 Interpretation

25.1.1 Geology

The Yacouba mafic and ultramafic intrusive complex was recognized by drill holes at the Samapleu Main, Samapleu Extension and Grata deposits. Airborne HTEM survey, VTEM survey and Titan survey have outlined more than 20 prospective areas for follow-up.

Mineralization in the Samapleu and Grata deposits consists predominantly of pyrrhotite, pentlandite and chalcopyrite, with subordinate amounts of pyrite, PGE and chromite hosted in pyroxenite.

Sulphide mineralization types at Samapleu and Grata deposits are matrix textures, net-textures, droplets, breccia, dragged sulphide sometimes with semi-massive sulphides, massive, veins, and veinlets.

25.2 Mineral Resource Estimate

Mineral resource estimates have been completed on the Main, Extension and Grata deposits based on 258 diamond drillholes totalling 52,080 m.

The Mineral Resource Estimate for the Samapleu Main deposit is based on six geological domains modelled in three dimensions using Leapfrog software. Mineral estimating was completed by ordinary kriging in Datamine Studio RM. Using a net smelter return (“NSR”) cut-off grade of $16.34 t/milled, the pit constrained Indicated Mineral Resource totals 13.4 Mt at 0.24% Ni, 0.22% Cu, 0.10 g/t Pt, 0.31 g/t Pd, 0.04 g/t Au and 0.02% Co, with an additional pit constrained Inferred Mineral Resource of 22.3 Mt at 0.25% Ni, 0.20% Cu, 0.08 g/t Pt, 0.28 g/t Pd, 0.04 g/t Au and 0.02% Co.

The Mineral Resource Estimate for the Samapleu Extension deposit is based on six geological domains modelled in three dimensions using Leapfrog software. Mineral estimating was completed by ordinary kriging in Datamine Studio RM. Using a NSR cut-off grade of $16.34 t/milled, the pit constrained Indicated Mineral Resource totals 0.2 Mt at 0.28% Ni, 0.18% Cu, 0.10 g/t Pt, 0.55 g/t Pd, 0.02 g/t Au and 0.02% Co, with an additional pit constrained Inferred Mineral Resource of 11.1 Mt at 0.28% Ni, 0.22% Cu, 0.10 g/t Pt, 0.47 g/t Pd, 0.02 g/t Au and 0.02% Co.

The Mineral Resource Estimate for the Grata deposit is based on eight geological domains modelled in three dimensions using Leapfrog software. Mineral estimating was completed by ordinary kriging in Datamine Studio RM. Using a NSR cut-off grade of $16.34 t/milled, the pit constrained Indicated Mineral Resource totals 1.3 Mt at 0.29% Ni, 0.27% Cu, 0.11 g/t Pt, 0.29 g/t Pd, 0.04 g/t Au and 0.02% Co, with an additional pit constrained Inferred Mineral Resource of 68.4 Mt at 0.24% Ni, 0.25% Cu, 0.10 g/t Pt, 0.26 g/t Pd, 0.04 g/t Au and 0.01% Co.

25.2.1 Metallurgy

Flotation testing was conducted on samples from the Samapleu deposit between 2022 and early 2023. The purpose of this work was to de-risk the Project technically and to create a mechanism for revenue generation from the cobalt and precious metals contained in the resource. The studies established a conventional flotation flowsheet capable of yielding saleable copper and nickel concentrates containing, where possible, payable levels of cobalt, platinum, palladium, gold and silver.

The three composites studied were designed to represent the Main and Extension zones in the Samapleu deposit plus the Grata deposit.

Some 43 batch flotation tests and four locked cycle tests were conducted on these composites. These tests allowed for the preliminary development of a flotation flowsheet that sequentially yields a copper and a nickel concentrate. This flowsheet uses a grind of 80% passing 140 microns, and rougher and cleaner flotation for copper and nickel. Copper flotation was achieved using conventional nickel and gangue depressants and Solvay AEROPHINE 3418A collector, and nickel flotation was achieved using a xanthate collector and more gangue depressant. All reagent doses were typical of many commercial copper/nickel flotation circuits.

The copper, nickel and cobalt metallurgy from tests on the three composites is shown in Table 25-1 below. The precious metals floated to both the copper and nickel concentrates, the grades and recoveries of which are shown below.

The metallurgy of Grata and Main composites is based on locked cycle testing, while Extension is based on batch testing, and likely represents an under-estimate of the final metallurgy.

Table 25-1: Summarized Metallurgy on Grata, Main and Extension Composites

Deposit	Feed grade, %			Copper flotation						Nickel flotation					
				Conc grade, %			Recovery, %			Conc grade, %			Recovery, %		
	Cu	Ni	Co	Cu	Ni	Co	Cu	Ni	Co	Cu	Ni	Co	Cu	Ni	Co
Main	0.31	0.34	0.02	25.7	1.2	0.05	83	3	3	1.6	12.6	0.5	9	67	51
Extension*	0.19	0.27	0.02	22.9	0.9	0.04	72	2	2	1.2	14.6	0.6	6	50	37
Grata	0.50	0.40	0.02	26.8	1.1	0.04	88	4	4	1.3	12.5	0.5	6	72	61
Deposit	**Feed grade, g/t**			**Copper flotation**						**Nickel flotation**					
				Conc grade, g/t			**Recovery, %**			**Conc grade, g/t**			**Recovery, %**		
	Pt	Pd	Au	Pt	Pd	Au	Pt	Pd	Au	Pt	Pd	Au	Pt	Pd	Au
Main	0.16	0.34	0.05	2.1	6.4	1.4	13	19	26	5.2	7.6	0.3	58	41	10
Extension*	0.10	0.47	0.04	2.5	15.6	3.2	14	20	53	4.3	14.2	0.2	38	28	5
Grata	0.08	0.54	0.05	1.1	7.3	1.2	23	22	43	1.5	8.7	0.3	40	37	12

* batch test only

In addition to copper and nickel in their respective concentrates, palladium should attract good payments from all concentrates, cobalt from all nickel concentrates, and platinum and gold should trigger payments from a number of concentrates. Silver (not shown) will also attract minor payments from some copper concentrates.

25.3 Conclusions

25.3.1 Geology

SNC has a good understanding of the geology of the Project. Based on the understanding of the geology and geophysical surveys, the Project has the potential to host additional near surface nickel deposits.

25.3.2 Mineral Resource Estimate

The Mineral Resource Estimates are supported by sufficient drilling, analysis, and specific gravity data. Reasonable parameters were used to constrain the mineralization within a pit shell. The geology remains open along strike and down dip to host mineralization.

There is the potential to convert some of the Inferred Mineral Resources to Indicated Mineral Resources at all three deposits by conducting downhole surveys on the diamond drill hole with no survey data.

25.3.3 Metallurgy

Metallurgical testing has generated viable copper and nickel concentrates. Further testing could optimize the process further and would provide better information on the metallurgical response of each zone to the process.

Metallurgical test work on the Sipilou South laterites will allow the Project to determine if the material currently not in a mineral resource could have reasonable prospect of eventual economic extraction.

26. Recommendations

Two separate exploration programs are proposed. The successful completion of Phase 1 will have an impact on how Phase 2 is conducted. The intension of the programs is to advance the project past a Preliminary Economic Assessment ("PEA") and establish the basis leading to a Pre-feasibility Study ("PFS").

26.1 Phase 1

Phase 1 is designed to enhance the project by completing a Preliminary Economic Assessment ("PEA"). The budget of $0.97 million is estimated to be required to complete the Phase 1 program. A summary of the recommendation is listed below. Table 26-1 summarizes the Phase 1 budget.

Table 26-1: Phase 1 Budget Summary

Task	Estimated Cost (USD)
PEA (Including Mineral Resource Update)	370,000
Infill Drilling and Geology Work	400,000
Waste and Water Management	70,000
Metallurgical Test Work	120,000
Total	**$960,000**

26.2 Phase 2

Phase 2 is designed to enhance the project leading towards a PFS by gathering additional data required to complete a PFS. The budget of $4.8M is estimated to be required to complete the Phase 2 program. A summary of the Phase 2 budget recommendation is listed in Table 26-2. Phase 2 is dependent on the results of Phase 1.

Table 26-2: Phase 2 Budget

Task	Estimated Cost (USD)
Exploration Drilling	2,000,000
Mineral Resource Update	100,000
Geotechnical Drilling	750,000
Hydrogeology Drilling	500,000
Geotechnical Study	350,000
Hydrogeological Study	250,000
Hydrology Study	200,000
Geological Studies	250,000
Metallurgical Test Work	400,000
Total	**4,800,000**

27. References

CIM (2014). Canadian Institute of Mining, Metallurgical and Petroleum, CIM Definition Standards for Mineral Resources and Mineral Reserves, adopted by the CIM Council on May 10, 2014.

CIM (2019). Canadian Institute of Mining, Metallurgical and Petroleum, CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines, adopted by the CIM Council November 29, 2019.

CIM (2020). Canadian Institute of Mining, Metallurgical and Petroleum, CIM Guidance on Commodity Pricing and Other Issues related to Mineral Resource and Mineral Reserve Estimation and Reporting, adopted by CIM Council August 28, 2020.

Ayad, M.A.B., Corbeil, J., Hayek, C., Lafleur, P., (2013). NI 43-101 Technical Report. Mineral Resource Estimate prepared by WSP for Sama Nickel Corporation.

Ayad, M.A.B., Corbeil, J., Hayek, C., Lafleur, P. (2015). NI 43-101 Technical Report. Updated Mineral Resource Estimate prepared by WSP for Sama Nickel Corporation.

Camil, J. (1984). Pétrographie, chronologie des ensembles granulitiques archéens et formation associées de la région de Man (Côte d'Ivoire). Implication pour l'histoire géologique du craton Ouest Africain. Thèse No 79. Univ. Abidjan, Côte d'Ivoire.

DGPE (2018). Rapport Annuel DGPE 2017-2018 – Direction Générale du Portefeuille de l'État, Abidjan.

Eckstrand, O.R. (1984). Geological Survey of Canada, Canadian Mineral Deposit Types: A Geological Synopsis. Economic Geology, report 36, pp. 39-43.

Endeavour Mining website: Homepage | Endeavour Mining.

Gagnon, D., Ibrango, S., Sigh, N., Cunningham, R., Liskovych, V., and Dion, M.,(2020). NI 43-101 Technical Report by DRA/Met-Chem - Preliminary Economic Assessment, Samapleu Project.

Gouedji, Gnamba-Emmanuel-Franck (2014). Les séquences mafiques-ultramafiques de Samapleu et leur minéralisation en Ni-Cu-EGP : un dyke nourricier éburnéen (2,09 Ga) du complexe lité Yacouba (craton archéen de Man – Côte d'Ivoire). Doctorat – PhD co-tutelle Université de Franche Comté-Besançon – Dir. Thèse 1 : Pr Christian PICARD / Université Felix Houphouet Boigny-Abidjan-Dir. Thèse 2 : Pr Yacouba COULIBALY.

Gouedji, F., Picard, C., Coulibaly, Y., Audet, M-A., Auge, T., Goncalves, P., Paquette J-L., Ouattara, N. (2014). The Samapleu mafic-ultramafic intrusion and its Ni-Cu-PGE mineralization: an Eburnean (2.09 Ga) feeder dyke to the Yacouba Layered Complex (Man Archean craton, Western Ivory Coast); Soumis en janvier 2014, accepté pour publication le 25 juin 2014 ; Bull. Soc. Geol. Fr.

IVNE (2019). Yacouba Intrusive Complex. Internal company report

Koffi, G.R-S., Kouamelan, A., Allialy, M., Coulibaly, Y., and Peucat, J-J. (2020), Re-evaluation of Leonian and Liberian events in the geodynamical evolution of the Man-Leo Shield (West African Craton), Precambrian Research, Volume 338.

Kouamelan, A, N., Delor, C., Peucat, J.J. (1997). Geochronological evidence for reworking of Archean terrains during the Early Proterozoic (2.1Ga) in the western Côte d'Ivoire (ManRise-West African Craton). Precambrian Research 86 (1997), pp 177-199.

Landen, 2010. Landen Capital Corp. Press Release, March 29, 2010.

Nahon, et al. (1982). Lateritic weathering of Rocks and the Concentration of Nickel in the Western Ivory Coast. Economic Geology, Vol. 77 pp. 1159-1175.

Naldrett, A.J. (1973). Nickel sulphide deposits-their classification and genesis, with special emphasis on deposits of volcanic association. Bull, Can. Inst. Minins Met 66 (739), pp. 45-61.

Naldrett, A.J. (1999). World-class Ni-Cu-PGE deposits: key factors in their genesis. Mineral. Deposita 34, 227–240 (1999).

Ouattara N. (1998). Pétrologie, géochimie et métallogénie des sulfures du groupe du platine des ultrabasites de Côte d'Ivoire: Signification géodynamique et implications sur les processus de croissance crustale à l'archéen et au paléoprotérozoïque. Thèse de doctorat, Univ. Orléans France, 199 p.

Prof. Picard et al. (2010). Research Projects on the Yacouba Complex, and the Ni-Cu-PGE and Chromite Mineralization performed by Prof. C. Picard, F. Gouedji, N. Ouattara, B. Bakayoko, M.A. Audet, and others for Sama Nickel Corporation.

Raoul (2010). Rôle de la Sodemi dans le développement du secteur minier; Yao Kouané Raoul; Présentation, 8 juin 2010.

Rivard, D., Ayad, M. A. B., Billington, F., Martin, C., (2012). NI 43-101 Technical Report for the Mineral Resource Estimate for Samapleu deposits. July 20, 2012.

SNC (2015). Sama Nickel Corporation. Internal Company Report

SNC (2018). Sama Nickel Corporation. Internal Company Report

SNC (2020). Sama Nickel Corporation. Internal Company Report

SODEMI (1976). Internal company report

Trillion Resources Ltd. (1991). Geological Evaluation of the Samapleu Research Permit, Département de Biankouma, Côte d'Ivoire.

WMO; data for the period 1961-1990; Precipitations Etude Climatologique des Sites de Lola et de N'zerekore 2017; Mamadou Tounkara; Direction Nationale de la Météorologie; Décembre 2017, data collected in 1979-2009; Wind speed: www.weatherbase.com; Years on Record: 112.