Technical Report on the Läntinen Koillismaa Project, Finland Report for NI 43-101

Palladium One Mining Inc.

SLR Project No: 233.03510.R0000

Effective Date:
April 25, 2022

Signature Date:
May 27, 2022

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FINAL

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CONTENTS

TABLES

FIGURES

1.0 SUMMARY

1.1 Executive Summary

SLR Consulting (Canada) Ltd. (SLR) was retained by Palladium One Mining Inc. (Palladium One, or the Company) to prepare an independent Technical Report on the Läntinen Koillismaa Project (LK Project or the Project), located in Finland.

The purpose of this Technical Report is to support updated Mineral Resource estimates for the Kaukua Area and Haukiaho platinum group element-nickel-copper (PGE-Ni-Cu) deposits and an initial Mineral Resource estimate for the Kaukua South and Murtolampi PGE-Ni-Cu deposit, all located on the LK Project. This Technical Report conforms to National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101) as published by the Canadian Securities Administrators. The effective date of this Technical Report is April 25, 2022. SLR visited the LK Project from November 7 to 13, 2021.

The LK Project is an exploration stage property being developed by Palladium One through its 100% owned Finnish entity Nortec Minerals Oy. The LK Project comprises the Kaukua, Kaukua South, Haukiaho, and Murtolampi deposit areas that have been shown to be prospective for PGEs and base metals including nickel and copper.

Palladium One is a Vancouver headquartered company publicly listed on the Toronto Venture Exchange (TSXV) under the symbol PDM, the Frankfurt Exchange under the symbol 7N11, and the OTCQB Exchange under the symbol NKORF. Palladium One is a PGE-Ni-Cu exploration and development company, with the LK Project being its primary asset.

The LK Project Mineral Resources were estimated by Palladium One and audited by SLR. Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves dated May 10, 2014 (CIM (2014) definitions) were used for Mineral Resource classifications. As at April 25, 2022, Indicated Mineral Resources are estimated to total 38.2 million tonnes (Mt) averaging 0.89 g/t Pd + Pt + Au (Total Precious Metals, or TPM) and containing 1,090 thousand ounces (koz) of TPM. In addition, Inferred Mineral Resources are estimated to total 49.7 Mt averaging 0.68 g/t TPM and containing 1,080 koz. This represents a 248% increase in Indicated tonnes and 14% increase in Inferred tonnes on the LK Project.

A summary of the LK Project Mineral Resources, effective April 25, 2022, is provided in Table 1-1.

Table 1-1: Summary of Mineral Resources – April 25, 2022
Palladium One Mining Inc. – Läntinen Koillismaa Project

Category	Tonnage (Mt)	Grade							Contained Metal						
		Pd (g/t)	Pt (g/t)	Au (g/t)	TPM (g/t)	Cu (%)	Ni (%)	Co (g/t)	Pd (koz)	Pt (koz)	Au (koz)	TPM (koz)	Cu (Mlb)	Ni (Mlb)	Co (Mlb)
Indicated	38.2	0.61	0.22	0.07	0.89	0.13	0.11	65	740	260	80	1,090	110.7	91.6	5.4
Inferred	49.7	0.43	0.17	0.09	0.68	0.16	0.14	74	680	260	140	1,080	172.9	151.5	8.1

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.

2. The Mineral Resources have been reported above a preliminary open pit constraining surface using a net smelter return (NSR) pit discard cut-off of US$12.5/t (which, for comparison purposes, equates to an approximately 0.65 g/t palladium equivalent (PdEq) in-situ cut-off grade, based on metal prices only).
3. The NSR used for reporting is based on the following:
    a. Long term metal prices of US$1,700/oz Pd, US$1,100/oz Pt, US$1,800/oz Au, US$4.25/lb Cu, US$8.50/lb Ni, and US$25/lb Co.
    b. Variable metallurgical recoveries for each metal were used at Kaukua and Murtolampi and fixed recoveries of 79.8% Pd, 80.1% Pt, 65% Au, 89% Cu, 64% Ni, and 0% Co at Haukiaho.
    c. Commercial terms for a Cu and Ni concentrate based on indicative quotations from smelters.
4. Total Precious Metals (TPM) equals palladium plus platinum plus gold.
5. Bulk densities range between 1.8 t/m^3 and 3.23 t/m^3.
6. Numbers may not add up due to rounding.
7. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.
8. The quantity and grade of reported Inferred Mineral Resources in this estimation are conceptual in nature and there has been insufficient exploration to define these Inferred Mineral Resources as an Indicated or Measured Mineral Resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured Mineral Resource category.

The Qualified Person (QP) is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

1.1.1 Conclusions

SLR's conclusions by area are summarized as follows.

1.1.1.1 Geology and Mineral Resources

- The geological setting of the deposit is well understood, informed through geological mapping, sampling, geophysical surveying, and regional exploration drilling. The LK Project in north-central Finland is hosted within the Paleoproterozoic, rift-related Koillismaa Layered Igneous Complex (Koillismaa Complex) of the regional Tornio-Näränkävaara intrusion belt (TNB) of north-central Finland consisting of the Näränkävaara Intrusion in the east and the Koillismaa Complex in the west. The Kaukua deposit is hosted within the northern part of the Koillismaa Complex and the Haukiaho deposit is situated 12 km south-southwest from Kaukua, also in the Koillismaa Complex.
- The main sulphide minerals are pyrrhotite, chalcopyrite, and pentlandite. The sulphide assemblage occurs as fine to medium grained dissemination, disseminated aggregations, and blebs. Haukiaho mineralization resembles Kaukua geologically and mineralogically and is likely to have the same origin, however, it is more sulphide Cu-Ni rich than Kaukua and includes local narrow massive sulphide veins.
- Mineral Resources at the LK Project conform to CIM (2014) definitions.
- As at April 25, 2022, Indicated Mineral Resources are estimated to total 38.2 Mt comprising 1,090 koz TPM (0.89 g/t), 111 million pounds (Mlb) copper (0.13%), 92 Mlb nickel (0.11%) and 5 Mlb cobalt (65 g/t). In addition, Inferred Mineral Resources are estimated to total 49.7 Mt comprising 1,080 koz TPM (0.68 g/t), 173 Mlb copper (0.16%), 152 Mlb nickel (0.14%) and 8 Mlb cobalt (74 g/t).
- The sample preparation, analysis, and security procedures at the LK Project are adequate, and the quality assurance/quality control (QA/QC) results are sufficient to support Mineral Resource estimation.

- Nickel within the deposits is known to be distributed in both sulphides and mafic silicates and control samples have been found to perform variably in both historical and Palladium One QA/QC programs. Investigations into the proportion of Ni as sulphide versus silicates have been undertaken historically and continue to be refined by Palladium One.
- While SLR tested the impact of analytical methods and laboratory performance and is of the opinion that the proportion of unrecoverable nickel is not material, there is an opportunity to add some additional value from the Ni concentrate by re-sampling the drill holes previously assayed using aqua regia with a more aggressive/effective digest method, e.g., four-acid digest, to more accurately determine the proportions of nickel silicate and nickel sulphide in the mineralization.

- The drill hole database is of good quality and suitable for use in a Mineral Resource estimate.
- The QP is not aware of any limitations on data verification and is of the opinion that database verification procedures for the LK Project are consistent with industry standards and are adequate for the purposes of Mineral Resource estimation.
- The QP has reviewed and adopted the estimates completed by David Thomas, P.Geo., on behalf of Palladium One, and is of the opinion that the estimates are suitable to support disclosure of Mineral Resources for the Project and for inclusion in future studies.
- The QP is of the opinion that the block modelling methodologies are consistent with industry standard practices, and that the selected block sizes are suitable for the style of mineralization and proposed mining method.
- The deposits remain open to additional exploration and further technical study, which are warranted.
- Despite higher metal prices and a lower relative cut-off, the conceptual pit for Haukiaho decreased in size due to zero recovery of Co and the use of smelter payables for each metal in a bulk concentrate.

1.1.1.2 Mineral Processing and Metallurgical Testing

- A significant metallurgical program using material from both the Kaukua and Kaukua South deposits was undertaken by SGS Canada Inc. in Lakefield, Ontario (SGS Lakefield) in 2021-2022, returning calculated bulk concentrate (copper + nickel concentrate) recoveries of 73.5% palladium, 56.1% platinum, 73.0% gold, 88.6% copper, 30.3% nickel, and 18.6% cobalt in locked cycle tests.
- Results largely confirmed earlier testing in 2011, with the exception of nickel which returned lower recoveries due to a higher percentage of silicate nickel in lower grade 2022 Lower Zone composite sample, 2.38 g/t PdEq (2011) versus 1.66 g/t PdEq (2022).
- Locked cycle testing confirmed the following:
  - Concentration by conventional flotation produces a saleable bulk concentrate with no deleterious elements, irrespective of lithology.
  - A clean, high value saleable copper concentrate can be produced.
  - A clean, high value saleable nickel-PGE concentrate can be produced.
  - Recovery rates from the Kaukua/Kaukua South mineralization are consistent and reproducible.

- Variability testing on the four lithologies that comprise the Lower Zone composite sample returned consistent results irrespective of lithology.
- Additional metallurgical testing including further locked cycle tests should be undertaken to refine the flowsheet on the Kaukua Area deposits. New test work, including variability testing, needs to be undertaken on the Haukiaho Zone for which historical work dates from 2001 and was conducted on a higher grade sample than the current resource estimate.

1.1.2 Recommendations

SLR offers the following recommendations by area.

1.1.2.1 Geology and Mineral Resources

Quality Assurance/Quality Control

1. Based on observed biases in nickel and copper assays from certified reference material (CRM) samples, re-evaluate the CRMs and use alternative standards in future analytical programs. Future CRMs should be representative of the anticipated metallurgical processing methodology.
2. Select drill holes assayed using aqua regia in and around the current conceptual pits and re-assay the holes using four-acid digestion.
3. Include equal proportions of coarse, field, and pulp duplicate types in future QA/QC programs so that the performance of each type can be evaluated to better understand the behaviour of LK Project mineralization types.

Data Verification

1. Sample discrepancies have been identified in the drill hole database whereby the highest assay concentrations have been selected as the primary result and used during Mineral Resource estimation irrespective of the analytical method, i.e., the highest concentration derived from the aqua regia and four-acid digest methods were selected. This has resulted in inconsistencies in the adopted analytical method. For future Mineral Resource estimate updates, use assay results from a single analytical method consistently across all samples to prevent any potential bias.
2. A single drill hole – LK21-066 – is missing the available assay data. While this hole is located well beyond the extent of the Kaukua open pit constraints, SLR recommends that the missing available assay data be incorporated into the drill hole database for future iterations of the block model.

Mineral Resource Estimation

3. From a comparison of historical assays results at Haukiaho, assay data in the West Zone for which no supporting QA/QC was available were not used in the Mineral Resource estimate. Perform further verification work on the data to test its suitability for Mineral Resource estimation.
4. For a small proportion of Haukiaho assays based on regression analysis, re-sample core where possible to reduce reliance on regression results or exclude drill holes with missing analyses in the future as the Project advances and additional information is available.

5. SLR notes that Haukiaho uses a larger block size than Kaukua. As the Project advances and geotechnical studies are performed, consider revisiting the block size.
6. With respect to the reduction in the conceptual pit for Haukiaho, SLR notes that there may exist an opportunity to increase the size of the conceptual pit in the future by doing further metallurgical testwork and investigation into separate Cu and Ni concentrates for the deposit. It is noted that the two concentrates yield a higher net payability for each metal on the Kaukua Area metallurgical test results.

1.1.2.2 Mineral Processing and Metallurgical Testing

1. Complete additional metallurgical testing using samples from drill core that are spatially representative of the deposits, specifically the Haukiaho deposit to confirm the metallurgical recoveries projected under copper-nickel separation and any process design parameters.

1.1.2.3 Proposed Program and Budget

Table 1-2 provides a detailed breakdown of Palladium One's proposed budget to support the completion of a Preliminary Economic Assessment (PEA) for the LK Project, including additional infill and geotechnical drilling and analysis, surveying, factual reporting, future Mineral Resource updates, and further metallurgical studies.

Additional drilling will focus on both infilling around existing drill holes to continue to contribute to the understanding of the geological interpretations and grade continuity within the deposit while improving overall confidence in the Mineral Resource. Drilling to target expansion to the existing Mineral Resource would be continuously informed by drill results and existing geophysical anomaly targets. Specifically, two areas are highlighted for resource expansion potential: (1) the Far East extension of the Kaukua South induced polarization (IP) chargeability anomaly and (2) the 17 km Long Haukiaho Trend. In addition, geotechnical drilling and sampling would target key areas of the deposit to inform geotechnical analysis for future mining studies.

Table 1-2: Budget for Future Work
Palladium One Mining Inc. – LK Project

Purpose	Item	Budget (US$)
Infill Drilling and Mineral Resource Update	Drilling 6,000 m	1,800,000
	Resource Update & Reporting	150,000
	Subtotal	**1,950,000**
Geotechnical Drilling	Drilling 2,000 m	1,000,000
	Down Hole Televiewer Survey	150,000
	Laboratory Testing	60,000
	Training & Travel	50,000
	Report	30,000
	Subtotal	**1,290,000**
Additional Metallurgical Studies		200,000
Preliminary Economic Assessment		200,000
10% Contingency		364,000
TOTAL		**4,004,000**

1.2 Technical Summary

1.2.1 Property Description and Location

The LK Project is located in north-central Finland, approximately 40 km north of Palladium One's exploration office in the village of Taivalkoski. The property is 160 km by road east-southeast of the city of Rovaniemi and 190 km by road northeast of the port city of Oulu. The central point of the LK Project is at longitude 28°07'42.00'' E, latitude 65°54'20.61'' N.

1.2.2 Land Tenure

The LK Project is 100% owned by Palladium One through its wholly owned Finnish subsidiary Nortec Minerals Oy.

The LK Project area is covered by nine Exploration Permits and six Exploration Permit Applications. The nine Exploration Permits cover a total aggregated area of 2,484 hectares (ha), with an additional 21,409 ha covered by the six Exploration Permit Applications.

Surface rights remain under governance of the property owner, and as such Exploration Reservations and Exploration Permits do not limit the extent of the property owner's rights to use the area.

Based on the Title Opinion provided by Kalliolaw Asianajotoimisto Oy (Kalliolaw Attorneys Ltd.) of Helsinki, Finland, all Exploration Permits are in good standing.

None of the LK Project permit areas are entirely located within nature conservation areas, however, the Exploration Permit for Salmivaara 2-11 and the Kostonjärvi Exploration Permit Application (KS Project) share approximately 2.3 km and 9.8 km of boundary with a Natura 2000 area, respectively.

Natura 2000 is a nature conservation program established according to Finnish national legislation and in accordance with a European Union directive.

1.2.3 Existing Infrastructure

The LK Project is an exploration stage project and therefore there is no existing mining related infrastructure.

All target areas are accessible by public and private roads, and the property is accessible year-round from airports in Oulu, Rovaniemi, and Kuusamo, which are approximately 190 km, 160 km, and 90 km by road from the property areas, respectively. There are regular flights to these airports from the Finnish capital, Helsinki.

Sources of power, water, and personnel are available locally and are sufficient for proposed exploration activities. Water is readily available from sources in proximity to the properties, however, permission must be obtained to use it. High voltage power lines cross the Haukiaho and Lipeävaara properties and run 4.5 km from the western side of the Kaukua mineralized body.

1.2.4 History

Copper and nickel mineralization was first documented by the Geological Survey of Finland (GTK) and Outokumpu Oy (Outokumpu) in the early 1960s when Outokumpu completed exploration by diamond drilling. PGE-focused exploration by GTK and Outokumpu started in the early 1980s, followed by detailed mapping, surface sampling, re-sampling of old drill core for PGE, and geophysical surveys. In 1990, Outokumpu carried out a trenching and sampling program.

In 1996, GTK initiated an extensive research and exploration programs over the entire Koillismaa Complex, including the current LK Project areas. Research and exploration by GTK and North Atlantic Natural Resources AB (NAN) in 1996 to 2002 resulted in the delineation of highly mineralized areas in the Marginal Series host. In two of the areas, Haukiaho and Kaukua, GTK carried out further exploration in 2004 and 2005 including diamond drilling.

In 2000, NAN conducted geophysical ground surveys on Palladium One's present Haukiaho, Murtolampi, and Kaukua areas, and completed diamond drilling in the Haukiaho area.

In 2002, Fugro Ltd flew a low-altitude aerial geophysical survey and detailed magnetic surveys were subsequently undertaken by GTK and NAN to determine continuity and offsets in mineralization. IP surveys outlined a consistent chargeable unit correlating with the mineralization intersected by the later drilling.

Between 2007 and 2009, Nortec Minerals Corp. carried out four separate exploration programs. Following acquisition of the Project from Nortec Minerals Corp. in 2011, Finore Mining Inc. (Finore) conducted diamond drilling in 2011 and 2012 across both the Haukiaho and Kaukua areas.

A total of 212 diamond drill holes for approximately 37.5 km have been completed historically across the property.

1.2.5 Geology and Mineralization

The Kaukua and Haukiaho deposits are hosted in the Paleoproterozoic rift related Koillismaa Complex, which forms the easternmost portion of the TNB and consists of two main sectors, the Näränkävaara Intrusion in the east and the Koillismaa Complex in the west. Several mineralization types typical of layered mafic intrusions can be found in the Koillismaa Intrusion. These include layered accumulations of PGE enriched base metal sulphides in the lowest parts of the intrusions (contact type PGE deposits), stratiform PGE, and vanadium enriched magnetite layer (reefs) higher in the cumulate sequences.

The Kaukua Block has an area of approximately eight square kilometres and is situated in the northern part of the Koillismaa Intrusion. The block is divided into three fault bounded zones, namely (i) the Kaukua Main Zone (the historic Kaukua deposit), (ii) the Gap Zone, and (iii) the Kaukua South Zone, the last one referring to the discovered southern extension of the mineralization. The stratigraphy consists of gabbroic and ultramafic rocks (referred to as the Marginal Series), overlain by thick gabbroic cumulates (the Layered Series). The Kaukua deposit is mainly hosted within the Marginal Series following the intrusion-basement contact, but locally extending tens of metres into the Archean granitoid footwall.

The Haukiaho property is situated 12 km south-southwest of Kaukua and is hosted by the Kuusijärvi intrusive block, which itself is part of the Koillismaa Intrusion. The igneous stratigraphy of Haukiaho is similar to that of Kaukua, although the repetition of pyroxenite and peridotite is less common. The stratigraphic units correspond to the metamorphic alteration of primary igneous minerals. The Haukiaho mineralization resembles Kaukua geologically and mineralogically and is likely to have the same origin. The Haukiaho mineralization is hosted mainly by gabbroic cumulate lithologies and is more Cu-Ni rich than Kaukua. It is steeply dipping to the north-northeast and is generally 15 m to 40 m thick. The mineralization is disseminated, with a few narrow massive sulphide veins.

Four principal types of PGE-base metal mineralization have been identified within the Kaukua block:

1. Hanging wall type mineralization (reef type, in the Main Zone).
2. Marginal Series type mineralization (contact type, termed Lower Zone).
3. Mixed basement type mineralization (contact type, Lower Zone).
4. Reef type mineralization (termed Upper Zone).

The Main Zone mineralization dips at 30° to 40° to the south. The northern edge is slightly steeper dipping while the slope becomes more gentle at depth. In the Gap Zone, the deposit dips at 30° to the southwest and in the South Zone at 55° to 60° to the south. The thickness of the contact type mineralization ranges from several tens of metres in the Gap Zone to 40 m to 80 m in the Main and Kaukua blocks. The Marginal Series, and the contact mineralization within it, thins eastwards of the South Block.

The main sulphide minerals are pyrrhotite, chalcopyrite, and pentlandite. The sulphide assemblage occurs as fine to medium grained dissemination, disseminated aggregations, and blebs. Accessory sulphides include pyrite, sphalerite, galena, and molybdenite.

Palladium One's Kostonjarvi Exploration Permit Application area (KS Project) covers a large, buried gravity and magnetic anomaly, interpreted to represent a buried feeder dike to the Koillismaa Complex which hosts the palladium dominant, PGE-Ni-Cu LK Project. While the LK and KS projects are contiguous, the targets are very different. The KS Project target is an assumed high grade massive sulphide, but remains untested at the time of writing.

1.2.6 Exploration Status

Following acquisition of the Project in February 2018, Palladium One completed reconnaissance prospecting of the Haukiaho and Murtolampi deposit areas including outcrop sampling, followed up with a two-phase diamond drilling program, from February to September 2020 and from November 2020 to

September 2021. Overall, Palladium One has drilled 137 drill holes for 28.8 km of diamond core, including 2.5 km from 15 drill holes at Haukiaho.

Geophysical work completed by Palladium One included 143.3 line-km of three dimensional (3D) IP and 385 line-km of drone-based magnetic surveys completed in January 2020 and used to inform the 2020-2021 drilling program. A second 3D IP survey was conducted in spring 2021.

In addition, Palladium One collected 334 bedrock and boulder samples of which 169 were assayed.

1.2.7 Mineral Processing and Metallurgical Testing

The 2022 conceptual process flowsheet developed by SGS Canada includes the key unit operations of crushing, grinding, and flotation to produce separate copper and nickel concentrates. Recent flotation test results for Kaukua demonstrated that copper-nickel separation is achievable and consistent with the 2011 test work. The 2022 test work produced high value concentrates with high sulphur and iron contents with low level of deleterious elements. Additional test work will help refine the flowsheet moving forward. New testing should be carried out on Haukiaho as historic test work was limited in scope and undertaken on a higher grade sample than the current resource estimate.

The results of the 2022 locked cycle tests and concentrate grades are provided in Table 1-3 and Table 1-4.

Table 1-3: Locked Cycle Tests - Metallurgical Projection (Cycles D-F)
Palladium One Mining Inc. – Läntinen Koillismaa Project

Product	Weight %	Assays, %, g/t							% Distribution						
		Cu	Ni	Co	Au	Pt	Pd	MgO	Cu	Ni	Co	Au	Pt	Pd	MgO
Cu Cleaner Conc	0.35	30.0	1.43	0.1	11.2	13.1	38.3	0.6	67.9	3.4	2.0	45.2	18.8	21.0	0.0
Ni 3rd Cleaner Conc.	0.82	3.90	4.85	0.2	2.93	11.0	40.8	5.84	20.7	27.0	16.6	27.8	37.3	52.5	0.3
Calculated Bulk Conc.	1.17	11.70	3.83	0.2	5.40	11.60	40.06	4.27	88.6	30.4	18.6	73.0	56.1	73.5	0.3
Ni Rougher Tails	98.8	0.02	0.1	0.0	0.02	0.11	0.17	14.43	11.4	69.7	81.5	27.0	43.9	26.5	99.7
Head (calc.)	100.0	0.15	0.15	0.0	0.09	0.24	0.63	14.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 1-4: Concentrate Grades
Palladium One Mining Inc. – Läntinen Koillismaa Project

	Unit of Measure	Bulk Concentrate Grade (1)	Copper Concentrate Grade (2)	Nickel Concentrate Grade (3)	Bulk Concentrate Value (1)	Copper Concentrate Value (2)	Nickel Concentrate Value (3)
Palladium	g/t	40.1	38.3	40.8	45%	33%	53%
Platinum	g/t	11.6	13.1	11	9%	7%	9%

	Unit of Measure	Bulk Concentrate Grade (1)	Copper Concentrate Grade (2)	Nickel Concentrate Grade (3)	Bulk Concentrate Value (1)	Copper Concentrate Value (2)	Nickel Concentrate Value (3)
Gold	g/t	5.4	11.2	2.9	6%	10%	4%
Copper	%	11.7	30	3.9	23%	44%	9%
Nickel	%	3.83	1.43	4.85	15%	4%	22%
Cobalt	g/t	0.2	0.1	0.2	2%	1%	3%
Rhodium (4)	g/t	1.5	1.0	1.7	---	---	---
$ Value (5)					**$4,819**	**$6,338**	**$4,173**

Notes:

1. Represents aggregate concentrate produced.
2. Represents preferential copper segregation form the Bulk Concentrate.
3. Represents the remaining Bulk concentrate less the Copper Concentrate extracted.
4. Rhodium was not consistently analyzed for; these values represent select analysis of nickel and copper concentrates.
5. PdEq and Concentrate Value is calculated using metal price only for information purposes, it **does not include Rhodium** and is calculated using the current resource price deck of US$1,700/oz Pd, US$1,100/oz Pt, US$1,800/oz Au, US$4.25/lb Cu, US$8.50/lb Ni, and US$25/lb Co.

1.2.8 Mineral Resources

The LK Project Mineral Resource estimate was completed by David Thomas, P.Geo., on behalf of Palladium One. The SLR QP has reviewed and adopted the estimates and is of the opinion that it is suitable to support disclosure of Mineral Resources for the Project. The Mineral Resource estimate is summarized in Table 1-1.

The Mineral Resource estimation comprises block models for three areas, Kaukua, Murtolampi (part of the Greater Kaukua Area), and Haukiaho.

The wireframes were completed in Leapfrog Geo. The block sizes for the model, measuring 6.0 m in all directions for Kaukua and Murtolampi, and 10 m in all directions for Haukiaho, were selected based on the style of mineralization and envisaging a bulk open pit mining scenario. Grades were capped prior to compositing and interpolated into blocks using ordinary kriging (OK). Grades estimates were validated using a number of validation techniques including visual validation, global bias checks, and swath plots. CIM (2014) definitions were used for Mineral Resource classification. Mineral Resources were constrained within a preliminary open pit using an NSR cut-off value of US$12.5/t calculated based on metallurgical recoveries and contract terms for Cu and Ni concentrates.

The QP is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

2.0 INTRODUCTION

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The LK Project is an exploration stage property being developed by Palladium One through its 100% owned Finnish subsidiary Nortec Minerals Oy. The LK Project currently comprises the Kaukua, Kaukua South, Haukiaho, and Murtolampi deposit areas that have been shown to be prospective for PGEs and base metals including nickel and copper.

Palladium One is a Toronto headquartered company publicly listed on the Toronto Venture Exchange (TSXV) under the symbol PDM, the Frankfurt Exchange under the symbol 7N11, and the OTCQB Exchange under the symbol NKORF. Palladium One is a Critical Minerals exploration and development company.

The LK Project Mineral Resources were estimated by Palladium One and audited by SLR. As at April 25, 2022, Indicated Mineral Resources are estimated to total 38.2 Mt comprising 1,090 koz Total Precious Metals (TPM) (0.89 g/t), 111 million pounds (Mlb) copper (0.13%), 92 Mlb nickel (0.11%) and 5 Mlb cobalt (65 g/t). In addition, Inferred Mineral Resources are estimated to total 49.7 Mt comprising1,080 koz TPM (0.68 g/t), 173 Mlb copper (0.16%), 152 Mlb nickel (0.14%) and 8 Mlb cobalt (74 g/t). Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves dated May 10, 2014 (CIM (2014) definitions) were followed for Mineral Resource classifications.

2.1 Sources of Information

The SLR Qualified Persons (QP) for this Technical Report are Sean Horan, P.Geo., Technical Manager, and Brenna J.Y. Scholey, P.Eng., Principal Metallurgist.

A site visit was carried out by Mr. Sean Horan from November 07 to 13, 2021. During the site visit, Mr. Horan examined drill holes and mineralized surface exposures, reviewed interpreted plans and sections, core logging, sampling, quality assurance and quality control (QA/QC), and modelling procedures, discussed the geological setting of the deposit, as well as the geological interpretations and mineralization control with the site geologist staff. In addition, the QP reviewed some collar coordinates with a handheld GPS device and took some check assays for independent data verification purposes.

Discussions were held with personnel from Palladium One, including:

- Mr. Neil Pettigrew, M.Sc., P. Geo., Vice President of Exploration, Director, Palladium One
- Mr. Alex Whaley, P. Geo., Exploration Manager, Fladgate Exploration Corp.
- Mr. Eelis Räme, Project Geologist, Geoconsulting Oy.
- Dr. Markku Iljina, EurGeol., Owner and President, Geoconsulting Oy.
- Mr. David Thomas, P. Geo., Mineral Resource Geologist and Owner of DKT Geosolutions Inc.

Mr. Horan is responsible for overall preparation of the Technical Report, in particular, Sections 2, 3, 4, 5, 6 ,7, 8, 9, 10, 11, 12, and 14 and contributed to Sections 1, 25, 26, and 27. Mrs. Scholey is responsible for Section 13 and contributed to Sections 1, 25, 26, and 27.

Mr. Horan and Ms. Scholey are independent QPs as defined in NI 43-101.

The documentation reviewed, and other sources of information, are listed at the end of this report in Section 27.0 References.

2.2 List of Abbreviations

Units of measurement used in this report conform to the metric system. All currency in this report is US dollars (US$) unless otherwise noted.

€	Euro	masl	metres above sea level
µ	micron	kVA	kilovolt-amperes
µg	microgram	kW	kilowatt
a	annum	kWh	kilowatt-hour
A	ampere	L	litre
bbl	barrels	lb	pound
Btu	British thermal units	L/s	litres per second
°C	degree Celsius	m	metre
C$	Canadian dollars	M	mega (million); molar
cal	calorie	m^2	square metre
cfm	cubic feet per minute	m^3	cubic metre
cm	centimetre	MASL	metres above sea level
cm^2	square centimetre	m^3/h	cubic metres per hour
d	day	mi	mile
dia	diameter	min	minute
dmt	dry metric tonne	µm	micrometre
dwt	dead-weight ton	mm	millimetre
°F	degree Fahrenheit	mph	miles per hour
ft	foot	MVA	megavolt-amperes
ft^2	square foot	MW	megawatt
ft^3	cubic foot	MWh	megawatt-hour
ft/s	foot per second	oz	Troy ounce (31.1035g)
g	gram	oz/st, opt	ounce per short ton
G	giga (billion)	ppb	part per billion
Ga	billion years	ppm	part per million
Gal	Imperial gallon	psia	pound per square inch absolute
g/L	gram per litre	psig	pound per square inch gauge
Gpm	Imperial gallons per minute	RL	relative elevation
g/t	gram per tonne	s	second
gr/ft^3	grain per cubic foot	st	short ton
gr/m^3	grain per cubic metre	stpa	short ton per year
ha	hectare	stpd	short ton per day
hp	horsepower	t	metric tonne
hr	hour	tpa	metric tonne per year
Hz	hertz	tpd	metric tonne per day
in.	inch	US$	United States dollar
in^2	square inch	USg	United States gallon
J	joule	USgpm	US gallon per minute
k	kilo (thousand)	V	volt
kcal	kilocalorie	W	watt
kg	kilogram	wmt	wet metric tonne
km	kilometre	wt%	weight percent
km^2	square kilometre	yd^3	cubic yard
km/h	kilometre per hour	yr	year
kPa	kilopascal		

3.0 RELIANCE ON OTHER EXPERTS

This Technical Report has been prepared by SLR for Palladium One. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to SLR at the time of preparation of this report.
- Assumptions, conditions, and qualifications as set forth in this report.

For the purpose of this Technical Report, SLR has relied on ownership information provided by Palladium One. The client has relied on an opinion by Kalliolaw Attorneys Ltd dated February 14, 2022, entitled "Opinion Letter Title and Good Standing of Mining Rights", and this opinion is relied on in Sections 4.2 and the Summary of this Technical Report. SLR has not researched property title or mineral rights for the LK Project and expresses no opinion as to the ownership status of the property.

SLR has relied on Palladium One for guidance on applicable taxes, royalties, and other government levies or interests, applicable to revenue or income from the LK Project.

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

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Location

The LK Project is located in north-central Finland, approximately 40 km north of Palladium One's exploration office in the village of Taivalkoski. The property is 160 km by road east-southeast of the city of Rovaniemi and 190 km by road northeast of the port city of Oulu. The central point of the LK Project is at longitude 28°07'42.00'' E, latitude 65°54'20.61'' N (Figure 4-1).

4.2 Land Tenure

4.2.1 Finnish Mining Act

Mineral exploration in Finland is undertaken in accordance with the definitions and requirements of the Mining Act of Finland (621/2011, July 1, 2011), managed and authorized by the Finnish Safety and Chemicals Agency (TUKES), which acts as the Finnish mining authority as governed by the Ministry of Economic Affairs and Employment.

Exploration and mining activities can be undertaken through the following forms of licence.

- **Exploration Reservations** are granted for a fixed two-year term and cannot be renewed. Reservations can either be converted into Exploration Permits or relinquished. Exploration Reservations provide the bearer with the priority to apply for a subsequent Exploration Permit over the designated area.

  Fees associated with Exploration Reservations include a nominal registration fee.

- **Exploration Permits** are granted for a fixed four-year term and can be renewed for up to three years at a time for a total maximum duration of 15 years. This duration excludes the renewal review process periods and includes any duration associated with previously held comparable permits, referred to as Claims under the pre-2011 Mining Act. Successful renewals are typically predicated on the basis that the bearer demonstrates appropriate annual investment in exploration and development and provides adequate annual reporting consistent with the requirements of the mining authority.

  Exploration Permits provide the bearer with exclusive rights to conduct exploration activity and related activities specified in the permit application, such as creating a means of access or constructing temporary facilities, and priority to apply for a Mining Permit. Fees associated with Exploration Permits include annual compensation, or exploration fees, to the landowners in the amount of €20/ha/year (Years 1 to 4), €30/ha/year (Years 5 to 7), €40/ha/year (Years 8 to 10), and €50/ha/year (Years 11 onwards). Other fees include a reclamation collateral payment made to the Finnish State with the amount to be determined by TUKES.

- **Mining Permits** are subsequent to Exploration Permits and are granted by the mining authority as either having fixed terms or being valid until further notice. Mining Permits provide exclusive right for the extraction of minerals vertically beneath the designated area, on the basis that all other necessary permits, for example, an Environmental Permit granted by the Finnish environment authority, have been obtained.

4.2.2 LK Project Permits

The LK Project area is covered by nine Exploration Permits and six Exploration Permit Applications, the details of which, including licence numbers and expiry dates, are listed in Table 4-1. One of the Exploration Permit Applications comprises Kostonjarvi (KS Project), which is situated adjacent to the LK Project.

Surface rights remain under governance of the property owner, and as such Exploration Reservations and Exploration Permits do not limit the extent of the property owner's rights to use the area.

The nine Exploration Permits cover a total aggregated area of 2,484 hectares (ha), with an additional 21,409 ha covered by the six Exploration Permit Applications. The Company has no legal requirement to survey the boundaries of each permit area, and the permit boundary coordinates are assigned by the mining authority (Figure 4-2).

SLR has not researched property title or mineral rights for the LK Project and expresses no opinion as to the ownership status of the property. SLR has however received copies of the permit documentation and a Title Opinion from Kalliolaw Asianajotoimisto Oy (Kalliolaw Attorneys Ltd.) of Helsinki, Finland, the appointed legal counsel of Palladium One's Finnish subsidiary, Nortec Minerals Oy.

Kalliolaw conducted a review of copies of the relevant permits, certificates of validity, Company registration documents, and written and oral communications from the Mining Authority, Administrative and Supreme Administrative Courts. The Title Opinion concludes that the Exploration Permits are in good standing and that the Company holds the valid titles for the same. With respect to the expiry dates in Table 4-1, Kalliolaw assumes that the expiry dates are correct but notes that TUKES has often miscalculated the expiry dates, the accuracy of which has not been verified.

No opinion was provided with respect to the Exploration Permit Applications which have not yet been granted and therefore do not represent formal permits.

4.3 Encumbrances

None of the LK Project permit areas are located wholly within nature conservation areas, however, the Exploration Permit for Salmivaara 2-11 and the Kostonjärvi Exploration Permit Application (KS Project) share approximately 2.3 km and 9.8 km of boundary with a Natura 2000 area, respectively.

Natura 2000 is a nature conservation program established according to Finnish national legislation and in accordance with a European Union directive.

The now closed freshwater canal for the Mustavaara Fe-Ti-V mine runs through the property.

SLR is not aware of any environmental liabilities on the property. Palladium One has all required permits to conduct the proposed work on the property. SLR is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the property.

4.4 Royalties

Royalties associated with the LK Project include 2% net smelter return (NSR) originally held by Akkerman Exploration B.V. (AEbv) on the Kaukua, Kaukua South, and Murtolampi deposits. As of February 25, 2020, EMX Royalty Corporation (EMX) purchased 2% of this NSR from AEbv. Palladium One retains the option to purchase the second 1% NSR from EMX for €1 million. A more detailed description of prior ownership and transfer of royalties for the LK Project are described in Section 6.1.

Table 4-1: Exploration Permits and Applications
Palladium One Mining Inc. – Läntinen Koillismaa Project

Licence Name	Licence ID	First Registration (Arrival) (DD/MM/YY)	Renewal Granted (DD/MM/YY)	Legally Valid (DD/MM/YY)	Expiry (DD/MM/YY)	Validity Period (yrs)	Status	Area (ha)
Exploration Permits								
Kaukua 1-3	ML2012:0198-02	11.07.2008	07.11.2019	10.12.2019	09.12.2022	9	2nd Renewal	229
Kaukua East 1-2	ML2017:0024-01	14.05.2012	11.12.2019	14.07.2020	10.01.2023	6	1st Renewal	158
Kaukua North 1-2	ML2017:0025-01	14.05.2012	07.11.2019	18.02.2020	20.02.2023	6	1st Renewal	123
Kaukua 4 and 6-15	ML2017:0039-01	14.05.2012	07.11.2019	18.02.2020	10.12.2022	6	1st Renewal	385
Kaukua West 1-2	ML2017:0026-01	14.05.2012	19.02.2020	14.07.2020	23.03.2023	6	1st Renewal	135
Haukiaho 1-2	ML2012:0199-02	21.10.2008	11.12.2019	11.01.2020	10.01.2023	9	2nd Renewal	185
Haukiaho 3-4	ML2014:0012-01	07.04.2009	11.12.2019	14.07.2020	25.03.2023	6	1st Renewal	187
Haukiaho 11	ML2017:0016-01	13.04.2012	11.12.2019	14.07.2020	10.01.2023	6	1st Renewal	93
Salmivaara 2-11	ML2016:0021-01	24.03.2016	10.02.2020	12.02.2020	11.03.2024	1	1st Renewal	989
Exploration Permit Applications								
Haukiaho North	VA2020:0008-01 (ML2022:0006-01)	24.02.2020	N/A	N/A	N/A	N/A	N/A	1,537
Haukiaho East	VA2019:0053 (ML2021:0062-01)	22.06.201	N/A	N/A	N/A	N/A	N/A	478
Lipeävaara	VA2019:0052 (ML2021:0061-01)	22.06.2021	N/A	N/A	N/A	N/A	N/A	630
Kaukuanjärvi I	VA2020:0012 (ML2021:0015-01)	10.02.2021	N/A	N/A	N/A	N/A	N/A	165
Kaukuanjärvi II	VA2020:0012 (ML2021:0131-01)	10.02.2021	N/A	N/A	N/A	N/A	N/A	2,697
Kostonjärvi	VA2019:0079-01 (ML2021:0114)	21.10.2019	04.12.2019	14.07.2020	20.10.2021	N/A	New	15,902

Figure 4-1

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Location Map

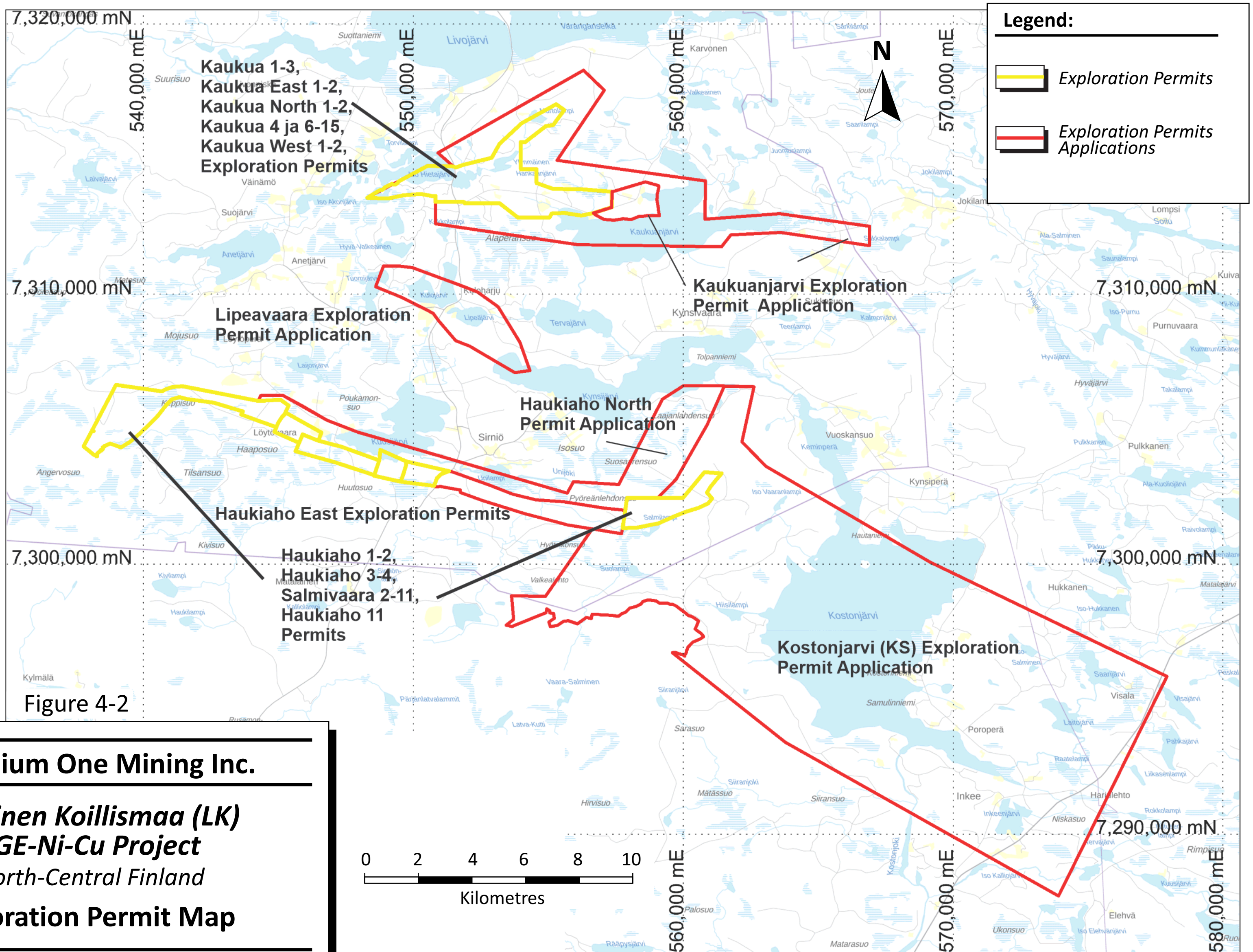


Figure 4-2

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Exploration Permit Map

May 2022

Source: Palladium One, 2022

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

Information presented in Section 5.0 has been excerpted and modified from Mining Plus, 2021.

5.1 Accessibility

The LK Project is located in the municipality of Posio, Finland, between the towns of Posio and Taivalkoski. All target areas are accessible by public and private roads. Public roads (paved or gravel) are kept open all year round and the private gravel roads are maintained only during periodic exploration activities. The main road between Posio and Taivalkoski is paved. Exploration activities such as diamond drilling can be conducted year round.

In addition, the property is accessible year-round from airports in Oulu, Rovaniemi, and Kuusamo which are approximately 190 km, 160 km, and 90 km by road from the property areas, respectively. All three have regular flights from the Finnish capital, Helsinki. The nearest major railway station is in Rovaniemi.

5.2 Climate

Weather conditions are characteristic of the northern Fennoscandian climate with temperate summers and cold winters. During the summer months (June to August), temperatures range from 10°C to 25°C, and during the winter months (November to April) from -5°C to -30°C. The terrain is snow covered in winters (typically 0.6 m to 1.2 m) and marshes, lakes, and rivers freeze every year for four to five months. The annual rainfall is 550 mm, distributed evenly throughout the year. Weather conditions do not interfere with open pit or underground mining anywhere in Finland.

5.3 Local Resources

The nearest major city is Oulu (approximately 200,000 inhabitants), which is approximately 190 km away by road. The cities of Rovaniemi and Kuusamo are located approximately 160 km and 90 km from the property areas, respectively.

Due to historic mining activity in the 1970s and 1980s, including the Mustavaara Iron-Titanium-Vanadium Mine, several mining-specialized equipment and maintenance suppliers have established themselves in the region. This includes Telatek Oy in Taivalkoski, which provides fabrication, maintenance, quality control, and workshop services. The Taivalkoski unit of OSAO vocational college is focused on forestry, mining, and earthworks teaching.

5.4 Infrastructure

Sources of power, water, and personnel are available locally and sufficient for planned exploration activities. Water is readily available from sources in proximity to the properties, however, permission must be obtained to use it. High voltage power lines cross the Haukiaho and Lipeävaara properties and run 4.5 km from the western side of the Kaukua mineralized body.

5.5 Physiography

The Kaukua and Kaukua South deposit area is approximately 200 MASL to 260 MASL. The western portion is partially crossed by an approximately 700 m long, glaciofluvial erosional channel with steep 35 m high walls and a pond in the depression. The terrain on either side of the channel is largely maintained coniferous forest and accessible by forest tractors. The terrain of the eastern portion is characterized by marsh areas and drier, more readily accessible and maintained forestland. Terrain outside the mineral deposit footprint is flat and forested with portions covered by lakes.

The property areas are predominantly uninhabited forest subjected to intermittent logging activities and minor reindeer herding and related agriculture. Year-round habitation at Kaukua is limited to a small number of houses.

The Murtolampi deposit is on the eastern side of Murtolampi Lake. The terrain is almost entirely accessible forestland. The area is uninhabited, with the nearest houses located over two kilometres away.

The Haukiaho area is mainly flat marshland, approximately 240 MASL, and is best accessed using crawler vehicles/forest tractor. The Taivalkoski-Posio main road crosses the property along the eastern border of Haukiaho. Various areas are easily accessible by 4x4 using unpaved tracks and nearby forest roads. The Haukiaho group of properties is entirely uninhabited.

The Lipeävaara intrusion block forms a prominent hill approximately 110 m above the surrounding lakes. The mineralized Marginal Series rocks are, however, anticipated to flank the hill on its northeast side. The northeastern area of Lipeävaara is fairly inhabited, with some agriculture activities.

Vegetation across all the areas is typical of the pine-tree dominated Fennoscandian coniferous forest belt. Spruce and birch are present in smaller amounts. The forest ground is covered by thin moss while the bogs are covered by a layer of peat.

6.0 HISTORY

Information regarding previous ownership, historic resource estimates, and project history has been excerpted and modified from Mining Plus, 2021.

6.1 Prior Ownership

Table 6-1 provides a summary of ownership of the LK Project (or those areas that now represent Palladium One's current permit areas) prior to its acquisition by Palladium One (then Nickel One Resources Inc., or Nickel One) in 2017. Agreements for the transfer of ownership since 2000 are described in the subsections below.

Table 6-1: Summary of Previous Ownership
Palladium One Mining Inc. – Läntinen Koillismaa Project

Company	Years	Kaukua	Haukiaho
Outokumpu Oy	1962-1968		✓
Outokumpu Oy	1980-1982		✓
Outokumpu Oy	1989-1991	✓	
Geological Survey of Finland	1996-2005	✓	✓
North Atlantic Natural Resources AB	2000-2002	✓	✓
Akkerman Exploration B.V.	2007-2008	✓	
Vulcan Resources Ltd	2007-2009		✓
Nortec Minerals Corp.	2008-2011	✓	✓
Finore Mining Inc.	2011-2017	✓	✓
Palladium One Mining Ltd	2018-present	✓	✓

6.1.1 North Atlantic Natural Resources AB (NAN)

In 2000, the Swedish junior exploration company North Atlantic Natural Resources AB (NAN) signed a contract with the Geological Survey of Finland (GTK) and the Ministry of Trade and Industry of Finland (KTM) optioning the claims representing Palladium One's present Haukiaho, Murtolampi (licence area Kaukua North 1-2), and Kaukua areas. NAN withdrew from the project in late 2002, and AEbv and Vulcan Resources Ltd. (Vulcan) took over ownership of the Kaukua and Haukiaho areas, respectively, in 2007.

6.1.2 AEbv and Nortec Agreements

Nortec Minerals Corp. (formerly Nortec Ventures Inc.) acquired its rights to the LK Project from AEbv pursuant to a Memorandum of Understanding (MOU) dated July 26, 2007, and as subsequently amended. AEbv was granted a 2% NSR with a 1% buyback for €1 million on any future production from the Kaukua, Murtolampi, and Lipeävaara Targets.

The 100% interest in the Kaukua property was transferred to the Finland registered company, Nortec Minerals Oy, a 100% owned subsidiary of Nortec Minerals Corp. On February 25, 2020, EMX announced the purchase of the 2% NSR from AEbv. Palladium One retains the option to purchase 1% of the NSR from AEbv for €1 million.

6.1.3 Nortec Minerals Corp. and Vulcan Agreements

Nortec Ventures Corp. acquired its 100% right to the Haukiaho property via a sale and purchase agreement with Vulcan dated on October 7, 2009. In January 2010, Nortec Ventures Corp. changed its name to Nortec Minerals Corp.

6.1.4 Finore and Nortec Minerals Corp. Agreements

Finore Mining Inc. (Finore) acquired the rights to the LK Project from Nortec Minerals Corp. via an Option and Joint Venture Agreement, dated August 24, 2011, and subsequently amended. As a result of this process, Finore became the 100% owner of Finnish subsidiary Nortec Minerals Oy. As part of the Agreement, Nortec Mineral Corp. was granted a 2% NSR on any future production from the Haukiaho and Haukiaho East claims.

6.1.5 Nickel One and Finore Agreements

On February 1, 2017, Nickel One announced that it had completed an agreement with Finore to acquire a 100% interest in the LK Project. This was accomplished by purchasing Finnish subsidiary Nortec Minerals Oy, owner of the LK Project, from Finore. The acquisition was completed on February 28, 2018. In April 2019, Nickel One changed its name to Palladium One.

Palladium One retained the option to purchase 1% of the NSR on the Kaukua, Murtolampi, and Lipeävaara Targets from Nortec Minerals Corp. (now held by EMX) for €1 million. On January 9, 2020, Palladium One announced that it had purchased the 2% NSR from Nortec Minerals Corp. on the Haukiaho and Haukiaho East claims

6.2 Exploration and Development History

A summary of historical exploration is provided in Table 6-2 and described below. A drill hole plan including these historical drill holes is shown in Figure 10-1 in Section 10.0.

Copper and nickel mineralization, hosted by the Marginal Series of the Koillismaa Complex was first documented by GTK and Outokumpu Oy (Outokumpu) in the early 1960s. Outokumpu also completed 75 drill holes for approximately 12 km of diamond drill core. Approximately half of these drill holes were completed on the Haukiaho group of properties, where a small scale test mining operation was also undertaken. The original exploration carried out by Outokumpu located sulphide minerals in the Haukiaho and Lipeävaara areas.

PGE-focused exploration by GTK and Outokumpu started in the early 1980s, when highly anomalous PGE enriched boulder samples (PGE+Au >10 ppm) were reported in the Haukiaho area. This was followed by detailed mapping, surface sampling, re-sampling of old drill core for PGE, and geophysical surveys. In 1990, Outokumpu discovered mineralized portions in the Kaukua and Murtolampi (Kaukua North 1-2) intrusion blocks and executed a trenching and sampling project by handheld mini-drill; many of the trenches have since been rehabilitated. No further drilling was conducted at this time.

In 1996, GTK started an extensive research and exploration programs over the entire Koillismaa Layered Igneous Complex (Koillismaa Complex) including the current LK Project areas. Research and exploration by GTK and NAN (1996 to 2002) resulted in the delineation of highly mineralized areas in the Marginal

Series host. Two of the areas, Haukiaho and Kaukua, were subjected to further exploration activity in 2004 and 2005 by GTK including diamond drilling. A total of 69 drill holes for approximately nine kilometres of drill core is known to have been completed by GTK between 1997 and 2005.

In 2000, NAN conducted geophysical ground surveys on Palladium One's present Haukiaho, Murtolampi (licence area Kaukua North 1-2), and Kaukua areas, but only drilled seven drill holes in the Haukiaho area. Fugro Ltd flew a low altitude aerial geophysical survey covering the area of Haukiaho and Kaukua. NAN also sent surface boulder samples of Haukiaho mineralization for metallurgical tests to Lakefield Research Ltd (Lakefield Research, 2001) in Canada in 2002.

Detailed magnetic surveys (by GTK and NAN) outlined principal segments or blocks of the basal Koillismaa Complex and helped determine probable continuity and offsets. Induced polarization (IP) surveys outlined a consistent chargeable unit correlating with the mineralization intersected by the drilling. This is also consistent with the descriptions of typical disseminated Cu-Ni-Fe sulphide mineralization seen in drill core. There is some variability displayed along strike, which may indicate thinner mineralized zones or minor disruptions related to post emplacement cross faults.

Nortec Minerals Corp. completed four phases of exploration drilling across the Kaukua deposit area over three years from 2007 to 2009 comprising 50 drill holes for approximately 10 km of diamond drilling to target east-west trending mineralization. Finore drilling was undertaken between October 2011 and April 2012 comprising 48 drill holes for approximately 11 km of diamond drilling across the Kaukua and Haukiaho deposit areas.

Historical mineralogical and metallurgical studies show correlation between the sulphide content and the Ni, Cu, and PGE tenor.

Table 6-2: Summary of Historical Drilling
Palladium One Mining Inc. – Läntinen Koillismaa Project

Company	Year	No. Drill Holes	Permit	Metres Drilled
Outokumpu	1963-1966	36	Haukiaho	6,105.37
University of Oulu	1973	2	Lipeävaara	83.10
GTK	1997-1999 & 2004-2005	61[1]	Haukiaho	6,760.51
GTK	1989, 1998-1999 & 2004	31[2]	Kaukua & Murtolampi	2,544.73
GTK	1999	7[3]	Lipeävaara	999.29
NAN	2001	7	Haukiaho	921.05
Nortec Minerals Corp.	2007-2009	50	Kaukua	10,292.80
Finore	2011-2012	25	Haukiaho	4,668.80
Finore	2012	23	Kaukua	6,116.20
Total		**242**		**38,491.90**

Notes:

1. Includes four drill holes for 231.45 m within the PDM drill hole database but located outside of the current permit areas.
2. Includes 15 drill holes for 592.98 m within the PDM drill hole database but located outside of the current permit areas.

3. Includes two drill holes for 298.39 m within the PDM drill hole database but located outside of the current permit areas.

6.3 Historical Resource Estimates

The estimates reported in this section are historical in nature and should not be relied upon. The estimates may have been prepared according to the accepted standards for the mining industry at the time, however, a qualified person has not completed sufficient work to classify the historical estimate as a current Mineral Resource and Palladium One is not treating the historical estimates as current Mineral Resources.

The first resource estimation for the LK Project was completed by Outokumpu in 1983, as documented by Lahtinen (1985). The estimate for Haukiaho comprised **7 Mt at 0.24% Ni, 0.38% Cu, 0.6 g/t Pd, 0.2 g/t Pt, and 0.2 g/t Au** using a cut-off grade of 0.7% (Cu% + 2*Ni%). Resources were estimated in nine separate mineralized bodies ranging from 0.2 Mt to 2.3 Mt each, to a maximum depth of 100 m based on resampling of previous drill cores. The Outokumpu estimate in 1983 pre-dates any internationally recognized codes and it cannot be confirmed that it was undertaken in accordance with industry standards available at the time.

In 2011 and 2012, Watts, Griffis and McOuat (WGM) consultants prepared two resource estimates on the LK Project area on behalf of Nortec Minerals Corp. using data acquired prior to 2011-2012 exploration by Finore after their acquisition (WGM, 2011; WGM, 2012). Table 6-3 summarizes WGM's January 2012 resource estimate (WGM, 2012).

Table 6-3: Historic Kaukua and Haukiaho Estimate, January 2012, for Nortec Minerals Corp.
Palladium One Mining Inc. – Läntinen Koillismaa Project

Classification	Lower Cut-off Value (C$/t)	Density (t/m^3)	Tonnes (000)	Ni (ppm)	Cu (ppm)	Co (ppm)	Au (ppm)	Pd (ppm)	Pt (ppm)
				Kaukua Deposit, *January 2012*					
Indicated	>$50	2.93	2,605	1,164	1,734	65	0.07	0.67	0.22
Inferred	>$50	2.93	8,486	1,057	1,582	55	0.08	0.76	0.27

Classification	Lower Cut-off (C$/t)	Volume (m_3) '000	Density (t/m^3)	Tonnes (000)	Ni (ppm)	Cu (ppm)	Co (ppm)	Au (ppm)	Pd (ppm)	Pt (ppm)
					Haukiaho Deposit, *January 2012*					
Inferred	>$50	5,863	2.86	16,786	1,518	2,418	59	0.11	0.28	0.1
					Haukiaho 11 Permit Deposit, *January 2012*					
Inferred	>$50	979	2.87	2,811	1,630	2,180	73	0.05	0.14	0.05

Subsequent to Finore exploration in 2011-2012, Mining Plus Canada Consulting Ltd. (Mining Plus) completed an updated resource estimate (Table 6-4), dated September 19, 2013 (Mining Plus, 2013).

Table 6-4: Historic Kaukua and Haukiaho Estimate, September 2013, for Finore Mining Inc.
Palladium One Mining Inc. – Läntinen Koillismaa Project

Category	Cut-off Grade	Zone	Tonnage (Mt)	Pd (g/t)	Pt (g/t)	Cu (%)	Ni* (%)	Au (g/t)
Kaukua Deposit, *September 2013*								
Indicated	0.1 g/t Pd	Main	10.4	0.73	0.26	0.15	0.1	0.08
Inferred	0.1 g/t Pd	Main	13.2	0.63	0.22	0.13	0.1	0.06
Haukiaho Deposit, *September 2013*								
Indicated	0.1 g/t Pd		23.2	0.31	0.12	0.21	0.14	0.10

*Total nickel

Both the WGM and Mining Plus Mineral Resource estimates were reported in accordance with the CIM Definition Standards for Mineral Resources and Mineral Reserves dated November 27, 2010.

6.4 Past Production

The LK Project is an exploration stage project currently under development by Palladium One. As such, there has been no production from the properties of the Project as of the effective date of this Technical Report.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

Information regarding the regional and local geological settings, and the style of mineralization of the deposit has been excepted and modified from Mining Plus (2021). This is supported by references to publicly published research papers on the Project area, including Iljina and Hanski (2005), Iljina and Lee (2005), Iljina et al. (2005), and Karinen (2010).

7.1 Regional Geology

7.1.1 Introduction

Finland lies within the predominantly Neoarchean and Paleo Proterozoic Fennoscandian Shield, which is exposed over an area of more than one million square kilometres (Figure 7-1). The northern and eastern part of Finland (Karelian Province) is made up of Archean aged rocks (> 2.5 Ga) flanked by Paleoproterozoic supracrustal sequences and penetrated by several mafic igneous events between 2.5 Ga to 2.0 Ga. The central and southern parts of Finland belong to the 1.93 Ga to 1.8 Ga Svecofennian Province.

The Archean nucleus is characterized by extensive granitoids and gneiss domains surrounding narrow northerly trending greenstone belts (Figure 7-2). The major magmatic and metamorphic events took place around 2.84 Ga, although rocks up to 3.5 Ga are present in the craton. Greenstone sequences of lower metamorphic grade were formed after this event. These greenstone sequences were subsequently deformed and intruded by tonalitic to granitic magmas between 2.75 Ga and 2.69 Ga. The Kuhmo and Suomussalmi greenstone belts are the most extensive and well preserved supracrustal units in these Archean belts outcropping over a strike length of nearly 200 km, although seldom exceeding 10 km in width. Both greenstone belts contain abundant tholeiitic and komatiitic volcanic rocks, together with related intrusive and sub-volcanic cumulates, and lesser felsic volcanic and volcanoclastic units.

At the Archean–Proterozoic transition, the Fennoscandian craton experienced periods of extension resulting in the widespread emplacement of mafic and ultramafic layered intrusions and dike swarms between 2.5 Ga and 2.4 Ga including the Koillismaa Complex. A sequence of bimodal mafic and felsic volcanics dated at around 2.5 Ga unconformably overlie the Archean basement and represent the onset of this rifting event. On a global context, the 2.5 Ga to 2.4 Ga magmatic events in Fennoscandia are linked to plume induced breakup of Archean supercontinent Kenorland, also manifested by coeval igneous activity, e.g., on the Superior Craton in Canada. The 2.5 to 2.4 Ga igneous formations have been found to be potential for chromium (Cr) and iron-titanium-vanadium (Fe-Ti-V) oxide and Ni-Cu-PGE sulphide and PGE only mineralization.

Clastic sediments discordantly overlie these layered intrusions, with further episodes of mafic magmatism recorded as sporadic lavas and sills dated at around 2.2 Ga, 2.10 Ga, and 2.05 Ga. The latest stage includes the 2.05 Ga Sakatti and Kevitsa Ni-Cu-PGE deposits, both located on the Central Lapland greenstone belt, which is the largest mafic-dominated province preserved in the entire shield.

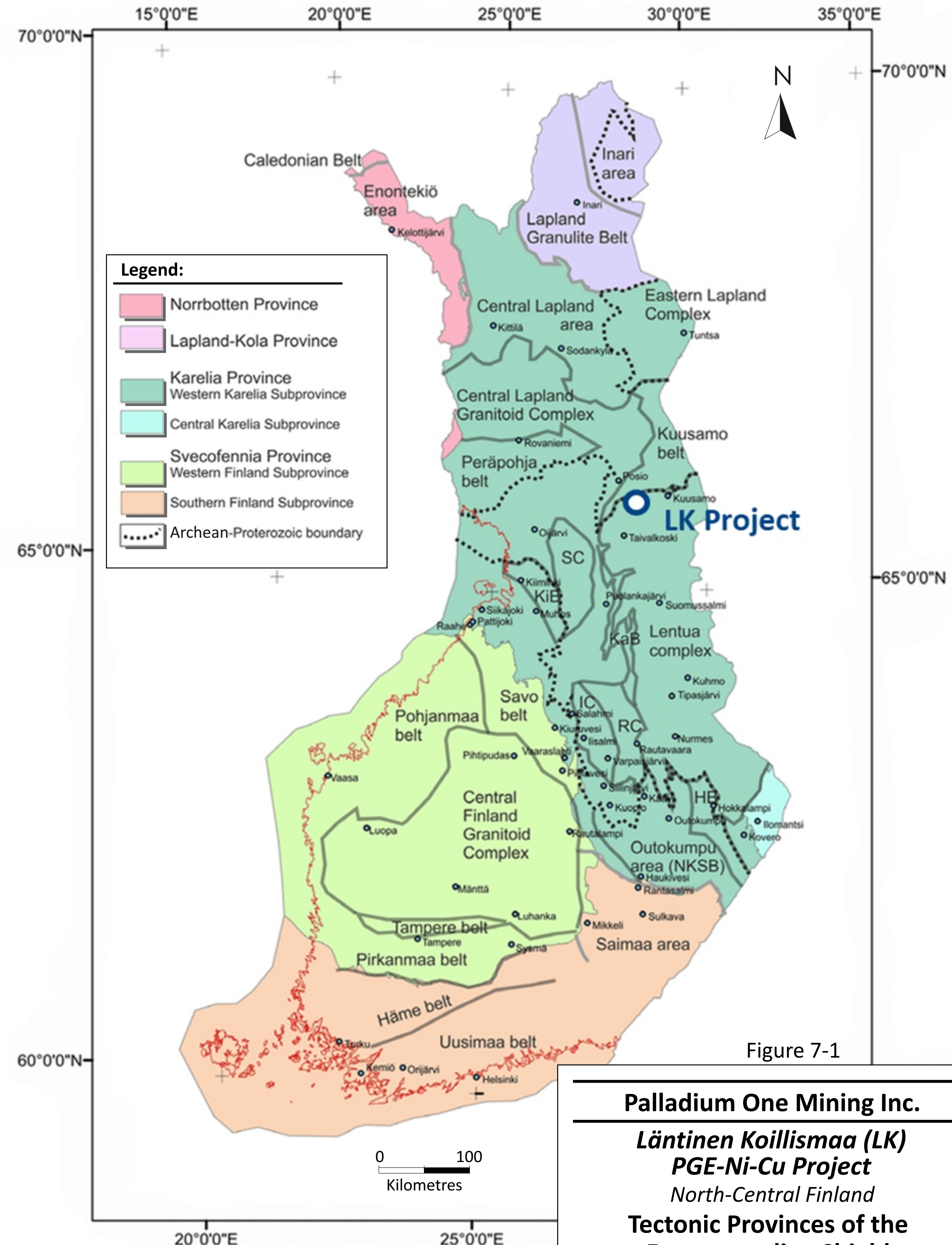


Figure 7-1

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Tectonic Provinces of the Fennoscandian Shield

May 2022 ***Source: Modified after Holttä & Heilimo, 2017***

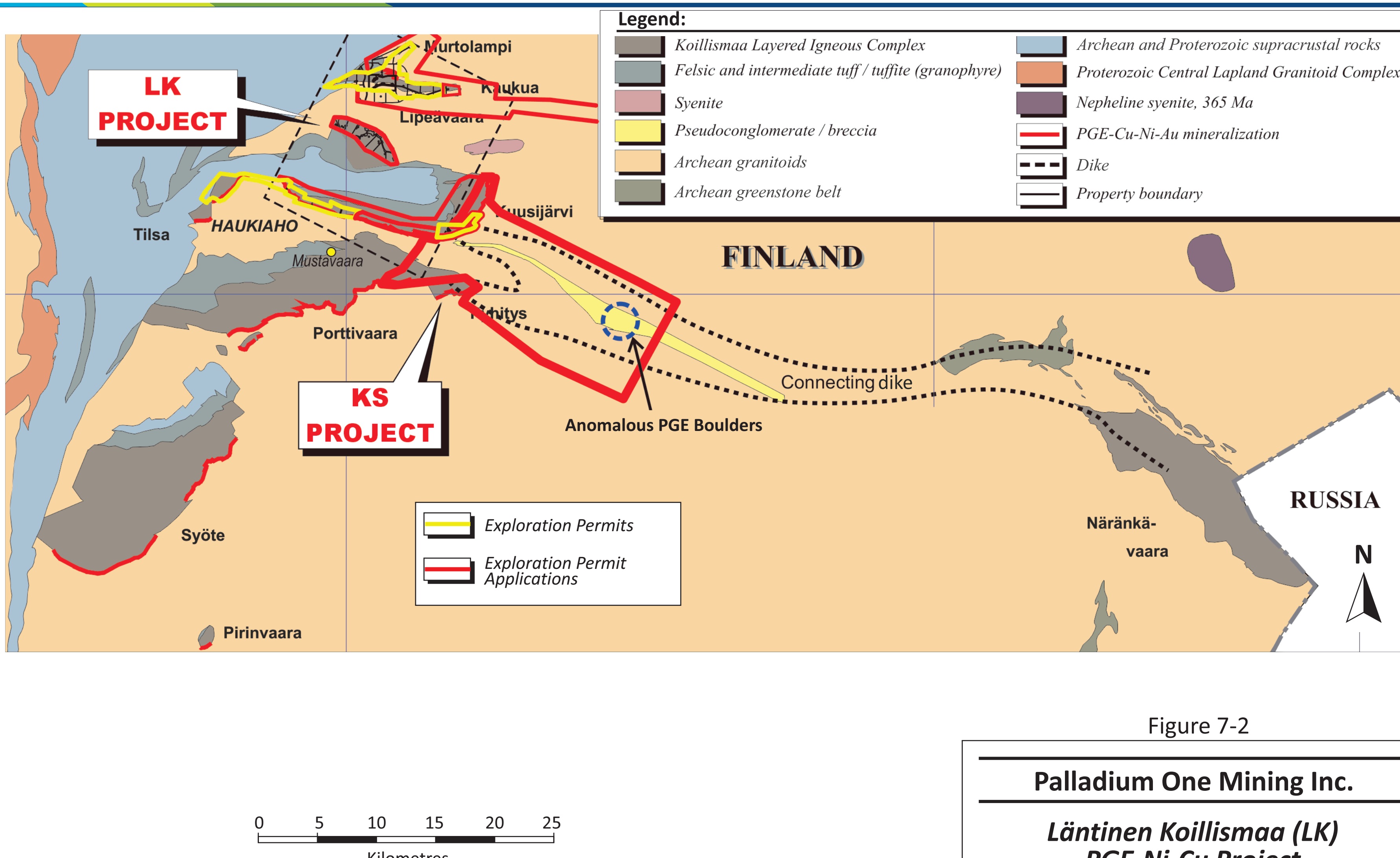


Figure 7-2

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Regional Geology

May 2022

Source: Palladium One, 2022 (Modified from Watts, Griffis and McOuat Limited, 2011)

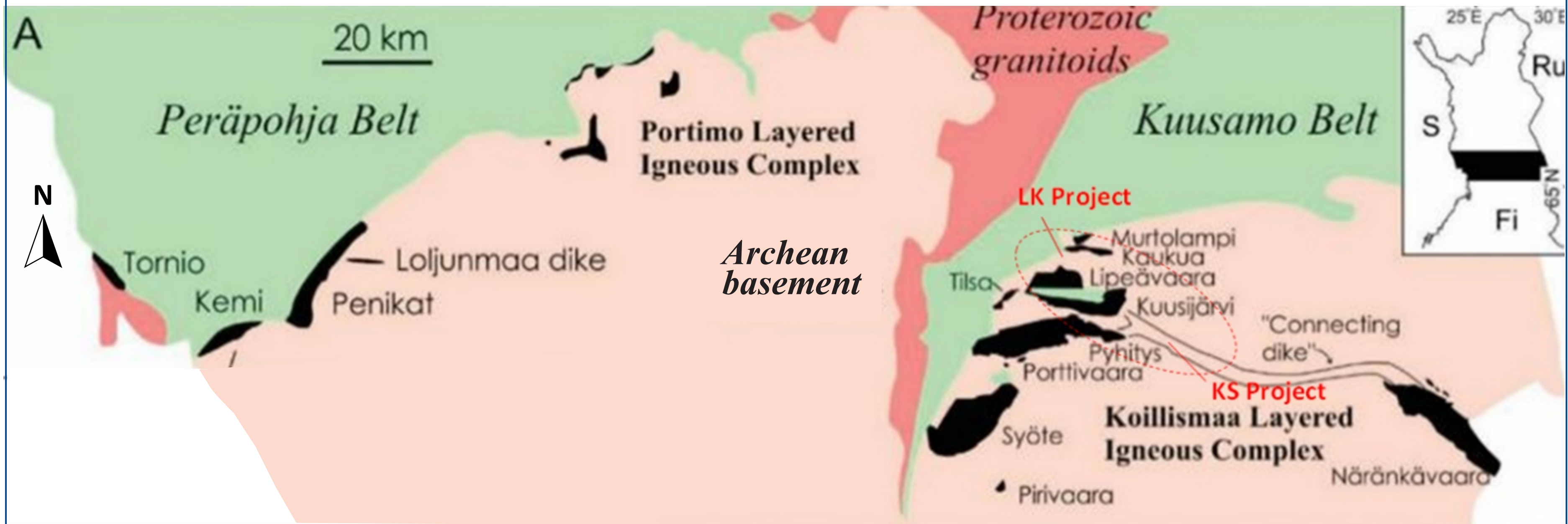
7.1.2 Tornio-Näränkävaara Belt

The breakup of the Archean craton gave rise to rift related igneous activity that introduced layered intrusions and mafic dike swarms worldwide. In Finland, this breakup is represented by the 2.44 Ga east-west running Tornio-Näränkävaara intrusion belt (TNB) (Figure 7-3) which forms the western part of the giant intrusion belt extending into Russia and bifurcating to Lake Onega in the south, and Arctic Ocean and White Sea in the north and east (Alapieti T. F., 1990).

All mineralization types characteristic of layered mafic intrusions can be found in the TNB. These include "contact style" accumulations of chromite and PGE enriched base metal sulphides in the lowest parts of the intrusions, stratiform "reef style" PGE, chromite, and magnetite enrichments higher in the cumulate sequences, and offset "footwall style" PGE-base metal deposits below the intrusions (Iljina and Hanski, 2005).

The TNB hosts several deposit types such as the world-class chrome deposit located at the base of the Kemi Intrusion, the potentially world-class Suhanko PGE-Ni-Cu deposits hosted by the Portimo Complex, the Monchegorsk Ni-Cu-PGE deposit hosted by the Monchetundra Massif (Russia), and a vanadium deposit hosted by a magnetite gabbro layer within the Koillismaa Complex. Mining is currently underway at the Kemi chrome mine (1968-present) and formerly at the Monchegorsk Ni-Cu-PGE mine and Mustavaara vanadium mine (1976-1985).

The GTK has defined broad metallogenic areas, which characterize various structural units (Figure 7-4). The TNB intrusions are given reference being potential in particularly for PGE.



2.44 Ga Mafic-Ultramafic Intrusions in Black

Figure 7-3

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Simplified Geological Map Showing Tornio-Näränkävaara Belt

May 2022

Source: Modified after Iljina & Hanski, 2005

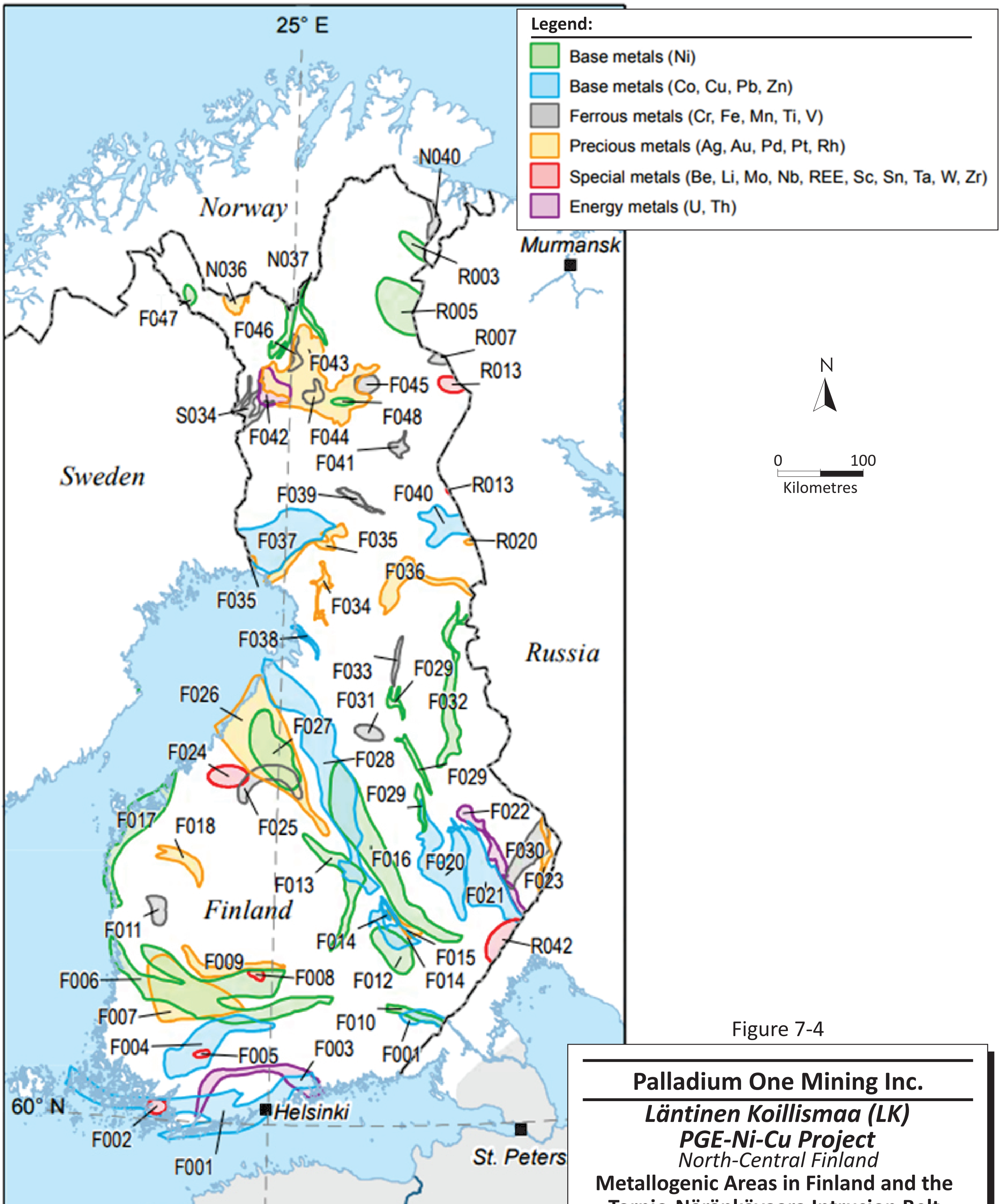


Figure 7-4

Palladium One Mining Inc.

Läntinen Koillismaa (LK)
PGE-Ni-Cu Project
North-Central Finland

Metallogenic Areas in Finland and the Tornio-Näränkävaara Intrusion Belt (F035 and F036)

May 2022 **_Source: Modified after Eilu et al., 2012_**

7.2 Local Geology

7.2.1 Geology of the Koillismaa Complex

The Koillismaa Complex makes up the easternmost portion of the TNB and consists of two main sectors, the Näränkävaara Intrusion in the east and the Koillismaa Complex (Karinen, 2010), formerly called the Western Intrusion, in the west (Figure 7-3). These two intrusions are likely connected by an unexposed connecting dike, which is indicated by a strong magnetic and gravity anomaly (Alapieti, 1982). The "hidden" connecting dike was recently drilled by the GTK and the Koillismaa Deep Hole intersected a peridotite unit at depth.

The Koillismaa Complex is thin despite its greater surface area, with an average vertical extent of only one to three kilometres, while the exposed igneous stratigraphy is up to three kilometres. The Koillismaa Complex is overlain with felsic volcanic rocks that have re-crystallized to form a granophyre unit up to one kilometre in thickness. In contrast, the footwall granite gneisses below the base of the intrusion have been partially melted and pervasively metasomatized to albite-quartz rock. Gabbroic igneous rocks, chemically different than the layered sequence, form the footwall locally.

The Koillismaa Complex has been uplifted and broken into several blocks (Figure 7-5) due to multiphase tectonic events. The Intrusion has been folded slightly and collapsed during the earliest, extensional tectonic regime to form a synclinal structure between the Kuusijärvi and Lipeävaara Blocks (Karinen, 2010). The supracrustal sequence, deposited along this structure, is known as the Kuusijärvi synform. The igneous layering of the intrusive blocks to the south of the synform dips to the north, while the northern blocks dip to the south.

The cumulus stratigraphy of the Koillismaa Complex is divided into the Marginal Series and the overlying Layered Series; locally an angular discordance between the layering of the Marginal Series and Layered Series is encountered. The Marginal Series can be up to several hundred metres thick and be made up of differentiated cumulates ranging from gabbros at the contact against footwall gneisses and pyroxenites, to peridotites further away from the contact. The Layered Series is composed almost entirely of mafic cumulates and is divided into Lower, Middle, and Upper Zones. Both the Marginal and Layered Series can be repeated on surface due to tectonic movements.

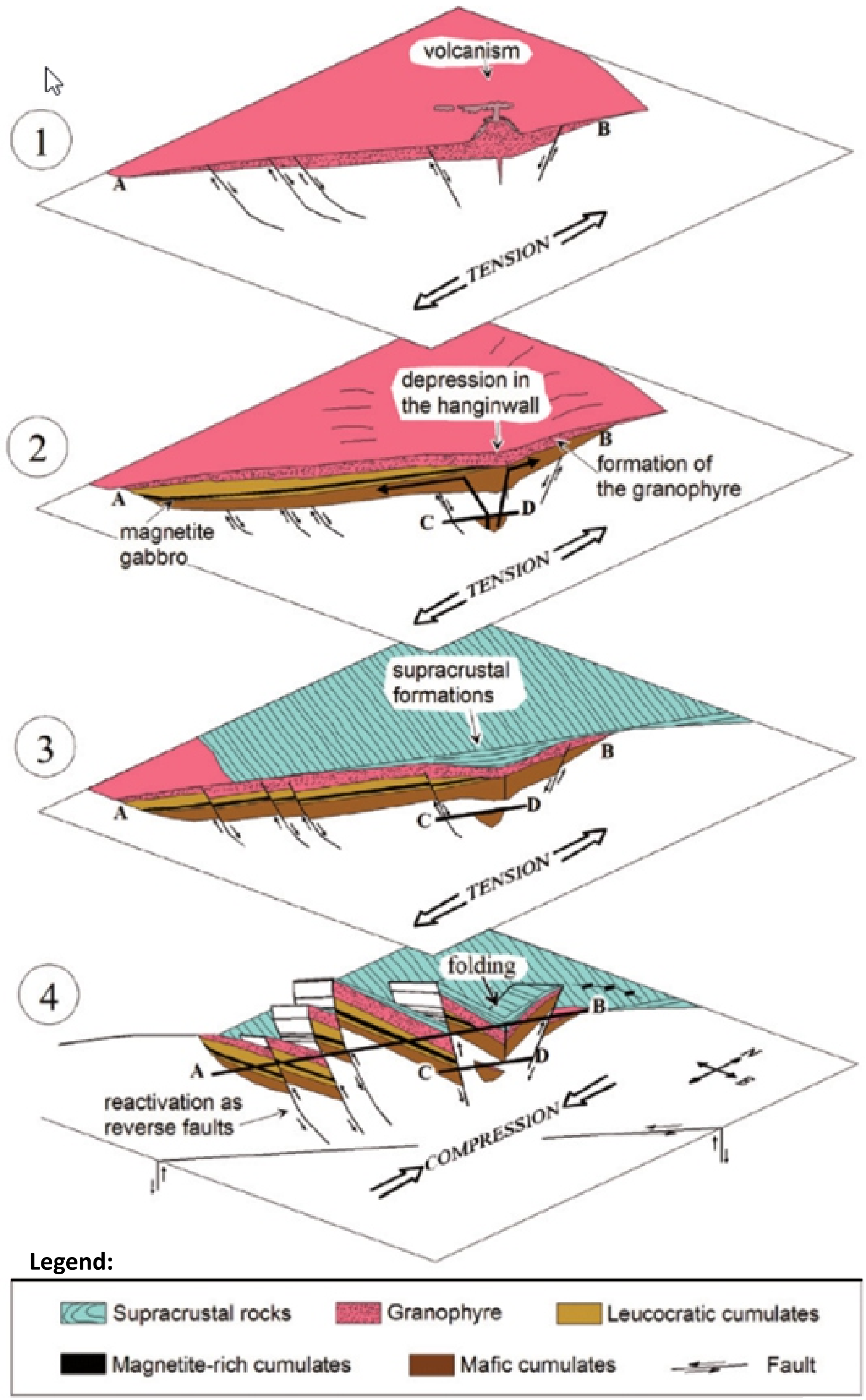


Figure 7-5

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Structural History of the Koillismaa Intrusion

May 2022 ***Source: Karinen, 2010***

7.2.2 Economic Geology of the Koillismaa Complex

The location of the LK Project, and all known nickel deposits in Finland, is shown in Figure 7-6.

Several mineralization types typical of layered mafic intrusions can be found in the Koillismaa Intrusion. These include layered accumulations of PGE enriched base metal sulphides in the lowest parts of the intrusions (contact type PGE deposits), stratiform PGE, and vanadium enriched magnetite layer (reefs) higher in the cumulate sequences (Karinen, 2010). The magnetite gabbro layer has been exploited for vanadium.

There are three principal mineralization types in the Koillismaa Intrusion:

- The Rometölväs Reef in the Layered Series forms an erratic and low grade base metal and PGE zone approximately 20 m thick. The zone is characterised by fine grained blocks of non-cumulate textured gabbronorites, gabbropegmatites and anorthositic segregates, all in a gabbronoritic adcumulate.
- A 200 m thick magnetite gabbro layer is found higher up in the sequence, and this layer has been exploited for its vanadium content at the Mustavaara Mine.
- The contact type sulphide-PGE deposits, near or at the base of every intrusive block of the Koillismaa Intrusion, have the largest areal extent. Due to tectonic sinking of the central part of the original intrusion, the bottom parts of the intrusion and related base metal PGE enrichment zones are exposed on the southern margins of the intrusive blocks of Pirivaara, Syöte, Porttivaara, and Kuusijärvi and on the northern-northeastern margins of the Kaukua and Lipeävaara blocks. Total strike length of the basal zone (also referred to as the “Marginal Series”) is in the order of 100 km.

There is evidence from other intrusion complexes that the precious metal grades of the contact type mineralization are enhanced in places where Layered Series stratiform “reef-style” PGE mineralization unconformably contacts the Marginal Series due to angular discordance between the two. This relationship has been observed at Kaukua and Haukiaho.

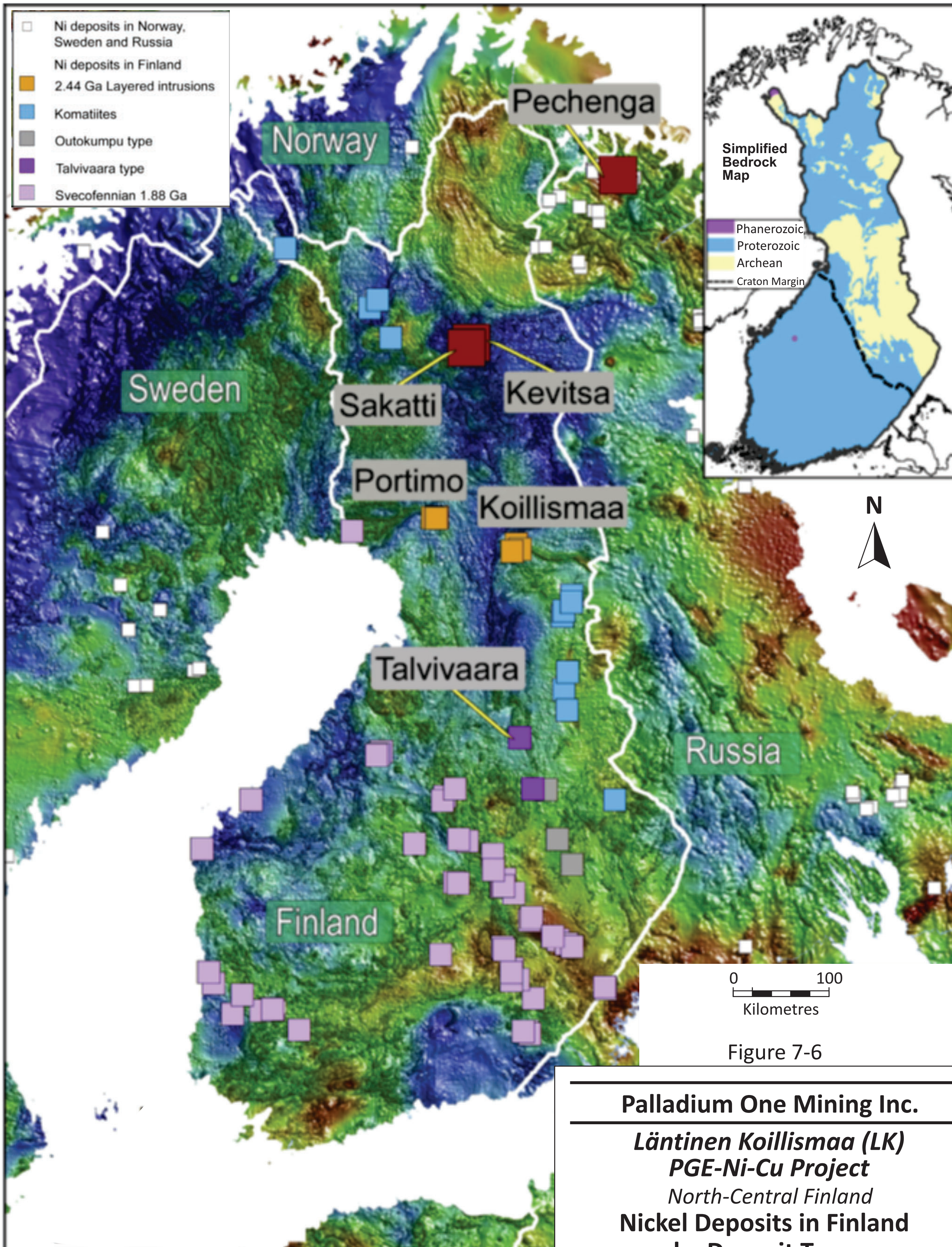


Figure 7-6

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Nickel Deposits in Finland by Deposit Type

May 2022 **Source: *Mining Plus, 2021***

7.3 Property Geology

Figure 7-7 illustrates the property geology for the LK and KS Projects. The geology including rock types, stratigraphy, and mineralization is described in the following sections.

7.3.1 Quaternary Geology

Glacial till covers most of the property and only a small proportion of the bedrock outcrops to surface. The thickness of the till ranges from several metres to 30 m. The bedrock underneath the till is generally fresh, with a shallow oxidation horizon.

7.3.2 Kaukua Area Deposit Geology

The Kaukua Block is approximately eight square kilometres and is situated in the northern part of the Koillismaa Complex. Following the project terminology, the Kaukua block is divided into three fault-bounded zones, namely (i) the Kaukua Main Zone (the historic Kaukua deposit), (ii) the Gap Zone, and (iii) the Kaukua South Zone, the latter referring to the southern extension of the mineralization (Figure 7-8). Together these make the Greater Kaukua Area.

The stratigraphy consists of gabbroic and ultramafic rocks of the Marginal Series, overlain by thick Layered Series dominated by gabbroic cumulates. The Kaukua Area deposits are mainly hosted within the Marginal Series following the intrusion-basement contact, termed the “Lower Zone”, but locally extend tens of metres into the Archean granitoid footwall. The Palladium One drillings have extended the strike length of the Kaukua Area mineralization to approximately seven kilometres. In addition, a low grade “reef type” mineralization, termed the “Upper Zone”, is encountered within the Layered Series.

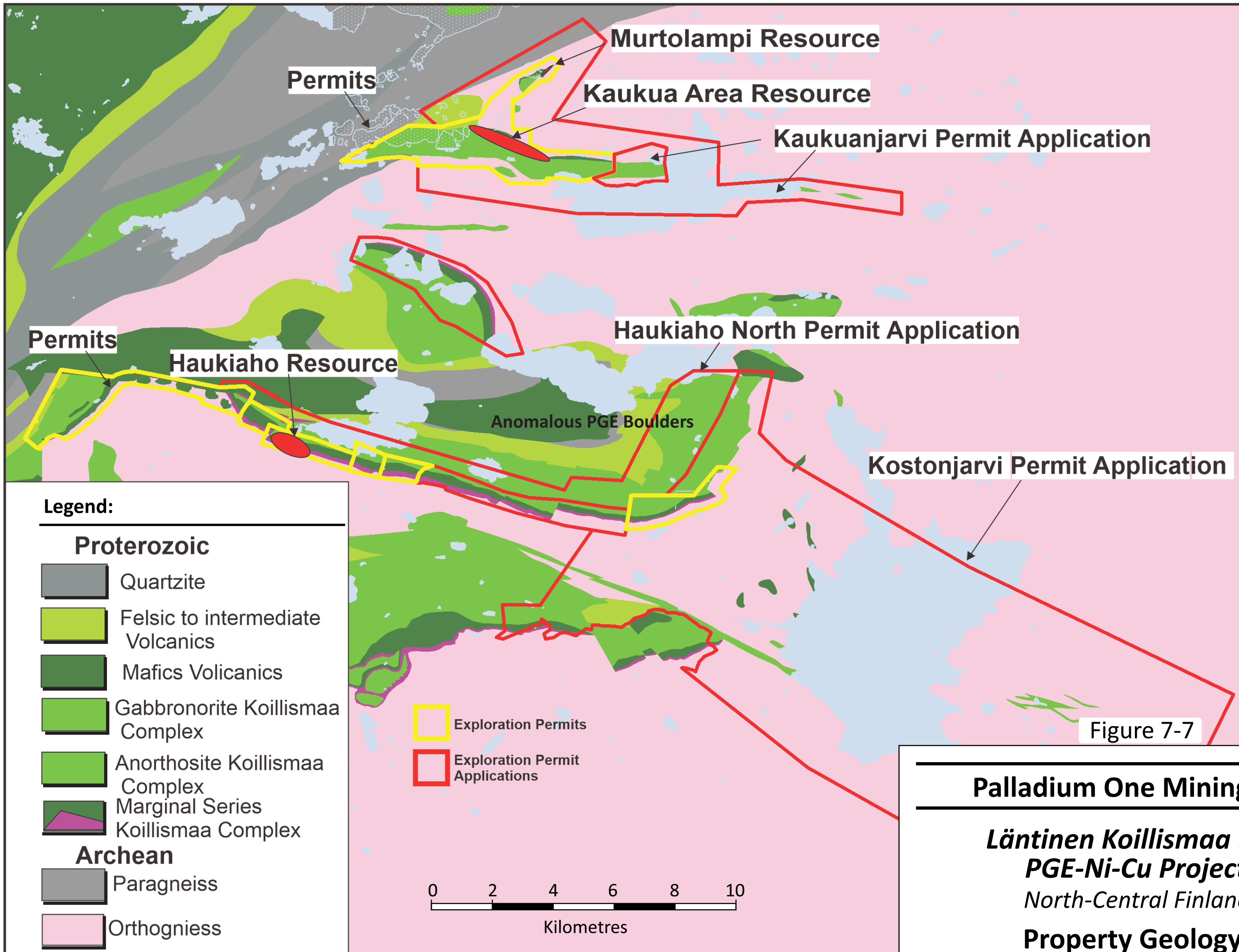


Figure 7-7

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Property Geology

May 2022

Source: Palladium One, 2022

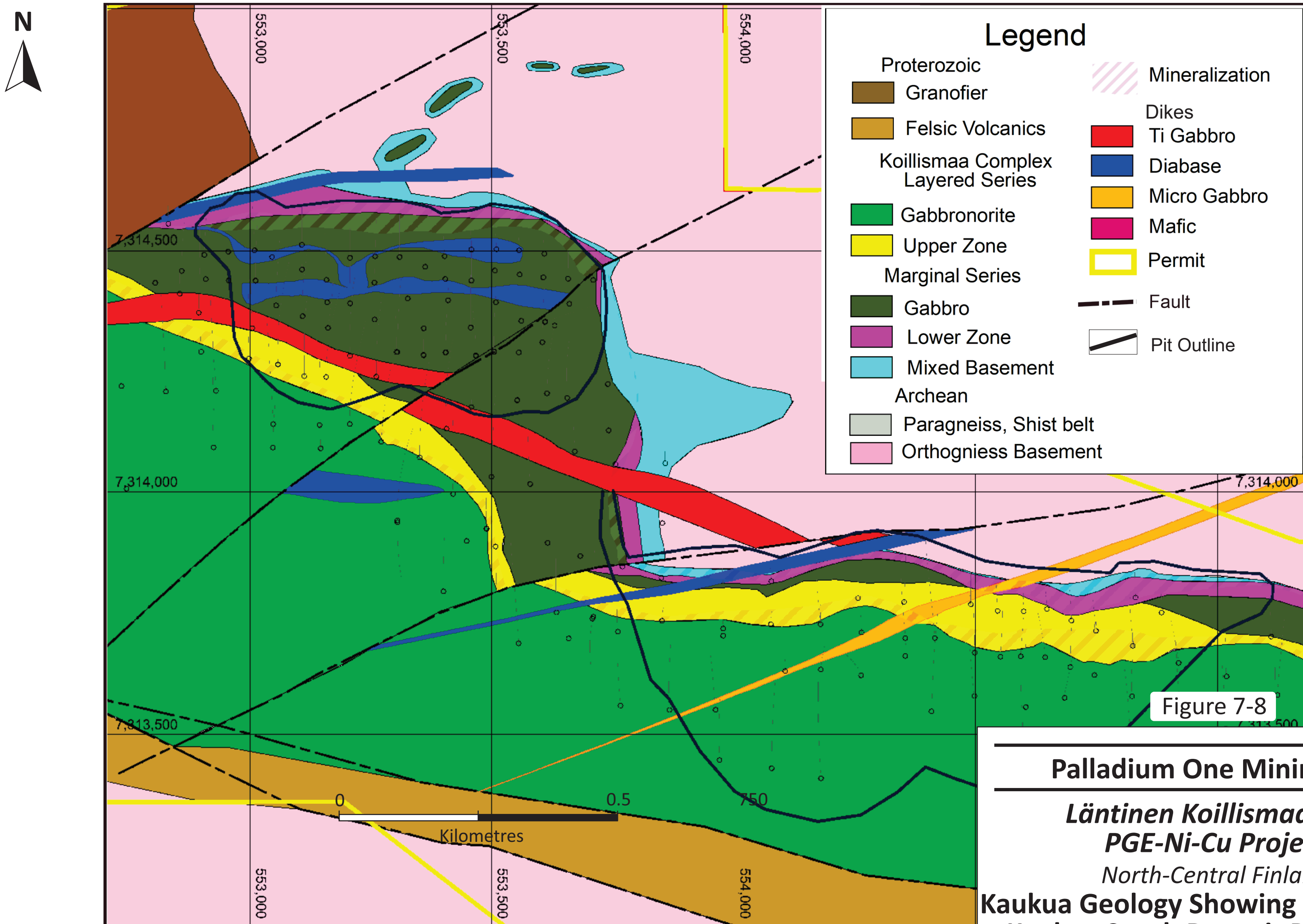


Figure 7-8

Palladium One Mining Inc.

Läntinen Koillismaa (LK)
PGE-Ni-Cu Project
North-Central Finland
Kaukua Geology Showing Kaukua and Kaukua South Deposit Pit Outline

May 2022

Source: Palladium One, 2022

7.3.3 Structural Geology

As described above, the Kaukua block is divided into the Main, Gap, and South Zones, separated by northeast to northeast-east trending steep dipping faults (Figure 7-8). The Main Zone dips at 30° to 40° to the south. The Gap Zone forms a wedge-like slice between the Main and South Zones, plunging gently at 30° to the southwest. The South Zone, dips steeply at 55° to 60° to the south. Both vertical and horizontal displacement of the Gap Zone relative to the Main and South Zones become more pronounced with depth.

The dip of the lower Zone of mineralization is largely parallel with the footwall contact. The Upper Zone follows the igneous layering of the Kaukua intrusion block and is largely parallel with the lower contact mineralization, with only local deviations

7.3.4 Rock Types and Stratigraphy

The stratigraphy of the Kaukua deposit is traditionally divided into the Layered Series dominated by gabbroic cumulates and the Marginal Series with gabbroic rocks accompanied by ultramafic cumulates.

The Layered Series is comprised almost entirely of gabbronoritic cumulates with thin periodic plagioclase bearing pyroxenitic interlayers. Major rock forming minerals of the gabbronoritic cumulates are plagioclase, augite, and orthopyroxene. Augite is generally interstitial/oikocrystic defining a poikilitic texture. Quartz is also evident in places and may result from assimilation of basement granitoids or synformational silicification. Notably, inclusions of Layered Series basement material and/or anorthositic fragments are present. Gabbronorites with abundant primary biotite “flakes” are encountered occasionally. In addition to mineralogical layering, microrhytmic layering is evident as subtle grain size variations. The stratigraphic position of pyroxenitic units record enhanced compositional layering and hosts the low grade Upper Zone with occasional chalcopyrite and pyrrhotite dissemination. The Layered Series rocks are variably altered to amphibole, chlorite, epidote, and biotite.

The Marginal Series at Kaukua is commonly from 40 m to 80 m thick but thins eastwards of the South Zone. The Marginal Series is comprised of pyroxenite, peridotite, and gabbronorite. Pyroxenites and gabbronorites may contain substantial amount of granitoid xenoliths. This rock type is classified as a hybrid gabbro. Preservation of intact chilled margins is speculative, and they are only sparsely recognized in drill core.

The contact between the Layered Series and the Marginal Series is generally sharp and marked by a fine grained pyroxenite of the Marginal Series. This uppermost rock type of the Marginal Series is usually intensely sheared, exhibits strong signs of hydrothermal alteration (retrograde metamorphism), and is altered into chlorite schist and/or clay minerals. Sulphides consist of elongated intergrown chalcopyrite and pyrrhotite aggregates with pentlandite inclusions in pyrrhotite. Chalcopyrite also occurs as independent grains/aggregates.

Below the sheared pyroxenite, the Marginal Series has varying units of pyroxenite, peridotite, and gabbroic rocks, as well as hybrid gabbro showing varying degrees of assimilated country rock.

Pyroxenites can be divided into three different sub-types: (i) a fine grained and massive pyroxenite, (ii) a foliated pyroxenite, similar to that in the contact of the Layered and Marginal Series, and (iii) a medium grained pyroxenite cumulate with preserved primary texture. Intense hydrothermal alteration is evident in all three pyroxenite sub-types and preserved primary minerals are virtually absent. Chlorite and amphibole alteration is the most apparent visual sign that primary augite has been replaced.

Peridotite units are commonly mantled by pyroxenite with gradational contacts. Peridotites can also be divided into three sub-types: (i) a very fine grained, almost aphanitic, massive peridotite which is usually barren, (ii) a foliated and fine grained, and occasionally sulphide bearing, peridotite, and (iii) medium grained massive peridotite with evidence of the primary cumulus texture. The peridotites are all pervasively altered to talc, amphibole, serpentine, and carbonate. Several millimetre-sized equant carbonate crystals are diagnostic to the peridotite units. Aside the different alteration assemblage, peridotites are distinguished from pyroxenites due to their magnetic character. In addition to pyrrhotite and minor chalcopyrite, pyrite is locally present in sulphide bearing peridotites. The main mineralization types vary from fine dissemination and fracture fill to aggregates up to several centimetres in diameter.

Gabbronorites can occur as interlayers between the ultramafic units and/or are generally found at the base of the intrusion, but also appear to be locally absent. Pyroxenites and gabbronorites may contain basement fragments as xenoliths. Notably, no xenoliths of the peridotite units are observed. Contacts between the xenoliths and host rock are sharp or gradational depending on the degree of partial melting of the xenoliths. Heterogeneous rocks (hybrid gabbro) made up of pyroxenite/gabbronorite and xenoliths are common near the footwall contact of the intrusion.

All three rock types of the Marginal Series may contain sulphides. Pyroxenites, and to a lesser extent peridotites, are the most common host rocks in the Main Zone. In the South Zone, the contact mineralization is mainly hosted in pyroxenites and gabbroic rocks. Chalcopyrite (dominant) and pyrrhotite are the most common sulphide phases and occur as fine dissemination, aggregates, and blebs. In foliated pyroxenites, sulphides tend to follow the foliation planes.

The contact between the intrusion and its Archean country rocks is termed as **"**mixed basement**"**. It is a very heterogeneous unit made up of massive mafic chlorite-biotite patches representing remnants of the Marginal Series and molten basement granitoid material. It frequently is gradation from "hybrid gabbro" to "mixed basement". Due to this complexity, the accurate position of the lower contact of the intrusion is hard to define. In addition, distinct pyroxeitic dikes with variable thickness (decimetres to several metres) are a common feature of the mixed basement. The metasomatized basement granitoid is know as hard and massive quartz-albite rock. The thickness of the mixed basement ranges from several metres to over 30 m. Mixed basement is locally well mineralized with chalcopyrite, pyrrhotite, and pyrite.

The Archean basement rocks around the Kaukua deposit are generally comprised of metamorphosed granodiorite (orthogneiss) and granite in addition to mafic rock chemically different from the main Kaukua intrusion. The granitic basement is limited to the northern part of the Kaukua deposit, whereas the granodiorite is the most common basement rock in the remaining part of the intrusion. The granodiorite is granular, with approximately even sized grains of plagioclase, quartz, and potassium feldspar with minor amounts of biotite.

The granophyre unit has been interpreted as the hanging wall country rock of the intrusion, however, this has not been verified by drilling at the deposit scale.

7.3.5 Dikes

The Kaukua block is cut by east trending mafic to ultramafic dikes, all considered later than, but roughly coeval with the Kaukua cumulate successions. The microgabbro dike is the most primitive and most prominent in the South Zone. The east-west diabase dike locally runs sub-parallel to the Marginal Series-Layered Series contact zone, particularly in the Main Zone, while in the South Zone, it is also found to follow the intrusion footwall contact. The far east diabase shows subtle geochemical difference with the east-west diabase. The high-Ti gabbro is conspicuous in the Main and Gap Zones. It is a homogeneous, medium grained equigranular body, locally closely related to the east-west diabase.

A third type of diabase is only observed to cut the Archean basement rocks both at Kaukua and Murtolampi and hence likely represents a pre-intrusive phase. Similarly, a complex set of pyroxenitic dikes occur in the footwall of the intrusion, mostly confined in the Mixed Basement. The pyroxenite dikes show similarities to the microgabbro, however, their relationship is unclear.

7.3.6 Petrography

An internal petrographic study conducted by Nortec Ventures Corp. began in October 2008 and was completed in the second quarter of 2009. Thin sections were also examined in conjunction with the recent PGE study conducted in late 2021.

Hydrothermal alteration is evident, at varying degrees, for all the rock types examined, however, primary minerals tend to be completely replaced. Pristine plagioclase domains may have preserved in gabbroic rocks. The main alteration types included amphibole (tremolite-actinolite) and chlorite alteration of pyroxenes (and olivine). Peridotites are altered to talc, carbonate, and serpentine. Euhedral carbonate grains may represent pseudomorphs after magnetite. Gabbroic rocks (and diabase) record epidotization, albitization, and K-metasomatic alteration (biotite-phlogopite). Nortec Ventures Corp. interpreted these as evidence that the intrusion had undergone retrograde metamorphism of greenschist/low amphibolite facies. K-metasomatism was found to be epigenetic and associated with the presence of late Na-K-Ca enriched fluids (epidotization, K-metasomatism, and albitization).

Common sulphide minerals include chalcopyrite, with subsidiary pyrrhotite, pyrite, and pentlandite. Sulphides occur as fine to medium grained disseminated grains and aggregates as intercumulus phase, blebs, and sometimes as pseudomorphs of cumulus minerals. Clusters of scattered very fine (µm-sized) sulphide grains are common. These “clouds” are dominated by chalcopyrite and may also contain PGEs and oxides. The main oxides are magnetite and ilmenite, with chromite present in trace amounts.

7.3.7 Haukiaho Deposit Geology

The Haukiaho property is situated 12 km south-southwest of Kaukua and is hosted by the Kuusijärvi intrusive block, which itself is part of the Koillismaa Complex (Figure 7-9). The igneous stratigraphy of the Haukiaho is similar to that of the Kaukua, although the repetition of pyroxenite and peridotite is less common. The stratigraphic units correspond to the metamorphic alteration of primary igneous minerals. Originally gabbroic plagioclase-pyroxene cumulates are now composed of (metamorphic) plagioclase and pale amphibole (tremolite-actinolite). Pyroxene cumulates are presently chlorite-amphibole rocks, often schistose, while the decomposition of the igneous olivine has given rise to serpentine, talc, and magnetite. Minor metamorphic minerals include epidote, hornblende, and biotite.

The granodioritic Archean gneiss below the layered intrusion has been pervasively metasomatized and is mineralogically albite-quartz rock, which often retains primary textures and structures (banding). This albite-quartz rock contains irregular patches, sometimes several metres thick, of mafic enclaves or dikes. Due to this, the lower contact of the layered intrusion is difficult to map accurately. In the permit area, the albite-quartz rock is hundreds of metres thick (true thickness) and the unaltered footwall rock has not been pierced by any historic drill hole.

The footwall contact and the igneous layering are subvertical and dip north-northeast. The distance between the Marginal Series and the magnetite gabbro of the Layered Series narrows towards the west in the Kuusijärvi block and the two units are in contact at the westernmost tip of the intrusion block.

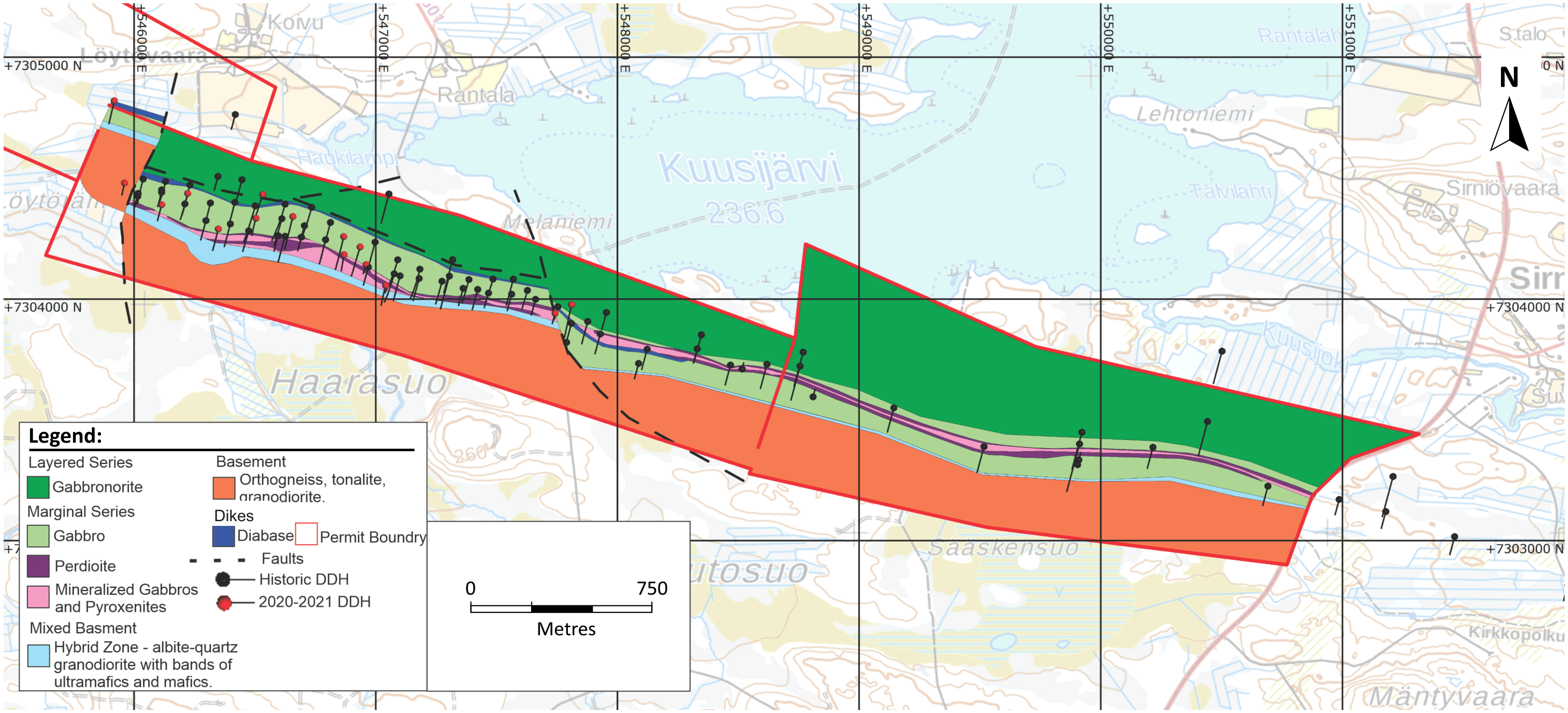


Figure 7-9

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Haukiaho Geology

May 2022

Source: Palladium One, 2021

The Haukiaho mineralization resembles Kaukua geologically and mineralogically and is likely to have the same origin. The Haukiaho mineralization is hosted mainly by gabbroic cumulate lithologies and is more Cu-Ni rich than Kaukua. It is steeply dipping to the north-northeast and is generally 15 m to 40 m thick. Continuity along strike is very consistent. The mineralization is disseminated in character and includes a few narrow massive sulphide veins. Pyrrhotite, pentlandite, chalcopyrite, and minor pyrite are the main sulphide minerals.

7.3.8 Lipeävaara Deposit Geology

The Lipeävaara intrusion block is approximately 12 km^2 and is located right on the northern side of the Kuusijärvi synform. The Marginal Series has been verified by GTK on its southeast corner and interpretation of airborne geophysics anticipates the Marginal Series to follow the intrusion's curved northeast margin.

7.3.9 Kostonjarvi (KS) Bedrock Geology

The KS Project covers a large, buried gravity and magnetic anomaly (Figure 7-10 and Figure 7-11) interpreted to represent a buried feeder dike to the Koillismaa Complex, which hosts the palladium dominant, PGE- Ni -Cu LK Project. In October 2020, GTK began drilling an up to three-kilometre-deep drill hole on the buried feeder dike located approximately five kilometres east of the eastern boundary of the KS Project. In December 2020, the hole intersected peridotitic rocks at a depth of approximately 1,500 m, which appears to confirm that the gravity and magnetic anomaly is due to a thick accumulation of ultramafic cumulate rocks. This, along with the thermally altered and assimilated pseudo-conglomerate unit overlying the gravity anomaly, indicated significant magma flux through this system which is highly prospective for Norilsk type massive sulphide deposits.

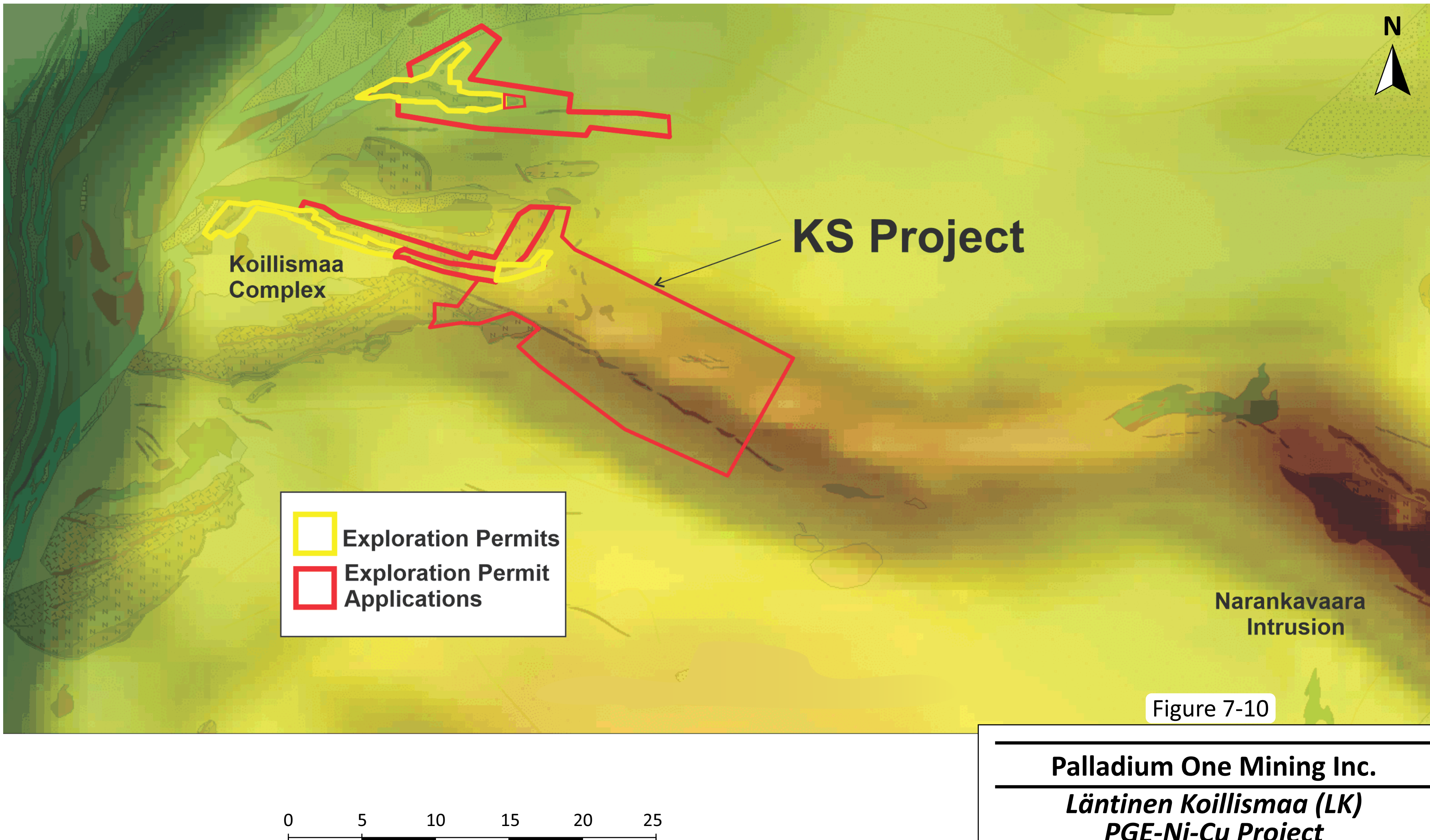


Figure 7-10

Palladium One Mining Inc.

Läntinen Koillismaa (LK)
PGE-Ni-Cu Project
North-Central Finland

Regional Gravity Map Overlain by Geology and Palladium One Exploration Permits and Permit Applications

May 2022

Source: Palladium One, 2022

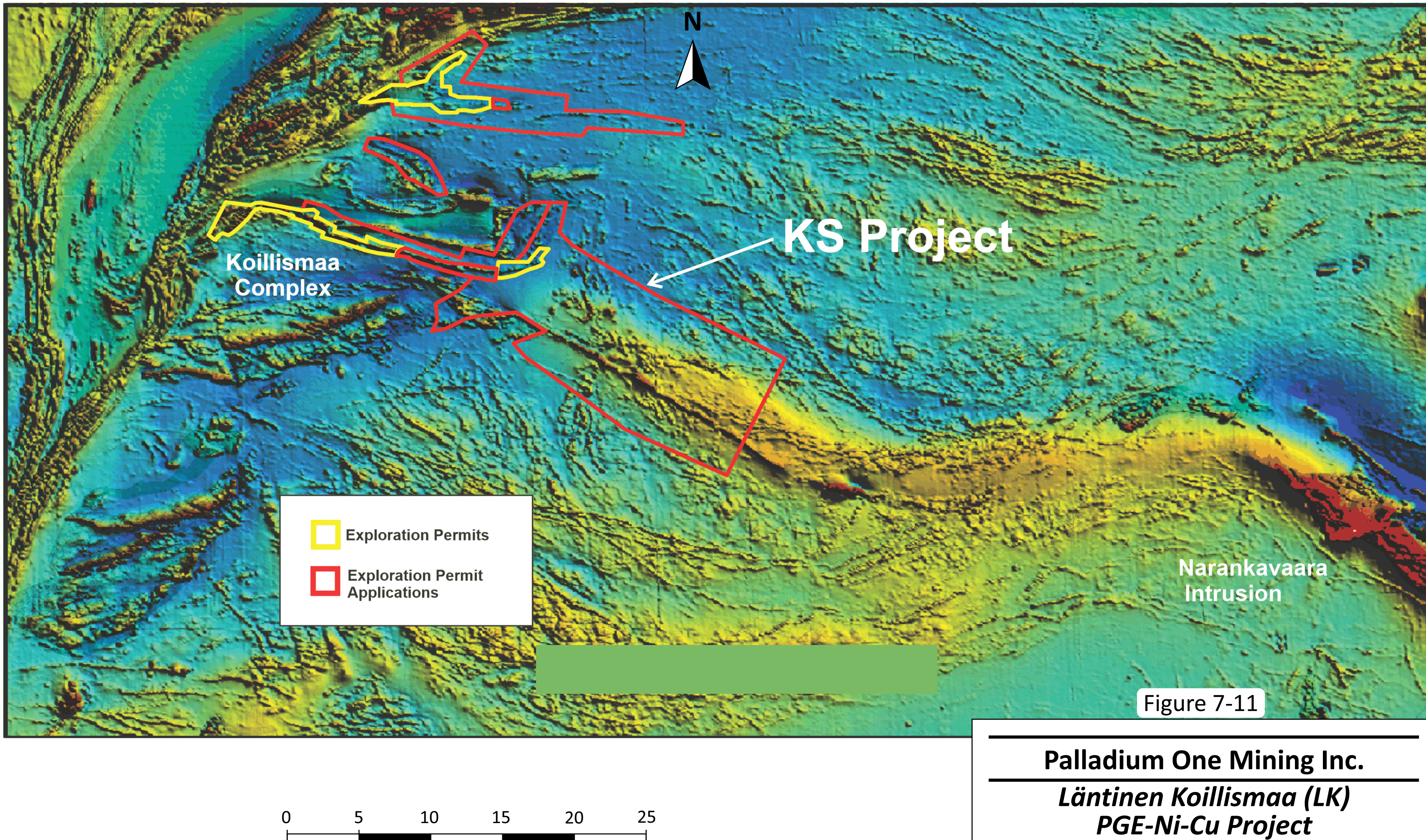


Figure 7-11

Palladium One Mining Inc.

Läntinen Koillismaa (LK)
PGE-Ni-Cu Project

North-Central Finland

Total Field Magnetic Map with Palladium One Exploration Permits and Permit Applications

May 2022

Source: Palladium One, 2022

7.4 Mineralization

7.4.1 LK Project Mineralization

The mineralized Marginal Series has been more intensively studied in the Kaukua and Haukiaho blocks. Four principal types of PGE-base metal mineralization have been identified within the Kaukua block:

1. Marginal Series type mineralization (contact type, Lower Zone).
2. Mixed basement type mineralization (contact type, Lower Zone).
3. Reef-type mineralization (Upper Zone).

A PGE reef has also been intersected in the Haukiaho Layered Series, however, its possible merging with the Marginal Series mineralization to form Kaukua hanging wall type mineralization is unknown.

The contact type mineralization (Lower Zone) is comprised of the Marginal Series mineralization and basement mineralization and largely runs parallel to the footwall contact of the intrusion. In the Main Block (Kaukua deposit), mineralization dips at 30° to 40° to the south. The northern edge is slightly deeper dipping while the slope becomes more gentle at depth. In the Gap Block, the deposit dips at 30° to the southwest and in the South Block (Kaukua South deposit), at 55° to 60° to the south. The thickness of the contact type mineralization ranges from several tens of metres in the Gap Block to 40 m to 80 m in the Main and South blocks. The Marginal Series, and the contact mineralization within it, thins eastwards of the South Block.

Marginal Series type mineralization makes up the great majority of the metal deposition in the Kaukua Area. It is mainly hosted by pyroxenitic rocks accompanied by peridotites and gabbroic lithologies. Peridotites can be well mineralized in the Main Zone, but virtually barren in the South Block. Gabbroic rocks and pyroxenites are the main host rocks in the South Block. In the Kaukua Area, the entire marginal phase is variably mineralized, from near barren to low grade intervals with several high grade zones. High grade southwest plunging shoots are identified from both the Main and South Blocks.

The main sulphide minerals are pyrrhotite, chalcopyrite, and pentlandite. The sulphide assemblage occurs as fine to medium grained dissemination, disseminated aggregations, and blebs. Accessory sulphides include pyrite, sphalerite, galena, and molybdenite.

The Marginal Series mineralization locally extends several metres into the heterogeneous Mixed Basement. Sulphides usually occur as fine to medium grained chalcopyrite and pyrrhotite disseminations. Pyrite is also common in the Mixed Basement rocks. PGE are associated with the sulphides, with the highest values associated with the chalcopyrite rich domains. Deeper into the basement, pyrite becomes a dominant sulphide and PGE values decrease below detection limits.

The metal ratios and chondrite normalized patterns identified by GTK show a steady, moderately positive slope for PGE for both Kaukua and Haukiaho contact type mineralization. Higher normalized gold content is observed in Haukiaho. The sulphur content is generally low, less than 0.5% on average, yet there is a broad correlation between sulphur content and PGE and base metal concentrations. Hence, the grades of PGE mineralization approximately correlate with the abundance of sulphides, particularly chalcopyrite. Mineralized Mixed Basement shows similar metal grades and ratios to Marginal Series mineralization.

The reef type Upper Zone is comprised of several sulphide bearing horizons showing elevated PGE and base metal content. The Kaukua PGE–base metal sulphide reef shares similar features to the Rometölväs Reef described in the Syöte and Porttivaara blocks of the Koillismaa Intrusion. The Rometölväs Reef appears as low grade, erratic enrichment within a 20 m thick gabbronorite adcumulate zone containing fine grained gabbronorite bodies (known as non-cumulate textured gabbronorites, Karinen, 2010), gabbropegmatites, and anorthositic segregates. Random basement xenoliths and anorthositic inclusions are common in the Kaukua Upper Zone, while other features of the Rometölväs Reef are missing. Also, the metal ratios differ considerably.

Aside the lower grades, the Kaukua reef type mineralization show systematically distinct metal ratios in comparison to contact type mineralization.

The principal types of mineralization have different fundamental mineral forming processes including syn- to post-genetic hydrothermal activity. Therefore, a polygenetic model is needed to explain the presence of PGE and base metal mineralization rather than a simple magmatic model. Evidently, substantial interaction between the felsic footwall and the mafic magma took place at Kaukua (as well as at Haukiaho and Murtolampi). The granodioritic basement rocks immediately below the mafic-ultramafic intrusion are typified by a prominent hydrothermally altered low grade mineralized section. Below this zone, the granodiorite is only sporadically altered and is largely barren, except where discrete chalcopyrite rich quartz veins and sulphidized amphibolitic zones occur.

7.4.2 Kostonjarvi (KS) Project Mineralization

While the LK and KS projects are contiguous, the targets are very different. The LK Project is an open pit style, with disseminated sulphide mineralization along the prospective basal unit of the Koillismaa Complex and similarities to Platreef type deposits. The KS Project target is an assumed high grade massive sulphide, in the feeder dike of the Koillismaa Complex. The geological setting is considered similar to a Norilsk, or Voisey's Bay type deposit (Figure 7-12). The KS target remains untested.

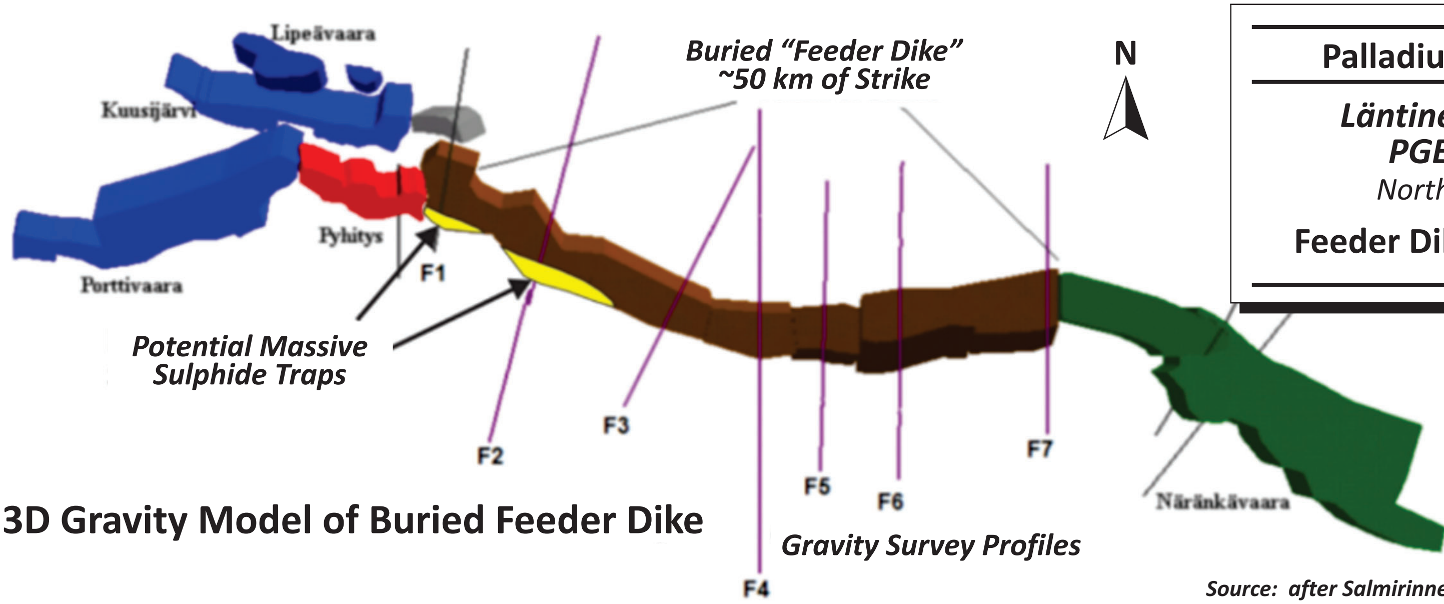
Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

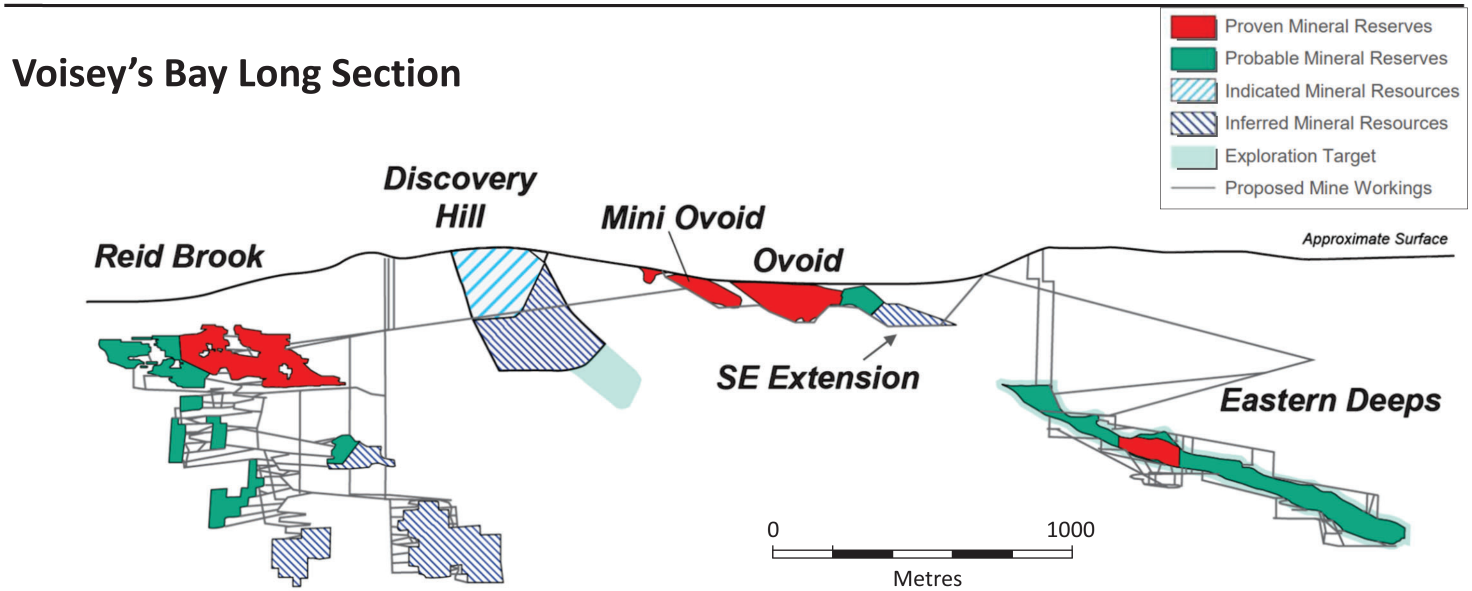
North-Central Finland

Feeder Dike 3D Gravity Model

Figure 7-12



Source: after Salmirinne and Iljina, 2003



May 2022

Source: after Wheaton Precious Metals, 2018

7.4.3 Mineralogy

Sulphide mineralization is comprised predominantly of chalcopyrite, with subsidiary pyrrhotite, pentlandite, and pyrite. Sulphide content ranges from 1% to 5%, averaging approximately 2%. Sulphides occur as fine dissemination, disseminated aggregates and blebs, and stringers. Typically, sulphides show blebby or intercumulus textures and sometimes are found as pseudomorphs of original cumulus minerals. Clusters of scattered very fine (µm-sized) sulphide grains are common. These "clouds" are dominated by chalcopyrite and may also contain PGEs and oxides. Other commonly observed sulphide minerals include galena (±Se) and sphalerite.

The PGE mineralogy of Kaukua mineralization has been studied in three microanalytical studies. The first study was carried out in-house by GTK in 2002 on core samples taken from the GTK drill holes completed in 1999. In 2008, Nortec Ventures Corp. contracted GTK to perform a petrological and microanalytical study on samples from holes KAU07-002 and KAU07-007 (Kaukua Main Block) drilled during Nortec Ventures Corp.'s Phase I drill campaign. This study involved both a polarized light microscope and a Scanning Electron Microscope with Energy Dispersive Spectroscopy analysis (SEM-EDS) (Johanson and Pakkanen, 2008). To complement the historic studies, a SEM-EDS study was carried out in late 2021 on 14 samples collected from drill hole LK21-081 from the South Block.

SEM-EDS studies reveal that more than half of the PGEs at Kaukua are present as inclusions in telluride and bismutotelluride phases. Other phases include arsenides, antimonides, stannides, and sulphides. Native forms and alloys appear absent. In addition to PGEs, native gold and electrum are often present. PGEs occur within silicates (most commonly) and at grain boundaries of base metal sulphides. Less frequently, PGEs are found as inclusions in sulphide phases or associated with magnetite.

Grain sizes of the PGMs rarely exceed 10 µm. Half of the PGE grains observed in holes KAU07-002 and KAU07-007 are less than 5 µm, while over 80% of PGEs in hole LK21-081 are 2 µm or less. Fine grained submicron to micron sized "clouds" of scattered PGMs are commonly observed together with sulphides and oxides within silicate minerals. Given the dominantly semi-quantitative nature of the analytical method and small grain sizes, all PGE phases cannot be accurately identified, however, some generalization of the dominant PGE phases can be made.

The most common palladium bearing mineral is kotulskite (PdTe), accompanied by merenskyite ($PdTe_{2,}$) and michenerite (PdBiTe). Palladium antimonides Pd-(As)-Sb are also rather common. Rarely identified stannide minerals are almost all Pd-Sn phases.

The principal platinum carrying mineral is sperrylite ($PtAs_2$), while platinum is also hosted by moncheite $Pt(Bi,Te)_2$. Platinum group sulphides are rather generally rare and those that have been identified are mostly cooperite (PtS) and braggite ([Pd,Pt]S).

PGE mineralogy of Kaukua is practically identical to that observed at Haukiaho. Based on Kojonen (2001), most of the grains found occur within silicates as discrete grains. To a lesser extent, the PGEs are intergrown on the grain borders of sulphides. The grain size is less than 40 µm, and most of the grains are 5 µm to 10 µm in diameter. A major part of the PGEs observed belong to the system (Pd+Ni)-Bi-Te including minerals merenskyite (62%), michenerite (1.3%), kotulskite (5%), and Pd-rich melonite (25.3%). Other PGEs include sperrylite (6%) and PGE rich cobaltite, which was observed within sulphides.

7.4.4 Rhodium

In general, rhodium (Rh) was not commonly analyzed by either historic or current sampling campaigns, however, 361 precious metal core samples with Rh were analyzed from 1999 to 2021. The samples were selected from drill holes over the Haukiaho, Kaukua, and Murtolampi areas. The results indicate a wide range of grades. The Rh campaigns are summarized in Table 7-1.

Table 7-1: List of Rh Campaigns from 1990 to Present
Palladium One Mining Inc. – Läntinen Koillismaa Project

Campaign	Year	Samples	Method
GTK	1999	176	Eurofins Labtium Oy (Eurofins), Finland, 714 NiS fire assay preconcentration/Te-coprecipitation, 714M, Elemental determination with inductively coupled plasma mass spectrometry (ICP-MS)
Nortec Ventures Corp.	2008	80	Eurofins, 714 NiS fire assay preconcentration/Te-coprecipitation, 714M, Elemental determination with ICP-MS
Palladium One	2021	105	Activation Laboratories Ltd. (ActLabs), Thunder Bay, Ontario, Canada, 1C-Rhodium, fire assay fluxes preconcentration/HNO3+HCL with ICP-MS

There is a clear increase in Rh concentration with increasing Pd concentration over the three areas. Kaukua has the highest concertation of Rh with increasing Pd, while Haukiaho has a slightly lesser increase in Rh with increasing Pd. Murtolampi lacks significant analysis to comment. The significant elevated (20 ppb to 25ppb) Rh is associated with approximately 0.65 ppm Pd. At Kaukua, this increases to a high of 100 ppb Rh with 7 ppm Pd.

The current SEM-EDS study identified Rh as present in PtRh-arsenosulphides, (holligworthite (Rh,Pt,Pd)AsS) and Pd-tellurides.

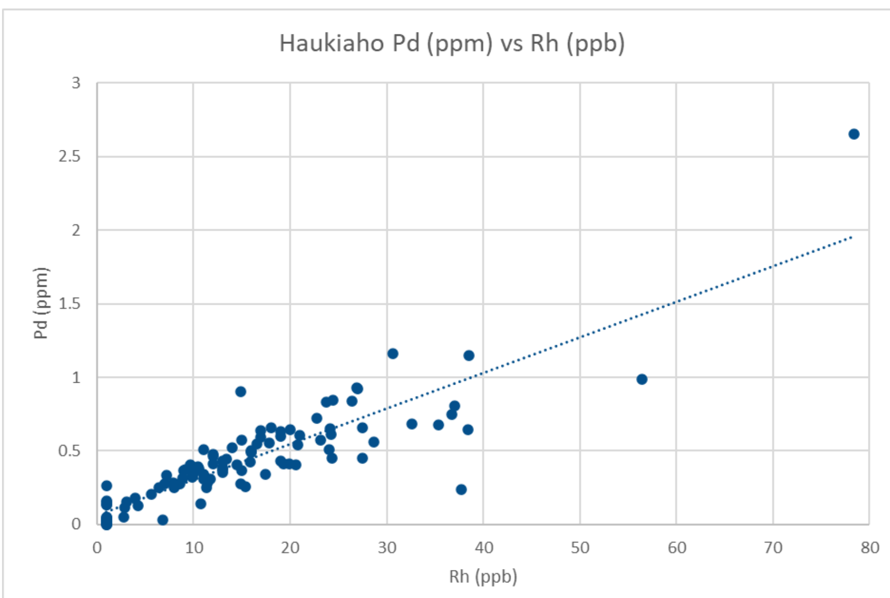


Figure 7-13: Haukiaho Pd versus Rh

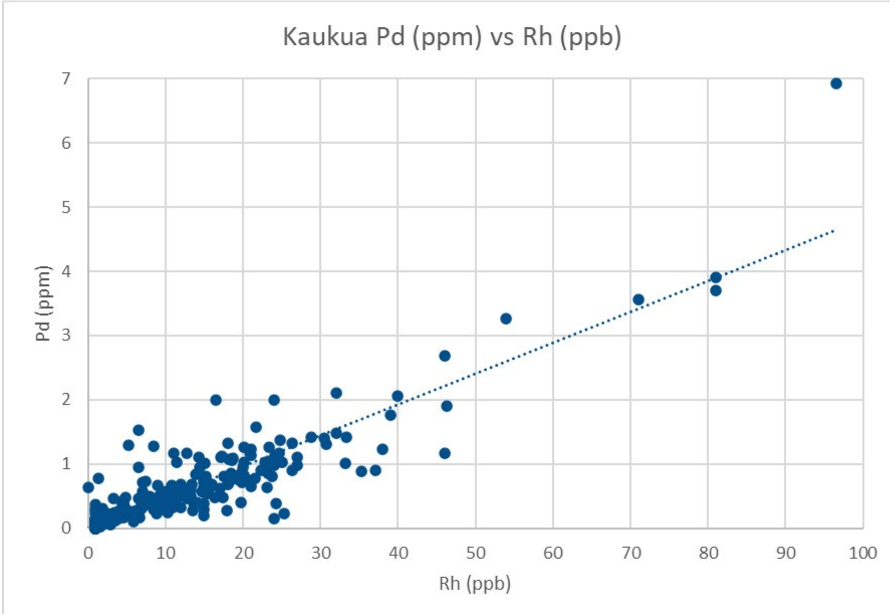


Figure 7-14: Kaukua Pd versus Rh

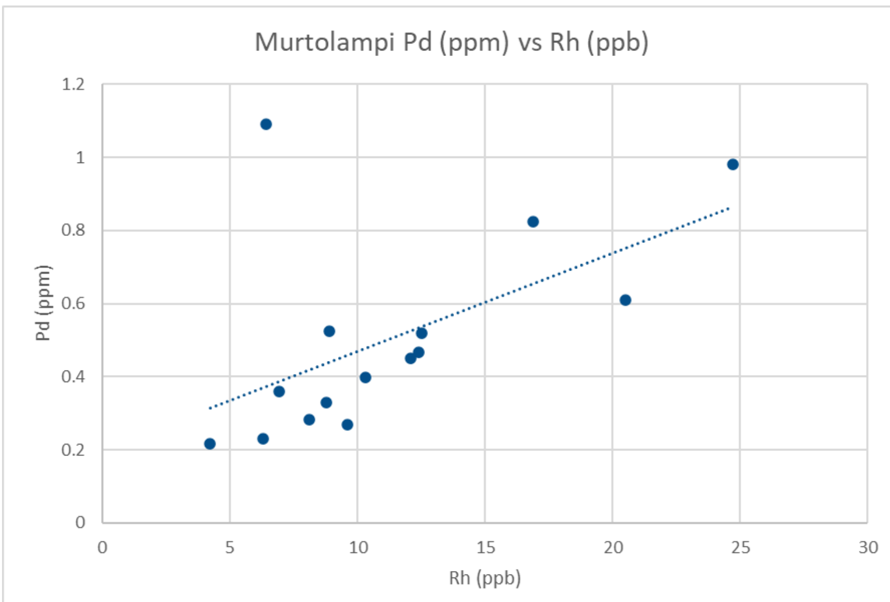


Figure 7-15: Murtolampi Pd versus Rh

8.0 DEPOSIT TYPES

Platinum group elements (PGE) are a collective of six metals, namely platinum (Pt), palladium (Pd), rhodium (Rh), iridium (Ir), ruthenium (Ru), and osmium (Os). PGE mineralization has been observed within numerous rock types and at numerous levels throughout layered igneous intrusions, however, it is well documented that the most economically significant deposits typically occur in the mafic to ultramafic rock type of such intrusions (Maier, 2005).

Figure 8-1 illustrates the potential styles and occurrence of PGE mineralization within a typical layered intrusion, and the interpreted deposit type of the LK Project mineralization.

Deposits can be categorized into two main groups based on the mineralization type: (i) base metal (Ni and Cu) and sulphide rich (greater than 10%) in which PGEs are typically considered by-products, and (ii) PGE rich and sulphide poor (less than 10%) mineralization with Ni and Cu or chromite as common by-products.

The style of mineralization can also be categorized into two main groups based on the relative position in the intrusion, including (i) contact type, found near or at the intrusion base, and (ii) marginal type, found near the base or flanks of intrusions, which can be observed over broad areas hundreds of metres across. Contact type deposits are typically higher grade, lower tonnage deposits with erratic mineralization, whereas marginal types are more commonly lower grade, higher tonnage deposits. Elevated grades may occur where the relative location of marginal type deposits to stratiform layered deposits is structurally controlled, for example in the Platreef of the Bushveld Complex, South Africa. Similar structural controls have been interpreted in Haukiaho.

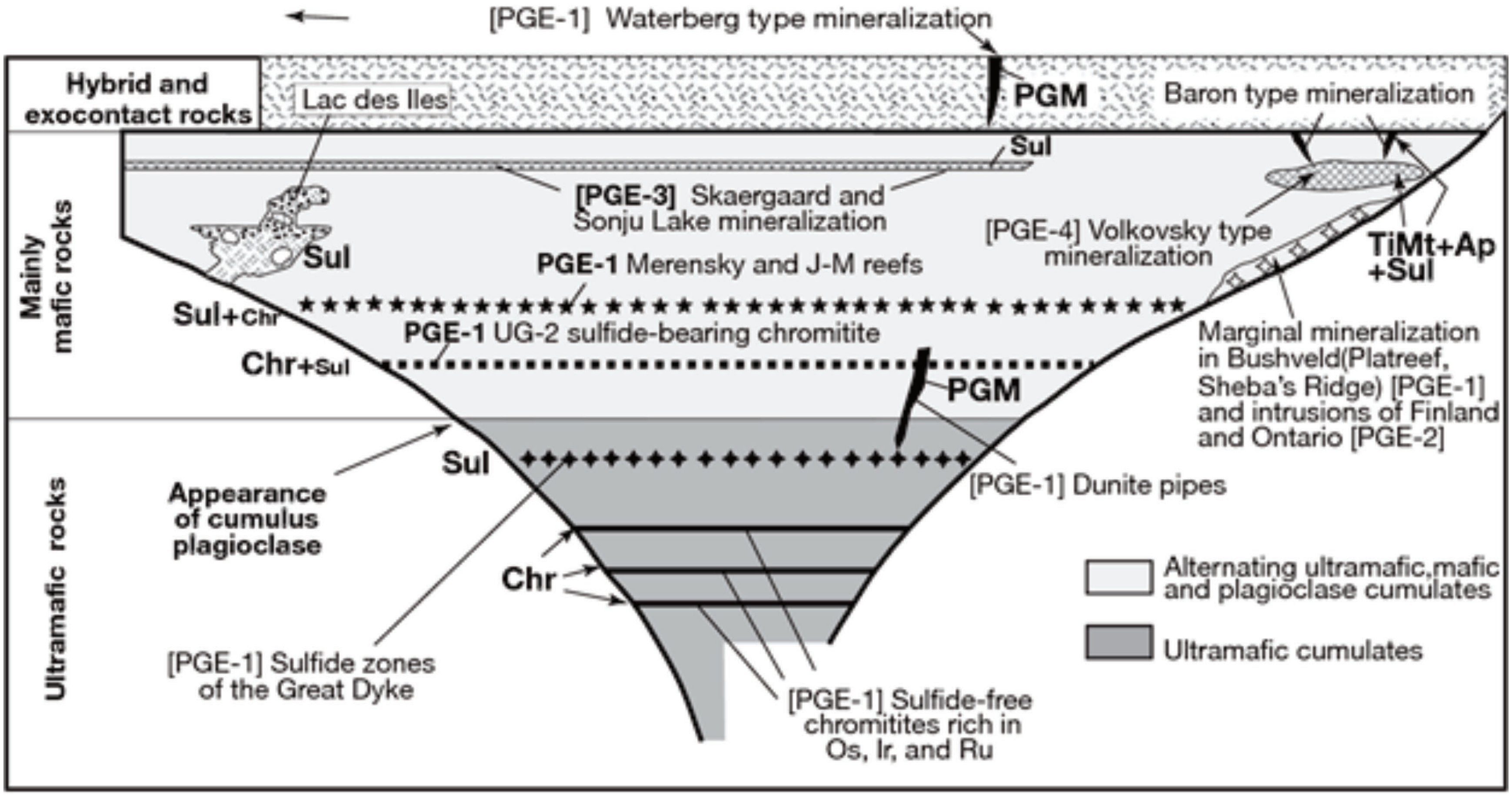


Figure 8-1

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Schematic Section of Layered Intrusion Showing the Locations and Styles of Potential PGE Mineralization

May 2022

Source: Naldrett, 2004

9.0 EXPLORATION

Information regarding exploration across the LK Project has been excepted and modified from Mining Plus, 2021, in addition to data recently provided to SLR by Palladium One.

9.1 Summary

Exploration conducted by Palladium One initially comprised reconnaissance prospecting of the Haukiaho and Murtolampi deposit areas including outcrop sampling, as summarized in Table 9-1. The sampling returned results up to 3 g/t TPM.

Evaluation of previously acquired exploration data was also undertaken by Palladium One, which was collectively used as the basis for the 2019 resource estimate.

Table 9-1: Reconnaissance Sampling Results - 2019
Palladium One Mining Inc. – Läntinen Koillismaa Project

Sample No.	Area	Cu (wt%)	Ni (wt%)	Pt (g/t)	Pd (g/t)	Au (g/t)	TPM (g/t)
NP-LK-19-001	Haukiaho 11	0.23	0.16	0.095	0.295	0.135	0.525
NP-LK-19-002	Haukiaho 11	0.51	0.33	0.185	0.563	0.209	0.957
NP-LK-19-003	Murtolampi	0.78	0.13	1.115	1.855	0.136	3.106

As of the effective date of this Technical Report, the drilling at the Kaukua and Haukiaho trends includes 37,539.40 m of historical drilling and 28,797.50 m of diamond drilling by Palladium One (Table 9-2). Palladium One diamond drilling consists of 137 drill holes, including 2,515 m in 15 holes at Haukiaho. Geophysical work commissioned by Palladium One includes 143.3 line-km of 3D IP (by SJ Geophysics in 2020 and 2021), and 385 line-km of drone based magnetic surveys (by Nuutinen in 2020) on the LK Project. In addition, Palladium One collected 334 bedrock and boulder samples of which 169 were assayed.

Historical exploration work is summarized in Section 6.0 and diamond drilling by Palladium One is described in more detail in Section 10.0.

Table 9-2: Summary of Exploration
Palladium One Mining Inc. – Läntinen Koillismaa Project

Work Program	Phase I	Phase II	Total
Historical Drilling	-	-	37,539.4 m
Palladium One Drilling	4,799.8 m	23,997.7 m	28,797.5 m
3D Induced Polarization Survey	88.3 line-km	55 line-km	143.3 line-km
Drone-based Magnetic Survey	385 line-km	620 line-km	1,005 line-km
Bedrock/Boulder Mapping	31 observations	303 observations	334 observations

Palladium One began the Phase I 2020 exploration program in mid-January by conducting a high resolution 3D IP and drone based magnetometer surveys (refer to Section 9.2). Drilling commenced in late February 2020 and was completed at the end of September 2020 with a total of 4,799.8 m in 26 drill holes. The drill program was implemented on the Kaukua deposit, Kaukua South, Haukiaho, and Murtolampi and resulted in the discovery of the Kaukua South extension with drill hole LK20-006. The drill program also extended the Kaukua South mineralization to over four kilometres and tested the Murtolampi zone.

Drilling resumed in November 2020 with the beginning of the Phase II program, and a total of 23,997.7 m in 111 holes were completed by September 2021. The Phase II drill program focused on delineating the Kaukua South discovery but also included a small drill program on Haukiaho. The strike length of the Kaukua South Zone was extended to approximately 6 km. A phase II 3D IP survey was conducted in spring 2021. The survey focused on the Kaukua area, specifically the western and eastern extension of the Kaukua South Zone.

9.2 Geophysics

The Phase I 3D IP survey was conducted by SJ Geophysics Ltd. (SJ Geophysics) of Vancouver, British Columbia, Canada. It included 88.3 line-km at six grids, including Kaukua South, Kaukua West, Murtolampi, Haukiaho, Tilsa, and Feeder/Haukiaho East (Figure 9-1). A high resolution, 50 m spacing drone-based magnetometer survey was conducted concurrently by Geophysical and Rock Mechanical Services (GRM) of Helsinki, Finland. The magnetometer survey included five grids.

On March 8, 2021, a Phase II 55 line-km 3D IP survey was commenced by SJ Geophysics. This program focused on re-surveying and extending the 2008 IP survey and extending the Kaukua South Zone to the east (Figure 9-2 and Figure 9-3). The survey was finished on April 12, 2021. To date, a total of 143.8 km of high resolution 3D IP has been completed on the LK Project.

The initial focus of the 2020 IP survey was on the Haukiaho area, however, as the Kaukua South extension anomaly was identified, the Company's focus shifted to the Greater Kaukua Area. The definition of the Kaukua South extension IP anomaly was the most significant result of the 2020 IP program. This IP anomaly was confirmed by subsequent drilling to be produced by the Kaukua type PGE-Ni-Cu mineralization and is currently interpreted to be the eastern extension of the mineralization at the Kaukua deposit.

The Murtolampi (Figure 9-4) and Tilsa (Figure 9-5) IP survey grids were intended to target the historic GTK drilling areas which returned up to 0.86 g/t PGE in M354499R369 over 30.15 m (from 2.50 m to 32.65 m) and up to 0.58 g/t PGE in M354399R379 over 15.26 m (from 29.44 m to 44.7 m), respectively. The Tilsa survey indicated further potential of the identified anomaly towards the northeast, beyond the extent of the survey.

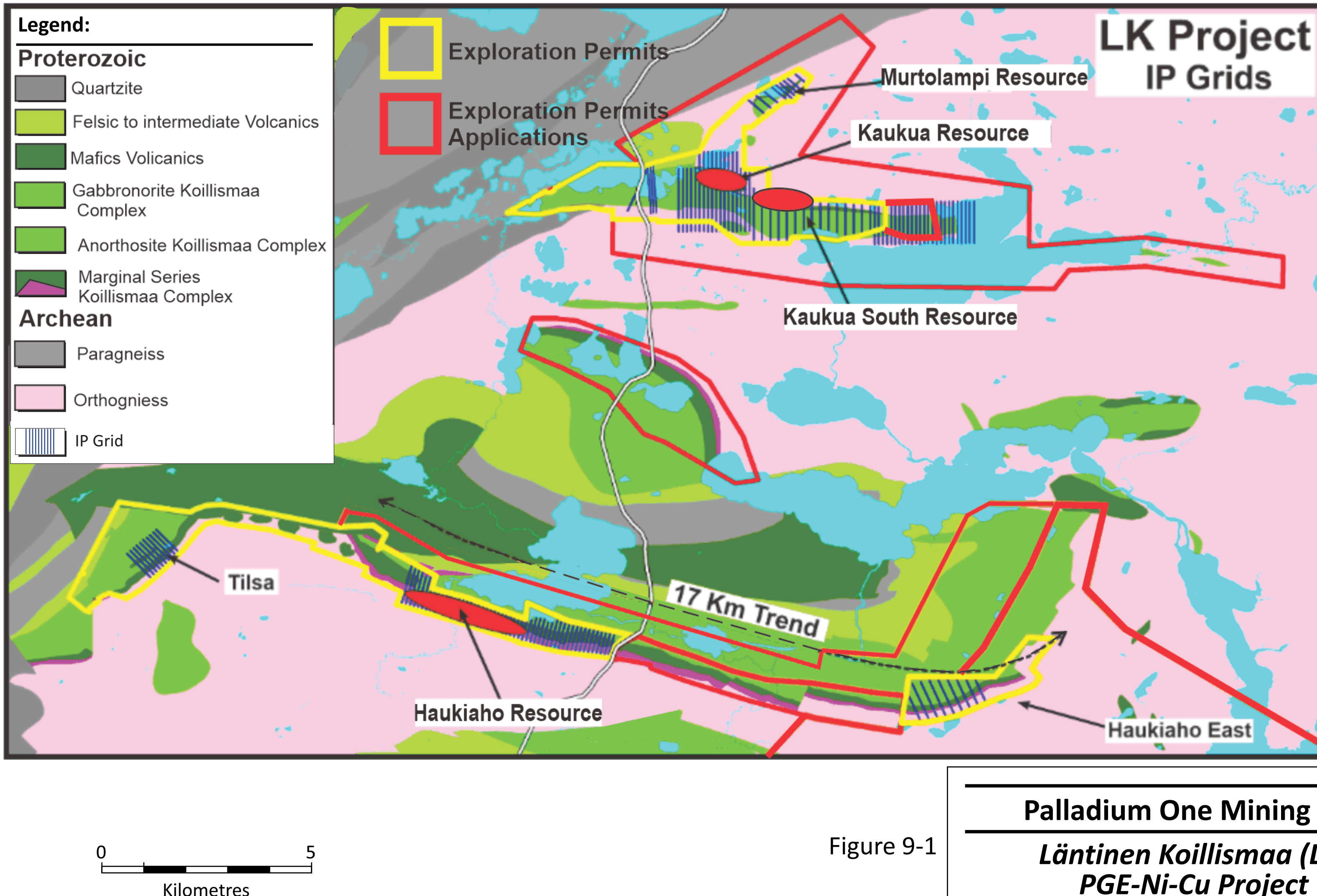


Figure 9-1

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

LK Project Geology Showing IP 2020 and 2021 Survey Lines

May 2022

Source: Palladium One, 2022

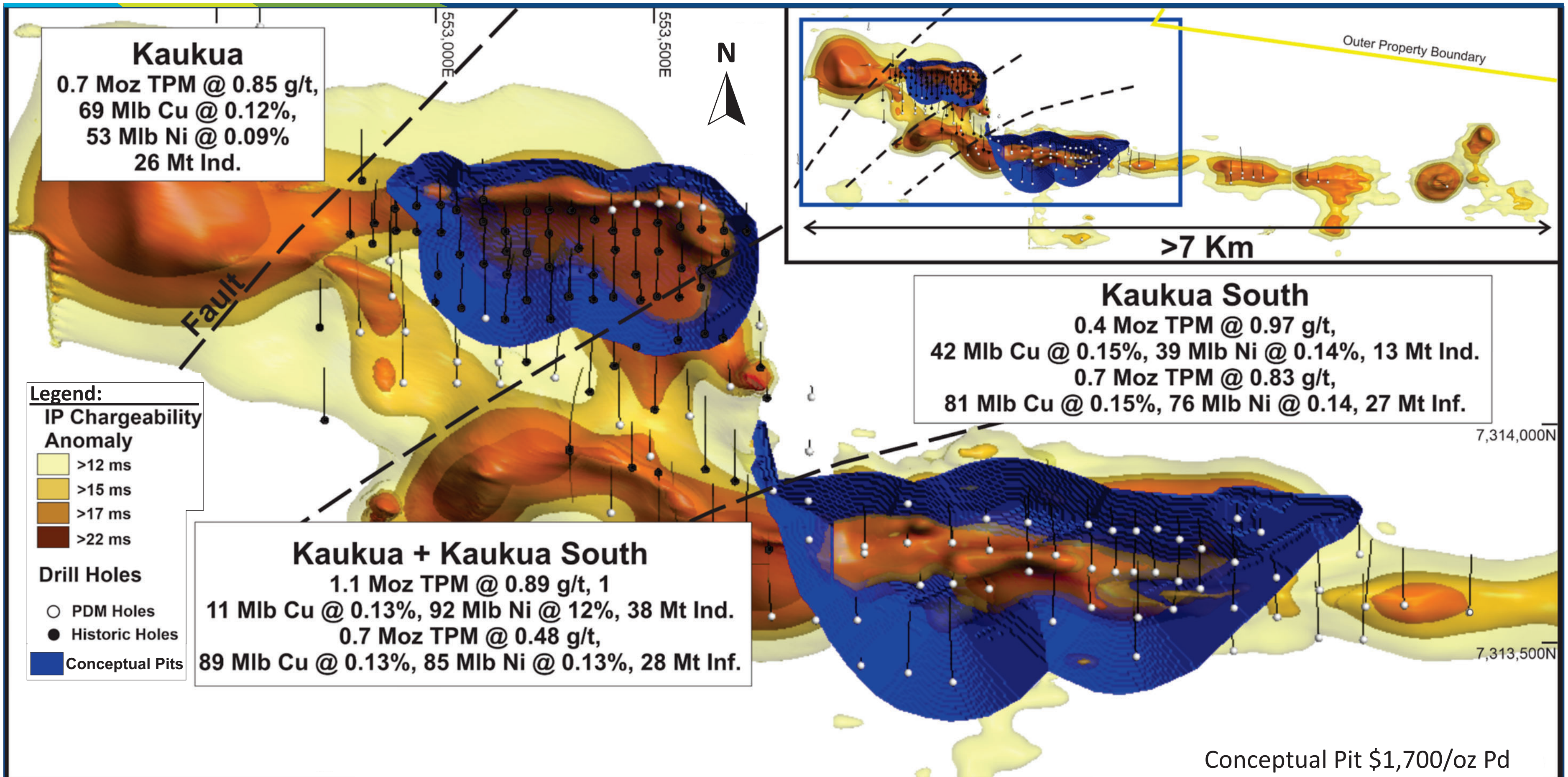


Figure 9-2

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Plan View of Kaukua and Western Kaukua South Areas Showing IP Chargeability Anomalies and Conceptual Pits

May 2022

Source: Palladium One, 2022

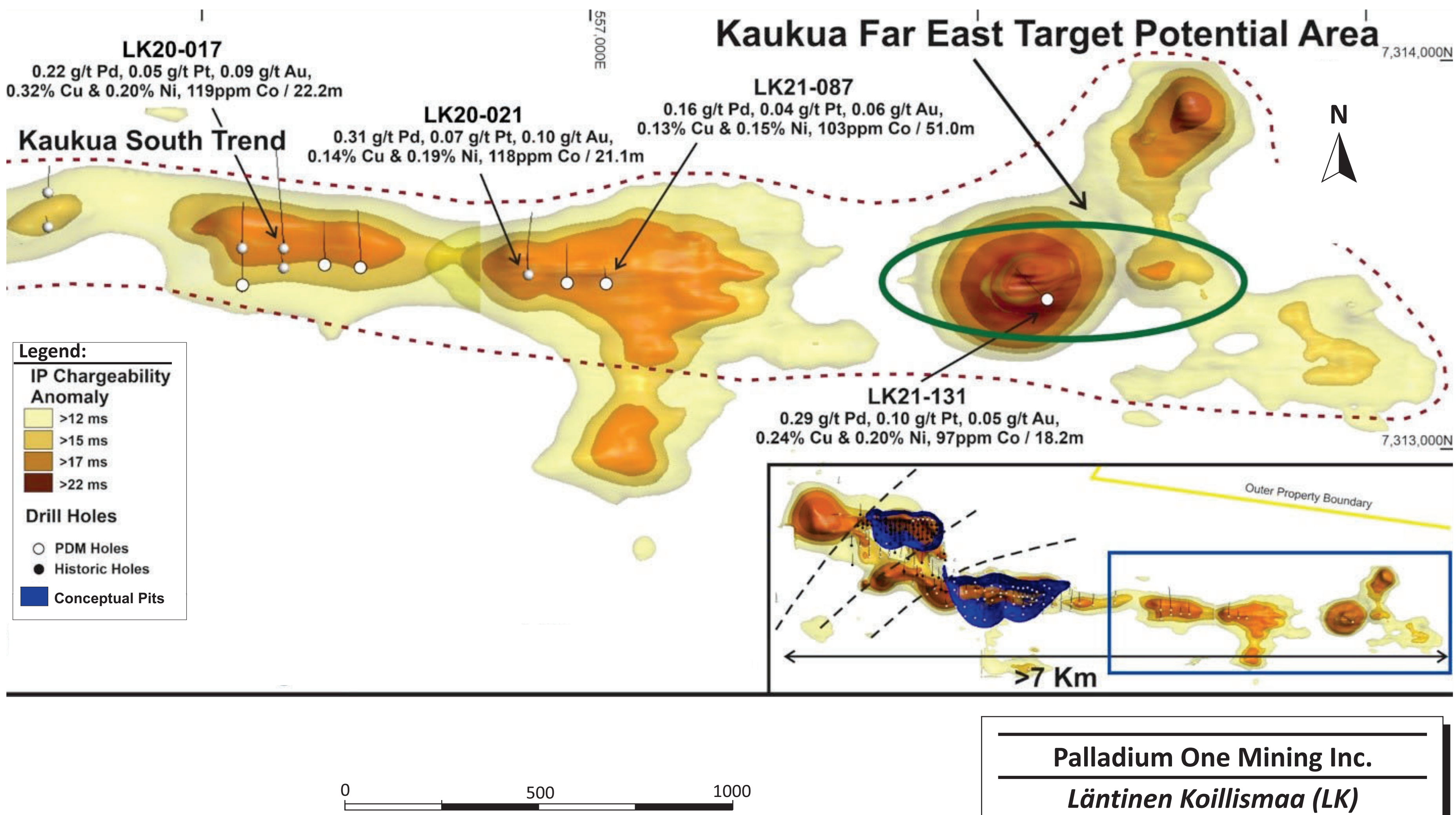


Figure 9-3

Palladium One Mining Inc.

Läntinen Koillismaa (LK)
PGE-Ni-Cu Project
North-Central Finland

Plan View of Kaukua Eastern Area Showing IP Chargeability Anomalies

May 2022

Source: Palladium One, 2022

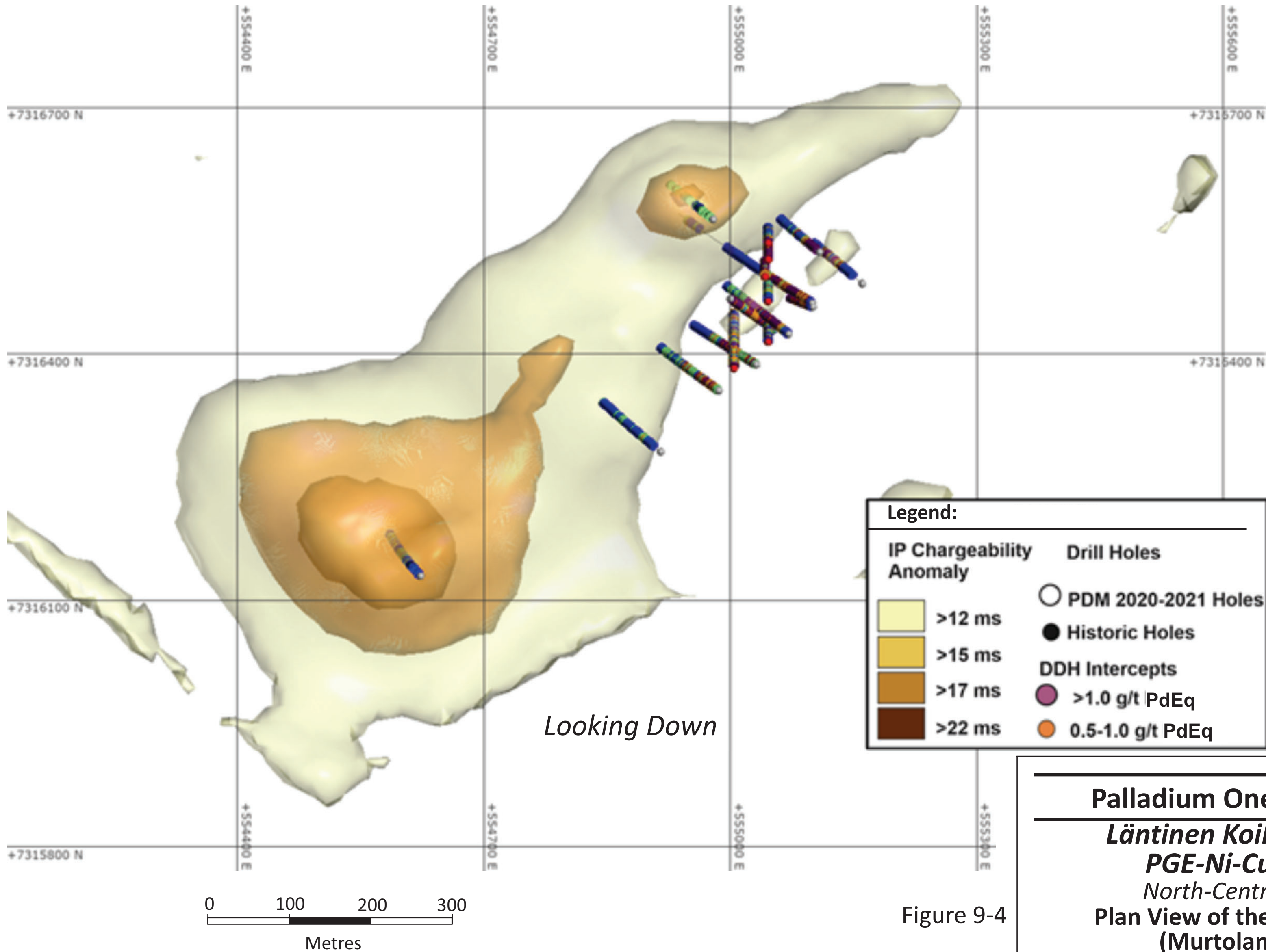


Figure 9-4

Palladium One Mining Inc.

Läntinen Koillismaa (LK)
PGE-Ni-Cu Project

North-Central Finland

Plan View of the Kaukua North (Murtolampi) Area Showing IP Chargeability Anomalies

May 2022

Source: Palladium One, 2022

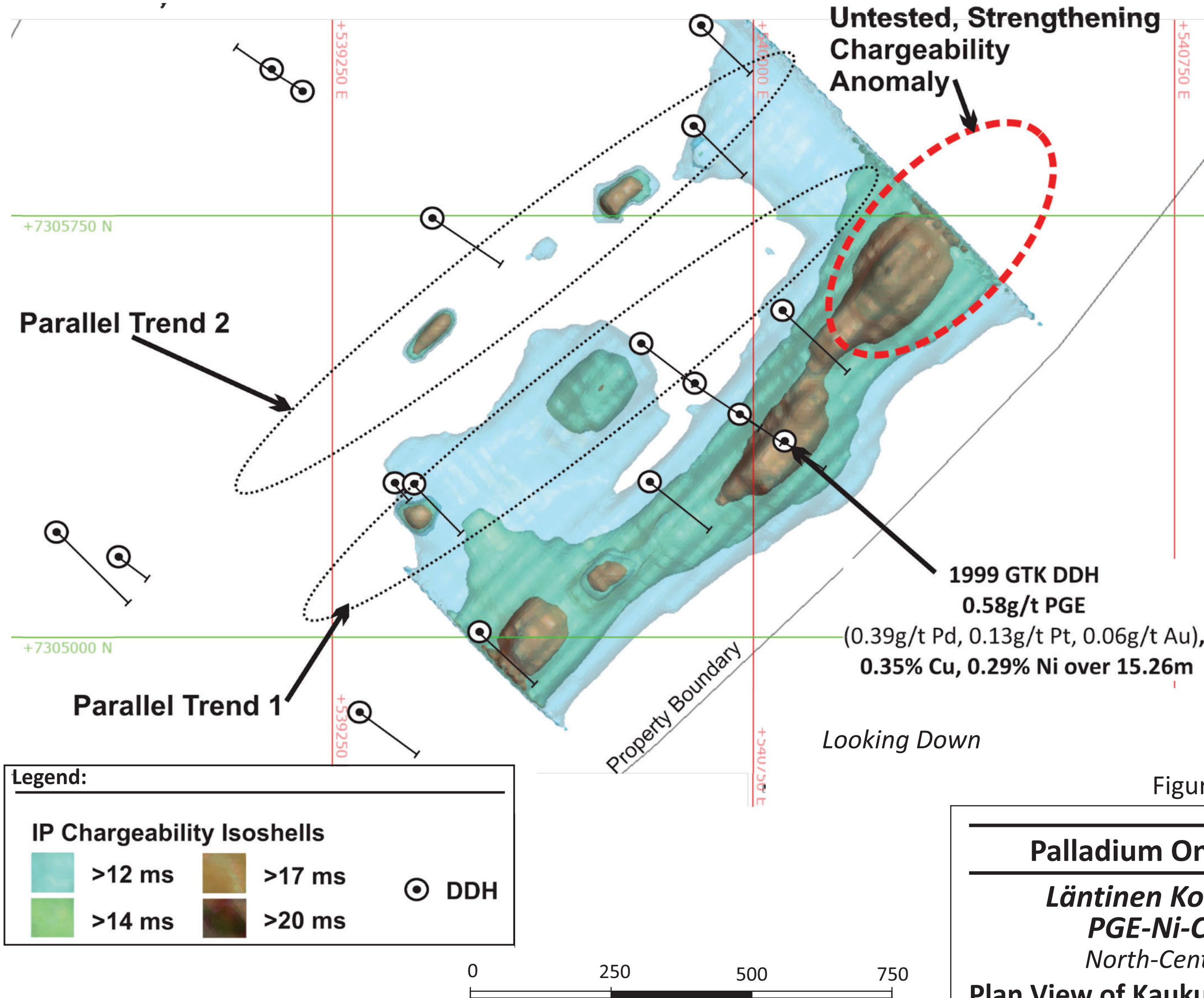


Figure 9-5

Palladium One Mining Inc.

Läntinen Koillismaa (LK)
PGE-Ni-Cu Project
North-Central Finland

Plan View of Kaukua North (Tilsa) Area Showing IP Chargeability Survey Results

May 2022

Source: Palladium One, 2021

9.3 Mapping

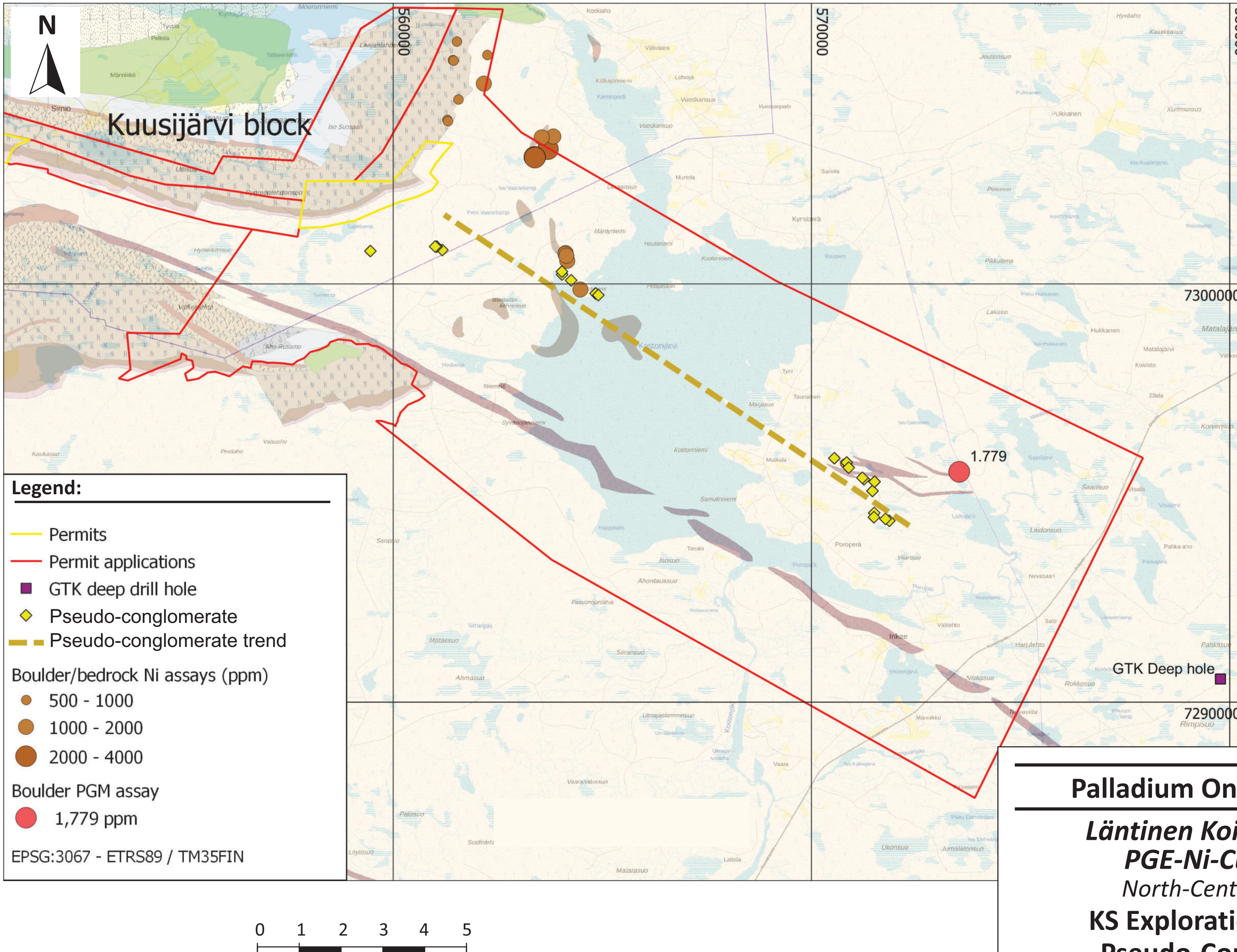
In addition to drilling and geophysical surveying, Palladium One also conducted bedrock and boulder mapping collecting 334 samples across the property, of which 169 were assayed. Mapping areas were selected by the Company using a combination of geology, terrain, and topographic maps to identify the most prospective areas. Samples were collected from outcrops using standard field equipment and positions were recorded using handheld global positioning system (GPS) devices. Samples were analyzed by ALS Minerals laboratory (ALS) in Outokumpu, Finland.

9.4 Exploration Potential

The KS Project target is interpreted to be an underground, potentially high grade massive sulphide mineralization, in the feeder system (feeder dike) of the Koillismaa Complex, assumed to be similar to a Norilsk or Voisey's Bay type deposit. Indicators of the feeder channel are gravity and magnetic anomalies (Figure 7-10 and Figure 7-11) that suggest accumulation of ultramafic rock at depth. In 2020 and 2021, GTK's Koillismaa Deep Hole project near the KS Project area confirmed that the anomaly contains ultramafic cumulate rocks (peridotite). These rocks were encountered at a depth of approximately 1,500 m, however, due to technical reasons, the hole had to be closed before the anomaly was drilled through. The pseudo-conglomerate (Figure 9-6) mapped from the KS Project area (Figure 9-7) is assumed to be an indication of a deeper feeder channel. Pseudo-conglomerate is a local historic term. The unit is thought to have formed when the granitic rocks were brecciated and partially assimilated after being exposed to high temperature pressurized fluids provoked by high magma flux in the underlying feeder system. The pseudo-conglomerate unit may mark an old Archean fault that the feeder system exploited when it intruded in the Paleoproterozoic.

Source: Palladium One, 2021

Figure 9-6: Outcrop of Pseudo Conglomerate – KS Project Area



May 2022

Source: Palladium One, 2021

Figure 9-7

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

KS Exploration Area and Pseudo-Conglomerate

The Kuusirärvi block Marginal Series, which includes the current Haukiaho resource estimate, continues approximately 13 km east (Figure 9-8). There are some historical drill holes, for example M354366R666 and M354366R667, in the area indicating possible marginal series mineralization. The eastern edge of the Kuusijärvi Block turns almost north and continues for approximately four kilometres. Historical drilling has been carried out in the area. The lithology of these drill holes (M354397R313, 60 m and M354397R318, 50.9 m) seems to suggest a marginal series, though they have not intersected the mixed basement. The boulder and outcrop mapping by Palladium One has identified ultramafic and mixed basement outcrops and boulders that also suggest the existence of a marginal series. In old surveys, the eastern edge of the Kuusijärvi Block has been interpreted to dip gently (25°) to the southwest. Flat lying layers have good potential for open pit style mineralization.

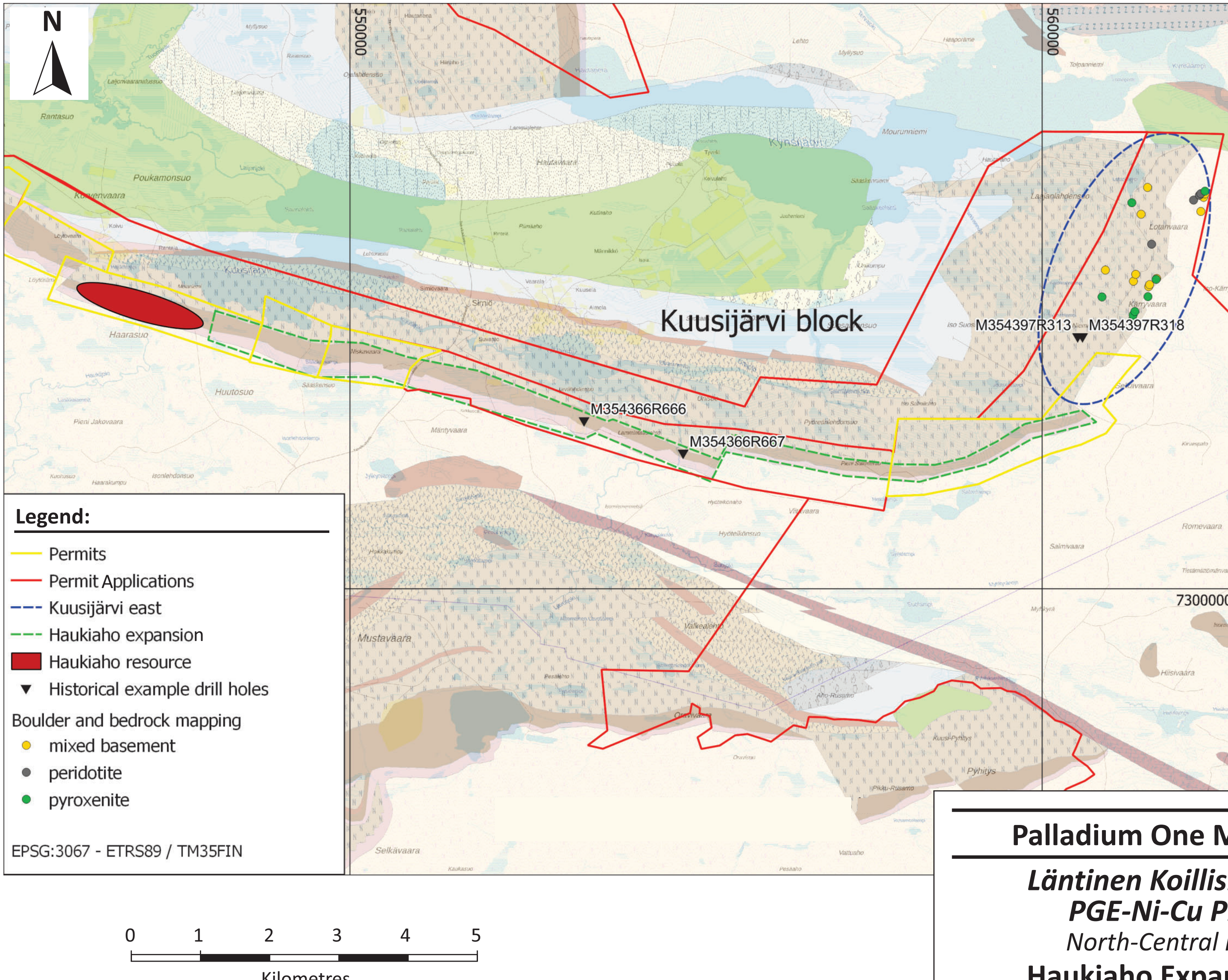


Figure 9-8

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Haukiaho Expansion and Kuusijärvi Block East

May 2022

Source: Palladium One, 2021

9.4.1 Target Potential

In addition to the exploration potential outlined above, Palladium One has estimated a Target Potential for the property of 22 Mt to 36 Mt with TPM grades ranging between 0.5 g/t and 0.7 g/t. The Target Potential estimated is based on simple geometric approximations supported by limited drilling information and IP chargeability anomalies (Figure 9-3 in Section 9.2, and Figure 9-9).

Table 9-3 summarizes the Target Potential for the LK Project, as estimated by Palladium One.

The QP is of the opinion that there is strong evidence supporting potential expansion of the current Mineral Resource and recommends following up with additional drilling in the two Target Potential areas.

Table 9-3: LK Target Potential
Palladium One Mining Inc. – Läntinen Koillismaa Project

Area	Tonnes (Mt)	TPM (g/t)	Cu (%)	Ni (%)
Kaukua Far East	8 to 14	0.6 to 0.9	0.09 to 0.13	0.08 to 0.12
Haukiaho East	14 to 23	0.4 to 0.6	0.12 to 0.19	0.09 to 0.15
Total	**22 to 36**	**0.5 to 0.7**	**0.11 to 0.17**	**0.09 to 0.14**

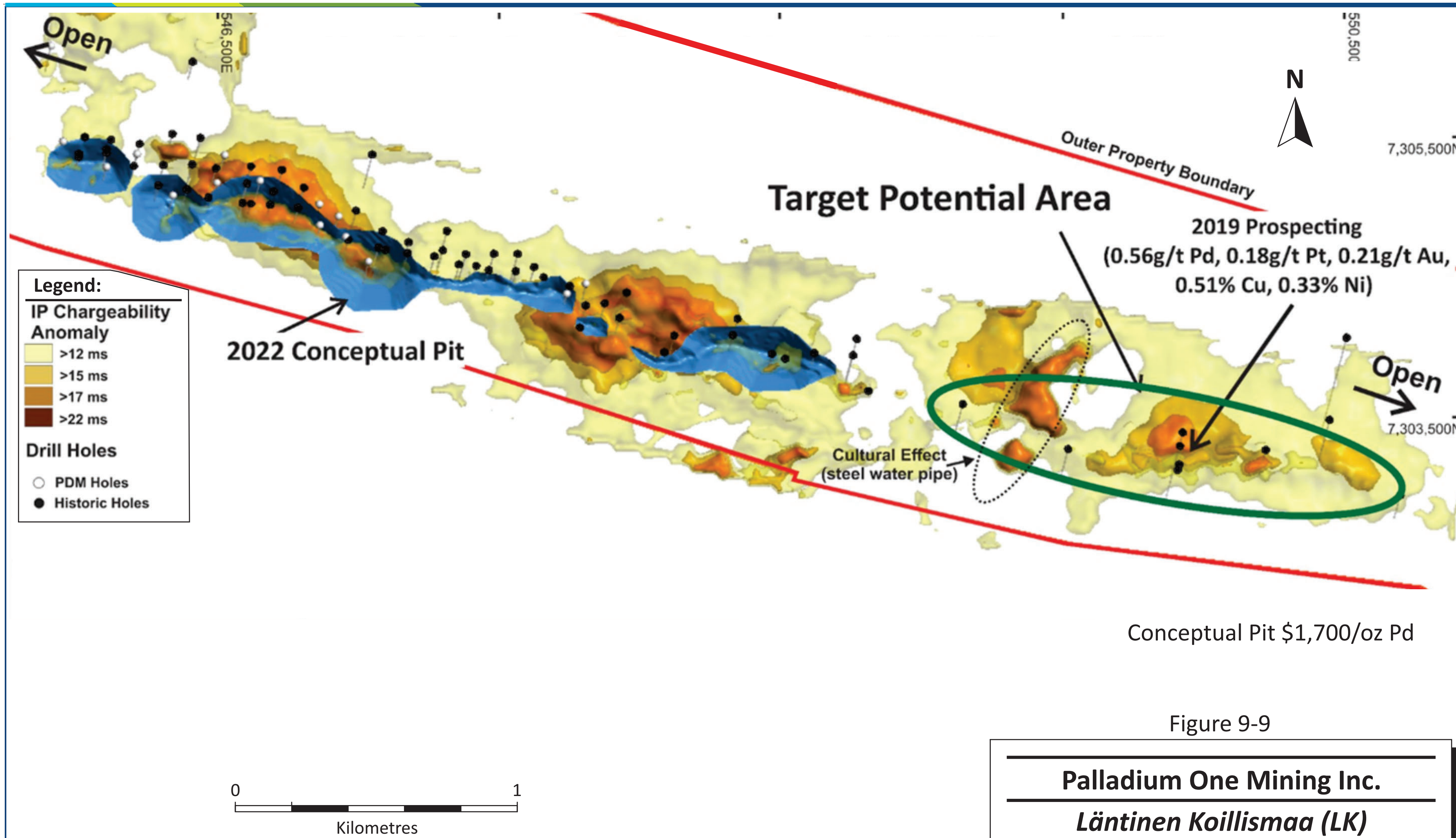


Figure 9-9

Palladium One Mining Inc.

Läntinen Koillismaa (LK)
PGE-Ni-Cu Project
North-Central Finland

Haukiaho East Target Potential Showing
IP Chargeability Anomalies

May 2022

Source: Palladium One, 2022

10.0 DRILLING

10.1 Overview

Palladium One's Phase I drilling program was undertaken between February and March 2020 and again between August and September 2020 for a total of 4,482.25 m of drill core from 26 drill holes (LK20-001 to LK20-026). The Phase II drilling program was undertaken between November 2020 and September 2021 for a total of 24,315.25 m of drill core from 111 drill holes (Table 10-1).

Table 10-1: LK Project Drilling Summary (2020-2021)
Palladium One Mining Inc. – Läntinen Koillismaa Project

Permit Group / Zone	No. Drill Holes	Metres
Haukiaho	15	2,515.3
Kaukua	26	6,598.55
Kaukua South Extension	82	17,398.45
Murtolampi	11	1,514.5
Kaukua West	3	770.7
Total	**137**	**28,797.5**

As introduced in Section 9.2, the most significant finding from the Phase I program – supplemented by IP geophysical surveying – was the presence of the Kaukua South extension. The IP chargeability anomaly was confirmed in drill hole LK20-006 and additional drilling in the second half of the program included another five holes along an approximate three kilometre strike length.

Other significant results included drilling at Murtolampi with intersections demonstrating the potential for wider and higher grade mineralization than previously identified by shallower historic drilling by GTK.

Phase I drilling at Kaukua was intended to increase the geological understanding and degree of confidence in mineralization within areas of Inferred Mineral Resources, and to identify shallow mineralization which could represent a future location for bulk sampling. A deeper hole, LK20-007, also helped identify mineralization at depth as a southwest plunging shoot.

While Haukiaho was the original intended focus of the Phase I program, later re-focused on the Kaukua South extension, drilling in this area was largely to infill between historical drill holes in the central part of the deposit.

Phase II drilling was focused on the Greater Kaukua Area, including the Kaukua South extension zone identified during Phase I. Additional drilling was also completed during Phase II over Haukiaho with the intention of infill drilling and targeting a gap in drilling towards the western portion of the deposit. Other minor drilling was also completed in Murtolampi and across other regional targets.

10.2 Drill Hole Databases

In addition to Palladium One drilling in 2020 and 2021, the LK Project database includes drilling performed by previous operators between 1963 and 2012. To date, a total of 379 drill holes have been completed on the property for 67,289 m of drilling.

Drilling on the LK Project is summarized in Table 10-2. A plan map showing drill hole collars across the property – including those outside the current permit areas but held within the Company's regional drill hole database – is provided in Figure 10-1. A plan map and a representative vertical section for Kaukua are provided in Figure 10-2 and Figure 10-3 and a plan view for Haukiaho drilling, inFigure 10-4.

Table 10-2: LK Project Drilling Summary
Palladium One Mining Inc. – Läntinen Koillismaa Project

Company	Year	No. Drill holes	Area	Metres Drilled
Outokumpu	1963-1966	36	Haukiaho	6,105.37
University of Oulu	1973	2	Lipeävaara	83.10
GTK	1997-1999 & 2004-2005	61[1]	Haukiaho	6,760.51
GTK	1989, 1998-1999 & 2004	31[2]	Kaukua & Murtolampi	2,544.73
GTK	1999	7[3]	Lipeävaara	999.29
NAN	2001	7	Haukiaho	921.05
Nortec Ventures Corp.	2007-2009	50	Kaukua	10,292.80
Finore	2011-2012	25	Haukiaho	4,668.80
Finore	2012	23	Kaukua	6,116.20
Palladium One	2020	47	Kaukua	7,968.25
Palladium One	2020	3	Haukiaho	569.85
Palladium One	2021	74	Kaukua	18,112.34
Palladium One	2021	13	Haukiaho	2,147.15
Total		**379**		**67,289.49**

Notes:

1. Includes four drill holes for 231.45 m within the PDM drill hole database but located outside of the current permit areas.
2. Includes 15 drill holes for 592.98 m within the PDM drill hole database but located outside of the current permit areas.
3. Includes two drill holes for 298.39 m within the PDM drill hole database but located outside of the current permit areas.

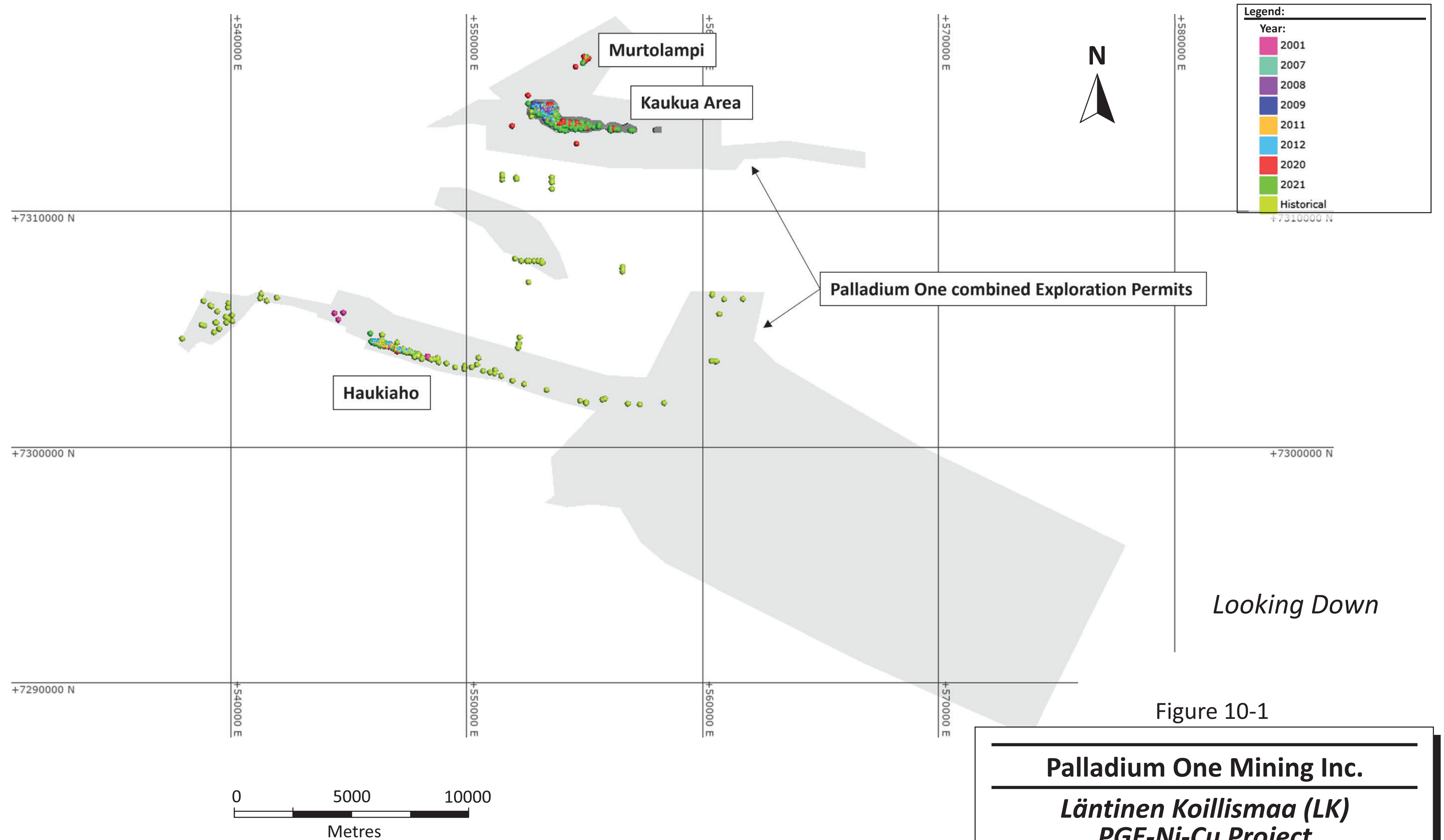


Figure 10-1

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

LK Project Drill Hole Locations

May 2022

Source: SLR, 2022

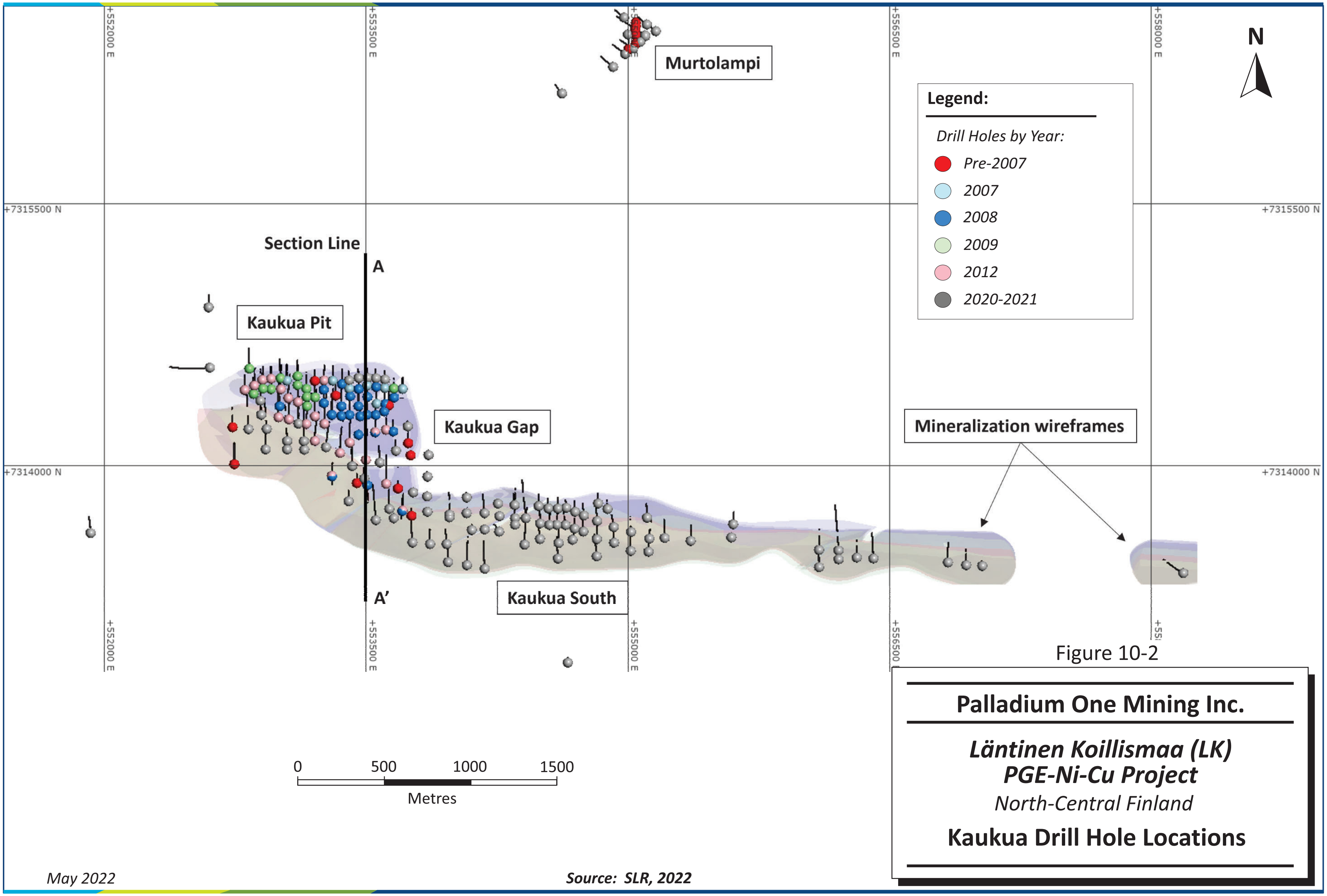


Figure 10-2

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Kaukua Drill Hole Locations

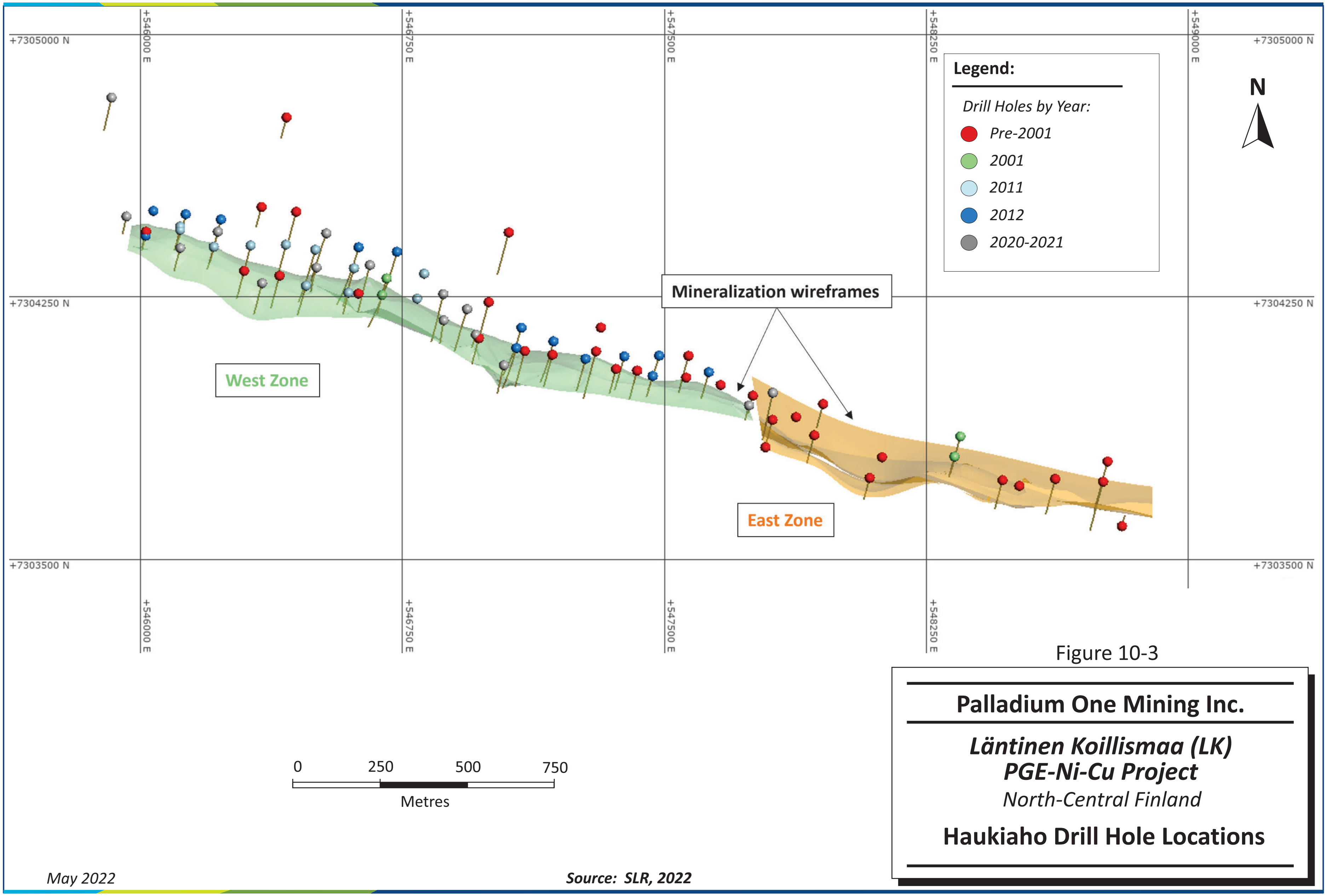


Figure 10-3

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Haukiaho Drill Hole Locations

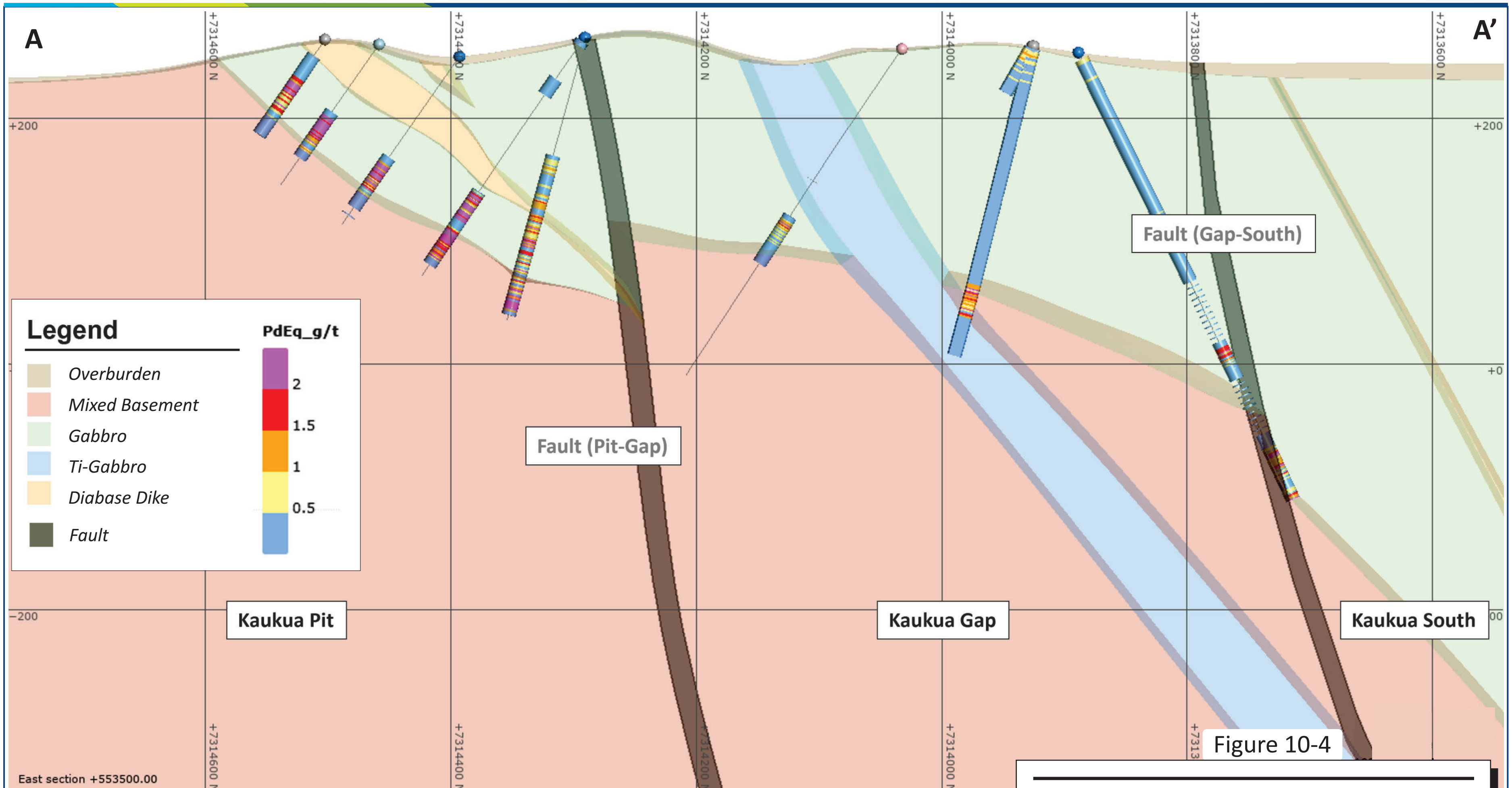


Figure 10-4

Note. See Figure 10-2 for A-A’ section line orientation

0 100 200
Metres

Palladium One Mining Inc.

Läntinen Koillismaa (LK)
PGE-Ni-Cu Project
North-Central Finland

Kaukua North-South Orientated Section (553,500 E) Showing Drill Holes, Geological Logging and Lithological Wireframes

May 2022

Source: SLR, 2022

10.3 Drilling Methods

10.3.1 Nortec Minerals Corp. and Finore Drilling

Exploration by Nortec Minerals Corp. and Finore is documented as being drilled using GM-100 based rig and BQTK equipment for 40.7 mm diameter core, later increasing to NQ2 sized core (50.7 mm).

Drill hole collars were surveyed by an appointed surveyor of Rovaniemi Oy using a Differential GPS (DGPS), or handheld GPS, and downhole surveys taken using a gyro (Reflex Maxibore II) instrument by the drilling contractor, Nivalan Timanttikairaus Oy. For historic NAN, GTK, and Outokumpu drill holes, the downhole dips were measured, and the starting dip and azimuth were used for the entire length of hole.

10.3.2 Palladium One Drilling

Drilling has been undertaken by Northdrill Oy from Rovaniemi, Finland, and consists of diamond drilling for a 57.3 mm core diameter in three metre run lengths. On completion, drill holes are subject to downhole surveying by an independent contractor using a Reflex 2 APS unit and Deviflex as a relative surveying tool given the magnetic signature of the host rock.

10.4 Core Recovery

Core recovery data for Kaukua – available for drill holes completed since 2007 – has been reviewed and demonstrates generally high rates of core recovery across the deposit with approximately 95% of logged intervals having 100% core recovery. Approximately 98% of intervals have core recoveries greater than 90%, and 99% of intervals, greater than 80%.

Similarly, core recovery data for Haukiaho demonstrates high core recovery rates with approximately 90% of logged intervals having 100% core recovery. Approximately 94% of intervals have core recoveries greater than 90%, and 95% of intervals, greater than 80%.

10.5 Core Logging

Palladium One follows conventional, industry standard practices for geological logging, data acquisition, and sampling. Drill core collected by Palladium One is initially logged on arrival at the core facility. This quick log is completed to define the major lithological boundaries and to identify intercepts of significant mineralization. Once complete, a more detailed logging procedure is followed and data is recorded into the Geotic database using input sheets with dropdown fields to ensure consistency and to reduce data input errors. Core logging is completed by a geologist and includes lithology, mineralization, alteration/ oxidation, structures, and any other secondary observations. Core photographs are taken both wet and dry after marking up of the core and before core sampling.

While at site, SLR inspected select drilling locations, core logging, sampling and storage facilities, and held discussions with geologists and support personnel of the Company. There are adequate standard operating procedures in place and staff are well trained at implementing the protocols. In the QP's opinion, the drilling, logging, and drill core sampling procedures meet industry standards. The QP is not aware of any drilling, sampling, or recovery factors that could materially impact the accuracy and reliability of the results.

11.0 SAMPLE PREPARATION, ANALYSES, AND SECURITY

In the QP's opinion, the sample preparation, analysis, security, and quality assurance/quality control (QA/QC) procedures are suitable for use in the estimation of Mineral Resources.

11.1 Sample Preparation

All geological logging, by Nortec Minerals Corp., Finore, and Palladium One, has been undertaken at a core handling facility at Taivalkoski, approximately 40 km north by road. Project data acquired by Finore was originally held on Finore's office server in Vancouver and office computer systems at Taivalkoski. This data was provided to Palladium One following acquisition of the Project and is now stored in the Company's Geotic database. This includes core (wet and dry) photographs.

After geological logging, drill core samples were cut in half using diamond saws, with one half placed into individually labelled plastic bags and into wooden crates for shipping, and the remaining half labelled and stored in core boxes at Taivalkoski. All sampling is undertaken to respect geological boundaries. A target sample length of 1.5 m is used within mineralized intersections, with 1.0 m in highly mineralized intersections and a minimum sample length of 0.3 m. All sample information, including details of control samples inserted, are recorded and subsequently entered into the Geotic database.

Sample crates were shipped by courier from Taivalkoski to ALS in Outokumpu, Finland, approximately 420 km south by road. Finore also previously shipped samples to Eurofins Labtium Oy (Eurofins) in Sodankylä, Finland.

In the QP's opinion, the sample preparation methodology is acceptable for the purposes of a Mineral Resource estimate.

11.2 Sample Security

Drill core, acquired previously by Nortec Minerals Corp. and Finore, and by Palladium One in 2020 and 2021, has been accompanied by Company staff during transportation from the drill site to the secure core storage and logging facilities at Taivalkoski. The facilities comprise two separate cold storage units approximately 500 m apart, one shared by Mustavaara Kaivos Oy and the second shared with other tenants. The facilities are kept locked and secured, with the remaining half core material stored in stacked core boxes.

All historical drill core from the Nortec Minerals Corp. and Finore drilling programs is currently stored at a separate facility managed by GTK.

Drill core sample bags were securely packaged by Palladium One and transported to the appointed laboratory by courier wooden pallets wrapped in plastic to prevent damage or tampering during transport. A sample register document is used to record samples delivered and received by the laboratory from the courier.

In the QP's opinion, the sample chain of custody and security procedures are acceptable for the purposes of a Mineral Resource estimate.

11.3 Sample Analysis

11.3.1 Nortec Minerals Corp. and Finore Assay Data

The drilling, logging, and sampling procedures used by Finore in 2011 and 2012 are understood to have been implemented to be consistent with those previously used by Nortec Minerals Corp. in drilling between 2007 and 2009.

All core logging and sampling, including core cutting and selection of half-core samples, was undertaken by Nortec Minerals Corp. and Finore staff, with analysis completed by either ALS in Outokumpu or Vancouver, Canada, or by Eurofins. ALS is an independent, accredited laboratory and is ISO compliant (ISO 9001:2008, ISO/IEC 17025:2005). Eurofins is an independent Finnish state-owned laboratory outsourced from GTK in 2007, accredited and ISO compliant (ISO/IEC 17025:2005) by the Finnish Accreditation Service (FINAS) (testing laboratory T025).

Table 11-1 and Table 11-2 summarize the assaying methods used by ALS and Eurofins laboratories, respectively.

Table 11-1: Assaying Methods, ALS Minerals
Palladium One Mining Inc. – Läntinen Koillismaa Project

Method[1]	Description
PGM-ICP23	Pt (0.005 ppm – 10 ppm), Pd (0.001 ppm – 10 ppm), and Au (0.001 ppm – 10 ppm) by lead fire assay (30 g sample weight) with inductively coupled plasma atomic emission spectroscopy (ICP-AES) finish.
PGM-ICP27	Pt (0.03 ppm – 100 ppm), Pd (0.03 ppm – 100 ppm), and Au (0.03 ppm – 100 ppm) by lead fire assay (30 g sample weight) with ICP-AES finish. Used for over-limit samples from PGM-ICP23.
ME-ICP41	Trace level method, 35 elements by aqua regia acid digestion and ICP-AES.
(+)-OG46	Over-limit analysis for Ag (1 ppm – 1,500 ppm), Cu (0.01% - 40%), Mo (0.001% - 10%), Pb (0.001% - 20%), and Zn (0.001% - 30%) by aqua regia acid digestion and ICP-AES. Also used for over-limit samples from ME-ICP41.

Notes:

1. Accredited method denoted by '+'
2. PGM – Platinum Group Metals

Table 11-2: Assaying Methods, Eurofins
Palladium One Mining Inc. – Läntinen Koillismaa Project

Method[1]	Description
240P	Sulphide-specific multi-element analysis by ICP-AES for base metals.
+510P	Aqua regia leach then multi-element analysis by ICP-AES for base metals with more resistive metals only partially dissolved.
+704P	Lead fire assay pre-concentration then analysis for precious metals Au, Pd, and Pt by ICP-AES with a 10 ppb detection limit.

Notes:

1. Accredited method denoted by '+'

For samples sent to Eurofins, method +510P (aqua regia leach with ICP-AES finish) and +704P (fire assay pre-concentration with ICP-AES finish) have been consistently used for all samples. Method 240P, which is not an accredited assaying method, has only been used for determination of Ni-silicate specific concentration in +510P results. Table 11-3 provides a summary of the historical assaying methods used by Eurofins and ALS for drill holes between 2007 and 2012.

Table 11-3: Summary of Historical Assaying Methods
Palladium One Mining Inc. – Läntinen Koillismaa Project

Deposit	Years	Drill Hole / Survey	Laboratory	Summary Method	Other
Kaukua	2007	KAU07-001 to KAU07-007	Eurofins	Pt, Pd, Au Pb-Fire Assay, ICP-OES (704P). Multi-Element Aqua Regia Digestion, inductively coupled plasma optical emission spectroscopy ICP-OES (510P)	
Kaukua	2008	KAU08-008 to KAU08-012	Eurofins	Pt, Pd, Au Pb-Fire Assay, ICP-OES (704P). Multi-Element Aqua Regia Digestion, ICP-OES (510P)	Select samples 240P: Ni, Cu, and Co in sulphide minerals, Ammonium Citrate – H_2O_2 Leach, ICP-OES
Kaukua	2008	KAU08-013 to KAU08-024	Eurofins	Pt, Pd, Au Pb-Fire Assay, ICP-OES (704P). Multi-Element Aqua Regia Digestion, ICP-OES (510P)	
Kaukua	2008	KAU08-025 to KAU08-038	Eurofins	Pt, Pd, Au Pb-Fire Assay, ICP-OES (704P). Multi-Element Aqua Regia Digestion, ICP-OES (510P)	Select samples 240P: Ni, Cu, and Co in sulphide minerals, Ammonium Citrate – H_2O_2 Leach, ICP-OES
Kaukua	2009-2012	KAU09-039 to KAU12-062	ALS	Pt, Pd, Au: Fire Assay, ICP-AES (PGM-ICP23), Multi-Element Aqua Regia Digestion, ICP-AES (ME-ICP41)	
Kaukua	2012	KAU12-063 to KAU12-073	Eurofins	Pt, Pd, Au Pb-Fire Assay, ICP-OES (704P). Multi-Element Aqua Regia Digestion, ICP-OES. (510P)	All samples 240P: Ni, Cu, and Co in sulphide minerals, Ammonium Citrate – H_2O_2 Leach, ICP-OES
Kaukua	2012	M354404R401 to M354404R405 and M354499R386	Eurofins	Pt, Pd, Au Fire assay, ICP-AES-MS Agua Regia Digestion	

Deposit	Years	Drill Hole / Survey	Laboratory	Summary Method	Other
		to M354499R390			
Murtolampi	2012	M354499R368 to M354499R373	Eurofins	Pt, Pd, Au Fire assay, ICP-AES-MS Agua Regia Digestion	

The results of QA/QC procedures implemented by Nortec Minerals Corp. and Finore are described in Section 11.4.1. The procedures comprised the insertion of blanks and certified reference material (CRM) into the sample stream at approximately 1 in 20.

11.3.2 Palladium One Assay Data

All laboratory analysis for samples from Palladium One drill holes has been completed by ALS. ALS is an independent, accredited laboratory and is ISO compliant (ISO 9001:2008, ISO/IEC 17025:2005).

Analysis was undertaken by the ALS laboratory in Ireland and included 30 g fire assay with an ICP-AES finish. Multi-element analysis including Ni and Cu were also performed using 0.25 g by four-acid digestion with an ICP-AES finish.

Check laboratories used by Palladium One during the 2020/2021 exploration program included Eurofins in Finland and ActLabs in Canada. At Eurofins, samples were analyzed by four-acid digestion multi-element by ICP-OES, and a 25 g sub-sample fire assay for Au, Pd and Pt by ICP-OES. ActLabs similarly used ICP-OES, four-acid multi-element (total digestion ICP-OES) and fire assay ICP-OES for platinum group metals (PGMs).

In the QP's opinion, the sample analysis methodology is acceptable for the purposes of a Mineral Resource estimate.

11.4 Quality Assurance and Quality Control

Quality Assurance (QA) is necessary to demonstrate that the assay data has precision and accuracy within generally accepted limits for sampling and analytical methods used in order to have confidence in the resource estimation. Quality Control (QC) consists of procedures used to ensure that an adequate level of quality is maintained in the process of sampling, preparing, and assaying the drill core samples. In general, QA/QC programs are designed to prevent or detect contamination and allow analytical precision and accuracy to be quantified. In addition, a QA/QC program can disclose the overall sampling – assaying variability of the sampling method itself.

QA/QC programs include the insertion of different control sample types including blanks, duplicates, and standards or CRM. For the evaluation of CRM performance, SLR has adopted the industry recognised and laboratory recommended standard acceptance limits at mean assay ± two standard deviations (2SD) as a warning and ± three standard deviations (3SD) as a failure limit.

11.4.1 Historical QA/QC

A QA/QC program implemented by Finore consisted of inserting CRMs, blanks, sample duplicates, and inter-laboratory check assays. CRMs were inserted at a frequency of between 1:20 and 1:40 samples and included four different African Mineral Standards (AMIS) CRMs for PGM and base metals, and an in-house blank for precious metals comprising an olivine diabase.

The historical QA/QC programs for Haukiaho and Kaukua are described in the following sections.

11.4.1.1 Haukiaho

QA/QC samples were introduced during drilling at the Haukiaho deposit between 2011 and 2012. All analysis was undertaken by ALS and comprised:

- 54 standard samples using two different CRMs: AMIS0056 and AMIS0064
- 31 blank samples
- 99 duplicate pairs

Certified Reference Material

Palladium One re-analyzed the AMIS CRMs as part of a historical assaying program investigation. The results are summarized in Table 11-4.

The performance of CRMs AMIS0056 and AMIS0064 are illustrated in Figure 11-1 and Figure 11-2. Overall failure rates – those returning results beyond three 3SD limits – ranged from 2% for Cu to 6% for Pd and Ni with the most failures occurring in CRM AMIS0064.

Table 11-4: Historical CRMs (AMIS), Haukiaho
Palladium One Mining Inc. – Läntinen Koillismaa Project

Standard	No. Samples	Expected Value	Certified 2SD	Certified 3SD	Laboratory Mean	№ Samples >3SD
			Palladium (ppm)[1]			
AMIS0056	27	0.88	0.060	0.090	0.893	0
AMIS0064	27	0.59	0.062	0.093	0.539	3
			Platinum (ppm)[1]			
AMIS0056	27	0.82	0.08	0.12	0.838	0
AMIS0064	27	1.28	0.14	0.21	1.191	0
			Gold (ppm)[2]			
AMIS0056	27	0.15	0.040	0.060	0.162	0
AMIS0064	27	0.10	0.028	0.042	0.105	2
			Copper (ppm)[3]			
AMIS0056	27	1377	107	161	1404	0
AMIS0064	27	664	49	74	663	1
			Nickel (ppm)[3]			
AMIS0056	27	1940	165	248	1804	2
AMIS0064	27	1046	82	123	1009	1

Notes:

1. Pd and Pt expected values are based on certified concentrations by Ni sulphide collection.

2. Au expected values are based on provisional concentrations by Ni sulphide collection.
3. Cu and Ni expected values are based on certified concentrations by aqua regia partial digestion.

Figure 11-1 illustrates the results for AMIS0056. The results indicate generally very good performance, with most results falling within the recommended 2SD and the analyzed mean close to the laboratory expected value. The results for Ni showed the largest variability with the analyzed mean being well below the expected value. This has been attributed to the proportion of Ni-silicate in the standard; the CRMs are made of a mixture of ore material from several different deposits which contain a mixture of silicate and sulphide Ni.

Figure 11-1: Historical AMIS0056 CRM ALS Results, Haukiaho

The results for AMIS0064 are presented in Figure 11-2 and indicate generally acceptable results although with a higher failure rate compared to AMIS0056. Results for Pd, Pt and Ni show a lower analyzed mean compared to the expected values and failure rates were highest for Pd and Au, although the remainder of other results typically performed within 2SD. The negative bias in Ni has similarly been attributed to the proportion of Ni-silicate in the standard, being comprised of material from several different deposits globally.

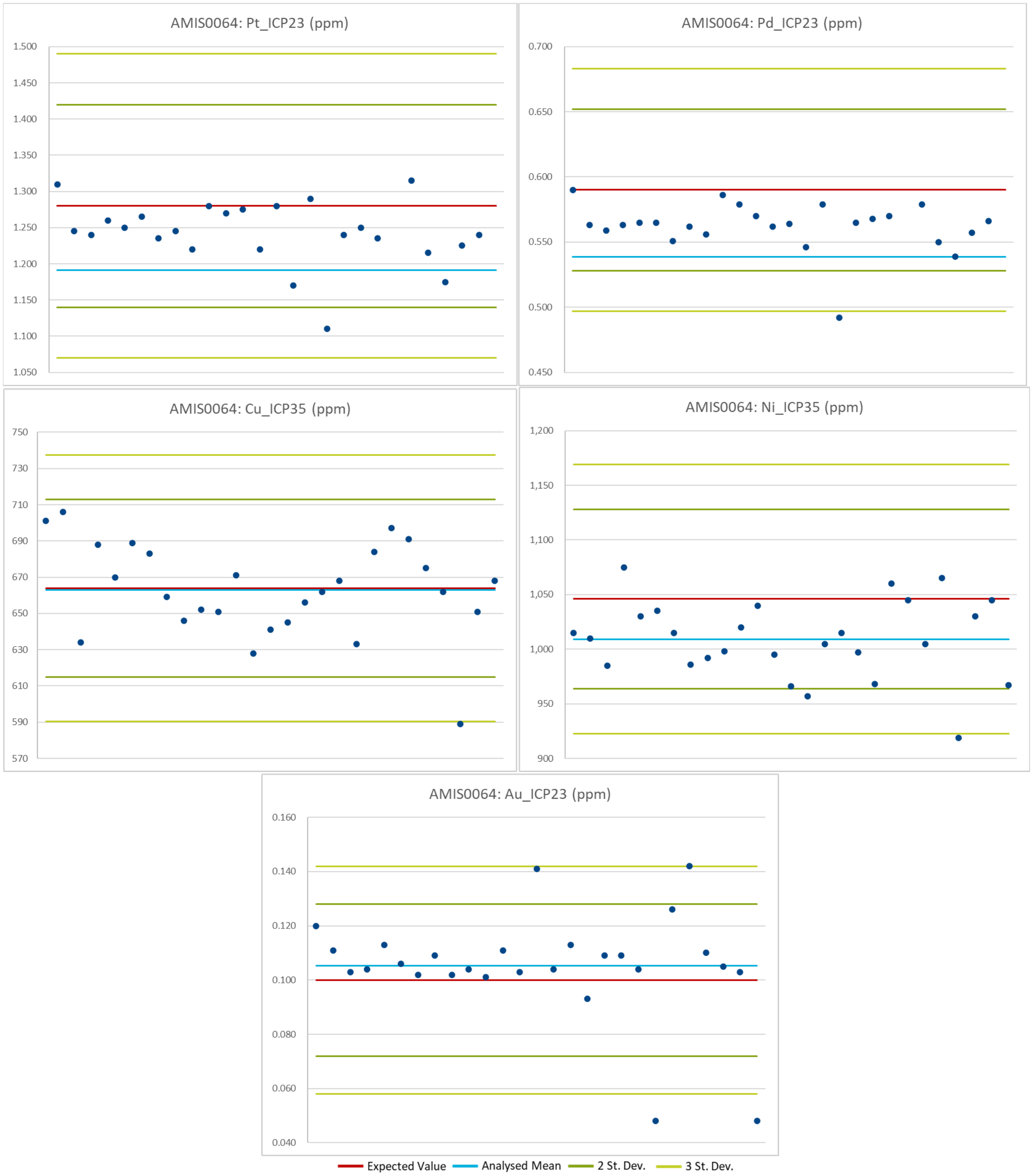


Figure 11-2: Historical AMIS0064 CRM ALS Results, Haukiaho

Blank Samples

Results from the blank samples are presented in Figure 11-3 and generally indicate good performance with the majority of samples returning low or negligible grades as expected.

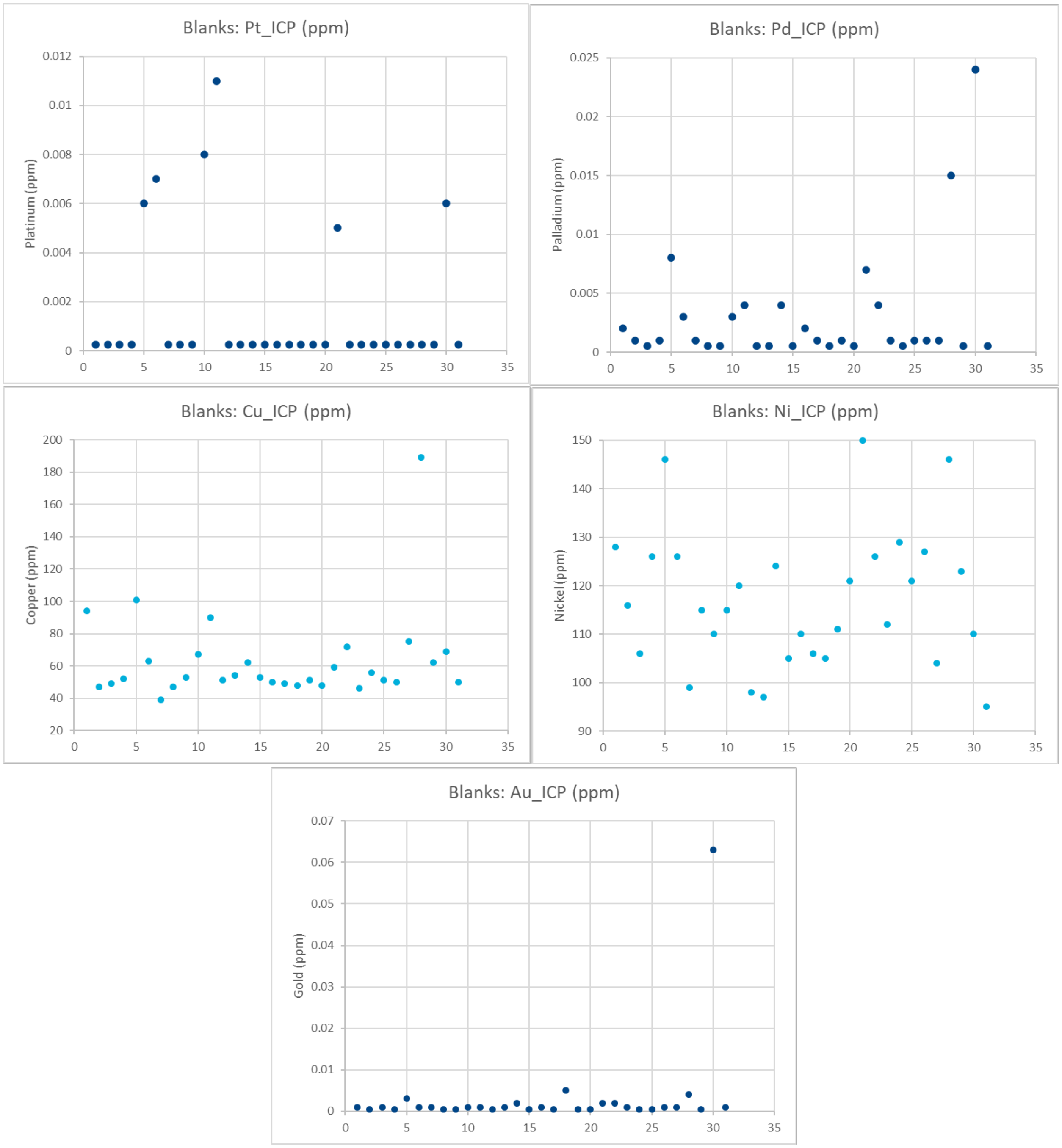


Figure 11-3: Historical Blank ALS Results, Haukiaho

Duplicate Samples

The results from the pairs of duplicate samples are presented in Figure 11-4. The results indicate good performance for both Pt and Pd sample pairs, with Cu, Ni, and Au also performing well. Both Cu and Au indicate greater variability at lower grades, although neither is considered to show a strong bias either towards the original or re-analyzed result.

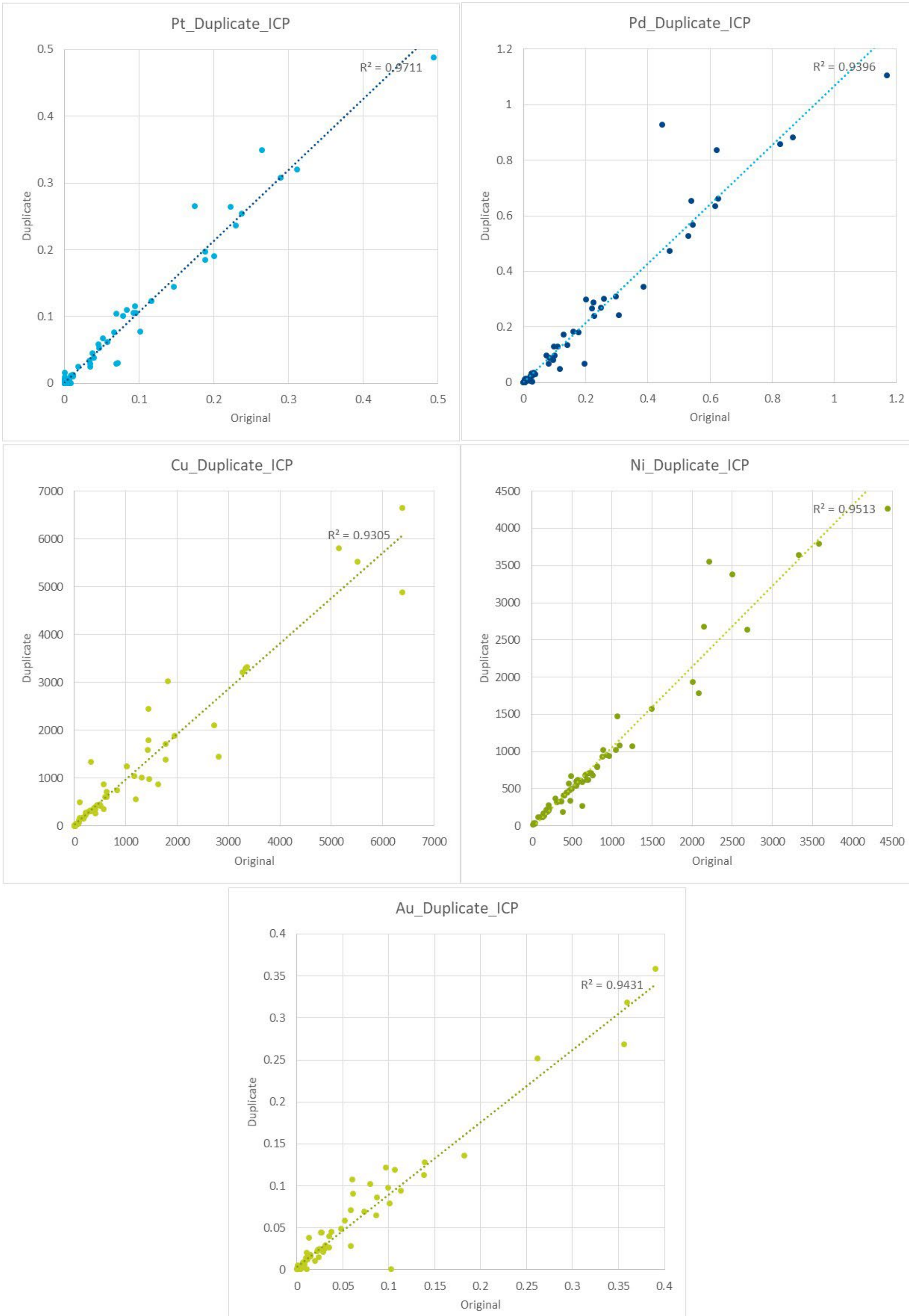


Figure 11-4: Historical Duplicate ALS Analysis, Haukiaho

11.4.1.2 Kaukua

QA/QC samples were introduced during drilling at the Kaukua deposit between 2007 and 2012. Analysis was undertaken by Eurofins and ALS laboratories and comprised:

- 169 standard samples across four different CRMs: AMIS0002, AMIS0009, AMIS0056, and AMIS0064.
- 100 blank samples
- 352 pulp duplicate pairs

In addition, there were 33 internal blank samples analyzed by Eurofins which all returned results below or near the detection limits for Pt, Pd, Cu, Ni, and Au. There were also 58 internal standards using four different CRMs introduced by Eurofins that all showed reasonable results.

Certified Reference Material

Table 11-5 provides a summary of the AMIS CRMs re-analyzed by Palladium One as part of the historical assaying program investigation. The performance of CRM AMIS0002, AMIS0009, AMIS0056, and AMIS0064 are illustrated in Figure 11-5 to Figure 11-8. Overall failure rates – those returning results beyond 3SD limits – ranged from 1% for Pt and Ni, to 4% for Au with the most failures occurring in CRM AMIS0056.

Table 11-5: Historical CRMs (AMIS), Kaukua
Palladium One Mining Inc. – Läntinen Koillismaa Project

Standard	№ Samples	Expected Value	Certified 2SD	Certified 3SD	Laboratory Mean	№ Samples >3SD
			Palladium (ppm)[1]			
AMIS0002	15	0.870	0.098	0.147	0.841	0
AMIS0009	13	0.980	0.060	0.090	0.954	0
AMIS0056	70	0.880	0.060	0.090	0.918	0
AMIS0064	71	0.590	0.062	0.093	0.553	3
			Platinum (ppm)[1]			
AMIS0002	15	0.860	0.108	0.162	0.766	0
AMIS0009	13	1.810	0.150	0.225	1.721	0
AMIS0056	70	0.820	0.080	0.120	0.836	1
AMIS0064	71	1.280	0.140	0.210	1.189	0
			Gold (ppm)[2]			
AMIS0002	15	0.155	0.016	0.024	0.157	1
AMIS0009	13	0.140	0.020	0.030	0.141	0
AMIS0056	70	0.150	0.040	0.060	0.172	3
AMIS0064	71	0.100	0.028	0.042	0.110	2

Standard	№ Samples	Expected Value	Certified 2SD	Certified 3SD	Laboratory Mean	№ Samples >3SD
			Copper (ppm)[3]			
AMIS0002	15	1310	130	195	1354	0
AMIS0009	13	907	91	136.5	925	0
AMIS0056	70	1377	107	160.5	1388	2
AMIS0064	71	664	49	73.5	659	0
			Nickel (ppm)[3]			
AMIS0002	15	1870	150	225	1893	0
AMIS0009	13	1214	133	200	1198	0
AMIS0056	70	1940	165	248	1878	1
AMIS0064	71	1046	82	123	1046	0

Notes:

4. Pd and Pt expected values are based on certified concentrations by Ni sulphide collection, except for AMIS002 which is unknown.
5. Au expected values are based on provisional concentrations by Ni sulphide collection for AMIS0056 and AMIS0064. AMIS009 is based on provisional concentration by Pb collection. AMIS002 is unknown.
6. Cu and Ni expected values are based on certified concentrations by aqua regia partial digestion, except for AMIS002 which is unknown.

The results for AMIS0002 indicate good performance albeit from a relatively small number of samples. A negative bias was observed in Pt although with no failures. Only one failure beyond 3SD in Au was observed with all other results falling within the laboratory recommended 2SD.

Figure 11-5: Historical AMIS0002 CRM Eurofins Results, Kaukua

The results for AMIS0009 similarly indicate very good performance albeit from a small number of samples. No failures beyond 3SD were observed with all results falling close to the expected laboratory mean.

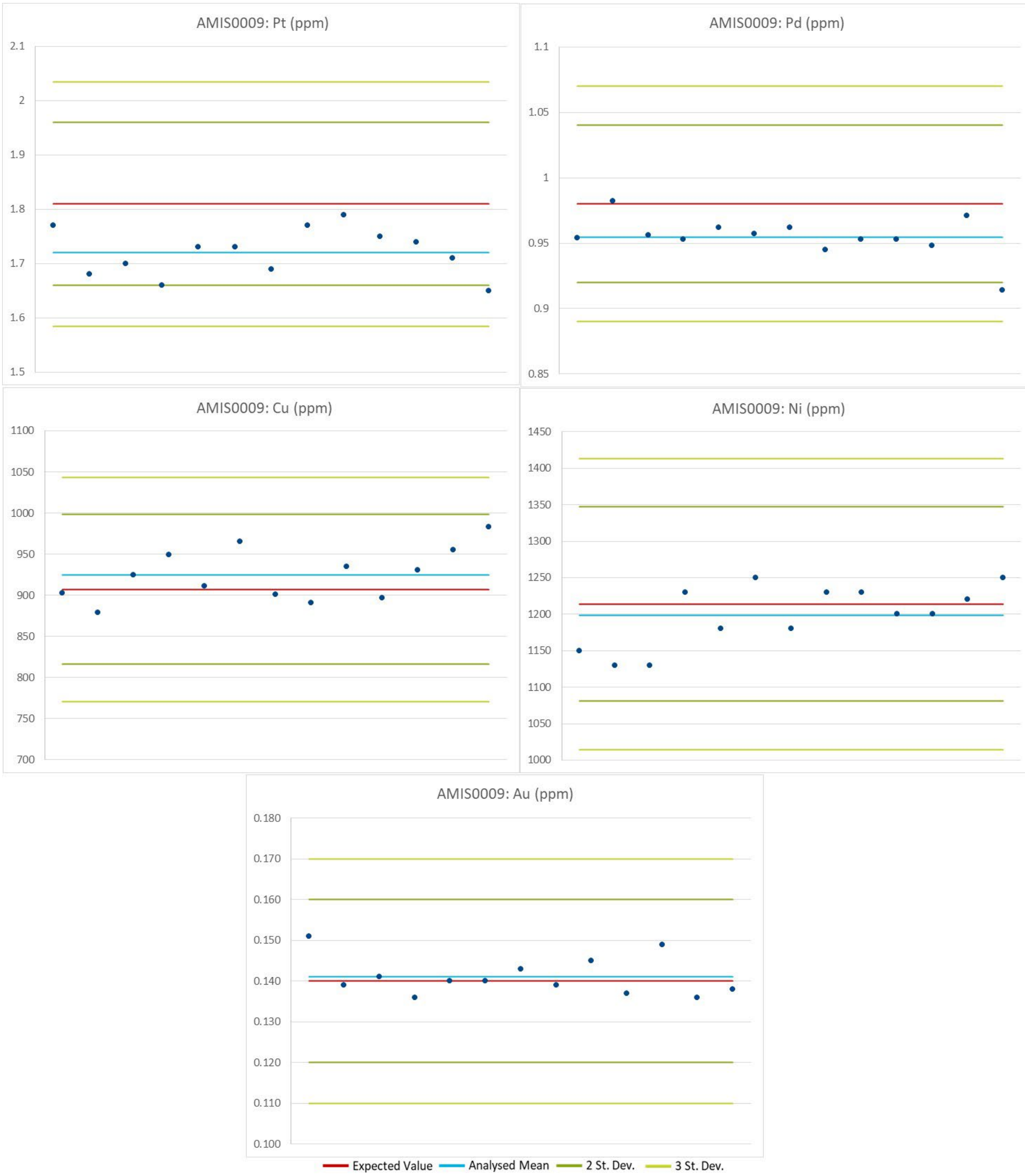


Figure 11-6: Historical AMIS0009 CRM Eurofins Results, Kaukua

The results for AMIS0056 include those analyzed by both Eurofins and ALS laboratories. Except for a small number of individual outliers, Cu, Ni, and Au all performed well with most samples falling within the recommended 2SD. A small positive bias was identified in Au across both laboratories. Standards for Pt and Pd also performed well with most results falling within 2SD.

The results for both AMIS0056 and AMIS0064 also illustrate the contrasting performance in Cu and Ni standards analysed at the two laboratories. Results for Cu typically returned higher concentrations from ALS compared to Eurofins, with the opposite being the case for Ni results, i.e., lower concentrations from ALS compared to Eurofins. While both laboratories used aqua regia digest methods, the Eurofins +510P method acknowledges that more resistive base metals may only be partially dissolved, which may explain the lower Cu concentrations.

Figure 11-7: Historical AMIS056 CRM Eurofins and ALS Results, Kaukua

The results for AMIS0064 also include those analyzed by both Eurofins and ALS laboratories. Except for a small number of individual outliers in Pd and Au, all other standards performed well with most within the recommended 2SD. A slight negative bias was identified in Pt and Pd across both laboratories.

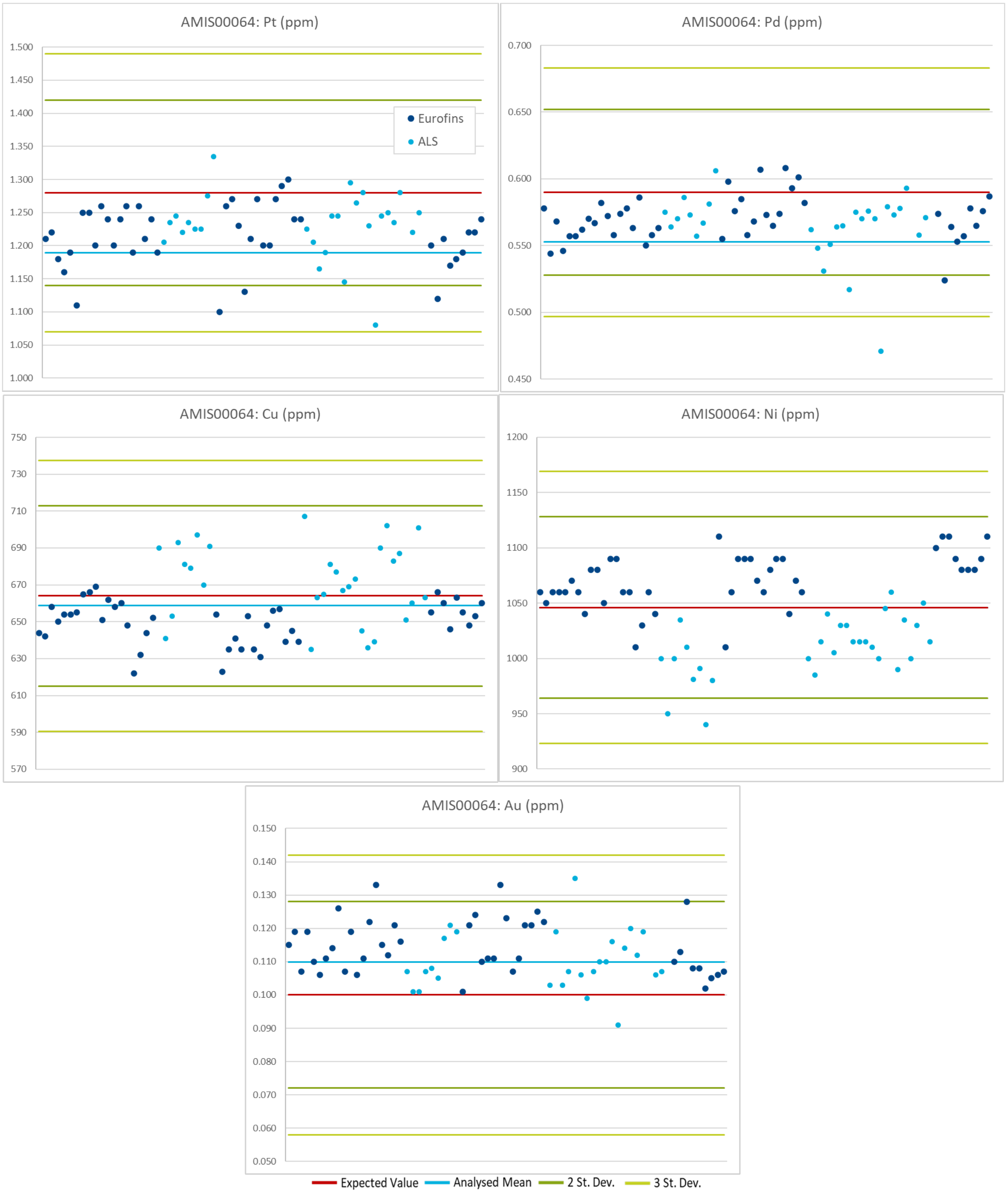


Figure 11-8: Historical AMIS064 CRM Eurofins and ALS Results, Kaukua

Blanks

The results of the blank samples are shown in Figure 11-9, including 67 samples analysed by Eurofins and 33 by ALS. Results indicate very good performance with most samples returning low or negligible grades and a small number of outliers. The biggest discrepancy observed between the two laboratories is in Ni, with ALS consistently reporting higher concentrations at approximately 115 ppm despite being the results of a trace level analytical method. The consistency of results and the low concentrations relative to original samples means that the results are deemed adequate.

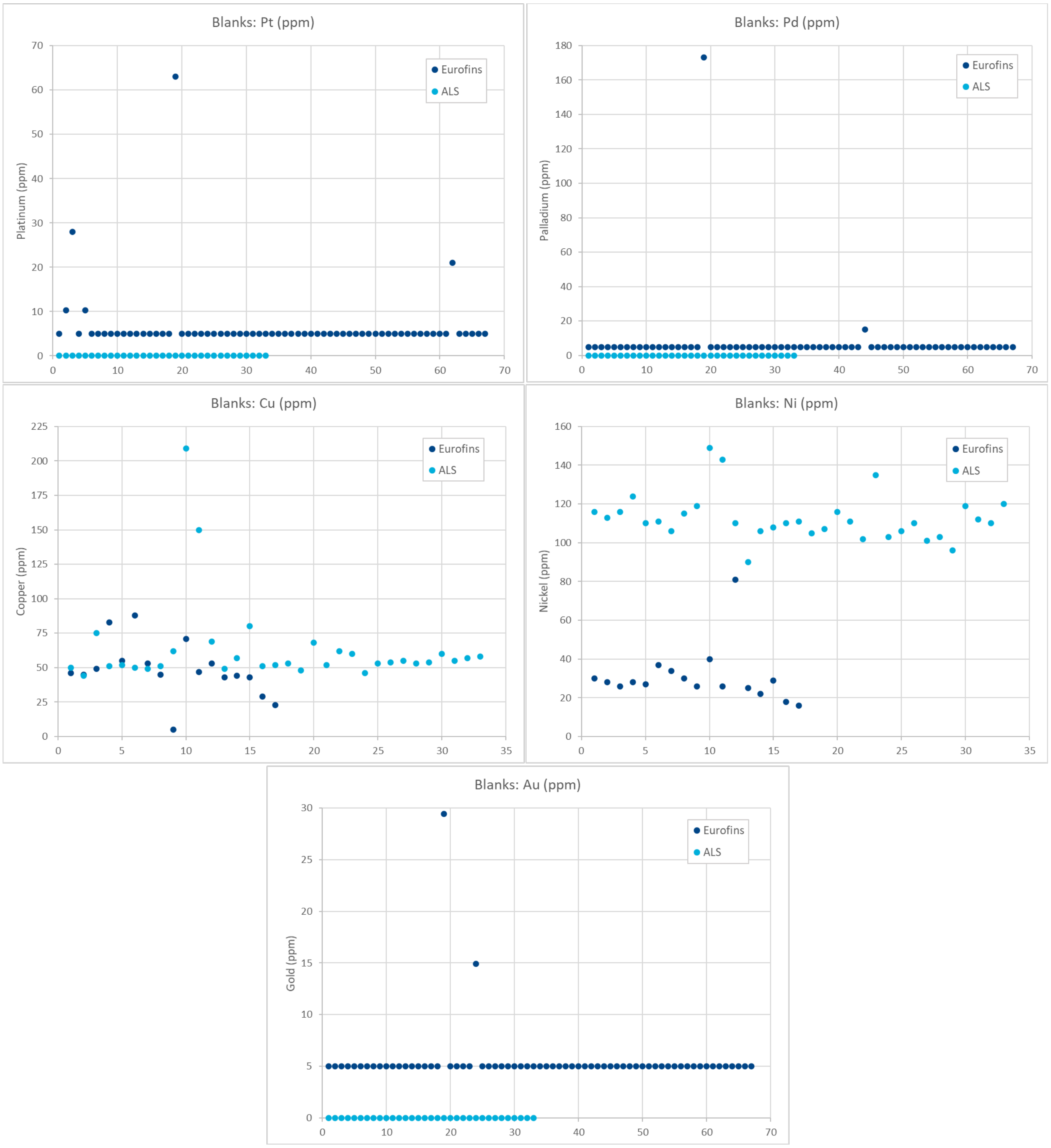


Figure 11-9: Historical Blanks Eurofins and ALS Results, Kaukua

Duplicates

The pulp duplicate sample pairs include 193 analyzed by Eurofins, as presented in Figure 11-10, and 159 analyzed by ALS, as presented in Figure 11-11. The results indicate very good performance for the Eurofins analysis and good overall performance for the ALS analysis. In both cases the results for Au were shown to be most variable. No clear biases are observed for either of the laboratories.

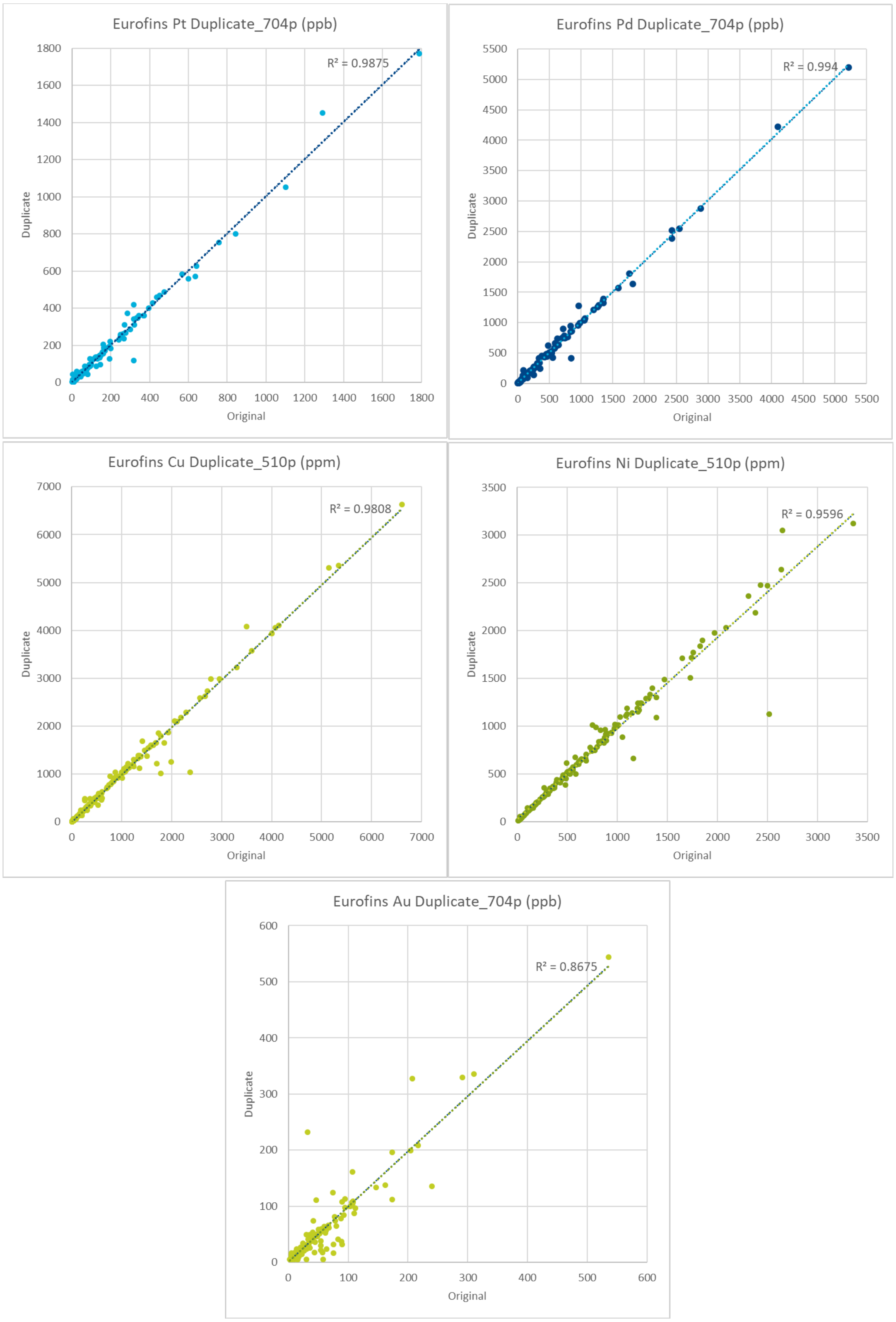


Figure 11-10: Historical Pulp Duplicate Eurofins Analysis, Kaukua

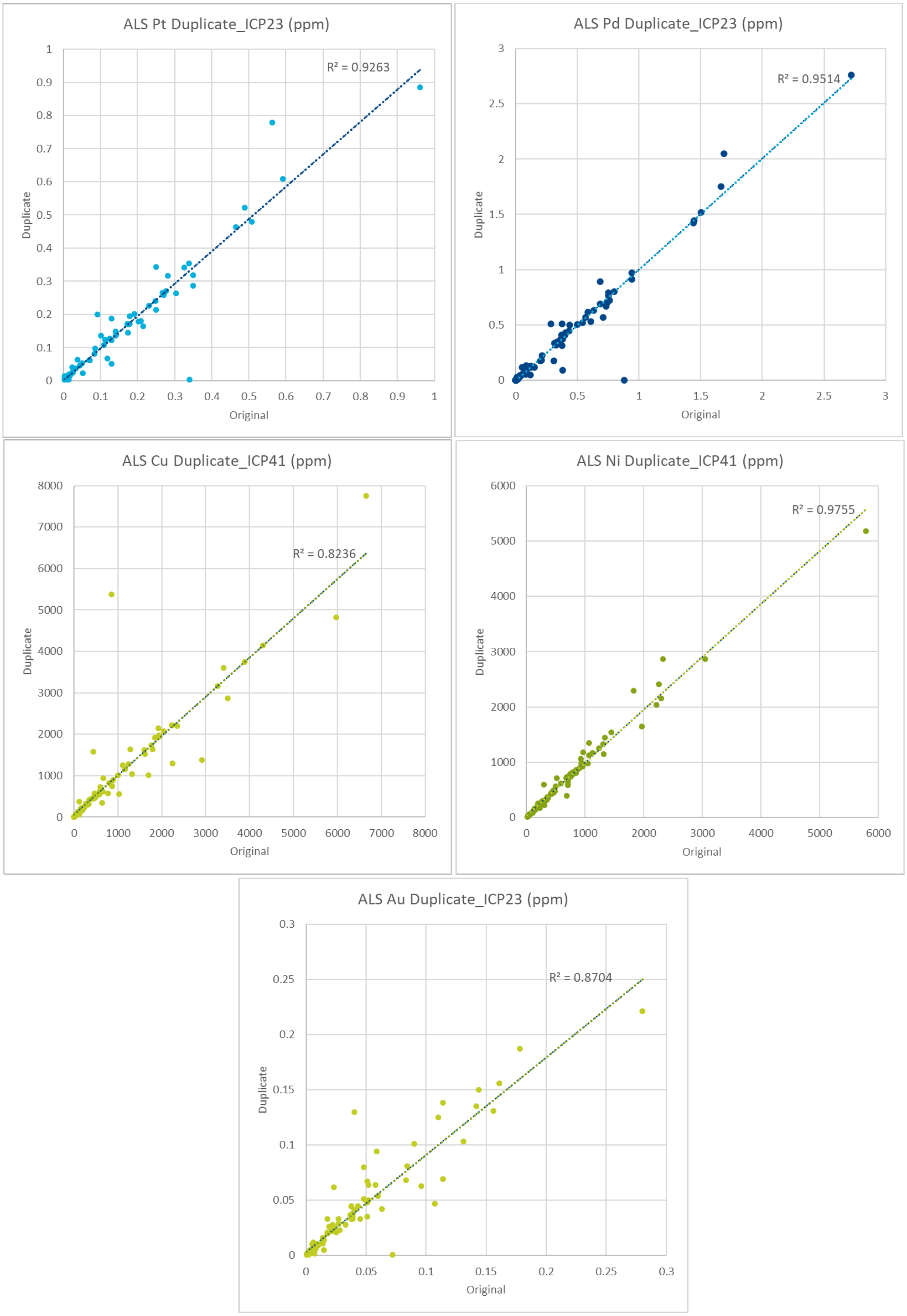


Figure 11-11: Historical Pulp Duplicate ALS Analysis, Kaukua

11.4.2 Palladium One QA/QC

The following subsections describe the QA/QC sampling protocols implemented by Palladium One, which is generally based on insertion rates of one control sample for every 10 core samples. Control samples and QA/QC procedures included:

- **CRMs**: were obtained by the Company from CDN Resources Laboratories Ltd. (CDN) of Langley, British Columbia, Canada, and included standards CDN-ME-9, ME-10, ME-1309, and ME-1310. A total of 578 standards were used, each 60 g in weight.
- **Blanks** comprised medium grained unaltered diabase/gabbro (locally referred to as "Sauna Rocks"), as historically used by Nortec Minerals Corp. and Finore, and commercially available in the region. A total of 589 blanks were used.
- **Duplicates** 578 duplicate pairs (1,156 samples) for comparison against the primary sample results. Samples were taken as coarse (crush) duplicates and inserted at an approximate 3% rate. No pulp or field (1/4 split) duplicates have been used.
- **Re-assaying** 836 samples were re-analyzed for Ni and Cu by ALS having been identified as falling above or below the 3D failure limits.
- **Check assaying**: two additional external laboratories (ActLabs and Eurofins) were commissioned by Palladium One to act as a check laboratory for the original results from ALS. In total, 543 samples including 35 CRMs were re-analyzed.

11.4.2.1 Certified Reference Material

Table 11-6 provides a summary of the CRMs used by Palladium One during the 2020/2021 drill programs.

Table 11-6: QA/QC CRMs (CDN)
Palladium One Mining Inc. – Läntinen Koillismaa Project

Standard	№ Samples	Expected Value	Certified 2SD	Certified 3SD	Laboratory Mean	№ Samples >3SD
			Palladium (ppm)[1]			
CDN-ME-1309	200	0.363	0.020	0.030	0.366	1
CDN-ME-10	74	0.603	0.046	0.069	0.608	0
CDN-ME-9	179	1.286	0.102	0.153	1.313	0
CDN-ME-1310	125	0.563	0.040	0.060	0.564	0
			Platinum (ppm)[1]			
CDN-ME-1309	200	0.707	0.056	0.084	0.720	1
CDN-ME-10	74	0.299	0.036	0.054	0.305	2
CDN-ME-9	179	0.664	0.058	0.087	0.670	3
CDN-ME-1310	125	0.433	0.038	0.057	0.443	1
			Gold (ppm)[1]			
CDN-ME-1309	200	0.113	0.024	0.036	0.117	14

Standard	№ Samples	Expected Value	Certified 2SD	Certified 3SD	Laboratory Mean	№ Samples >3SD
CDN-ME-10[2]	74	0.077	0.036	0.054	0.082	2
CDN-ME-9	179	0.154	0.042	0.063	0.152	3
CDN-ME-1310	125	0.063	0.016	0.024	0.065	4
			Copper (%)[3]			
CDN-ME-1309	200	0.519	0.041	0.062	0.549	4
CDN-ME-10	74	0.443	0.020	0.030	0.452	2
CDN-ME-9	179	0.654	0.036	0.054	0.671	0
CDN-ME-1310	125	0.276	0.022	0.033	0.288	0
			Nickel (%)[3]			
CDN-ME-1309	200	0.194	0.015	0.023	0.208	12
CDN-ME-10	74	0.428	0.024	0.036	0.432	1
CDN-ME-9	179	0.912	0.062	0.093	0.929	0
CDN-ME-1310	125	0.379	0.025	0.038	0.407	23

Notes:

1. Pd, Pt, and Au certified concentrations based on fire assay pre-concentration with atomic absorption (AA) or ICP finish.
2. Values for Au are provisional (ME-9, ME-1309, and ME-1310) or indicated (ME-10), with no laboratory recommended two standard deviations for ME-10 that have therefore been calculated.
3. Cu and Ni certified concentrations based on four-acid digestion with AA or ICP finish.

Figure 11-12 shows the results of the CRMs analyzed by ICP23 for Pd. Of the 578 results, only one sample (0.2%) was found to be beyond 3SD from the mean. The majority of analyzed results were found to fall within 2SD, indicating very good results.

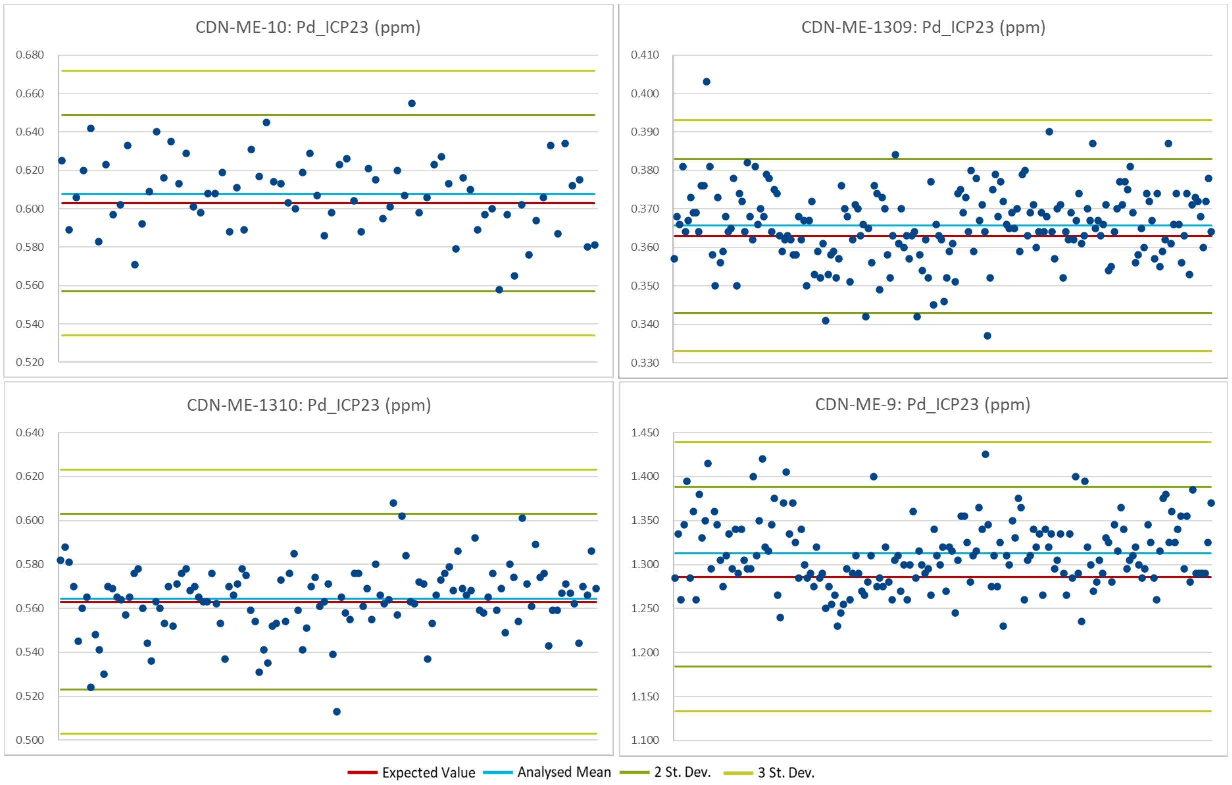


Figure 11-12: CRMs QA/QC Analysis: Palladium

Figure 11-13 shows the results of the CRMs analyzed by ICP23 for Pt. Of the 578 results, only seven samples (1.2%) were found to be beyond 3SD from the mean. As with Pd, the majority of analyzed results were found to fall within 2SD, indicating very good results.

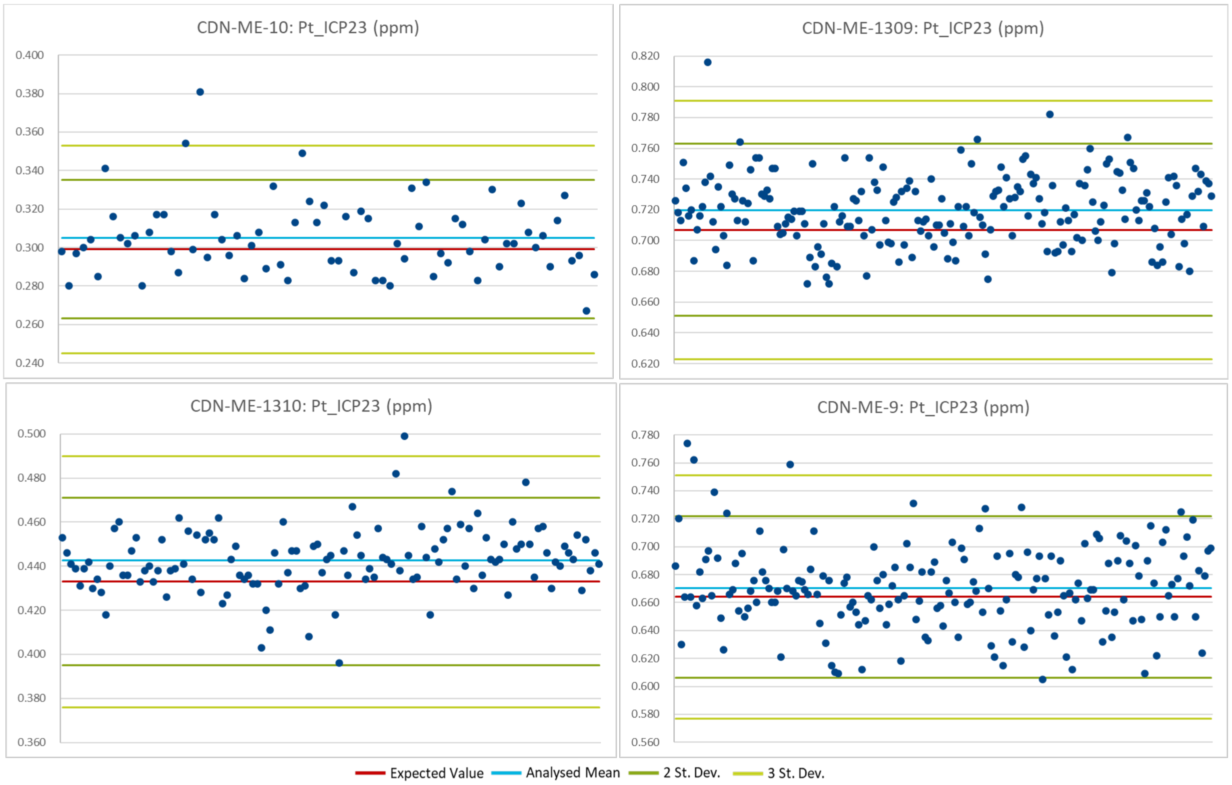


Figure 11-13: CRMs QA/QC Analysis: Platinum

Figure 11-14 shows the results of the CRMs analyzed by ICP23 for Au. Of the 578 results, 23 samples (4.0%) were found to be beyond 3SD from the mean. Results were generally found to fall within 2SD, with higher variability and the most failures above 3observed with CRMs ME-1309 and ME-1310.

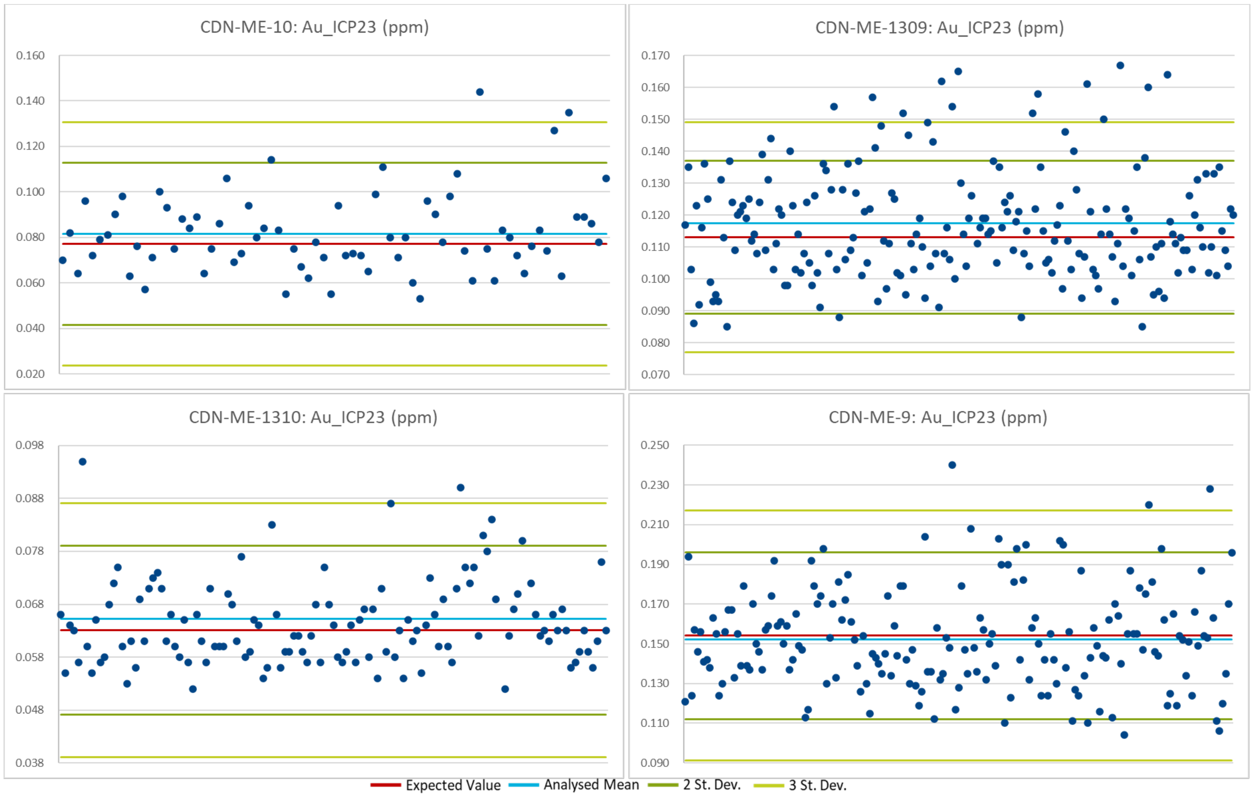


Figure 11-14: CRMs QA/QC Analysis: Gold

Figure 11-15 shows the results of the CRMs analyzed by ICP61 for Ni. Of the 578 results, 36 samples (6.2%) were found to be beyond 3SD from the mean.

Overall, Ni results indicate the most variability of the evaluated standards with the greatest proportion above the 3SD failure limit. Results for CRMs ME-1309 and ME-1310 show the most significant bias, with most samples testing above the expected laboratory mean. This was previously identified and reported on by Mining Plus (2021). On receipt of laboratory results, an internal laboratory investigation with ALS was conducted to understand the biases being observed, with findings reported by ALS in a report dated May 18, 2021 (ALS Global, 2021). As part of the investigations, ALS conducted re-assaying of the standards along with select surrounding samples to identify possible biases, to re-check analytical procedures, and determine differences (if any) in the performance of standards compared to real samples derived from core. Most real samples were shown to perform as expected and within the expected tolerance limits for the analytical procedure (ME-ICP61) with only a small number of samples showing a small negative bias estimated by ALS to be in the order of 1% to 2% and therefore still within the expected limits. Conversely, the performance of the re-assayed standards showed variable behaviour compared to ALS internal QC samples, which performed as expected.

It has been concluded that Ni behaves more variably in the standards – particularly in ME-1309 and ME-1310 – as a result of the proportion of Ni-silicate in the standard; the CRMs are made of a mixture of ore material from several different deposits which contain a mixture of silicate and sulphide Ni. It has been interpreted that the four-acid digest method used by ALS was more aggressive in dissolving silicate Ni and therefore produced a positive bias.

To support the investigation, two external laboratories were appointed to complete check assaying. These results are presented in Section 11.4.2.5 and, whilst they show variability in the CRMs, re-assayed samples show overall good performance. Both check laboratories used a four-acid digest method, however, it is interpreted that this did not perform as effectively against silicate Ni as that used by ALS, therefore, underreporting Ni concentrations.

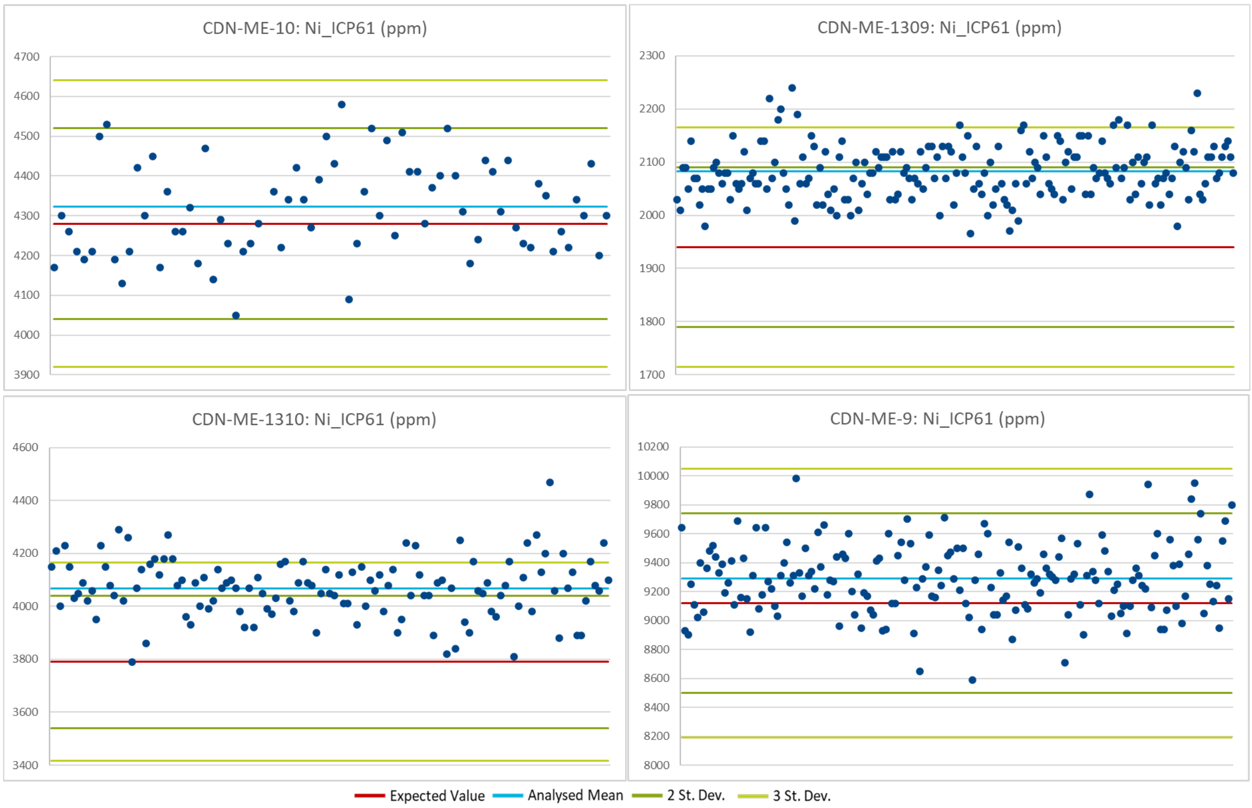


Figure 11-15: CRMs QA/QC Analysis: Nickel

Figure 11-16 shows the results of the CRMs analyzed by ICP61 for Cu. Of the 578 results, only six samples (1.0%) were found to be beyond 3SD from the mean. The results show that most samples tested above the expected laboratory mean but largely within 3SD, indicating good results albeit with a positive bias.

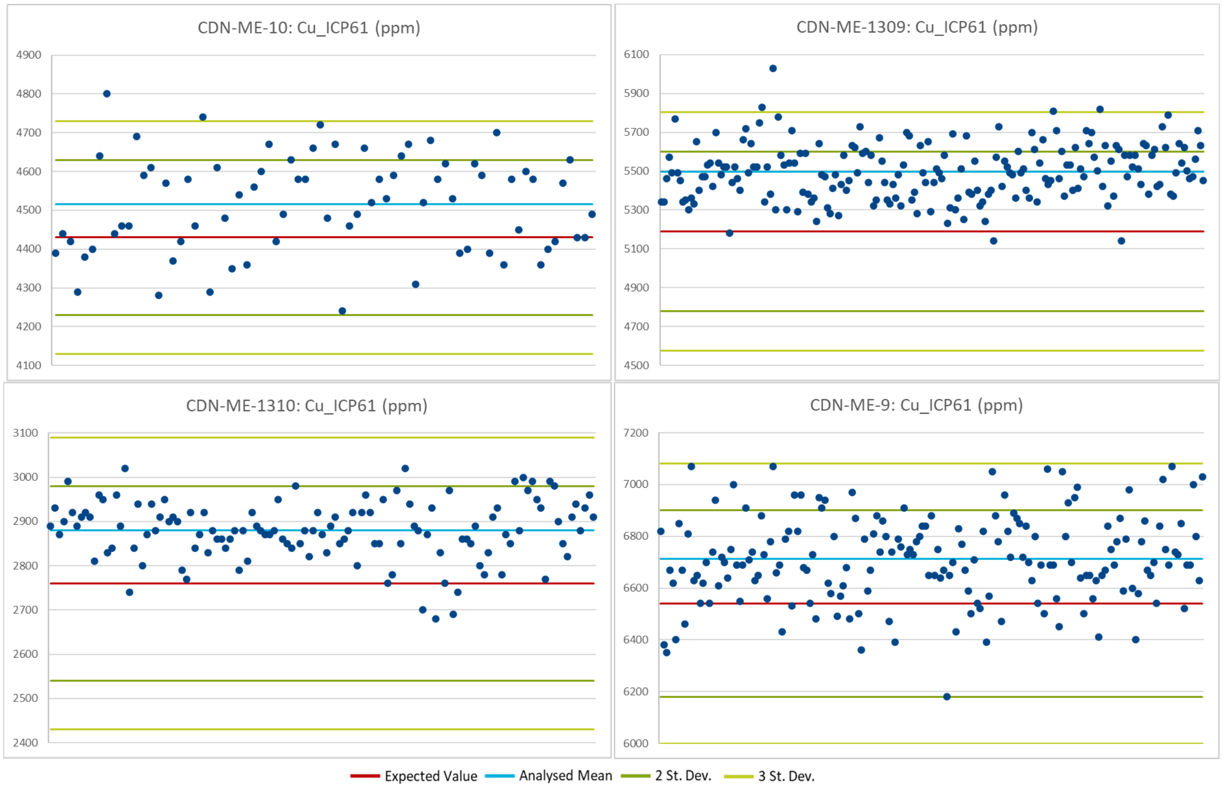


Figure 11-16: CRMs QA/QC Analysis: Copper

11.4.2.2 Blanks

A total of 589 blank samples were inserted into the Phase I and Phase II drilling programs by Palladium One, the results of which are presented in Figure 11-17. The results of ME-ICP23 analysis for Pd, Pt, and Au demonstrate very low or below detection limit contamination in all cases. The results of ME-ICP61 analysis for Ni and Cu show a broader spread of results whilst still being deemed sufficient to pass quality control.

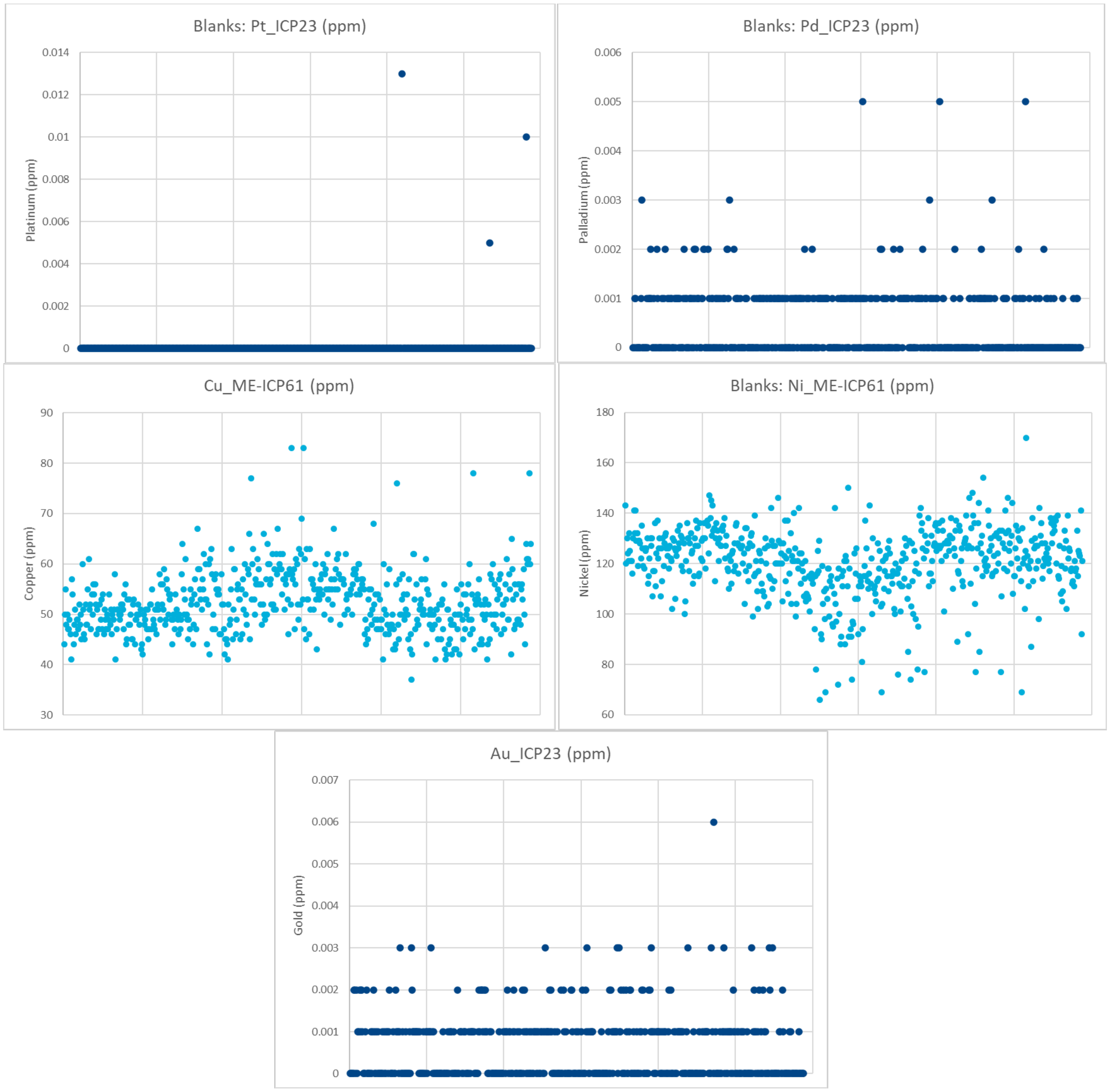


Figure 11-17: Blank QA/QC Analysis

11.4.2.3 Duplicates

Palladium One analyzed a total of 578 coarse/crushed duplicate pairs (1,156 samples) for comparison against the primary sample results. Results are presented in Figure 11-18.

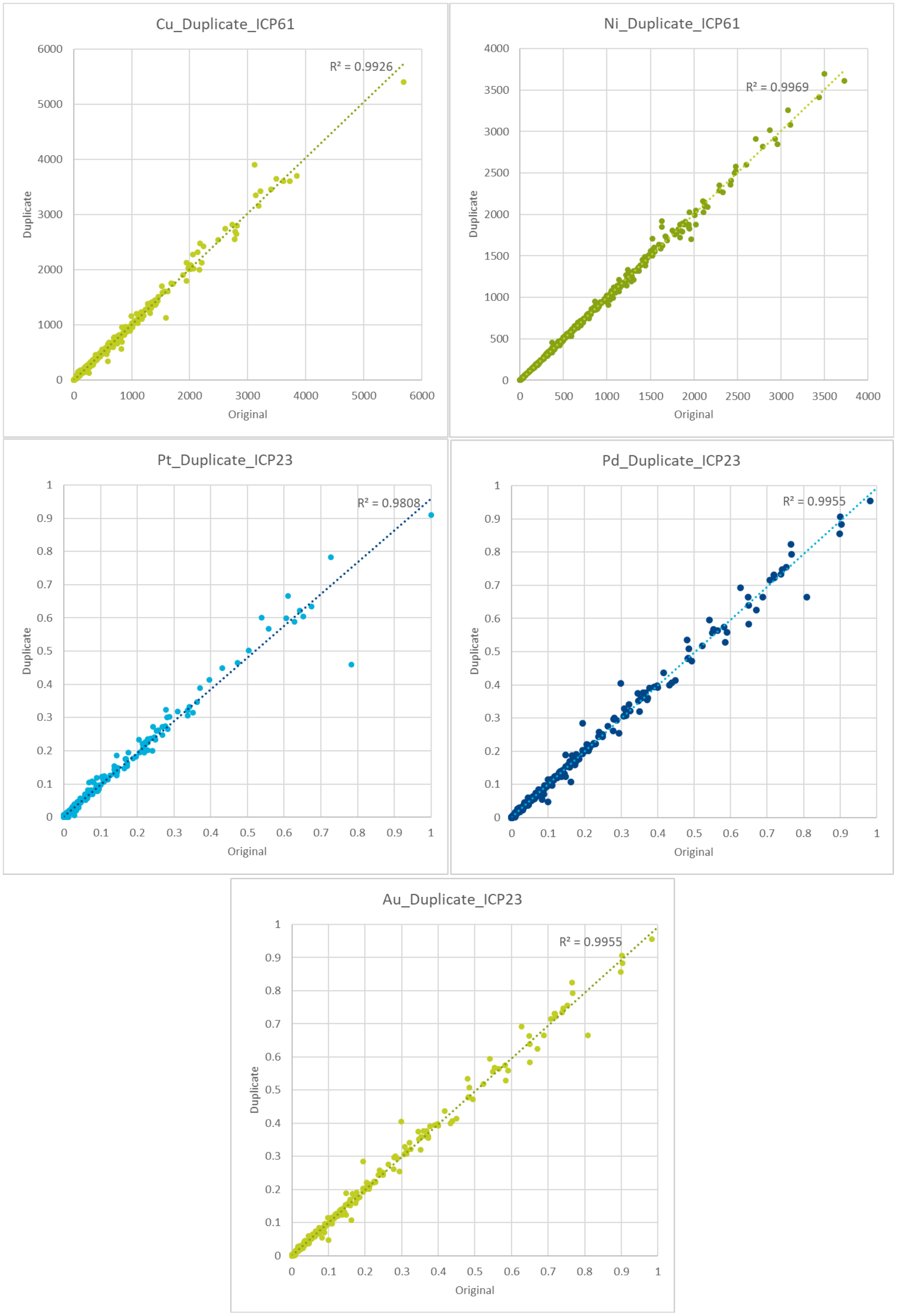


Figure 11-18: Duplicate QA/QC Analysis

11.4.2.4 Re-Assaying

Following the initial analysis of CRMs and the identification of potential biases in Ni and Cu results (as identified in Section 11.4.2.1), a total of 836 samples were re-analyzed for Ni and Cu by ALS. The re-analyzed results show good repeatability for both Cu and Ni, as illustrated in Figure 11-19, suggesting that although CRMs behave variably in comparison to the expected results, the sample intervals obtained from the LK Project behave consistently with only negligible differences between original and re-assayed results.

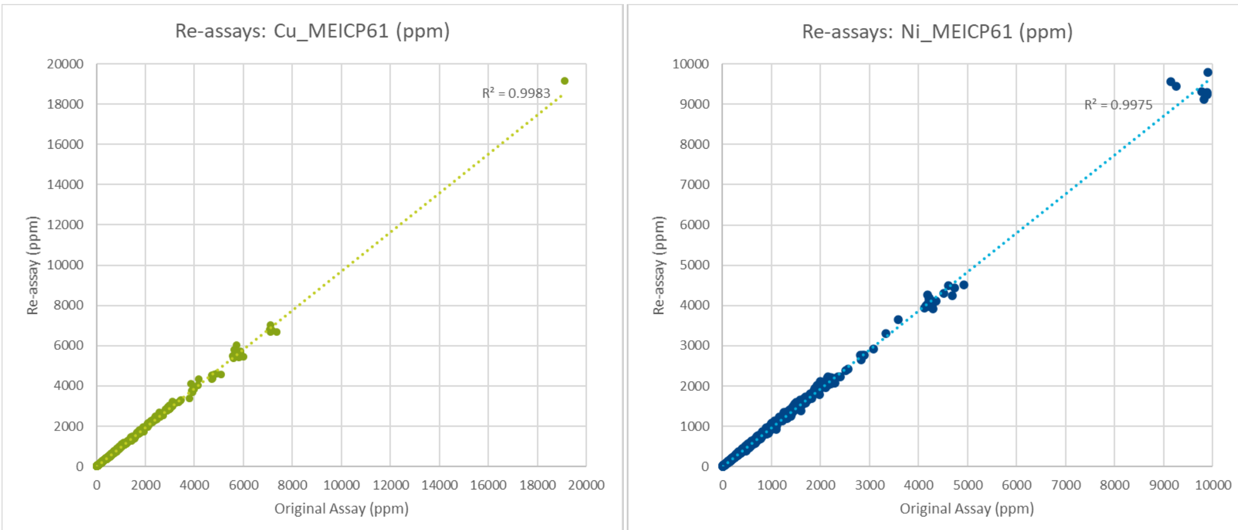


Figure 11-19: Re-Assaying Analysis for Copper and Nickel

11.4.2.5 Check Assays

Two additional external laboratories were commissioned by Palladium One to act as a check laboratory for the original results from ALS, including Eurofins in Sodankylä, Finland, and ActLabs in Thunder Bay, Ontario, Canada.

Eurofins

In total, 36 pulp samples including 12 CRMs were sent for re-analysis at the Eurofins laboratory in Finland. Samples were re-analyzed by four-acid digestion multi-element by ICP-OES, and a 25 g sub-sample PbO fire assay for Au, Pd, and Pt by ICP-OES. Results for Cu, Ni, Pt, and Pd, as presented in Figure 11-20, indicate strong correlation against the original ALS results with Cu and Ni generally being underrepresented in the Eurofins results. As discussed in Section 11.4.2.1, this has been attributed to the more variable behaviour of CRMs in comparison to original samples, and a more effective four-acid digest method used by ALS.

Results for Au show a greater dispersion albeit with a reasonable correlation to ALS results. There was overall an overrepresentation of Au grade compared to ALS.

CRM results are presented in a subsequent section.

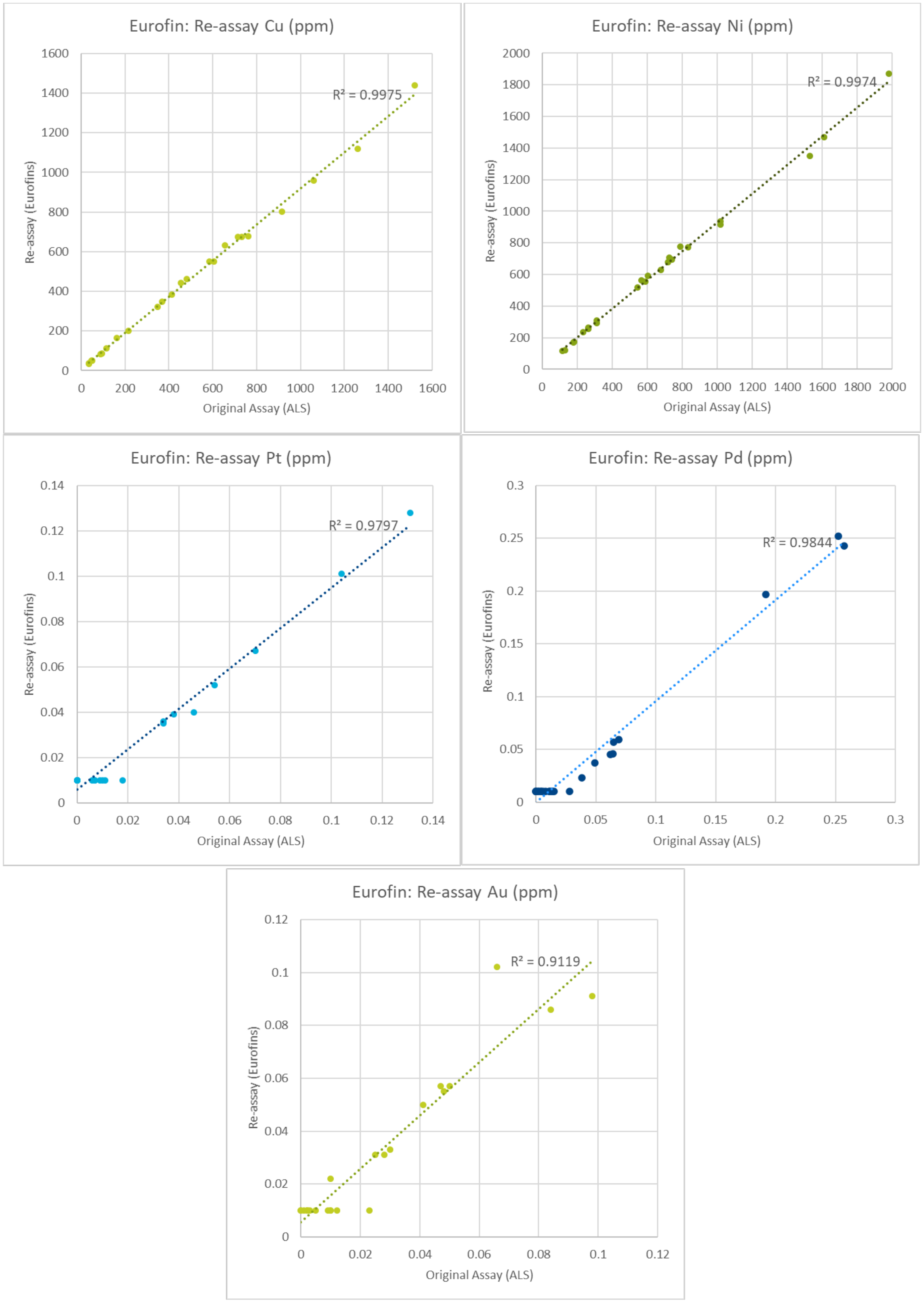


Figure 11-20: Eurofins Pulp Sample Checks of Original ALS Results

ActLabs

A total of 656 pulp samples, including 29 CRMs, were re-analyzed by ActLabs in Canada. Samples were analyzed using ICP-OES, four-acid multi-element (total digestion ICP-OES), and fire assay ICP-OES for PGMs.

Results for Pt, Pd, Cu, and Ni show that the re-analyzed results closely correlate to the original ALS results with most Pt and Pd outliers being underrepresented by the ActLabs results, as illustrated in Figure 11-21. Results for Cu indicated showed strong correlation to the ALS results with the exception of one significant outlier, while results for Ni show increasing dispersion at higher grades. In comparison, results for Au indicate a lower degree of correlation to the original ALS results.

Blank sample results, of which 22 were included in the 656 samples, were reviewed by SLR and deemed to return low or negligible concentrations as expected.

CRM results are presented in the subsequent section together with the CRM standards from Eurofins.

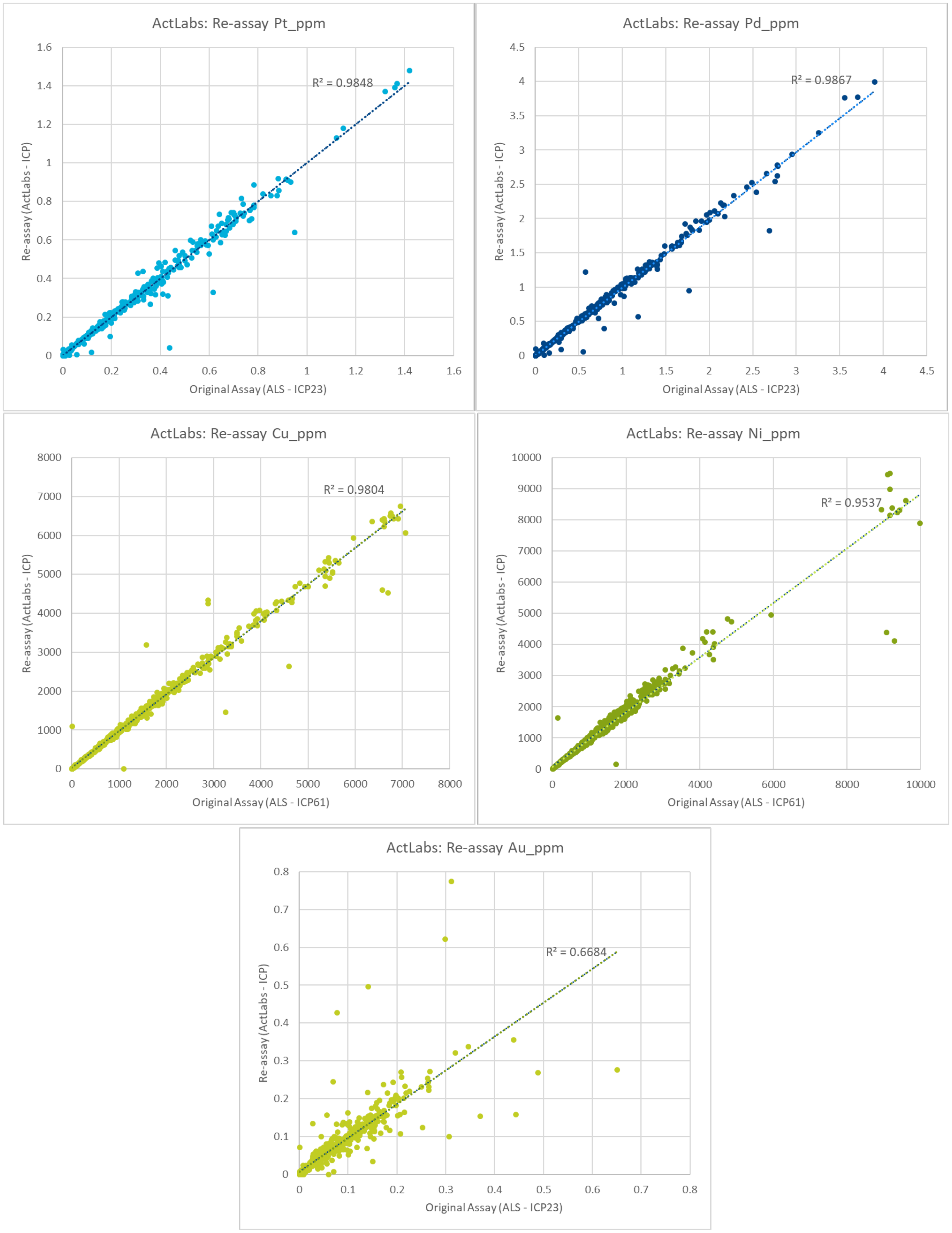


Figure 11-21: ActLabs Pulp Sample Checks of Original ALS Results

Eurofins and ActLabs Certified Reference Material

As part of the external check laboratory analysis conducted by Palladium One, a total of 12 CRMs were analyzed at Eurofins and a further 29 CRMs were analyzed at ActLabs. The results are shown in Figure 11-22 (CDN-ME-1309), Figure 11-23 (CDN-ME-10), and Figure 11-24 (CDN-ME-9). Only two CRMs for CDN-ME-1310 were re-analyzed and have therefore not been graphically presented.

For CRM CDN-ME-1309 the results generally fall within 2SD, and none exceeded the laboratory recommended 3SD limit. CDN-ME-10 performed less consistently with four results exceeding the 3SD limit although the remaining results show good results. For CDN-ME-9, most results fall within the expected 2SD range with only three exceeding the 3SD limit.

Reviewing the results for Ni and Cu – in particular for ME-1309 – the differences between CRM performance at ALS versus Eurofins or ActLabs can be observed whereby ALS typically returns higher concentrations.

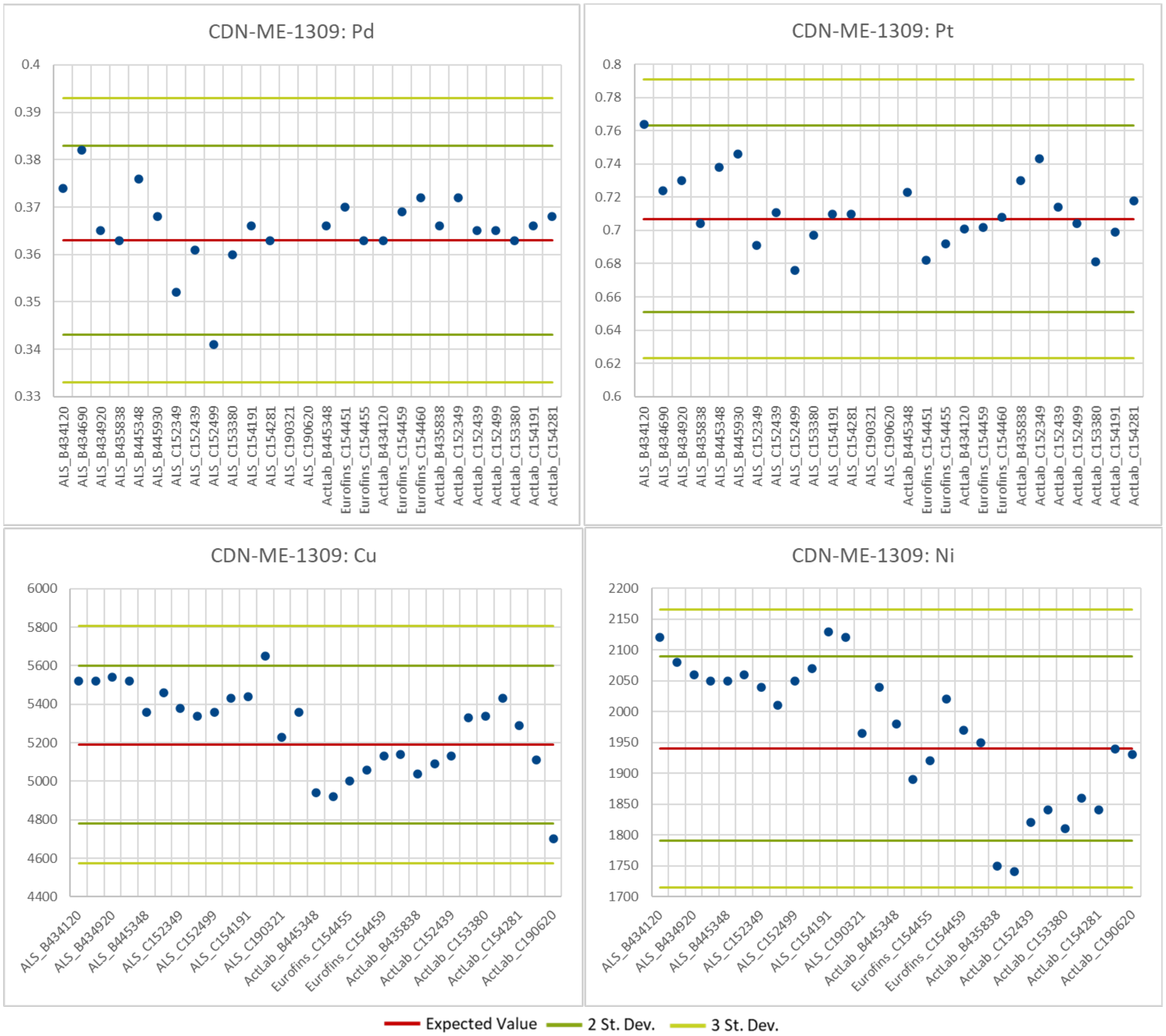


Figure 11-22: CDN-ME-1309 CRMs for Select ALS, ActLabs, and Eurofins Results (Pd, Pt, Cu, and Ni)

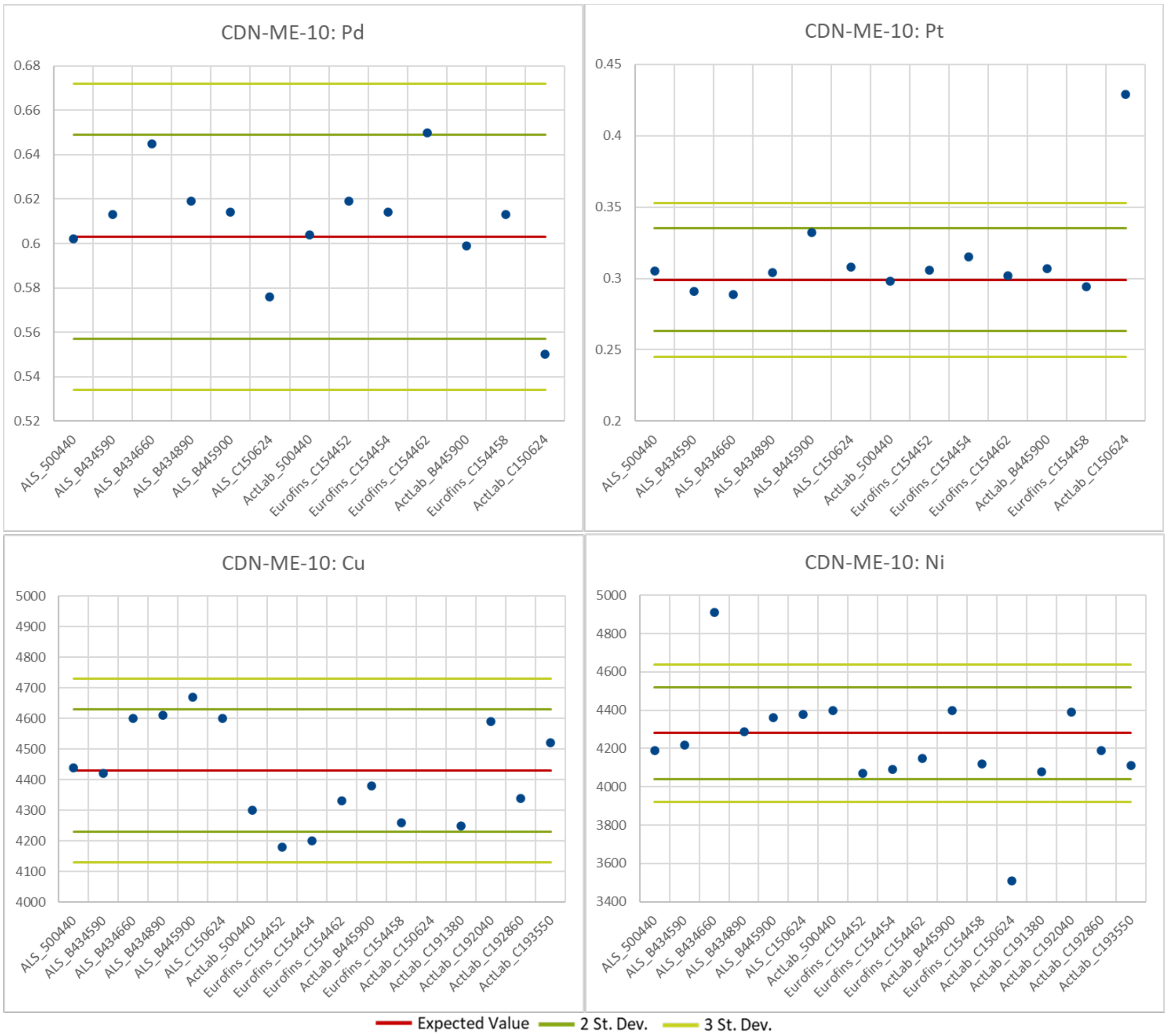


Figure 11-23: CDN-ME-10 CRMs for Select ALS, ActLabs, and Eurofins Results (Pd, Pt, Cu, and Ni)

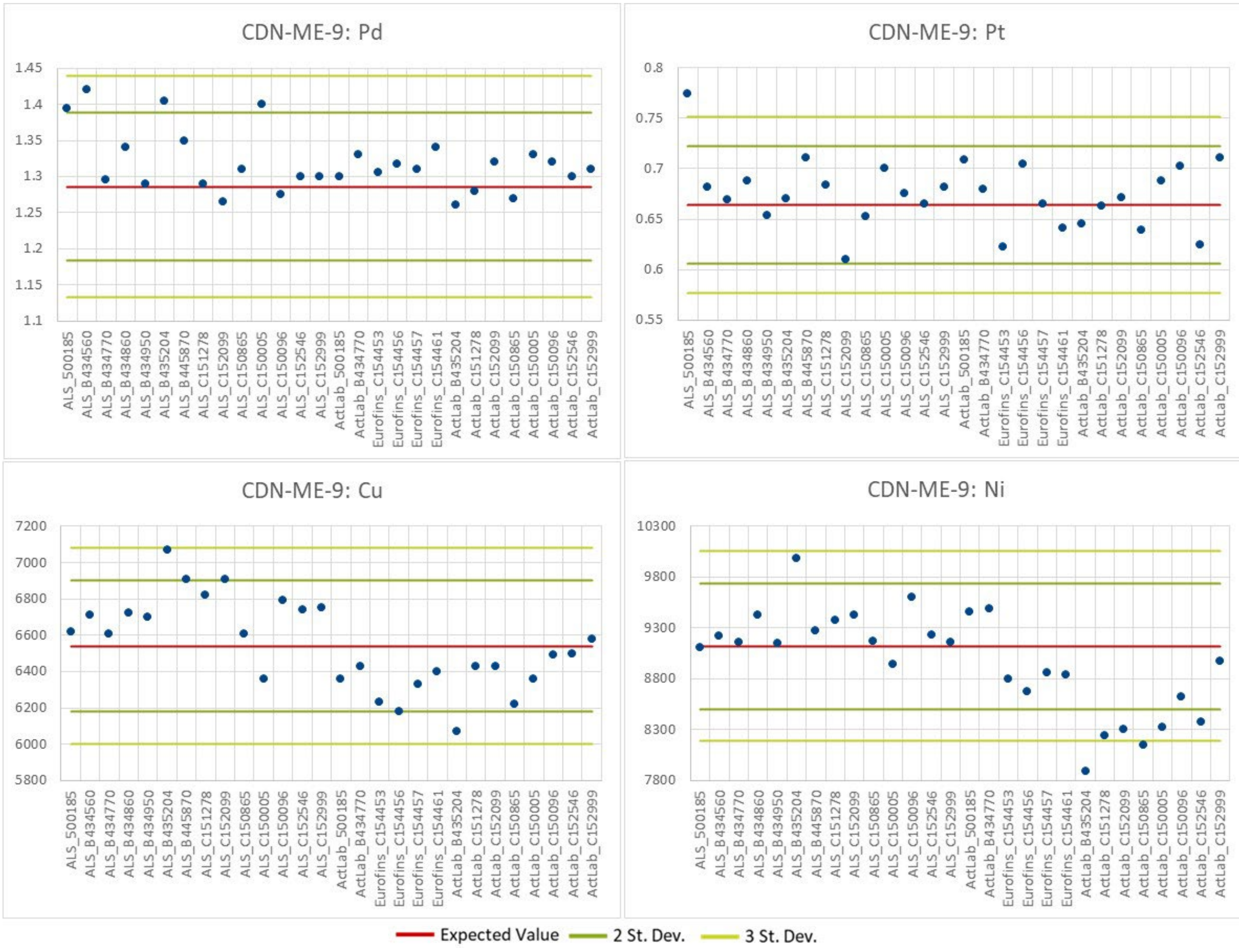


Figure 11-24: CDN-ME-9 CRMs for Select ALS, ActLabs, and Eurofins Results (Pd, Pt, Cu, and Ni)

11.4.2.6 Palladium One Re-Sampling

In addition to the review of historical and Palladium One QA/QC results, historical core was also re-sampled by Palladium One in 2019 and 2020. Results allow samples originally analyzed by aqua regia to be compared to re-assaying by four-acid digestion. Check assaying was based on quarter core samples taken from drill holes in both Haukiaho and Kaukua, prepared and analyzed by ALS:

- 28 samples from Haukiaho drill holes including HAU12-018 and HAU12-025 drilled in 2012.
- 105 samples from four Kaukua drill holes including two from 2008 (KAU08-012 and KAU08-037) and two from 2012 (KAU12-054 and KAU12-056).

Haukiaho

Overall, check assay results from 2020 correlate well against the original sample results obtained in 2012. Results for Pt, Pd, Cu, and Ni generally show lower variability at lower concentrations, and a few outliers at higher concentrations. Au has the most variability overall including at lower concentrations. Ni is observed as having a clear positive bias towards the re-assayed (ALS) samples, with Pt and Pd also showing slight biases towards the re-assays.

This has been principally attributed to the development of analytical methods between 2012 and 2020, and the difference in digest method from aqua regia in 2012 to the more aggressive four-acid method in 2020. Other differences in re-assayed results may also be attributed to the sampling method (i.e., relying on quarter core only for re-assaying), and the natural variability of mineralization on the Property (i.e., nugget effect).

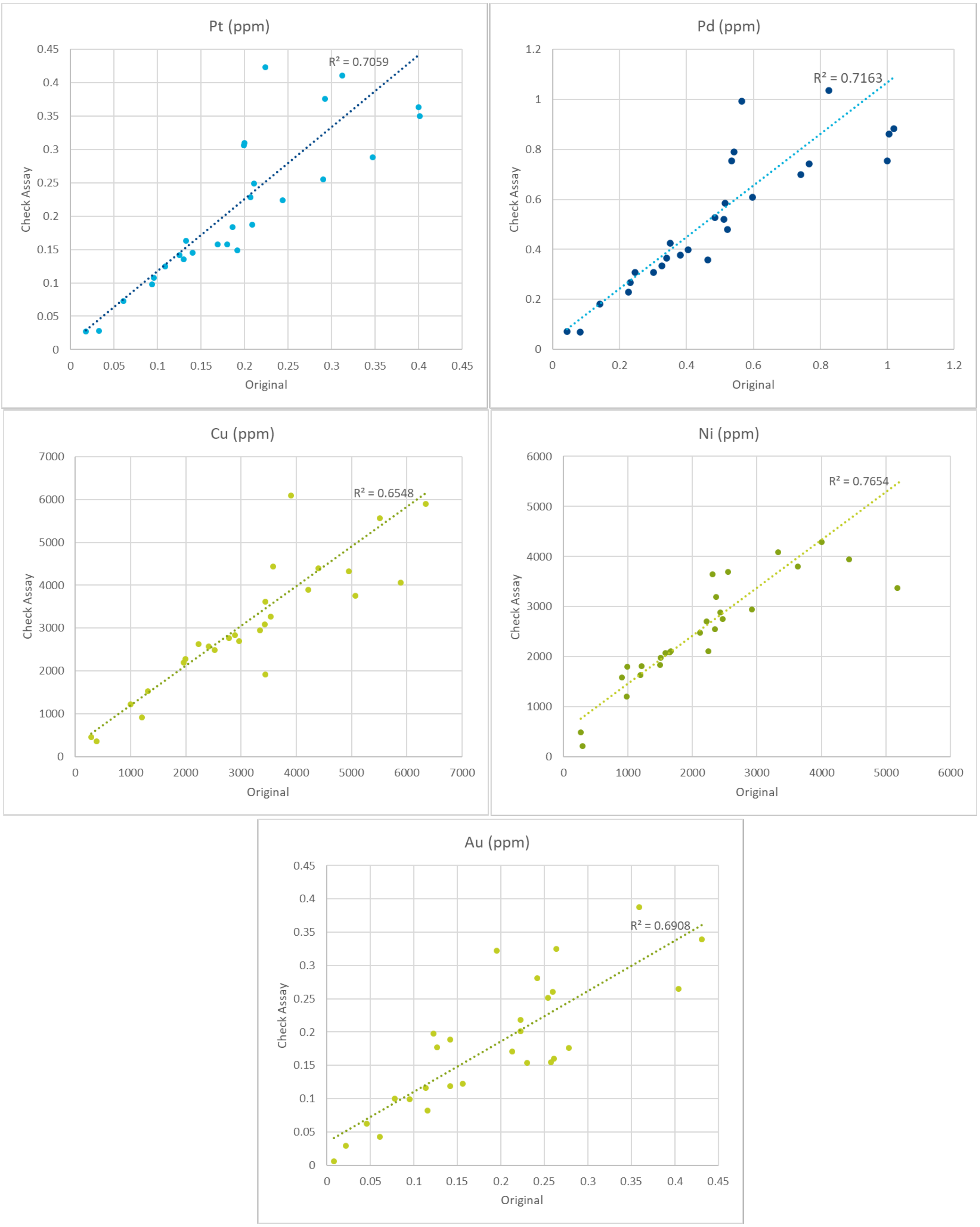


Figure 11-25: Haukiaho Check Assay Results

Kaukua

Figure 11-26 illustrates the results of check sampling completed at Kaukua. Overall, check sampling for Pd and Pt performed well with no clear bias observed between results. Ni results indicate a slight bias towards the original assays. This behaviour is more evident in Cu and Au results which show a strong bias towards the original assays and a high degree of variability. These differences are not explained by the analytical method, and may also be attributed to the sampling method (i.e., relying on quarter core only for re-assaying), and the natural variability of mineralization on the Property (i.e., nugget effect).

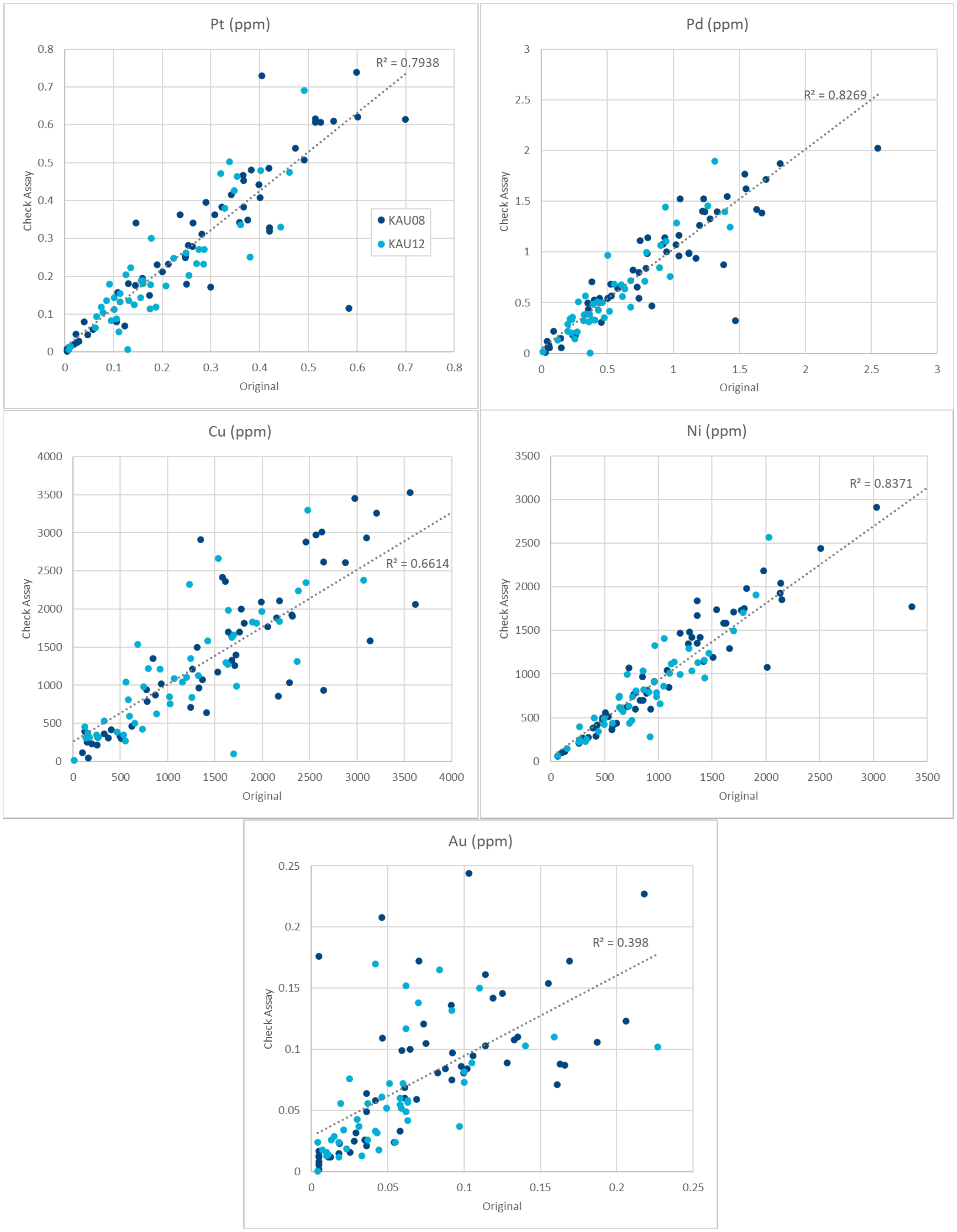


Figure 11-26: Kaukua Check Assay Results

11.4.3 Conclusions

In summary, with respect to the QA/QC results for the LK Project, SLR offers the following conclusions and recommendations:

- In the QP's opinion, the QA/QC program as designed and implemented by Palladium One is adequate and the assay results within the database are suitable for use in a Mineral Resource estimate.
- The historical QA/QC program generally performed as expected, however, biases observed within Ni and Cu assay results for CRM samples prompted the cessation of AMIS CRMs for more recent Palladium One analytical programs. Despite the overall low failure rates of CRM samples historically, SLR supports the use of alternative CRMs for the 2020-2021 program.
- CRM samples used by Palladium One from 2020 have also been found to perform well except for Ni and Cu assays; biases observed in 2020 prompted an internal investigation between Palladium One and ALS. This investigation included duplicating original and CRM sample assaying by ALS and two check laboratories, concluding that while duplicate analysis indicated overall good performance, two CRMs consistently performed more erratically at ALS. Possible explanations for this include the varying proportions of Ni-silicate in the CRM material, and a more effective four-acid digest method used by ALS.
    - From this conclusion, SLR recommends that CRMs be re-evaluated, and alternative standards used for any future analytical programs. Future CRMs should be representative of the anticipated metallurgical processing methodology. This is of higher importance to Ni and Cu that have both performed inconsistently.
- With respect to Ni concentrations, observed biases have in part been attributed to a portion of Ni at the Project occurring as Ni silicate. On the basis that historical assay data is in some cases based on the results from aqua regia digestion, instead of a more effective four-acid digestion, SLR is of the opinion that aqua regia results may underreport recoverable Ni. While the overall effect of this is expected to be low, SLR recommends re-assaying using four-acid digestion in key areas of the deposit during future analytical programs. This is discussed in more detail in Section 12.3.
- Duplicate QA/QC samples are based on coarse material. SLR would expect coarse duplicates to perform differently to field and pulp duplicates and therefore recommends that future QA/QC programs implemented by Palladium One include equal proportions of coarse, field, and pulp duplicate types.

12.0 DATA VERIFICATION

12.1 Previous Data Verification

For preparation of the previous Technical Reports for the Kaukua and Haukiaho deposits by Mining Plus, (2021), data validation checks included the following:

- Site visits to inspect exploration work on the Project, core handling, storage, and sample preparation procedures, and to verify data collection and geological interpretations. Several visits were undertaken by Mining Plus in 2019 and 2020 to Kaukua, and another in July 2021 to Haukiaho.
- At Kaukua, approximately 30% of the assay and QA/QC sample results in the drill hole database were checked against the original laboratory assay certificates with no discrepancies identified. 100% of Kaukua drilling data from 2012 was also validated using Python software.
- At Haukiaho, three of a total 16 holes were selected for data verification. The original laboratory assay certificates were compared against the assay results within the drill hole database prepared by Palladium One with no discrepancies identified.
- Drill hole collars locations (using a hand-held GPS device) were compared to the drill hole database and compared to topographic surfaces. All checked collar locations were found to be accurate.
- Downhole surveys were checked for deviations.
- Random assays were checked between the original laboratory assay certificate sheet and the drill hole database, including within GTK, NAN 2001, and 2011-2012 Finore exploration drill holes, with no errors detected.
- Drill hole names and surveys were checked.
- Bias between drill holes from different drilling campaigns and grade bias in areas of poor core recovery were checked and no issues reported.
- Sample intervals were checked for conflicts such as overlapping intervals.

Based on the data validation checks performed, the QP is of the opinion that the data is of sufficient quality for resource estimation.

12.2 Collar Coordinates

During the site visit conducted by Sean Horan, SLR QP, in November 2021, collar coordinates for 11 drill holes were re-surveyed using a handheld GPS device for the purposes of data validation, representing approximately 3% of the Company’s resource drill hole database for the Project. The GPS coordinates collected by SLR were compared against those in the drill hole database used for geological modelling, the results of which are illustrated in Figure 12-1.

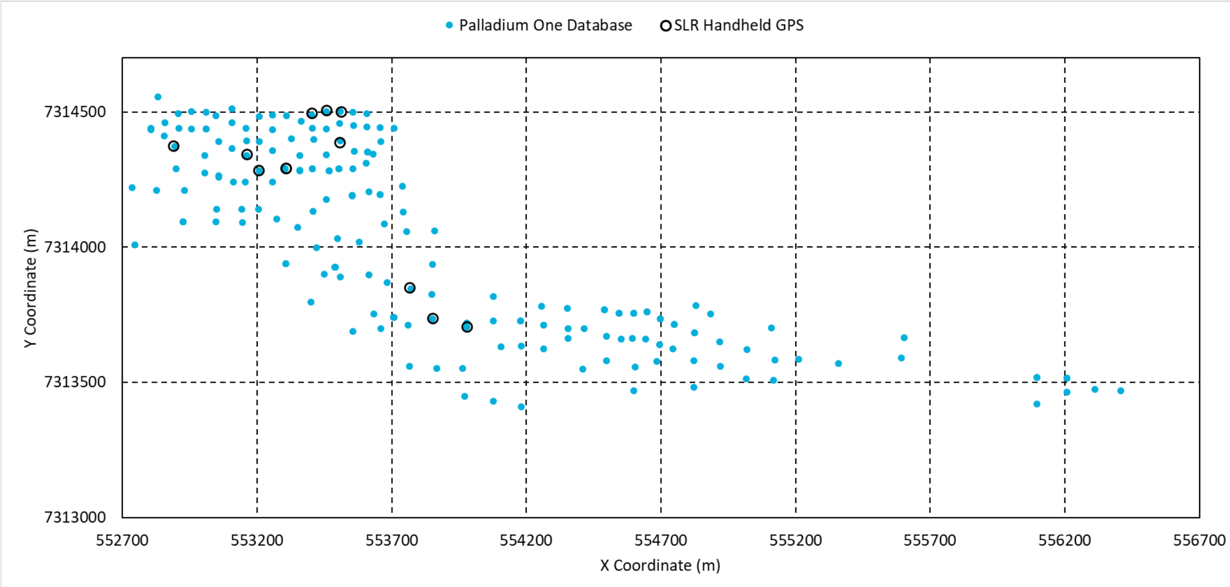


Figure 12-1: SLR Collar Coordinate Validation

The comparisons demonstrate sufficient reliability with regards to the collar coordinate positions used.

12.3 Analytical Results

12.3.1 Certificate checks

SLR was provided with laboratory assay certificates by ALS in electronic (.XLSX) file format to enable cross-checks against the drill hole database used for grade interpolation. In total, SLR was provided assay certificates from 122 drill holes from Palladium One's 2020-2021 drill program from LK20-001 to LK21-137, in addition to two 2012 drill holes (KAU12-054 and 062) from which SLR compared approximately 14,000 sample results against the geological model drill hole database.

No material discrepancies were observed in assay results for Au, Pd, or Pt. Only minor discrepancies were identified for Co, Cu, and Ni assay results (<5%) although through consultation with Palladium One these have been attributed to re-analysed intervals whereby the re-analysed results have been inserted into the drill hole database as the primary sample, which has a different original certificate number.

12.3.2 Recoverable Nickel

Based on metallurgical studies commissioned by Palladium One, base metal concentrations within the LK Project deposits have been identified almost exclusively within sulphide minerals, including pyrrhotite, chalcopyrite, pentlandite, and pyrite, all of which are amenable to sulphide flotation. However, Ni within the deposits is known to be distributed in both sulphides and mafic silicates (such as olivine, pyroxene, chlorite, serpentine, and amphibole), with only the sulphides considered to be recoverable into the processed concentrate.

Investigations into the proportion of Ni as sulphide versus silicates has been undertaken historically and continues to be refined by Palladium One. During exploration by Finore, ALS and Eurofins laboratories primarily used aqua regia digest methods ME-ICP41 and +510P, respectively, as described in Section

11.3.1. In 2012, Finore also completed sulphide-specific multi-element analysis by ICP-AES (240P) for base metal sulphides (Ni, Cu, and Co) which were compared to multi-element aqua regia digest results.

SLR compared the results of 67 samples analyzed by Eurofins using 240P and +510P methods, illustrated in Figure 12-2. The difference in concentrations between the two methods are an indication of the amount of Ni in sulphides. The 45° (or 1:1 ratio) line represents Ni present as sulphide. Assay results from the 240P analysis indicated Ni silicate was present in all samples, demonstrated by the samples plotting above the 1:1 ratio line.

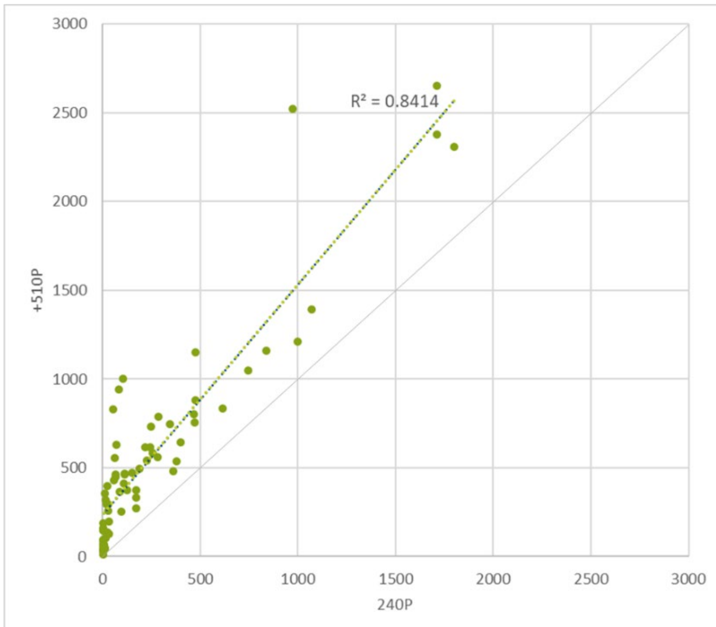


Figure 12-2: Partial Nickel Assays versus Sulphide-Specific Assays

It has previously been reported that between 100 ppm and 600 ppm of Ni occurs as silicate (WGM, 2012). Similar analysis (Mining Plus, 2021, and Iljina et al, 2011 and 2012) concluded that unrecoverable Ni as silicate ranged from 0.01% to 0.06% in Kaukua assays.

It should be noted that recoveries used in the NSR calculation discussed in Section 14.0 are based on metallurgical test work recently performed by Palladium One and discussed in Section 13.0. The head grade for Ni was determined based on a four-acid digestion assay technique and, as discussed in Section 11.0, was more successful at detecting both the sulphide and silicate Ni portions. Since the NSR calculation uses a variable recovery which assumes total Ni content, where a portion of the total Ni is silicate Ni, the Ni recovery for assays using aqua regia is likely too low. While SLR tested the impact and is of the opinion that it is not material, there is an opportunity to add some additional value from the Ni concentrate by re-sampling the drill holes assayed using aqua regia. SLR recommends selecting drill holes assayed using aqua regia in and around the current conceptual pits and re-assaying using four-acid digestion.

12.3.3 Kaukua Historical Data Errors

During evaluation of historical QA/QC results, specifically investigations into the observed bias in Ni due to different analytical digest methods as discussed in Section 11.4.2, errors in original historic data compilation for Kaukua have been identified. These errors exist where the highest assay values returned have been adopted, irrespective of the analytical method, i.e., four-acid digest versus aqua regia.

These errors are known to affect 300 of the total approximate 18,000 samples and, therefore, represent a relatively small proportion overall (< 2%), grouped into two error types:

1. KAU08-011 to KAU12-071 from 2012 drilling: Cu and Ni values in 250 samples were affected where the highest assay result between aqua regia and citrine peroxide leach (an alternative partial leach method) were substituted into the ICP data. No PGM values were affected.
2. M354499R386, M354499R387, M354499R387, M354499R388, and M3544R89 from 1999 drilling: Au (eight samples), Pd (32 errors), and Pt (46 errors) were affected where the highest PGE value was selected between aqua regia and primary fire assay data.

Errors were found to be distributed across numerous drill holes, with the highest proportion of errors found to be in drill holes KAU12-063 to KAU12-071.

The overall impact of the errors has been investigated by Palladium One, and the results reviewed by SLR.

Figure 12-3 illustrates a comparison of Cu assay results using the two different analytical methods (aqua regia ICP versus citrine peroxide Na H_2O_2). Overall, four samples were found to show a difference of 15% compared to the alternative analytical method, with all others showing no material difference. Given the discrepancies observed and the small relative number of samples in the dataset, SLR is satisfied that the errors will have a negligible impact on the overall database.

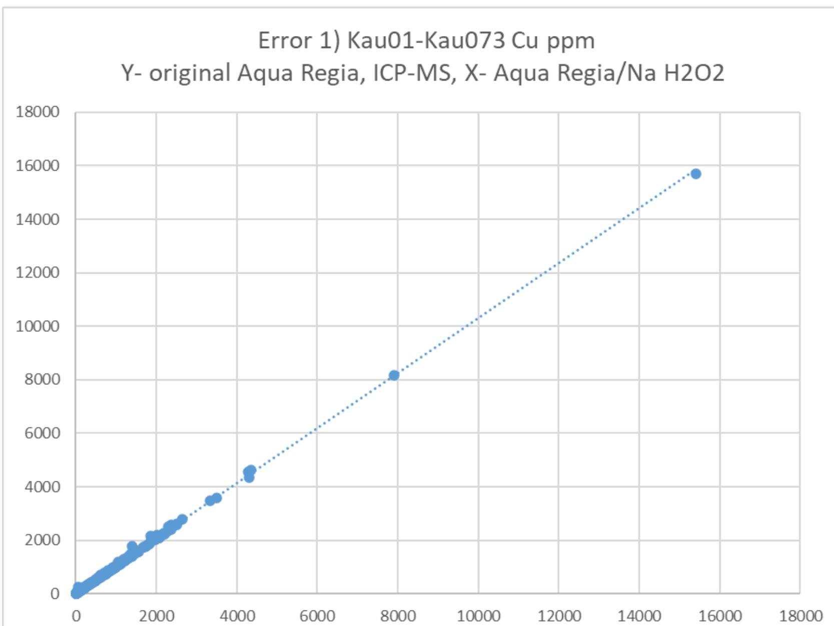


Figure 12-3: KAU12 Cu Errors

Figure 12-4 similarly illustrates a comparison of Au, Pd, and Pt results using the two different analytical methods (aqua regia ICP versus four acid ICP) from which the following conclusions have been made:

- Au: 8 sample errors with one significant outlier returning a result above 1 ppm occurring in a shallow drill hole considered beyond the limits of the resource. Other results show a good correlation considering Au is known to demonstrate more varied results at lower concentrations.

- Pd: 32 sample errors with the majority demonstrating good correlation between analytical methods. Most errors have less than 15% discrepancies, with two outliers having a discrepancy greater than 15%.
- Pt: 46 sample errors showing a wider distribution particularly at higher concentrations. Two significant outliers have been identified.

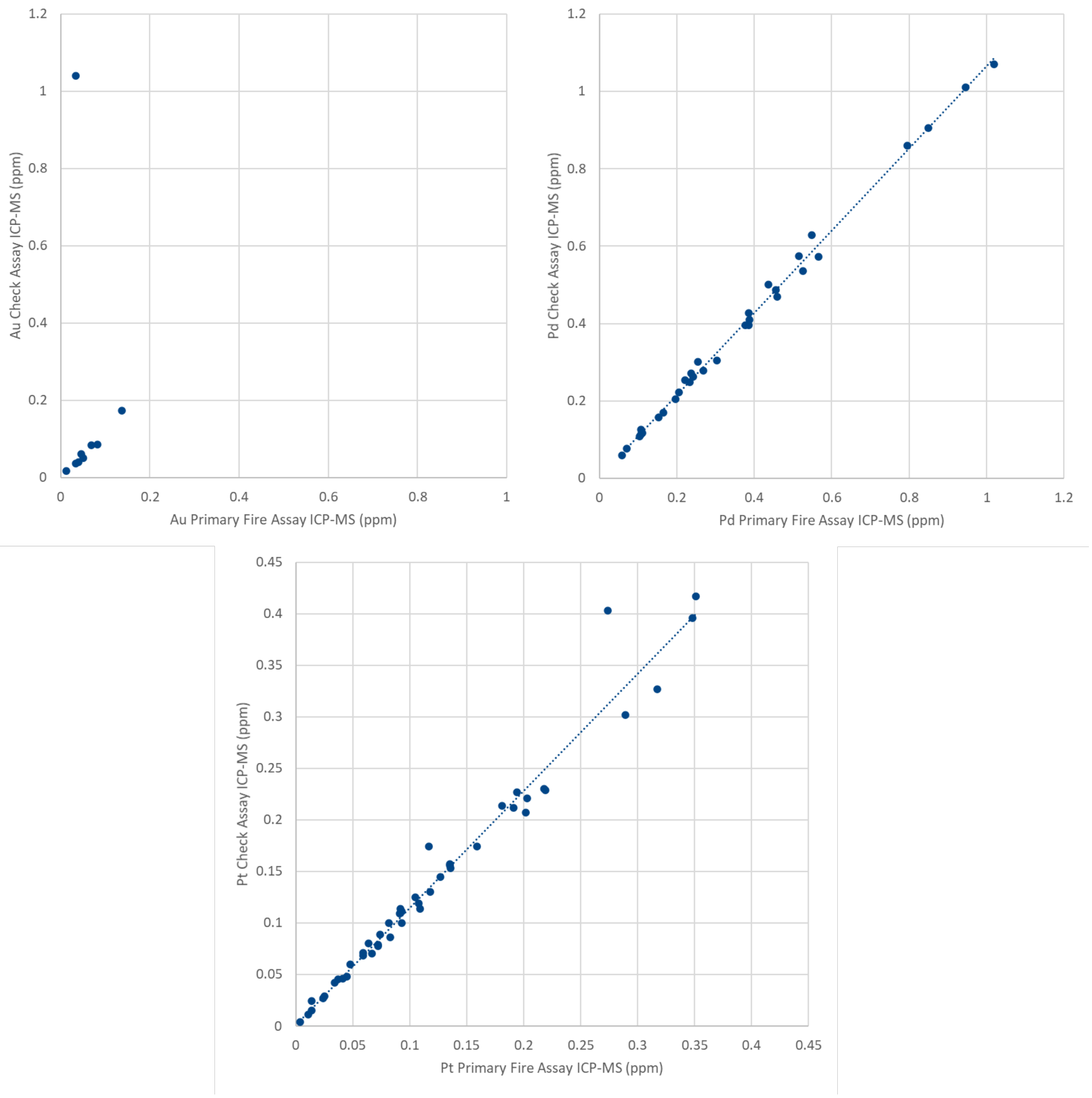


Figure 12-4: Historic GTK Errors (Au, Pd, and Pd)

These errors have been found in a small number of drill holes, and mainly in shallow drill holes located within a gap zone. Given the overall good performance of the two analytical methods, combined with the location of the affected drill holes, SLR concludes that the errors do not have a material impact on the overall database. SLR recommends that for future iterations, assay results from a single analytical method should be used consistently across all samples to prevent any potential bias.

12.3.4 Haukiaho Historical Data Errors

At Haukiaho, data validation has identified 16 sample errors within three historical holes drilled by GTK, namely in M354398R354 (one sample), M354398R358 (three samples), and M354398R359 (12 samples), affecting 16 Ni assays and 12 Cu assays. In these instances, higher assay values returned from aqua regia analysis were used instead of four acid digest analysis, consistent with the rest of the dataset. Based on a total of approximately 4,000 samples from this dataset, these errors represent a very small proportion overall (< 0.5%).

As with historical database errors found at Kaukua, these represent only a small proportion of the available data and are also located within a gap zone. SLR concludes that these do not have a material impact on the overall database. SLR recommends that for future iterations, assay results from a single analytical method should be used consistently across all samples to prevent any potential bias.

12.3.5 Kaukua Missing Assay Data

Through visual validation of the final block model, SLR identified that a single drill hole (LK21-066) is missing the available assay data. This drill hole is located approximately 400 m to the east of the Kaukua open pit constraints, and therefore does not impact the current Mineral Resource estimate. SLR recommends that the available assay data is incorporated into the drill hole database for future iterations of the block model.

12.4 Check Assays

During a site visit in November 2021, the SLR QP selected four check samples from two 2021 drill holes for re-analysis to provide further independent validation of analytical results in addition to those check assays completed previously as described in Section 11.4. Check assays included:

- Samples C154177 and C154210 from drill hole LK21-081
- Samples C193248 and C193303 from drill hole LK21-100

Results of the check assays are presented in Table 12-1.

Table 12-1: SLR Check Assays
Palladium One Mining Inc. – Läntinen Koillismaa Project

Sample	Check Sample (ppm)					Original Sample (ppm)				
	Cu	Ni	Au	Pt	Pd	Cu	Ni	Au	Pt	Pd
					LK21-081					
C154177	3990	2840	0.241	0.912	2.560	3290	2710	0.174	0.744	2.100
C154210	590	1540	0.027	0.148	0.396	553	1970	0.025	0.188	0.494
					LK21-100					
C193248	4640	1220	0.081	0.213	0.742	3390	1010	0.346	0.255	0.646
C193303	2150	2120	0.104	0.555	1.800	2530	2540	0.144	1.005	3.500

Notes: All assays expressed as ppm.

12.5 Conclusions

Data verification undertaken by the SLR QP has included validation of both spatial and analytical datasets provided by Palladium One through collar coordinate checks and check assays taken during a site visit in November 2021 and extensive desktop validation of the analytical database.

These verification measures follow verification undertaken for previous Technical Reports by Mining Plus for the Kaukua and Haukiaho deposits. Palladium One has also completed in-house data verification of the drill hole database, errors from which have been presented in detail and discussed with the SLR QP.

The SLR QP is not aware of any limitations on data verification and is of the opinion that database verification procedures for the LK Project are inline with industry standards and are adequate for the purposes of Mineral Resource estimation.

With respect to the findings of the data verification undertaken for the LK Project, SLR offers the following additional recommendations:

- For future Mineral Resource estimate updates, consistently use assay results from a single analytical method across all samples to prevent any potential bias.
- Incorporate the missing available assay data at Kaukua into the drill hole database for future iterations of the block model.
- Select drill holes assayed using aqua regia in and around the current conceptual pits and re-assay using four-acid digestion.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

A total of four metallurgical test programs, three historical and one completed by Palladium One, have been conducted for the LK Project. Each program expanded on the findings of the previous program which has provided increased confidence in the potential recoveries of the material.

13.1 Historic Metallurgical Studies

The following sub-sections contain information related to historical metallurgical testing. The metallurgical QP was unable to confirm the representativeness of the samples selected and used in these test programs.

13.1.1 2001 – Lakefield Research

The initial laboratory scoping study was conducted by Lakefield Research (now SGS Lakefield) in Lakefield, Ontario, Canada in 2001 on a composite sample from the Haukiaho deposit provided by NAN (Lakefield Research, 2001). The sample was made up of 120 kg taken from boulders proximal to the deposit and when composited, had a head grade of 0.37% Cu, 0.25% Ni, 1.06% S, 0.57 g/t Pd, 0.23 g/t Pt, and 0.31 g/t Au. The program included mineralogy, hardness testing, and open circuit flotation testing on the composite produced from the master composite.

Mineralogical analysis was performed using optical mineralogy. The bulk of the sample was non sulphidic, representing 97% of the sample, and primarily included plagioclase, pyroxene, and amphibole. The remaining 3% sulphide minerals included chalcopyrite, pentlandite, violarite, pyrrhotite, and pyrite with trace amounts of covellite. Based on the mineralogy, liberation of the sulphide was estimated at 25 µm.

A hardness test was conducted on the composite and it was determined that the Bond Ball Mill Work Index (BWi) was 14.9 kWh/t, which is considered moderately hard.

Five rougher flotation tests and two open circuit cleaner tests were performed as part of the testing program. The tests resulted in the production of a bulk concentrate assaying 14.7% Cu + Ni (9.7% Cu + 5.0% Ni), 14.7 g/t Pd, 5.6 g/t Pt, and 5.5 g/t Au with open circuit recoveries of 89% Cu, 64% Ni, 80% Pd, 80% Pt, and 65% Au.

It was concluded that the bulk of the Ni losses were non sulphide Ni, as determined by a Ni-S assay.

The study included the following observations and recommendations:

- The correlation of PGE and Cu-Ni recovery suggests that it may be possible to produce a concentrate with a higher grade at the same recovery or a concentrate with the same grade but higher recovery.
- The grind sizes need to be optimized, i.e., the effect of grind size on recovery needs to be quantified to determine the most economic grind size for the material.
- Locked cycle tests need to be performed to obtain a more precise metallurgical projection for recoveries.

13.1.2 2009 – SGS Vancouver Mineralogy

In 2009, SGS Canada Inc. in Vancouver, British Columbia, Canada (SGS Vancouver) investigated the mineralogy of the Kaukua deposit for Nortec Mineral Corp. (formerly Nortec Ventures Inc.) using QEMSCAN analysis (SGS Vancouver, 2009). QEMSCAN is an automated scanning electron microscope which provides quantitative mineralogy. Mineralogical analysis was performed on four different lithotype samples selected by Nortec Mineral Corp. and identified the presence of gabbronorite, mixed basement, peridotite and pyroxenite. The gabbronorite contained mostly amphibole (51%), feldspar (20%), and chlorite (11.5%); the mixed basement contained mostly amphibole (37.5%), feldspar (27.5%), quartz (10.7%), and chlorite (10%); the peridotite contained mostly amphibole (33.4%), chlorite (31.6%), and talc (16.9%); and the pyroxenite was mostly amphibole (57.5%) and chlorite (22.8%) with lesser amounts of quartz (6.5%) and feldspar (6.1%). The lithologies contained between 1.4% and 2.6% sulphide minerals, which included chalcopyrite (0.8%), pyrrhotite (0.6%), pentlandite (0.3%), and pyrite (0.3%). The average grain size of sulphide minerals was reported to be between 25 µm and 30 µm.

A master composite sample was produced from the lithology sample in the ratio of 5% gabbronorite, 20% mixed basement, 15% peridotite and 60% pyroxenite. A PGM deportment study was conducted on the master composite sample. To improve the statistical accuracy of the study, the PGM minerals were concentrated. The master composite was first ground to an 80% passing size (P_{80}) of 75 µm and then sized into a +38 µm and -38 µm product. The two size fractions were then processed on a Mozley table to separate the heavier minerals into a concentrated sample (tip), lighter middlings (mids), and tails. The distribution of mass and metal content between the samples is presented in Table 13-1.

Table 13-1: Mineralogical Pre-Concentration for Identification of PGE Deportment
Palladium One Mining Inc. – Läntinen Koillismaa Project

Description	Mass (g)	Assay				Distribution of Total Feed (%)		
		Cu (%)	Ni (%)	Pt (g/t)	Pd (g/t)	Cu	Ni	PGE
+38 µm								
Heads	322.9	0.23	0.18	0.26	0.95	54%	50%	48%
Tip	3	8.5	8.3	35.1		18%	21%	12%
Mids	50.2	0.45	0.14	0.44	1.02	16%	6%	9%
Tails	269.7	0.1	0.1	0.27	0.53	20%	23%	26%
-38 µm								
Heads	302.2	0.23	0.21	0.41	1.14	46%	50%	52%
Tip	1.5	7.6	4.6	64.7		8%	5%	11%
Mids	38	0.42	0.31	0.63	2.24	11%	9%	12%
Tails	262.7	0.16	0.17	0.26	0.77	28%	35%	30%

Analysis of the PGMs were conducted using QEMSCAN. The Pd contained in pentlandite was determined using Dynamic-SIMS (Secondary Ionization Mass Spectrometry). The study concluded that 10% of the Pd was in solid solution in pentlandite and the remaining Pd, Pt, and Au occurred in discrete minerals. A total of 316 PGM minerals were identified by QEMSCAN and have the following distribution: 52% tellurides, 7% bismuthinides, 15% arsenides, 12% other (sulphides, antimonides, and stannides), and 14% electrum. Overall, the size of the PGM minerals was fine, averaging 5 µm, with only 20% occurring over 10 µm in diameter.

13.1.3 2010 – SGS Vancouver Metallurgy

Variability samples of the individual lithologies were evaluated for hardness testing (SGS Vancouver, 2010). A master composite (Kaukua deposit) of the lithology samples was tested in open circuit to evaluate various rougher and flotation conditions. The lithologies were also evaluated in open circuit using these conditions. An additional master composite was produced to generate a bulk concentrate for evaluation using the PLATSOL™ hydrometallurgical process.

The results of the hardness testing indicated a range of hardness with gabbronorite being the hardest with a Bwi of 13.6 kWh/t; the pyroxenite and mixed basement material having a hardness of between 11 kWh/t to 12 kWh/t, and peridotite was the softest material at 8 kWh/t. Based on the ratios used in the preparation of the master composite sample, an overall average Bwi of 10.7 kWh/t would be expected.

The master composite sample produced for flotation testing contained 0.22% Cu, 0.20% Ni, 0.31 g/t Pt, 0.94 g/t Pd and 0.08 g/t Au, (2.38 g/t PdEq, in-situ) with a grind size of 80% passing (P_{80}) 80 µm. The flotation test was conducted at a pH of 9.5 and the reagents selected were CMC (Carboxymethyl Cellulose) to depress MgO, SIPX (Sodium Isopropyl Xanthate) and Danafloat 245 (Dithiophosphate) as collectors, and Dowfroth 250 as the frother.

Cu rougher recovery was excellent at 93%. Low Ni rougher recovery was associated with loss of unrecoverable Ni in silicates and averaged about 50%. Approximately 80% of the PGEs were recovered to the rougher concentrate as fast floating minerals. An additional recovery of 4% was possible with additional flotation time, however, it was highlighted that this may be difficult to replicate in actual plant conditions.

Open circuit cleaner conditions were also evaluated. It was determined that regrinding of rougher concentrate to a P_{80} of 22 µm resulted in poorer recoveries and was discontinued. CMC and Guar Gum were used as depressants for gangue minerals, whereas the SIPX collector and Dowfroth 250 frother were added through the cleaners.

In test 15, after four stages of open circuit cleaning, a concentrate at a Cu+Ni grade of 16.4% was achieved with recoveries of 88.5% Cu, 35.6% Ni, 49.7% Pt, 68.4% Pd, and 76% Au. An analysis of impurities in the final concentrate was also performed, which identified no significant levels of deleterious elements.

A single Cu-Ni separation test was conducted on a bulk Cu-Ni concentrate. A combined bulk Cu-Ni concentrate assaying 14.05% Cu+Ni and containing 89.8% of the Cu, 37.2% of the Ni, 45.4% of the Pt, 68.6% of the Pd, and 74.3% of the Au was produced for Cu-Ni separation from the master composite. A 30.4% Cu concentrate was produced containing 0.52% Ni, 9.28 g/t Pt, 40 g/t Pd, and 9.05 g/t Au from the bulk concentrate. Approximately 73.6% of the Cu, 2.3% of the Ni, 17.3% of the Pt, 21.6% of the Pd, and 53.5% of the Au was recovered to the Cu concentrate. The resulting Ni concentrate assayed 2.64% Cu, 5.52% Ni, 7.34 g/t Pt, 40.5 g/t Pd, and 1.69 g/t Au. The Ni concentrate recoveries were 16.2% Cu, 34.9% Ni, 28% Pt, 47% Pd, and 21.2% Au.

The variability testing was conducted on each of the four lithology samples.

The pyroxenite sample, which represented 60% of the master composite, contained 0.17% Cu, 0.17% Ni, 0.26 g/t Pt, 0.79 g/t Pd, and 0.06 g/t Au. The rougher concentrate recovered 10.1% of the mass with metal recoveries of 94.4% Cu, 62.2% Ni, 69% Pt, 80.7% Pd, and 73.7% Au.

The mixed basement sample, which represented 20% of the master composite, contained 0.24% Cu, 0.18% Ni, 0.3 g/t Pt, 0.79 g/t Pd, and 0.08 g/t Au. The rougher concentrate recovered 11.1% of the mass with metal recoveries of 93.3% Cu, 67.2% Ni, 56.5% Pt, 73.5% Pd, and 69.5% Au.

The peridotite sample, which represented 15% of the master composite, contained 0.14% Cu, 0.22% Ni, 0.2 g/t Pt, 0.53 g/t Pd, and 0.05 g/t Au. The rougher concentrate recovered 29.6% of the mass, which was very high and reflects the presence of additional talc in this sample, and had metal recoveries of 96.6% Cu, 61.3% Ni, 82.4% Pt, 92.2% Pd, and 89% Au.

The gabbronorite sample, which represented 5% of the master composite, contained 0.15% Cu, 0.14% Ni, 0.05 g/t Pt, 0.2 g/t Pd, and 0.08 g/t Au. The rougher concentrate recovered 9.8% of the mass with metal recoveries of 86.5% Cu, 39.6% Ni, 47.4% Pt, 67.6% Pd, and 67% Au.

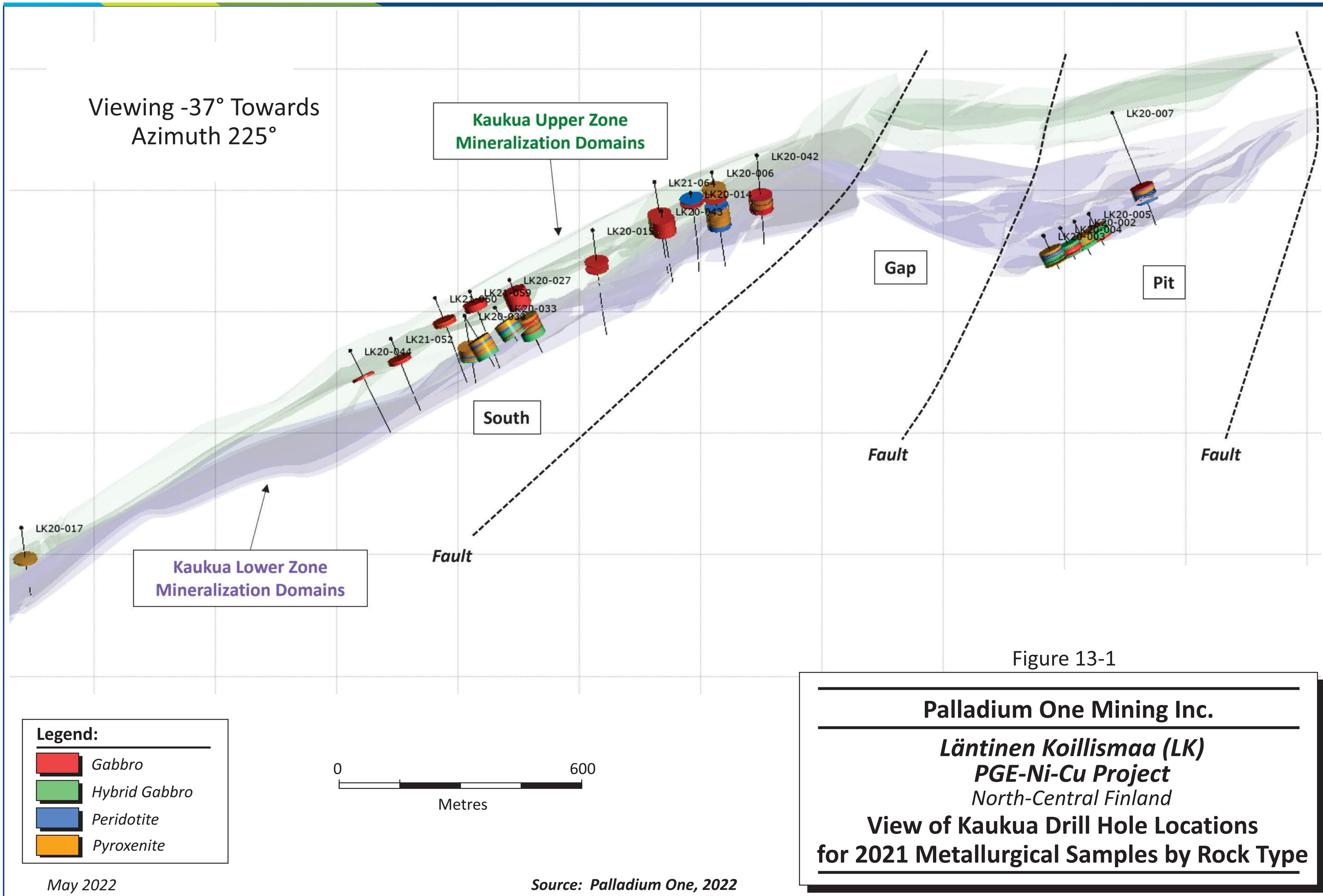
The PLATSOL™ process was also evaluated as a potential alternate to the standard smelter process route. A suitable mass of bulk cleaner concentrate was generated by performing five open circuit flotation tests. The assay of the cleaner concentrate produced was 7.8% Cu, 3.9% Ni (11.7% Cu+Ni), 0.15% Co, 6.1 g/t Pt, 22.8 g/t Pd, and 3.3 g/t Au. Extractions of 99.8% Cu, 98.8% Ni, 95.8% Co, 90% Pt, 98% Pd, and 98.6% Au were achieved using typical leaching conditions of 225°C, 120 minutes of retention time, 10 g/L NaCl, and 100 psi oxygen overpressure. It was concluded that the PLATSOL™ process could be an option if it were difficult to sell the concentrate.

Preliminary environmental testing was also completed on the flotation tailings produced from the master composite. The Modified Acid Based Accounting (ABA) test resulted in a net neutralizing potential (NP) of 6 measured in tonnes of $CaCO_3$ equivalent per 1,000 tonnes of material. The Net Acid Generation (NAG) test indicated the potential to generate 4 kg H_2SO_4/tonne to a pH of 7. This indicates a low potential for the tailings to generate acid.

13.2 Current Metallurgical Studies

13.2.1 Sample Preparation

In 2021, SGS Lakefield received samples consisting of four lithologies comprising the Lower Zone from Palladium One representing representative samples from both the Kaukua and Kaukua South deposits (SGS Lakefield, 2022). With the increased understanding of the geology, the lithologies were refined from previous studies to gabbro, mixed gabbro, pyroxenite, and peridotite. The samples were selected to represent the distribution of grades spatially across each lithology (see Figure 13-1) and consisted of 11 holes (five from Kaukua and six from Kaukua South) comprising approximately 700 kg.



May 2022

Source: Palladium One, 2022

Figure 13-1

Palladium One Mining Inc.

Läntinen Koillismaa (LK)
PGE-Ni-Cu Project
North-Central Finland

View of Kaukua Drill Hole Locations for 2021 Metallurgical Samples by Rock Type

In addition to the lithology samples, samples from the low grade Upper Zone were provided, consisting of 11 holes (all from Kaukua South) comprising approximately 300 kg. Samples from each lithology from the Lower Zone and Upper Zone were evaluated for hardness. Sub-samples of the individual lithologies and Upper Zone sample, representing higher and lower grade material were then selected as variability samples. A master composite was prepared containing the distribution of four lithologies comprising the Lower Zone. The assays of each variability sample, the master composite (MC) assay, and a calculated master composite assay by a ratio of feed is provided in Table 13-2. The in-situ grade of the master composite was determined to be 1.66 g/t PdEq.

Table 13-2: Head Analysis of 2021 Variability Samples and Ratio and Assay of Master Composite
Palladium One Mining Inc. – Läntinen Koillismaa Project

MC Ratio	Sample ID	Cu %	Ni %	Ni Sulphide/ Metallic as Ni %	S %	Co g/t	Pt g/t	Pd g/t	Au g/t
5	Gabbro – Low	0.10	0.08	0.018	0.17	66	0.18	0.42	0.05
5	Gabbro – High	0.30	0.16	0.080	0.66	99	0.33	0.92	0.11
12.5	Hybrid Gabbro – Low	0.09	0.08	0.032	0.22	59	0.12	0.36	0.14
12.5	Hybrid Gabbro – High	0.21	0.14	0.073	0.45	78	0.34	0.80	0.10
11.5	Peridotite – Low	0.06	0.13	0.028	0.17	94	0.12	0.37	0.03
11.5	Peridotite – High	0.15	0.22	0.102	0.53	126	0.29	0.84	0.05
21	Pyroxenite – Low	0.09	0.10	0.021	0.16	80	0.15	0.39	0.18
21	Pyroxenite – High	0.17	0.17	0.064	0.44	98	0.29	0.92	0.09
0	Upper – Low	0.07	0.07	0.025	0.16	60	< 0.02	0.06	0.03
0	Upper – High	0.12	0.14	0.056	0.30	93	0.05	0.19	0.05
	Master Composite Direct	0.14	0.12		0.33		0.28	0.60	0.06
100.0	Master Composite Calculated	0.13	0.14	0.051	0.33	88	0.22	0.63	0.10
	Kaukua Area Resource Estimate 2022	0.13	0.11			70	0.22	0.61	0.07

13.2.2 Hardness Testing

Hardness testing is required to determine engineering parameters for the ultimate design of a grinding circuit and was carried out on all the variability samples. The Bwi is measured to determine power requirements in kWh/t for ball mills. The SMC© hardness test, which is a modified drop weight test, is a widely used test which determines the parameters necessary to size and model autogenous (AG) or semi-autogenous (SAG) grinding mills. Abrasion testing is necessary to estimate eventual media consumption in the operation of a milling circuit.

Table 13-3: Summary of Hardness Testing on Variability Samples
Palladium One Mining Inc. – Läntinen Koillismaa Project

MC Ratio	Lithology	Specific Gravity	Bond			SMC					Abrasion
			Bwi kWh/t	P_{80} mesh/µm		A	b	Axb	ta	SCSE kWh/t	Ai g
10	Gabbro	2.92	13.6	120	92	82	0.38	31	0.28	11.78	0.277
25	Hybrid Gabbro	2.84	13.9	120	93	100	0.28	28	0.26	12.17	0.443
23	Peridotite	2.93	9.5	120	88	70	0.63	44	0.39	9.94	0.089
42	Pyroxenite	2.92	11.1	120	92	65	0.59	36	0.34	10.62	0.170
0	Upper Zone	2.88	13.5	120	92	78	0.40	31	0.28	11.66	0.282
100	**Master Composite (Weighted Average)**	**2.90**	**11.7**	**120**	**91**	**76.3**	**0.50**	**35**	**0.33**	**10.97**	**0.230**

The results of the testing indicate the Kaukua deposit is in the centre of the range of other materials evaluated using these tests and would be characterized as medium hard for SAG milling, medium soft for ball milling, and average for abrasion. The results obtained in this phase of testing were consistent with the hardness measurements obtained in the 2010 study.

13.2.3 Mineralogy

The Kaukua deposit is an ultramafic deposit composed primarily of magnesium silicates and approximately 1% sulphides with minor amounts of silicates and talc. The magnesium silicate minerals present are amphibole/pyroxene (42%), plagioclase (16%), and chlorites (21%). The most notable difference in mineralogy between the lithotypes is that the peridotite had significantly less plagioclase (1%) and significantly more talc (10%) and olivine (3%). A modal mineralogical analysis is presented in Table 13-4.

Table 13-4: Mineralogy of Variability Samples and Calculated Composite (based on ratio)
Palladium One Mining Inc. – Läntinen Koillismaa Project

	Gabbro		Hybrid Gabbro		Peridotite		Pyroxenite		Upper		Composite (Calculated)
	Low	High	Low	High	Low	High	Low	High	Low	High	
Chalcopyrite	0.34	0.74	0.34	0.74	0.17	0.57	0.27	0.56	0.21	0.39	0.45
Other Cu Sulphides	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.02	0.00
Pentlandite	0.04	0.19	0.06	0.22	0.14	0.40	0.05	0.17	0.06	0.14	0.15
Pyrite	0.07	0.53	0.10	0.18	0.02	0.06	0.06	0.13	0.09	0.08	0.11
Pyrrhotite/ Troilite	0.07	0.14	0.11	0.16	0.16	0.62	0.11	0.22	0.09	0.17	0.20
Other Sulphides	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total Sulphides	**0.54**	**1.62**	**0.61**	**1.31**	**0.50**	**1.66**	**0.49**	**1.09**	**0.45**	**0.80**	**0.93**

	Gabbro		Hybrid Gabbro		Peridotite		Pyroxenite		Upper		Composite (Calculated)
	Low	High	Low	High	Low	High	Low	High	Low	High	
Quartz	7.86	6.15	10.65	7.46	2.40	0.88	5.79	6.15	4.33	3.67	5.85
Plagioclase	27.94	20.92	32.37	30.05	1.79	0.18	15.87	11.57	35.62	17.88	16.23
K-Feldspar	1.07	0.84	0.73	0.68	0.18	0.02	0.39	0.31	0.40	0.34	0.44
Olivine	0.42	0.46	0.51	0.34	3.10	2.32	0.90	0.69	0.44	0.81	1.11
Chlorite	16.80	18.16	15.16	17.05	24.99	25.86	20.57	23.75	14.39	22.07	20.93
Micas	5.63	5.97	7.06	6.20	11.78	9.77	6.39	6.70	5.75	7.12	7.46
Amphibole/ Pyroxene	38.59	42.49	30.50	35.09	43.52	41.08	48.41	49.04	37.02	46.04	42.45
Epidote	0.61	2.91	1.74	1.34	0.02	0.01	0.30	0.28	1.29	0.74	0.69
Other Silicates	0.00	0.00	0.00	0.00	0.94	1.94	0.06	0.00	0.00	0.00	0.34
Talc	0.09	0.07	0.11	0.07	7.44	12.15	0.57	0.15	0.05	0.27	2.43
Other Clays	0.08	0.05	0.08	0.08	0.01	0.00	0.04	0.04	0.05	0.04	0.04
Fe-Oxides	0.14	0.07	0.05	0.06	2.14	1.97	0.05	0.06	0.05	0.04	0.52
Other Oxides	0.14	0.11	0.13	0.10	0.42	0.48	0.11	0.13	0.05	0.05	0.20
Carbonates	0.03	0.08	0.16	0.07	0.74	1.64	0.01	0.02	0.07	0.08	0.31
Apatite	0.05	0.08	0.12	0.09	0.03	0.04	0.04	0.02	0.03	0.05	0.05
Other	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Nickel occurs both as sulphide nickel and in silicates within the mineralization. This is significant as only sulphide nickel is recoverable via flotation. Analysis of Ni deportment was conducted on the master composite which identified Ni distributed among the following minerals: pentlandite 43.75%, pyrite 0.08%, pyrrhotite 0.79%, amphibole/pyroxene 32.69%, chlorite 20.64%, talc 1.61%, and Fe-oxides 0.44%. Therefore only 44.62% of the Ni is associated with sulphides recoverable by flotation (pentlandite, pyrite, and pyrrhotite).

A precious metal deportment study was also conducted on the master composite. To improve the statistical accuracy of the study, the minerals containing precious metals were concentrated. The master composite was first ground to a P_{80} of 50 µm and then floated to produce a rougher concentrate containing approximately 80% of the precious metals in 10% of the mass. The PGM minerals occur primarily as very fine discrete minerals either liberated or associated with sulphides. Palladium is most commonly present in minerals containing tellurium, bismuth, arsenic, or sulphur, and occurs at an average grain size of less than 10 µm. Gold occurs primarily as native gold and electrum and is also mostly liberated or associated with sulphides at an average grain size of less than 10 µm. While the grain size of individual PGMs is small, they are typically spatially associated with equally small but more abundant sulphides which allow them to be floated without full liberation of the individual PGMs.

13.2.4 Process Development Testing

A series of tests were conducted using the master composite in the development of a process for treatment. Grind size impacted rougher recovery, with the finer grinds resulting in improved rougher recovery, as presented in Figure 13-2. The initial P_{80} of 80 µm was reduced to a P_{80} of 50 µm to improve precious metal recovery to rougher concentrate.

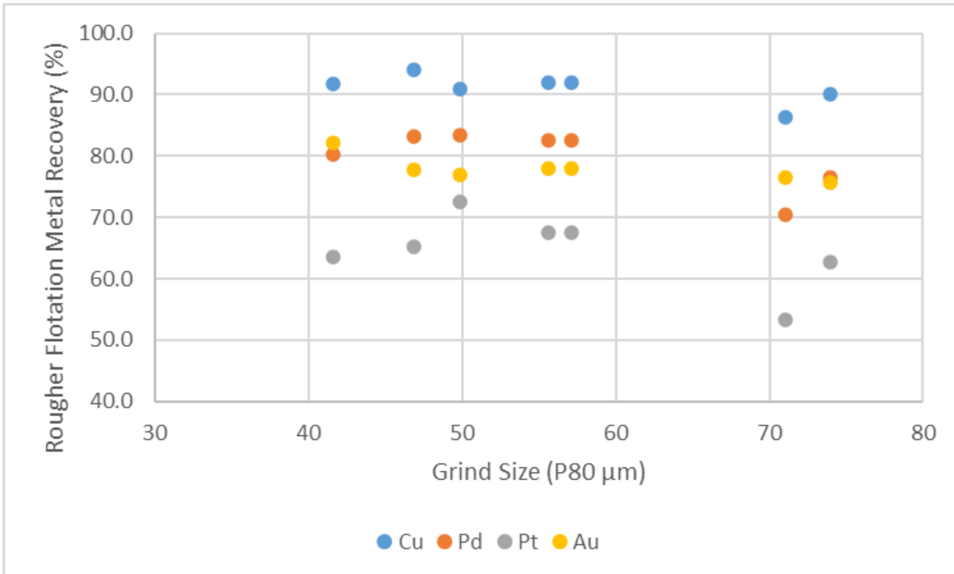


Figure 13-2: Impact of Grind on Metal Recovery

The challenge in flotation was the development of a process which would allow for the high recovery of the precious metals in the roughers followed by a flotation cleaning process which could achieve marketable concentrate grades at high cleaner recoveries.

It was decided to optimize collector for sulphide and precious metal recovery. As collectors, SIPX was selected for sulphide recovery and Danafloat 468 (dialkyl dithiophosphate) was selected for precious metal recovery. MIBC (methyl isobutyl carbinol) was selected as a frother, because of its good cleaning characteristics. The dispersant, CMC, was evaluated in both rougher and cleaner flotation and was found to improve overall grade and recovery.

Testing indicated that the fast-floating Cu and precious metals could be collected early in the process with only a single cleaning stage to maximize precious metal recovery. Over the series of six tests in which this was evaluated, 78% of the Cu was recovered into a high-grade Cu concentrate containing over 26.5% Cu. This approach produced a separate, fast floating, Cu concentrate with recoveries of 30% of the Pd and Pt and 50% of the Au.

The Cu rougher tails were treated with additional reagents and the remainder of the Cu, Ni, and precious metals were recovered into a Ni rougher concentrate. Testing indicated that a regrind of the rougher concentrate was not advantageous. The rougher concentrate was cleaned through three successive cleaning stages in open circuit testing to obtain additional recoveries of 8.8% Cu, 22% Ni, 36% Pd, 21% Pt, and 17% Au to a concentrate grading 8.5% Cu+Ni. The concentrate was a very clean concentrate containing low (< 2.5%) MgO, which is often a smelter concern with concentrates from ultramafic deposits.

Other approaches were evaluated to enhance precious metal recovery, but were not included in the final process. A MF2 flowsheet (two stage grind with flotation at each stage) was tested and provided no advantage over targeting the final grind size. Gravity concentration using a Knelson concentrator was tested both before flotation and on flotation scavenger tails. No additional upgrading resulted from the gravity separation. A magnetic concentrate was also recovered from the scavenger tailings, reground to a P_{80} of less than 20 µm and floated, but failed to produce an upgraded concentrate. Finally, the cleaner 1 tails were reground to a P_{80} of less than 20 µm and floated and cleaned through four cleaner stages. An additional 1% of Pd and Pt, and an additional 3% of Au was recovered in open circuit to a concentrate containing 4 g/t Pd, 2 g/t Pt, and 2 g/t Au. Further optimization work on the cleaner tails in subsequent metallurgical programs may improve overall precious metal recovery.

13.2.5 Locked Cycle Flotation Testing

Locked cycle tests (LCT) were conducted on the master composite based on the process developed in open cycle testing. The process tested is presented in Figure 13-3. The total reagents used in the process were 32.5 g/t DanaFloat 468; 65 g/t SIPX; 520 g/t CMC; 37.5 g/t MIBC, and 45 g/t lime for Cu flotation. Total rougher flotation time was 24.5 minutes, whereas total cleaner flotation time was 14.5 minutes. The results of the LCT are presented in Table 13-5 and a summary of the concentrate grades are provided in Table 13-6.

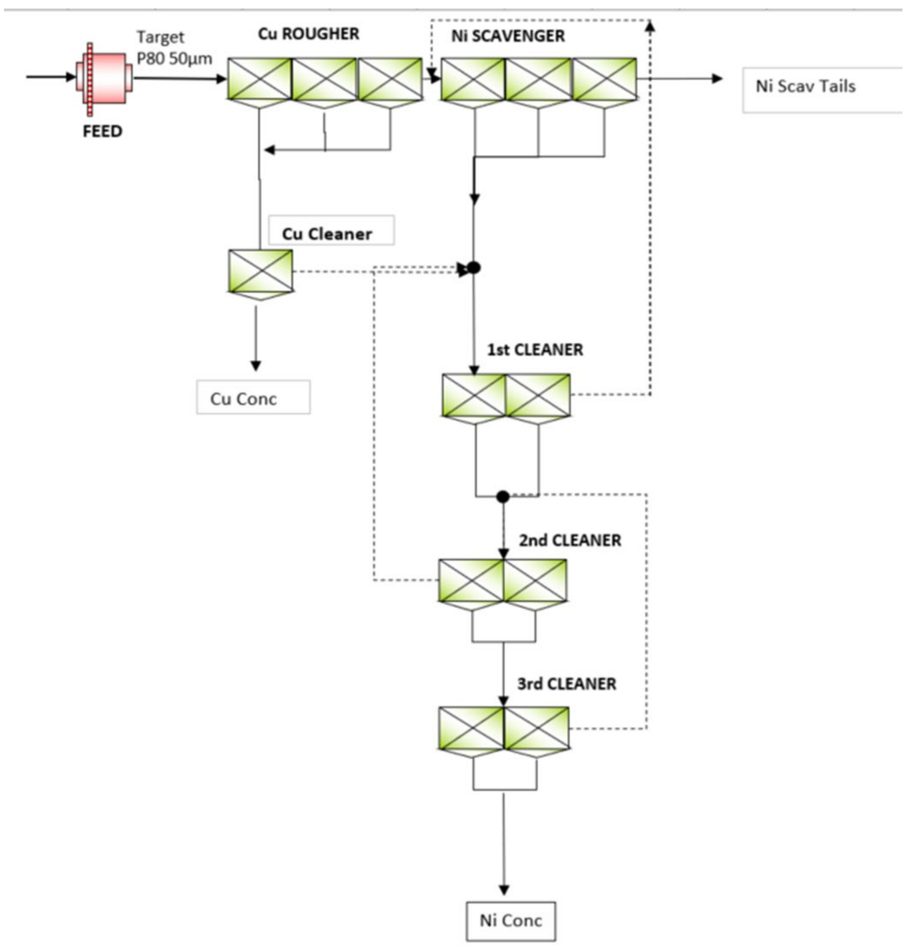


Figure 13-3: Process Flowsheet Tested in Locked Cycle Tests

Table 13-5: Metallurgical Projection (Cycles D-F)
Palladium One Mining Inc. – Läntinen Koillismaa Project

Product	Weight %	Assays, %, g/t							% Distribution						
		Cu	Ni	Co	Au	Pt	Pd	MgO	Cu	Ni	Co	Au	Pt	Pd	MgO
Cu Cleaner Conc	0.35	30.0	1.43	0.1	11.2	13.1	38.3	0.6	67.9	3.4	2.0	45.2	18.8	21.0	0.0
Ni 3rd Cleaner Conc.	0.82	3.90	4.85	0.2	2.93	11.0	40.8	5.84	20.7	27.0	16.6	27.8	37.3	52.5	0.3
Calculated Bulk Conc.	1.17	11.70	3.83	0.2	5.40	11.60	40.06	4.27	88.6	30.4	18.6	73.0	56.1	73.5	0.3
Ni Rougher Tails	98.8	0.02	0.1	0.0	0.02	0.11	0.17	14.43	11.4	69.7	81.5	27.0	43.9	26.5	99.7
Head (calc.)	100.0	0.15	0.15	0.0	0.09	0.24	0.63	14.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The key results from the LCT are as follows:

- Concentration by conventional flotation produces a saleable bulk concentrate with no deleterious elements, irrespective of lithology.
- A clean, high value saleable Copper Concentrate can be produced.
- A clean, high value saleable Nickel-PGE Concentrate can be produced.
- Results from the current metallurgical program have highlighted very consistently reproducible recovery rates from the Kaukua/Kaukua South mineralization.

Table 13-6: Concentrate Grades
Palladium One Mining Inc. – Läntinen Koillismaa Project

	Unit of Measure	Bulk Concentrate Grade (1)	Copper Concentrate Grade (2)	Nickel Concentrate Grade (3)	Bulk Concentrate Value (1)	Copper Concentrate Value (2)	Nickel Concentrate Value (3)
Palladium	g/t	40.1	38.3	40.8	45%	33%	53%
Platinum	g/t	11.6	13.1	11	9%	7%	9%
Gold	g/t	5.4	11.2	2.9	6%	10%	4%
Copper	%	11.7	30	3.9	23%	44%	9%
Nickel	%	3.83	1.43	4.85	15%	4%	22%
Cobalt	g/t	0.2	0.1	0.2	2%	1%	3%
Rhodium (4)	g/t	1.5	1.0	1.7	---	---	---
$ Value (5)					**$4,819**	**$6,338**	**$4,173**

Notes:
1. Represents aggregate concentrate produced.
2. Represents preferential copper segregation form the Bulk Concentrate.
3. Represents the remaining Bulk concentrate less the Copper Concentrate extracted.
4. Rhodium was not consistently analyzed for; these values represent select analysis of nickel and copper concentrates.

5. PdEq and Concentrate Value is calculated using metal price only for information purposes, it **does not include Rhodium** and is calculated using the current resource price deck of US$1,700/oz Pd, US$1,100/oz Pt, US$1,800/oz Au, US$4.25/lb Cu, US$8.50/lb Ni, and US$25/lb Co.

13.2.6 Variability Flotation Testing

Variability samples were evaluated in open circuit using the same test conditions determined for the master composite. The results were very consistent and the weighted average results of the variability samples were almost identical to the results obtained from the master composite. The consistency was not only demonstrated in the rougher flotation, but also in the open circuit cleaner flotation. The cleaner concentrate Cu+Ni grade and metal recoveries of the combined concentrates after cleaning matched the master composite results. The results have been summarized in Table 13-7.

Table 13-7: Variability Testing Results
Palladium One Mining Inc. – Läntinen Koillismaa Project

Samples	Sample Feed Assays					Combined Rougher Recovery (%)					Grade	Open Circuit Final Recovery (%)				
	Cu %	Ni %	Pt g/t	Pd g/t	Au g/t	Cu	Ni	Pd	Pt	Au	Cu+Ni %	Cu	Ni	Pd	Pt	Au
Master Composite F8	0.15	0.15	0.62	0.22	0.09	93.96	39.76	81.59	64.70	79.77	17.6	90.60	28.10	71.50	51.00	73.10
Calc Master Comp.	**0.13**	**0.14**	**0.63**	**0.22**	**0.10**	**93.4**	**38.9**	**79.1**	**65.3**	**75.8**	**18.1**	**90.3**	**28.7**	**70.9**	**54.4**	**69.7**
Gabbro – Low	0.10	0.08	0.42	0.18	0.05	91.7	25.0	75.8	67.4	76.1	17.7	87.5	14.9	66.7	55.9	71.5
Gabbro – High	0.30	0.16	0.92	0.33	0.11	95.8	45.5	75.9	65.1	82.5	17.3	92.3	36.3	66.5	54.0	76.8
Hybrid Gabbro – Low	0.09	0.08	0.36	0.12	0.14	90.6	36.4	76.3	58.2	65.3	15.1	87.3	27.5	66.1	45.9	58.3
Hybrid Gabbro – High	0.21	0.14	0.80	0.34	0.10	95.5	50.5	79.8	64.6	85.3	18.8	92.4	40.1	70.5	55.1	79.7
Peridotite – Low	0.06	0.13	0.37	0.12	0.03	87.4	29.2	78.0	67.5	65.1	18.7	84.3	16.3	63.6	48.5	59.7
Peridotite – High	0.15	0.22	0.84	0.29	0.05	94.0	48.2	84.8	72.1	85.6	18.0	91.2	37.1	74.5	59.3	83.1
Pyroxenite – Low	0.09	0.10	0.39	0.15	0.18	89.7	24.7	78.5	63.7	68.5	18.6	86.4	14.7	68.6	51.5	63.2
Pyroxenite – High	0.17	0.17	0.92	0.29	0.09	94.4	39.7	82.1	64.9	85.7	18.9	91.9	30.6	74.4	56.0	81.8
Upper – Low	0.07	0.07	0.06	<0.02	0.03	86.4	32.1	51.4	31.9	59.1	14.5	82.0	22.2	44.0	24.8	52.8

Samples	Sample Feed Assays					Combined Rougher Recovery (%)					Grade	Open Circuit Final Recovery (%)				
	Cu %	Ni %	Pt g/t	Pd g/t	Au g/t	Cu	Ni	Pd	Pt	Au	Cu+Ni %	Cu	Ni	Pd	Pt	Au
Upper – High	0.12	0.14	0.19	0.05	0.05	88.2	40.8	73.8	55.6	76.2	15.5	84.6	29.7	62.5	44.4	68.8

The effect of head grade and lithology type was evaluated using the results of the variability testing. Relationships between rougher recovery and head grade were evaluated for each metal, then the impact of lithology was considered. It was determined that recovery can be determined by head grade alone; lithology, although it impacts hardness, did not significantly impact expected recovery.

The open circuit cleaning of the rougher concentrate across all variability samples was also very consistent with the master composite. Not only were the cleaner recoveries consistent with the recoveries achieved in open circuit testing on the master composite, but also the Cu+Ni grade averaged 18%.

13.2.7 Recovery Calculations

The overall recovery can be calculated using rougher recovery data from the variability testing and cleaner recoveries from the LCT.

Based on the variability testing it was determined that the flotation rougher recovery of each metal is predictably related to head grade regardless of lithology. Rougher recovery equations modelling the recovery were generated for each metal.

The mathematical relationships describing the relationship of the rougher recovery to head grade are as follows:

- Copper Rougher Recovery (%) = 0.0704 * ln(Cu Head Grade) + 1.0591; where the Cu Head Grade is in %.
- Nickel Rougher Recovery (%) = 1.5329 * (Ni Head Grade – 0.07) + 0.2664; where the Ni Head Grade is in %.
- Cobalt Rougher Recovery (%) = 50.273 * Co Head Grade – 0.3508; where the Co Head Grade is in %.
- Palladium Rougher Recovery (%) = 0.0578 * ln(Pd Head Grade – 0.07) + 0.8299; where the Pd Head Grade is in g/t.
- Platinum Rougher Recovery (%) = 0.1109 * ln(Pt Head Grade – 0.01) + 0.8194; where the Pt Head Grade is in g/t.
- Gold Rougher Recovery = 0.091 * ln(Au Head Grade – 0.04) + 1.0642; where the Au Head Grade is in g/t.

The plots of the actual test data against the above models are provided in Figure 13-4.

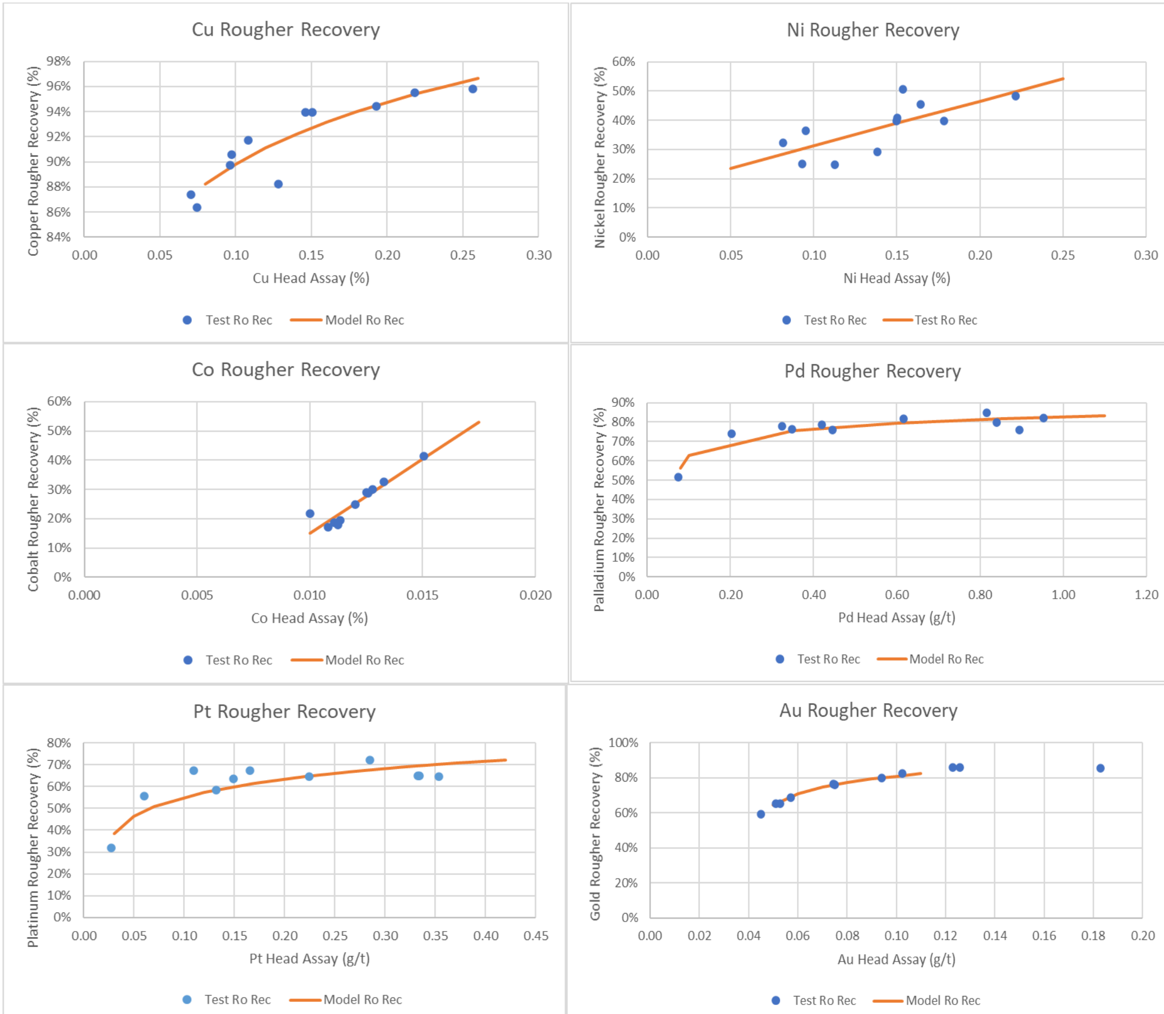


Figure 13-4: Actual versus Modelled Rougher Recovery

The rougher recoveries of the metals were not only predictable across the lithology samples, but the metal recoveries were also consistent with the previous 2011 testing. A comparison of the actual rougher recovery and the rougher recovery as calculated from the current equations is presented in Table 13-8.

Table 13-8: Comparison to Previous Results
Palladium One Mining Inc. – Läntinen Koillismaa Project

	Cu %	Ni %	Pd g/t	Pt g/t	Au g/t
2011 Master Composite Head Assay	0.22	0.2	0.94	0.31	0.08
2022 Master Composite Head Assay	0.14	0.12	0.60	0.28	0.06
			Rougher Recovery		
Actual Test F-18 (2011)	95.5%	54.1%	83.1%	64.7%	83.4%
Rougher Recovery Calculated (2022)	95.3%	46.6%	82.2%	68.6%	77.1%

The cleaner recoveries expected from a process plant are based on closed circuit, LCT results. In the case of the master composite, the LCT cleaner recovery is determined by dividing the overall metal recovery achieved in the test by the rougher recovery, as presented in Table 13-9. These cleaner recoveries are used in determining the final recovery of metals by multiplying rougher recovery determined by head grade by the cleaner recovery.

Table 13-9: Locked Cycle Test Cleaner Recoveries
Palladium One Mining Inc. – Läntinen Koillismaa Project

Products	% Recovery					
	Cu	Ni	Co	Pd	Pt	Au
LCT Cleaner Recovery	94.3	76.3	77.1	90.1	86.7	91.6
Master Composite Rougher Recovery (*)	94.0	39.8	24.0	81.6	64.7	79.8
Combined LCT Concentrate Recovery	88.6	30.3	18.5	73.5	56.1	73.0
Cu Cleaner Concentrate	67.9	3.4	2.0	21.0	18.8	45.2
Ni 3rd Cleaner Concentrate	20.7	27.0	16.6	52.5	37.3	27.8

Note: (*) refers to Test F8 data.

13.2.8 Deleterious Elements

Analyses for deleterious elements were performed on samples of concentrates produced by LCT (bulk concentrate and separate Cu and Ni concentrates). In 2010, several trace element analyses were conducted on the final concentrate produced in open circuit testing. The 2010 results are very consistent with the current analysis. In the metallurgical QP's opinion, the level of deleterious elements measured were low and the concentrates can be processed in copper or nickel smelters.

13.3 Conclusions

The LK Project has been examined through four metallurgical study programs. Each program expanded on the findings of the previous program and has provided increased confidence in the potential recoveries of this material.

The 2022 conceptual process flowsheet developed by SGS Lakefield includes the key unit operations of crushing, grinding, and flotation to produce separate copper and nickel concentrates. Recent flotation test results for Kaukua demonstrated that copper-nickel separation is achievable and produced consistent results with the 2011 test work. Additional test work will help refine the flow sheet moving forward. New testing should be carried out on Haukiaho as historic test work was limited in scope and undertaken on a higher grade sample than the current resource estimate.

14.0 MINERAL RESOURCE ESTIMATE

14.1 Summary

The LK Project Mineral Resource estimate was completed by David Thomas, P.Geo., on behalf of Palladium One. The QP has reviewed and adopted the estimates and is of the opinion that it is suitable to support disclosure of Mineral Resources for the Project and for inclusion in future studies.

The Mineral Resource estimate comprises block models for three areas, Kaukua, Murtolampi (part of the Greater Kaukua Area), and Haukiaho. The Kaukua Area estimate represents an update to the previous Mineral Resource estimate adopted by Mining Plus in 2019, with the inclusion of an initial estimate of the Kaukua South extension, in which infill drilling was completed between 2019 and 2022. The estimate for Murtolampi represents an initial estimate. The Haukiaho block model remains unchanged from the previous estimate, with the exception of updated NSR and cut-off calculations for Mineral Resource reporting purposes; the Haukiaho Mineral Resource estimate is therefore based on the previous report by Mining Plus (2021). Table 14-1 summarizes the status of the three block models.

Table 14-1: LK Project Block Model Summary
Palladium One Mining Inc. – Läntinen Koillismaa Project

Deposit	Database Cut-off	Model Completion Date	Status
Kaukua Area (including Kaukua and Kaukua South)	December 2021	December 2021	Update
Murtolampi	December 2021	February 2022	Initial estimate
Haukiaho	February 2021	May 2021	NSR and conceptual pit updated

The block models were all completed using wireframes completed in Leapfrog Geo, filled with blocks measuring 6.0 m in all directions for Kaukua and Murtolampi, and 10 m in all directions for Haukiaho. Grades were capped prior to compositing and interpolated into blocks using ordinary kriging (OK). Grade estimates were validated using a number of validation techniques including visual validation, global bias checks, and swath plots. CIM (2014) definitions were used for Mineral Resource classification. Mineral Resources were constrained within a preliminary open pit using an NSR cut-off of US$12.50/t calculated based on metallurgical recoveries and contract terms for Cu and Ni concentrates.

The QP is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

As at April 25, 2022, Indicated Mineral Resources are estimated to total 38.2 Mt comprising 1,090 koz TPM (0.89 g/t), 111 Mlb copper (0.13%), 92 Mlb nickel (0.11%) and 5 Mlb cobalt (65 g/t). In addition, Inferred Mineral Resources are estimated to total 49.7 Mt comprising 1,080 koz TPM (0.68 g/t), 173 Mlb copper (0.16%), 152 Mlb nickel (0.14%) and 8 Mlb cobalt (74 g/t). A summary of the LK Project Mineral Resources, effective April 25, 2022, is provided in Table 14-2.

Table 14-2: Summary of Mineral Resources – Effective Date April 25, 2022
Palladium One Mining Inc. – Läntinen Koillismaa Project

Category	Tonnage (Mt)	Grade							Contained Metal						
		Pd (g/t)	Pt (g/t)	Au (g/t)	TPM (g/t)	Cu (%)	Ni (%)	Co (g/t)	Pd (koz)	Pt (koz)	Au (koz)	TPM (koz)	Cu (Mlb)	Ni (Mlb)	Co (Mlb)
Indicated	38.2	0.61	0.22	0.07	0.89	0.13	0.11	65	740	260	80	1,090	110.7	91.6	5.4
Inferred	49.7	0.43	0.17	0.09	0.68	0.16	0.14	74	680	260	140	1,080	172.9	151.5	8.1

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. The Mineral Resources have been reported above a preliminary open pit constraining surface using an NSR pit discard cut-off of US$12.5/t (which, for comparison purposes, equates to an approximately 0.65 g/t palladium equivalent (PdEq) in-situ cut-off grade, based on metal prices only).
3. The NSR used for reporting is based on the following:
   a. Long term metal prices of US$1,700/oz Pd, US$1,100/oz Pt, US$1,800/oz Au, US$4.25/lb Cu, US$8.50/lb Ni, and US$25/lb Co.
   b. Variable metallurgical recoveries for each metal were used at Kaukua and Murtolampi and fixed recoveries of 79.8% Pd, 80.1% Pt, 65% Au, 89% Cu, 64% Ni, and 0% Co at Haukiaho.
   c. Commercial terms for a Cu and Ni concentrate based on indicative quotations from smelters.
4. Total Precious Metals (TPM) equals palladium plus platinum plus gold
5. Bulk densities range between 1.8 t/m^3 and 3.23 t/m^3.
6. Numbers may not add up due to rounding.
7. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.
8. The quantity and grade of reported Inferred Mineral Resources in this estimation are conceptual in nature and there has been insufficient exploration to define these Inferred Mineral Resources as an Indicated or Measured Mineral Resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured Mineral Resource category.

14.2 Resource Database

The database for the Kaukua and Murtolampi Mineral Resource estimation consists of 210 drill holes for 44,440.35 m of drilling and 84 drill holes for 13,392.30 m of drilling for the Haukiaho Mineral Resource estimation, as summarized in Table 14-3. Historic drill hole data has been reviewed and where corresponding QA/QC exists, this data has been deemed sufficiently robust and reliable to be used as part of the Mineral Resource estimates.

Table 14-3: LK Project Drilling Summary (2020-2021)
Palladium One Mining Inc. – Läntinen Koillismaa Project

Permit Group / Zone	Series / Year	№ Drill Holes	№ Meters
Kaukua & Murtolampi	M35- / 1999 & 2004	16	1,951.75
	KAU07 / 2007	7	1,024.70
	KAU08 / 2008	31	7,183.00
	KAU09 / 2009	12	2,085.10
	KAU12 / 2012	23	6,116.25

Permit Group / Zone	Series / Year	№ Drill Holes	№ Meters
	LK20 / 2020	47	7,968.25
	LK21 / 2021	74	18,112.30
Total		**210**	**44,441.35**
Haukiaho	M35- / 1963-1966, 1998-1999 & 2004-2005	36	5,062.10
	HAU01 / 2001	7	893.60
	HAU11 / 2011	11	1,798.40
	HAU12 / 2012	14	2,920.20
	LK20 / 2020	3	569.85
	LK21 / 2021	13	2,148.15
Total		**84**	**13,392.30**

14.3 Geological Interpretation

14.3.1 Kaukua

Mineralization wireframes were constructed for purposes of grade estimation, using Leapfrog implicit modelling software. Two wireframes, at cut-off grades of 0.3 g/t Palladium Equivalent ("PdEq") and 0.6 g/t PdEq, were constructed to capture PGE-Ni-Cu mineralization. PdEq is calculated using US$1,700/oz Pd, US$1,100/oz Pt, US$1,800/oz Au, US$4.25/lb Cu, US$8.50/lb Ni, and $25/lb Co and was used for wireframe construction. It does not include metallurgical recoveries or smelter terms, and was not used for generation of the conceptual pit shells or Mineral Resource reporting.

The mineralization wireframes were subsequently used to constrain block grade estimates. The mineralization wireframes are shown below in Figure 14-1.

The Kaukua mineralization has been split into three areas, Pit, Gap, and South, each of which are bounded by faults, as illustrated in Figure 14-1. The mineralization displays spatial offsets, and abrupt changes in thickness and grade across the faults. These observations are consistent with the timing of at least one phase of PGE-Ni-Cu mineralization being contemporaneous with or postdating the faults.

In the Pit area, the Lower Zone strikes at 100° east-west, dips 30° to the south, and has a horizontal thickness ranging from a few meters to over 250 m close to the Pit-Gap fault, averaging 80 m. The Upper Zone strikes 100° east-west and dips 30° to the south. The horizontal thickness varies from a few meters to approximately 180 m, averaging 150 m. The Lower 0.6 g/t PdEq domain makes up over 90% of the Lower Zone. The Upper Zone 0.6 g/t PdEq domain is significantly narrower and averages 30 m in horizontal width. Diabase and titanium (Ti)-gabbro dikes strike sub-parallel to the mineralization and locally crosscut the mineralization.

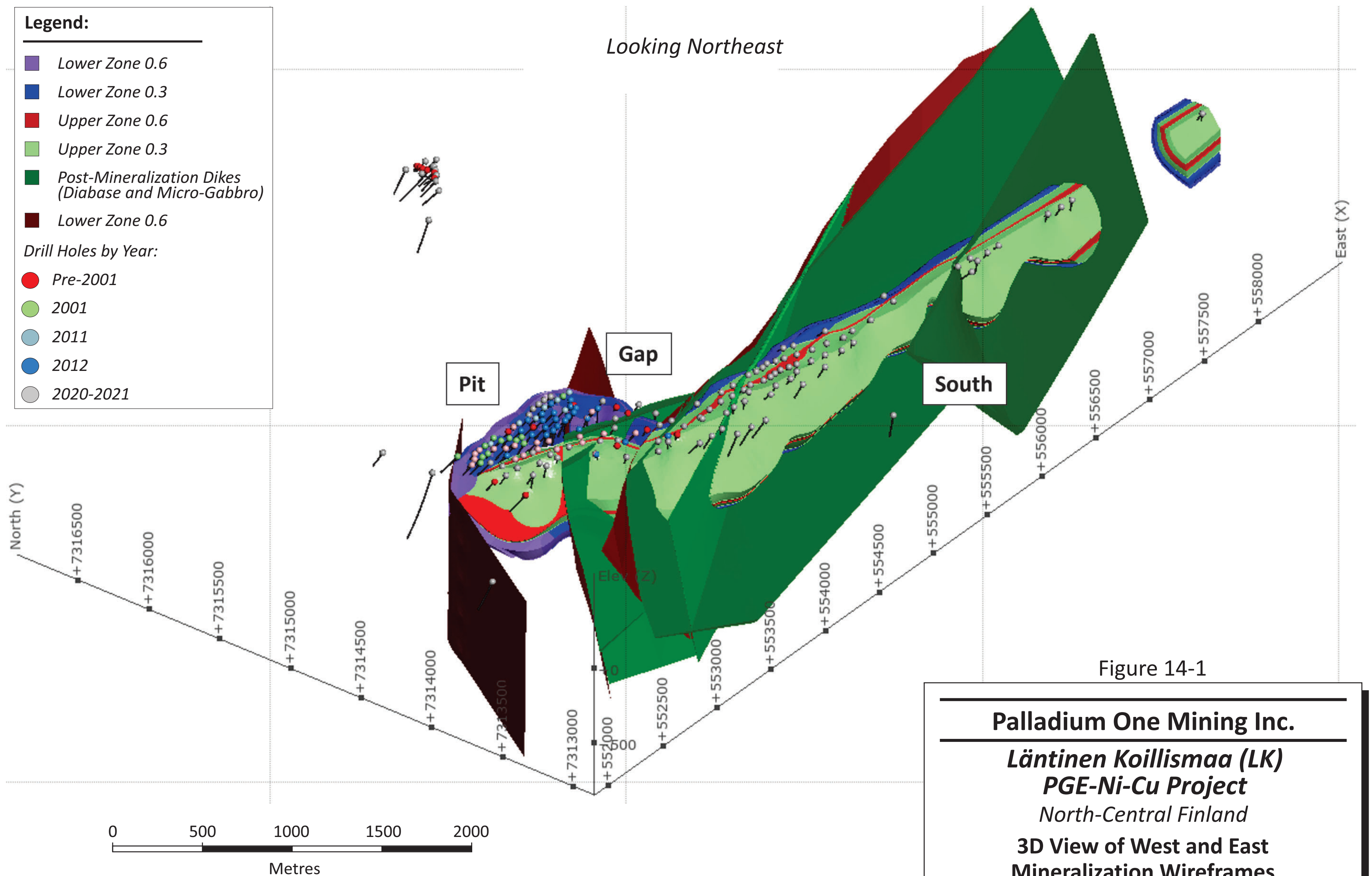


Figure 14-1

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

3D View of West and East Mineralization Wireframes

May 2022

Source: SLR, 2022

In the Gap area, the Lower Zone mineralization is generally lower in PGE grade. The Lower Zone strikes 350° north-south, dips 30° to the west, and varies in horizontal thickness from approximately 10 m to 120 m. The Upper Zone strikes 320° northwest-southeast, dips 30° to the southwest, and varies in horizontal thickness from 150 m to more than 250 m, averaging 200 m. The 0.6 g/t PdEq domains vary in horizontal thickness from a few meters to approximately 100 m, and average 25 m. Diabase and Ti-gabbro dikes strike 110° east-southeast to west-northwest crosscutting the mineralized domains. The dikes have an approximate average horizontal thickness between 50 m and 60 m.

In the South area, the Lower Zone strikes at 100° east-west, dips 55° to the south, and varies in horizontal thickness from a few meters to over 100 m, averaging 40 m. The Upper Zone strikes 100° east-west and dips 50° to the south. The horizontal thickness varies from a few meters to more than 200 m and averages 100 m. The 0.6 g/t PdEq domains vary in average horizontal thickness from 50 m to the west of 555,000E to an average of 20 m to the east of 555,000E. Post-mineralization diabase and micro-gabbro dikes crosscut the mineralization.

14.3.2 Murtolampi

Mineralization wireframes were constructed for purposes of grade estimation, using Leapfrog implicit modelling software. A single grade wireframe at a cut-off grade of 0.3 g/t PdEq was constructed to capture PGE-Ni-Cu mineralization. The mineralization wireframes were subsequently used to constrain block grade estimates.

The mineralization is primarily hosted within pyroxenite and occurs over a length of 350 m striking 45° northeast-southwest. The mineralized zone has a vertical dip on the southeastern contact. The northwestern contact dips at 45° to the southeast. The horizontal thickness varies from 130 m close to surface and pinches out at a depth of approximately 100 m below surface.

14.3.3 Haukiaho

Mineralization wireframes were constructed for purposes of grade estimation, using Leapfrog implicit modelling software. Two wireframes, at cut-off grades of 0.25 g/t PdEq and 0.5 g/t PdEq, were constructed to capture PGE-Ni-Cu mineralization. The mineralization wireframes were subsequently used to constrain block grade estimates, and the two wireframes were combined to form a single grade shell above 0.25 g/t PdEq.

The mineralization is primarily hosted within a marginal series comprised of gabbros, pyroxenites, and peridotites. Other geological units include an underlying basement of mixed orthogneiss, granite, and pyroxenite with localised mineralization, and an overlying layered series consisting of gabbros, gabbronorite and occasional pyroxenites. The deposit is crossed with late diabase dikes and faults, capped by an overburden unit of recent glacial boulders and till.

The mineralization is split into two areas. The West Zone which strikes approximately 105° east-west with a sub-vertical dip and varying in horizontal thickness from a few meters to approximately 100 m, averaging 25 m. The mineralization has been shown to pinch-out at depths of 100 m to 250 m below surface and is crosscut by a diabase dike. The East Zone also strikes approximately 105° east-west with a sub-vertical dip, varying in horizontal thickness from 15 m to over 70 m, averaging 30 m. The mineralization in the East Zone is also crosscut by a diabase dike.

14.4 Resource Assays

14.4.1 Assay Codes

Assays falling within the grade shells have been coded and exploratory data analysis completed on length-weighted assays and composites. The codes used at Kaukua are shown in Table 14-4. Missing assays falling within the grade shell domains were assigned a zero grade.

Table 14-4: Kaukua Domain and Area Codes
Palladium One Mining Inc. – Läntinen Koillismaa Project

Domain	Code	Area	Code
Upper Zone 0.3	300	Pit	10
Upper Zone 0.6	20	Gap	20
Lower Zone 0.3	400	South	30
Lower Zone 0.6	30		

At Murtolampi, a single code of 10 was used for all assays falling within the grade shell.

At Haukiaho, the mineralization wireframes for the West and East Zones have been coded as 10 and 20, respectively.

14.4.2 Drill Hole Program Comparison

Historical assay data without QA/QC has been compared against assay data from Palladium One drilling as well as historical assay data with QA/QC by comparing pairs of assays within 50 m, comprising a total of 44 sample pairs.

Table 14-5: Comparison of Data (With and Without QA/QC)
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	PDM and Historical with QA/QC			Historical without QA/QC			% Difference	
	Mean	St. Dev.	CV	Mean	St. Dev.	CV	Mean	CV
Au (g/t)	0.04	0.05	1.2	0.05	0.06	1.2	34	0.4
Cu (ppm)	774	786	1.0	1245.8	988	0.8	61	-21.9
Ni (ppm)	639	427	0.7	777.6	638	0.8	22	22.9
Pd (g/t)	0.09	0.13	1.5	0.04	0.05	1.2	-52	15.4
Pt (g/t)	0.04	0.06	1.6	0.11	0.14	1.2	208	-20.1

The results indicate a positive bias in the assays with no supporting QA/QC, albeit based on a small number of sample pairs. Based on the results, assay data in the West Zone that had no available supporting QA/QC were not used in the Mineral Resource estimate for Haukiaho.

While the QP is of the opinion the exclusion of data in the West Zone of Haukiaho was reasonable, SLR recommends performing further verification work on the data to test the suitability for Mineral Resource estimation.

14.4.3 Haukiaho Regression Parameters

SLR has used scatterplots and summary correlation statistics to evaluate the assay data and has determined high correlation coefficients of between 0.84 and 0.88 for Cu and Ni against Au, Pd, and Pt, as summarized in Table 14-6. Using these correlation coefficients, specifically, using reduced-to-major-axis (RMA) regression, values have been assigned for Au, Pd, and Pt where assays were found to be missing in historical drill holes. For Pd and Pt, SLR used a correlation with Ni, whereas a correlation with Cu was used for Au. A minimum grade threshold was used to prevent negative grades being assigned.

Table 14-6: RMA Regression Parameters
Palladium One Mining Inc. – Läntinen Koillismaa Project

	Ni-Pt	Pt	Ni-Pd	Pd	Cu	Au
Mean	1,113	0.078	1,108	0.181	1,246	0.066
Standard Deviation	888	0.089	854	0.222	1,381	0.088
Coefficient of Variation	0.80	1.13	0.77	1.23	1.11	1.32
Correlation Coefficient	0.88		0.87		0.84	
Slope		0.0001000		0.0002592		0.0000636
Intercept		-0.033024		-0.106612		-0.012912
Minimum Grade (ppm)	330.2246		411.2512		203.1295	

The QP notes that RMA regression was used to assign values to only a minor number of assays. While it is a better practice to use measured assay values in the Mineral Resource estimates, SLR is of the opinion that the impact as a result of differences between the unknown actual versus regressed values on the Mineral Resource estimate is minimal. For Haukiaho SLR recommends either resampling core where possible, or excluding drill holes with missing analyses in the future as the Project advances and additional information is available.

14.5 Treatment of High Grade Assays

14.5.1 Kaukua Capping Levels

Capping analysis has been completed on length-weighted assay data to evaluate the impact of capping on the grade and metal content within the Kaukua area. Capping was assessed for each domain by area. The capping analysis results and summary statistics are summarized in Table 14-7 to Table 14-12.

Table 14-7: Capping Thresholds, Upper Zone 0.3 g/t PdEq Shell
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Pit	Gap	South
Au (g/t)	0.08	0.10	0.20
Cu (ppm)	1,500	1,500	2,800
Ni (ppm)	1,250	1,400	1,900
Pd (g/t)	0.13	0.25	0.85
Pt (g/t)	0.06	0.13	0.30

Metal	Pit	Gap	South
Co (ppm)	100	75	125

Table 14-8: Capping Thresholds, Upper Zone 0.6 g/t PdEq Shell
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Pit	Gap	South
Au (g/t)	0.13	0.10	0.30
Cu (ppm)	1,800	1,800	4,000
Ni (ppm)	2,000	1,750	3,500
Pd (g/t)	0.25	0.25	0.75
Pt (g/t)	0.07	0.07	0.30
Co (ppm)	120	125	175

Table 14-9: Capping Thresholds, Lower Zone 0.3 g/t PdEq Shell
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Pit	Gap	South
Au (g/t)	0.20	0.06	None
Cu (ppm)	3,000	1,500	1,800
Ni (ppm)	1,400	1,500	1,500
Pd (g/t)	1.00	0.40	0.70
Pt (g/t)	0.40	0.13	0.30
Co (ppm)	100	75	100

Table 14-10: Capping Thresholds, Lower Zone 0.6 g/t PdEq Shell
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Pit	Gap	South
Au (g/t)	0.90	0.17	0.45
Cu (ppm)	6,000	5,000	4,500
Ni (ppm)	7,000	3,500	3,200
Pd (g/t)	3.50	0.90	2.80
Pt (g/t)	1.50	0.40	1.20
Co (ppm)	175	150	160

Table 14-11: Summary Assay Statistics, Upper Zone
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Number	Min	Max	Uncapped Average	CV	Capped Average	Capped CV	Metal Removed
Au (g/t)	5,056	0.0	2.13	0.03	2.08	0.02	1.10	-4.8%
Cu (ppm)	5,056	0.0	38,000.0	537.8	1.46	519.7	0.87	-3.4%
Ni (ppm)	5,056	1.0	3,730.0	693.2	0.61	691.8	0.60	-0.2%
Pd (g/t)	5,056	0.0	2.10	0.06	1.65	0.06	1.53	-1.4%
Pt (g/t)	5,056	0.0	0.64	0.02	1.93	0.02	1.81	-2.0%
Co (ppm)	5,056	0.0	424.0	63.0	0.38	62.9	0.37	-0.3%

Table 14-12: Summary Assay Statistics, Lower Zone
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Number	Min	Max	Uncapped Average	CV	Capped Average	Capped CV	Metal Removed
Au (g/t)	7,138	0.0	9.41	0.05	2.88	0.05	1.33	-4.5%
Cu (ppm)	7,138	0.0	2,000.0	984.0	1.30	964.7	1.02	-2.0%
Ni (ppm)	7,138	11.0	56,400.0	945.7	0.85	936.8	0.70	-0.9%
Pd (g/t)	7,138	0.0	15.40	0.44	1.25	0.43	1.21	-1.2%
Pt (g/t)	7,138	0.0	2.84	0.16	1.22	0.15	1.20	-0.7%
Co (ppm)	7,138	0.0	1,460.0	61.1	0.55	60.8	0.51	-0.4%

Based on the small differences observed in the capped and uncapped average grades in the domains, and the low total metal content removed as a result of capping, the SLR QP concludes that grade capping is not a significant issue at Kaukua and that the levels used are appropriate.

14.5.2 Murtolampi Capping Levels

Capping analysis has similarly been undertaken on length-weighted assay data to evaluate the impact of capping on the grade and metal content within the Murtolampi area. The capping analysis results and summary statistics are summarized in Table 14-13 and Table 14-14, respectively.

Table 14-13: Capping Thresholds, Murtolampi
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Capping Value
Au (g/t)	0.25
Cu (ppm)	4,000
Ni (ppm)	3,100
Pd (g/t)	1.30
Pt (g/t)	0.90
Co (ppm)	190

Table 14-14: Summary Assay Statistics, Murtolampi
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Number	Min	Max	Uncapped Average	CV	Capped Average	Capped CV	Metal Removed
Au (g/t)	626	0	1.47	0.04	1.88	0.04	1.05	-7.6%
Cu (ppm)	626	0	5,080	974	0.78	971	0.77	-0.2%
Ni (ppm)	626	0	3,580	1,171	0.60	1,167	0.60	-0.3%
Pd (ppm)	626	0	1.61	0.32	0.91	0.32	0.89	-0.5%
Pt (g/t)	626	0	1.02	0.18	0.93	0.18	0.93	-0.1%
Co (ppm)	626	0	237	84	0.49	84	0.49	-0.2%

Based on the small differences observed in the capped and uncapped average grades in the domains, and the low total metal content removed as a result of capping, the SLR QP concludes that grade capping is not a significant issue at Murtolampi and that the levels used are appropriate.

14.5.3 Haukiaho Capping Levels

Capping analysis has also been completed on length-weighted assay data to evaluate the impact of capping on the grade and metal content within Haukiaho. The capping analysis results and summary statistics are summarized in Table 14-15 to Table 14-18.

Due to the low number of assays in the East Zone, this area has instead been capped using the thresholds from the West Zone, i.e., instead of those indicated in Table 14-16.

Table 14-15: Capping Thresholds, Haukiaho West Zone
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Capping Value
Au (g/t)	0.5
Cu (ppm)	8,000
Co (ppm)	160
Ni (ppm)	5,000
Pd (g/t)	1.0
Pt (g/t)	0.45

Table 14-16: Capping Thresholds, Haukiaho East Zone
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Capping Value
Au (g/t)	0.3
Cu (ppm)	4,500
Co (ppm)	110
Ni (ppm)	2,200

Metal	Capping Value
Pd (g/t)	None
Pt (g/t)	0.2

Table 14-17: Summary Assay Statistics, Haukiaho West Zone
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Number	Min	Max	Uncapped Average	CV	Capped Average	Capped CV	Metal Removed
Au (g/t)	2,412	0	2.51	0.06	1.47	0.06	1.39	-1.0%
Cu (ppm)	2,412	0	10254	1141	1.18	1140	1.18	-0.1%
Co (ppm)	2,412	0	907	62	0.76	60	0.58	-2.7%
Ni (ppm)	2,412	0	7740	1030	0.82	1029	0.81	-0.1%
Pd (ppm)	2,412	0	1.63	0.16	1.38	0.16	1.36	-0.3%
Pt (g/t)	2,412	0	0.68	0.06	1.37	0.06	1.35	-0.3%

Table 14-18: Summary Assay Statistics, Haukiaho East Zone
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Number	Min	Max	Uncapped Average	CV	Capped Average	Capped CV	Metal Removed
Au (g/t)	229	0	0.71	0.06	1.4	0.06	1.33	-1.2%
Cu (ppm)	229	10	10910	1495	0.88	1492	0.87	-0.2%
Co (ppm)	229	0	469	46	1.03	42	0.83	-8.0%
Ni (ppm)	229	0	3790	1006	0.76	1006	0.76	0.0%
Pd (ppm)	229	0	0.79	0.12	1.3	0.12	1.3	0.0%
Pt (g/t)	229	0	0.35	0.05	1.38	0.05	1.38	0.0%

Based on the small differences observed in the capped and uncapped average grades in the domains, and the low total metal content removed as a result of capping, the SLR QP concludes that grade capping is not a significant issue at Haukiaho and that the levels used are appropriate.

14.6 Compositing

14.6.1 Kaukua

Kaukua assays have been composited to 6 m intervals prior to grade estimation. Uncapped and capped Cu, Ni, Co, Pt, Pd, and Au grades were composited. The summary statistics are shown in Table 14-19 and Table 14-20 for the Upper and Lower Zones, respectively.

The length-weighted average grades of the composites are very similar to those of the assays, indicating that the compositing process has resulted in a reasonable representation of the original assays. The capping and compositing processes in the Upper Zone have reduced the coefficient of variation (CV) values of the composites to below 1.5. In the Lower Zone, the CV values are low (below 1). These results indicate that the domains are suitable for Mineral Resource estimation.

Table 14-19: Length Weighted Summary Statistics of 6 m Composites, Upper Zone
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Number	Min	Max	Uncapped Average	CV	Capped Average	Capped CV
Au (g/t)	1,306	0.0	0.67	0.03	1.31	0.02	0.88
Cu (ppm)	1,306	28.0	9,760.0	537.9	0.84	519.7	0.68
Ni (ppm)	1,306	48.0	2,346.4	693.2	0.51	691.8	0.51
Pd (ppm)	1,306	0.0	0.89	0.06	1.28	0.06	1.22
Pt (g/t)	1,306	0.0	0.30	0.02	1.49	0.02	1.42
Co (ppm)	1,306	0.0	158.5	63.0	0.31	62.9	0.31

Table 14-20: Length Weighted Summary Statistics of 6 m Composites, Lower Zone
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Number	Min	Max	Uncapped Average	CV	Capped Average	Capped CV
Au (g/t)	1,526	0.0	1.90	0.05	1.40	0.05	0.93
Cu (ppm)	1,526	2.5	5,678.2	984.0	0.78	964.7	0.75
Ni (ppm)	1,526	27.3	3,844.6	945.7	0.57	936.8	0.56
Pd (ppm)	1,526	0.0	4.00	0.44	1.00	0.43	0.99
Pt (g/t)	1,526	0.0	1.40	0.16	0.98	0.15	0.97
Co (ppm)	1,526	0.0	134.8	61.1	0.43	60.8	0.42

14.6.2 Murtolampi

Murtolampi assays have also been composited into 6 m intervals prior to grade estimation. Uncapped and capped Cu, Ni, Co, Pt, Pd, and Au grades were composited. The summary statistics are shown on Table 14-21.

The length-weighted average grades of the composites are very similar to those of the assays, indicating that the compositing process has resulted in a reasonable representation of the original assays. The capping and compositing processes have reduced the CV values of the composites to below 1.0. These results indicate that the domains are suitable for Mineral Resource estimation.

Table 14-21: Length Weighted Summary Statistics of 6 m Composites, Murtolampi
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Number	Min	Max	Uncapped Average	CV	Capped Average	Capped CV
Au (g/t)	125	0.0	0.40	0.04	1.07	0.04	0.77
Cu (ppm)	125	25.0	2,679.0	974	0.58	971.0	0.58

Metal	Number	Min	Max	Uncapped Average	CV	Capped Average	Capped CV
Ni (ppm)	125	192.0	2,998.0	1,171.0	0.54	1,167.0	0.53
Pd (ppm)	125	0.0	1.14	0.32	0.74	0.32	0.73
Pt (g/t)	125	0.0	0.71	0.18	0.76	0.18	0.75
Co (ppm)	125	22.0	176.0	84.0	0.45	84.0	0.45

14.6.3 Haukiaho

Haukiaho assays have been composited into 5 m intervals prior to grade estimation. Uncapped and capped Cu, Ni, Co, Pt, Pd, and Au grades were composited. The summary statistics are shown in Table 14-22 and Table 14-23.

The length-weighted compositing results indicate that the average grades of Au, Pd, and Pt with regression are increased by 4% to 5% in the West Zone and between 45% (Pd) and 73% (Au) in the East Zone. While these relative percentage increases are high, the absolute increases in grades are deemed to be small.

Composites for 10 m intervals were also created for constructing a nearest neighbour (NN) model for validation. The mean grades of the 10 m composites are the same as those for the 5 m composites. Grade shell boundaries were used to limit all composite lengths.

Table 14-22: Length Weighted Summary Statistics of 5 m Composites, Haukiaho West Zone
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Number	Min	Max	Uncapped Average	CV	Capped Average	Capped CV
Au (g/t)	631	0	0.36	0.06	1.2	0.06	1.16
Cu (ppm)	631	10	5,333	1,141	1.01	1,182	0.99
Co (ppm)	631	0	472	62	0.64	57	0.5
Ni (ppm)	631	0	4,050	1,030	0.7	1,029	0.7
Pd (ppm)	631	0	0.99	0.16	1.21	0.16	1.21
Pt (g/t)	631	0	0.45	0.06	1.2	0.06	1.19
Au Regression	631	0	0.36	0.06	1.15	0.06	1.11
Pd Regression	631	0	0.99	0.16	1.17	0.16	1.16
Pt Regression	631	0	0.45	0.06	1.15	0.06	1.15

Table 14-23: Length Weighted Summary Statistics of 5 m Composites, Haukiaho East Zone
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Number	Min	Max	Uncapped Average	CV	Capped Average	Capped CV
Au (g/t)	85	0	0.71	0.06	1.09	0.06	1.16
Cu (ppm)	85	90	5159	1,495	0.74	1,492	0.99
Co (ppm)	85	0	223	46	0.97	42	0.5

Metal	Number	Min	Max	Uncapped Average	CV	Capped Average	Capped CV
Ni (ppm)	85	0	2895	1007	0.69	1,007	0.7
Pd (ppm)	85	0	0.53	0.12	1.11	0.12	1.21
Pt (g/t)	85	0	0.25	0.05	1.26	0.05	1.19
Au Regression	85	0	0.71	0.09	0.82	0.09	0.78
Pd Regression	85	0	0.55	0.16	0.86	0.16	0.86
Pt Regression	85	0	0.25	0.08	0.83	0.08	0.83

14.7 Trend Analysis

14.7.1 Kaukua Variography

There is sufficient data to model directional variograms at Kaukua within the Pit, Lower Zone area and the South, Upper Zone area.

Downhole correlograms were calculated and fit with the purpose of modelling the nugget effect. Directional experimental correlograms were calculated for each metal (Au, Cu, Pd, Pt, Ni, and Co) in unfolded space in the three principal directions of continuity (along strike, down-dip, and across-dip). The experimental correlograms were fit using a nugget effect and two nested structures, the first using a spherical model and the second using an exponential model.

The nugget effect of the correlograms for each metal generally vary from 20% to 30% of the sill, reflecting the low variability (as observed in the CV values of the composites) of the mineralization. The Lower Zone correlograms show somewhat lower nugget effects than the Upper Zone correlograms. Generally, the correlograms show similar sills and ranges as would be expected based on the moderate to high correlation between the metals.

For the grade estimates, the variogram models were simplified into sets, as provided in Table 14-24, based on the correlation between variables. As a result of the moderate to high correlation between metals, the decision was made to use three variograms for grade estimation. For the Lower Zone, the Lower Zone Cu variogram model was used to estimate all metals. In the Upper Zone, the Upper Zone Cu variogram model was used to estimate Au, Cu, Pd and Pt, and the Ni variogram model was used to estimate Ni and Co.

Table 14-24: Variogram Parameters
Palladium One Mining Inc. – Läntinen Koillismaa Project

	Nugget	1st Sill	2nd Sill	1st Structure Ranges			2nd Structure Ranges		
				Major	Semi-Major	Vertical	Major	Semi-Major	Vertical
Upper Zone									
Au, Cu, Pd, Pt	0.25	0.08	0.67	50	50	20	180	125	35
Ni, Co	0.25	0.22	0.53	50	50	15	190	160	35
Lower Zone									

Au, Cu, Pd, Pt, Ni, Co	0.2	0.08	0.72	50	50	20	180	130	50

14.7.2 Murtolampi Variography

There is insufficient data to model a directional variogram at Murtolampi.

14.7.3 Haukiaho Variography

There is insufficient data to model a directional variogram at Haukiaho. Downhole variograms have been reviewed, and the nugget effect of the variograms for each metal vary from almost 0% to 10% of the sill, reflecting the low variability of the mineralization.

14.8 Search Strategy and Grade Interpolation Parameters

14.8.1 Kaukua

Estimation of Au, Cu, Ni, Co, Pd, and Pt grades was completed in two passes. Only composites falling within the grade shells were used to estimate the blocks within the grade shells. Limited sharing of composites was permitted during the estimation of block grades. For example, blocks falling within the subdomain code 25 were estimated using composites from the adjacent subdomains 20, 25, and 30.

Dynamic unfolding was used in Minesight software to accommodate local changes in the dip and strike of the mineralization. For each area, the major direction (down-dip) was chosen to coincide with the trends of higher-grade mineralization, as illustrated in Figure 14-2.

All estimation was completed using OK. In the first pass, grades were estimated with a minimum of three composites, a maximum of eight composites, and a maximum per hole of two composites. In the second pass, a minimum of one composite, maximum of eight composites, and a maximum of one composite per hole were used. The first pass search ellipse had dimensions of 120 m (along strike) x 120 m (down-dip) x 60 m (across-dip) and the second pass search ellipse has dimensions of 200 m x 200 m x 60 m.

In the first pass, these parameters imply that a minimum of two holes and a maximum of four holes are used for estimation of block grades. In the second pass, a minimum of one hole and a maximum of eight holes are used.

Table 14-25 provides a summary of the search strategy and grade interpolation parameters used.

Table 14-25: Search Strategy and Grade Interpolation Parameters
Palladium One Mining Inc. – Läntinen Koillismaa Project

Pass	Composites			Drill Holes		Search Ellipsoids (m)		
	Min. №	Max. №	Max. per Drill Hole	Min. № Drill Holes	Max. № Drill Holes	Major	Semi-Major	Minor
1	3	8	2	2	4	120	120	60
2	1	8	1	1	8	200	200	60

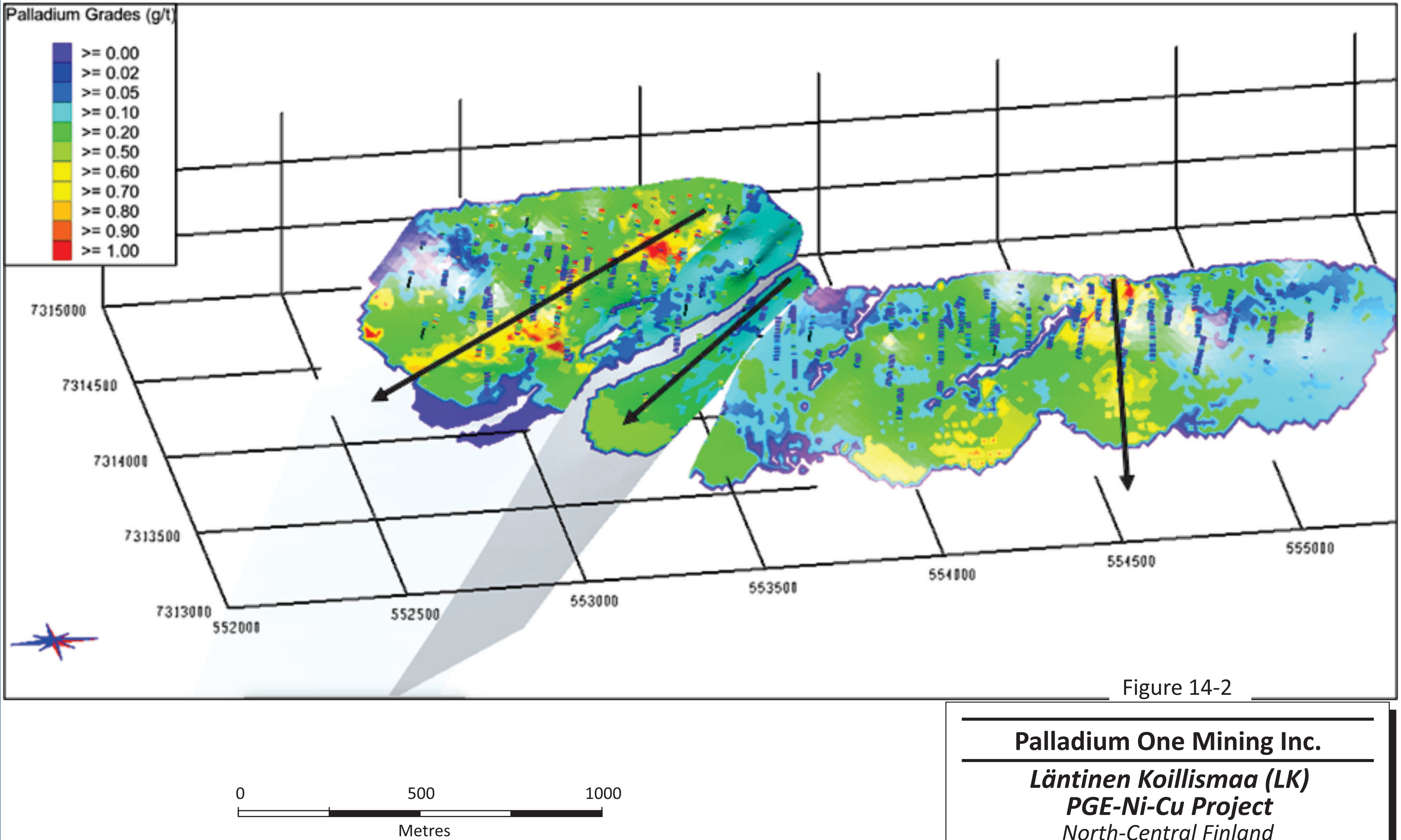


Figure 14-2

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Higher Grade Trends in Palladium Mineralization

May 2022

Source: Palladium One, 2022

14.8.2 Murtolampi

Estimation of Au, Cu, Ni, Co, Pd, and Pt grades was completed in two passes. Only composites falling within the grade shells were used to estimate the blocks within the grade shells. Fixed anisotropy directions were selected based on the geometry (strike and dip) of the mineralization.

All estimation was completed using OK, adopting the same search strategy and grade interpolation parameters used for Kaukua (Table 14-25).

14.8.3 Haukiaho

Estimation of Au, Cu, Ni, Co, Pd, and Pt grades was completed in two passes. Only composites falling within the grade shells were used to estimate the blocks within the grade shells. Dynamic unfolding was used in Minesight software to accommodate local changes in the dip and strike of the mineralization.

All estimation was completed using inverse distance weighting cubed (IDW^3), with a NN estimate also performed as a check on each of the IDW^3 estimates.

Table 14-26 provides a summary of the search strategy and grade interpolation parameters used for Haukiaho.

Table 14-26: Search Strategy and Grade Interpolation Parameters, Haukiaho
Palladium One Mining Inc. – Läntinen Koillismaa Project

Pass	Composites			Drill Holes		Search Ellipsoids (m)		
	Min. №	Max. №	Max. per Drill Hole	Min. № Drill Holes	Max. №. Drill Holes	Major	Semi-Major	Minor
1	3	8	2	2	4	200	200	200
2	2	8	2	1	4	300	300	300

14.9 Bulk Density

14.9.1 Kaukua and Murtolampi

A dry bulk density of 1.8 g/cm³ was used for overburden material. Average density values were used for basement, gabbro, Ti-gabbro, and diabase, as provided in Table 14-27.

Table 14-27: Density Data Summary
Palladium One Mining Inc. – Läntinen Koillismaa Project

	Count	Min.	Max.	Avg. SG	Density Assigned
Overburden	20	1.49	3.08	2.66	1.8
Basement	145	2.65	3.59	2.91	2.91
Gabbro	123	2.03	3.52	2.95	2.9
Ti-gabbro	204	2.85	3.55	3.23	2.95
Diabase	64	2.58	3.16	2.96	2.95

14.9.2 Haukiaho

A dry bulk density of 2.0 g/cm^3 was used for overburden material. Densities of 2.7 g/cm^3, 2.9 g/cm^3, and 3.0 g/cm^3 were used for basement, gabbro-peridotite-pyroxenite, and diabase, respectively. These values are based on density values from laboratory measurements of 2,530 samples taken from historical (R-series) drill holes.

Density values were applied to the block model based on the proportion of each block in each different modelled lithology.

14.10 Block Models

14.10.1 Block Size and Frameworks

The block sizes were selected based on the style of mineralization and envisaging a bulk open pit mining scenario.

The Haukiaho block model is a percent model whereby the percentage of each block sitting within the overburden (OBPCT), Diabase (DBPCT), and the mineralization (PHPCT) is stated as a value in each respective column.

The selected block sizes and block model frameworks are provided in Table 14-28.

Table 14-28: LK Project Block Model Frameworks
Palladium One Mining Inc. – Läntinen Koillismaa Project

Parameter	Kaukua Area	Murtolampi	Haukiaho
Block Size (m)	6 m x 6 m x 6 m	6 m x 6 m x 6 m	10 m x 10 m x 10 m
XYZ Origin (m)	552,200, 7,312,900, -250	554,500, 7,316,000, -130	545,000, 7,301,000, -450
Number of Blocks in XYZ	900, 300, 100	200, 145, 30	1,400, 400, 75

SLR notes that a larger block size is used for Haukiaho than for Kaukua. SLR recommends that the block size be revisited as the Project advances and geotechnical studies are performed.

The QP is of the opinion that the block sizes are suitable for the style of mineralization and proposed mining method.

14.10.2 Kaukua Firm Boundary Coding

The threshold of 0.6 g/t PdEq (used to model the higher-grade domains) is close to the anticipated marginal cut-off grade. To avoid over-estimation of grade and under-estimation of tonnage above the cut-off grade, a firm boundary was used to allow limited sharing of composites across the 0.6 g/t PdEq domain boundaries.

The hangingwall and footwall surfaces of the 0.6 g/t PdEq domains were each gridded to a 6 m x 6 m surface elevation model (SEM). The points from the SEMs were extracted and the distances interpolated to blocks and composites within the mineralization domains. Blocks and composites falling within 9 m (approximating the diagonal distance of a 6 m x 6 m x 6 m block) were flagged.

The resulting firm subdomain boundary coding is shown schematically in Figure 14-3 and an example cross-section is shown in Figure 14-4.

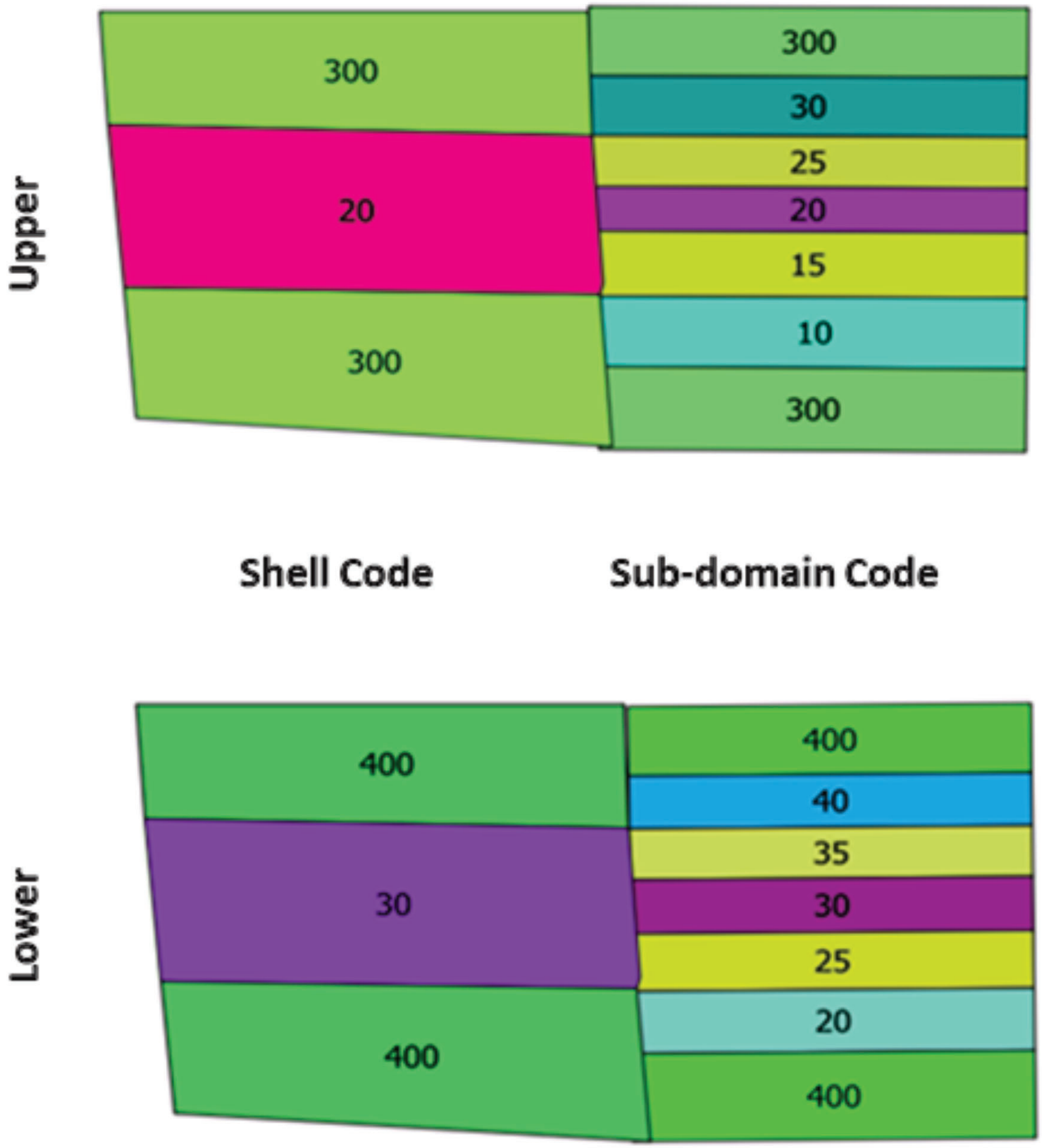


Figure 14-3

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Schematic Diagram of Firm Contact Coding in Blocks and Composites

May 2022 **Source: Palladium One, 2022**

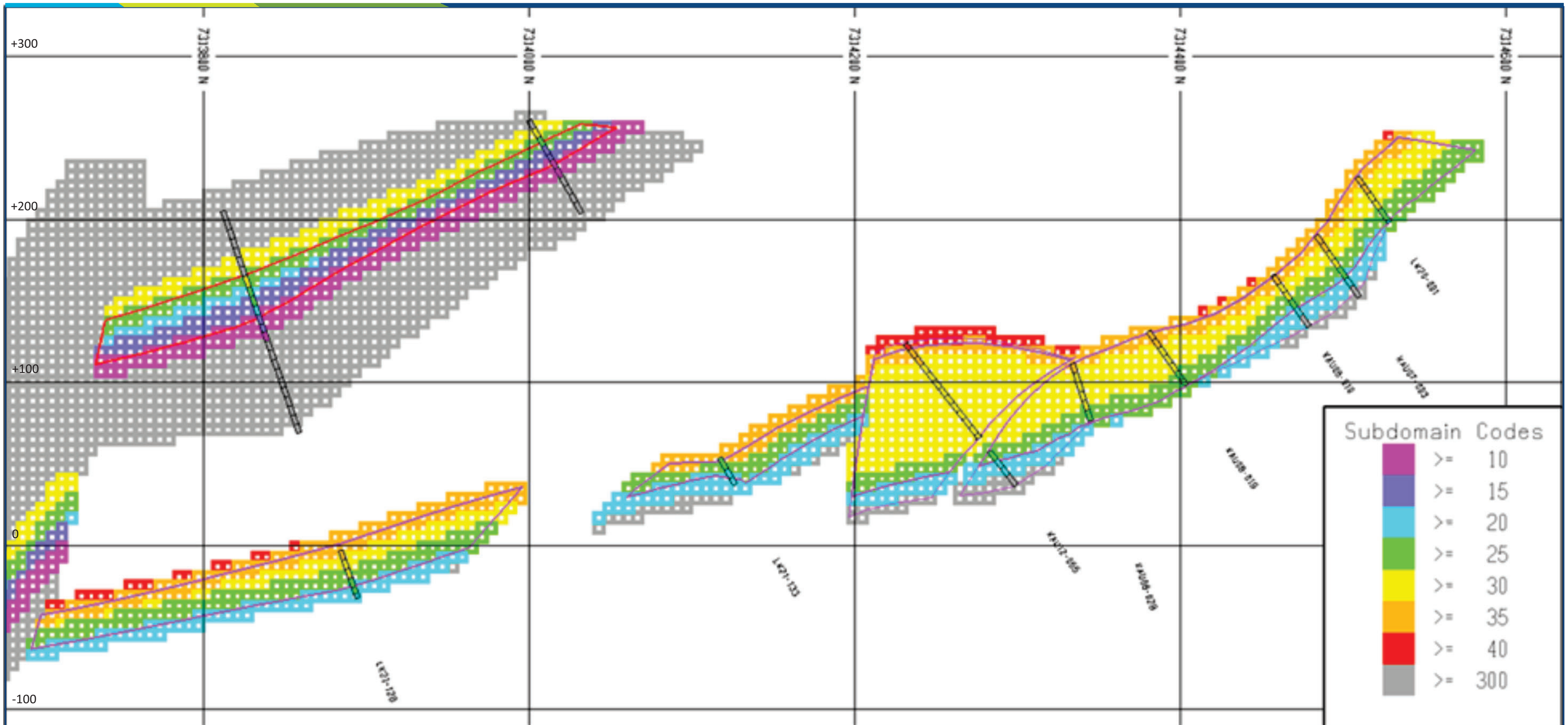
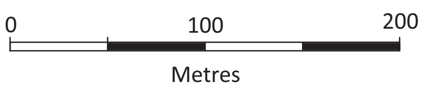


Figure 14-4

Palladium One Mining Inc.

Läntinen Koillismaa (LK)
PGE-Ni-Cu Project
North-Central Finland

North-South Orientated Section (553,413 E) Showing Firm Contact Coding in Blocks and Composites



May 2022

Source: Palladium One, 2022

14.11 Classification

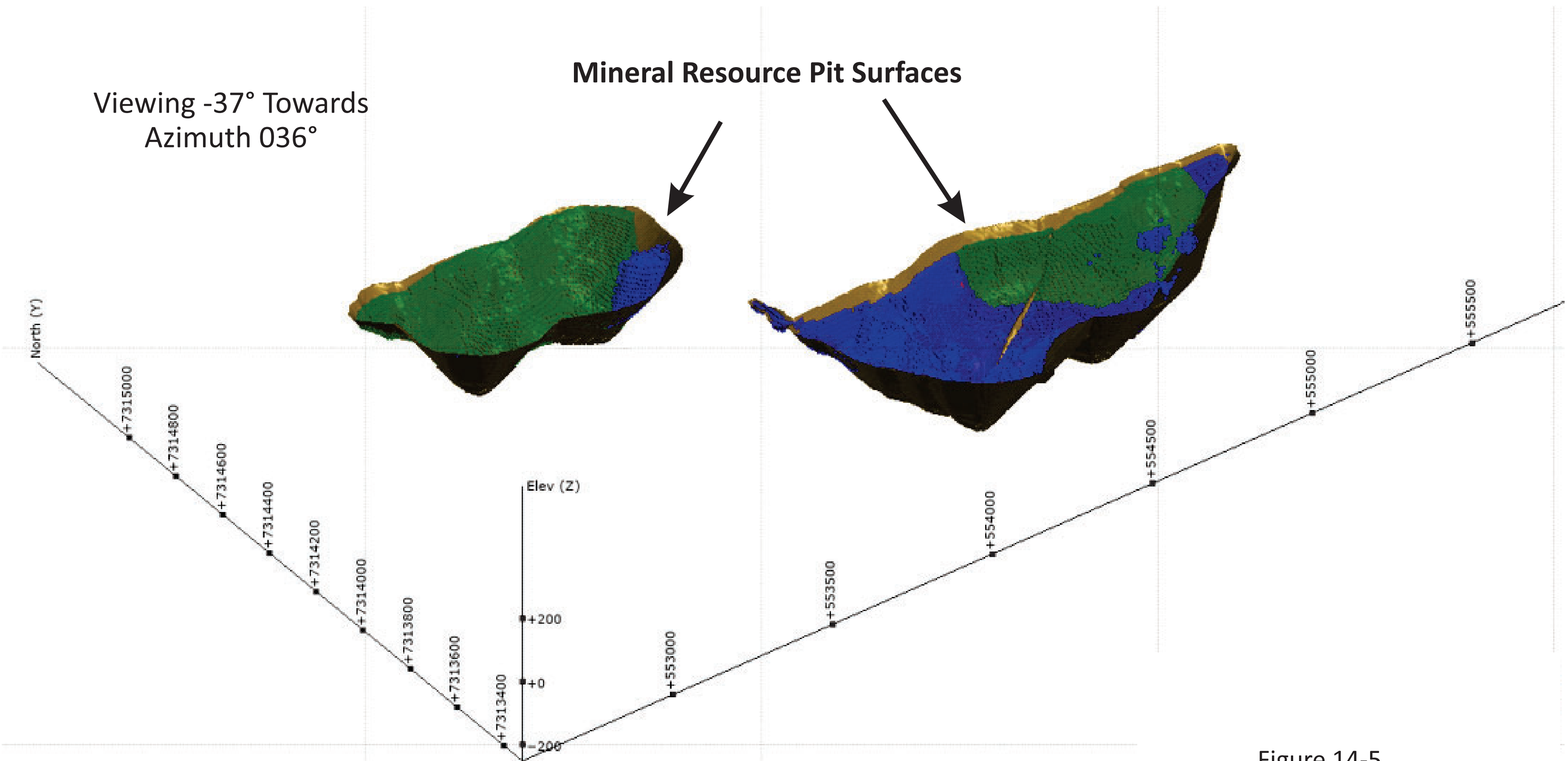
Definitions for resource categories used in this report are consistent with those defined by CIM (2014) and adopted by NI 43-101. In the CIM classification, a Mineral Resource is defined as "a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction". Mineral Resources are classified into Measured, Indicated, and Inferred categories. A Mineral Reserve is defined as the "economically mineable part of a Measured and/or Indicated Mineral Resource" demonstrated by studies at Pre-Feasibility or Feasibility level as appropriate. Mineral Reserves are classified into Proven and Probable categories.

At Kaukua, blocks falling within the mineralization wireframes and less than 80 m from the nearest composite are classified into the Inferred category. The mineralization displays good grade continuity between drill holes and low variability in grades (as shown by the low CV values of the composites). Indicated category blocks were classified using a drill hole spacing of 50 m x 50 m in the Pit area and a spacing of 50 m x 100 m in the South area.

All estimated blocks were classified into the Inferred category at Murtolampi.

For Haukiaho, all blocks falling within the mineralization wireframes and less than 120 m of the nearest composite were classified into the Inferred category. The mineralization similarly displays good continuity between drill holes and low variability in grades (as shown by the low CV values of the composites). Classifications have been limited to Inferred due to the limitations with QA/QC for historical data, the generally wide-spaced drilling, and the early-stage of metallurgical testing at Haukiaho.

Isometric views of the classified blocks above the preliminary open pit constraining surface and with unit NSR values exceeding the pit discard cut-off for the Kaukua, Murtolampi, and Haukiaho areas are provided in Figure 14-5, Figure 14-6, and Figure 14-7, respectively.



Legend:

Indicated Mineral Resources

Inferred Mineral Resources

0 1,000

Metres

Figure 14-5

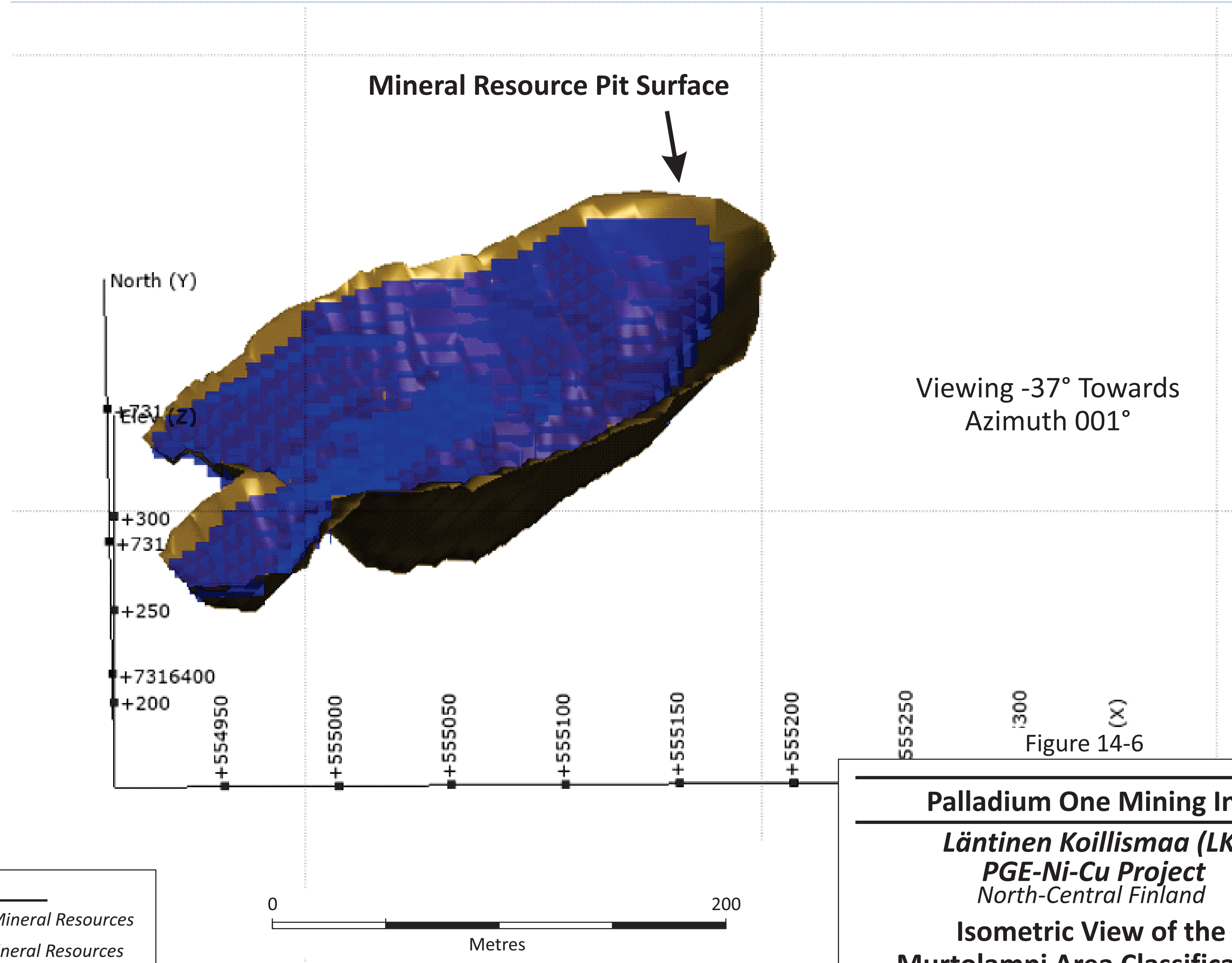
Palladium One Mining Inc.

Läntinen Koillismaa (LK)
PGE-Ni-Cu Project
North-Central Finland

Isometric View of the
Kaukua Area Classification

May 2022

Source: SLR, 2022



Legend:
- *Indicated Mineral Resources*
- *Inferred Mineral Resources*

May 2022

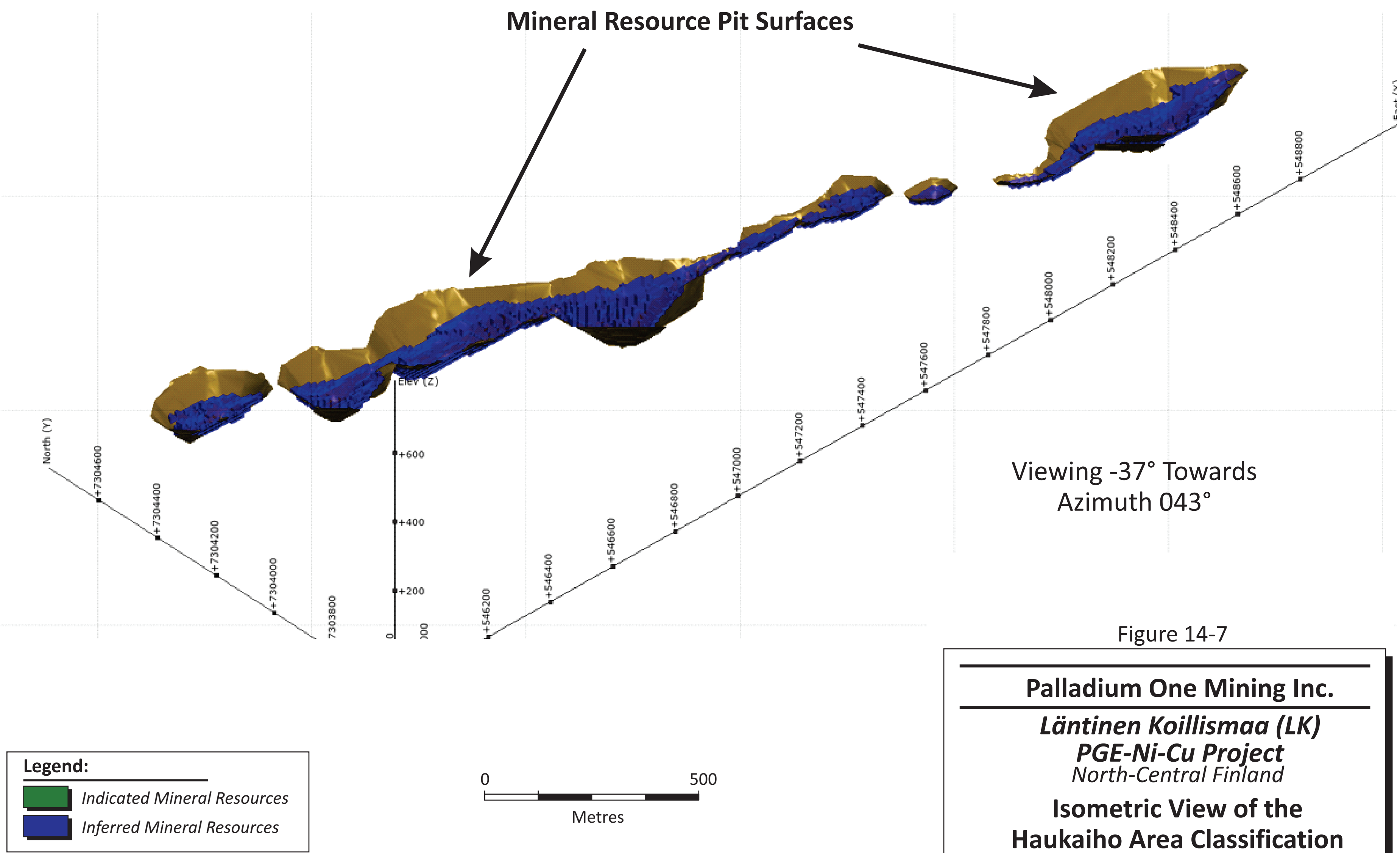
Source: SLR, 2022

Figure 14-6

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project
North-Central Finland

Isometric View of the Murtolampi Area Classification



May 2022

Source: SLR, 2022

Figure 14-7

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

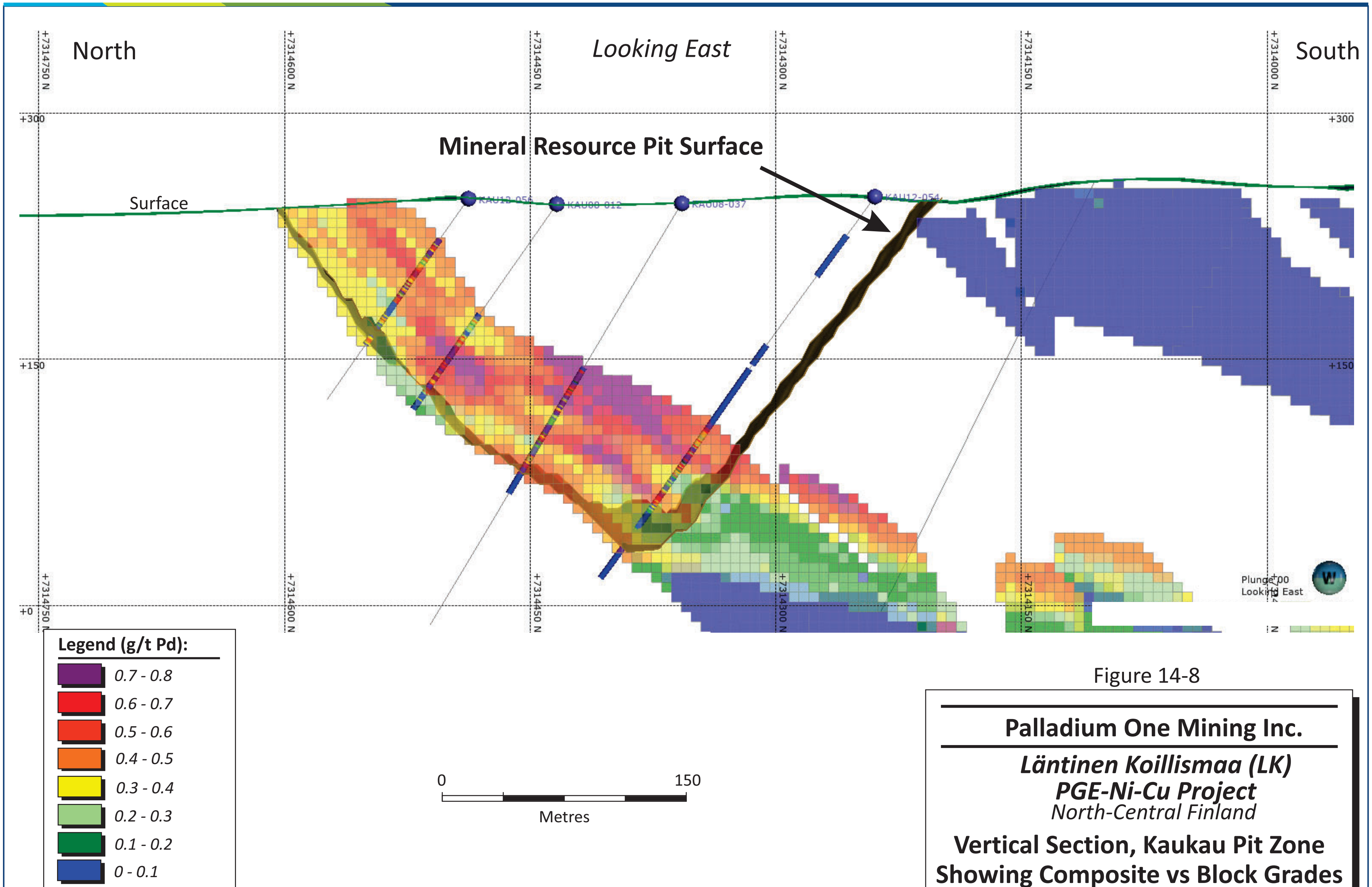
Isometric View of the Haukaiho Area Classification

14.12 Block Model Validation

14.12.1 Visual Validation

Visual validation has been completed of the Kaukua and Murtolampi block models with the input assay data on sections, which were examined for reproduction of the input data in the block model. It was found that the model is reasonable within the mineralization wireframes. The grade trends closely follow changes in dip and strike of the mineralization.

Vertical sections through the Kaukua, Kaukua South, Murtolampi, and Haukiaho block models showing the Pd composite versus block model grades are provided in Figure 14-8 to Figure 14-11.



May 2022

Source: SLR, 2022

Figure 14-8

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Vertical Section, Kaukau Pit Zone Showing Composite vs Block Grades

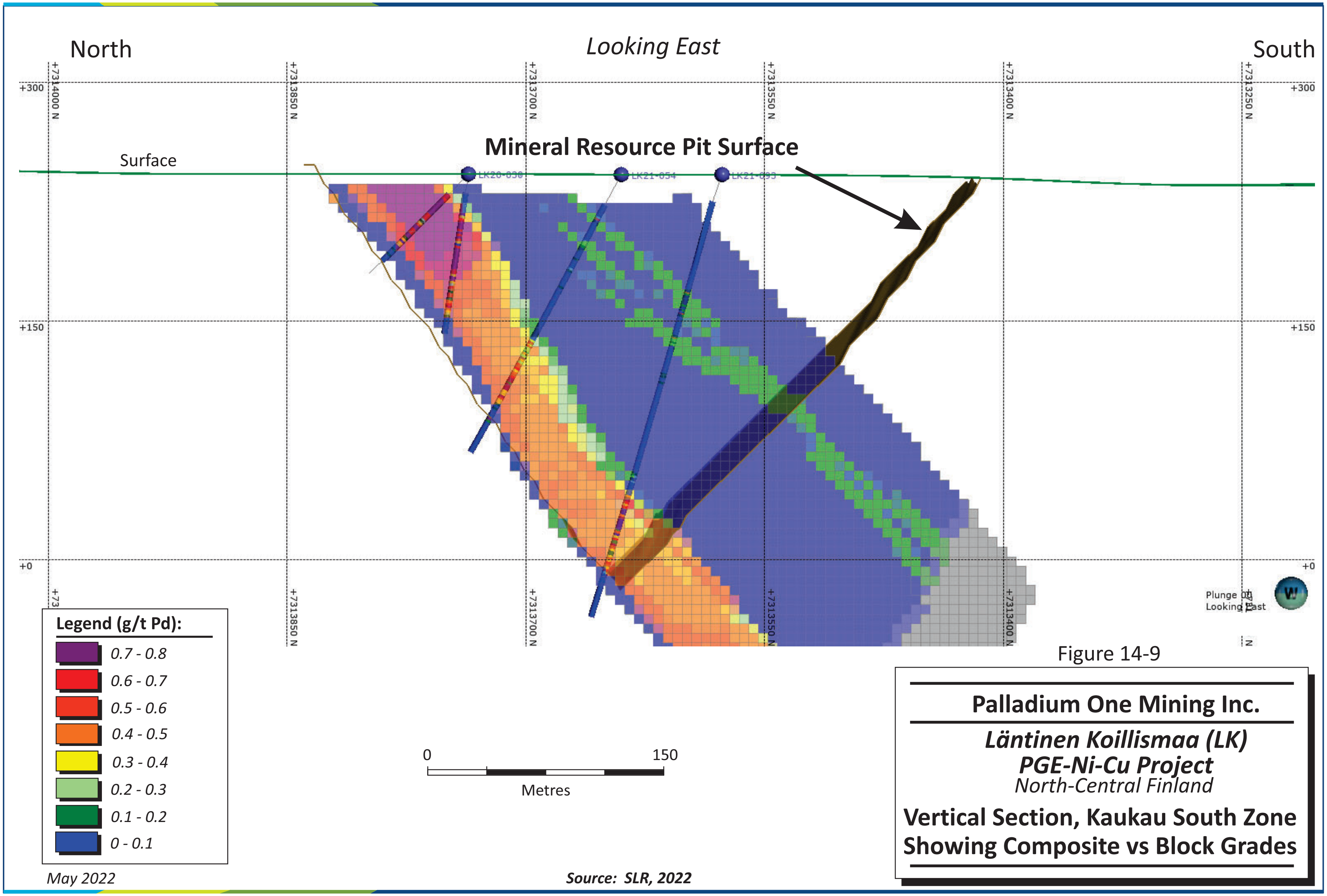


Figure 14-9

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Vertical Section, Kaukau South Zone Showing Composite vs Block Grades

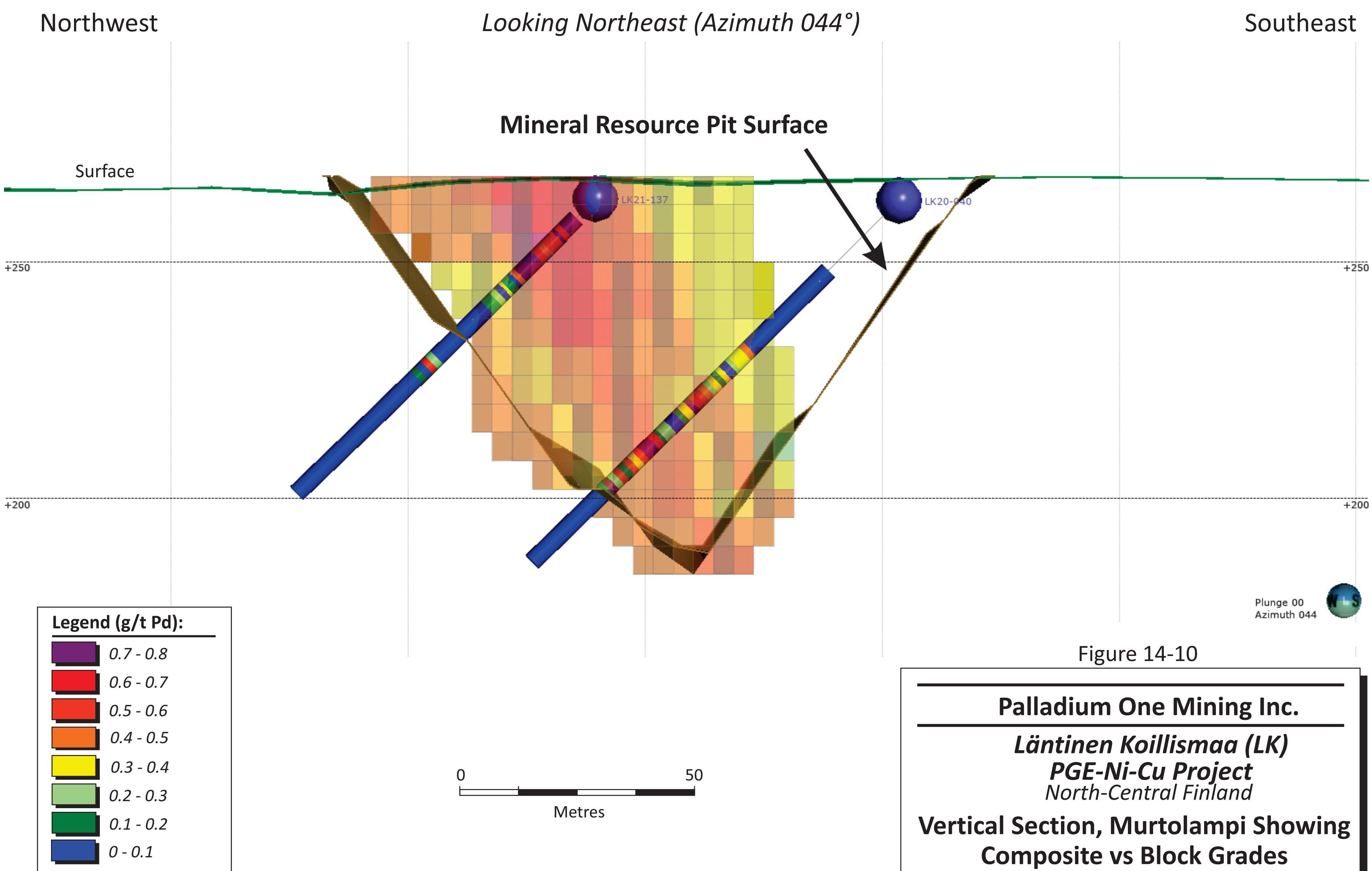


Figure 14-10

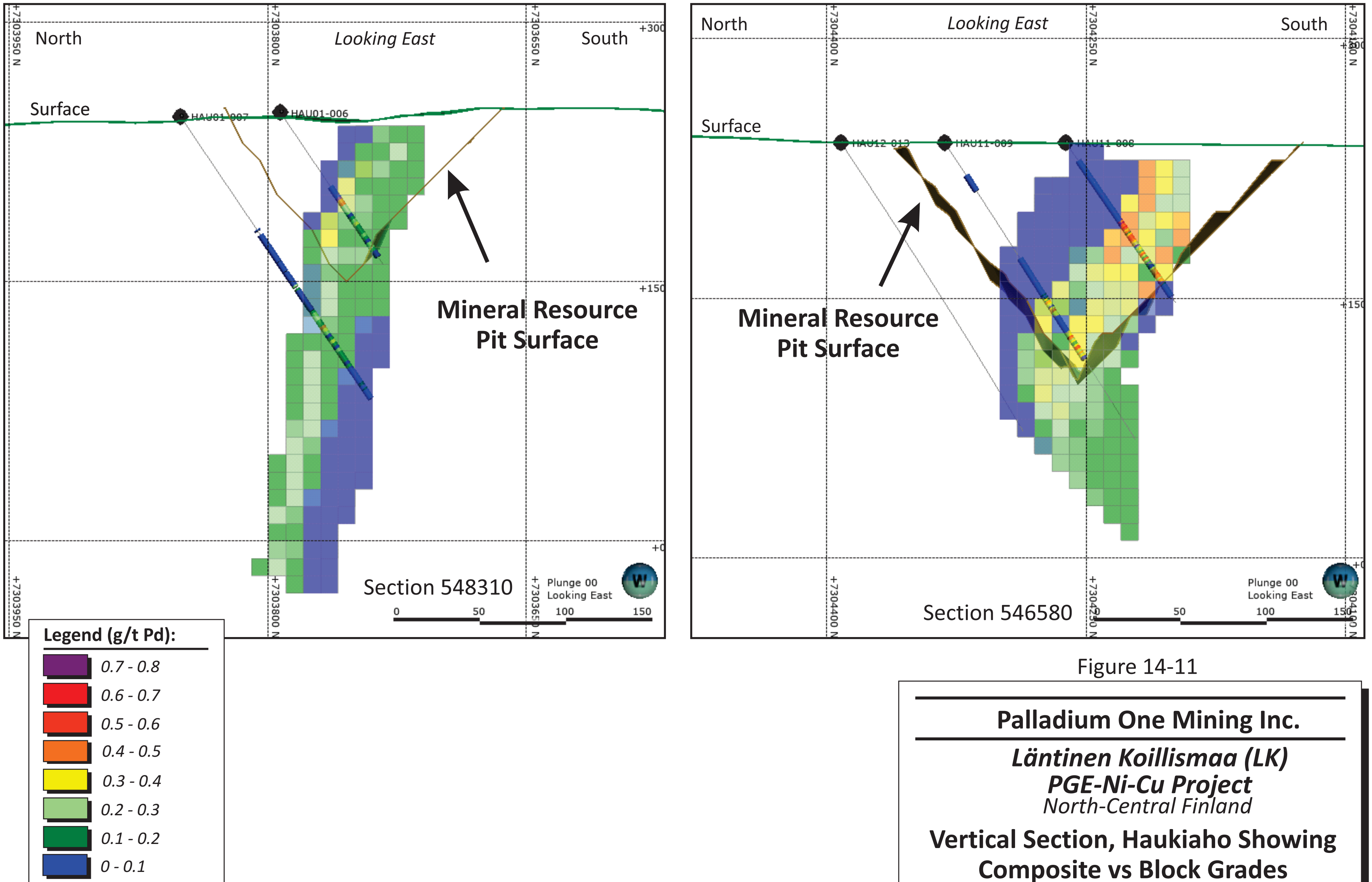
Palladium One Mining Inc.

Läntinen Koillismaa (LK)
PGE-Ni-Cu Project
North-Central Finland

Vertical Section, Murtolampi Showing Composite vs Block Grades

May 2022

Source: SLR, 2022



May 2022

Source: SLR, 2022

Figure 14-11

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Vertical Section, Haukiaho Showing Composite vs Block Grades

14.12.3 Global Statistical Validation

OK and IDW^3 grade estimates were also checked through global validation by comparing summary statistics with those from a NN model. The differences in the average grades are generally less than 5%, demonstrating that the OK and IDW^3 models accurately reproduce the input average grades of the declustered composites. Comparative statistics are provided in Table 14-29 to Table 14-31.

Table 14-29: Summary Statistics, Kaukua Indicated and Inferred Mineral Resource Category Blocks
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Number	Ordinary Kriged Model			Nearest Neighbour Model			% Difference (OK-NN/NN)
		Min.	Max.	Avg.	Min.	Max.	Avg.	
Au (g/t)	826,287	0.00	0.24	0.03	0.00	0.42	0.03	1.1%
Cu (ppm)	826,289	0.0	3,221.0	627.5	0.0	4,492.5	623.7	0.6%
Ni (ppm)	826,289	0.0	2,356.7	768.3	0.0	2,495.5	770.2	-0.3%
Pd (ppm)	826,245	0.00	1.93	0.17	0.00	3.12	0.17	0.4%
Pt (g/t)	826,144	0.00	0.73	0.06	0.00	1.25	0.06	0.6%

Table 14-30: Summary Statistics, Murtolampi Inferred Mineral Resource Category Blocks
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Number	Ordinary Kriged Model			Nearest Neighbour Model			% Difference (OK-NN/NN)
		Min.	Max.	Avg.	Min.	Max.	Avg.	
Au (g/t)	9,866	0.01	0.12	0.04	0.00	0.16	0.04	6.3%
Cu (ppm)	9,866	342	2048	994	25	2679	949	4.8%
Ni (ppm)	9,866	478	2387	1174	192	2901	1143	2.7%
Pd (ppm)	9,866	0.05	0.83	0.33	0.00	1.12	0.31	4.6%
Pt (g/t)	9,866	0.03	0.48	0.19	0.00	0.68	0.18	4.5%

Table 14-31: Summary Statistics, Haukiaho Inferred Mineral Resource Category Blocks
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Number	Inverse Distance Weighting Cubed Model			Nearest Neighbour Model			% Difference (IDW^3-NN/NN)
		Min.	Max.	Avg.	Min.	Max.	Avg.	
Cu (ppm)	22,233	21	5,246	1,049	20	4,264	1,051	-0.1%
Co (ppm)	22,233	9	151	58	8	152	57	1.40%
Ni (ppm)	22,233	65	3,481	972	58	3,014	965	0.80%
Au (g/t)	22,233	0	0.31	0.05	0	0.27	0.05	-1.2%
Pd (ppm)	22,233	0	0.9	0.16	0	0.75	0.15	0.50%
Pt (g/t)	22,233	0	0.42	0.06	0	0.31	0.06	0.30%

14.12.4 Local Validation – Swath Plots

Swath plots for Palladium by easting, northing, and elevation for composites, NN, OK, and IDW^3 blocks are shown in Figure 14-12, Figure 14-13, and Figure 14-14 for Kaukua, Murtolampi, and Haukiaho, respectively. The swath plots show that there are negligible differences between the NN and OK models. The grades are generally lower than the composite grades as a result of the declustering effect.

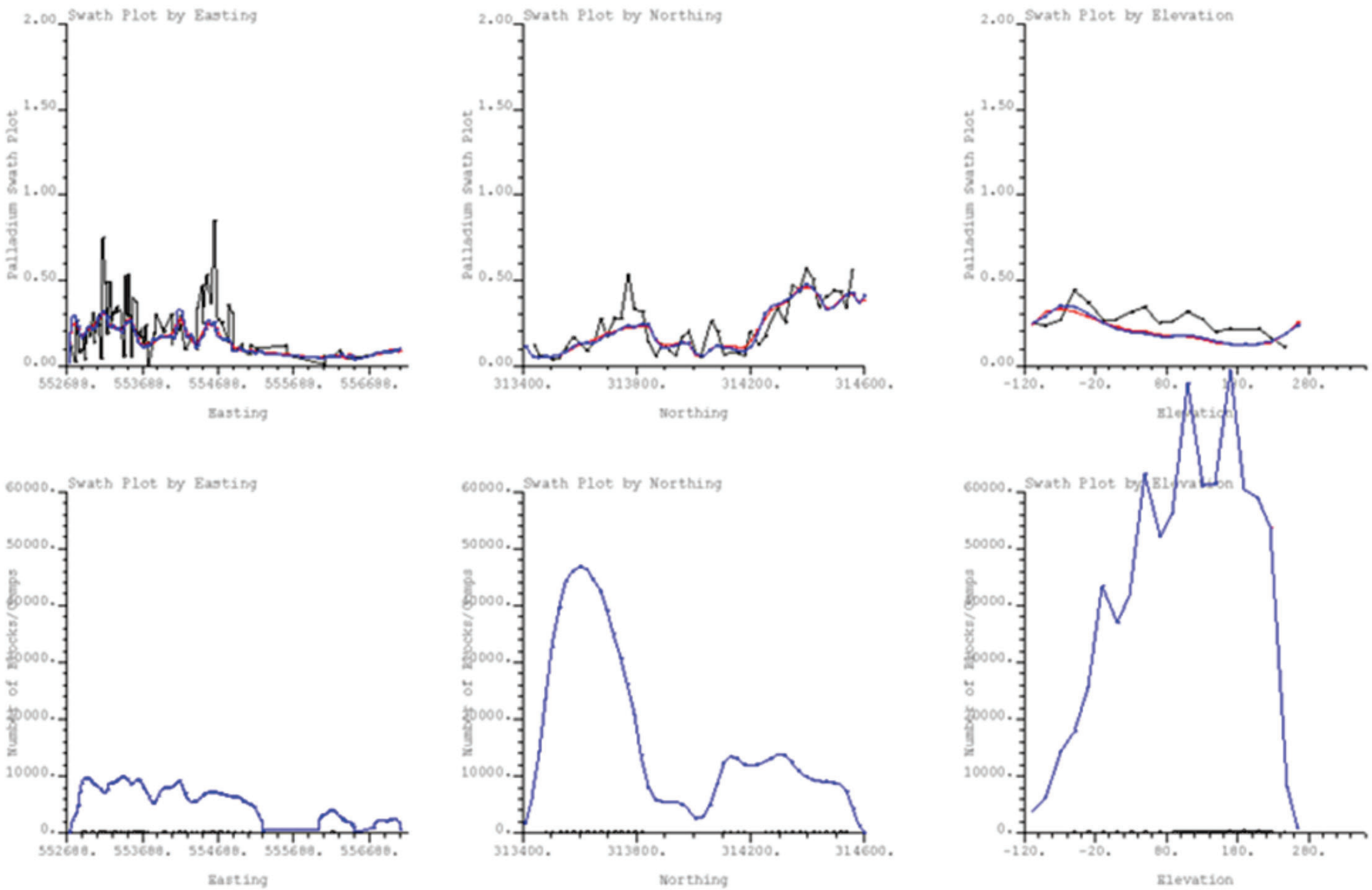


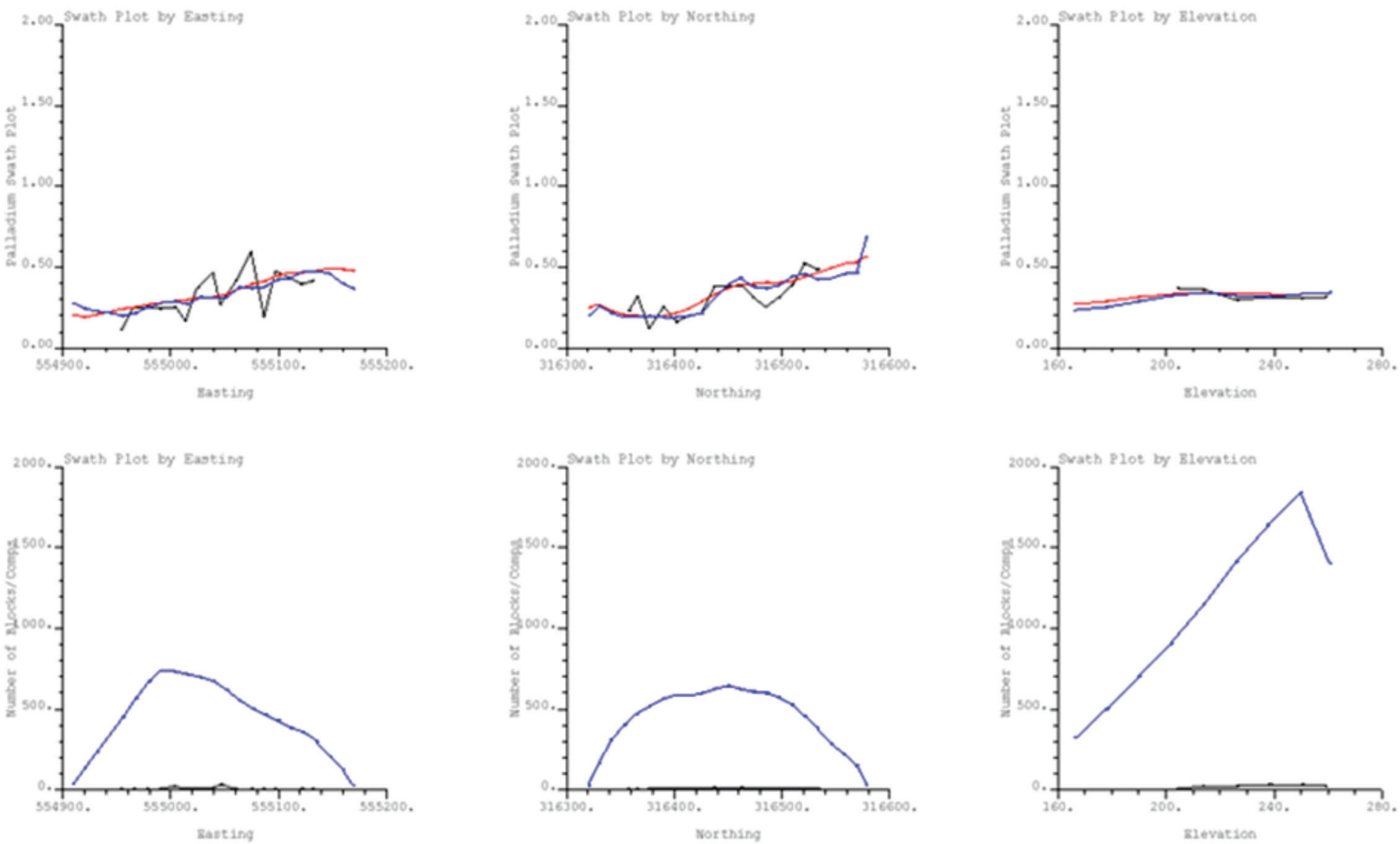
Figure 14-12

Palladium One Mining Inc.

Läntinen Koillismaa (LK)
PGE-Ni-Cu Project
North-Central Finland

Swath Plots for Palladium, Kaukua

Note: OK model is shown as a red line, NN model is shown as a blue line, and Composites are shown as a black line.



Note: *OK model is shown as a red line, NN model is shown as a blue line, and Composites are shown as a black line*

Figure 14-13

Palladium One Mining Inc.

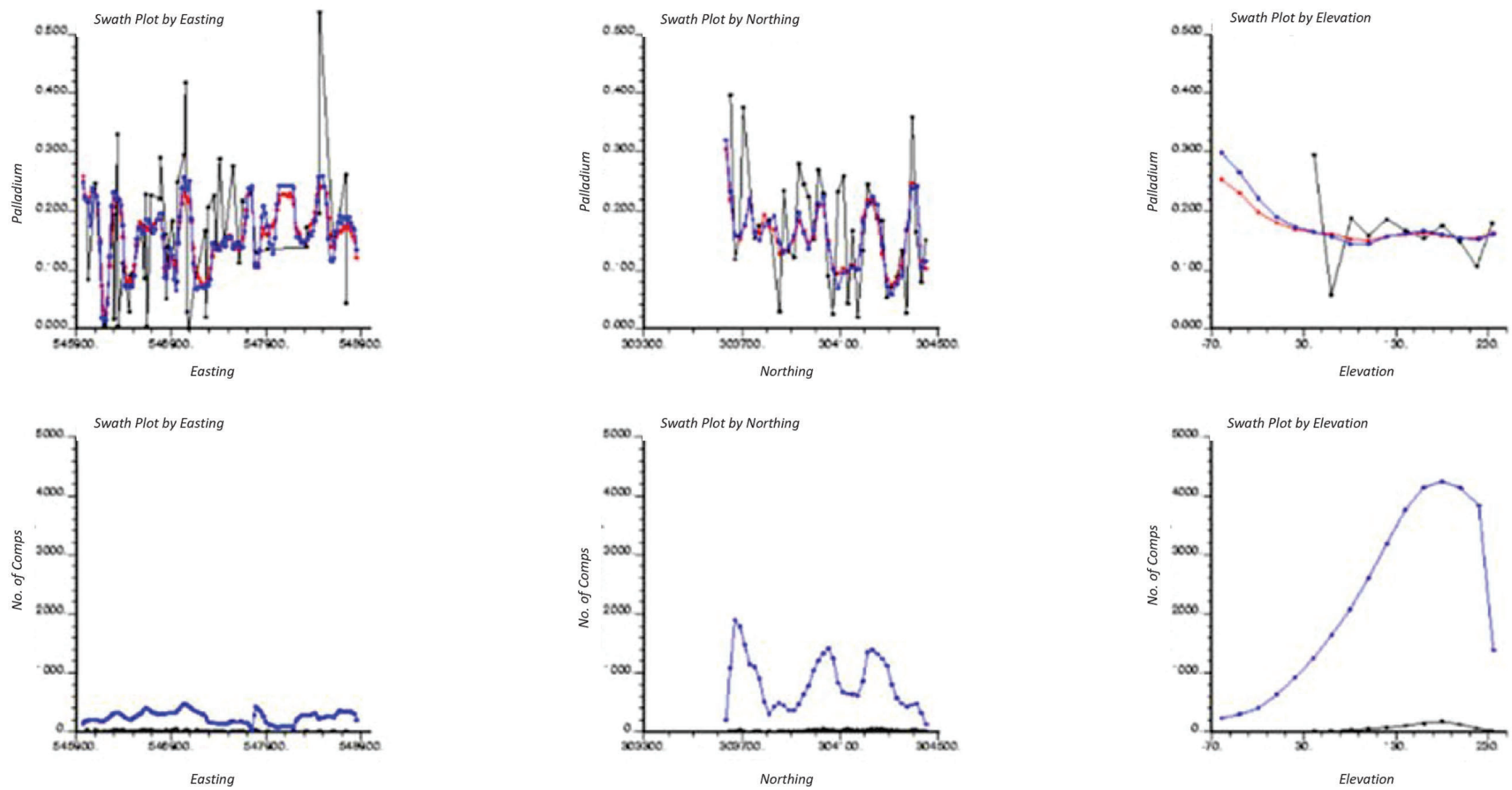
Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Swath Plots for Palladium, Murtolampi

May 2022

Source: Palladium One, 2022



Note: IDW3 model is shown as a red line, NN model is shown as a blue line, and Composites are shown as a black line.

Figure 14-14

Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Swath Plots for Palladium, Haukiaho

14.12.5 Change of Support Checks–- Kaukua

SLR considers that a 6 m x 6 m x 6 m block size is suitable to represent a selective mining unit (SMU) for an open pit mining operation with production rates of approximately 20,000 tonnes per day (tpd).

Block model variance impacts predicted tonnes and grade (model selectivity) above any given cut-off grade. A higher model variance will typically result in less predicted tonnes and higher predicted grade above a given cut-off grade. In other words, a higher model variance results in a higher model selectivity. Model selectivity is typically measured by comparing model grade-tonnage (GT) curves with calculated target model GT curves. Target model GT curves are calculated by correcting for change of support from a reference distribution (usually the declustered sample grade distribution, i.e., a NN model) to the target distribution (in this case, a 6 m x 6 m x 6 m block grade distribution). Target GT curves are dependent on the target model variance. The target model variance is given by:

Target Model Variance = Reference Distribution Variance X Block Dispersion Variance (BDV)

The block dispersion variance is obtained from a unit sill variogram model (USVM).

A change of support selectivity check on OK block grade estimates in the Indicated Resource category was conducted using blocks from a NN model reference distribution. The variance correction factors used in the Discrete Gaussian Model (DGM) corrected grade-tonnage curves were calculated using the grade correlogram models based on 6 m composites.

The results are presented in Table 14-32 and show that the GT curve of the OK model is smoother than the DGM corrected GT curve, assuming a 6 m x 6 m x 6 m SMU size. Based upon the modelled variograms, the internal grade dilution within the kriged grade models is appropriate for the SMU size and allows for some misclassification of ore and waste during mining.

Table 14-32: Change of Support Checks
Palladium One Mining Inc. – Läntinen Koillismaa Project

	NN			Change of Support			Kriged			% Difference		
Cut-Off (Pd g/t)	% Tonnes	Pd (g/t)	% Metal	% Tonnes	Pd (g/t)	% Metal	% Tonnes	Pd (g/t)	% Metal	% Tonnes	Pd (g/t)	% Metal
0.00	100.00	0.40	100.00	100.00	0.40	100.00	100.00	0.40	100.00	0%	0%	0%
0.05	81.52	0.49	99.01	90.71	0.44	99.40	92.92	0.43	99.41	2%	-2%	0%
0.10	71.41	0.54	97.07	81.44	0.48	97.67	85.46	0.46	98.08	5%	-4%	0%
0.15	64.11	0.59	94.84	73.00	0.52	95.05	79.10	0.49	96.11	8%	-6%	1%
0.20	58.91	0.63	92.54	65.24	0.56	91.66	72.93	0.52	93.41	12%	-9%	2%
0.25	53.98	0.67	89.75	58.07	0.60	87.64	65.45	0.55	89.20	13%	-9%	2%
0.30	48.44	0.71	86.05	51.45	0.65	83.10	57.10	0.59	83.50	11%	-9%	0%
0.35	45.06	0.74	83.29	45.39	0.69	78.19	49.44	0.63	77.32	9%	-9%	-1%
0.40	39.31	0.79	77.89	39.88	0.73	73.04	43.02	0.67	71.35	8%	-9%	-2%

14.13 NSR and Cut-Off Grade

The LK Project Mineral Resources, effective April 25, 2022, have been tabulated based on a unit NSR value coded to blocks, a conceptual open pit constraining surface, and an NSR pit discard cut-off grade which includes G&A and processing costs.

While the Haukiaho block model remains unchanged since the previous estimate, the conceptual open pit was re-generated and the Mineral Resources were re-reported based on the updated NSR and cut-off grade.

14.13.1 NSR Calculation

The unit NSR has been calculated considering a Cu and Ni concentrate for Kaukua and Murtolampi, and a bulk concentrate for Haukiaho.

Metal prices used for reserves are based on consensus, long term forecasts from banks, financial institutions, and other sources. For resources, metal prices used are slightly higher than those for reserves. SLR used the price assumptions in Table 14-33 for developing optimized open pit constraints for Mineral Resource estimation purposes. These prices are based on SLR's internal mineral resource cut-off grade price guidance as of January 21, 2022, which were also comparable to Palladium One's own internal price decks.

Table 14-33: SLR Metal Price Assumptions
Palladium One Mining Inc. – Läntinen Koillismaa Project

Element	Unit	Price (US$)
Palladium	oz	1,700
Platinum	oz	1,100
Gold	oz	1,800
Copper	lb	4.25
Nickel	lb	8.50
Cobalt	lb	25.00

Metallurgical recoveries used in the NSR calculation are based on testwork as described in Section 13.0. Haukiaho assumes a bulk concentrate and fixed net recoveries as follows:

- 79.8% Pd
- 80.1% Pt
- 65% Au
- 89% Cu
- 64% Ni
- 0% Co

For the Kaukua Area and Murtolampi, variable formulas were used to calculate rougher recoveries and the net recovery was calculated assuming fixed cleaner recoveries and a fixed Cu to Ni cleaner recovery ratio. The rougher recovery formulas used are as follows:

- Au rougher recovery = 0.091*ln(Au-0.04) + 1.0642
- Pd rougher recovery = 0.0578*ln(Pd-0.07) + 0.8299
- Pt rougher recovery = 0.1109*ln(Pt-0.01) + 0.8194

- Cu rougher recovery = 0.0704*ln(Cu*100) + 1.0591
- Ni rougher recovery = 1.5329*(Ni*100-0.07) + 0.2664
- Co rougher recovery = 50.173*(Co*100) + 0.3508

The payables used in the NSR calculation for the Ni and Cu concentrates are provided in Table 14-34.

Table 14-34: Concentrate Payables
Palladium One Mining Inc. – Läntinen Koillismaa Project

Metal	Kaukua and Murtolampi	Haukiaho
Cu Concentrate Payable %[1]		
Au	98%	
Pd	92%	
Pt	90%	
Cu	96.5%	
Ni	0%	
Co	0%	
Ni Concentrate Payable %		
Au	98%	98%
Pd	90%	90%
Pt	90%	90%
Cu	40%	40%
Ni	65%	65%
Co	40%	40%

Notes:

1. A bulk concentrate is assumed for Haukiaho

Treatment, transport, and refining costs are provided in Table 14-35.

Table 14-35: Treatment, Transport, and Refining Costs
Palladium One Mining Inc. – Läntinen Koillismaa Project

Cost	Au	Pd	Pt	Cu	Ni	Co
Treatment (Cu and Ni concentrates)			US$96.0/t			
Cu Concentrate Transport			US$67.0/t			
Ni Concentrate Transport			US$163.0/t			
Refining	US$4.5/oz	US$15.0/oz	US$15.0/oz	US$0.067/lb	US$0.0/lb	US$0.0/lb

14.13.2 Reasonable Prospects of Eventual Economic Extraction and Cut-off

By definition, a Mineral Resource must have “reasonable prospects for eventual economic extraction” (RPEEE). Regardless of the specific approach used or the procedures followed, the Practitioners must ensure that all Mineral Resource statements satisfy the “reasonable prospects for eventual economic extraction” requirement (CIM 2019).

For the LK Project, the requirements for RPEEE have been met by only reporting blocks above a preliminary open pit constraining surface which accounts for processing costs, G&A, mining costs, and an assumed pit slope angle. Blocks above the preliminary open pit constraining surface were reported above a pit discard cut-off of US$12.5/t.

The pit discard cut-off is based on the generally accepted practice that a decision is made at the pit rim if mined material above the pit discard cut-off will lose less money if it is sent for metal recovery rather than if it is sent to the waste dump. It is considered for further processing if it contains a value that is greater than the costs to process it. As such, the mining cost is not considered in the discard cut-off calculation. A total ore-based cost of US$12.67/t was considered as the breakeven marginal cut-off value for pit optimization. The strip ratio (using a US$12.50/t cut-off value) is 1.50 at Kaukua and 0.19 at Murtolampi.

The preliminary open pit constraining surface is based on the parameters shown in Table 14-36.

Table 14-36: Pit Optimization Assumptions
Palladium One Mining Inc. – Läntinen Koillismaa Project

Parameter	Unit	Value
Overall pit slope angle	Degrees	55
Mining cost	$/t moved	2.53
Processing cost	$/t processed	10.17
G&A cost	$/t processed	2.50
Processing + G&A (pit discard cut-off)	$/t processed	12.50[1]

Notes:

1. The pit discard cut-off is calculated as US$12.67/t but is rounded to US$12.5/t for reporting purposes. The pit optimization uses US$12.67/t.

14.14 Mineral Resource Reporting

Mineral Resources for the LK Project were classified under the 2014 CIM Definition Standards for Mineral Resources and Mineral Reserves by applying a dollar value cut-off that incorporated mining and metallurgical recovery parameters. Mineral Resources reported above a preliminary open pit constraining surface are based on the commodity prices, metallurgical recoveries, and operating costs summarized in Table 14-36.

A detailed breakdown of the LK Project Mineral Resources, effective April 25, 2022, is provided in Table 14-37. Mineral Resources in Kaukua, Haukiaho, and Murtolampi are illustrated in Figure 14-15, Figure 14-16, Figure 14-17, and Figure 14-18, respectively.

The sensitivity of the grade, tonnes, and contained metal to changes in Pd price was assessed by completing separate pit optimizations with varying only Pd prices, while all other metal prices remained fixed. Table 14-38 presents the results, which indicate that the grade, tonnes, and contained metal are sensitive to the Pd price. Increasing the Pd price to $2,500/oz increases the contained TPM ounces by approximately 30% for both the Indicated and Inferred categories.

Table 14-37: Detailed Breakdown of the LK Project Tonnes, Grade and Ounces (Effective Date April 15, 2022)
Palladium One Mining Inc. – Läntinen Koillismaa Project

Deposit & Classification	Strip Ratio	Tonnes (Mt)	Grade									Contained Metal								
			Pd (g/t)	Pt (g/t)	Au (g/t)	TPM (g/t)	Cu (%)	Ni (%)	Co (g/t)	PdEq* (g/t)	PdEq** (g/t)	Pd (koz)	Pt (koz)	Au (koz)	TPM (oz)	Cu (Mlb)	Ni (Mlb)	Co (Mlb)	PdEq* (koz)	PdEq** (koz)
Indicated																				
Kaukua Lower Zone	1.5	25.6	0.58	0.21	0.06	0.85	0.12	0.09	53	1.35	1.00	479	169	52	753	68.8	52.6	3	1,109	819
Kaukua South Lower Zone	1.5	12.6	0.65	0.24	0.08	0.97	0.15	0.14	88	1.72	1.18	264	96	32	479	41.9	39	2.4	695	476
Total Indicated	**1.5**	**38.2**	**0.61**	**0.22**	**0.07**	**0.89**	**0.13**	**0.11**	**65**	**1.49**	**1.07**	**744**	**264**	**84**	**1,156**	**110.7**	**91.6**	**5.4**	**1,832**	**1,311**
Inferred																				
Kaukua Lower Zone	1.5	1.1	0.25	0.09	0.04	0.38	0.12	0.09	50	0.92	0.61	9	3	1	63	2.9	2.1	0.1	32	21
Kaukua South Lower Zone	1.5	23.4	0.59	0.22	0.08	0.89	0.15	0.14	87	1.64	1.13	445	165	63	761	78.3	73.8	4.5	1,235	849
Kaukua South Upper Zone	1.5	3.3	0.23	0.07	0.06	0.36	0.11	0.12	81	1.02	0.59	24	8	6	119	7.8	8.9	0.6	108	63
Murtolampi	0.19	3	0.4	0.22	0.05	0.67	0.11	0.14	94	1.36	0.83	38	21	5	158	7.6	9.1	0.6	131	80
Subtotal Greater Kaukua Area	1.45	30.8	0.52	0.2	0.08	0.8	0.14	0.14	86	1.54	1.03	516	197	75	875	96.5	93.9	5.8	1,526	1,020
Haukiaho	0.58	18.9	0.27	0.11	0.1	0.48	0.18	0.14	54	1.29	0.74	163	67	62	346	76.4	57.6	2.3	784	451
Total Inferred	**1.26**	**49.7**	**0.43**	**0.17**	**0.09**	**0.68**	**0.16**	**0.14**	**74**	**1.46**	**0.95**	**679**	**264**	**136**	**1,154**	**173**	**151.5**	**8.1**	**2,339**	**1,520**

*PdEq calculated using metal prices only. The formula used is as follows: PdEq = Pd + Pt*0.65 + Au*1.06 + Cu*1.71 + Ni*3.43 + Co*0.00101.
**PdEq calculated using metal prices, metallurgical recoveries and payables. The PdEq was calculated using factors derived from the NSR factors which are not constant due to the grade dependent variable recovery formulas. As such each line in the table above has unique PdEq factors applied.

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. The Mineral Resources have been reported above a preliminary open pit constraining surface using a Net Smelter Return (NSR) pit discard cut-off of US$12.5/t (which, for comparison purposes, equates to an approximately 0.65 g/t PdEq in-situ cut-off grade, based on metal prices only).
3. The NSR used for reporting is based on the following:
    a. Long term metal prices of US$1,700/oz Pd, US$1,100/oz Pt, US$1,800/oz Au, US$4.25/lb Cu, US$8.50/lb Ni, and US$25/lb Co.
    b. Variable metallurgical recoveries for each metal were used at Kaukua and Murtolampi and fixed recoveries of 79.8% Pd, 80.1% Pt, 65% Au, 89% Cu, 64% Ni, and 0% Co at Haukiaho.
    c. Commercial terms for a Cu and Ni concentrate based on indicative quotations from smelters.
4. Total Precious Metals (TPM) equals palladium plus platinum plus gold.
5. Bulk densities range between 1.8 t/m^3 and 3.23 t/m^3.
6. Numbers may not add up due to rounding.
7. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.

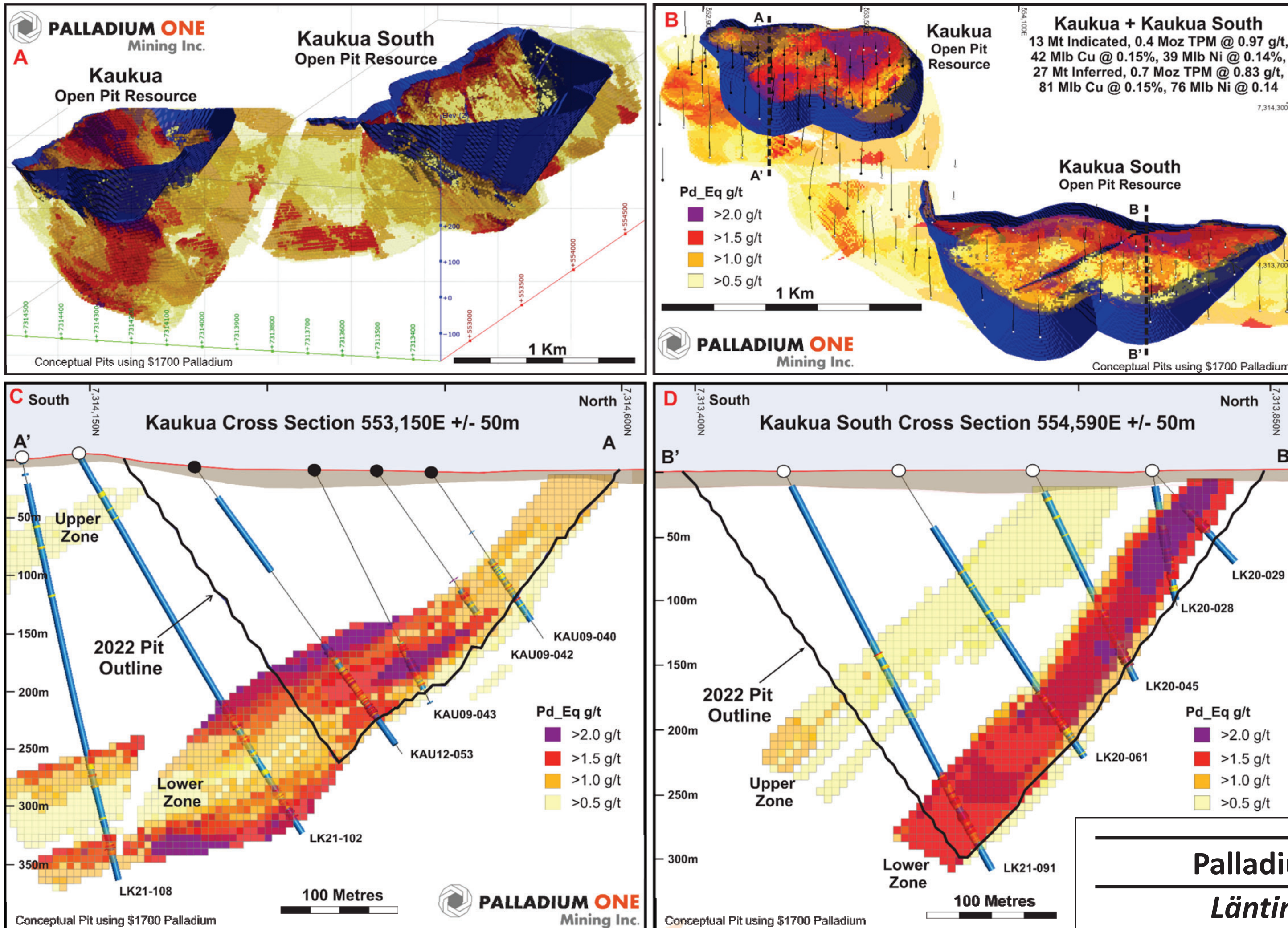
Table 14-38: Sensitivity of Grade and Tonnes to Palladium Price
Palladium One Mining Inc. – Läntinen Koillismaa Project

	Pd Price (US$/oz)	Strip Ratio	Tonnes (Mt)	Grade									Contained Metal								
				Pd (g/t)	Pt (g/t)	Au (g/t)	TPM (g/t)	Cu (%)	Ni (%)	Co (g/t)	PdEq* (g/t)	PdEq** (g/t)	Pd (koz)	Pt (koz)	Au (koz)	TPM (koz)	Cu (Mlb)	Ni (Mlb)	Co (Mlb)	PdEq* (koz)	PdEq** (koz)
Indicated																					
Kaukua Area	900	1.69	26.8	0.67	0.24	0.08	0.98	0.14	0.12	68	1.63	1.17	576	205	66	847	83.3	67.9	4	1,404	1,012
	1,400	1.54	35.2	0.62	0.22	0.07	0.91	0.13	0.11	65	1.50	1.08	704	250	79	1,033	104.4	85.6	5.1	1,700	1,218
	1,600	1.51	37.3	0.61	0.22	0.07	0.9	0.13	0.11	65	1.49	1.07	732	260	82	1,074	108.8	89.9	5.3	1,789	1,280
	1,700	1.5	38.2	0.61	0.22	0.07	0.89	0.13	0.11	65	1.49	1.07	743	264	84	1,091	110.7	91.6	5.4	1,832	1,311
	1,800	1.48	39.1	0.6	0.21	0.07	0.88	0.13	0.11	64	1.47	1.05	755	268	85	1,108	112.5	93.4	5.5	1,853	1,322
	2,000	1.54	46.5	0.58	0.21	0.06	0.85	0.12	0.11	66	1.43	1.00	868	308	95	1,271	127	112.1	6.7	2,136	1,494
	2,500	1.44	55.3	0.55	0.19	0.06	0.8	0.12	0.11	66	1.39	0.96	968	344	105	1,417	143.8	133.6	8.1	2,464	1,707
Inferred																					
Kaukua Area	900	1.62	17.8	0.59	0.23	0.08	0.91	0.15	0.15	90	1.69	1.11	340	133	48	520	60.6	58.1	3.5	965	635

	Pd Price (US$/oz)	Strip Ratio	Tonnes (Mt)	Grade									Contained Metal								
				Pd (g/t)	Pt (g/t)	Au (g/t)	TPM (g/t)	Cu (%)	Ni (%)	Co (g/t)	PdEq* (g/t)	PdEq** (g/t)	Pd (koz)	Pt (koz)	Au (koz)	TPM (koz)	Cu (Mlb)	Ni (Mlb)	Co (Mlb)	PdEq* (koz)	PdEq** (koz)
	1,400	1.48	26.9	0.54	0.21	0.08	0.83	0.15	0.14	87	1.59	1.07	469	180	67	716	86.8	83.6	5.2	1,371	929
	1,600	1.45	29.4	0.53	0.2	0.08	0.81	0.14	0.14	86	1.55	1.04	499	191	72	762	93	90.2	5.6	1,466	985
	1,700	1.45	30.8	0.52	0.2	0.08	0.8	0.14	0.14	86	1.54	1.03	516	197	75	788	96.5	94	5.8	1,526	1,020
	1,800	1.43	31.7	0.52	0.2	0.07	0.79	0.14	0.14	86	1.53	1.02	525	201	76	801	98.4	96.1	6	1,559	1,041
	2,000	1.48	35.8	0.51	0.19	0.07	0.78	0.14	0.14	86	1.51	1.00	587	223	83	892	108.1	108.1	6.8	1,742	1,153
	2,500	1.39	43.7	0.49	0.18	0.07	0.74	0.13	0.13	85	1.43	0.95	682	257	95	1,033	125.2	129.7	8.2	2,016	1,339
	900	0.63	13.4	0.3	0.12	0.11	0.54	0.2	0.15	55	1.41	0.82	130	53	49	232	60	44.7	1.6	606	352
	1,400	0.59	16.9	0.28	0.12	0.11	0.51	0.19	0.14	54	1.33	0.77	155	63	58	276	72.1	53.7	2	725	421
	1,600	0.59	18.3	0.28	0.11	0.11	0.5	0.19	0.14	54	1.33	0.77	164	67	62	293	76.7	57.2	2.2	781	452
Haukiaho	1,700	0.58	18.9	0.27	0.11	0.1	0.48	0.18	0.14	54	1.29	0.74	163	66	62	291	76.4	57.5	2.3	784	451
	1,800	0.57	19.5	0.27	0.11	0.1	0.49	0.19	0.14	54	1.31	0.75	172	70	65	307	80.6	60	2.3	819	471
	2,000	0.57	20.8	0.27	0.11	0.1	0.48	0.18	0.14	53	1.29	0.74	179	73	68	321	84.5	62.8	2.4	862	496
	2,500	0.56	24.4	0.26	0.11	0.1	0.46	0.18	0.13	53	1.24	0.72	201	82	77	360	95.6	70.9	2.8	976	565
	900	1.39	31.2	0.47	0.18	0.1	0.75	0.18	0.15	75	1.59	1.00	470	185	97	751	120.6	102.8	5.2	1,596	999
	1,400	1.29	43.8	0.44	0.17	0.09	0.7	0.16	0.14	74	1.47	0.92	623	243	126	992	158.9	137.4	7.2	2,076	1,299
	1,600	1.27	47.7	0.43	0.17	0.09	0.69	0.16	0.14	74	1.46	0.91	663	258	134	1,055	169.7	147.4	7.8	2,245	1,399
Inferred Total	1,700	1.26	49.7	0.43	0.17	0.09	0.68	0.16	0.14	74	1.46	0.91	679	264	136	1,079	172.9	151.5	8.1	2,339	1,458
	1,800	1.24	51.2	0.42	0.16	0.09	0.67	0.16	0.14	74	1.45	0.90	696	271	141	1,108	179.1	156.2	8.3	2,383	1,476
	2,000	1.3	56.6	0.42	0.16	0.08	0.67	0.15	0.14	74	1.42	0.88	766	296	151	1,213	192.6	170.9	9.2	2,584	1,602
	2,500	1.23	68.1	0.4	0.15	0.08	0.64	0.15	0.13	73	1.36	0.84	882	339	172	1,394	220.8	200.6	11	2,973	1,844

*PdEq calculated using metal prices only. The formula used is as follows: PdEq = Pd + Pt*0.65 + Au*1.06 + Cu*1.71 + Ni*3.43 + Co*0.00101.

**PdEq calculated using metal prices, metallurgical recoveries and payables. The PdEq was calculated using factors derived from the NSR factors which are not constant due to the grade dependent variable recovery formulas. As such each line in the table above has unique PdEq factors applied.



A. Isometric view looking to the northeast, Kaukua Area pits superimposed on the block model

B. Plan view of the Kuakua Area pits superimposed on the block model and showing cross section locations.
TPM represents in-situ Total Precious Metals (Pd + Pt + Au)

C. Cross section A-A' looking west of the Kaukua pit showing drilling and the block model

D. Cross section B-B' looking west of the Kaukua South pit showing drilling and the block model

Figure 14-15

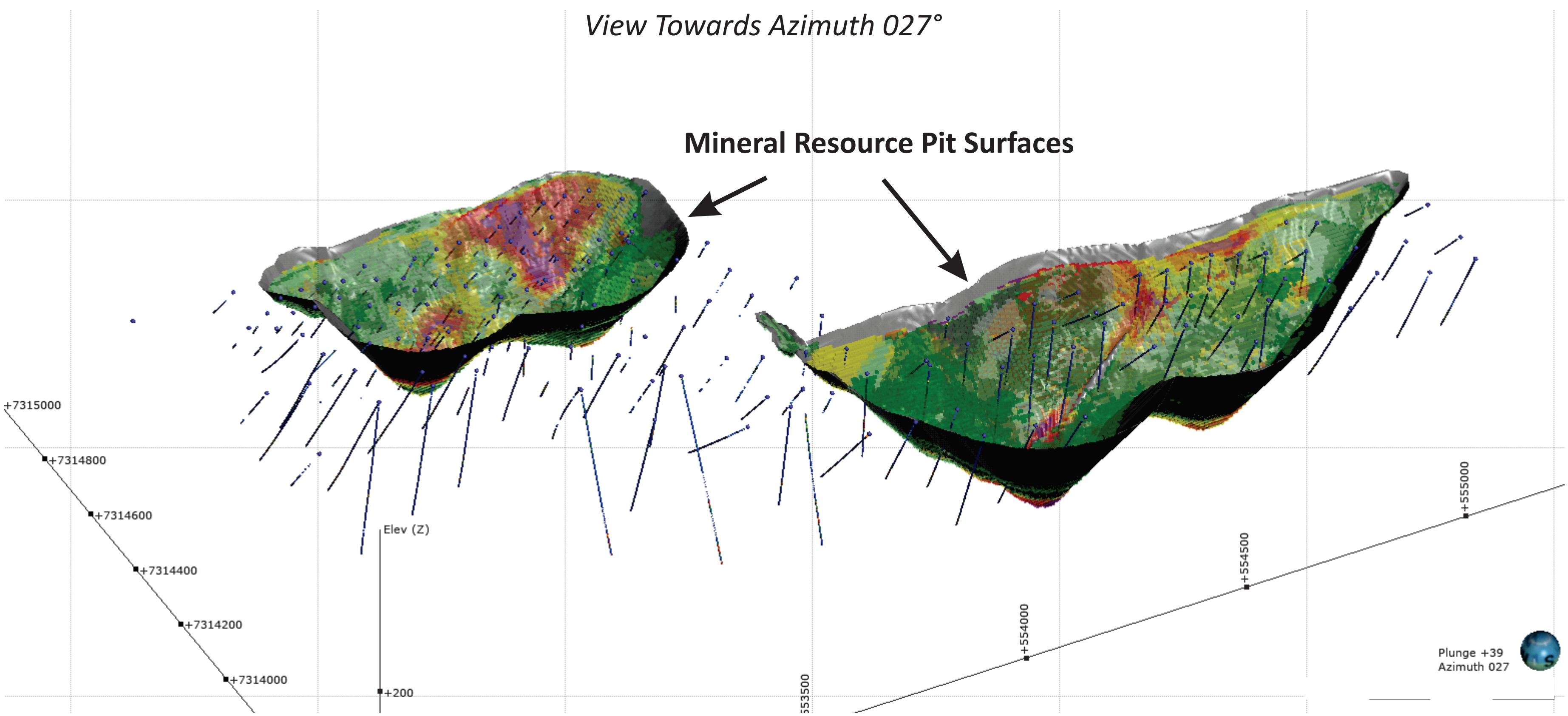
Palladium One Mining Inc.

Läntinen Koillismaa (LK) PGE-Ni-Cu Project
North-Central Finland

Isometric Views and Cross Sections of Kaukua and Kaukua South

May 2022

Source: Palladium One, 2022



Legend (NSR $/t):

- > 60
- 50 - 60
- 40 - 50
- 30 - 40
- 20 - 30
- 10 - 20
- 0 - 10

0 500 Metres

Figure 14-16

Palladium One Mining Inc.

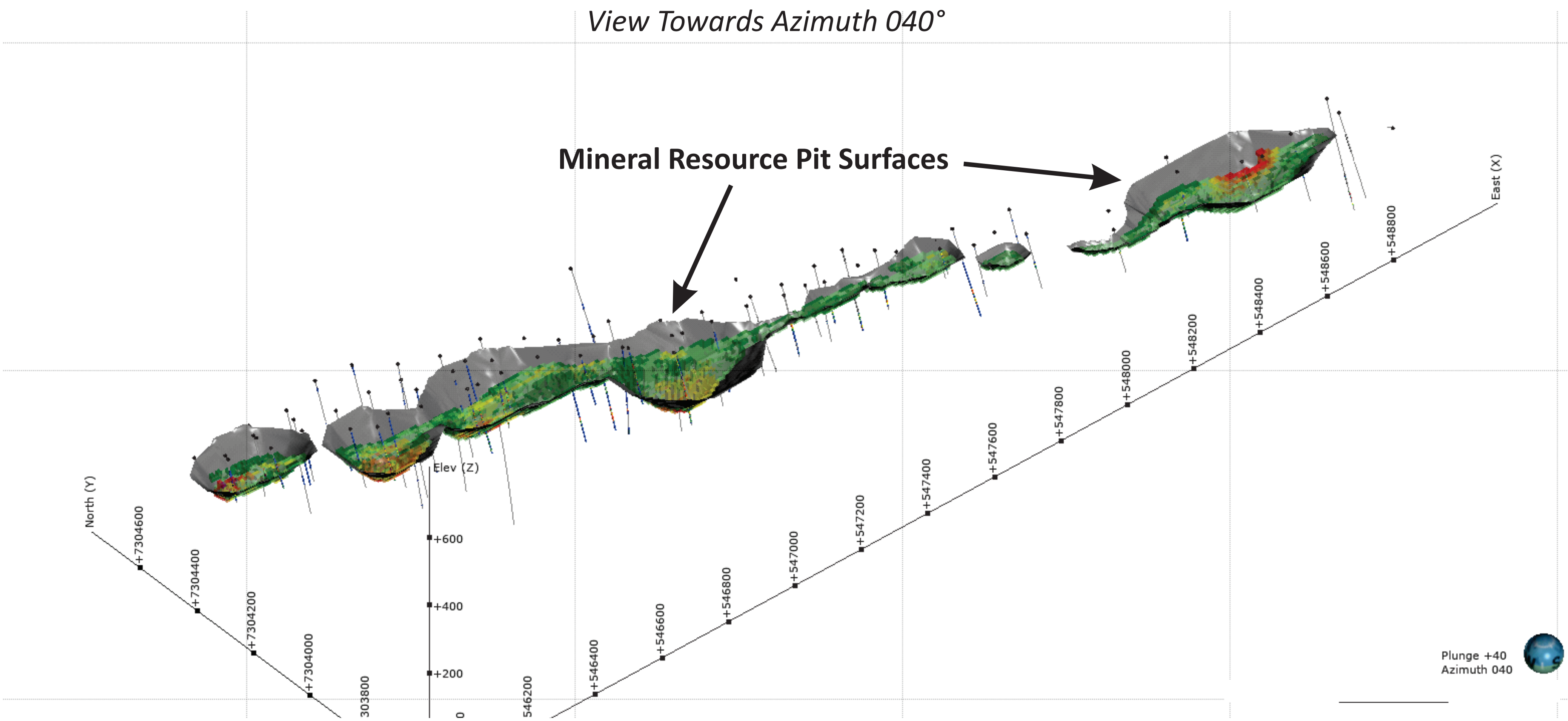
Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Isometric View of the Kaukua Area Mineral Resources

May 2022

Source: SLR, 2022



Legend (NSR $/t):

- > 60
- 50 - 60
- 40 - 50
- 30 - 40
- 20 - 30
- 10 - 20
- 0 - 10

0 750
Metres

Figure 14-17

Palladium One Mining Inc.

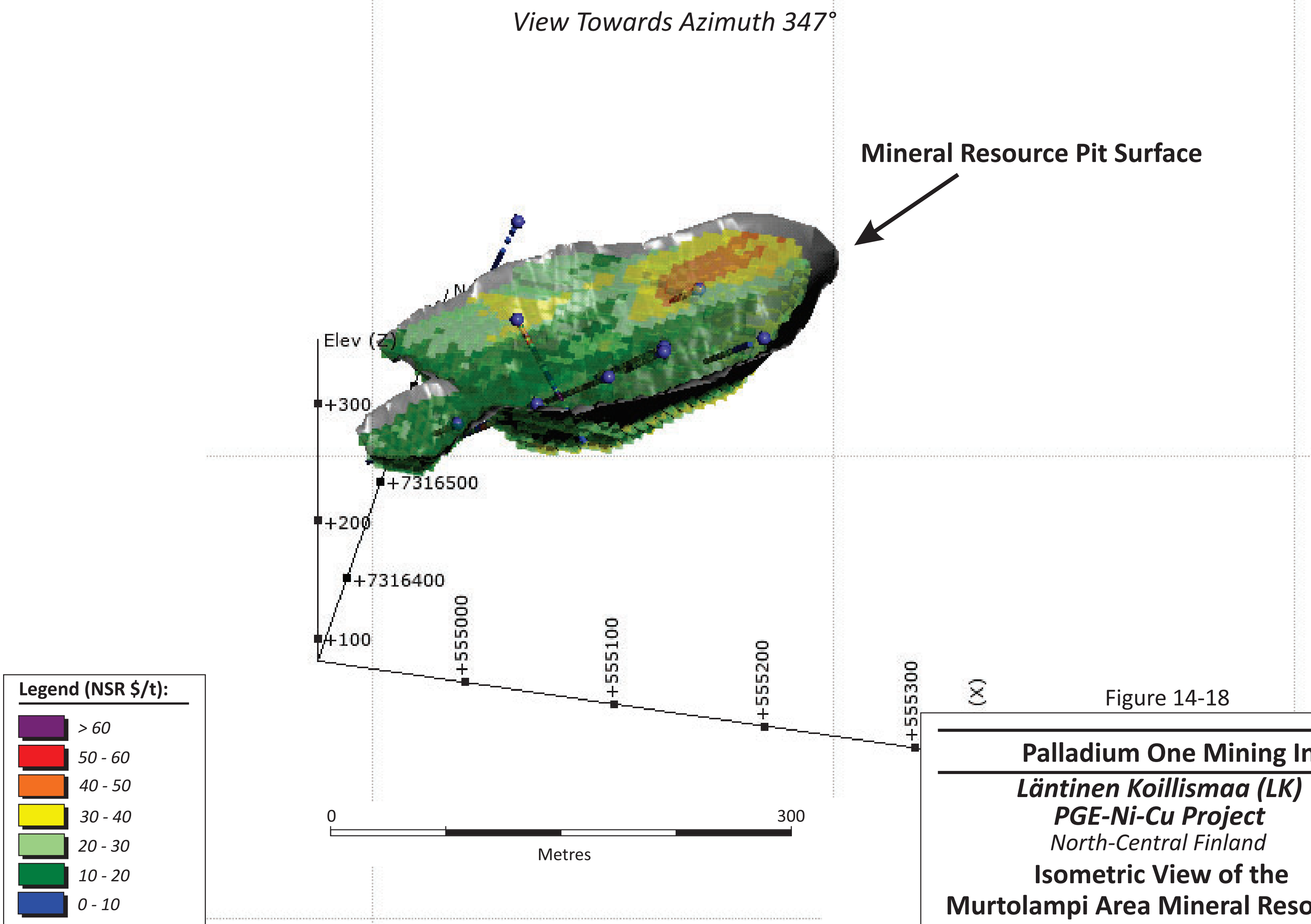
Läntinen Koillismaa (LK) PGE-Ni-Cu Project

North-Central Finland

Isometric View of the Haukiaho Area Mineral Resources

May 2022

Source: SLR, 2022



May 2022

Source: SLR, 2022

Figure 14-18

Palladium One Mining Inc.

Läntinen Koillismaa (LK)
PGE-Ni-Cu Project
North-Central Finland

Isometric View of the Murtolampi Area Mineral Resources

14.15 Comparison to Previous Mineral Resource Estimates

Table 14-39 and Table 14-40 present a comparison of the current Mineral Resource estimates effective April 25, 2022, versus the previous estimates for the Kaukua (effective January 15, 2021) and Haukiaho deposits (effective May 24, 2021), respectively.

Changes to the Mineral Resource estimates from the previous estimates are attributable to:

- Updated NSR calculations based on revised metal price assumptions to reflect 2022 pricing, updated recovery factors, concentrate transport costs, and smelter payable metal assumptions based on the most up to date metallurgical test work and preliminary indicative smelter quotes, results received in early 2022.
- Additional drill hole data obtained by Palladium One in 2021 after the effective date of the previous Mineral Resource estimates. This includes drilling in the Kaukua South area that has enabled development of the initial Mineral Resource estimate in this area (previously pit constrained in the Kaukua pit area only).
- Despite higher metal prices and a lower relative cut-off, the conceptual pit for Haukiaho decreased in size due to zero recovery of Co and the use of smelter payables for each metal in a bulk concentrate. SLR notes that there may exist an opportunity to increase the size of the conceptual pit in the future by doing further metallurgical testwork and investigation into separate Cu and Ni concentrates for the deposit. It is noted that the two concentrates yield a higher net payability for each metal in the Kaukua Area test work.

Table 14-39: Comparison to Previous Estimate – Kaukua Area (including Murtolampi)
Palladium One Mining Inc. – Läntinen Koillismaa Project

Estimate	Kaukua Area (incl. Murtolampi) Mineral Resources April 25, 2022								Kaukua Mineral Resources – January 15, 2021							
	PdEq Cut-off Grade (g/t)	Tonnes (Mt)	Pd (g/t)	Pt (g/t)	Au (g/t)	TPM (g/t)	Cu (%)	Ni (%)	Pd Cut-off Grade (g/t)	Tonnes (Mt)	Pd (g/t)	Pt (g/t)	Au (g/t)	TPM (g/t)	Cu (%)	Ni (%)
Indicated	0.65	38.2	0.61	0.22	0.07	0.89	0.13	0.11	0.30	11.0	0.81	0.27	0.09	1.17	0.15	0.09
Inferred	0.65	30.8	0.52	0.20	0.08	0.80	0.14	0.14	0.30	10.9	0.64	0.20	0.08	0.92	0.13	0.08

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Cut-off Grade:
   - April 25, 2022 Mineral Resources are reported above a preliminary open pit constraining surface using an NSR pit discard cut-off value of US$12.5/t (which, for comparison purposes, equates to an approximately 0.65 g/t palladium equivalent (PdEq) in-situ cut-off grade, based on metal prices only).
   - January 15, 2021 Mineral Resources are reported within an optimized pit shell using a cut-off grade of 0.30 g/t Pd (not PdEq).
3. Metal Prices:
   - April 25, 2022 Mineral Resources are estimated using long term metal prices of US$1,700/oz Pd, US$1,100/oz Pt, US$1,800/oz Au, US$4.25/lb Cu, US$8.50/lb Ni, and US$25/lb Co and various metallurgical recoveries for each metal.
   - January 15, 2021 Mineral Resources are estimated using long term metal prices of $1,100/oz Pd, $950/oz Pt, $1,300/oz Au, $3/lb Cu, and $7/lb Ni and mining dilution and mining recovery factors of 5% and 95%, respectively.
4. Bulk Densities:
   April 25, 2022 Mineral Resources are estimated using bulk densities ranging between 1.8 t/m^3 and 3.23 t/m^3.
   January 15, 2021 Mineral Resources are estimated using a bulk density of 2.9 t/m^3 for all lithologies except the overburden, which has a bulk density of 2.1 t/m^3.
5. Total Precious Metals (TPM) equals palladium plus platinum plus gold
6. Numbers may not add up due to rounding.

Table 14-40: Comparison to Previous Estimate – Haukiaho
Palladium One Mining Inc. – Läntinen Koillismaa Project

Estimate	Haukiaho Mineral Resources April 25, 2022									Haukiaho Mineral Resources May 24, 2021								
	PdEq Cut-off Grade (g/t)	Tonnes (Mt)	Pd (g/t)	Pt (g/t)	Au (g/t)	TPM (g/t)	Cu (%)	Ni (%)	Co (ppm)	PdEq Cut-off Grade (g/t)	Tonnes (Mt)	Pd (g/t)	Pt (g/t)	Au (g/t)	TPM (g/t)	Cu (%)	Ni (%)	Co (ppm)
Inferred	0.65	18.9	0.27	0.11	0.10	0.48	0.18	0.14	54	0.60	32.7	0.25	0.10	0.10	0.45	0.18	0.13	53

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Cut-off Grade:
   - April 25, 2022 Mineral Resources are reported above a preliminary open pit constraining surface using an NSR pit discard cut-off value of US$12.5/t (which, for comparison purposes, equates to an approximately 0.65 g/t palladium equivalent (PdEq) in-situ cut-off grade, based on metal prices only).
   - May 24, 2021 Mineral Resources are reported within an optimized pit shell using a cut-off value of $25/t, which equates to approximately 0.60 g/t PdEq (using the 2021 Mineral Resource estimate prices).
3. Metal Prices:
   - April 25, 2022 Mineral Resources are estimated using long term metal prices of US$1,700/oz Pd, US$1,100/oz Pt, US$1,800/oz Au, US$4.25/lb Cu, US$8.50/lb Ni, and US$25/lb Co and various metallurgical recoveries for each metal.
   - May 24, 2021 Mineral Resources are estimated using long term metal prices of $1,600/oz Pd, $1,100/oz Pt, $1,650/oz Au, $3.50/lb Cu, $7.50/lb Ni, and $20/lb Co.
4. Metallurgical Recoveries:
   - For April 25, 2022 Mineral Resources, fixed recoveries of 79.8% Pd, 80.1% Pt, 65% Au, 89% Cu, 64% Ni, and 0% Co were used.
   - For May 24, 2021 Mineral Resources, fixed metallurgical recoveries of 89% Cu, 64% Ni, approximately 80% for Pd and Pt, and 65% for Au were used.
5. Bulk Densities:
   - April 25, 2022 Mineral Resources are estimated using bulk densities ranging between 1.8 t/m^3 and 3.23 t/m^3.
   - May 24, 2021 Mineral Resources are estimated using a dry bulk density of 2.0 g/cm^3 for overburden material. Densities of 2.7 g/cm^3, 2.9 g/cm^3, and 3.0 g/cm^3 were used for basement, gabbro-peridotite-pyroxenite and diabase, respectively.
6. Total Precious Metals (TPM) equals palladium plus platinum plus gold.
7. Numbers may not add up due to rounding.

15.0 MINERAL RESERVE ESTIMATE

No Mineral Reserves have been estimated for the LK Project. Further technical and economic evaluation is required to be undertaken at a Pre-Feasibility or Feasibility Study level to permit estimation of Mineral Reserves.

16.0 MINING METHODS

This section is not applicable.

17.0 RECOVERY METHODS

This section is not applicable.

18.0 PROJECT INFRASTRUCTURE

This section is not applicable.

19.0 MARKET STUDIES AND CONTRACTS

This section is not applicable.

20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

This section is not applicable.

21.0 CAPITAL AND OPERATING COSTS

This section is not applicable.

22.0 ECONOMIC ANALYSIS

This section is not applicable.

23.0 ADJACENT PROPERTIES

There are no adjacent properties to report in this section.

24.0 OTHER RELEVANT DATA AND INFORMATION

No additional information or explanation is necessary to make this Technical Report understandable and not misleading.

25.0 INTERPRETATION AND CONCLUSIONS

SLR's conclusions by area are summarized as follows.

25.1 Geology and Mineral Resources

- The geological setting of the deposit is well understood, informed through geological mapping, sampling, geophysical surveying, and regional exploration drilling. The LK Project in north-central Finland is hosted within the Paleoproterozoic, rift-related Koillismaa Complex of the regional TNB of north-central Finland consisting of the Näränkävaara Intrusion in the east and the Koillismaa Complex in the west. The Kaukua deposit is hosted within the northern part of the Koillismaa Complex and the Haukiaho deposit is situated 12 km south-southwest from Kaukua, also in the Koillismaa Intrusion.
- The main sulphide minerals are pyrrhotite, chalcopyrite, and pentlandite. The sulphide assemblage occurs as fine to medium grained dissemination, disseminated aggregations, and blebs. Haukiaho mineralization resembles Kaukua geologically and mineralogically and is likely to have the same origin, however, it is more sulphide Cu-Ni rich than Kaukua and includes local narrow massive sulphide veins.
- Mineral Resources at the LK Project conform to CIM (2014) definitions.
- As at April 25, 2022, Indicated Mineral Resources are estimated to total 38.2 Mt comprising 1,090 koz TPM (0.89 g/t), 111 Mlb copper (0.13%), 92 Mlb nickel (0.11%) and 5 Mlb cobalt (65 g/t). In addition, Inferred Mineral Resources are estimated to total 49.7 Mt comprising 1,080 koz TPM (0.68 g/t), 173 Mlb copper (0.16%), 152 Mlb nickel (0.14%) and 8 Mlb cobalt (74 g/t).
- The sample preparation, analysis, and security procedures at the LK Project are adequate, and the QA/QC results are sufficient to support Mineral Resource estimation.
    - Nickel within the deposits is known to be distributed in both sulphides and mafic silicates and control samples have been found to perform variably in both historical and Palladium One QA/QC programs. Investigations into the proportion of Ni as sulphide versus silicates have been undertaken historically and continue to be refined by Palladium One.
    - While SLR tested the impact of analytical methods and laboratory performance and is of the opinion that the proportion of unrecoverable nickel is not material, there is an opportunity to add some additional value from the Ni concentrate by re-sampling the drill holes previously assayed using aqua regia with a more aggressive/effective digest method, e.g., four-acid digest, to more accurately determine the proportions of nickel silicate and nickel sulphide in the mineralization.
- The drill hole database is of good quality and suitable for use in a Mineral Resource estimate.
- The QP is not aware of any limitations on data verification and is of the opinion that database verification procedures for the LK Project are consistent with industry standards and are adequate for the purposes of Mineral Resource estimation.
- The QP has reviewed and adopted the estimates completed by David Thomas, P.Geo., on behalf of Palladium One, and is of the opinion that the estimates are suitable to support disclosure of Mineral Resources for the Project and for inclusion in future studies.

- The QP is of the opinion that the block modelling methodologies are consistent with industry standard practices, and that the selected block sizes are suitable for the style of mineralization and proposed mining method.
- The deposits remain open to additional exploration and further technical study, which are warranted.
- Despite higher metal prices and a lower relative cut-off, the conceptual pit for Haukiaho decreased in size due to zero recovery of Co and the use of payables for each metal in a bulk concentrate.

25.2 Mineral Processing and Metallurgical Testing

- A significant metallurgical program using material from both the Kaukua and Kaukua South deposits was undertaken by SGS Canada in 2021-2022, returning calculated bulk concentrate (copper + nickel concentrate) recoveries of 73.5% palladium, 56.1% platinum, 73.0% gold, 88.6% copper, 30.3% nickel, and 18.6% cobalt in locked cycle tests.
- Results largely confirmed earlier testing in 2011, with the exception of nickel which returned lower recoveries due to a higher percentage of silicate nickel in lower grade 2022 Lower Zone composite sample, 2.38 g/t PdEq (2011) vs 1.66 g/t PdEq (2022).
- Locked cycle testing confirmed the following:
    - Concentration by conventional flotation produces a saleable bulk concentrate with no deleterious elements, irrespective of lithology.
    - A clean, high value saleable copper concentrate can be produced.
    - A clean, high value saleable nickel-PGE concentrate can be produced.
    - Recovery rates from the Kaukua/Kaukua South mineralization are consistent and reproducible.
- Variability testing on the four lithologies that comprise the Lower Zone composite sample returned consistent results irrespective of lithology.
- Additional metallurgical testing including further locked cycle tests should be undertaken to refine the flowsheet on the Kaukua Area deposits. New test work, including variability testing, needs to be undertaken on the Haukiaho Zone for which historical work dates from 2001 and was conducted on a higher grade sample than the current resource estimate.

25.3 Risks

The LK Project is an early stage project with the most significant work to date related to over 300 drill holes and Mineral Resource estimates for Kaukua, Kaukua South, Murtolampi, and Haukiaho. The Mineral Resource estimates are based on verifiable data and have been completed following best practices as defined by CIM (2019).

26.0 RECOMMENDATIONS

SLR offers the following recommendations by area.

26.1 Geology and Mineral Resources

Quality Assurance/Quality Control

1. Based on observed biases in nickel and copper assays from certified reference material (CRM) samples, re-evaluate the CRMs and use alternative standards in future analytical programs. Future CRMs should be representative of the anticipated metallurgical processing methodology.
2. Select drill holes assayed using aqua regia in and around the current conceptual pits and re-assay the holes using four-acid digestion.
3. Include equal proportions of coarse, field, and pulp duplicate types in future QA/QC programs so that the performance of each type can be evaluated to better understand the behaviour of LK Project mineralization types.

Data Verification

4. Sample discrepancies have been identified in the drill hole database whereby the highest assay concentrations have been selected as the primary result and used during Mineral Resource estimation irrespective of the analytical method, i.e., the highest concentration derived from the aqua regia and four-acid digest methods were selected. This has resulted in inconsistencies in the adopted analytical method. For future Mineral Resource estimate updates, use assay results from a single analytical method consistently across all samples to prevent any potential bias.
5. A single drill hole – LK21-066 – is missing the available assay data. While this hole is located well beyond the extent of the Kaukua open pit constraints, SLR recommends that the missing available assay data be incorporated into the drill hole database for future iterations of the block model.

Mineral Resource Estimation

6. From a comparison of historical assays results at Haukiaho, assay data in the West Zone for which no supporting QA/QC was available were not used in the Mineral Resource estimate. Perform further verification work on the data to test its suitability for Mineral Resource estimation.
7. For a small proportion of Haukiaho assays based on regression analysis, re-sample core where possible to reduce reliance on regression results or exclude drill holes with missing analyses in the future as the Project advances and additional information is available.
8. SLR notes that Haukiaho uses a larger block size than Kaukua. As the Project advances and geotechnical studies are performed, consider revisiting the block size.
9. With respect to the reduction in the conceptual pit for Haukiaho, SLR notes that there may exist an opportunity to increase the size of the conceptual pit in the future by doing further metallurgical testwork and investigation into separate Cu and Ni concentrates for the deposit. It is noted that the two concentrates yield a higher net payability for each metal on the Kaukua Area metallurgical test results.

26.2 Mineral Processing and Metallurgical Testing

10. Complete additional metallurgical testing using samples from drill core that are spatially representative of the deposits, specifically the Haukiaho deposit to confirm the metallurgical recoveries projected under copper-nickel separation and any process design parameters.

26.3 Proposed Program and Budget

Table 26-1 provides a detailed breakdown of Palladium One's proposed budget to support the completion of a Preliminary Economic Assessment (PEA) for the LK Project, including additional infill and geotechnical drilling and analysis, surveying, factual reporting, future Mineral Resource updates, and further metallurgical studies.

Additional drilling will focus on both infilling around existing drill holes to continue to contribute to the understanding of the geological interpretations and grade continuity within the deposit while improving overall confidence in the Mineral Resource. Drilling to target expansion to the existing Mineral Resource would be continuously informed by drill results and existing geophysical anomaly targets. Specifically, two areas are highlighted for resource expansion potential: (1) the Far East extension of the Kaukua South IP chargeability anomaly and (2) the 17 km Long Haukiaho Trend. In addition, geotechnical drilling and sampling would target key areas of the deposit to inform geotechnical analysis for future mining studies.

Table 26-1: Budget for Future Work
Palladium One Mining Inc. – LK Project

Purpose	Item	Budget (US$)
Infill Drilling and Mineral Resource Update	Drilling 6,000 m	1,800,000
	Resource Update & Reporting	150,000
	Subtotal	**1,950,000**
Geotechnical Drilling	Drilling 2,000 m	1,000,000
	Down Hole Televiewer Survey	150,000
	Laboratory Testing	60,000
	Training & Travel	50,000
	Report	30,000
	Subtotal	**1,290,000**
Additional Metallurgical Studies		200,000
Preliminary Economic Assessment		200,000
10% Contingency		364,000
TOTAL		**4,004,000**

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28.0 DATE AND SIGNATURE PAGE

This report titled "Technical Report on the Läntinen Koillismaa Project, Finland" with an effective date of April 25, 2022 was prepared and signed by the following authors:

(Signed & Sealed) ***Sean Horan***

Dated at Toronto, ON
May 27, 2022

Sean Horan, P.Geo.
Technical Director, Geology and Mineral Resources
Principal Geologist and Geostatistician

(Signed & Sealed) ***Brenna J.Y. Scholey***

Dated at Toronto, ON
May 27, 2022

Brenna J.Y. Scholey, P.Eng.
Principal Metallurgist

29.0 CERTIFICATE OF QUALIFIED PERSON

29.1 Sean Horan

I, Sean Horan, P.Geo., as an author of this report entitled "Technical Report on the Läntinen Koillismaa Project, Finland" with an effective date of April 25, 2022 prepared for Palladium One Mining Inc., do hereby certify that:

1. I am Technical Manager – Geology and Mineral Resources, and Principal Geologist and Geostatistician with SLR Consulting (Canada) Ltd, of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
2. I am a graduate of Rhodes University, South Africa, in 2003 with a B.Sc. (Hons.) degree in Environmental Studies, and in 2004 with a B.Sc. (Hons.) degree in Geology. I also have a post-graduate certificate in Geostatistics from the University of Alberta, Canada.
3. I am registered as a Professional Geologist in the Province of Ontario (Reg. #2090). I have worked as a geologist for a total of 17 years since my graduation. My relevant experience for the purpose of the Technical Report is:
   - Geological consulting to the mining and exploration industry in Canada and worldwide, including resource estimation and reporting, due diligence, geostatistical studies, QA/QC, and database management.
   - Geologist responsible for all geological aspects of underground mine development, underground exploration, resource definition drilling planning, and resource estimation at a gold mine in Ontario, Canada.
   - Grade control and prospecting geologist for an alluvial diamond mining company in Angola.
   - Experienced user of AutoCAD, Datamine Studio 3. SQL Database Administration, Visual Basic, Javascript (Datamine Studio 3), Century Systems (Fusion SQL drill hole database tools), Snowden Supervisor, X10, python, and GSLIB.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the LK Project from November 7 to 13, 2021.
6. I am responsible for overall preparation of the Technical Report, in particular, Sections 2, 3, 4, 5, 6 ,7, 8, 9, 10, 11, 12, and 14 and related disclosure in Sections 1, 25, 26, and 27. of the Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 27th day of May, 2022

(Signed & Sealed) *Sean Horan*

Sean Horan, P.Geo.

29.2 Brenna J.Y. Scholey

I, Brenna J.Y. Scholey, P.Eng., as an author of this report entitled "Technical Report on the Läntinen Koillismaa Project, Finland" with an effective date of April 25, 2022 prepared for Palladium One Mining Inc., do hereby certify that:

11. I am Principal Metallurgist with SLR Consulting (Canada) Ltd., of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
12. I am a graduate of The University of British Columbia in 1988 with a B.A.Sc. degree in Metals and Materials Engineering.
13. I am registered as a Professional Engineer in the Province of Ontario (Reg. #90503137) and British Columbia (Reg. #122080). I have worked as a metallurgist for a total of 34 years since my graduation. My relevant experience for the purpose of the Technical Report is:
    - Reviews and reports as a metallurgical consultant on numerous mining operations and projects for due diligence and regulatory requirements.
    - Senior Metallurgist/Project Manager on numerous base metals and precious metals studies for an international mining company.
    - Management and operational experience at several Canadian and U.S. milling, smelting and refining operations treating various metals, including copper, nickel, and precious metals.
14. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
15. I did not visit the LK Project.
16. I am responsible for Section 13 and related disclosure in Sections 1, 25, 26, and 27 of the Technical Report.
17. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
18. I have had no prior involvement with the property that is the subject of the Technical Report.
19. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
20. 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 Technical Report not misleading.

Dated this 27th day of May, 2022.

(Signed & Sealed) ***Brenna J.Y. Scholey***

Brenna J.Y. Scholey, P.Eng.

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