LORRAINE COPPER-GOLD PROJECT
NI 43-101 TECHNICAL REPORT AND MINERAL RESOURCE ESTIMATE
OMINECA MINING DIVISION, B.C.

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1 Summary

1.1 Overview

NorthWest Copper Corp. ("NorthWest Copper" or the "Company"), is a Vancouver, British Columbia (BC) based natural resource company engaged in the acquisition, exploration and development of natural resource properties, and listed on the TSX Venture Exchange (TSX-V) under the stock symbol "NWST". The Company controls a significant contiguous land position in the Omineca Mountains, Northern BC, Canada. The project is known as the Lorraine Project ("the Project" or "the Property"), comprising 142 mineral claims covering a combined area of approximately 39,227 hectares (ha).

NorthWest Copper commissioned APEX Geoscience Ltd. ("APEX") to provide a National Instrument (NI) 43-101 Technical Report disclosing an updated mineral resource estimate and provide a technical summary of the geology and drilling for the Lorraine Property, including details of recent exploration activities completed by the Company during 2021. The effective date of the Technical Report is June 30th, 2022.

APEX personnel take responsibility for all sections of the Technical Report. Mr. Alfonso Rodriguez, MSc, P. Geo. is responsible for sections 1.1 to 1.6, 1.8, 2 to 12, 25.1, 25.2, 25.4 to 27. Mr. Michael Dufresne, M.Sc., P.Geol., P.Geo. is responsible for sections 1.7, 13 to 24 and 25.3. Mr. Dufresne and Mr. Rodriguez, have jointly prepared sections 1, 25 and 26. Mr. Deon van der Heever, B.Sc., a Resource Specialist, contributed to section 14 for which Mr. Dufresne is taking full responsibility for. Mr. Rodriguez performed a site visit to the Lorraine Property on September 23rd, 2021. The APEX authors are independent of NorthWest Copper and the Property and have prepared this Technical Report in accordance with Form 43-101F1 Technical Report format. The APEX authors were charged with responsibility for validation of all the data and the assembly of the complete document.

The Property is located approximately 280 kilometres (km) northwest of Prince George, BC. The Property is regionally located within a northwest trending belt of copper mineralization that hosts several mines and exploration properties with similar styles of porphyry mineralization along the trend.

1.2 Property Description and Ownership

NorthWest Copper through its subsidiaries Sun Metals and Tsayta held a 49% interest in the Lorraine Property. To consolidate ownership of the Lorraine Property, NorthWest Copper's subsidiaries, Sun Metals and Tsayta completed an acquisition agreement with Teck Resources Limited ("Teck") on November 25, 2020 pursuant to which Sun Metals and Tsayta acquired Teck's 51% joint venture interest in the Lorraine Project. Following completion of the agreement with Teck, the Company owns 100% of the Lorraine-Jajay claims, and 90% of the adjacent Tam-Misty claims. Commander Resources Ltd. holds a 10% carried interest in the Tam-Misty claims. Pursuant to the acquisition agreement with Teck, Sun Metals is required to make payments to Teck, either in cash or common shares of the Company as defined by the agreement. The Property is subject to several net smelter returns (NSR) royalties as described in Section 4.2.

The Property is located approximately 280 kilometres (km) northwest of Prince George, BC, 50 km northwest of Germansen Landing and northwest of the Omineca Provincial Park. The Property comprises 142 mineral claims covering a combined area of approximately 39,227 ha.

1.3 Geology and Mineralization

The Property is located in a favorable geological setting, within the Duckling Creek Syenite Complex, part of the Mesozoic age composite intrusive complex known as the Hogem Batholith. The Hogem Batholith is a massive, 200 km long expanse of intrusive rocks within the Quesnel Terrane. To the west, older, uplifted Cache Creek Group rocks are separated from this belt by the Pinchi fault zone. The Hogem Batholith is composed of four main Jurassic-Cretaceous intrusive suites: 1) Early Jurassic calc-alkaline intrusive rocks of the Thane Creek suite (granodiorite, diorite, quartz monzonite, granite), which form the oldest intrusive component of this part of the Quesnel Terrane; 2) Early Jurassic alkalic intrusive rocks represented by the Duckling Creek Syenite Complex and the Chuchi syenite body; 3) Late Jurassic calc-alkaline granitoids of the Osilinka suite; and 4) Early Cretaceous calc-alkaline intrusive rocks of the Mesilinka suite (granodiorite, granite, quartz monzonite). Several ultramafic and gabbro-diorite intrusive complexes also form part of the intrusive component of Quesnel Terrane, although they are not historically included in the definition of the Hogem Batholith.

Copper-gold mineralization, commonly described as “porphyry-style” disseminated and local vein-related copper-gold (Cu-Au) mineralization in the southern Hogem Batholith, is focused around the syenite bodies (Nelson and Bellefontaine, 1996, Devine et al., 2014). Ultramafic bodies are notable for occurrences of platinum group elements PGEs (Nixon et al., 1997). Cretaceous-age intrusions locally host occurrences of copper and molybdenum in the Hogem region (Garnett, 1978).

Three main mineralized zones have been identified on the Lorraine Property: (Upper) Main Zone, Lower Main Zone, and the Bishop Zone. Together these mineralized zones constitute a single, 2.5 km long elongate porphyry system that has been partially disrupted by late stage high-angle faults. The Lorraine copper-gold mineralization occurs throughout and peripheral to a fine-grained, strongly potassic altered syenite-monzonite intrusive body that underlies Lorraine Peak.

1.4 Historical Exploration

Exploration within the Property dates to the 1930s when the Property was staked and later acquired by Cominco in 1943. The initial mineral claims of Lorraine were restricted to the Upper Main and Lower Main mineralized zones. From the mid-1990’s onwards, a process of claim consolidation from various operators has resulted in the current extent of the Lorraine Property. Mineral exploration programs have included surface geochemical sampling, airborne and ground geophysical surveys, geological mapping as well as drilling. The authors of this report have identified approximately 1,180 rock samples, 1,240 silt samples, and 15,750 soil samples that have been collected from the Property between 1948 and 2011. These samples are documented in 25 historical assessment reports, which describe exploration that was conducted within the current extent of the Property.

Historical drilling on the Property has been conducted by several companies from 1949 to 2009. In total, information for 398 historical drillholes totalling 63,445.03 meters (m) completed on or in the immediate vicinity of the current Lorraine Property is compiled in the drillhole database of the Project. The number of historical drillholes completed within the current boundaries of the Lorraine Property is 322 totaling 52,290.17 m. A total of 167 holes in the database totalling 25,506.42 m are included in the resource estimate area and are utilized in the current mineral resource estimate which encompasses the mineralization zones of Lower Main, Upper Main and Bishop. These zones of mineralization were defined in historical exploration.

1.5 2021 Exploration Program

NorthWest Copper carried out mineral exploration at the Property between June and September, 2021. This program comprised rock and soil geochemical sampling, stream sediment sampling, porphyry indicator mineral (PIM) sampling, re-logging and sampling of historical drill core, and induced polarization (IP) and resistivity geophysical surveying. An airborne magnetic geophysical survey and a Light Detection and Ranging (LiDAR) survey were also completed during July, 2021.

A total of 316 rock samples were collected during the 2021 exploration program. Mapping and rock sampling identified or confirmed a number of target areas in the Lorraine and Tam-Boundary areas prospective for copper sulphide mineralization, including Lorraine Peak and Copper Peak, Boundary Zones and North Cirque. The Boundary targets are associated with robust alteration and chalcopyrite ± bornite mineralization. A total of 24.4 line-kilometers (line-km) of geological mapping traverses were completed.

A total of 1,258 soil samples were collected. Soil sampling was completed on what is known as the Lorraine and the Tam-Boundary grids, confirming anomalies within a 2.5 km northwest trend extending through the Bishop and Lower Main zones, but also including anomalies higher than 500 parts per million (ppm) Cu, extending known mineralization to other targets including North Cirque, Weber, Ekland, Jeno Ridge, Copper-Page. Soil sampling at the Boundary showed overall lower copper values than Lorraine, displaying somewhat diffuse anomalous values through the central and eastern areas of the grid. However, clear anomalies were identified both upslope and downslope.

Additionally, a total of 13 porphyry indicator minerals (PIMs) and silt samples were collected. A total of 1,255 m of existing core from 10 drillholes was relogged and 180 core samples were collected from the core. A total of 20.8 line-km of ground IP was surveyed over 8 lines. Two aeromagnetic grids totaling 5,080 ha of coverage were flown. A LiDAR survey and orthophotographic imagery survey was obtained covering 10,231 ha of the Property.

1.6 Data Verification

A co-author of this Report, Mr. Rodriguez, completed a site inspection of the Property on September 23rd, 2021. The site visit included a tour of the Property to verify historical exploration results and to confirm the geology and mineralization of the Property. Mr. Rodriguez collected a total of six samples with sample 12ARM008 returning 1.625 % Cu and 0.802 ppm Au and sample 21ARM009 returning 0.456% Cu and 0.096 ppm Au. The QP verification samples were collected from historical drillholes and outcrops.

Based upon a review of available information, historical exploration data, and the author’s site visit, Mr. Rodriguez considers the Lorraine Property to be a property of merit that is prospective for porphyry copper-gold style mineralization. The Lorraine Property demonstrates the potential for the discovery of additional mineralization with additional exploration. The Property is hosted by units exhibiting porphyry style alteration and mineralization in an area with a long history of discovery and mineral exploration.

In total, more than 20% of the historical drillhole geological and assay data was checked and reviewed by APEX personnel with few errors found. Including statistical review and comparison of all of the digital data files and databases, effectively the entire assay database was reviewed and checked. Based upon the data verification conducted by APEX personnel, the updated drillhole database is considered by the authors to be acceptable for mineral resource estimation. The Authors take responsibility for the current drillhole database.

1.7 Current Mineral Resource Estimate

The updated 2022 Lorraine Project Mineral Resource Estimate (MRE) is reported in Table 1.1 for Indicated and Inferred mineral resource categories. The Indicated and Inferred Mineral Resource is undiluted and uses a cut-off grade of 0.2% copper (Cu), which is constrained within a Lerchs – Grossmann (LG) optimized pit shell and includes an Indicated Mineral Resource of 12,952,000 tonnes at 0.55% Cu, 0.16 g/t Au and 0.65% copper equivalent (CuEq), and an Inferred Mineral Resource of 45,452,000 tonnes at 0.43% Cu, 0.1 g/t Au and 0.49% CuEq. The conversion to CuEq is provided in Table 1.1 notes below.

The updated NI 43-101 MRE for the Lorraine Deposit was completed in 2022 by Mr. Michael B. Dufresne, M.Sc., P. Geol., P.Geo. Mr. Dufresne was assisted by Mr. Deon van der Heever, B.Sc., a Resource Specialist, who contributed to the completion of the MRE for the Lorraine Deposit. Mr. Dufresne is independent of NorthWest Copper and is a QP who takes responsibility for Section 14 and the MRE.

Lorraine's resource database consists of a total of 63,445.03 m of sampling in 398 drillholes. A total of 167 drillholes for a total of 25,506.42 m of sampling are included in the mineral resource estimate. Drill spacing is generally less than 50 m in the densely drilled portions of the project. The database was supplied by the issuer in the form of Leapfrog project files. The database was reviewed, validated and accepted by the QP.

Table 1.1 Lorraine 2022 Mineral Resource Estimate at a cut-off of 0.2% Copper.

Domain	Class	Tonnes (000s)	Avg Cu Grade (%)	Avg Au Grade (g/t)	Ave CuEq Grade (%)	Cu ('000 lbs)	Au ('000 oz)
Bishop	Indicated	2,541	0.58	0.12	0.66	32,284	10
	Inferred	9,082	0.51	0.1	0.57	101,730	29
Lower Main	Indicated	3,828	0.45	0.15	0.55	38,342	18
	Inferred	21,282	0.38	0.07	0.43	179,032	49
Upper Main	Indicated	6,584	0.59	0.19	0.71	85,467	40
	Inferred	15,089	0.44	0.14	0.53	147,169	67
Total	Indicated	12,952	0.55	0.16	0.65	156,093	68
	Inferred	45,452	0.43	0.1	0.49	427,931	145

Notes:

- Indicated and Inferred Mineral Resources are not Mineral Reserves. Mineral resources which are not mineral reserves do not have demonstrated economic viability. There has been insufficient exploration to define the inferred resources tabulated above as an indicated or measured mineral resource, however, it is reasonably expected that the majority of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. There is no guarantee that any part of the mineral resources discussed herein will be converted into a mineral reserve in the future. The estimate of mineral resources may be materially affected by environmental, permitting, legal, marketing or other relevant issues. The mineral resources have been classified according to the Canadian Institute of Mining (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May, 2014).and CIM Estimation of Mineral Resources & Mineral Reserves Best Practices Guidelines (2019).
- Cu Equivalent (CuEq) grade is based on 90% Cu recovery and 85% Au Recovery. The conversion used for Au grade (g/t) to Cu Eq grade (%) is: Au (g/t) * 0.6493, at a price of Cu US$3.50/lb and Au US$1,650/oz.
- The Mineral Resource Estimate is constrained in an LG pit optimization utilizing Cu at US$3.50/lb, Au at US$1,650/oz, Mining at CDN$ 3.50/tonne, Processing and G&A at CDN$ 14.50/tonne, pit slopes at 45° and an exchange rate of 0.77.
- Differences may occur in totals due to rounding

The resource has been estimated within three dimensional solids based on an updated geological interpretation that was completed by Northwest Copper and reviewed and modified as needed by Mr. van der Heever and the QP for use in the resource model. The geological interpretation was modeled inside each fault block and then used to create shapes for constraining mineralized zones. Fault blocks and lithological boundaries showing clear breaks in mineralization were used as constraining boundaries to create five final estimation domains. Three higher grade mineralized targets were modeled as separate domains by creating grade shells with 0.2% Cu boundaries within the previously modeled lithological and structure model: these are: Upper Main, Lower Main and Bishop zones. The surrounding volumes were split into a medium grade Syenite domain and low grade Syenite-Pyroxenite domain.

The copper grade was estimated within a block model that was constructed to fill the domain volumes with 20 m x 20 m x 5 m blocks in the X, Y and Z directions to best represent the data density of the deposit shapes, and to minimize blocks with unsupported by data. The model was rotated clockwise by 40° to better fit the alignment of domains. Ordinary kriging was used to estimate all blocks into the model with three estimation passes whereby each successive pass utilized a less restrictive sample search strategy to estimate any remaining un-estimated blocks. For this estimate 2.7 g/cm^3 was used for the bulk density and converting volume to tonnes. At the time the resource was completed, data on density was not available to the authors. Density data for approximately 200 samples is now available and according to Northwest Copper, provides an average density of 2.75 g/cm^3.

The 2022 Lorraine Project Mineral Resource has been classified as comprising Indicated and Inferred resources according to recent CIM definition standards. The classification for the Lorraine resources was based on geological confidence, data quality and grade continuity. All reported mineral resources occur within a pit shell optimized using values of $US 3.50/lb for copper and $US 1,650 per ounce for gold. Mineral resources are not mineral reserves and do not have demonstrated economic viability.

Based upon a review of available information, historical exploration data, and the Author's site visit, the Author's consider the Lorraine Property to be a property of merit that is prospective for porphyry copper style mineralization. The Property is hosted by units exhibiting porphyry style alteration and mineralization in an area with a long history of mineral exploration. The exploration conducted recently by NorthWest Copper in conjunction with the current mineral resource estimate along with historical exploration demonstrates that there is potential to expand upon the current mineral resources and proceed to more advanced studies and with additional positive results to eventual development.

1.8 Recommendations

Based on the data compilation, interpretation of geology, and the mineral resource estimate additional exploration work is recommended, including drilling, geochemical surveys, and strategic geological mapping.

- Drilling:
    - A follow up drilling program is recommended to test lateral extensions of mineralization along the northwest trend to the northwest of Lower Main Zone, and to the southeast of the Bishop Zone.
    - Infill drilling in order to test mineralization extension between the Upper Main and Bishop zones.
    - Additional drilling for infill in the Lower Main and Upper Main zones and to increase confidence within inferred resource zones and to convert some of the resource into an indicated category.
    - Drilling in the North Cirque zones and Weber zones where recent geochemical surveys also confirmed mineralization of interest.
    - Collection of geotechnical information during drilling or considering geotechnical drillholes for development evaluation.
    - Systematic collection of density data during these drilling programs is strongly recommended.

- Geochemical sampling and regional prospecting:
  - Soil geochemical surveys to follow up on geophysical anomalies. Considering both strategic grids as well as ridge and spur sampling of Ah or B soil horizon. The use of XRF equipment during these programs may help orient follow up surveys while in the field.

- Historical core relogging:
  - Additional strategic relogging as well as confirmation sampling should be considered for the historical core. This will aide keeping standard parameters while processing core for upcoming programs as well as reconciling historical information with current.
  - Alteration studies by means of short-wave infrared spectrum SWIR analysis may aide in better understanding the alteration pattern and fluid pathways.

- Regional alteration analysis derived from satellite surveys may also be applicable to identify alteration patterns in other areas of the Property that are similar to known mineralization may be identified in other areas of the Property.
- Metallurgical Studies: An initial orientation study on representative metallurgical samples from the different zones should be considered.

As part of Phase 1, mapping, geochemical prospecting and initial follow up infill drilling of 8,000 m are recommended. The estimated cost of the Phase 1 program is CDN$2,800,000 (Table 1.2).

Phase 2 exploration is dependent on the results of Phase 1 and includes additional follow up diamond drilling (~6,000 m), alteration studies, metallurgical studies and regional satellite alteration surveys. The recommended Phase 2 drilling at the Lorraine Property will test targets generated in Phase 1. The estimated cost of the Phase 2 program is CDN$2,200,000 (Table 1.2).

Collectively, the proposed exploration program has a total estimated cost of CDN$5,000,000, not including GST. The estimated cost of the recommended work program at the Lorraine Property is presented in Table 1.2.

Table 1.2. Proposed budget for the recommended exploration program at the Lorraine property.

Phase 1	
Activity Type	**Cost**
Geochemical Surveying (Rock and Soil Sampling)	$150,000
Relogging	$25,000
Diamond Drilling (Approximately 8,000 m at $300/m)	$2,400,000
Subtotal Phase 1	$2,575,000
Contingency (~10%)	$225,000
Phase 1 Activities Subtotal	$2,800,000
Phase 2	
Diamond Drilling (Approximately 6,000 m at $300/m)	$1,800,000
Metallurgical sampling/testing	$75,000
Satellite Survey	$50,000
Alteration studies on core	$75,000
Subtotal Phase 2	$2,000,000
Contingency (~10%)	$200,000
Phase 2 Activities Subtotal	$2,200,000
Grand Total	$5,000,000

2 Introduction

2.1 Issuer and Purpose

This Technical Report (the “Report”) on the Lorraine Property (“Lorraine”, the “Property” or the “Project”) was prepared by APEX Geoscience Ltd. (“APEX”) at the request of NorthWest Copper Corp. (“NorthWest Copper” or the “Company”). NorthWest Copper is a Vancouver, British Columbia (BC) based natural resource company engaged in the acquisition, exploration and development of natural resource properties, and listed on the TSX Venture Exchange (TSX-V) under the stock symbol “NWST”.

The Property is located approximately 280 kilometres (km) northwest of Prince George, BC, 50 km northwest of Germansen Landing and northwest of the Omineca Provincial Park (Figure 2.1). The Property comprises 142 mineral claims covering a combined area of approximately 39,227 hectares (ha), located in the Omineca Mining Division of Northern British Columbia.

The purpose of this Technical Report is to disclose an updated mineral resource estimate and provide a technical summary of the Lorraine Property, including details of recent exploration activities completed by the Company during 2021. The effective date of the Report is June 30th, 2022.

The Report was prepared by Qualified Persons (“QPs”) in accordance with disclosure and reporting requirements set forth in the National Instrument 43-101 (“NI 43-101”) Standards of Disclosure for Mineral Projects, Companion Policy 43-101CP Standards of Disclosure for Mineral Projects, Form 43-101F1 of the British Columbia Securities Administrators, the Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) Mineral Exploration Best Practice Guidelines (November 23, 2018), the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (November 29, 2019), and the CIM Definition Standards (May 10, 2014).

2.2 Authors and Site Inspection

Mr. Alfonso Rodriguez, M.Sc., P. Geo., Senior Geologist with APEX and Mr. Michael Dufresne, M. Sc., P.Geol., P.Geo., President of APEX, are the authors of this Report (the “Authors”). Contributors to this report include Mr. Deon van der Heever, B.Sc. of RockRidge Consulting, who is a Resource Specialist. Mr van der Heever assisted in the completion of the Mineral Resource Estimate (MRE) for the Lorraine Property under the direct supervision of Mr. Dufresne. The resource has been completed by Mr. Dufresne and he takes responsibility for the MRE in Section 14 reported herein.

The Authors are independent of NorthWest Copper and are QPs as defined by NI 43-101. The NI 43-101 and CIM defines a QP as “an individual who is a geoscientist with at least five years of experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these; has experience relevant to the subject matter of the mineral project and the technical report; and is a member or licensee in good standing of a professional association".

Mr. Rodriguez is a Professional Geologist with Engineers and Geoscientists of British Columbia (EGBC; Licence# 44993) and has worked as a geologist for more than 15 years since his graduation from university. Mr. Rodriguez has experience with exploration for precious and base metal mineralization of various deposit types in North and South America, including porphyry and epithermal, polymetallic veins, and sediment-hosted precious and base metals. Mr. Rodriguez, M.Sc., P.Geo. is responsible for Sections 1.1 to 1.6, 1.8, 2 to 12, 25.1, 25.2, 25.4 to 27 of the Report.

Mr. Dufresne is a Professional Geologist with the Association of Professional Engineers and Geoscientists of Alberta (APEGA; Licence# 48439), a Professional Geoscientist with Association of Professional Engineers and Geoscientists of British Columbia (EGBC; Licence# 37074) and has worked as a mineral exploration geologist for more than 35 years since his graduation from university. Mr. Dufresne has been involved in all aspects of mineral exploration and mineral resource estimations for precious and base metal mineral projects and deposits in Canada and internationally. Mr. Dufresne, M.Sc., P.Geol., P.Geo. is responsible for Sections 1.7, 13 to 24 and 25.3 of the Report. The APEX authors were charged with responsibility for validation of all the data and the assembly of the complete document.

Mr. van der Heever, B.Sc., is a Resource Specialist with more than 32 years of experience in mining and mineral exploration and more than 20 years of experience in deposit modeling and resource estimation. Mr. van der Heever provided assistance in deposit modeling and resource estimation for Section 14 of this Technical Report.

Mr. Rodriguez conducted a site inspection of the Property for verification purposes on September 23rd, 2021. The site inspection included completing sample verification from core (four samples) and outcrops (two samples), reviewing location of three historical drillholes and reviewing site access and conditions. Assay results from the site visit samples were within reasonable expected error versus the original results.

2.3 Sources of Information

This Report is a compilation of proprietary and publicly available information; it is largely based on information derived from the technical report titled, "NI 43-101 Summary Report on the Lorraine - Jayjay Property as of July 16th, 2016", prepared for Lorraine Copper Corp. by Giroux Consultants Ltd. (Giroux and Lindinger, 2016) as well as the "Assessment Report 2021 Geochemical. Geophysical and Core-Relogging Exploration Program on the Lorraine Property" as of March 1st, 2022" by Titley and Harper, 2022 prepared on behalf of NorthWest Copper. Additional information regarding historical exploration, was sourced from publicly available documents filed with the British Columbia Ministry of Mines in the form of assessment reports as well as SEDAR.

Figure 2.1 General Location of Northwest Copper's Lorraine Property.

In support of the technical sections of this Report, the Authors have independently reviewed reports, data, and information derived from work completed by NorthWest Copper and their consultants. Journal publications listed in Section 27 “References” were used to verify background geological information regarding the regional and local geological setting and mineral deposits of the Lorraine Property, including Devine et al., 2014. The Authors have deemed these reports, data, and information as valid contributions to the best of their knowledge.

Based on the Property visit and review of the available literature and data, the Authors take responsibility for the information herein.

2.4 Units of Measure

With respect to units of measure, unless otherwise stated, this Report uses:

- Abbreviated shorthand consistent with the International System of Units (International Bureau of Weights and Measures, 2006);

- ‘Bulk’ weight is presented in both United States short tons (“tons”; 2,000 lbs or 907.2 kg) and metric tonnes (“tonnes”; 1,000 kg or 2,204.6 lbs.);

- Geographic coordinates are projected in the Universal Transverse Mercator (“UTM”) system relative to Zone 10 of the North American Datum (“NAD”) 1983.

- Grades, concentrations, weights and lengths are provided in parts per million (ppm), parts per billion (ppb), grams per metric tonne (g/t or gpt), troy ounces per short ton (oz/st or opt), percent (%), grams per cubic centimeter (g/cm^3), metric tonnes (t), short tons (st), millimeters (mm), centimeters (cm), meters (m), kilometers (km), feet (ft), yards (yd) and miles (mi).

Currency is in Canadian dollars (CDN$), unless otherwise specified (e.g., U.S. dollars, US$; Euro, €).

3 Reliance of Other Experts

The Authors did not investigate any legal, political, environmental, or tax matters associated with the Lorraine Property, and are not experts with respect to these issues, including the assessment of the legal validity of mineral claims, mineral rights, private lands, and property agreements. The Authors have relied and believe there is a reasonable basis for this reliance, upon information from Northwest Copper and the Mineral Titles Branch, Energy and Minerals Division of the Ministry of Energy and Mines for British Columbia regarding Property status, and legal title for the Property

- Background information and details regarding the nature and extent of Mineral Tenure (in Section 4.1) was provided by Northwest Copper on July 29th, 2022 via a OneDrive link. Title for the Lorraine Property was confirmed by independently reviewing the digital tenure records listed on the Province of British Columbia's "Mineral Titles Online" website (https://www.mtonline.gov.bc.ca/mtov/home.do). As of July 7, 2022, a total of 142 mineral claims were listed as owned by Tsayta Resources Corporation (Tsayta), a wholly owned subsidiary of NorthWest Copper. All 142 claims are active and in good standing until August 15, 2025.

- Copies of Ownership agreements were provided by Tyler Caswell P.Geo., Principal Geologist at NorthWest Copper on September 6, 2022, these included: Tam/Misty Property Option and Sale Agreement dated January 15, 2006; Acknowledgement of Assignment and Option Agreement between Teck Cominco Limited and Commander Resource Ltd. dated January 15, 2006; and Assignment and Assumption Agreement with Novation between Teck Resources Limited, Lorne B Warren, Westley Grant Luck and Tsayta Resources Corporation dated November 25, 2020; and Joint Venture Purchase Agreement between Teck Resources Limited, Sun Metals Corp. and Tsayta Resources Corporation dated October 28, 2020.

4 Property Description and Location

4.1 Description and Location

The Lorraine Property (the Property) comprises 142 contiguous mineral claims, totalling 39,227 hectares (ha), located 280 kilometres (km) northwest of Prince George, BC (Figures 2.1 and 4.1).

The Property is located in the Omineca Mining Division of central BC and is approximately centred on UTM sheet 93N14W at 55°55' N, 125°27'W. The claims, listed below, are all located on government (Crown) land. All the claims are recorded in the name of Tsayta, a wholly owned subsidiary of NorthWest Copper. A detailed list of claims forming the Property is provided in Table 4.1. A detailed map showing the claims is provided as Figure 4.1.

Figure 4.1 Mineral Claim Map.

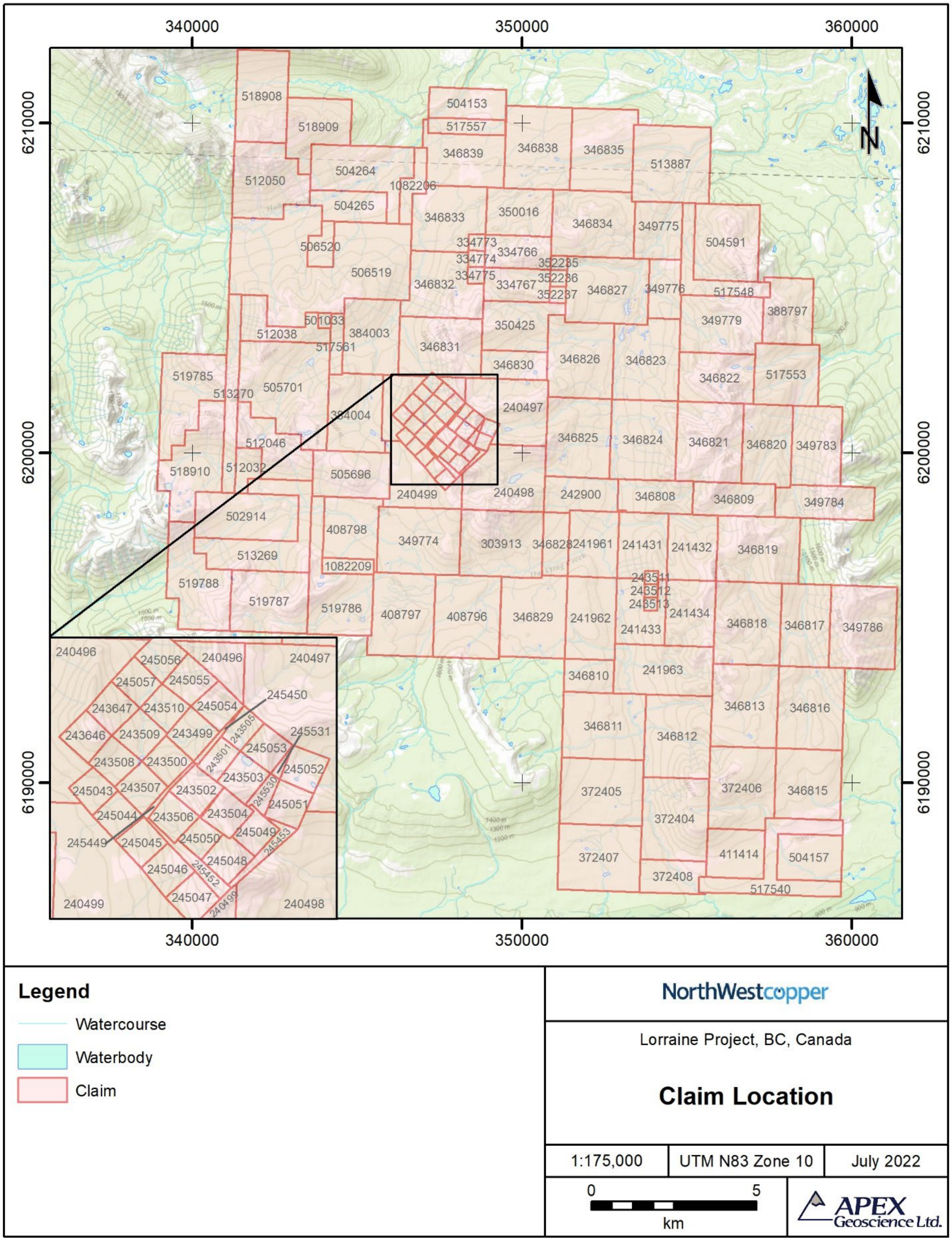


Table 4.1. Listing of Claims – NorthWest Copper's Lorraine Property.

Title Number	Claim Name	Map Number	Issue Date	Good To Date	Area (ha)	Note
240496	STEELE #1	093N093	1989/APR/29	2025/AUG/15	500	3
240497	STEELE #2	093N093	1989/APR/29	2025/AUG/15	500	3
240498	STEELE #3	093N093	1989/APR/29	2025/AUG/15	500	3
240499	STEELE #4	093N093	1989/APR/29	2025/AUG/15	500	3
241431	DOROTHY 1	093N084	1989/NOV/20	2025/AUG/15	300	1
241432	DOROTHY 2	093N084	1989/NOV/20	2025/AUG/15	300	1
241433	DOROTHY 3	093N084	1989/NOV/20	2025/AUG/15	300	1
241434	DOROTHY 4	093N084	1989/NOV/20	2025/AUG/15	300	1
241961	DOROTHY 5	093N084	1990/MAY/14	2025/AUG/15	300	1
241962	DOROTHY 6	093N084	1990/MAY/14	2025/AUG/15	375	1
241963	DOROTHY 7	093N084	1990/MAY/14	2025/AUG/15	450	1
242900	BOOT #6	093N094	1990/OCT/30	2025/AUG/15	375	3
243499	LORRAINE NO.1	093N093	1947/SEP/17	2025/AUG/15	25	1
243500	LORRAINE NO.2	093N093	1947/SEP/17	2025/AUG/15	25	1
243501	LORRAINE NO.3	093N093	1947/SEP/17	2025/AUG/15	25	1
243502	LORRAINE NO.4	093N093	1947/SEP/17	2025/AUG/15	25	1
243503	LORRAINE NO.5	093N093	1947/SEP/17	2025/AUG/15	25	1
243504	LORRAINE NO.6	093N093	1947/SEP/17	2025/AUG/15	25	1
243505	LORRAINE NO.7	093N093	1947/SEP/17	2025/AUG/15	25	1
243506	LORRAINE NO.8	093N093	1947/SEP/17	2025/AUG/15	25	1
243507	LORRAINE NO.9	093N093	1948/JUN/22	2025/AUG/15	25	1
243508	LORRAINE NO.10	093N093	1948/JUN/22	2025/AUG/15	25	1
243509	LORRAINE NO.11	093N093	1948/JUN/22	2025/AUG/15	25	1
243510	LORRAINE NO.12	093N093	1948/JUN/22	2025/AUG/15	25	1
243511	DOROTHY NO.1	093N084	1948/JUL/16	2025/AUG/15	25	1
243512	DOROTHY NO.3	093N084	1948/JUL/16	2025/AUG/15	25	1
243513	ELIZABETH NO. 1	093N084	1948/AUG/27	2025/AUG/15	25	1
243646	LORREX NO.1	093N093	1962/SEP/04	2025/AUG/15	25	1
243647	LORREX NO.2	093N093	1961/SEP/04	2025/AUG/15	25	1
245043	GK #1	093N093	1970/JUL/03	2025/AUG/15	25	1
245044	GK #2	093N093	1970/JUL/03	2025/AUG/15	25	1
245045	GK #3	093N093	1970/JUL/03	2025/AUG/15	25	1
245046	GK #4	093N093	1970/JUL/03	2025/AUG/15	25	1
245047	GK #5	093N093	1970/JUL/03	2025/AUG/15	25	1
245048	GK #6	093N093	1970/JUL/03	2025/AUG/15	25	1
245049	GK #7	093N093	1970/JUL/03	2025/AUG/15	25	1
245050	GK #8	093N093	1970/JUL/03	2025/AUG/15	25	1
245051	GK #9	093N093	1970/JUL/03	2025/AUG/15	25	1
245052	GK #10	093N093	1970/JUL/03	2025/AUG/15	25	1
245053	GK #11	093N093	1970/JUL/03	2025/AUG/15	25	1

Title Number	Claim Name	Map Number	Issue Date	Good To Date	Area (ha)	Note
245054	GK #18	093N093	1970/JUL/03	2025/AUG/15	25	1
245055	GK #19	093N093	1970/JUL/03	2025/AUG/15	25	1
245056	GK #20	093N093	1970/JUL/03	2025/AUG/15	25	1
245057	GK #21	093N093	1970/JUL/03	2025/AUG/15	25	1
245449	LORRAINE #1 FR.	093N093	1972/MAY/31	2025/AUG/15	25	1
245450	LORRAINE #2 FR.	093N093	1972/MAY/31	2025/AUG/15	25	
245451	LORRAINE #3 FR.	093N093	1972/MAY/31	2025/AUG/15	25	
245452	GK #109 FR.	093N093	1972/MAY/31	2025/AUG/15	25	1
245453	GK #111 FR.	093N093	1972/MAY/31	2025/AUG/15	25	1
245530	GK #110 FR.	093N093	1972/JUL/25	2025/AUG/15	25	1
245531	GK #112 FR.	093N093	1972/JUL/25	2025/AUG/15	25	1
303913	BOOT 10	093N083	1991/SEP/05	2025/AUG/15	500	3
334766	STEELHEAD 1	093N094	1995/APR/06	2025/AUG/15	200	2
334767	STEELHEAD 2	093N094	1995/APR/06	2025/AUG/15	200	2
334773	SH 8	093N093	1995/APR/06	2025/AUG/15	25	2
334774	SH 9	093N093	1995/APR/06	2025/AUG/15	25	2
334775	SH 10	093N093	1995/APR/06	2025/AUG/15	25	2
346808	BOBINO #1	093N094	1996/JUN/07	2025/AUG/15	250	
346809	BOBINETTE	093N094	1996/JUN/08	2025/AUG/15	250	
346810	PAL 1	093N084	1996/MAY/31	2025/AUG/15	150	
346811	PAL 2	093N084	1996/MAY/30	2025/AUG/15	500	
346812	PAL 3	093N084	1996/JUN/01	2025/AUG/15	500	
346813	PAL 4	093N084	1996/JUN/11	2025/AUG/15	500	
346815	PAL 6	093N084	1996/JUN/11	2025/AUG/15	500	
346816	PAL 7	093N084	1996/JUN/11	2025/AUG/15	500	
346817	PAL 8	093N084	1996/JUN/09	2025/AUG/15	375	
346818	PAL 9	093N084	1996/JUN/09	2025/AUG/15	500	
346819	PAL 10	093N084	1996/JUN/09	2025/AUG/15	500	
346820	PAL 12	093N094	1996/JUN/10	2025/AUG/15	375	
346821	PAL 13	093N094	1996/JUN/12	2025/AUG/15	500	
346822	PAL 14	093N094	1996/JUN/12	2025/AUG/15	375	
346823	PAL 15	093N094	1996/JUN/06	2025/AUG/15	500	
346824	PAL 16	093N094	1996/JUN/07	2025/AUG/15	500	
346825	PAL 17	093N094	1996/JUN/07	2025/AUG/15	500	
346826	PAL 18	093N094	1996/JUN/06	2025/AUG/15	500	
346827	PAL 19	093N094	1996/JUN/05	2025/AUG/15	500	
346828	PAL 20	093N084	1996/JUN/02	2025/AUG/15	200	
346829	PAL 21	093N084	1996/MAY/31	2025/AUG/15	500	
346830	PAL 22	093N093	1996/JUN/07	2025/AUG/15	200	
346831	PAL 23	093N093	1996/JUN/07	2025/AUG/15	500	
346832	PAL 24	093N093	1996/JUN/06	2025/AUG/15	500	
346833	PAL 25	093N093	1996/JUN/04	2025/AUG/15	500	

Title Number	Claim Name	Map Number	Issue Date	Good To Date	Area (ha)	Note
346834	PAL 26	093N094	1996/JUN/04	2025/AUG/15	500	
346835	PAL 27	094C004	1996/JUN/02	2025/AUG/15	500	
346838	PAL 30	094C004	1996/JUN/02	2025/AUG/15	500	
346839	PAL 31	094C003	1996/JUN/03	2025/AUG/15	500	
349774	PAL 32	093N083	1996/AUG/11	2025/AUG/15	500	
349775	PAL 33	093N094	1996/AUG/16	2025/AUG/15	300	
349776	PAL 34	093N094	1996/AUG/16	2025/AUG/15	200	
349779	PAL 37	093N094	1996/AUG/17	2025/AUG/15	500	
349783	PAL 41	093N094	1996/AUG/20	2025/AUG/15	375	
349784	PAL 42	093N094	1996/AUG/18	2025/AUG/15	300	
349786	PAL 44	093N084	1996/AUG/20	2025/AUG/15	500	
350016	PAL 48	093N094	1996/AUG/23	2025/AUG/15	300	
350425	PAL 47	093N093	1996/AUG/24	2025/AUG/15	375	
352235	FIONA	093N094	1996/OCT/09	2025/AUG/15	25	
352236	ISABELLE	093N094	1996/OCT/09	2025/AUG/15	25	
352237	SUZANNE	093N094	1996/OCT/09	2025/AUG/15	25	
372404	MACKENZIE 1	093N084	1999/OCT/06	2025/AUG/15	500	
372405	MACKENZIE 2	093N084	1999/OCT/06	2025/AUG/15	500	
372406	MACKENZIE 3	093N084	1999/OCT/06	2025/AUG/15	500	
372407	MACKENZIE 4	093N084	1999/OCT/06	2025/AUG/15	500	
372408	MACKENZIE 5	093N084	1999/OCT/06	2025/AUG/15	200	
384003	DOME-1	093N093	2001/FEB/13	2025/AUG/15	500	
384004	DOME-2	093N093	2001/FEB/13	2025/AUG/15	500	
388797	NUPAL 1	093N094	2001/JUL/31	2025/AUG/15	300	
408796	DOME-3	093N083	2004/MAR/02	2025/AUG/15	500	
408797	DOME-4	093N083	2004/MAR/02	2025/AUG/15	500	
408798	DOME-5	093N083	2004/FEB/28	2025/AUG/15	500	
411414	MACKENZIE 6	093N084	2004/JUN/16	2025/AUG/15	300	
501033	Tam Gap 1	093N	2005/JAN/12	2025/AUG/15	18	4
502914	Tam South 1	093N	2005/JAN/13	2025/AUG/15	435	4
504153	NMAG	094C	2005/JAN/18	2025/AUG/15	217	
504157	EMACK	093N	2005/JAN/18	2025/AUG/15	273	
504264	Tam North 1	093N	2005/JAN/19	2025/AUG/15	452	4
504265	Tam North 2	093N	2005/JAN/19	2025/AUG/15	199	4
504591	DKM 7	093N	2005/JAN/22	2025/AUG/15	452	
505696		093N	2005/FEB/03	2025/AUG/15	326	4
505701		093N	2005/FEB/03	2025/AUG/15	725	4
506519		093N	2005/FEB/10	2025/AUG/15	1,394	4
506520		093N	2005/FEB/10	2025/AUG/15	90	4
512032	BUSHMILLS 1	093N	2005/MAY/03	2025/AUG/15	91	4
512038		093N	2005/MAY/04	2025/AUG/15	217	4
512046		093N	2005/MAY/04	2025/AUG/15	308	4

Title Number	Claim Name	Map Number	Issue Date	Good To Date	Area (ha)	Note
512050	TAM NORTH	093N	2005/MAY/04	2025/AUG/15	452	4
513269	TAM SOUTH 0501	093N	2005/MAY/25	2025/AUG/15	453	4
513270	TAM WEST	093N	2005/MAY/25	2025/AUG/15	236	4
513887		093N	2005/JUN/03	2025/AUG/15	543	
517540	MACK	093N	2005/JUL/12	2025/AUG/15	364	
517548	NUPAL FR	093N	2005/JUL/12	2025/AUG/15	217	
517553	NUPAL2	093N	2005/JUL/12	2025/AUG/15	362	
517557	NMAG FR	094C	2005/JUL/12	2025/AUG/15	109	
517561	DOME FR	093N	2005/JUL/12	2025/AUG/15	72	
518908	TAM NORTH 005	094C	2005/AUG/11	2025/AUG/15	434	
518909	TAM NORTH 006	093N	2005/AUG/11	2025/AUG/15	326	4
518910	TAM WEST 007	093N	2005/AUG/11	2025/AUG/15	453	4
519785	TAM SEPT 1	093N	2005/SEP/09	2025/AUG/15	435	4
519786	TAM SEPT 2	093N	2005/SEP/09	2025/AUG/15	454	4
519787	TAM SEPT 3	093N	2005/SEP/09	2025/AUG/15	435	4
519788	TAM SEPT 4	093N	2005/SEP/09	2025/AUG/15	454	4
1082206	LORRAINE	093N	2021/APR/15	2025/AUG/15	109	
1082209	LORRAINE	093N	2021/APR/15	2025/AUG/15	73	
142 Claims				**Total Area**	**39,227**	

Note
1 Claims subject to Osisko NSR
2 Claims subject to Messrs. Alvin Jackson and Rudi Durfeld NSR
3 Claims subject to Messrs. Richard Haslinger and Larry Hewitt NSR
4 Claims subject to Tam Misty NSR

In British Columbia, the holder of a mineral claim acquires the right to or interest in the minerals which were available at the time of claim location as defined in the Mineral Tenure Act of British Columbia. Claims are valid for a period of one year after the date of recording or registration. To maintain a claim in good standing the claim holder must, on or before the anniversary date of the claim, either: (a) record sufficient exploration and development work carried out on that claim during the current anniversary year; or (b) pay cash in lieu of work. Payment of cash in lieu of work requirements are assessed at double the value of exploration and development work that would be required to maintain the claim for the following anniversary year.

The value of exploration and development work required to maintain a mineral claim for one year is at least: (a) $5 per hectare for each of the first and second anniversary years; (b) $10 per hectare for each of the third and fourth anniversary years; (c) $15 per hectare for each of the fifth and sixth anniversary years; and (d) $20 per hectare for each subsequent anniversary year. Only work and associated costs for the current anniversary year of the mineral claim may be applied toward that claim unit. If the value of work performed in a year exceeds the required minimum for a claim, the value of the excess work may be applied to work requirements for that claim for future years, subject to the Mineral Tenure Act and Regulation.

Exploration and development work must be registered online by the recorded claim holder or an authorized agent using the Government of British Columbia's Mineral Titles Online ("MTO") internet-based electronic mineral titles administration system. A report pertaining to the exploration and development work completed must be submitted to the chief gold commissioner in the form and manner prescribed by the Mineral Tenure Act Regulations, within 30 days of registering physical work or within 90 days of registering technical work. Physical work reports are uploaded to MTO; technical work reports and required data are uploaded to the Assessment Report and Digital Data Submission Portal.

According to a consultation with the Mineral Titles Branch of the Ministry of Energy, Mines and Low Carbon Innovation of British Columbia, NorthWest Copper has applied sufficient work to the Lorraine Property claims to extend the good to date until August 15th, 2025.

4.2 Royalties and Agreements

NorthWest Copper through its subsidiaries Sun Metals and Tsayta held a 49% interest in the Lorraine Property. To consolidate ownership of the Lorraine Property NorthWest Copper's subsidiaries, Sun Metals and Tsayta completed an agreement with Teck on November 25th, 2020 pursuant to which Sun Metals acquired Teck's 51% joint venture interest in the Lorraine Project. Following completion of the agreement with Teck, the Company owns 100% of the Lorraine-Jajay claims, and 90% of the adjacent Tam-Misty claims, with Commander Resources Ltd. (Commander) holding a 10% carried interest in the Tam-Misty claims. Pursuant to the acquisition agreement, the Company is required to make payments to Teck, in cash or common shares of the Company as follows:

- $500,000 payable on November 25, 2020 (closing date) - paid
- $500,000 payable on November 25, 2021 (first anniversary) - paid
- $500,000 payable on November 25, 2022 (second anniversary)

Additional milestone payments to Teck in either cash or common shares of the Company include:

- $500,000 upon completion of a preliminary economic assessment;
- $2,000,000 upon completion of a feasibility study; and
- $5,000,000 upon a construction decision.

Under the terms of the purchase agreement, Teck has also retained a 1% net smelter returns ("NSR") royalty on all claims that are not already burdened by a royalty and a 0.25% NSR royalty on all claims that are subject to the existing Tam-Misty royalties. Additionally, if the Company sells or options all or a portion of the Property to a third party at any time during a 60-month period commencing from the date of the agreement, NorthWest Copper will pay to Teck 20% of the sale proceeds, net of exploration expenses incurred on the Property by NorthWest Copper following closing.

The Tam-Misty Royalty covers the historical Jan-Tam/Misty claims located along the west side of the current Property. These 21 claims are covered by a 3% NSR royalty to Lorne B. Warren (25%), Westley Grant Luck (25%) and Commander (50%) based on the Option and Sale Agreement in respect of the Tam/Misty Property dated Jan 15, 2006 (Table 4.1). The Tam-Misty royalty can be reduced to 1% by paying $1,000,000 per each 1% for a total of $2,000,000 dollars. An advanced royalty is due on these claims totalling $50,000 per year (starting on December 31st, 2012) and is to be paid in the proportion as described above. The advance royalty is capped at $500,000 total and will be deducted from future royalty payments or a buy down of the royalty. As of the effective the date of this Report, the full advance royalty of $500,000 has been paid.

Umex Inc. ("UMEX") holds royalties over the historical Tam Project pursuant the UMEX Royalty Agreement dated February 28th, 1990. Any amounts to pay the royalty due to UMEX pursuant to the UMEX royalty agreement may be deducted from the Tam-Misty royalty payments.

Osisko Gold Royalties Ltd. ("Osisko"), successor to Kennecott Canada Exploration Inc. (Kennecott), holds a 2% NSR royalty on the claims comprising the historical Lorraine and Dorothy Properties pursuant to the Lorraine and Dorothy Properties Kennecott Back-in Rights Surrender Agreement dated August 18th, 2003 (Table 4.1). The royalty may be reduced to 1% by payment to Osisko of $1,000,000.

Messrs. Alvin Jackson and Rudi Durfeld hold a 2% NSR royalty on the Steelhead claims pursuant to the Steelhead Property Purchase Agreement dated May 27th, 2002 (Table 4.1). Up to 1.5% of the NSR royalty may be purchased at any time for $500,000 per 0.5%.

Messrs. Richard Haslinger and Larry Hewitt hold a 2% NSR royalty on the Steele claims pursuant to the Steele Option Agreement dated December 15th, 1994, as amended November 6th, 1997 (Table 4.1). The royalty may be reduced to 1% by payment of $1,000,000.

4.3 Environmental Liabilities, Permitting and Significant Factors

4.3.1 Permitting

In British Columbia, all work carried out on a claim that disturbs the surface by mechanical means (including drilling, trenching, excavating, blasting, construction or demolishment of a camp or access, induced polarization (IP) surveys using exposed electrodes, and site reclamation) requires a Notice of Work (NOW) permit under the Mines Act, and the owner must receive written approval from the District Inspector of Mines prior to undertaking the work. The NOW must include: the pertinent information as outlined in the Mines Act; additional information as required by the Inspector; maps and schedules for the proposed work; applicable land use designation; up to date tenure information; and details of actions that will minimize any adverse impacts of the proposed activity. The claim owner must outline the scope and type of work to be conducted, and approval generally takes one or two months.

Exploration activities that do not require a Notice of Work permit include prospecting with hand tools, geological/geochemical surveys, airborne geophysical surveys, ground geophysical surveys without exposed electrodes, hand trenching (no explosives) and the establishment of grids (no tree cutting). These activities and those that require Permits are outlined and governed by the Mines Act of British Columbia.

The Chief Inspector of Mines makes the decision whether land access will be permitted. Other agencies, principally the Ministry of Forests lands and Natural Resources (FLNRO), determine where and how the access may be constructed and used. With the Chief Inspector's authorization, a mineral tenure holder must be issued the appropriate "Special Use Permit" by the FLNRO, subject to specified terms and conditions. The Ministry of Energy Mines and Low Carbon Innovations (EMLI) makes the decision whether land access is appropriate, and the FLNRO must issue a Special Use Permit. However, three ministries, namely the EMLI; FLNRO; and Ministry of Environment and Climate Change Strategy, jointly determine the location, design and maintenance provisions of the approved road.

Notification must be provided before entering private land for any mining activity, including non-intrusive forms of mineral exploration such as mapping surface features and collecting rock, water or soil samples. Notification may be hand delivered to the owner shown on the British Columbia Assessment Authority records or the Land Title Office records. Alternatively, notice may be mailed to the address shown on these records or sent by email or facsimile to an address provided by the owner. Mining activities cannot start sooner than eight days after notice has been served. Notice must include a description or map of where the work will be conducted and a description of what type of work will be done, when it will take place and approximately how many people will be on the site. It must include the name and address of the person serving the notice and the name and address of the onsite person responsible for operations.

NorthWest Copper submitted a NOW application to carry out exploration on the Lorraine Property to the EMLI on June 7th, 2022 and received the Mines Act Permit associated with the NOW on August 9th 2022. The permit is valid until August 9th, 2027.

4.3.2 Environmental Liabilities First Nations and Other Significant Factors

Given the alpine environment in which the Property is located, exploration work will require careful planning and execution to mitigate any environmental concerns identified by government agencies, First Nations and/or the public. NorthWest Copper is conducting ongoing consultations with First Nations title, rights, and interest holders of the Takla Nation ("Takla"), Tsay Key Dene Nation ("Tsay Key Dene"), and the Nak'azdli Whut'en Nation ("Nak'azdli Whut'en"). On June 9th, 2022, NorthWest Copper and Tsay Key Dene signed an Exploration Agreement that is valid through to the 1st of June, 2027.

Additionally, NorthWest Copper is continuing to engage with Takla and Nak'azdli Whut'en with respect to an Exploration Agreement.

The Authors are not aware of social, political, or environmental liabilities to which the Property may be subject, or any other significant factors or risks that would affect access, title, or NorthWest Copper's ability to perform work on the Lorraine Property.

5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1 Accessibility

The Lorraine Property is approximately 280 km (~400 road km) northwest of Prince George, BC and about 180 km north of Fort St. James, BC, and can be accessed via existing roads. The Property can be accessed, via Fort St. James and Germansen Landing using a bush road off the Omineca Mining Road (Figure 2.1). The Property can also be accessed along the Kemess Access Corridor from MacKenzie via logging haul roads along the Osilinka River and HaHa Creek to the west side of the Property, where a 9.5 km trail was upgraded in 2004 to give access to the main Lorraine camp.

Due to recent logging activity in the area, industrial logging roads have been pushed to within a few kilometres of the Property. These roads allow access to the Property from the southeast (via Germansen Landing), from the southwest (via rail loading facilities at Takla Lake) and from the north (via MacKenzie and the Kemess Access Corridor). One of the newly constructed roads approaches the Property from the southwest using a new bridge on the Omineca River. It provides access to the BC Rail line at Lovell Cove on Takla Lake where logs are shipped to Prince George. This road and bridge will be an important component to the necessary infrastructure if a mine is constructed on the Property. A second road accesses the extreme southeastern region of the Property using a new logging road branching from the Omineca Mining Road. This road extends to within a few hundred metres of the east bank of Duckling creek and has been used for access to the MacKenzie Target area.

5.2 Site Topography, Elevation and Vegetation

The Property is located in the Omineca Mountains near the headwaters of Duckling Creek. The Property is located in a section of the interior which is truncated to the north and south by the broad, subdued west to east flowing river valleys of the Osilinka and Omineca Rivers, respectively.

The topography on the Property is quite varied, ranging from broad treed valley floors to sharp peaks. Elevations on the Property range from approximately 1,000 m (3,200 feet (ft)) on Duckling Creek to around 2,100 m (6,900 ft) on the highest ridge tops. Pleistocene glaciation has incised a number of north and east-facing cirques, which interrupt the Property's general north-south topographic orientation. Cirque floors are generally found at 1,550 to 1,600 m (5,000 to 5,200 ft) elevation.

The northern and eastern slopes are usually extensively talus covered whereas the southern and westerly slopes are commonly vegetated. Glacial till and fluvioglacial outwash blanket the valley bottoms, limiting most outcrop exposures below tree line to streambeds. A thick growth of mature spruce, pine and balsam covers much of the lower elevation areas extending up to tree line at approximately 1,650 m (5,400 ft) elevation.

5.3 Climate

The climate of this region is typically cool and moderate with warm moist summers and cold winters. The lower elevation regions of the claims are snow free from the end of April until the beginning of November. In the highest elevation regions of the Property, winter snow may linger until the end of June and occur again any time after the middle of September. Total snowfall is not excessive.

5.4 Local Resources and Infrastructure

Prince George is the nearest significant population and supply centre. Food, lumber, and camp supplies can also be had in Fort St. James (Figure 2.1). The claims are entirely underlain by Crown land and with the exception of readily available electricity, the Property has at least adequate access to water, timber and industrial rock supplies. The Property also covers a more than adequate area to permit the construction of a large mining operation, including dumps and tailings areas. The 230 KVA Kemess Mine power line crosses less than 50 km east of the Property (Figure 2.1).

In the opinion of the authors, the Property is of sufficient size to accommodate potential exploration and mining facilities, including waste rock disposal and processing infrastructure. There are no other significant factors or risks that the authors are aware of that would affect access or the ability to perform work on the Property.

6 History

This historical review has been compiled from information drawn from over 50 public and private company reports. The following sub-sections summarize the ownership history, historical exploration, resource estimations, and developmental work conducted at the Lorraine Property. Historical occurrences and deposits are shown in Figure 6.1. Table 6.1 outlines ownership history of the Property. Only those historical results within or at the very edge of the current Lorraine Property are summarized or discussed in the following summary sub-sections.

6.1 Introduction to Historical Exploration Work Conducted at the Lorraine Property by Previous Owners

The Property has been owned and explored by no fewer than 11 companies since it was first staked in 1931 (Garratt, 2005a). Detailed summaries of the work done on the Property and the resultant findings are discussed in this Section categorized by the type of exploration work completed. A brief outline of the exploration programs completed on the Property is provided below.

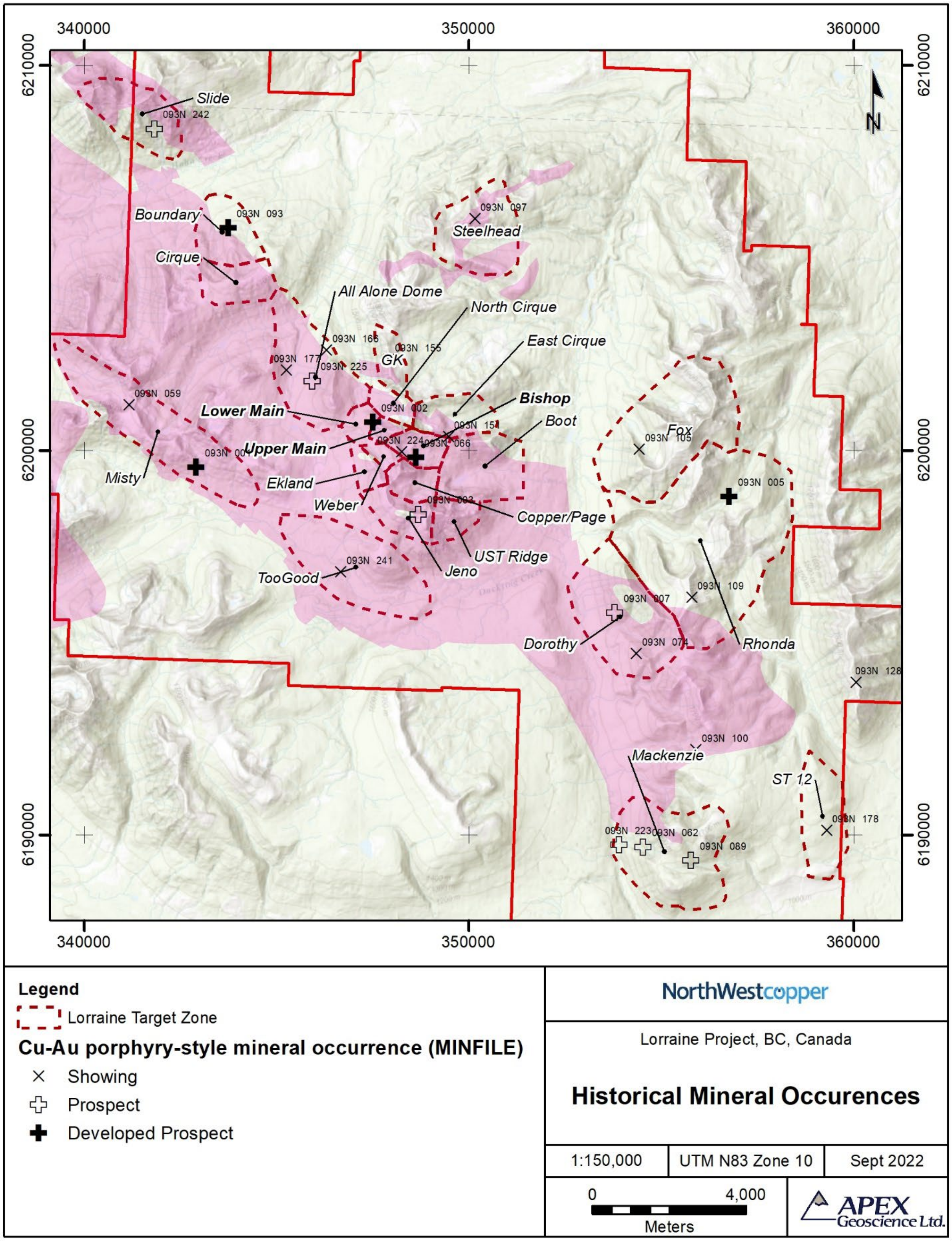
Table 6.1 Ownership History of the Lorraine Property (amended from BC Minfile 093N 093).

Year	Ownership Change of Lorraine Property
1943	The Property acquired by The Consolidated Mining and Smelting Company (Cominco)
1947	The Property acquired by Kennex, a subsidiary of Kennecott (Kennex)
1948	Misty Area first staked for exploration by Kennco Explorations Ltd. (Kennco) – this property would later be merged with the Lorraine Property
1969	Union Miniere Explorations and Mining Corporation Ltd (UMEX) begins acting as operator of Jo Ann and Tam properties, which would later be merged with the Lorraine Property
1970	El Paso Mining and Milling Ltd. (El Paso) takes over as operator for Misty property
1970-1973	Kennco enters joint venture with Granby Mining Company Ltd. (Granby) on the Property
1989	Steele claims, which surround Lorraine claims and will later be merged with the Property are acquired by Lawrence Hewitt and operated by Placer Dome Inc. Aranlee Resources Ltd. (Aranlee) acquires Misty claims
1991	Boot-Steele claims acquired by BP Resources Canada (BP)
1994	Lysander Gold Corp. (Lysander) optioned the Lorraine Property from Kennco and the surrounding Boot-Steele Property from Richard Haslinger and Larry Hewitt.
2000	Eastfield Resources Ltd. (Eastfield) optioned the Property from Lysander
2005	Teck signed agreement with Lysander and Eastfield that allowed Teck a 51% interest in the Lorraine Property.
2006	Teck optioned the Jan-Tam-Misty property.
2007	Lysander and Eastfield enter an arrangement to put each of their 50% ownership into a newly formed company called Lorraine Copper Corp. (Eastfield, 2007), Lorraine Copper Corp, holds a 49% interest in the Lorraine Property.
2020	Sun Metals and Tsayta, of which Lorraine Copper is a subsidiary, acquired Teck's 51% interest in the Property, granting Sun Metals and Tsayta a 100% interest in the Property (Sun Metals, 2020), subject to Commanders 10% carried interest in the Tam-Misty claims.
2021	Sun Metals Corp. and Serengeti Resources Inc. merge and change name to NorthWest Copper Corp. All assets of both companies are now owned by NorthWest Copper.

There was limited exploration on the Property in the 1940's and 1950's. In 1948 and 1949, Kennco, under the name Northwestern Explorations Ltd. (a subsidiary of Kennecott) completed drilling, mapping, and surface sampling programs on the Property (Garratt, 2005a). In 1951, Kennco completed a biogeochemical survey of the Dorothy-Elizabeth area (Barr and Warren, 1951). No further exploration of the Property occurred until 1961.

Between 1961 and 1963, Kennco completed three small exploration programs that included soil sampling, geophysical surveys, and drilling (Stevenson, 1961a,b; Hallof, 1962a,b; Stevenson, 1962a,b; Stevenson, 1963; Hallof, 1963a; Hallof 1963b). The Property was not explored further until 1969.

Figure 6.1 Historical mineral occurrences on the Lorraine Property.



Several exploration programs were conducted by several companies on the Property from 1969 to 1976. UMEX completed multiple exploration programs on the Tam and Jo Ann (Jan) claims that included soil sampling, mapping, drilling, and geophysical surveys from 1969 to 1975 (Adamson, 1970; Fominoff and Crosby, 1971; Burgoyne and Pauwels, 1973; Burgoyne and Pauwels, 1974; Burgoyne and Pauwels, 1975). El Paso explored the Misty claims in 1970 with a soil sampling and geophysical survey program (Noel, 1970). Douglas Stelling, a prospector from Germansen Landing, conducted soil sampling, prospecting, and grid work on the Jo Ann (Jan) claims between 1973 and 1976 (Cooke, 1973; Stelling, 1975a; Stelling, 1975b; Potter, 1976). From 1970 to 1973, Kennco entered into a joint venture with Granby and they carried out major exploration programs that included mapping, rock and soil sampling, and drilling (Stevenson, 1972; James, 1974). The Kennco-Granby exploration programs resulted in a historical resource estimate that pre-dates NI 43-101 and is discussed in Section 6.5 (Garnett, 1978). There was no further exploration on the Property until 1989.

Exploration of the Property resumed in 1989 when Aranlee and Placer Dome both conducted short programs on the Misty and Steele claims, respectively. In their program, Aranlee reviewed all the data generated by the claims' previous owners, conducted a lithogeochemical survey, and inspected and sampled historical drill core from El Paso and UMEX's drill programs from 1968 to 1973 (O'Keefe and Shearer, 1990). Placer Dome's program included the collection of silt and bulk stream sediment samples, and rock and soil samples (Dandy, 1990).

Exploration of the Property was carried out by multiple companies from 1990 to 1993. Cyprus Gold Ltd. conducted exploratory work on the Steelhead claims, completing geophysical surveying, mapping over 3,500 ha of the claims, and collecting soil and rock samples in 1990 (Stevenson, 1991). In 1991, BP commenced exploration of the Boot-Steele claims with programs that included geophysical surveys, drilling, soil sampling, and mapping (Humphreys, 1991a; Humphreys, 1991b; Humphreys and Binns, 1991). BP proposed an expanded follow-up program for 1992, but this was never completed due to the decision of BP's parent oil company to wind down BP Resources Canada (Garratt, 2005a). Kennco then became the operator of the Boot-Steele claims and carried out a program that included geophysical surveys, soil and rock sampling, mapping, drilling, and road construction in the summer of 1993 (Bishop, 1993). In the summer of 1993, Kennco conducted a drill program in the Main zone of the Lorraine claims (Bishop, 1994).

Lysander optioned the Lorraine claims from Kennco in 1994 and conducted exploration programs through to 1999. The successful results of Lysander's exploratory work led to the growth of the Property, as Lysander purchased and consolidated surrounding claims (Richardson, 1996; Richardson, 1997; Page, 1999). During their time as owner of the Property, Lysander conducted five drill programs and three geochemical survey programs, exploring the Lorraine, Boot-Steele, PAL, Steelhead, and Dorothy claims, and the JaJay Property (Richardson, 1995a; Richardson, 1995b; Richardson, 1996; Richardson, 1997; Richardson, 1998; Page, 1999). In 1998, G.R. Peatfield, PhD., P. Eng. computed a resource estimate for Lysander, using all available drill data current to the end of 1996 (Garratt, 2005a). This resource estimate was completed prior to the implementation of NI43-101 and is considered historical, it is discussed in Section 6.5.

Eastfield optioned the Property in 2000 and carried out extensive surface exploration from 2000 to 2005. During this time, Eastfield's explored the Mackenzie Zone, All Alone Dome, Weber Basin area, Lorraine area, TooGood area, and the Nupal area using a mix of geophysical surveys, drill programs, geological mapping, and soil sampling (Morton, 2001a; Morton, 2001b; Morton, 2002; Morton, 2003a; Morton, 2003b; Garratt, 2005a; Garratt, 2005b).

Teck optioned the Lorraine-Jajay Property in 2005 and became operator of the Lorraine-Jajay property. In 2006, Teck optioned the adjacent Jan-Tam-Misty property, effectively expanding their Property holdings in the area (Baxter and Devine, 2007a). During 2006 to 2010, Teck conducted exploration including: drilling, airborne geophysical surveys, soil sampling, and a spectral and lithogeochemical study of existing drill core (Baxter and Devine, 2007a; Baxter and Devine, 2007b; Baxter, 2008; Baxter, 2009; Jutras, 2011). Results from these exploration programs extended mineralization in the Bishop Zone to the northwest towards the Main Zone (Baxter, 2009). No further work was done until 2019, when Teck completed 2,405 km of airborne magnetic geophysical surveying (Herron and Howe, 2020).

All currently known copper and gold occurrences on the Property were discovered by conventional exploration methods: soil geochemistry sampling, biogeochemical sampling, prospecting, mapping, geophysics, rock geochemical sampling, trenching, and diamond drilling.

6.2 Historical Geochemical Surveys

The Authors of this report have identified approximately 1,180 rock samples (Figures 6.2 and 6.3), 1,240 silt samples (Figures 6.4 and 6.5), and 15,750 soil samples (Figures 6.6 and 6.7) that have been collected from the Property between 1948 and 2011. These samples are documented in 25 historical assessment reports. These assessment reports document exploration that was conducted within the current extent of the Property. Historical data has been compiled for the current Property, and in some cases, for areas adjacent to the current Property boundary where the results may influence interpretations of mineralization on the current Property.

Figure 6.2 Gold assays from historical rock samples collected from the Lorraine Property.

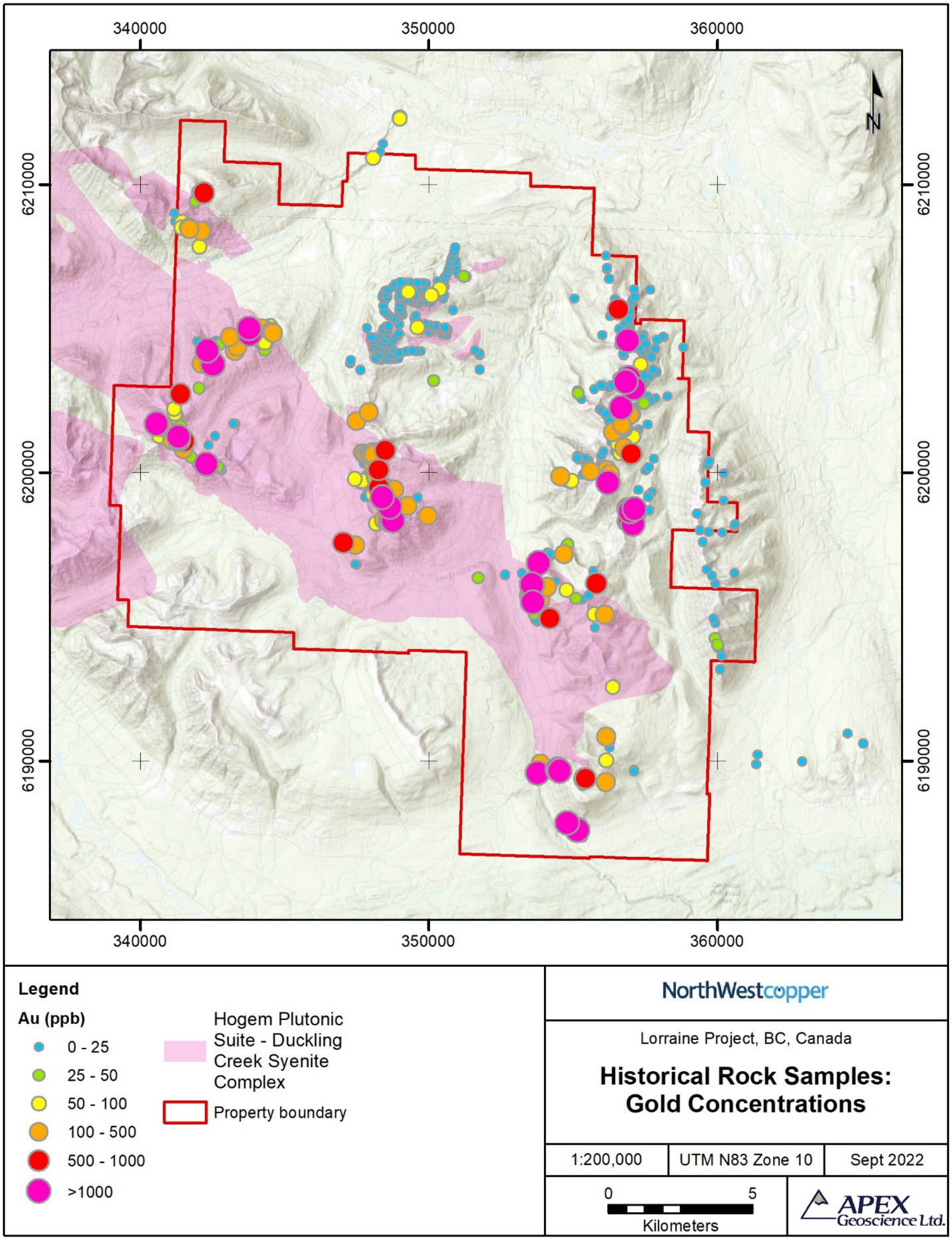


Figure 6.3 Copper assays from historical rock samples collected from the Lorraine Property.

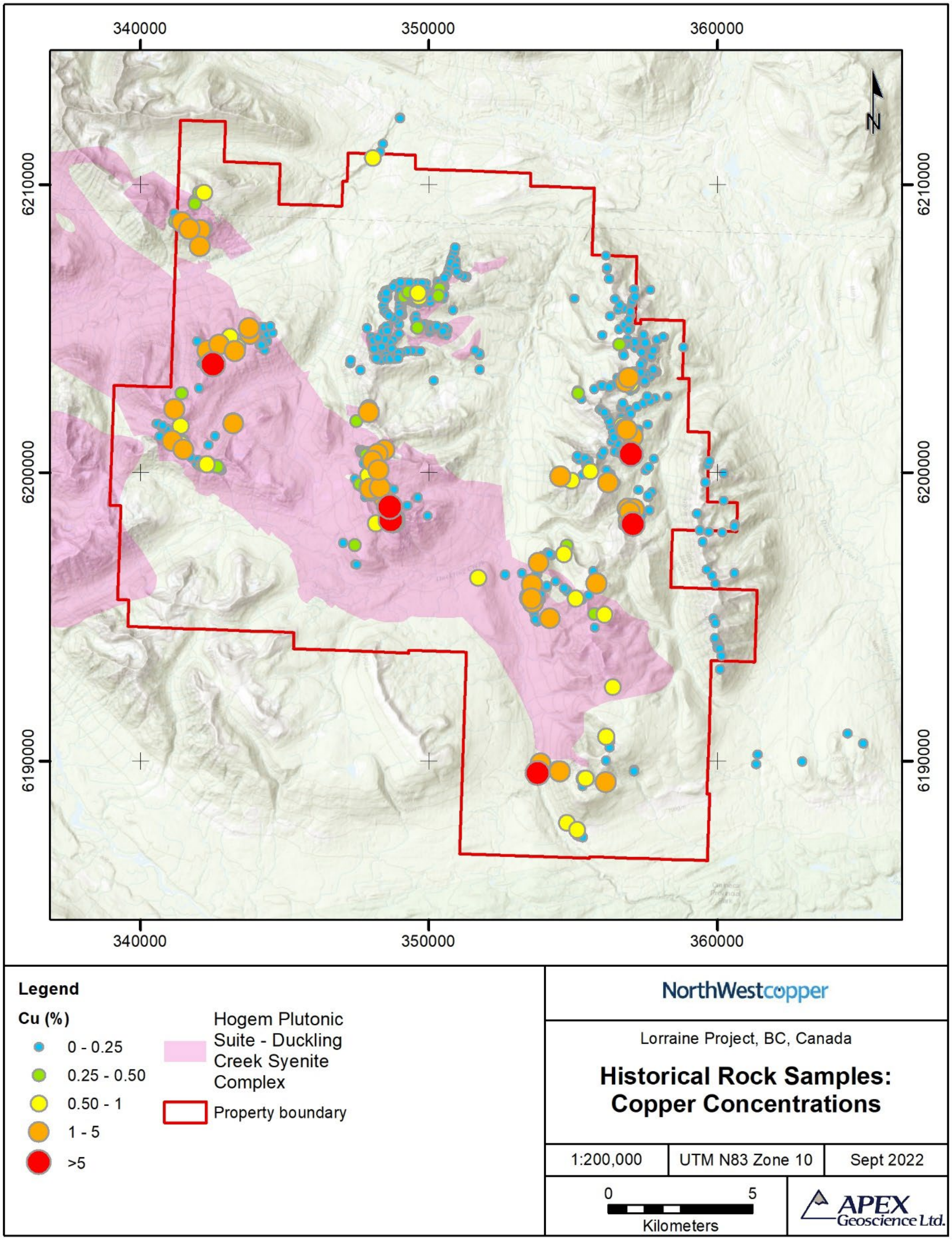


Figure 6.4 Gold assays from historical silt samples collected from the Lorraine Property.

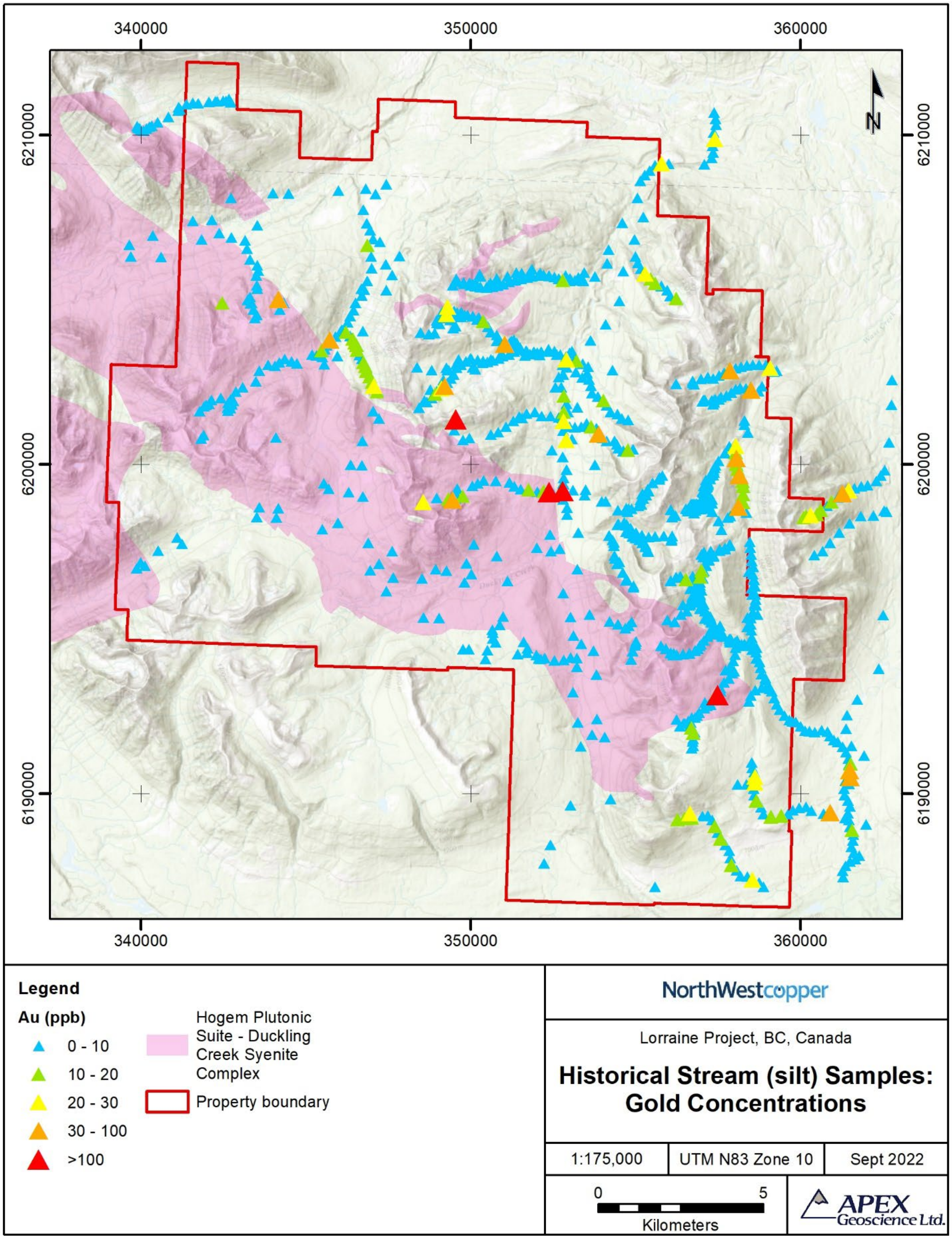


Figure 6.5 Copper assays from historical silt samples collected from the Lorraine Property.

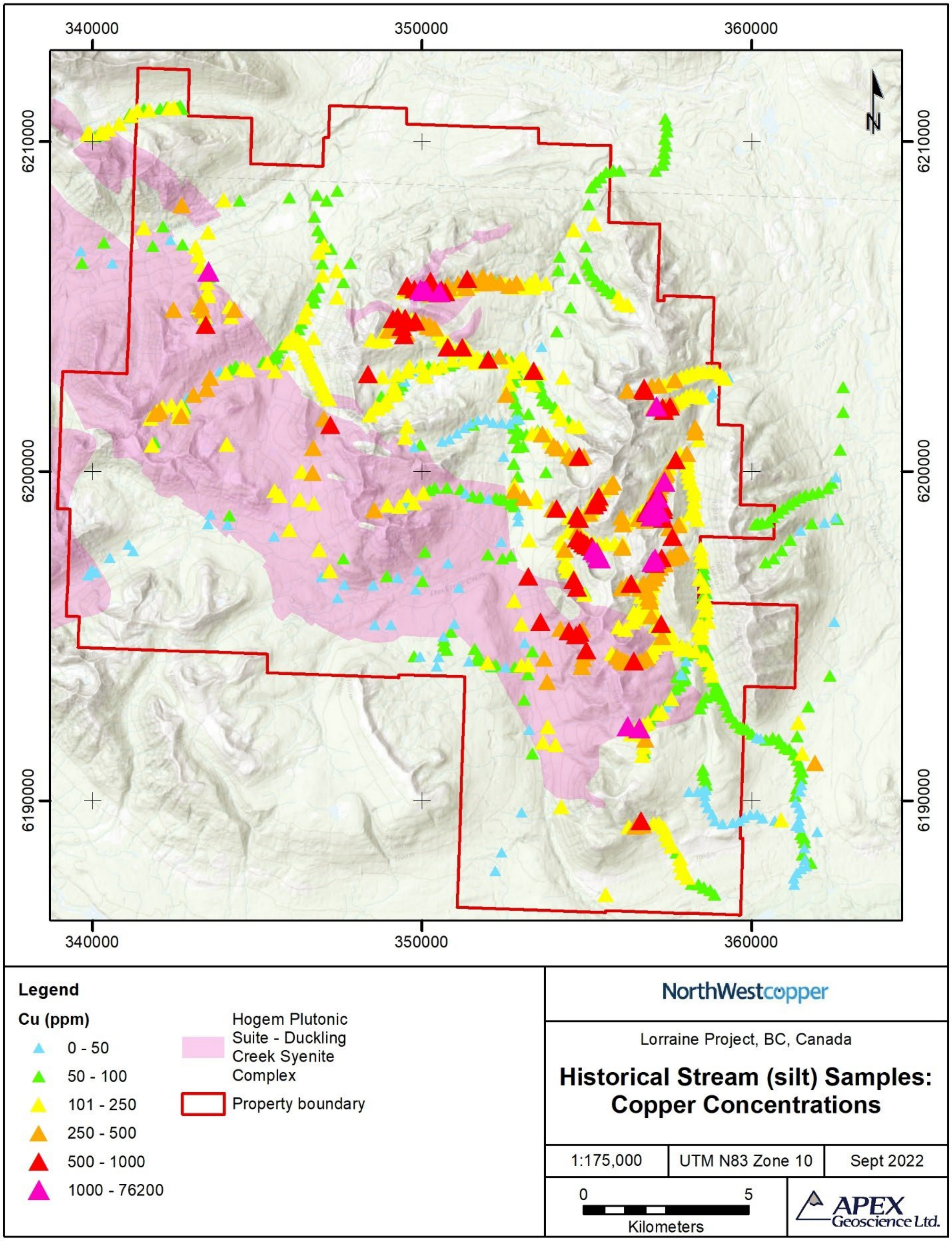


Figure 6.6 Gold assays from historical soil samples collected from the Lorraine Property.

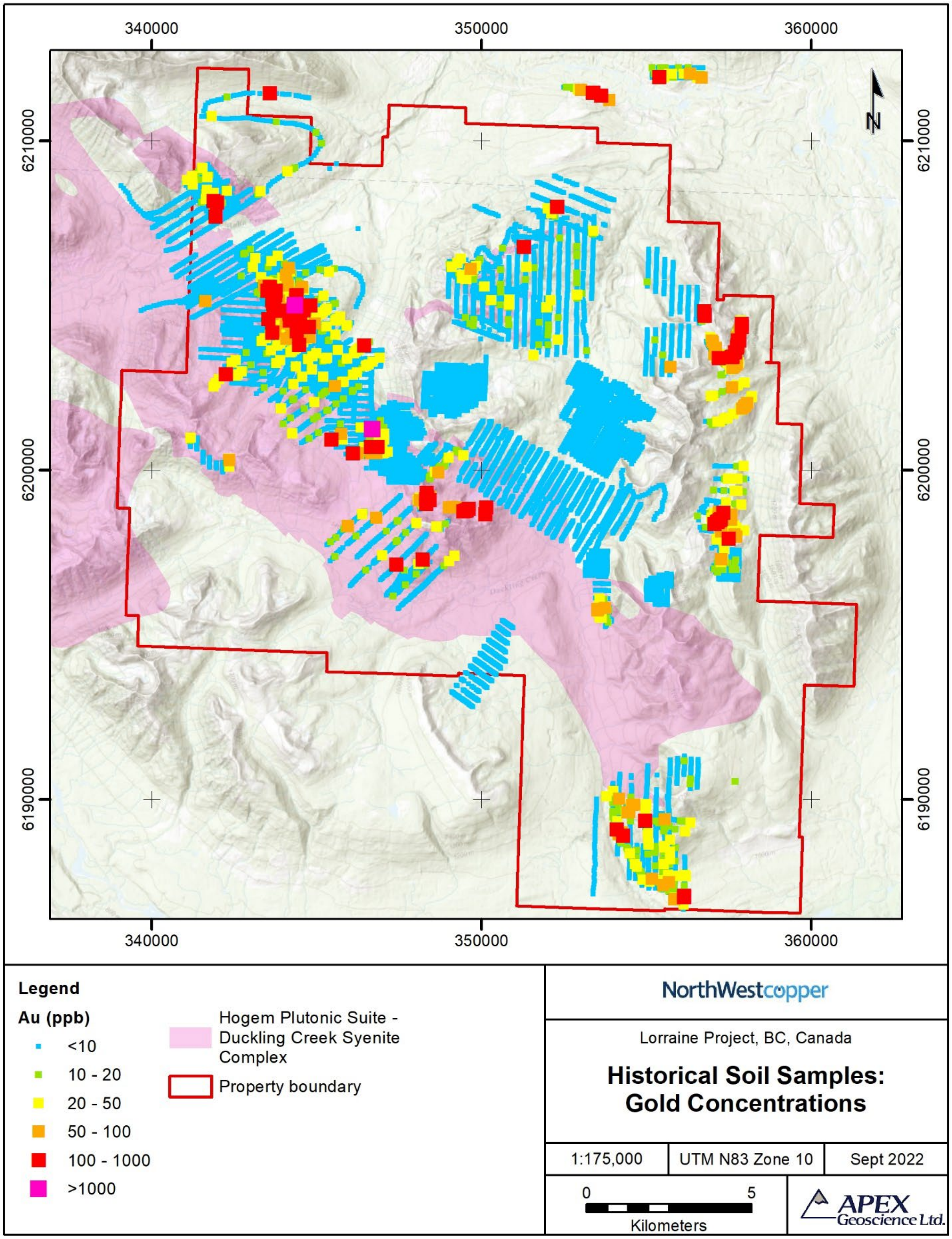
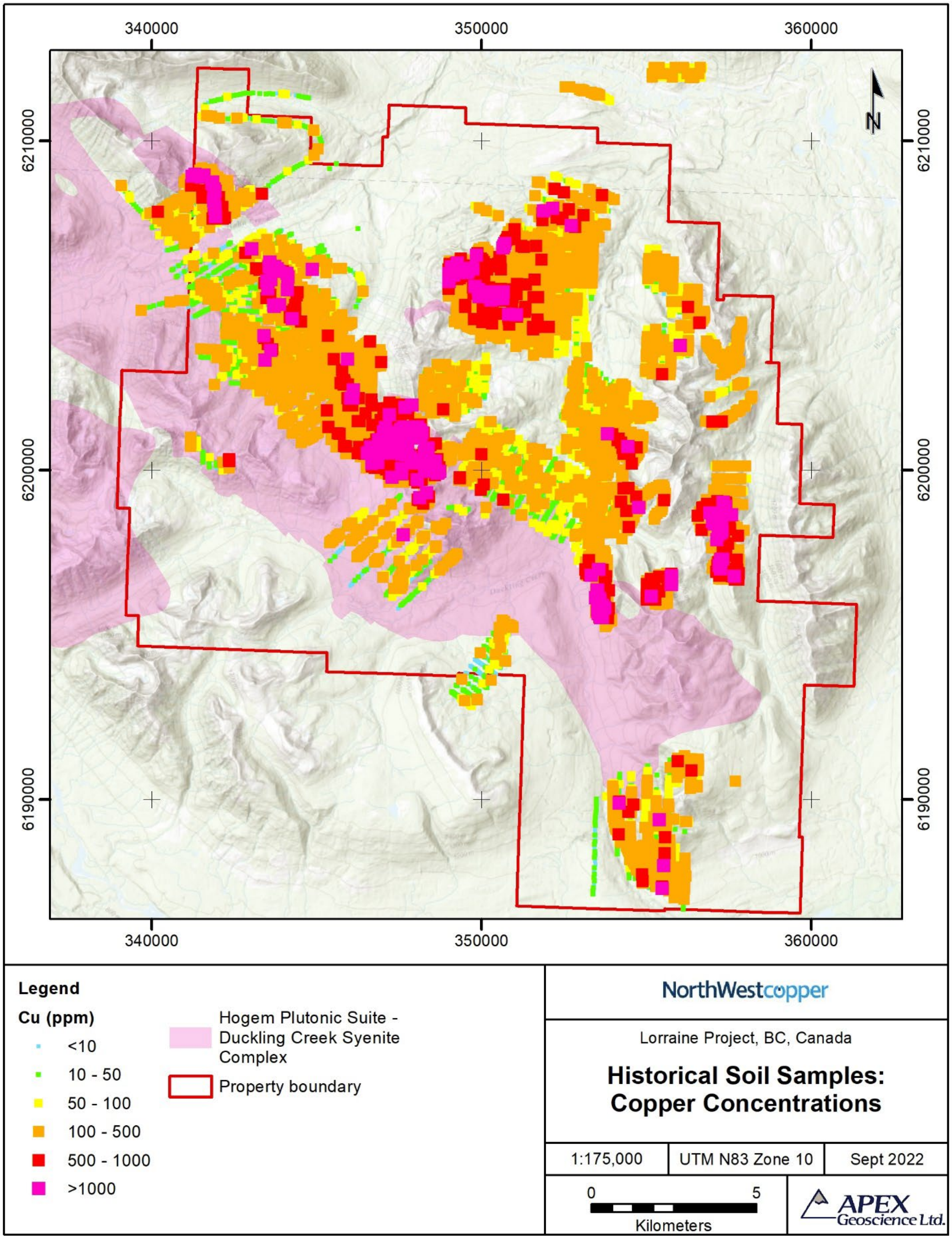


Figure 6.7 Copper assays from historical soil samples collected from the Lorraine Property.



The first geochemical survey program on the Lorraine Property was conducted by Kennco (then Northwestern Exploration and a subsidiary of Kennecott) in 1948 (Garratt, 2005a). Copper-mineralized float on the east side of Duckling Creek, approximately 8 km east of the Main Zone was collected and assayed (Garratt, 2005a). Several boulders returned grades varying from 24.2% to 31.3% Cu (Garratt, 2005a). Kennco conducted various geochemical sampling programs independently on the property until 1961. These included multiple soil survey grids where over 130 samples were collected, a hand-trenching program, and a biogeochemical survey, in which 808 tree samples were collected and analyzed for copper and zinc (Barr and Warren, 1951; Stevenson, 1961a; Stevenson, 1961b).

After 1963, no exploration was completed by Kennecott until 1970 when they pursued a joint venture project with Granby Mining Company up to 1973 (Stevenson, 1972; James, 1974). During these years Granby enlarged the Property and carried out a major exploration program of geological mapping, rock and soil sampling, and trenching (Garratt, 2005a).

In 1970, El Paso carried out the first relevant work on the Misty area and continued exploration until 1973. Their geochemical work consisted of soil surveying and trench sampling. In their 1970 program, 577 soil samples were collected. Assay results detected anomalously high levels of Cu in the south-eastern corner of the claims that warranted further exploration (Noel, 1970). The Misty property then laid dormant until Aranlee Resources re-staked it in 1989. From 1989 to 1990 Aranlee conducted a geochemical survey of soil, rock and stream sediment sampling.

On the Boundary, Midway, Cirque, Fault, and Slide areas, UMEX conducted soil surveys, rock sampling and trenching between 1969 and 1975 (Adamson, 1970; Garratt, 2005a). UMEX collected 623 soil samples from the Tam claims in their 1969 program. They identified a pear-shaped anomaly, roughly 365 m by 245 m on the west side of the surveyed area (Adamson, 1970). Samples collected from the anomalous area returned Cu assays in excess of 80 ppm (Adamson, 1970).

After UMEX's 1975 program, there was a lull in exploration work on the Property until 1989, when Placer Dome and Aranlee conducted sampling programs on the Steele claims and the Misty claims, respectively (Dandy, 1990; O'Keefe and Shearer, 1990; O'Keefe and Verbruggen, 1990). During Placer Dome's 1989 exploration program, they collected 6 rock samples, 2 soil samples, 19 bulk stream samples and 2 moss wash samples from the Steele claims (Dandy, 1990). Using the geochemical results obtained from this sampling program, Placer Dome identified two independent types of mineralization on the Steele claims: gold mineralization related to a pyritic quartz vein located in the southeastern portion of the claims, and copper mineralization related to the Lorraine Deposit (Dandy, 1990). In their program, Aranlee collected 135 rock samples. 181 soil samples, and 5 stream sediment samples (O'Keefe and Shearer, 1990; O'Keefe and Verbruggen, 1990). Highlights of Aranlee's program include grab samples MD 89 R14 and MD 89 R15 from the Misty 1 claim, which returned assay results of 1,670 ppb

Au, 11.4 ppm Ag and 25,851 ppb Au, 7,100 ppm Ag, respectively (O'Keefe and Shearer, 1990).

Major General Resources Ltd. (now Commander and Varitech Resources Ltd.) completed soil sampling and rock sampling over the Boundary, Midway and Slide prospects between 1990 and 1991 (McCrossan, 1991). In the 1991 program, a total of 435 samples were collected, including 304 soil samples, 46 silt samples, and 85 rock samples (McCrossan, 1991). They also assayed a random malachite stained, fine grained, potassium altered gneissic monzonite or greenschist chip sample from the Slide hand trench that was dug in 1970, this sample returned 1.27% Cu (Garratt and Lindinger, 2007).

Kennco returned to the Lorraine Property in 1990 and performed multiple geochemical programs that consisted of rock, chip and soil sampling. Between 1990 and 1993 Kennco had collected a total of 3,151 soil samples (Price and Copeland, 1990; Rebagliati, 1991; Bishop, 1993).

In 1991 BP collected 60 soil samples and 17 rock samples from the Boot-Steele claims (Humphreys and Binns, 1991).

In 1994 Lysander optioned the Lorraine Property from Kennecott and completed numerous exploration programs over the next 5 years. During this time, they collected a total of 2,728 geochemical samples, which included 218 rock samples and 2,510 soil and silt samples (Richardson, 1997; Richardson, 1998; Gravel, 1999; Page, 1999). Many significant copper and gold anomalies (Figures 6.2 to 6.7) were identified in 1996 and 1997 (Garratt, 2005a).

Eastfield optioned the Property from Lysander in 2000. In the 2000 exploration program, Eastfield collected 91 soil samples on the southeastern region of the claim block (Morton, 2001a). In 2004 a geochemical program was completed by Eastfield who completed 14.31 km of soil sampling lines over the MacKenzie area. In 2005 with funding from Teck, Eastfield conducted a 588 sample soil survey grid in the Mackenzie and TooGood areas (Garratt, 2005b, 2005c). A total of 390 talus and soil samples were also collected in the southcentral part of the Property (Garratt, 2005c). Each of Eastfield's geochemical surveying programs (Figures 6.2 to 6.7) were successful in discovering significant mineralization anomalies (Garratt, 2005a).

From 2006 to 2019 Teck was the sole operator of exploration on the Lorraine Property. In 2006 they conducted a soil survey on the southern slope of the All Alone Dome area and a talus fine sampling survey west of the Rhonda area. A total of 229 soil samples were collected during the program (Baxter and Devine, 2007b).

In 2007 Teck completed a soil sampling program directed at filling in gaps in data. A total of 592 soil samples were collected along IP survey lines (Baxter, 2008). The survey resulted in the extension of the All Alone Dome Zone due to a large copper anomaly

(Baxter, 2008). It also found an Au anomaly that was partially coincident with a previously discovered Cu anomaly between the All Alone Dome and Boundary zones (Baxter, 2008).

Teck conducted a geochemical soil survey of the Bishop and Too Good zones in 2010. A total of 149 soil samples were collected along three lines in the Bishop Zone and four lines in the Too Good Zone with the intention of characterizing the soil response to mineralization (Jutras, 2011). The surficial geology limited the efficacy of the Bishop lines (Jutras, 2011). The lines lay on a talus slope and an area of shallow colluvium which overlay bedrock. The assay results indicated that mineralization was present in the area, but more specific correlations could not be made. A third exploratory line in the Bishop Zone targeting a magnetic anomaly was also completed (Jutras, 2011). This line resulted in Cu, Au and Zn anomalies that roughly correlated with the magnetic anomaly but overall, this sample line failed to warrant anything besides further exploration (Jutras, 2011). Only one of the four lines completed in the Too Good Zone produced results deemed interesting – a zone of high Au and Pb values (Jutras, 2011).

6.3 Historical Geophysical Surveys

In June 1962, Kennco conducted short exploration programs on the Lorraine and Dorothy-Elizabeth claim groups. They completed 2.1 km of Induced Polarization (IP) and Resistivity surveys on the Lorraine claims (Hallof, 1962a). While the results of these surveys were quite uniform, there was a large amount of electrical noise in the area, making it difficult to collect accurate measurements in regions where resistivities were low (Hallof, 1962a). They also completed 5.9 km of IP and resistivity surveys (Hallof, 1962b) and 3.5 km of ground magnetics surveys in the Dorothy-Elizabeth area (Stevenson, 1962b). The IP and resistivity surveys from the Dorothy-Elizabeth area showed several areas where the measured IP was above background levels (Hallof, 1962b). The ground magnetics survey helped identify the extent and character of a large aplite dike (Stevenson, 1962b).

In June through August 1963, Kennco continued their exploration of the Lorraine and Dorothy-Elizabeth claims. They completed 7.7 km of IP surveys on the Lorraine claims, confirming the presence of several weakly anomalous zones (Hallof, 1963a). They also completed 22.3 km of IP surveys on the Dorothy claim group, identifying several anomalies strong enough to warrant drilling (Hallof, 1963b). Kennco also completed 5 km of ground magnetics surveying on the Dorothy claim group, delineating the possible presence of a second aplite dike (Stevenson, 1963).

In 1970, El Paso carried out the first relevant exploration program on Misty area, which included the completion of 12.3 km of ground magnetics surveying (Noel, 1970). The results from this survey helped define the diorite and quartz diorite, syenite, and main fault underlying the Misty area (Noel, 1970).

In 1971, UMEX completed 2.4 km of ground magnetics and IP and resistivity surveys on Tam claims 3-8, 16, and 18 (Fominoff and Crosby, 1971). Fominoff and Crosby (1971) concluded that there were no anomalous chargeability responses in the area and that there was little possibility that a deposit of economic significance would lie within about 90 m of the surface in the surveyed area.

In 1973, UMEX conducted an exploration program on several of the Jo Ann claims. UMEX completed 3.2 km of IP and resistivity surveys and 20.9 km of ground magnetics surveying (Burgoyne and Pauwels, 1973). Burgoyne and Pauwels (1973) did not find any anomalies in the IP results. However, their ground magnetics results outlined a long, linear low along the northerly flowing creek on the east side of the claim group and higher magnetics readings (>2000 gammas) on the northern and eastern part of the claim group. These contrasting values coincide with a boundary between syenite and hybrid dioritic rocks illustrated by Garnett's geological map of the Hogem Batholith published in 1972 (Burgoyne and Pauwels, 1973).

No further geophysical work was conducted on the Property until Kennco resumed exploration in September 1990 and completed 6.9 km of IP surveys and 10.75 km of ground magnetics surveying on the Dorothy Zone (Lloyd and Klit, 1991). Lloyd and Klit (1991) identified the presence of a strong anomalous zone that remained open to the north and south. This anomalous zone was interpreted to be mainly caused by sulphides and to a lesser degree magnetite.

In 1991, BP conducted an exploration program on the Boot-Steele claims. BP's program included 10.5 km of IP surveys and 425 km of airborne magnetic, electromagnetic, and VLF-EM surveys (Humphreys and Bins, 1991; Humphreys, 1991a). The airborne surveys outlined several target areas and suggested that the area could be divided into two distinct regions along a west-northwest to east-southeast trend: a band of relatively uniform linear anomalies trending northwest-southeast to west-northwest-east-southeast south of Duckling Creek and a more confused, but generally northwest-southeast trending aeromagnetic pattern north of Duckling Creek (Humphreys, 1991a). Due to inclement weather, the IP surveys were cut short, but preliminary findings justified a major follow up program for 1992 (Humphreys and Bins, 1991).

In 1993, Kennco completed 4.8 km of IP and ground magnetics surveys on the Boot-Steele claims (Bishop, 1993). These surveys clearly outlined the trace of the Extension Zone mineralization, with Bishop (1993) noting that the anomalous zone extended 200 m in length and ranged from 50 to 150 m in width, terminating abruptly in what was interpreted to be a major fault (at 060°). This zone of anomalous chargeability is coincident with the area of copper mineralization interpreted to be the Lorraine Extension Zone (Bishop, 1993). No further geophysical exploration surveys were completed on the Property until Eastfield conducted their exploration program in 2001.

In 2001 through 2005, Eastfield conducted multiple exploration programs. Eastfield's 2001 program included the completion of 16.6 km of IP and ground magnetics surveys (Morton, 2001a,b). In 2002, Eastfield completed 11.6 km of IP and ground magnetics surveys in the Weber Bowl and All Alone Dome areas (Morton, 2003). Eastfield conducted a large exploration program in 2004 that included the completion of 28.9 km of pole-dipole IP and ground magnetics surveys in the Lorraine and MacKenzie areas (Garratt, 2005a).

The results of the 2004 program resulted in the partial outlining of a large anomaly in the MacKenzie area and the expansion of the area related to mineralization in the Main Zones in the Lorraine area (Garratt, 2005a). With funding from Teck Resources Limited, later known as Teck Cominco Ltd. (Teck), Eastfield completed 40.3 km of pole-dipole IP and ground magnetics surveys in the Lorraine, MacKenzie, North Dome, Steelhead and Rhonda areas (Garratt, 2005a).

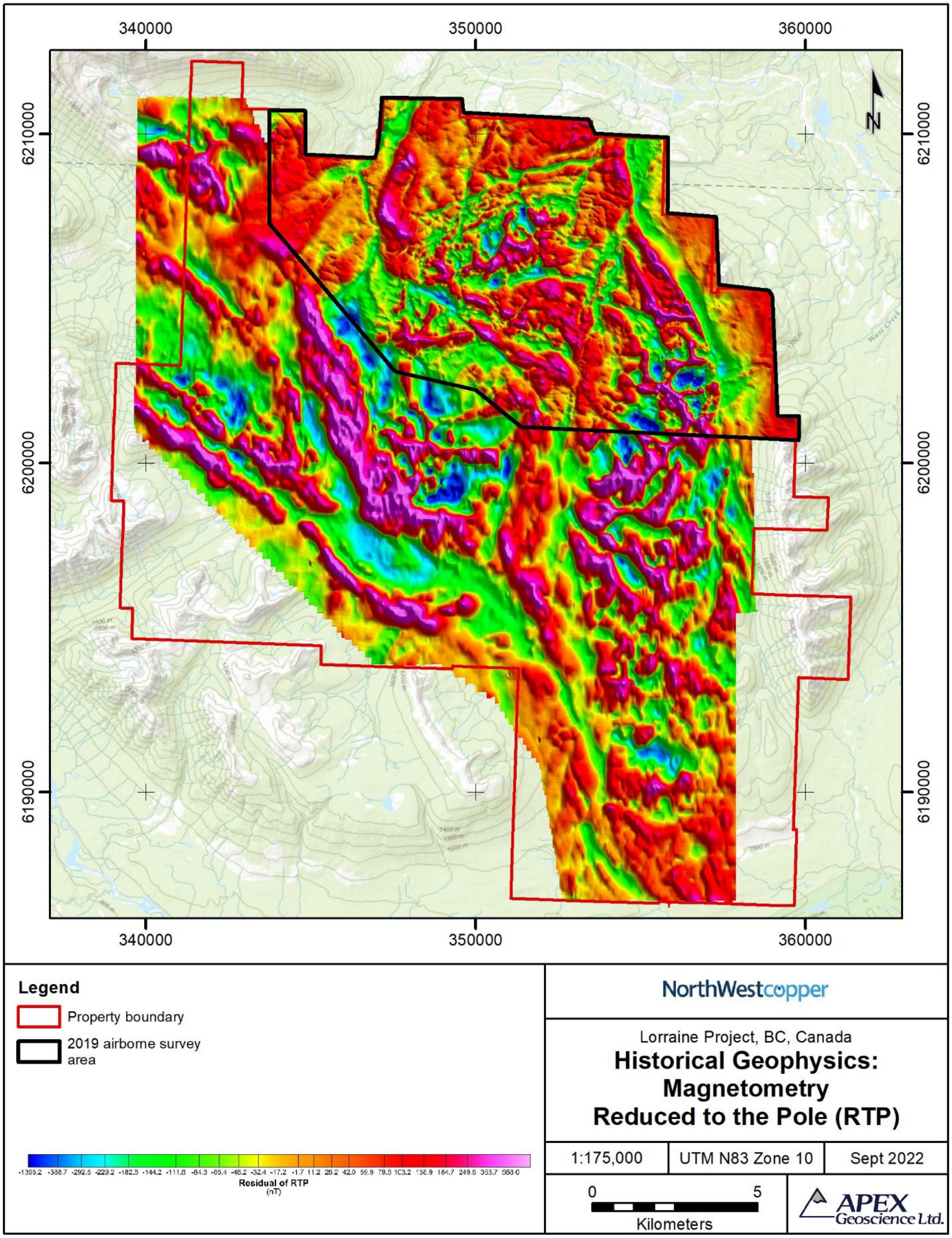
Teck, while being the operator of the Property, conducted a large exploration program in 2006 and 2007. The 2006 program included 1,354.87 km of airborne gamma ray spectrometer and magnetic gradiometer survey flown over the Property – 1,031.87 km over the Lorraine-Jajay areas of the Property and 323 km of airborne surveys on the Jan-Tam-Misty claims (Baxter and Devine, 2007b; Baxter and Devine, 2007a). In addition to the airborne surveys, Teck also completed 40.45 km of pole-dipole IP and ground magnetics surveys on the Misty, Boundary, and Slide areas of the Jan-Tam-Misty claims (Baxter and Devine, 2007a). The results of the ground geophysical surveys outlined weak chargeability anomalies along 3.5 km of the Mistry trend, a 1.5 km long chargeability anomaly that is open to the northwest and southeast in the Slide area, and a strong IP chargeability high associated with the known Boundary mineralization in the Boundary target area (Baxter and Devine, 2007a). In 2007, Teck completed 90.6 km of deep penetrating IP surveys, with 74.4 km on the Lorraine-Jajay area and 16.6 km on the Jan-Tam-Misty area (Baxter, 2008). The deep penetrating IP survey was designed to reach approximately 450 m in depth, with the intention of determining the continuity of the known mineralization along strike and to depth (Baxter, 2008). The 2007 surveys successfully identified new areas of interest and enhanced the potential of known areas of mineralization (Baxter, 2008).

In 2019 Teck contracted Precision GeoSurveys to fly a 2,405 km airborne magnetics survey. The survey covered an area of 109.3 km^2 consisting of 376 survey lines and 20 tie lines. The survey lines had a spacing of 50 m with a heading of 030°/ 210° and tie lines had a spacing of 500 m with a heading of 120°/ 300°. The survey was intended to enhance the resolution of the historical magnetic datasets and further develop geological and structural understandings of the Property. Teck deemed the survey successful and used the results to extend existing interpreted structures and identify new features in the Steelehead and Fox prospects (Howe and Herron, 2020). The data from this magnetic survey is shown in Figure 6.8, together with the compiled historical magnetics from other historical surveys.

6.4 Historical Drilling

Until 1969, minimal drilling had been completed on the Property. During this period, Kennco conducted two drilling programs; in 1949 and 1963. In their 1949 program, Kennco drilled four AX diamond drillholes, totalling 442 m at the Dorothy Showing (Garratt, 2005a). The best intersection from this program returned assays of 0.48% Cu over 109 m core length (Garratt, 2005a). In their 1963 program, Kennco drilled two AX diamond drillholes (Garratt, 2005a).

Figure 6.8 Historical airborne geophysics compilation for the Lorraine Property.



From 1969 to 1975, UMEX drilled 28 diamond drillholes (3,955.2 m) on the Boundary, Midway, Cirque, Fault and Slide areas (Burgoyne and Pauwels, 1974; Burgoyne and Pauwels, 1975; Garratt, 2005a). Reportedly the best drillhole, hole 74-6 (targeting the Boundary Deposit) returned combined assays of 0.68% Cu over 179.8 m core length from 3.7 to 183.5 m including 1.59% Cu over 39.6 m core length from 3.7 to 43.3 m (Garratt, 2005a). In the Slide area hole T-17 returned combined assays of 0.43% Cu over 3.0 m (and Burgoyne and Pauwels, 1975).

The Kennecott and Granby joint venture completed 3,992 m of diamond drilling and 2,470 m of percussion drilling in the Main Zone between 1970 and 1973 (James, 1974; Garratt, 2005a).

El Paso carried out the first relevant exploration work on the Misty area from 1970-1973 (Garratt, 2005a). This program included 9 diamond drillholes (1,517 m) and 8 rotary percussion holes (488 m) (Garratt, 2005a). After this no drilling was conducted on the Lorraine Property until the 1990s.

In 1991 Kennco began drilling on the Property again. Between 1991-1993 Kennco drilled 27 core holes in the Bishop, Weber, North Cirque, Dorothy-Elizabeth and Dorothy Duckling Creek areas, as well as the Steele and Boot claims (Rebagliati, 1991; Bishop, 1993; Bishop, 1994; Garratt, 2005a). The most significant intersection was in hole D91-1 which averaged 0.34% Cu and 0.12 g/t Au over 121 m core length (Garratt, 2005a).

BP also completed a small drilling program on the Steele and Boot claims in 1991, drilling 5 core holes totalling 352.3 m (Humphreys, 1991b).

After optioning the Lorraine Property from Kennco in 1994, Lysander carried out drill programs until 1997. They completed a 10-hole diamond drilling program in 1994, including three (3) holes in the Upper Main Zone, and seven (7) holes in the Bishop Zone (Richardson, 1995a). A total of 1,221.4 m of were completed during this program (Richardson, 1995a). In 1995 they completed 27 diamond drillholes, totalling 3,437.8 m (Richardson, 1995b; Richardson, 1996). In 1996 they completed 10 diamond drillholes, totalling 1,422.2 m (Richardson, 1997). In 1997, Lysander's final year of drilling, they completed eight (8) holes, totalling 1,146.3 m (Richardson, 1998). Two noteworthy intersections from these programs included 32.2 m core length of combined assays yielding 1.49% Cu in hole 96-44, and 64 m core length of combined assays returning 0.58% Cu and 0.24 g/t Au in hole 97-47 (Richardson, 1997; Richardson, 1998; Garratt, 2005a). Both of these holes were completed in the Bishop Zone.

In the following years, Lysander produced a historical mineral resource estimate (See Section 6.5) and conducted further geochemical surveying (see Section 6.2) then optioned the Property to Eastfield in 2000.

From 2000 through to 2004, Eastfield independently completed 49 diamond drillholes (8,399 m) on the Lorraine Property (Morton, 2001a; Morton, 2002; Morton, 2003a; Garratt, 2005b; Garratt, 2005c). Significant discoveries include drillhole 2001-58 that confirmed mineralization on the southeastern boundary of the Bishop Zone, and hole 2001-60 which confirmed mineralization on the southern boundary of the Lower Main Zone (Morton, 2002). These holes are approximately 1,400 m apart. Other highlights include 52.9 m core length with combined assays of 0.84% Cu and 0.36 g/t Au in hole 2001-48; 69.8 m core length with combined assays of 0.59% Cu and 0.11 g/t Au in hole 2001-58, and 113.2 m core length with combined assays of 0.76% Cu and 0.49 g/t Au in hole 2001-60 (Morton, 2002).

In 2005, Eastfield completed a 17-hole diamond drill program totalling 3,704 m, with funding from Teck (Garratt, 2005c). This drilling was considered successful as the results identified a large mineralization system at the Rhonda Target; a large potassic alteration system with late stage syenitic intrusions in the Too Good Zone; and a westward extension of both the Lorraine Upper Main and Weber zones.

In 2006, Teck took over exploration and held a majority interest in the Property until 2020. Between 2006 and 2008 Teck drilled 52 holes totalling 17,285 m (Baxter and Devine, 2007a; Baxter and Devine, 2007b; Baxter, 2009; Giroux and Lindinger, 2016). From this drilling Teck expanded and identified new zones of mineralization: in the Lorraine and Slide areas, in an area west of the Boundary zone, in the All Alone Dome area and in the Too Good Prospect area. Highlight results obtained in the 2007 program by Teck include 35.5 m core length with combined assays of 0.67% Cu, 43.1 m core length with combined assays of 0.59% Cu, and 30.7 m core length with combined assays of 0.61% Cu (Baxter, 2009; Giroux and Lindinger, 2016). In the 2008 drill program, drillhole L08-120 intersected 159.2 m core length with combined assays of 0.64% Cu and 0.30 g/t Au and another 58.8 m core length with combined assays of 0.092% Cu, including 0.16% Cu at 95.3 m below the first intersection. Drillholes L08-121 and L08-128 returned 123.3 m core length with combined assays of 0.31% Cu and 23.4 m core length with combined assays of 0.49% Cu, respectively (Baxter, 2009).

A re-logging program examining alteration and mineral zonation patterns in the Bishop, Main, and Lower Main zones was also completed by Teck in 2007 (Giroux and Lindinger, 2016). This work assisted in improving the understanding of the lithological, structural, alteration and mineralizing systems associated with the Duckling Creek Syenite Complex

In 2010, Teck conducted a spectral and a lithogeochemical study on the core from 10 existing drillholes. Using an ASD Terraspec, 2,800 spectral data points were collected from the selected core (Jutras, 2011). The spectra of various minerals were then evaluated in relation to proximity of Cu mineralization. Teck reported that from the spectral data analysis phlogopite content was the most conclusive spectral vector of Cu mineralization, but that care should be taken due to the presence of post-mineralization intrusions with a high phlogopite content (Jutras, 2011). Chlorite spectra was also found to have some association with Cu content, but very few chlorite data points could be reliably used for interpretation. Although correlations were present, definitive conclusions could not be made due to large lithological differences on the Lorraine Property that have strong control over the alteration mineralogy and resulting spectra (Jutras, 2011).

The lithogeochemical study was completed with the goal of further characterizing the rock types and hydrothermal alteration present on the Lorraine-Jajay property. Teck collected 135 samples representing large variations in lithology and alteration from previously drilled core (Jutras, 2011). This study identified several co-variations in lithogeochemical signatures that are related to the mineralized zones (Figure 6.9 and 6.10; Jutras, 2011).

Figure 6.9 Hydrothermal minerals picked from spectra plotted on Zn/Cu, Pb, and Zn vs. Cu ppm log-scale plots (After Giroux and Lindinger, 2016).

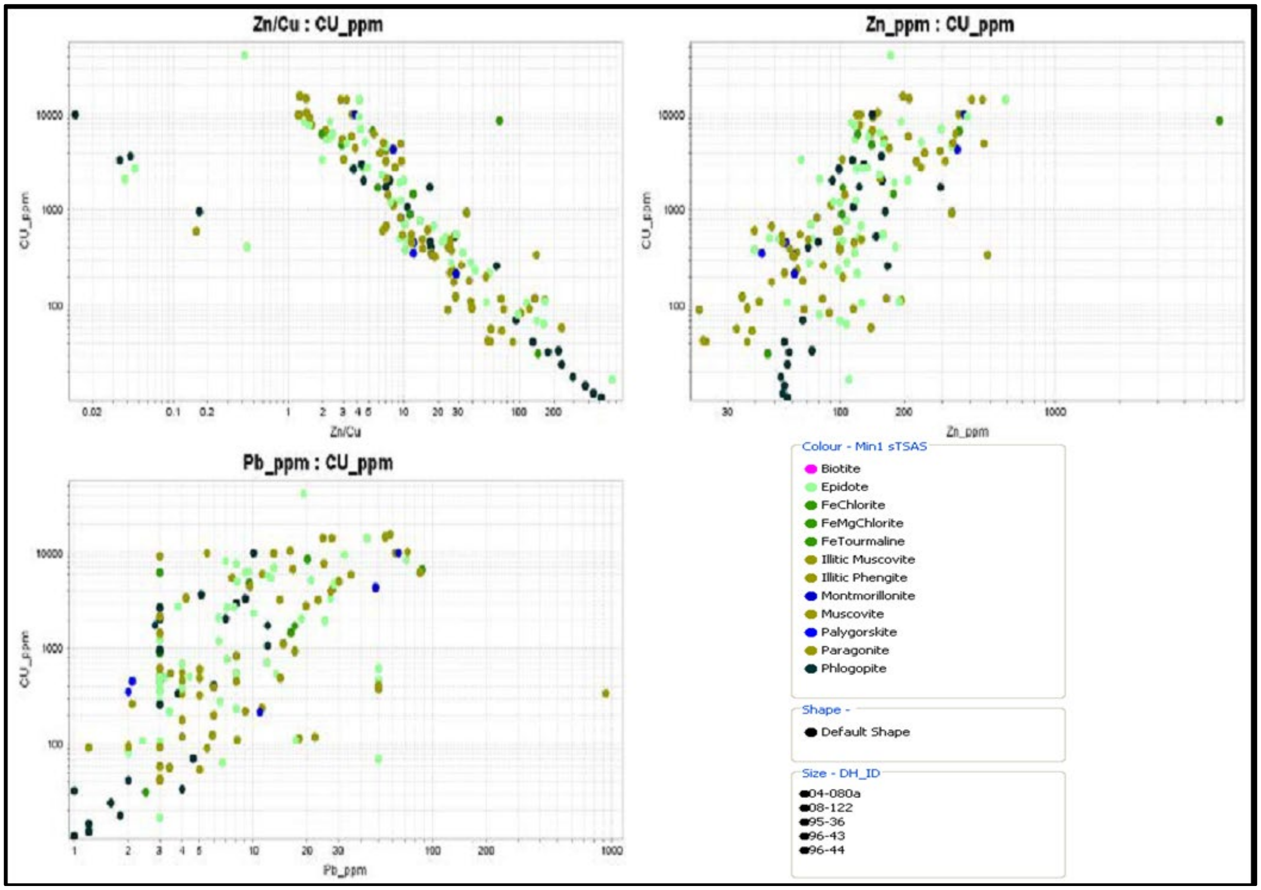
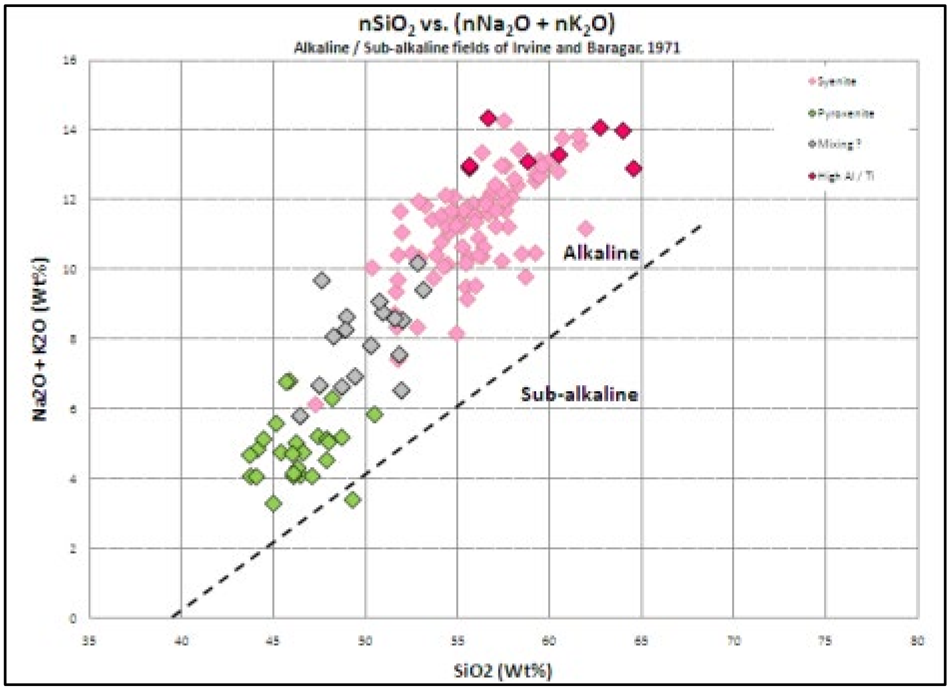


Figure 6.10 Total Alkali Silica (TAS) diagram with the alkaline and sub-alkaline fields of Irvine and Baragar (1971). Nearly all Lorraine data plots in the alkaline field (After Giroux and Lindinger, 2016).



6.5 Historical Estimates

The following section summarizes the historical mineral estimates that have been completed on the Lorraine Property. Several of the historical estimates discussed in this section were calculated prior to the implementation of the standards set forth in NI 43-101 and Canadian Institute of Mining ("CIM") Definition Standards for Mineral Resources and Mineral Reserves (May, 2014) and CIM Estimation of Mineral Resources & Mineral Reserves Best Practices Guidelines (November, 2019). The authors of this Technical Report have not done sufficient work to classify these historical estimates as current mineral resources or mineral reserves. The Authors have referred to these estimates as "historical resources or historical estimates" and the reader is cautioned not to treat them, or any part of them, as current mineral resources. There is insufficient information available to properly assess the data quality, estimation parameters and standards by which the estimates were categorized. The historical estimates summarized below have been included simply to demonstrate the mineral potential of the Lorraine Property. All historical estimates are superseded by the current Mineral Resource Estimate (MRE) reported herein.

The following text summarizes historical estimates for the Lorraine Property completed by previous operators. The Authors of this Technical Report have reviewed the information in this section, as well as that within the cited references, and have determined that it is suitable for disclosure.

6.5.1 Granby Mining Company Historical Mineral Resource 1973

After completing extensive exploration from 1970-73 the Granby Mining Company Limited calculated a preliminary historical resource estimate of the Main Zone (Garratt, 2005a). Using a cut-off grade of 0.4% Cu, the Lower Main Zone was estimated to contain 5,500,000 tons at a grade of 0.6% Cu and 0.1 g/t Au (Garratt, 2005a). The Upper Main Zone was inferred to contain 4,500,000 tons at a grade of 0.75% Cu and 0.34 g/t Au (Garratt, 2005a).

No information regarding the methods or parameters used to calculate this historical estimate is available. The method of estimation nor any statistical data were provided. The historical estimate presented above was calculated prior to the implementation of the standards set forth in NI 43-101 and current CIM standards for mineral resource estimation and therefore is considered historical in nature.

6.5.2 UMEX Historical Estimate 1974

UMEX based upon their exploration programs, produced a resource estimation in 1974 that produced possible reserves for the Boundary Deposit. The reported the presence of 7.2 million tonnes at an average grade of 0.55% Cu and 4.11 g/t Ag (McCrossan, 1990).

The reader is cautioned that the use of the term “reserves” in the UMEX estimation of mineralized material is simply a reproduction of the original terminology and does not reflect the current definition of the term “reserve” or imply that there are current reserves defined within the Property. No information regarding the methods or parameters used to calculate this historical estimate is available. The cut-off grade is not reported. The methods of estimation nor any statistical data are provided. The historical estimate presented above was calculated prior to the implementation of the standards set forth in NI 43-101 and current CIM standards for mineral resource estimation and therefore is considered historical in nature.

6.5.3 El Paso Mining and Milling Historical Mineral Resource 1976

El Paso Mining and Milling Ltd. completed a resource estimate for the Misty Area. Their 1976 report concluded that Misty contains 3 million tonnes with an average grade of 0.6% Cu (Giroux and Lindinger, 2016 and references therein). No information regarding the methods or parameters used to calculate the historical estimate is available. The cut-off grade is not reported. The methods of estimation nor any statistical data are provided. The historical estimate presented above was calculated prior to the implementation of the standards set forth in NI 43-101 and current CIM standards for mineral resource estimation and therefore is considered historical in nature.

6.5.4 Lysander Gold Historical Mineral Resource 1998

In 1998, G.R. Peatfield, Ph.D., P. Eng. calculated a resource estimate for Lysander Gold Corporation based on all the available drill data up to 1996. This resource was developed for only the Upper Main and Bishop zones (Peatfield, 1998). Both Measured and Indicated (not differentiated), and Inferred resources were calculated.

Mr. Peatfield based his estimates on polygonal areas measured around the pierce points of individual drillholes on successive 10 m levels in both zones. A 50 m maximum radius was used to delineate “measured and indicated” (undifferentiated) material, and an additional 25 m beyond this was used to delineate “inferred” material. The continuity of the mineralization indicated that such assumptions were assessed to be reasonable. Only material which could reasonably be seen as falling within rough “mineable envelopes” was included in the estimates. Simple conceptual pits with 45 degree pit walls were defined but there was no allowance for haul roads, etc. The material was considered to be diluted in the sense that no internal waste was sorted out. Assay grades were derived from several generations of work. In some cases, silver was not assayed, so an estimate was prepared based on overall copper:silver ratios for each of the zones. The available data suggested that this ratio is remarkably constant. The grades assigned to the various level blocks were derived from composites calculated by computer within the 10 metre slices (Peatfield, 1998). Mr. Peatfield’s categories for the resource (measured, indicated and inferred) conform to current NI43-101 and CIM definitions (Giroux and Lindinger, 2016).

The 1998 historical MRE is presented in Table 6.2. Tonnages and grades are reported using a 0.25% Cu cut-off. The historical MRE presented below was calculated prior to the implementation of the standards set forth in NI 43-101 and current CIM standards for mineral resource estimation and are hence considered historical in nature.

Table 6.2 1998 Historical Mineral Resource Estimate (Peatfield, 1998).

Zone	Tonnes (million)	Cu (%)	Au (g/t)
Upper Main (Measured and Indicated)	11.89	0.71	0.26
Upper main (Inferred)	3.96	0.7	0.25
Bishop (Inferred)	2.87	0.62	0.05

6.5.5 Lorraine Copper Corporation Historical Mineral Resource 2012 and 2016

A more recent mineral resource estimate was completed for Lorraine Copper Corporation by Giroux Consultants in 2012 and published as a current resource in 2016 by Giroux and Lindinger (2016).

The 2012-2016 MRE was calculated for three mineralized zones: the Upper Main, Lower Main and Bishop zones. The master dataset contained 315 drillholes completed on the Lorraine Property since the early 1970s along with 15,062 copper assays and 12,016 gold assays that tested a wide area. Three (3)-dimensional (3D) solids were created using a 0.2% Cu grade boundary to outline the three mineralized zones. From the entire dataset 131 holes totalling 21,465 m penetrated the solids and were included and used in the MRE. A rotated block model with blocks 20 x 20 x 5 m in dimension was built to enclose the mineralized solids. Grades for copper and gold were interpolated into blocks containing some percentage of mineralized solids using Ordinary Kriging. Each of the three mineralized zones: Upper Main, Lower Main and Bishop, was estimated using only composites from the appropriate zone. An estimated specific gravity of 2.75 was used for the calculations. The 2012-2016 MRE reported an indicated resource of 6.419 million tonnes at an average grade of 0.61% copper and 0.23 g/t gold, plus an inferred resource of 28.823 million tonnes at an average grade of 0.45% copper and 0.19 g/t gold using an undiluted cut-off of 0.2% copper (Table 6.3; Giroux and Lindinger, 2016).

Table 6.3 Lorraine Copper historical 2012-2016 MRE for individual zones within mineralized solids at a 0.20% Cu cut-off.

Zone	Classification	Cu Cut-off (%)	Tonnes> Cut-off (tonnes)	Grade>Cut-Off		Contained Metal	
				Cu (%)	Au (g/t)	Million lbs of Cu	ozs Au
Upper Main	Indicated	0.2	4,841,000	0.63	0.25	67.25	39,000
Lower Main	Indicated	0.2	791,000	0.46	0.25	8.02	6,000
Bishop	Indicated	0.2	787,000	0.62	0.13	10.76	3,000
Total	Indicated	0.2	6,419,000	0.61	0.23	86.03	48,000
Upper main	Inferred	0.2	10,775,000	0.46	0.2	109.29	69,000
Lower Main	Inferred	0.2	12,908,000	0.39	0.22	111.00	91,000
Bishop	Inferred	0.2	5,140,000	0.58	0.13	65.74	21,000
Total	Inferred	0.2	28,823,000	0.45	0.19	286.03	181,000

The 2012 historical MRE was prepared in accordance with NI 43-101 and CIM standards at that time (CIM, 2005) and publicly released again in 2016 with no change (Giroux and Lindinger, 2016). The 2012 and 2016 MRE's are superseded by the MRE reported herein. These MRE's are now considered historical in nature.

The Authors are not aware of any mineral production from the Lorraine Property.

6.6 Historical Metallurgy

In 1966 Kennecott is reported to have completed three tests of bacterial leaching. However, no information on this test work is available.

Preliminary metallurgical testing was completed in 1996 on behalf of Lysander. The testing included preliminary bench scale mineral processing testing on two types of samples: mineralized talus and mineralized hard rock. One test focused on surface talus material that contained leachable copper species. The mineralization in the talus samples was dominated by malachite and azurite and was assessed to be amenable to acid leaching. This material comprises a very minor proportion of the current deposit and will not constitute a separately treatable material type. Additionally, flotation tests were completed on composite samples that were described as containing mostly sulphide with up to 25% oxide but no other descriptions of the samples was included. The results from these composite samples indicate good Cu sulphide recovery, high Cu grade in concentrate, Au concentrations of 9-10 g/t in concentrate, and an absence of deleterious elements (Hawthorne, 1996).

NorthWest Copper and the Authors believe this mixed material type is likely not representative of the mineralization observed at Lorraine. Due to the lack of proper sample descriptions and sample characterization it is the opinion of the Authors that these metallurgical results have little to no application to the current understanding of the mineralization on the Lorraine Property and modern metallurgical testing is recommended.

7 Geological Setting and Mineralization

7.1 Regional Geology

The Lorraine Property is located within the Duckling Creek Syenite Complex (DCSC), which is part of the Mesozoic age composite intrusive complex known as the Hogem Batholith, emplaced within the Quesnel Terrane (Garnett, 1972a,b, 1978; Evans and Devine, 2005; Baxter and Devine, 2008; internal reports for Teck Cominco, now Teck Resources *in* Giroux and Lindinger, 2016; Devine et al., 2014; Figure 7.1). Present-day geological configurations in north-central British Columbia reflect the relationships established during Mesozoic tectonic assembly. The Quesnel and Stikine Terranes comprise Triassic to Jurassic island arc assemblages that form an approximately 1,200 kilometre long belt of most commonly calc-alkalic with lesser alkalic volcanic rocks and associated sedimentary rocks and related intrusive bodies that parallels the northwesterly trend of the Canadian Cordillera (Garnett, 1972a,b, 1978; Evans and Devine, 2005; Baxter and Devine, 2008; Giroux and Lindinger, 2016). The belt extends from the BC-Washington State border in the south, to the Yukon-Alaska border in the north and beyond. Quesnel Terrane is fault bounded on the west and east, juxtaposed against older terranes. To the east are lithologies assigned to ancestral North America and less commonly smaller remnants of older island arc and oceanic assemblages. To the west are mostly lithologies of oceanic provenance assigned to the Cache Creek Oceanic Terrane in the south and the east-facing Stikine Terrane in the north.

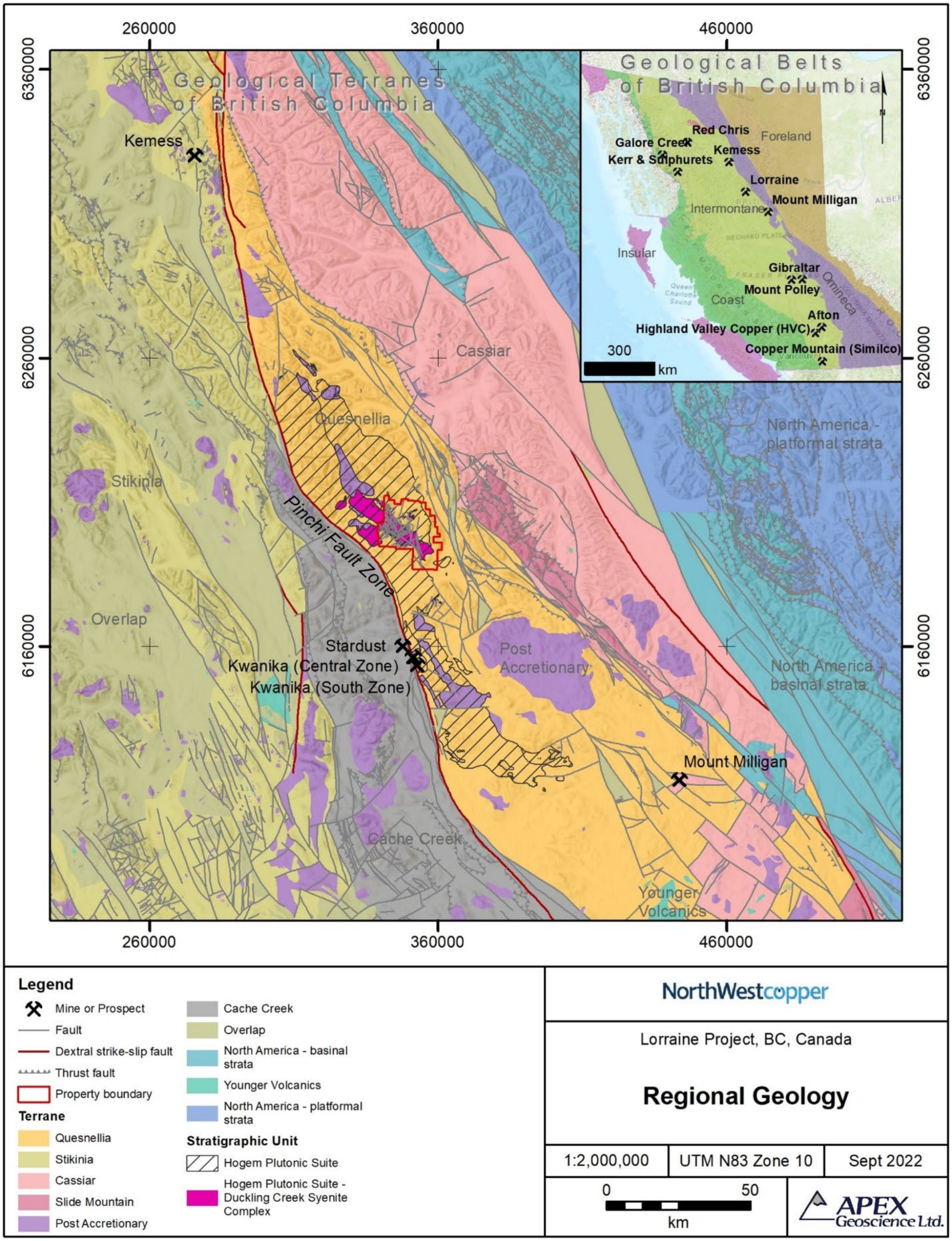
Many contacts and Early Jurassic faults related to the amalgamation of Stikine and Quesnel terranes were reactivated by Cretaceous and younger dextral fault movements. Relatively recent, large-distance, dextral transcurrent offset was particularly focused along large structures, for example, the Pinchi Fault to the west of the Hogem Batholith (Devine et al., 2014). Large regional vertical displacements are also evident as a component of the transcurrent displacements (Nelson and Bellefontaine, 1996). Graben-fill deposits occur along the Cretaceous and early Tertiary faults (Devine et al., 2014).

The Quesnel Terrane hosts two belts of economically important calc-alkalic porphyry copper-molybdenum +/- silver +/- gold deposits and one belt of alkalic porphyry copper-gold-silver +/- molybdenum +/- palladium +/- platinum deposits along its length. In British Columbia, past and present producing mines with alkalic mineralization include Copper Mountain (Ingerbelle), Afton, Mt. Milligan, and Mt. Polley. Additionally, several deposits have reached advanced stages of exploration such as Galore Creek. Deposits in the region that are likely also related include North Rok, Red Chris, and others that are more calc-alkaline in character, including the Kemess deposits (Giroux and Lindinger, 2016).

7.2 Local Geology

The Lorraine Property is located at the northwest margin of the Hogem Batholith, the largest intrusive body within the Swannell Ranges, a subdivision of the Omineca Mountains (Garnett, 1972a,b,c, 1974, 1978). The Mesozoic Hogem Batholith is a massive, 200 km-long expanse of intrusive rock covering a large part of the Quesnel

Figure 7.1 Regional Geology. Geological belts and Terranes of British Columbia (modified after Nelson et al. 2013).



terrane. To the west of the Batholith, older, uplifted Cache Creek Group rocks are separated from this belt by the Pinchi fault zone. To the east, the Manson fault zone separates this volcanic belt from the older, uplifted Wolverine Complex (Garnett, 1978; Figure 7.2). The Hogem Batholith is composed of four main Jurassic-Cretaceous intrusive suites (Devine et al., 2014; Ootes et al., 2020):

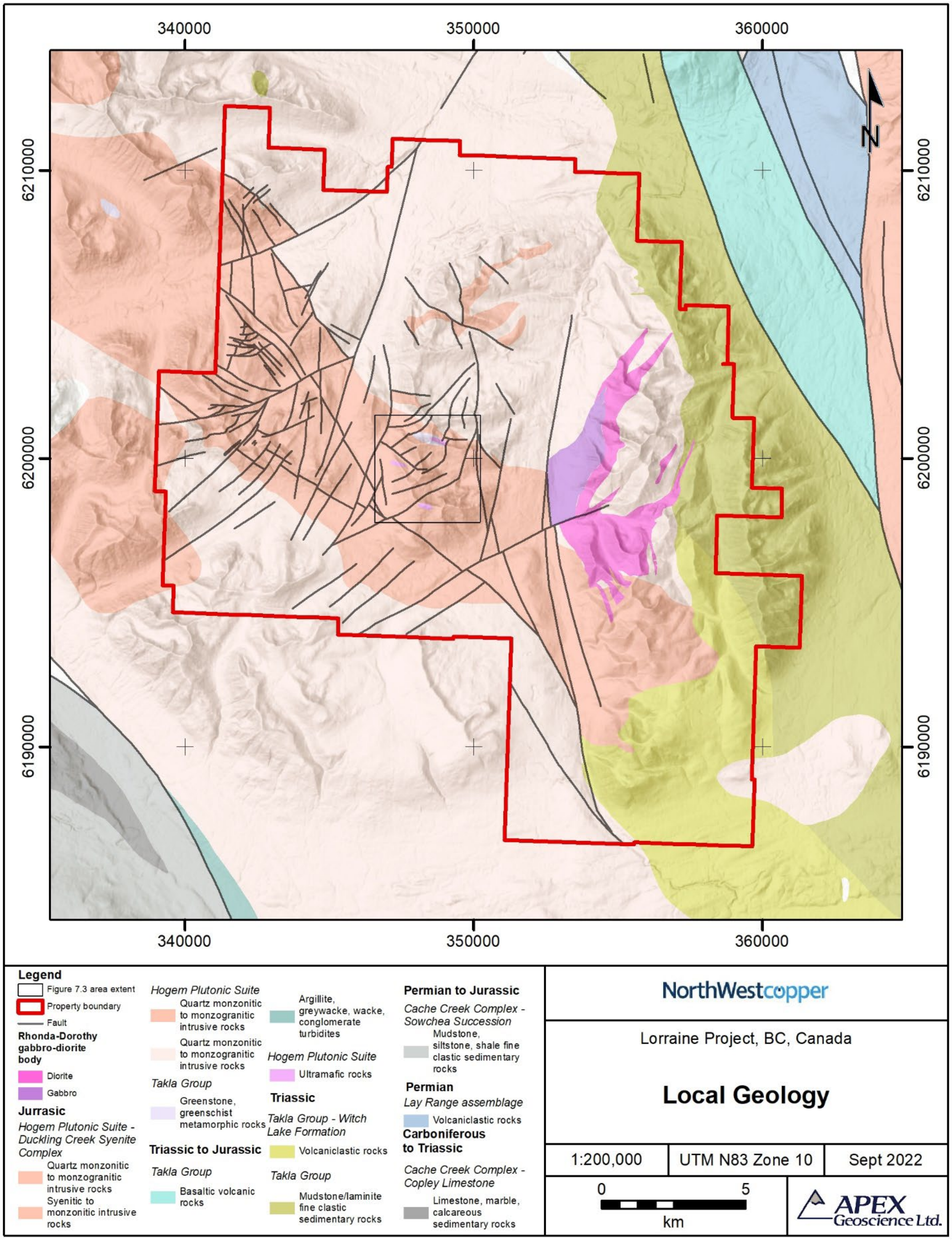
- Late Triassic to Early Jurassic calc-alkaline intrusive rocks (granodiorite, diorite, quartz monzonite, granite) of the Thane Creek suite, which form the oldest and volumetrically most significant intrusive component of the Quesnel Terrane at this latitude (Garnett, 1978; Nelson and Bellefontaine, 1996; Devine et al., 2014 and references therein). The Hogem granodiorite, yields K/Ar dates within the limits 176 Ma to 212 Ma, and volumetrically represents the main intrusive event (Garnett, 1978).
- Early Jurassic alkalic intrusive rocks represented by the Duckling Creek Syenite Complex and the Chuchi syenite body, as well as dikes and minor intrusions along the eastern side of the batholith (Devine et al., 2014). The Duckling Creek and Chuchi syenite bodies yield K/Ar dates within the limits 162 Ma to 182 Ma (Garnett, 1978). More recent geochronology data places age of mineralization between 180 and 178.5 Ma (Devine et al., 2014). While Bath et al. (2014) places the pre- and late mineral syenite between 178.8 and 176 Ma.
- Late Jurassic calc-alkalic granitoids of the Osilinka suite. Recent U-Pb zircon constraints indicate this suite intruded earlier Hogem phases at ca. 160 Ma (Ootes et al., 2020).
- Early Cretaceous calc-alkalic intrusive rocks (granodiorite, quartz monzonite, and granite) of the Mesilinka suite are the youngest intrusive phase of the Hogem Batholith. U-Pb zircon and $^{40}Ar/^{39}Ar$ dates indicate this suite crystallized at ca. 140 Ma (Ootes et al., 2020).

Several ultramafic and gabbro-diorite intrusive complexes also form part of the intrusive component of the Quesnel terrane, although they are not historically included in the definition of the Hogem batholith. These complexes range in age from mid-Triassic (237 ± 2 Ma, Lunar Creek complex) to late Early Jurassic (186 ± 2 Ma, Polaris complex; Nixon et al., 1997).

Cretaceous-age intrusive rocks occur throughout the region, stitching together the geology of the accreted terranes. These were emplaced in a significantly different post-arc tectonic regime, post-arc development. As such, they have a more direct tectonic affinity to other post-accretion Cretaceous intrusions in British Columbia (Devine et al., 2014).

A strong northwest-trending fabric is apparent in the distribution of arc-related intrusive rocks throughout the Quesnel terrane. While certain brittle aspects of the tectonic fabric are due to younger structural events, the main northwest trend of the Hogem Batholith, including the Duckling Creek Syenite Complex, is suggestive of older, arc-related NW-oriented structures that may have controlled emplacement of intrusive complexes within the Quesnel arc (Devine et al., 2014).

Figure 7.2 Local geology of the Lorraine Property.



Copper-gold mineralization, commonly described as “porphyry-style” disseminated and local vein-related mineralization in the southern Hogem Batholith, is focused around the syenite bodies (Nelson and Bellefontaine, 1996; Devine et al., 2014). Ultramafic bodies are notable for occurrences of platinum group elements (PGEs; Nixon et al., 1997). Cretaceous-age intrusions locally host occurrences of copper and molybdenum in the Hogem region (Garnett, 1978).

7.3 Property Geology

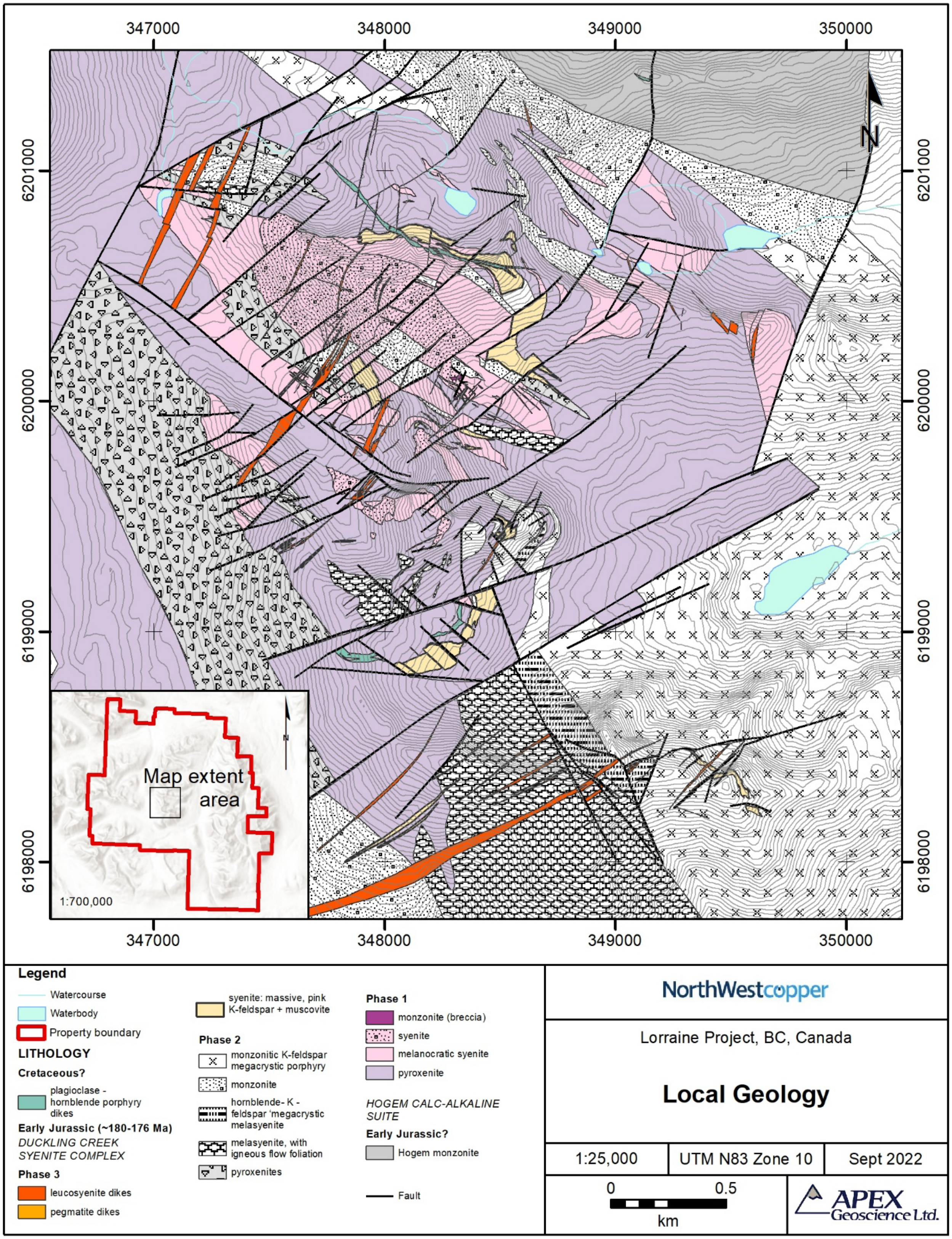
The geological understanding of the Lorraine Deposit area has been described in detail by Devine et al. (2014). A summary of the key advances and revisions to the Lorraine model are described below and are shown on Figure 7.3.

A large portion of the Lorraine Property is underlain by the Duckling Creek Syenite Complex, a 30 km long by 5 km wide multiphase alkalic intrusive complex. The Duckling Creek Syenite trends northwest, consistent with the regional tectonic fabric, and intrudes calc-alkalic monzonite and granodiorite of the Hogem Batholith (Garnett, 1972a,b,c, 1978). It is bound on its southeastern margin by Upper Triassic Takla Group volcanic rocks (Quesnel Terrane) and the Rhonda-Dorothy gabbro-diorite body to the east of the Duckling fault. The bounding intrusive contacts are sharp where observed, but are predominantly modified by relatively young, high-angle brittle faults.

Where mapped in proximity to the DCSC, the Takla Group volcanic rocks are Upper Triassic in age. No Duckling Creek-equivalent Lower Jurassic volcanic rocks have been mapped in the immediate region of the intrusive complex. Clinopyroxene-plagioclase-hornblende porphyritic volcaniclastic units and flows border the intrusive complex to the southeast and were mapped as part of the Plughat Mountain and Witch Lake successions of the Takla Group by Nelson and Bellefontaine (1996). Isolated occurrences of possible volcanic rock xenoliths have been found locally within the DCSC, for example, in the Slide area where rocks with volcanic breccia-like textures are incorporated into the Slide deformation zone; however, volcanic rock xenoliths are not common within DCSC intrusions and volcanic rocks are not a major element of the district geology.

Hogem Group intrusive rocks of calc-alkalic affinity surround the DCSC. These are predominantly monzonites to the north and granodiorites to the southeast. These rocks all contain quartz, which significantly differentiates them from the DCSC. The Rhonda-Dorothy gabbro-diorite body along the eastern margin of the complex was originally included as part of the Hogem calc-alkalic suites by Garnett (1978); however, due to spatially related copper mineralization it was investigated as a potential phase of the DCSC (Devine et al., 2014 and references therein). The Rhonda-Dorothy body is a medium-grained, equigranular diorite that ranges to a variably textured, coarse-grained gabbro along its western margin. The gabbro-diorite has a sharp intrusive contact with the calc-alkaline monzonites, but is cut by K-feldspar megacrystic dikes of the Duckling Creek Syenite Complex. According to Devine et al. (2014), the Rhonda-Dorothy body has an age of 201 Ma.

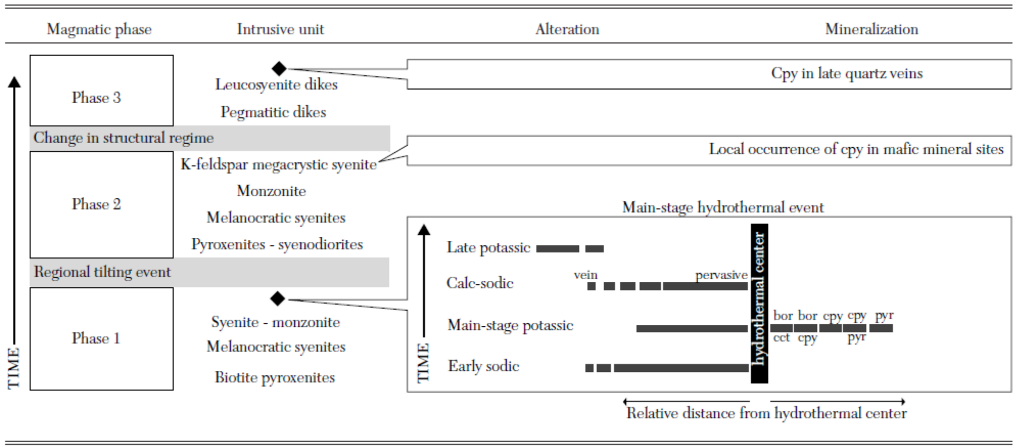
Figure 7.3 Detailed Geology of the Lorraine Property (Devine et al., 2014).



Detailed geological mapping and core logging in the Lorraine area provide the basis for the subdivision of the DCSC intrusive rocks. Two phases of intrusion within the pyroxenite-syenite-monzonite domain that have very similar lithological compositions, but that are separated by an intervening structural event have been recognized and are named phases 1 and 2 (Table 7.1). Both phases were previously interpreted to be part of phase 1 as described by Nixon and Peatfield (2004). Phases 1 and 2 both record progressive emplacement of pyroxenite and melanocratic syenite bodies, with late monzonite-syenite intrusions. Phase 2 also includes a distinct K-feldspar megacrystic porphyry unit. An important difference between the two cycles of intrusion is that all phase 1 dikes are moderately dipping relative to the main subvertical orientation of phase 2 dikes, a relationship that is critical to unraveling the intrusive relationships at Lorraine. A third intrusive phase (phase 3, or phase 2 of Nixon and Peatfield, 2004) marks a shift to Si-enriched compositions with leucosyenites and K-feldspar pegmatitic dikes that are compositionally distinct from the phase 1 and 2 suites. A brief description of lithologies associated with these phases is provided below (after Devine et al., 2014):

- *Phase 1 is characterized by pyroxenites (biotite clinopyroxenites that range to syenodiorite), melanocratic syenites (including mesocratic variants), and syenite-monzonites present in the central part of the Bishop mineralized zone. The contacts of phase 1 dikes, as well as phase 1 magmatic foliations, are inclined approximately 45° to the southwest. This occurs across the Lorraine area where phase 1 rocks are present and suggests that the presumably vertically emplaced phase 1 dike complex has since been tilted.*
- *Phase 2 is characterized by pyroxenites and syenodiorites (mineralogically similar to phase 1 units, distinguishable only by robust field relationships and a "clotty" texture to the biotite of some dikes), K-feldspar-rich dikes, classified as melanocratic syenite, monzonites, K-feldspar porphyritic monzonite unit occurring to the south and north of the Lorraine area, and locally as dikes on Copper ridge. Most phase 2 dikes are vertical, with oblique crosscutting relationships to phase 1 contacts and a vertical to subvertical magmatic mineral flow foliation. This is best demonstrated in Bishop bowl, where SW-dipping phase 1 contacts, pseudoleucite-bearing dikes, and pervasive groundmass foliation are cut by vertical phase 2 pyroxenite and K-feldspar megacrystic dikes.*
- *Phase 3 units in the Lorraine area occur as late dikes and locally as irregular intrusions that cut across phase 1 and 2 units. Domains of medium-grained leucocratic pink syenite, occur in the Lower Main zone, and also across the north side of Lorraine Peak. Contacts of the phase 3 syenite unit are following a northeast trend in the Lower Main zone, but a more northwest trend across the north side of Lorraine Peak. NE-trending, high-angle, dikes generally trend northwest (20°–40°) but strike at 50° in the southern part of the area. The NE-trending dikes are of two main types: (1) leucocratic quartz-syenite and (2) K-feldspar syenite. The leucosyenite dikes locally occupy the same structural break as the pegmatitic syenites, forming dikes of alternating leucosyenite pegmatite domains within a 1-m width. Quartz veins, locally with minor chalcopyrite, are present in the leucosyenite dikes.*

Table 7.1 Paragenesis of Magmatic and Hydrothermal Events in the Lorraine Area (Devine et al., 2014).



The oldest structural event recognized in the Lorraine area is the tilting of the phase 1 dike swarm. This event preceded intrusion of phase 2 and 3 rocks, and any shear zones associated with tilting have been obscured by subsequent igneous intrusions. The consistently tilted phase 1 units are evidence of deformation during DCSC emplacement, prior to phase 2 intrusion (Devine et al., 2014).

7.4 Mineralization and Alteration

The following section on the Lorraine Property has been excerpted from Devine et al. (2014). It refers to the mineralization and alteration patterns within the Lorraine Property as well as timing of mineralization events:

"*The Lorraine Property includes the (upper) Main zone, Lower Main zone, and the Bishop zone (previously named the "Extension zone"; Bishop et al., 1995), together constituting a single, 2.5-km-long elongate porphyry system. These mineralized zones form a continuous mineralized body that has been partially disrupted by late stage high-angle faults. Several other prospects immediate to the Lorraine zones are also included in the "Lorraine area" and are considered to be part of the same mineralized system. Main-stage Cu-Au mineralization is limited to within and around NW-trending, phase 1 syenite-monzonite bodies (Table 7.1). Domains of mineralization are parallel to the orientation of tilted phase 1 dikes; the largest is the Lorraine body, which extends over 2.5 km in length and approximately 200 m true thickness in a NW-trending, SW-dipping panel. The Lorraine mineralization occurs throughout and peripheral to a fine-grained, strongly potassic altered syenite-monzonite intrusive body that underlies Lorraine Peak. The primary igneous composition is obscured by potassic alteration, but isolated occurrences of monzonite breccia that are cut by main-stage alteration in the Bishop zone indicate that a phase 1 monzonite is spatially and temporally associated with mineralization.*

The continuity of sulphide mineralization along the Lorraine trend is what defines the Lorraine "zone." Several other smaller mineralized zones parallel to the Lorraine zone have been mapped at Ekland ridge and Copper Peak, where they also show a spatial *association with phase 1 syenite as well as significant high-grade sulphide deposition in adjacent phase 1 pyroxenite. In the south of the Lorraine area, xenoliths of mineralized phase 1 rock are incorporated into younger phase 2 intrusions, such as at the UST showing. The BM showing may also occur as a phase 1 xenolith in phase 2 rocks, although contact relationships around this showing are not well constrained. The direct association of the mineralization in these xenoliths with the Lorraine area zones is uncertain; however, mineralization style is similar and, due to their spatial proximity, they are inferred to be part of the same 6 km^2 mineralized system in the Lorraine area.*

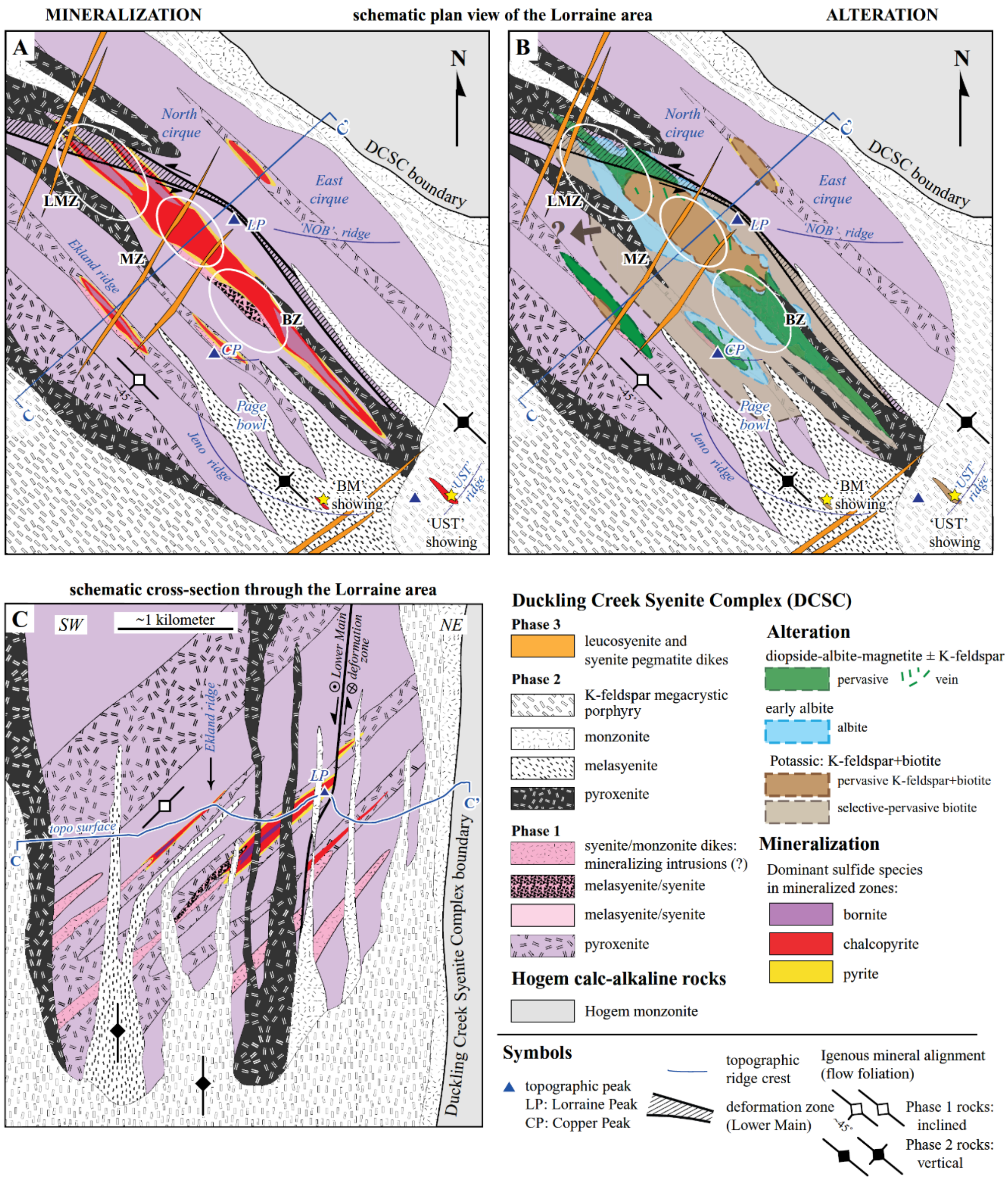
Copper mineralization in the Lorraine area occurs predominantly as finely disseminated to blebby copper sulphides closely associated with pervasive K-feldspar and/or biotite (potassic) alteration, and pervasive to vein-style magnetite-diopside-albite (calc-sodic) alteration. Mineralization within phase 1 syenite-monzonites occurs as finely disseminated chalcopyrite ± bornite ± pyrite, up to 2% vol in the fine- to medium-grained phase 1 syenite intrusions. Due to the fine grain size, the sulphide mineralization can be difficult to see with the naked eye. Within phase 1 pyroxenites, mineralization is coarse-grained bornite + chalcocite + digenite ± chalcopyrite groundmass replacement patches that locally have "net texture". Gold analyses are not available for all historical drillholes; however, limited data show that highest gold grades generally follow copper values, particularly in the areas of bornite mineralization.

PGE values for mineralization in the Lorraine area have a large range, but include some of the highest values of the BC alkalic porphyry deposits. While the Lorraine mineralization proper returns relatively low values (0.7–9.5 ppb for both Pt and Pd from the Bishop zone, Nixon, 2004), mineralization at the BM showing, inferred to occur within a phase 1 xenolith surrounded by phase 2 megacrystic rocks peripheral to the Lorraine zones, returns values as high as 2,067 ppb Pt and 2,240 ppb Pd (Nixon, 2004). PGEs occur as inclusions of merenskyite and platinum-bearing melonite within bornite in samples in the Lorraine area (Nixon, 2004; Nixon and Peatfield, 2004).

Copper sulphide mineralization in phase 2 and 3 rocks in the Lorraine area is significantly less extensive than the main late phase 1 event, but is present locally. Replacement of mafic domains by disseminated chalcopyrite is weakly developed in late phase 2 leucocratic K-feldspar porphyritic rocks on Copper Peak. Chalcopyrite with associated pyrite also occurs within quartz veins in phase 3 leucosyenite dikes in the Lower Main zone area". Mineralization and alteration zonation patterns are shown schematically in Figure 7.4.

In summary, Devine et al. (2014) explains that "*mineralization at Lorraine shows a consistent spatial pattern of sulphide and silicate-oxide zoning within and around Cu-Au porphyry mineralization. Sulphide zoning is the key to defining mineralized zones and discriminating mineralized from unmineralized intrusions in the Duckling Creek district. Tilting of the mineralized intrusive sequence occurred early in the magmatic hydrothermal evolution of the area, separating two cycles of pyroxenite to syenite intrusions that bracket main-stage mineralization. Mineralization at Lorraine and other prospects within the* *district is some of the youngest of the alkalic porphyry class in British Columbia, developed in a pyroxenite-syenite dike complex along an Early Jurassic structure."*

Figure 7.3 Property Alteration and Mineralization (After Devine et al., 2014).



A-C) Schematic map and cross sections of the Lorraine area, illustrating the geologic relationships between phase 1, 2, and 3 intrusions of the Duckling Creek Syenite Complex. Spatial relationships between lithology, silicate alteration, and sulphide zonation are shown. Sulphide species distribution is strongly influenced by host-rock phase 1 pyroxenite peripheral to the causative intrusions. The mineralized zones of the Lorraine body are the Lower Main zone (LMZ), Main zone (MZ), and Bishop zone (BZ). Late, high-angle, low-displacement faults and resulting offsets are not shown.

8 Deposit Types

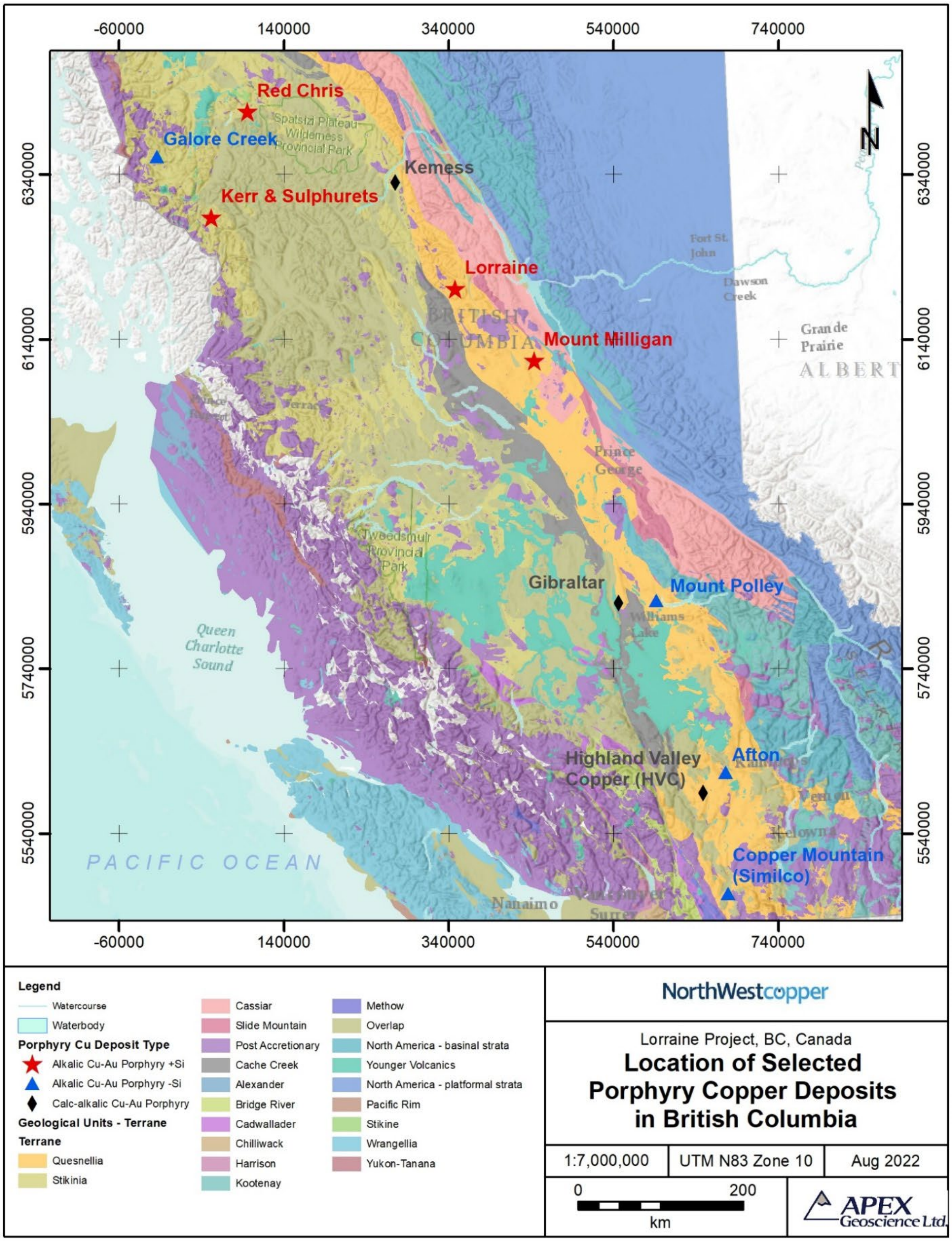
Porphyry copper (porphyry Cu) systems are one of the most well studied and understood deposit types, producing a significant amount of the world's copper, molybdenum, gold and other metals. Porphyry Cu deposits range in size, grade and type of mineralization and consist of hydrothermally altered rock centered on porphyritic stocks and dikes. These porphyry intrusions range in geometry, such as dike arrays, vertical stocks or circular, elongate, and irregular bodies. Stock and dike diameter and length are commonly ≤1 km, however the size of the stock has no relationship to the size of the Cu deposit or Cu content. Mineralization can occur both in the porphyry and its contiguous host rock (Sillitoe, 2010).

The Lorraine Property is located amongst other known porphyry Cu deposits along the Triassic-Jurassic Quesnel arc in north-central British Columbia. The dominant mineralization on the Property is interpreted to have been emplaced by a porphyry Cu system. Porphyry Cu deposits in the Quesnel and Stikine island-arc terranes are classified as either a calc-alkaline (calc-alkalic) porphyry Cu±Mo±Au, or an alkaline (alkalic) porphyry Cu-Au subtype (Mihalasky et al., 2011). The BC MINFILE records for (BC MINFILE 093N 093) of mineral occurrences located within the Lorraine Property indicate a Cu-Au porphyry-style deposit, with the exception of one occurrence indicating a Cu±Mo±Au porphyry-style deposit. The Lorraine Property deposit type will therefore only refer to the alkaline porphyry Cu-Au sub-type (referred to as "porphyry Cu-Au deposit" hereafter).

Porphyry Cu systems typically extend linearly alongside (parallel to) orogenic belts as these systems are often generated in the shallow crustal areas of magmatic arc and back arc environments (Sillitoe, 2010). The Cordilleran orogenic belt, which extends along the west coast of North America, is located on a convergent plate boundary where past subduction-related magmatic arc formation has resulted in an abundance of porphyry Cu deposits (Mihalasky et al., 2011). The Lorraine Property is unique as it is one of the youngest porphyry Cu-Au deposits in the Triassic-Jurassic Quesnel arc and does not exhibit many similar traits (like brecciation or veining density) to other alkalic deposits in British Columbia, such as Galore Creek, Mount Polley or Red Chris (Devine et al., 2014). Examples of alkalic Cu-Au porphyries located in the Quesnellia terrane include Lorraine, Mt Milligan, Mount Polley, Afton and Copper Mountain (Figure 8.1).

The general model for porphyry Cu deposits is based on a hydrothermal system where shallowly emplaced stocks (upper 4 km of crust) originate from parental magma chambers, acting as conduits for fluids which cool in the subsurface before reaching the surface. Specifically, high pressure, high temperature, metal- and sulphur-rich fluids cause intense subsurface hydrothermal alteration and precipitate Cu-sulphide minerals as rock and fluid progressively cools. Overprinting occurs as the system cools, resulting in the characteristic alteration-mineralization telescoped zoning pattern. The source of the magma and metalliferous fluids are parent magma chambers (crustal batholiths) at depths of approximately 5 to 15 km. As the parental pluton progressively crystallizes inwards, the magma composition changes where the porphyry Cu stocks originate, and

Figure 8.1 Porphyry Cu-Au deposit locations in British Columbia.



is reflected in the mineralogy of the ensuing phases of intrusions. The temporal emplacement of porphyry intrusions relative to when alteration and mineralization occur affect the grade of mineralization. For example, early porphyries typically contain high grade mineralization, while inter-mineral or post-mineral phases are less mineralized or barren (Sillitoe, 2010).

Some requirements for the porphyry Cu system and deposit type to occur include either the presence of a subduction-related magmatic arc, a post-collisional magmatic belt or a post-subduction magmatic belt during a given age-range where a destabilizing event disturbs the otherwise normally evolving magmatic system and causes an ore-forming hydrothermal event (Mihalasky et al., 2011; Richards, 2018). The volume of magmatic fluid volume required to feed a porphyry Cu system would imply the bulk of the magmatic fluid originates from parental batholiths rather than the porphyry itself, and that these parental magmas need to be water rich and oxidized to host metals in the aqueous phase (Sillitoe, 2010).

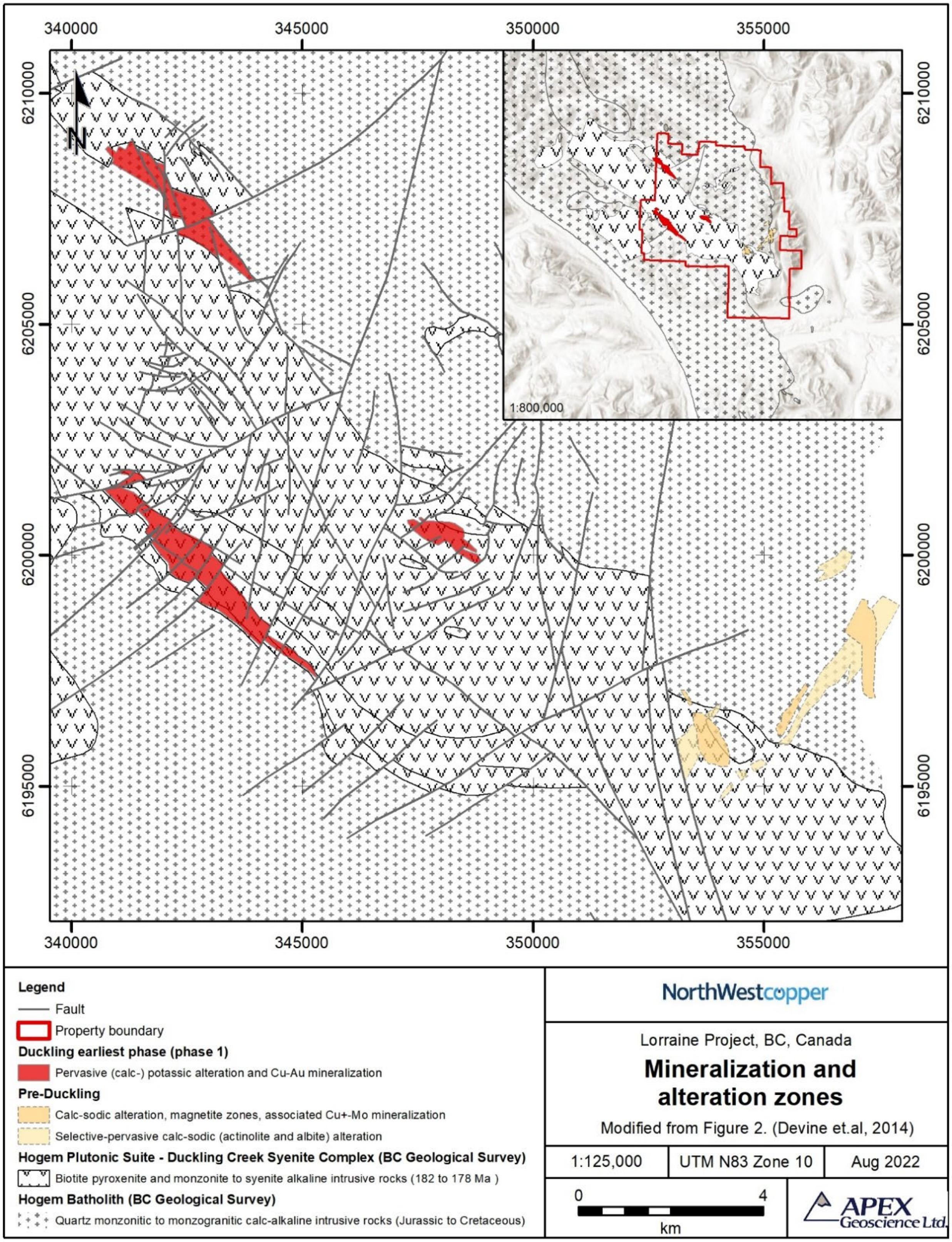
The alteration-mineralization zoning pattern that consistently dominates porphyry Cu deposits and affects several cubic kilometers of rock are sodic-calcic, potassic, chlorite-sericite, sericitic, and advanced argillic alterations, named from the bottom of the system upwards. Chloritic alteration occurs distally at shallow depths and propylitic alteration occurs distally at deeper depths. Shallower (i.e. younger) alteration-mineralization overprints and can partially reconstitute deeper ones, which in some cases can affect (i.e. leach) chalcopyrite ± bornite orebodies which lie preferentially in the main ore contributor zone, the potassic (K-silicate) alteration zone (Sillitoe, 2010).

The mineralization on the Lorraine Property occurs as disseminated copper sulphides within the potassic and sodic-calcic altered zones of the DCSC, a pyroxenite to syenite intrusive complex. The mineralization of the eastern prospect, Rhonda-Dorothy, is associated with a late hydrothermal phase of an older intrusive phase of the Hogem Batholith and is not part of the DCSC.

In the case of porphyry Cu deposits at the Lorraine Property, less well-developed advanced argillic alteration is expected, as the porphyries are alkaline (Devine et al., 2014). Sericitic alteration is also not an effective exploration indicator in alkaline porphyries, as it is typically restricted to fault zones (Deyell and Tosdal, 2004). At Lorraine, mineralized zones can be up to 2.5 km long by 500 m wide (Devine et al., 2014). Deyell and Tosdal (2004) applied sulphur isotope analysis to alkalic Cu-Au deposits to uncover subtle or cryptic alteration zones or geochemical dispersion halos. Increasing $\delta^{34}S$ values with Cu-Au ratios were indicated in a few mineralized zones (Deyell and Tosdal, 2004). This may have implications in guiding mineral exploration, however the relationship of $\delta^{34}S$ data with metal grades and sulphide mineralization needs further testing (Deyell and Tosdal, 2004). Potassic alteration in the main Lorraine area and calc-sodic alteration in the eastern, Rhonda-Dorothy area is shown in Figure 8.2.

Factors such as favorable lithology (i.e. Fe-rich, permeable or carbonate wall rock), well-timed intrusions (i.e. pre-mineral and early porphyries), and maximized metal content

Figure 8.2 Mapped extent of surficial alteration and mineralization on the Lorraine property, within the Duckling Creek Syenite Complex.



in the aqueous fluid (i.e. magma ≳4 wt% water, oxidized, sulphur and metal rich) can lead to extensive deposition both within contiguous wall rock and intrusion. Porphyry Cu deposits are affected by late-stage alteration overprints reducing or completing stripping Cu and/or Au, therefore the porphyry Cu deposits that have retained their early porphyry phases and potassic alteration assemblages are the most coherent and high grade. Thermal regimes in potassic zones that allow vertically extensive ore development, as compared to thermal regimes that result in excessively hot temperatures prohibiting sulphide precipitation, commonly have greater size potential (Sillitoe, 2010).

9 Exploration

Between June and September, 2021, NorthWest Copper completed a field-based exploration program at the Lorraine Property comprising geological mapping, rock and soil geochemical sampling, stream sediment sampling, porphyry indicator mineral (PIM) sampling, re-logging and sampling of historical drill core, along with IP and resistivity ground geophysical surveying. An airborne magnetic geophysical survey and a Light Detection and Ranging (LiDAR) survey were also completed during July, 2021. The sections below describing the 2021 exploration program at Lorraine were largely adapted from Titley and Harper (2022). The Authors have reviewed the data and take responsibility for the information herein.

9.1 Geological Mapping and Rock Sampling

The 2021 mapping and surface rock grab sampling were undertaken to better define the alteration, mineralization and veining within the known mineralized zones, provide structural and geological context to historical rock samples and drill core logs, and define new copper prospects. The campaign also attempted to harmonize discrepancies in historical surface geology and drill core logs.

Geological outcrop mapping focused on key targets in the Lorraine resource area and the Tam (Boundary) area to the northwest (but within the Property boundary), following up on historical geochemical samples. These areas were selected for investigation because of their geological similarities, proximity to a common magnetic corridor along the DCSC, and their potential to materially improve the prospectivity of the Property. Mapping was augmented by surface rock sampling. The total planned traverse length was 24.4 km, split between Lorraine (13.1 km) and Tam/Boundary (11.3 km). The traverses were completed primarily on ridge tops and within cirques

Outcrop mapping was completed at 1:2,000 scale in QGIS software using a GPS-enabled Toughbook laptop. Data collected included lithology, structure, alteration, veining and mineralization. A common data collection scheme was used for the mapping, rock sampling and historical drill core re-logging incorporating lithology and structure codes created by Teck Resources (Chamberlain et al., 2007). Interpretation of the outcrop map and rock sample data produced digital map layers comprising lithology, vein zones, alteration and linear features. The 2021 geological map interpretations for Lorraine and Tam-Boundary are presented in Figures 9.1 and 9.2, respectively.

Rock sampling was completed concurrently with geological mapping traverses to aid in defining a lithogeochemical footprint around alteration and mineralization zones identified by mapping. Samples were mostly rock grab samples collected at a nominal spacing of 100 metres along traverse lines, in other areas of interest, and in areas with limited or no known surface sampling coverage. Additional prospecting samples were collected where copper mineral occurrences were observed.

A total of 294 rock grab samples were collected, including 226 at Lorraine, 51 at Tam-Boundary, 15 at Rhonda, and 2 at Slide (Figure 9.3). Twenty-two (22) blank control samples were also collected.

The 2021 mapping and rock sampling identified a number of target areas in the Lorraine and Tam-Boundary areas (Figure 9.4). Areas were ranked in terms of intensity of copper sulphide mineralization and relative size of each anomaly. The most prospective targets at Lorraine occur around Lorraine Peak and Copper Peak to the south. Less prospective targets occur along the ridge north of Lorraine Peak and west of UST Ridge. At Tam-Boundary, highly prospective targets occur at both the Boundary and Cirque zones. The Boundary targets, in particular, are associated with robust alteration and chalcopyrite ± bornite mineralization, and are well supported by historical drilling and/or surface geochemical results.

In agreement with historical work on the Property, the 2021 mapping and rock sampling program identified copper mineralization in phase 1 and 2 intrusions. Previous work interpreted copper mineralization in phase 2 and 3 intrusions occurring within northeast and northwest-trending, steeply dipping dikes. The main mineralization in phase 1 intrusions was interpreted to strike southeast with a southwest dip. Information collected during the 2021 program suggests that phase 1 intrusions may be trending northeast or northwest, analogous to phase 2 and 3. However, further work is needed to increase confidence in this model.

Figure 9.1 2021 Geological Map Lorraine Area Tam (Boundary) Areas.

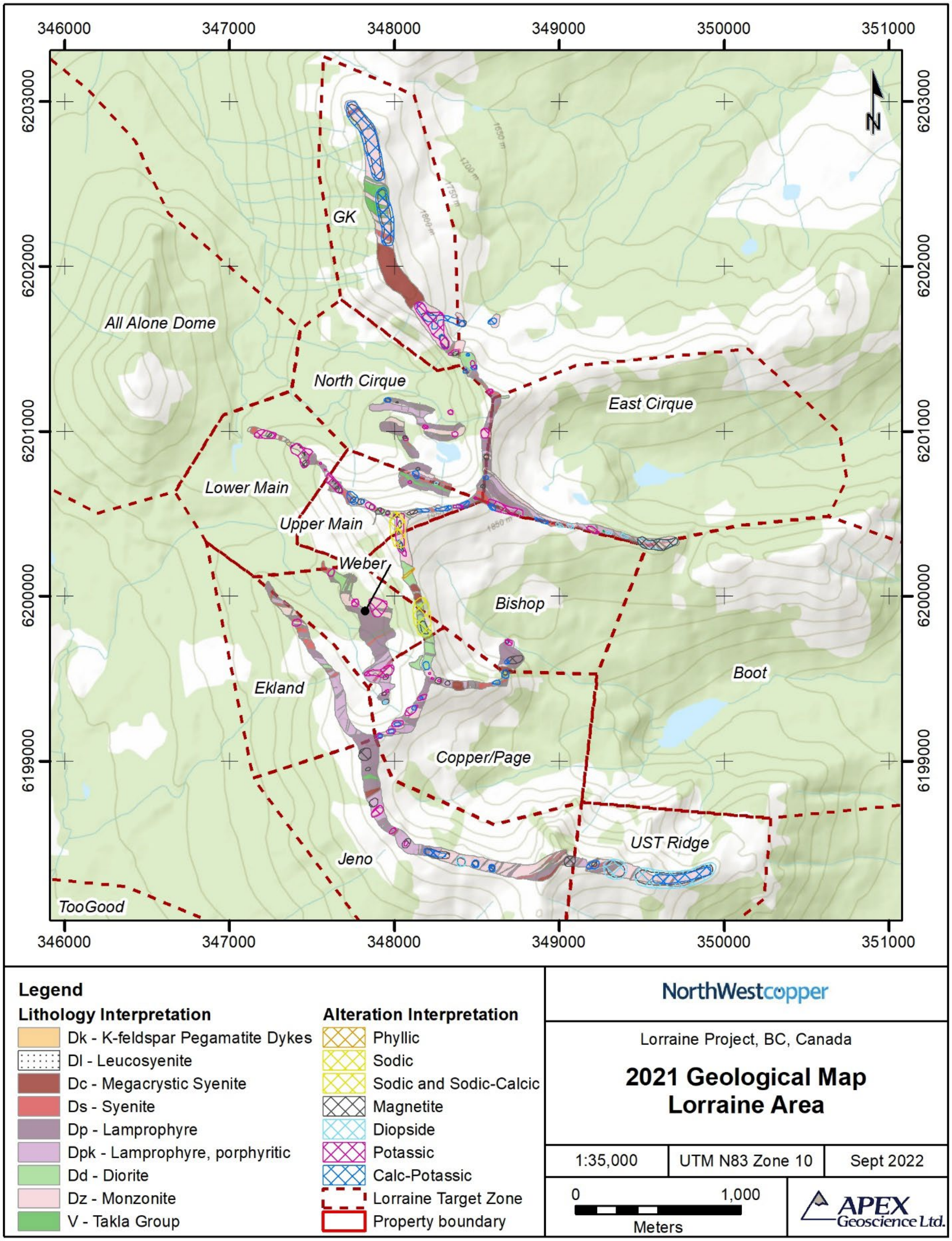


Figure 9.2 2021 Geological Map Tam (Boundary) Area.

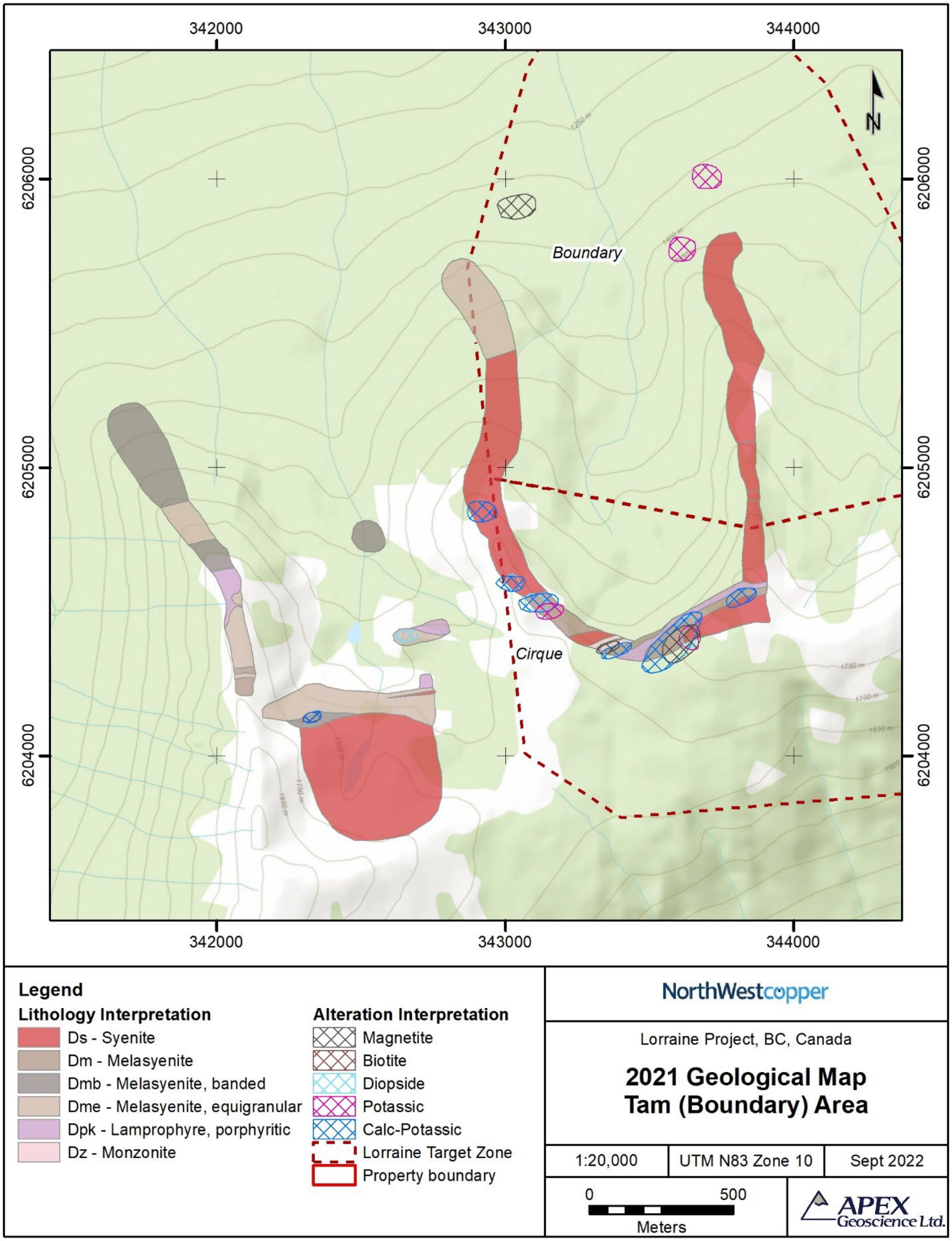


Figure 9.3 Copper assays from 2021 rock sampling at Lorraine, Tam-Boundary, Rhonda and Slide Areas.

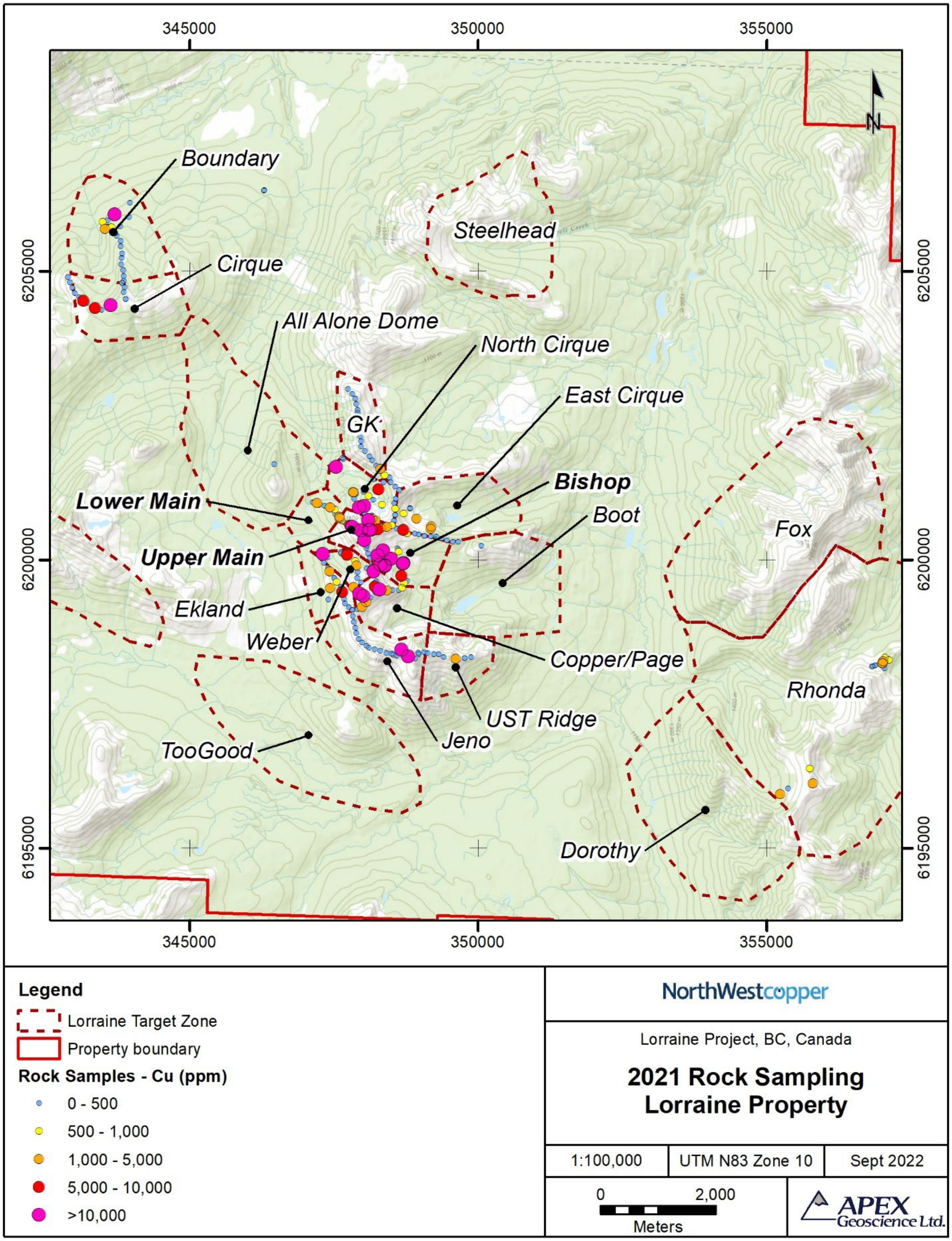


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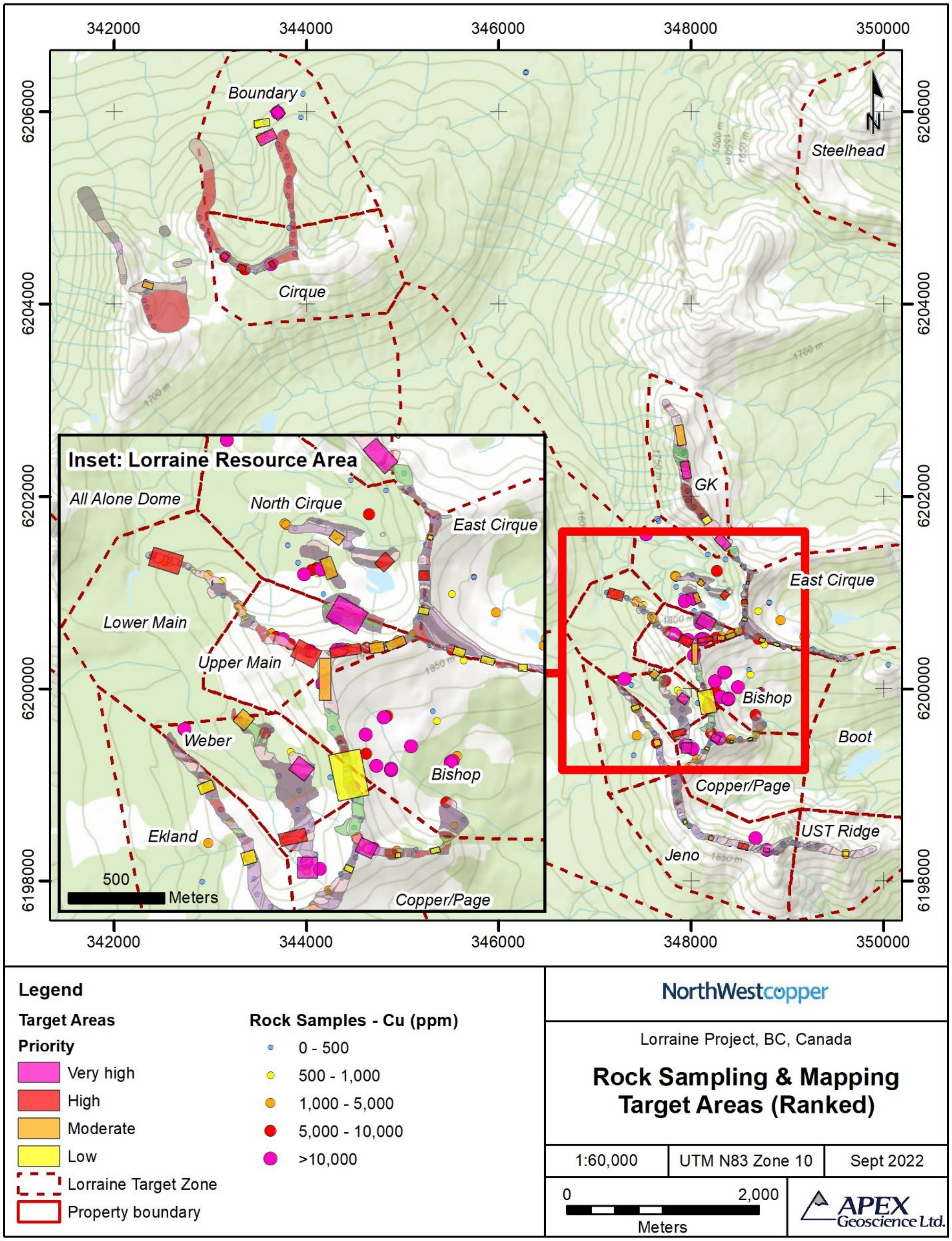
Figure 9.4 2021 Mapping and Rock Sampling Target Areas.



9.2 Soil Sampling

Two soil sampling grids were completed targeting the Lorraine resource area and the Tam-Boundary target area, both within the Property. Limited historical work has been completed outside of outcropping areas on the Property. The Lorraine grid covered under-sampled areas surrounding Lorraine Peak at the Lower Main, Bishop, East Cirque, Ekland, Copper-Page, and Boot targets. The Lorraine grid was oriented perpendicular to the northwest-trending property-scale magnetic trend associated with the DCSC, with a line spacing of 200 m and a sample station spacing of 50 m. The Tam-Boundary grid covered under-sampled areas on the northern flank of Tam Peak extending towards the Haha Creek valley. The Tam-Boundary grid was oriented east-west with a line spacing of 200 m and a variable sample station spacing between 50 and 200 m.

The sampling campaign targeted Ah-horizon soils. If the Ah-horizon was not present at a sample site, the O or B horizons were sampled. The sample medium was selected based on a 2010 orientation survey completed by Teck covering areas of known mineralization, which successfully demonstrated a positive correlation with anomalous results in Ah soil samples.

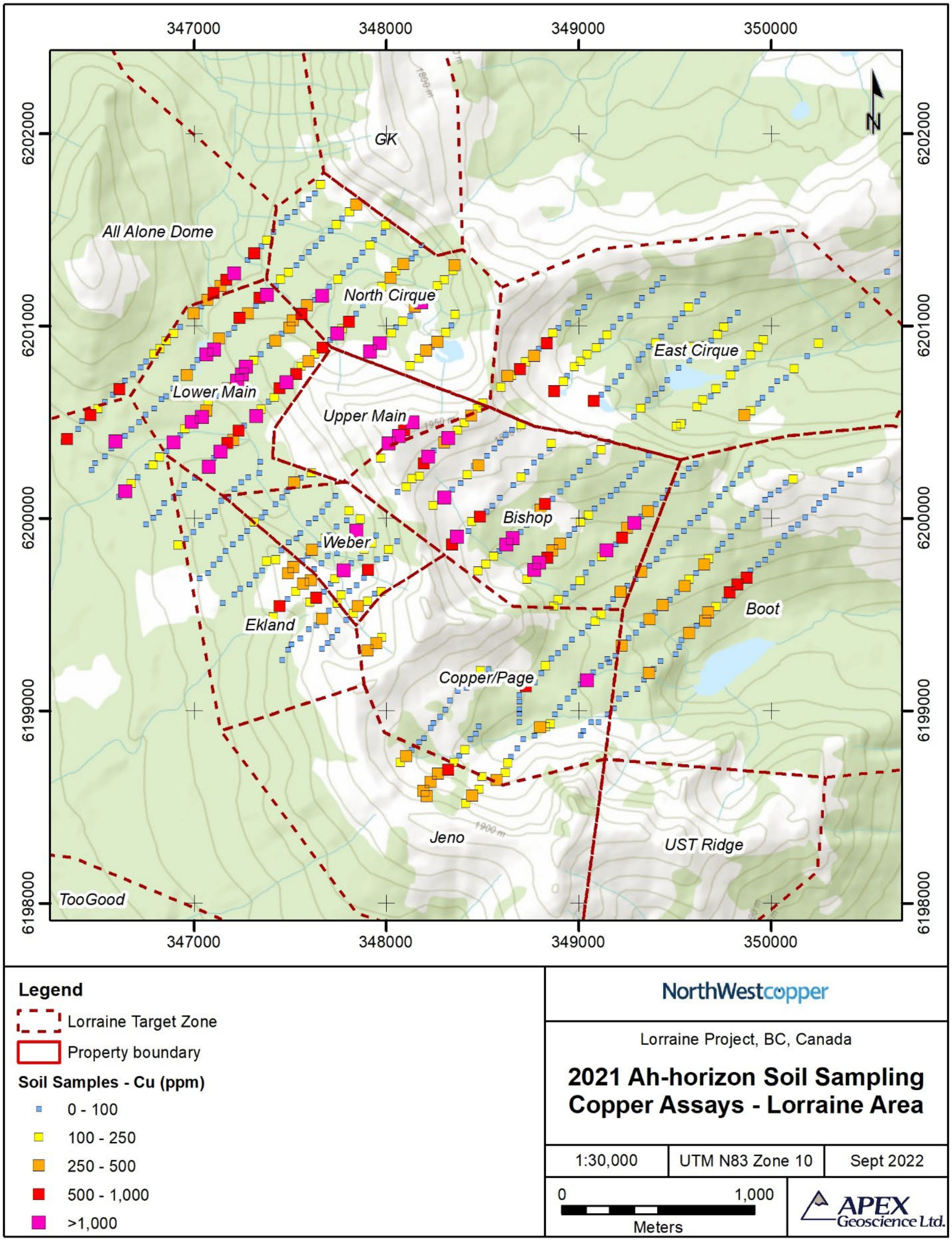
A total of 1,258 soil samples were collected, including 676 at Lorraine (Figure 9.5) and 582 at Tam-Boundary (Figure 9.6). Of these, 23 were collected as field duplicate samples including 17 duplicates at Lorraine and 6 duplicates at Tam.

Historical B-horizon soil sampling at Lorraine produced broad 1 km by 2 km >1,000 ppm copper anomalies in the Lower Main, North Cirque, and Weber Bowl areas. Significant >1,000 ppm copper anomalies were also found along Lorraine Ridge, over Lorraine Peak and into Bishop Bowl. Ah-horizon soil sampling conducted in 2010 by Teck produced a more muted >500 ppm copper anomaly in the Bishop Bowl area; however the anomalies appear to be more focused and coherent over coincident mineralized zones at depth. A twinned line at Bishop Bowl from the 2021 survey produced a multi-sample >1,000 ppm copper anomaly, reaffirming the value of Ah sampling at the Property.

9.2.1 Lorraine Grid

Copper in soil values from the Lorraine grid correlate well with drill tested subsurface mineralization, presenting a significant 2.5 km northwest-trending linear copper anomaly extending through the Bishop Zone and central Lower Main Zone. The anomaly is characterized by multiple samples >1,000 ppm copper across 10 lines, with a 2-line sampling gap over the Upper Main zone due to steep terrain and lack of suitable sample medium. Highly anomalous >500 ppm and >1,000 ppm copper samples were also identified in the northern and southern sectors of the Lower Main Zone, extending into the adjacent North Cirque and Weber/Ekland areas, possibly representing parallel or related northwest mineralized structures or intrusions.

Figure 9.5 Copper assays from 2021 soil sampling at the Lorraine Area.



In the North Cirque area, >500 ppm to >1,000 ppm copper anomalies trend broadly west-northwest into the northern Lower Main Zone. A weaker >250 ppm copper anomaly extends northwest towards the edge of the survey grid. Anomalous >500 ppm copper samples were also observed across multiple lines in the East Cirque area, possibly representing a southeast continuation of the North Cirque anomalies. These areas remain largely untested by drilling.

Significant >250 ppm copper anomalies were also identified to the south in the Weber Bowl, Ekland Ridge, Jeno Ridge and Copper/Page areas, and to the east in the Boot area. Only limited drilling has been completed in the vicinity of the these soil anomalies.

Silver and gold anomalies in the Lorraine grid show similar but less coherent distribution patterns when compared with copper values. Summary statistics for copper, silver and gold values from the Lorraine grid are presented in Table 9.1.

Table 9.1 Summary statistics Lorraine soil grid.

	Copper (Cu ppm)	Silver (Ag ppm)	Gold (Au ppb)
N	676	676	676
Mean	272.5	0.5	12.5
Median	65.3	0.3	5.9
Min	5.1	<0.1	<0.5
Max	12,420	5.6	419.5
70th Percentile	152.0	0.5	10.8
90th Percentile	524.2	1	25.0
95th Percentile	1,056.9	1.4	40.1
97.5th Percentile	1,923.8	1.8	54.3

9.2.2 Tam-Boundary Grid

Soil sampling results from Tam-Boundary show overall lower copper values than Lorraine, displaying somewhat diffuse anomalous values through the central and eastern areas of the grid (Figure 9.6). However, clear anomalies were identified both upslope and downslope of drill tested subsurface mineralization. A broadly northwest-trending >500 ppm copper is observed across 4 lines surrounding the historical drilling area north of Tam Peak. A second significant >500 ppm copper anomaly is observed downslope in a cluster of samples north-northeast of the drilling area and is open to the north. Both anomalies flank a 700 m by 300 m historical aeromagnetic high on the hillside north of Tam Peak.

Gold in soil values are generally not well correlated with copper at Tam. Anomalous silver values are widespread and diffuse. The most coherent silver anomaly overlaps with the copper anomaly located north-northeast of the drilling area. Summary statistics for copper, silver and gold values from the Tam-Boundary grid are presented in Table 9.2.

Figure 9.6 Copper assays from 2021 soil sampling at the Tam-Boundary Area.

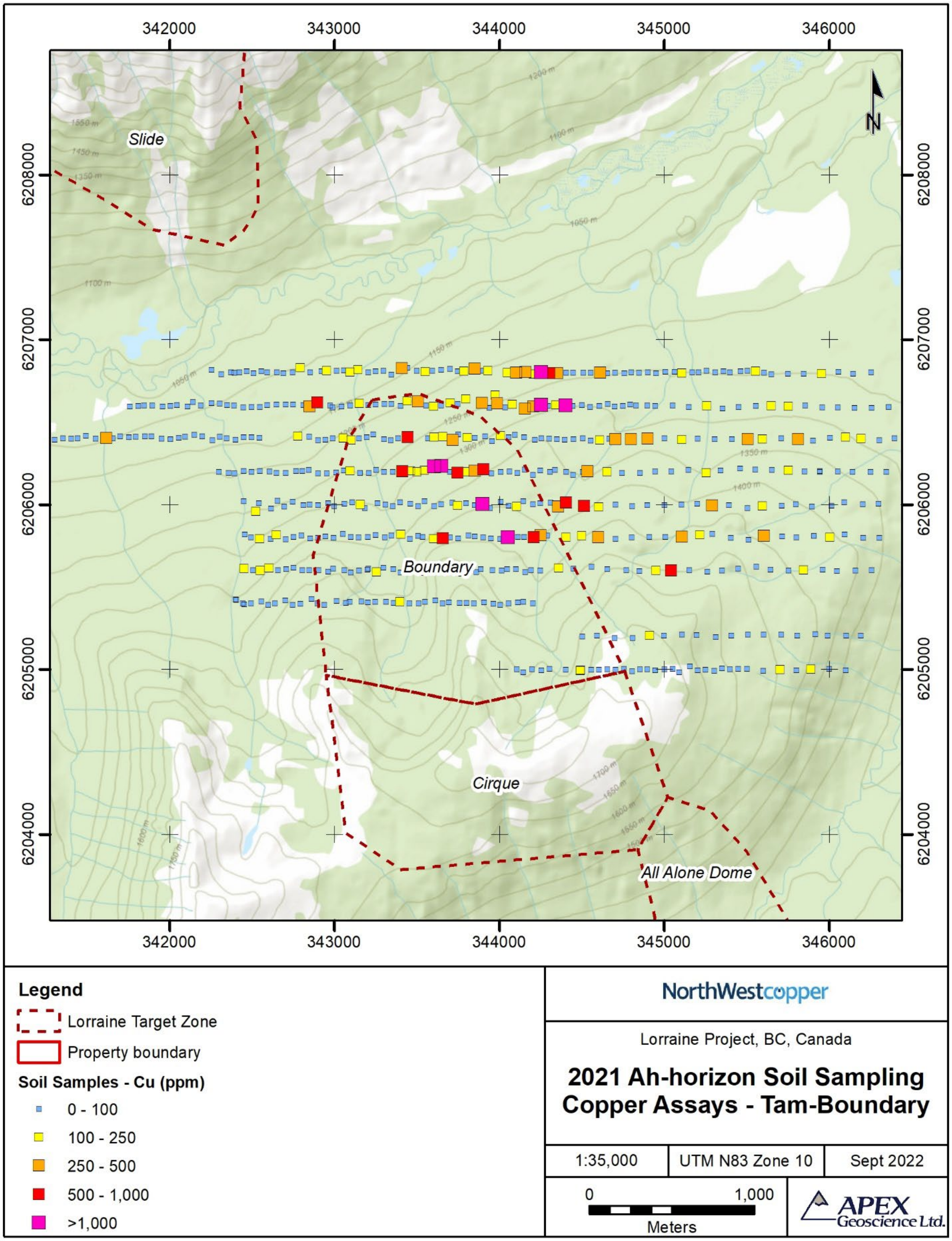


Table 9.2 Summary statistics Tam-Boundary soil grid.

	Copper (Cu ppm)	Silver (Ag ppm)	Gold (Au ppb)
N	580	580	580
Mean	133.4	0.9	5.4
Median	19.2	0.6	2.7
Min	1.9	<0.1	<0.5
Max	>10,000*	28.2	131.8
70th Percentile	64.5	1.0	4.8
90th Percentile	199.1	1.9	12.7
95th Percentile	335.0	2.6	18.3
97.5th Percentile	651.1	3.2	29.9

*Not sufficient sample to run overlimits

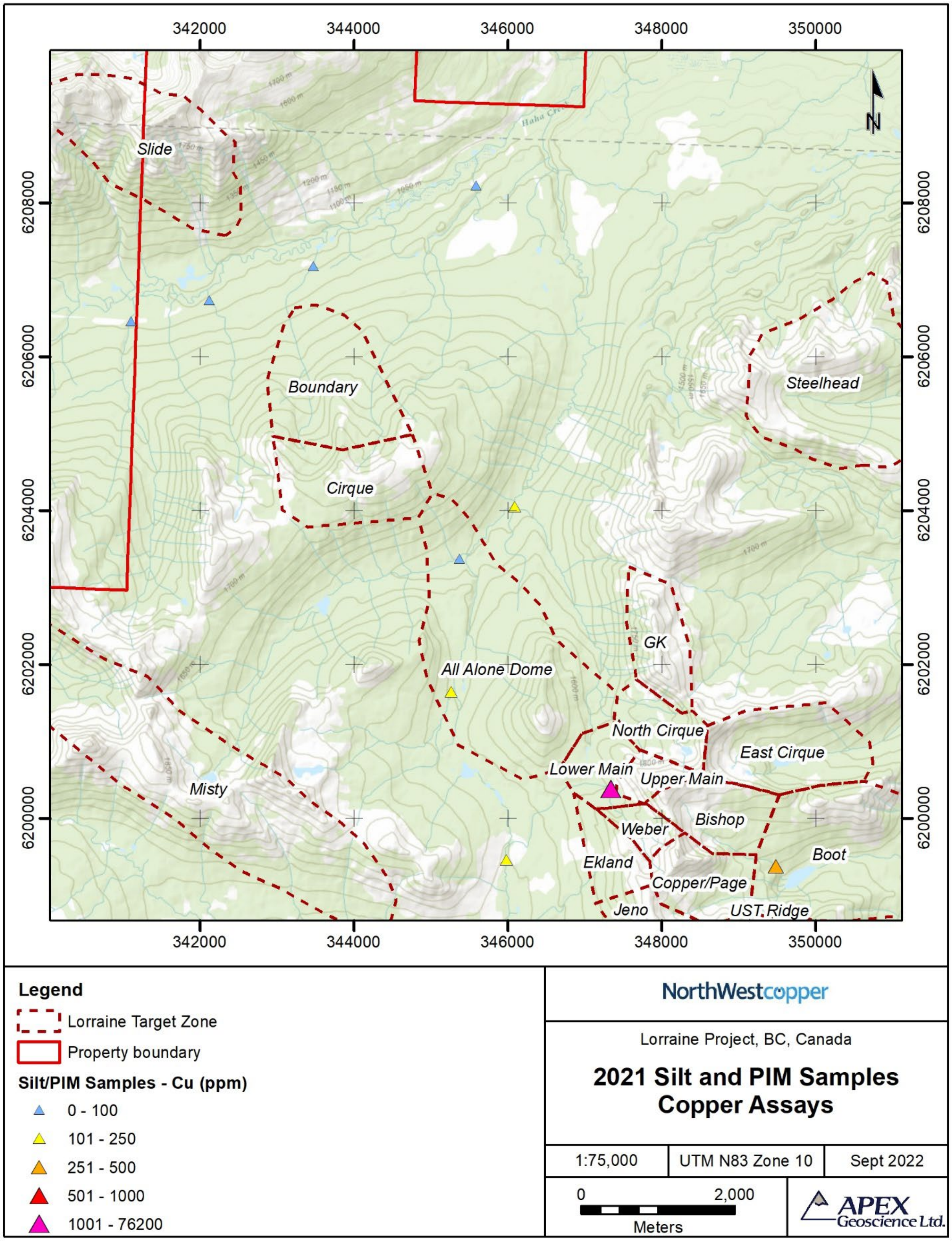
9.3 Silt and Porphyry Indicator Mineral Sampling

Stream sediment (silt) and porphyry indicator mineral (PIM) samples were collected from 12 sites on drainages within the Lorraine claim group. Three were collected from the main road west of All Alone Dome, 4 were collected from the main Lorraine area, and 5 were collected from the Haha Creek area north of Tam (Figure 9.7).

The 2021 silt and PIM sampling program was very limited in scope as it was designed primarily to test the effectiveness of PIM sampling over large drainages in the Lorraine and Top Cat areas. Historical stream sediment sampling geochemical coverage is quite extensive making additional stream geochemistry somewhat redundant. As expected, the silt sampling produced strongly anomalous copper up to 2,193 ppm and moderately anomalous gold from the three samples closest to the deposit areas. The fourth sample taken in the Lorraine area was moderately anomalous in copper. The All Alone samples returned weak to moderately anomalous copper values up to 181 ppm with one sample also returning weakly anomalous gold. The Haha samples did not produce significant copper, silver or gold anomalies.

Heavy mineral analysis for the Lorraine PIMs indicates that most fall within the augite-diopside assemblage, with local garnets (andradite or grossular) perhaps acting as important indicators of alteration signatures. Few chalcopyrite grains or other copper minerals were found in the heavy mineral analysis despite the relatively high concentrations of copper in the corresponding silt samples.

Figure 9.7 Copper assays for 2021 silt and PIM samples.



9.4 LiDAR Survey

During July 2021, the Company commissioned a 10,231 hectares LiDAR survey over the Lorraine area. The survey was undertaken to obtain high-resolution digital elevation data to assist with drill targeting and 3D modelling, to collect detailed orthophotographic imagery, and to provide a highly detailed, levelled topographic surface for use in future exploration and development stage activities. The LiDAR surface and imagery are presented in Figure 9.8.

9.5 Aeromagnetic Survey

From July 8th to July 13th, two helicopter-borne aeromagnetic survey grids were flown at the Lorraine Property covering the Lorraine Project resource area and the Rhonda-Dorothy area. A total of 728 line-kilometres (line-km) were completed over the two Lorraine Property flight blocks: 311 line-km at Lorraine and 417 line-km at Rhonda-Dorothy.

9.5.1 Survey Parameters, Instrumentation and Data Processing

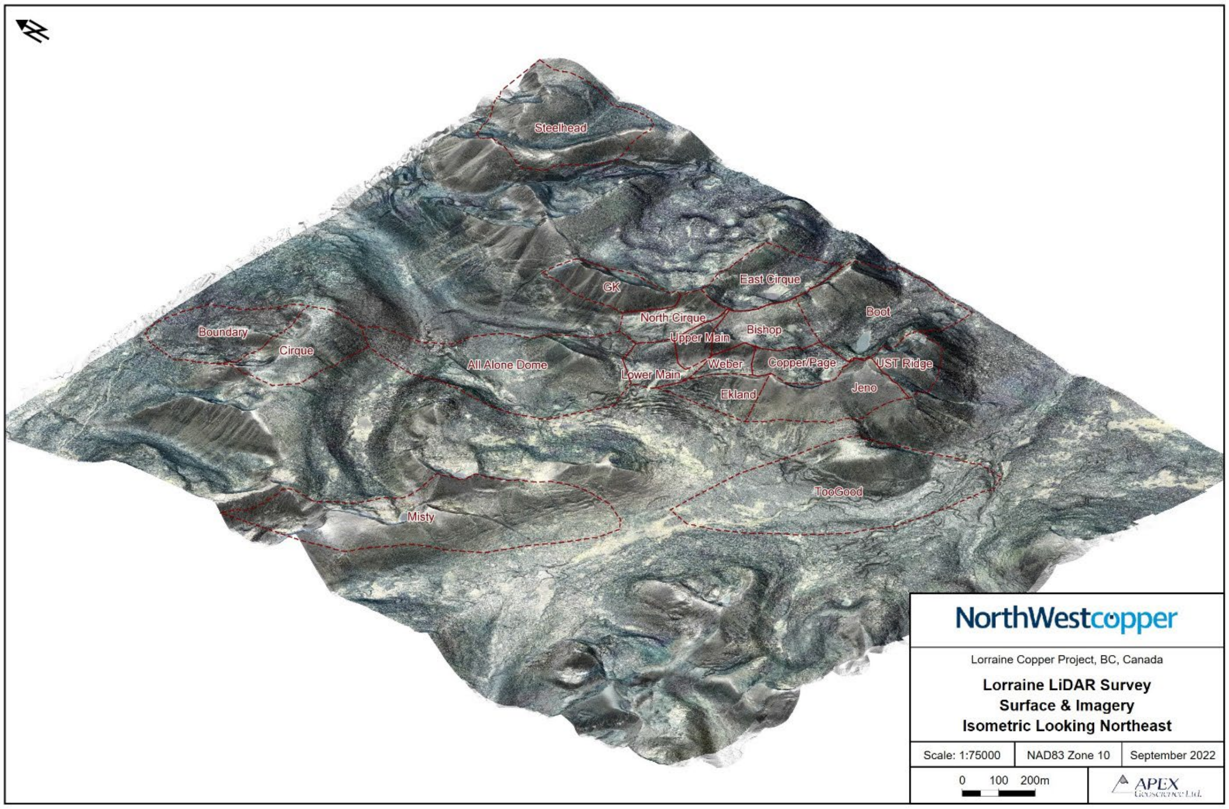
Total field magnetic data were collected along flight lines with a nominal line spacing of 75 m and orthogonal tie lines with a nominal line spacing of 750 m, with a mean bird height of 34 m. The Lorraine grid flight lines were oriented at 045 degrees and the Rhonda-Dorothy flight lines were oriented at 090 degrees.

The survey was completed using a helicopter-mounted, stinger-type system consisting of three main components: (1) a C-824 Cesium Magnetometer manufactured by Geometrics San Jose, California; (2) a Bartington Mag-13 Fluxgate; and (3) an Optilogic RS-400 Laser Range Finder. A sampling rate of 50 Hz was used for the surveys. The survey also utilized two GSM 19 overhauser magnetometers manufactured by GEM Instruments of Richmond Hill, Ontario as base station magnetometers. The base magnetometers are stationed at fixed locations to measure variations in the total intensity of the Earth’s magnetic field in order to perform diurnal corrections on the survey data.

Data logged during the survey were merged into Geosoft compatible ascii files. The merged dataset was then loaded into Geosoft Oasis Montaj software for data reduction and processing. The data were first corrected for diurnal magnetic drift using the base station data, then lag corrected to account for positioning errors due to instrument delay and other positional errors. Tie line levelling was then undertaken prior to gridding.

Gridding was completed on the levelled data using Geosoft’s Bigrid algorithm utilizing a 15 m cell size. The reduced and levelled data were subject to several filtering techniques using the Geosoft MagMap module for evaluation and presentation. The magnetic data are presented as contours of total magnetic intensity (TMI) and contours of calculated first vertical derivative (1VD).

Figure 9.8 LiDAR surface elevation data and imagery (After Titley and Harper, 2022).



9.5.2 Survey Results

Given the close association of magnetite with the known mineralized zones at Lorraine, high-resolution magnetics is an ideal targeting tool. Numerous historical surveys have been completed over the area; however, the resolution in certain areas of interest was insufficient for targeting narrow mineralized zones. Regionally, the DCSC is broadly characterized by elevated magnetic intensity. Within the DCSC magnetic anomaly are several distinct liner magnetic high features corresponding with magnetite-rich syenite and pyroxenite units. The Lorraine and Rhonda-Dorothy grids were completed to enhance the magnetic resolution and better define magnetic features in these target areas. Magnetic maps of the Lorraine and Rhonda-Dorothy grids showing TMI with property-scale geology are presented in Figures 9.9 and 9.10, respectively.

Magnetic highs in the TMI data on both grids show a close association with topographic highs. At Lorraine, magnetic lows are generally associated with peripheral Phase 2 monzonite and to a lesser extent megacrystic syenite units flanking the deposit. Magnetic highs generally occur in the vicinity of mapped Phase 1 pyroxenite and syenitic units. A moderate to strong linear magnetic high is observed spatially correlated with drill tested mineralization at Lower Main, Upper Main and Bishop. Ah-horizon copper in soil anomalies show a good correlation with magnetic highs in these zones as well as with local magnetic high anomalies at Weber, Ekland and North Cirque.

Figure 9.9 Total Magnetic Intensity Lorraine Grid.

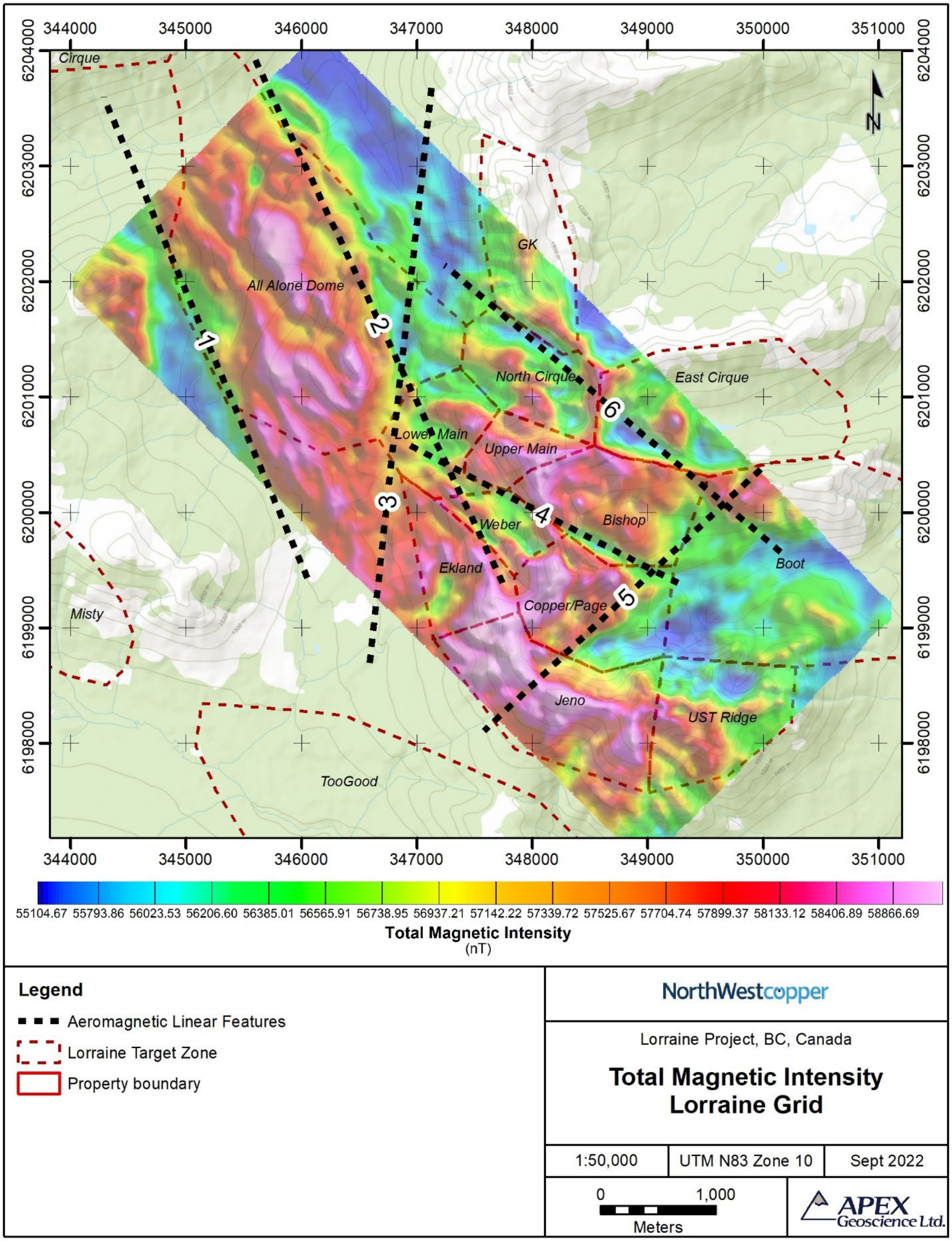
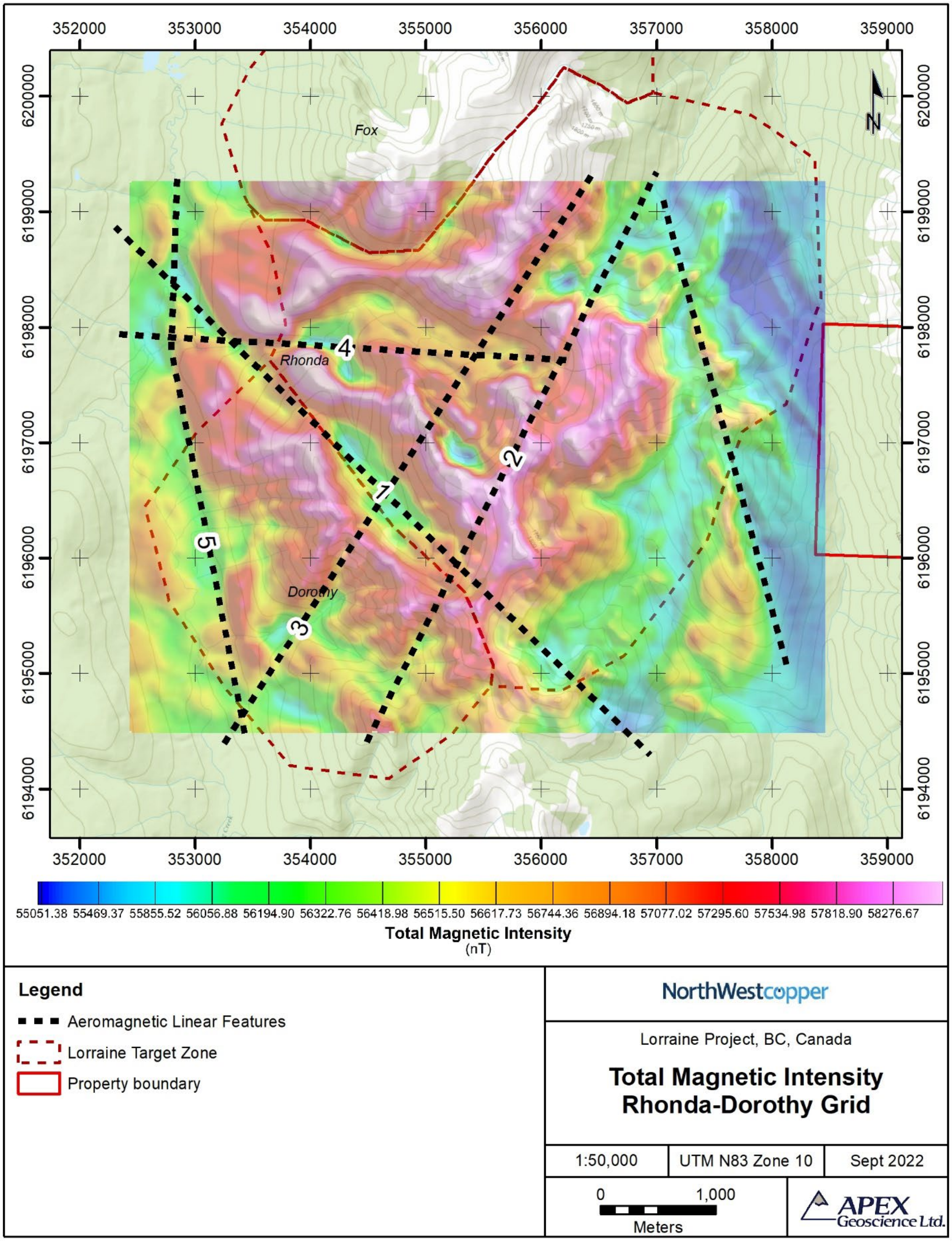


Figure 9.10 Total Magnetic Intensity Rhonda-Dorothy Grid.



A number of notable linear magnetic high anomalies and magnetic breaks are apparent in the Lorraine grid, including prominent breaks associated with mapped northeast to northwest trending regional to property scale fault structures or other mapped geological features throughout the survey area. Several previously undefined or poorly defined linear magnetic features were identified that may represent structural features of significance with respect to the understanding of the mineralization controls at Lorraine:

1. North-northwest trending sharp magnetic gradient and significant break associated with mapped (fault?) contact zone between Phase 1 and Phase 2 intrusives on west side of All Alone Dome magnetic high.
2. Parallel north-northwest feature at Phase 1/Phase 2 contact zone on the east side of All Alone Dome magnetic high.
3. North-south trending linear magnetic feature dividing All Alone Dome to the west and the Lorraine Ridge and Ekland Ridge areas to the east, through a topographic low area (fault?).
4. Northwest trending feature parallel to Lorraine Ridge running through the valley to its southwest with pyroxenites to the southwest juxtaposed with syenitic units northeast. The main deposit areas lie to the northeast along this feature.
5. Northeast trending magnetic gradient and break associated with mapped fault and contact with Phase 2 intrusives to the south, cutting across the Jeno Ridge saddle.
6. Northwest trending feature associated with Phase 1/Phase 2 contact zone through North Cirque and East Cirque.

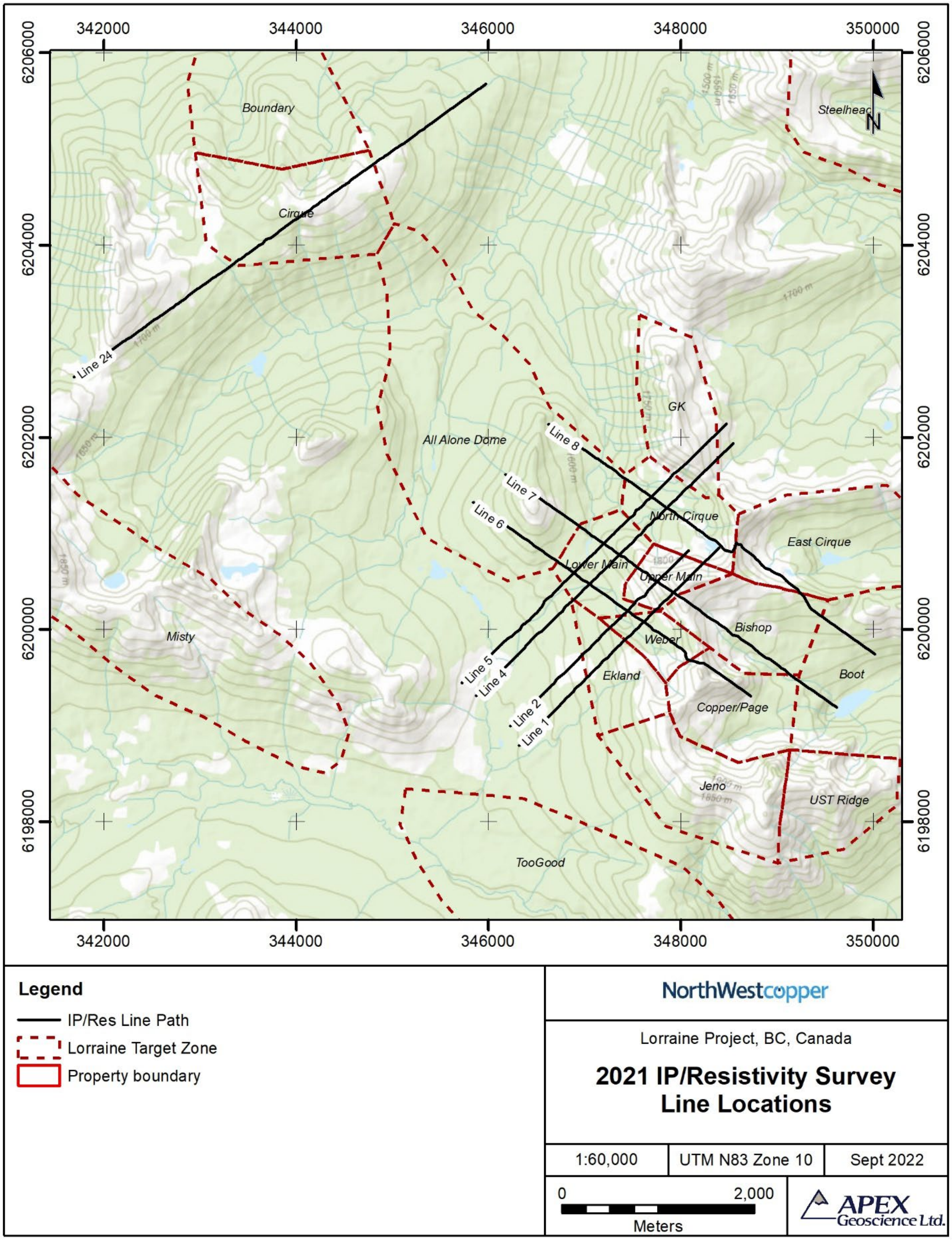
At Rhonda-Dorothy, magnetic lows are generally associated with the Takla Volcanics and magnetic highs occur primarily within mapped diorite and gabbro units. Breaks within in these magnetic highs may correspond to intercalated syenite and monzonite units. Several linear magnetic features of interest were identified:

1. Northwest tending magnetic break bisecting magnetic highs at Dorothy and Rhonda.
2. North-northeast trending feature approximately parallel to the southeast boundary of Rhonda and Dorothy Diorite/Gabbro.
3. North-northeast trending feature sub-parallel to feature 2 coincident with interpreted fault structure.
4. East-west trending magnetic break, unexplained.
5. North to north-northwest trending significant magnetic gradient associated corresponding with Steel Creek-Duckling Creek Fault.

9.6 Induced Polarization and Resistivity Survey

During August and September, 2021, a total of 20.8 line-km of IP and resistivity surveys were completed over 8 lines. Seven (7) lines were completed over the Lorraine resource area and 1 was completed at Tam-Boundary (Figure 9.11).

Figure 9.11 Induced Polarization/Resistivity survey line locations.



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9.6.1 Survey Parameters, Instrumentation and Data Processing

Survey data were collected using the direct current (DC) resistivity-IP method, on a modified pole-dipole array with proximal infinite. GDD GRx8-32 24 channel and Iris Elrec Pro 10 channel receivers were used in conjunction with GDD 3.6kW Tx II transmitters. Reviewed data was used to produce pseudo section plots of apparent resistivity and apparent chargeability. Inversions were completed using the UBC-GIF DCIP2D inversion codes (Figure 9.12).

9.6.2 Survey Results

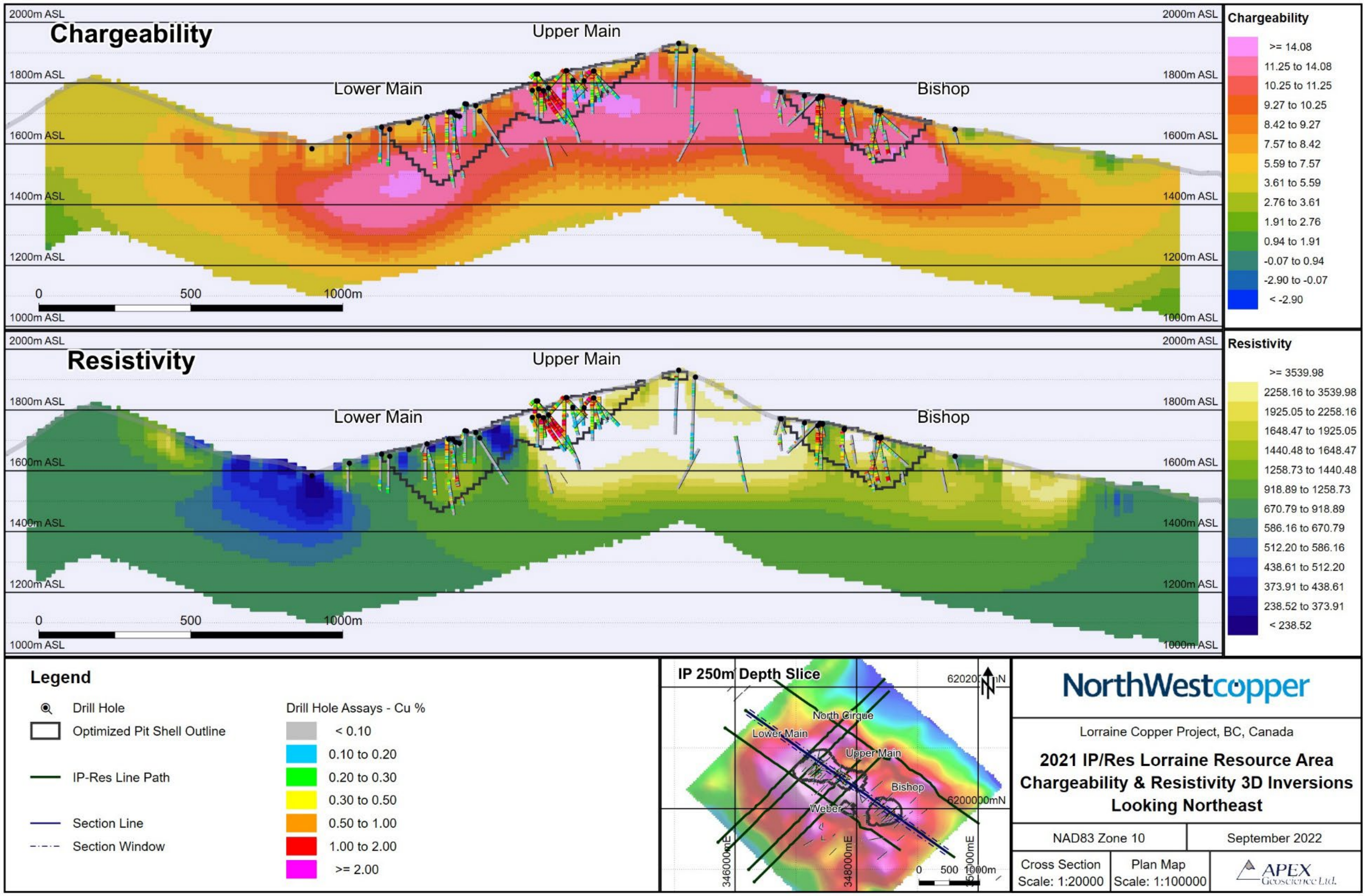
Resistivity and IP surveys have been used successfully for direct targeting at Lorraine in the past; however, limited modern survey data exists for the Lorraine resource area. The 2021 resistivity/IP survey provided significantly improved resolution and depth of investigation over historical surveys. The new surveys also utilized different line orientations, to aid in mitigating directional bias. Because copper-bearing sulphides dominate at Lorraine, and pyrite is relatively uncommon, resistivity/IP is a logical choice for direct targeting. Additionally, a clear correlation is observed between chargeability and copper grade in drill core physical property measurements.

Line 7 runs just southwest of Lorraine Ridge, providing excellent coverage of the Upper Main, Lower Main, and Bishop zones. Parallel lines 6 and 8, along with lines 1, 2, 4 and 5 generally corroborate anomalies observed on line 7, providing confidence in the 3D voxel models produced for chargeability and resistivity. The voxel models show a good correlation between elevated chargeability and drill-confirmed mineralization and resource areas in the Lorraine resource area (Figure 9.12). A broad, arcuate zone of elevated chargeability trends approximately parallel to Lorraine Ridge, with local highs observed at each of the three zones. Chargeability highs at Upper Main, and to a lesser extent Bishop, are associated with significant resistivity highs. A more muted resistivity response is associated with Lower Main.

Several other untested or under-tested chargeability anomalies were identified by the survey. A significant chargeability high plunges northwest from the Lower Main Zone towards All Alone Dome. Drilling to date has not tested the core of this anomaly; however, anomalous copper values were returned from drillholes that terminated at the top edge of the anomaly. A chargeability high and coincident resistivity high is observed under Lorraine Peak, connecting the Upper Main and Bishop zones. This area is has received only limited drilling. The Lorraine Peak anomaly represents a significant target for resource expansion, given its location between the two resource pits.

A chargeability high is observed in the valley southwest of the Upper Main and Lower Main zones, between Lorraine Ridge and Ekland Ridge approximately parallel to the Lorraine Ridge anomalies. The anomaly has not been drilled to date, but is of similar amplitude to the Lorraine anomalies. Several small untested anomalies also occur to the northeast in the North Cirque and East Cirque target areas.

Figure 9.12 IP/Resistivity survey 3D inversions of chargeability and resistivity Lorraine Resource Area.



10 Drilling

No drilling has been completed on behalf of NorthWest Copper within the Property. All drilling within the Property is historical in nature. NorthWest Copper undertook re-logging of select drillholes from the historical core library during 2021, this program is described in Section 10.2.

10.1 Historical Drilling Summary

A description of the historical drilling completed within the Property, as it relates to the current mineral resource estimate with respect to the Lorraine Property (this Report) is considered relevant. A detailed discussion of historical drilling completed on the Property is included in Sections 6.3, 11.4 and 12 and it is summarized below and in Section 14.

Historical drilling on the Property has been conducted by several companies from 1949 to 2009. In total, information for 398 historical drillholes completed on or in the immediate vicinity of the current Lorraine Property totalling 63,445.03 m is compiled in the drillhole database for the Project and are illustrated of Figure 10.1. The number of historical drillholes in the database drilled within the current boundaries of the Lorraine Property is 322 totalling 52,290.17 m. Most holes drilled after 1972 have their replicated splits stored at three core storage facilities on the Property.

Based on collar records, drillholes were set at azimuths between 0 º and 345º. Dip of drillholes ranged between -30º and -90º. Appendix 1 shows location and provides the orientation of drillholes within the Property and the mineralized zones. The vast majority of the historical drillholes particularly for the Lower Main Zone and the Bishop Zone have been drilled with true thicknesses of mineralization ranging from about 60% to 100%. This is also the case for the Upper Main Zone, however, because of the difficult set ups at high altitude, there are a few of the Upper Main Zone drillholes that have been completed at fairly oblique angles to the overall mineralization shapes and likely have true thicknesses on the order of 30% to 50% as illustrated in Figure 10.2.

Due to the historical nature of the diamond drilling, in particular the pre 2000 drillholes there is some lacking detail within the historical documentation including limited information about the sampling and assaying methodology conducted for the Lorraine diamond drilling, prior to 2000. Details on this data verification program are provided in section 11.2.

A summary of drill intercepts returning combined uncapped composite grades greater than or equal to 1% Cu is provided in Appendix 2. Based on this drilling, mineralization zones were defined and are illustrated in Figures 10.2 and 10.4 to 10.7. Drillholes that are included as part of the mineral resources presented in this Technical Report belong to the Lower Main, Upper Main and Bishop zones. Approximately 35% of the Lorraine resource area drillholes were completed in the 1970's, a further 35% were completed in the 1990's with approximately 26% completed after 2000. By drilled meterage, this changes to 25% in the 1970's, 33% in the 1990's and 39% after 2000.

Figure 10.1. Historical drilling within the Lorraine Property.

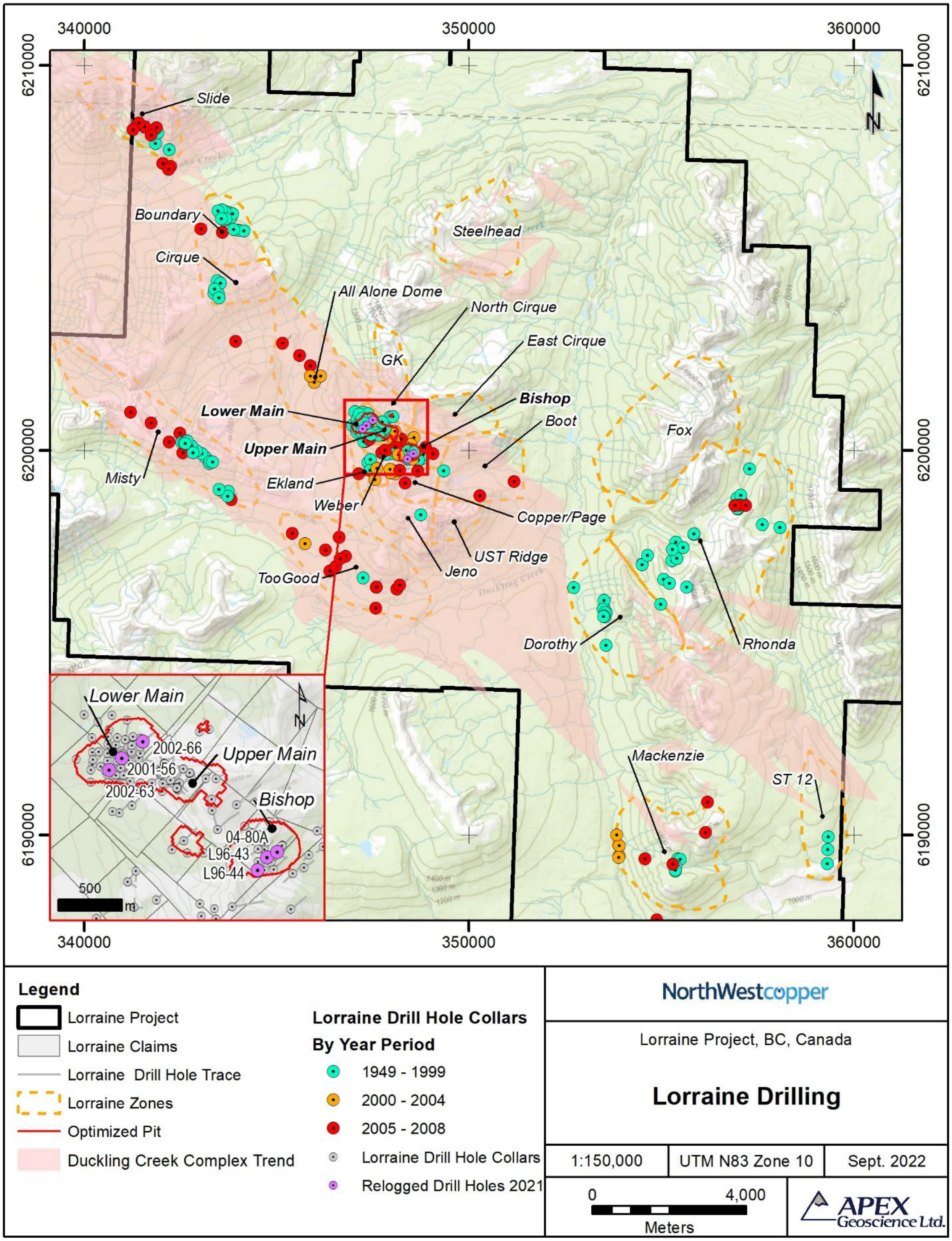
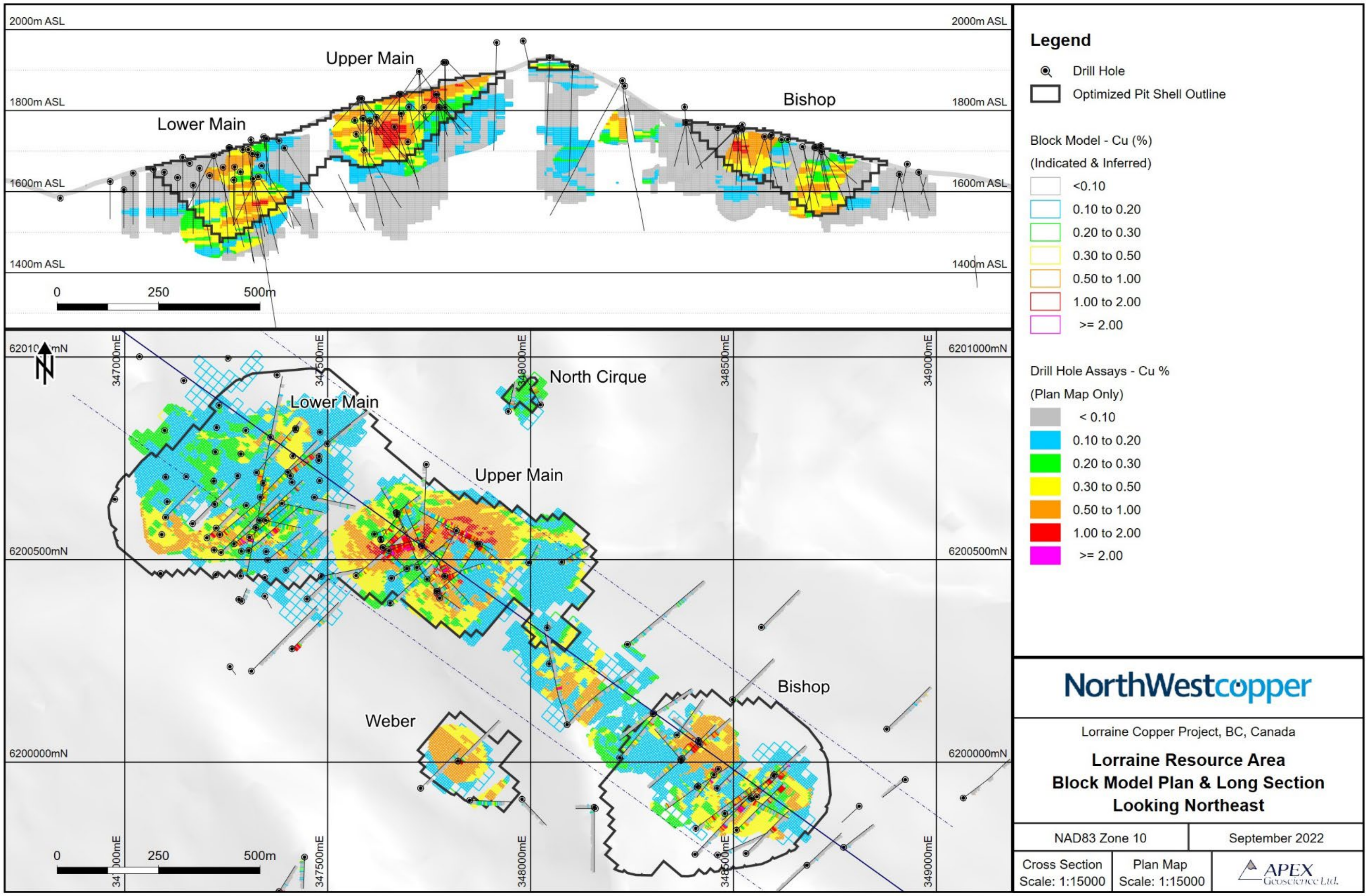


Figure 10.2. Northwest long section looking northeast for Lorraine Property drilling at the resource area.



10.2 Drill Core Re-Logging and Sampling

Re-logging of select drillholes from the historical core library was undertaken by the Company during 2021. Re-logging efforts ranged from quick logs to more in-depth logging of alteration, mineralization and veining, as well as taking core photos. In addition, regularly spaced magnetic susceptibility measurements were collected and whole-rock geochemistry and physical property samples were collected. A total of 10 historical drillholes were laid out for observation. In-depth logging and lithogeochemical sampling was completed for six of these holes on two southwest-northeast drill sections, one from Lower Main and one from Bishop (Table 10.1; Figure 10.3). Additional lithogeochemical sampling was done at an east-northeast section in the Upper Main Zone (Table 10.1)

Samples were collected during re-logging every 10 to 30 m based on changes in lithology, alteration and mineralization. A total of 180 samples were collected and divided into three pieces: one piece remained in the Company office as a representative sample, a second piece was sent for assay and whole rock major oxide analysis, and a third piece was kept for other testing. Thirty-seven samples were used to make thin sections for petrographic analysis. The samples were also collected for physical properties testing, including chargeability/resistivity, conductivity and density. These tests had not been completed or were not available by the effective date of this Report.

Table 10.1 Drill core re-logging hole locations.

Hole ID	Year	Zone	Easting	Northing	Elevation (masl)	Azimuth (°)	Dip (°)	Length (m)	Sampling	Detailed Logging
2001-56	2001	Lower Main	347,335	6'200,653	1648	45	-51	298.7	Yes	Yes
2002-63	2002	Lower Main	347,235	6'200,561	1597	50	-45	198.12	Yes	Yes
2002-66	2002	Lower Main	347,500	6'200,785	1735	50	-60	152.4	Yes	Yes
L94-8	1994	Upper Main	347,637	6,200,529	1773	79	-45	152.1	Yes	No
04-80A	2004	Bishop	348,559	6'199,914	1706	45	-45	152.4	Yes	Yes
L96-43	1996	Bishop	348,480	6'199,872	1710	52	-50	212.4	Yes	Yes
L96-44	1996	Bishop	348,406	6'199,772	1737	43	-45	292	Yes	Yes

Bishop holes L96-43, L96-44 and 04-80A were inspected to confirm a sulphide zonation pattern described by Sillitoe (2007) from drillholes on the same section (3200N), and to identify corresponding patterns of alteration and veining. Copper species zonation was found to closely resemble what was logged in 2007. A general correlation between intensity of mineralization and alteration was observed; however, no overarching link was established in the drill core examined during 2021 (Figure 10.4). At Bishop, there is a general association between strong bornite mineralization and albite-diopside-magnetite mineralization, with a local association of strong K feldspar alteration. Copper assays from lithogeochemical samples are within range of error original drillholes assays while gold results were more erratic for these samples (see Section 11.5). Figures 10.5, 10.6 and 10.7 shows sampled drillholes within Lower Main, Upper main and Bishop.

Figure 10.3 Drill core re-logging hole location plan map.

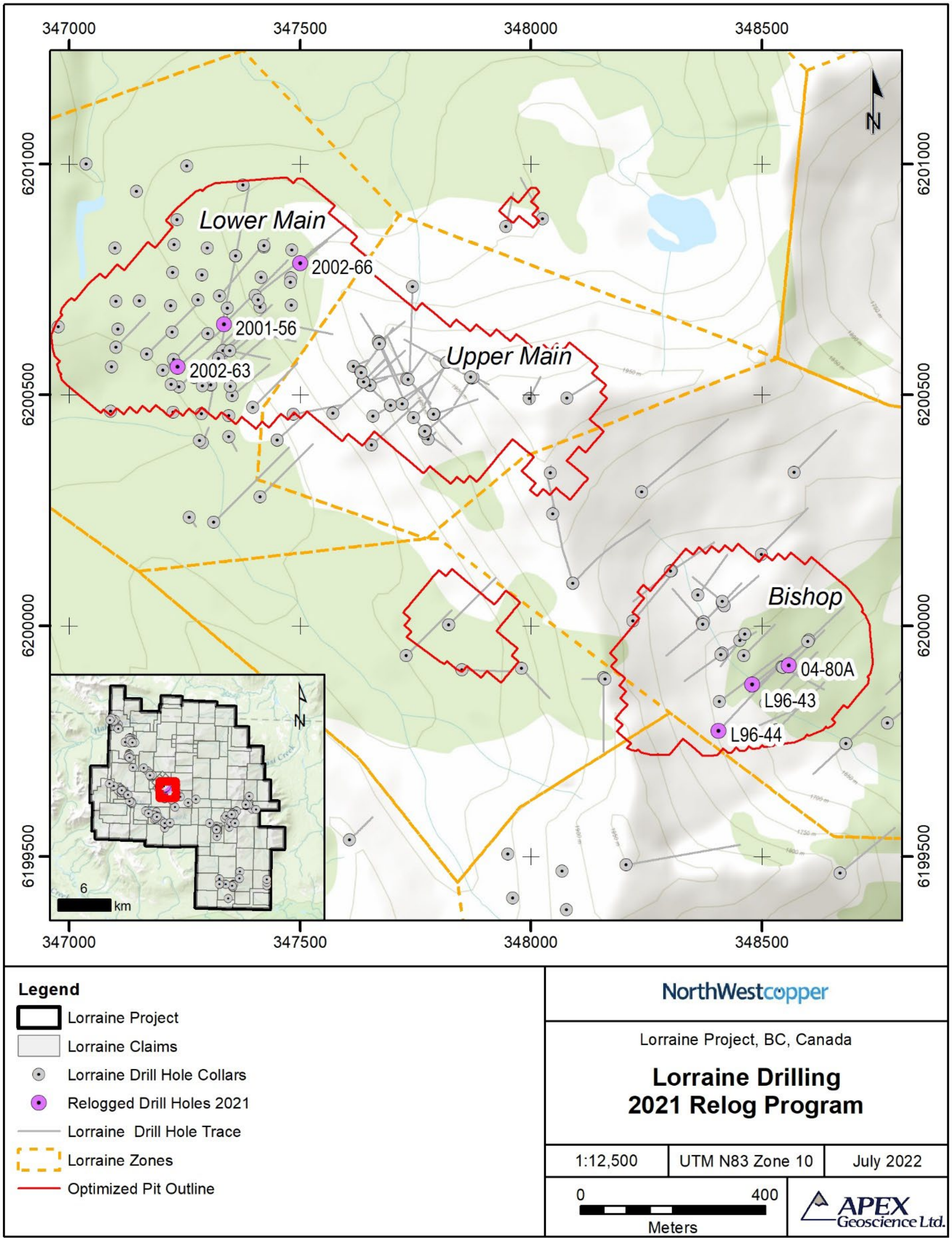


Figure 10.4 Bishop Zone, logged bornite percentage vs copper in grey histogram (after Titley and Harper, 2022).

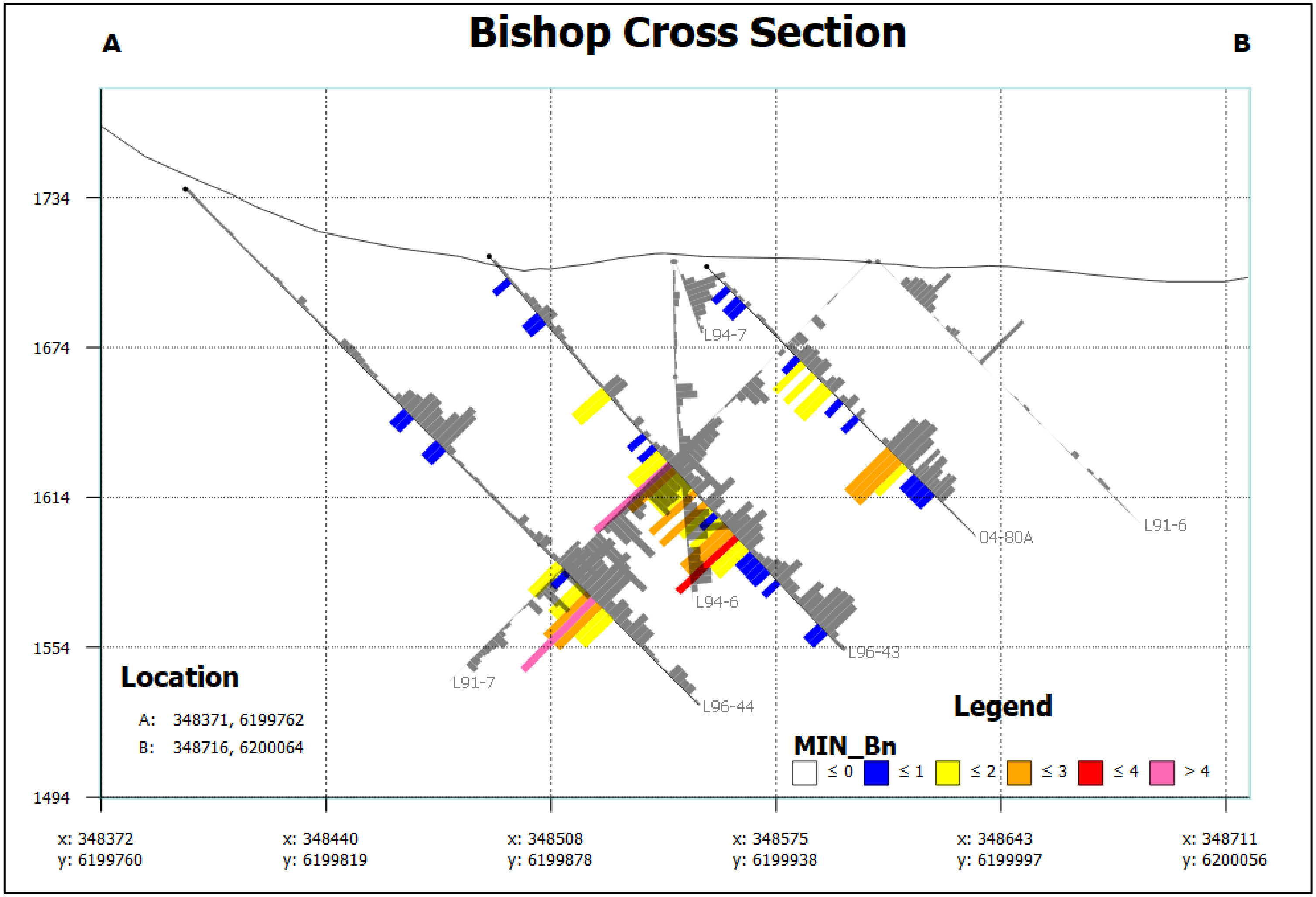


Figure 10.5 Drill core relog sampling (2021) Lower Main Zone.

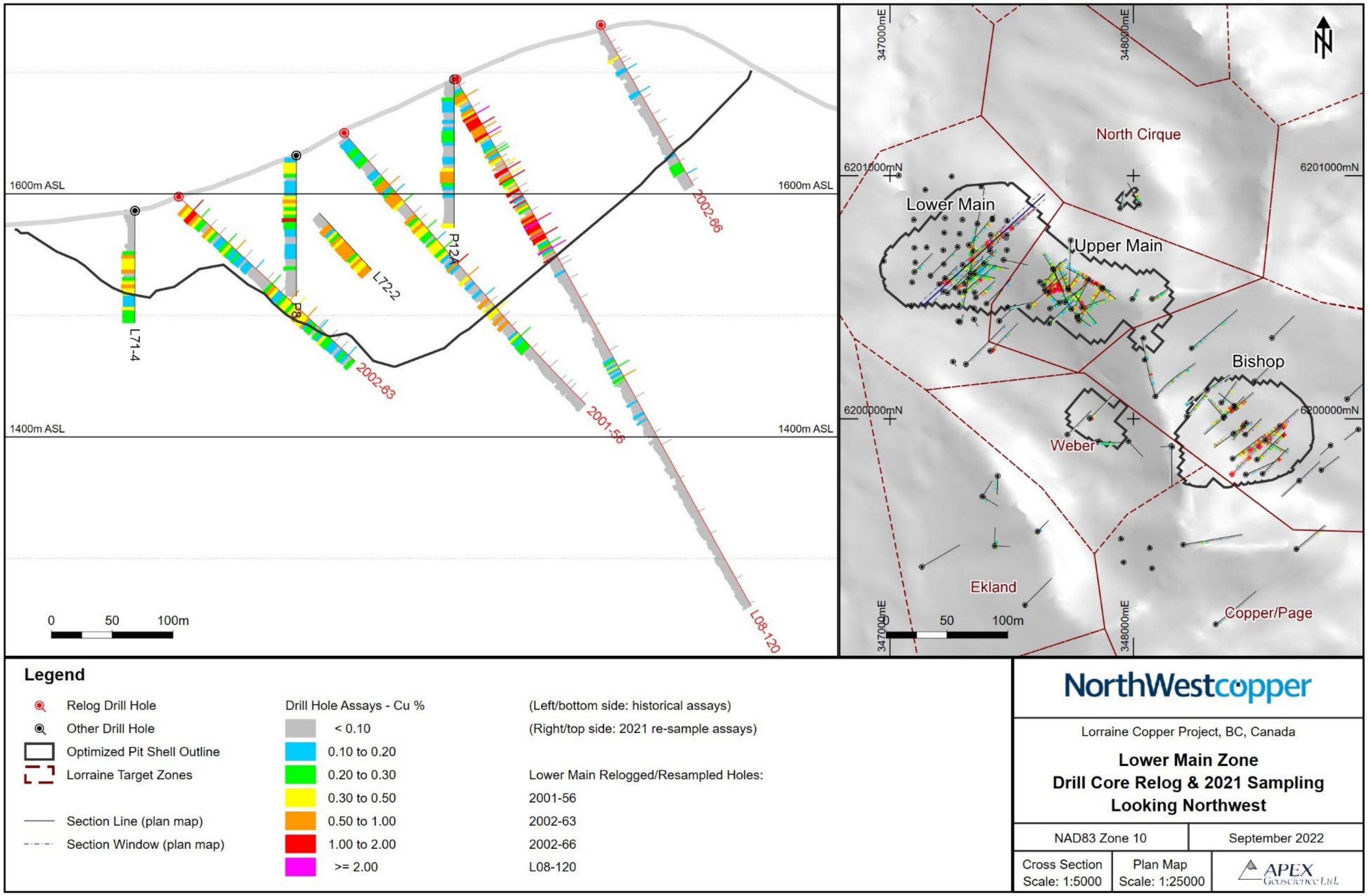


Figure 10.6 Drill core relog sampling (2021) Upper Main Zone.

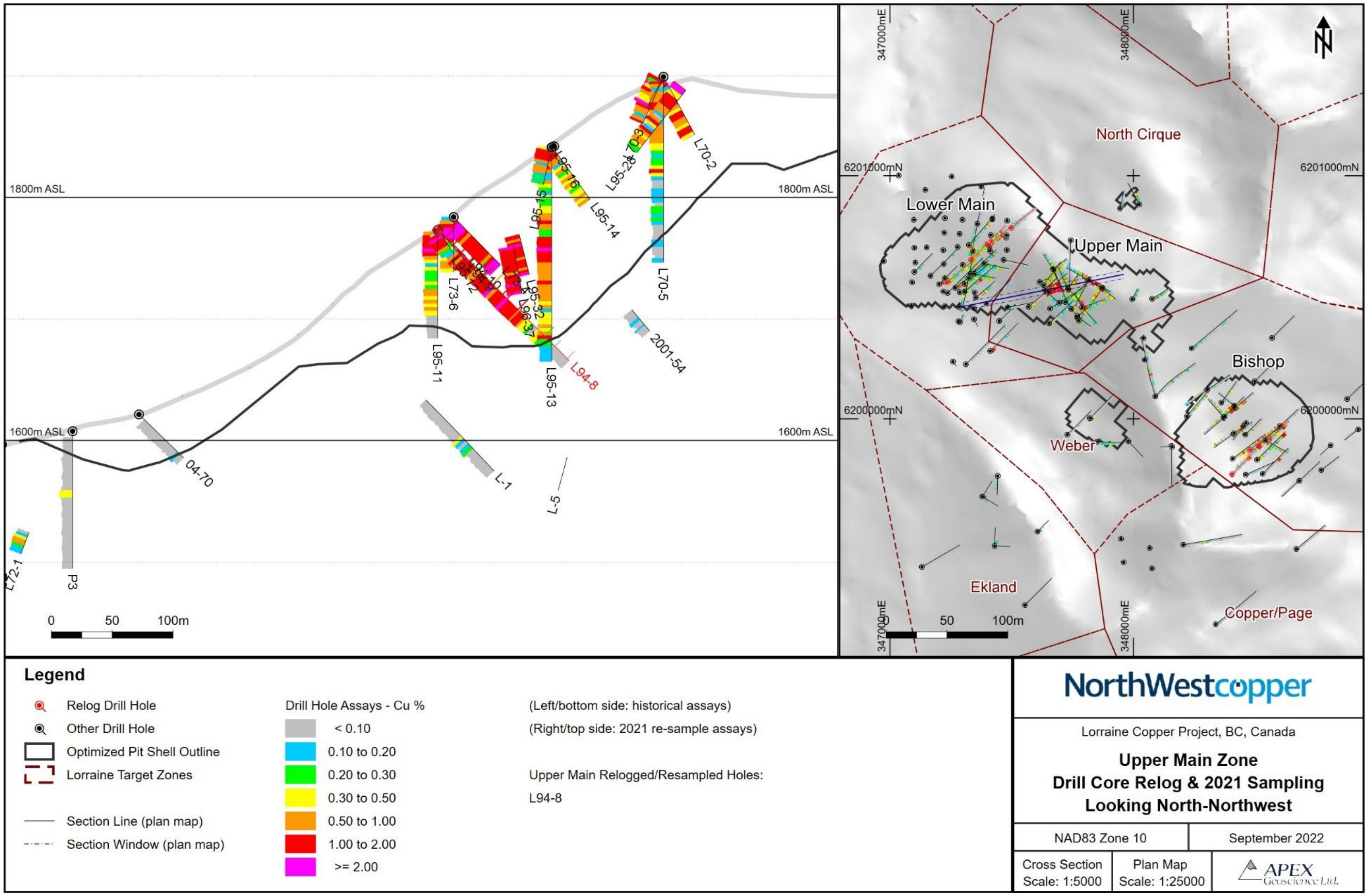
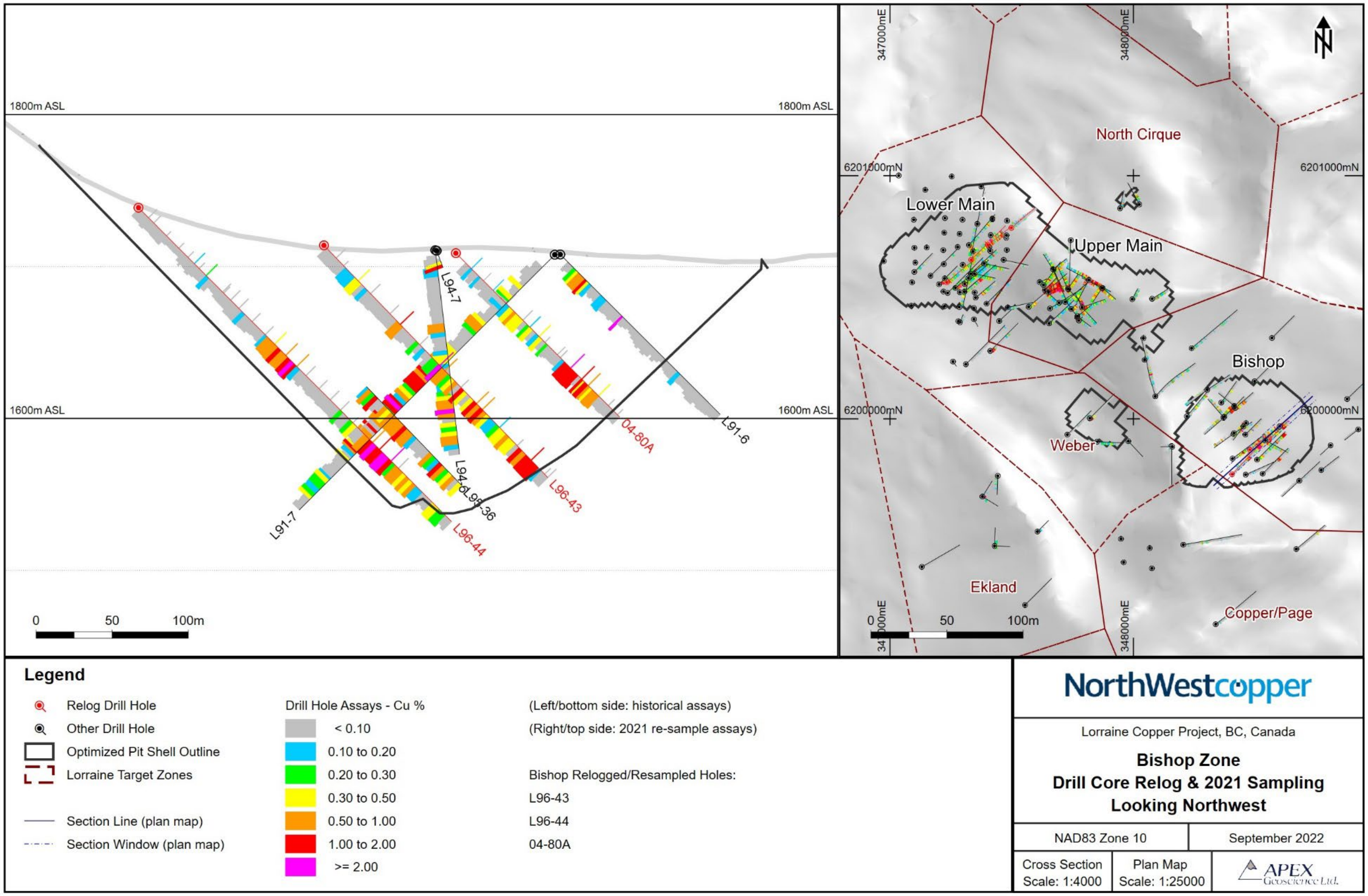


Figure 10.7 Drill core relog sampling (2021) Bishop Zone.



11 Sample Preparation, Analyses and Security

This section refers to the 2021 surface geochemical exploration program as well as the historical drilling within the Property. The 2021 surface exploration program is described in Section 9 of this report and by Titley and Harper (2022). Information pertaining to historical drillholes is described in section 11.4.

11.1 2021 Surface Sampling: Rocks

11.1.1 Sample Collection and Shipping

Rock samples were collected at a nominal spacing of 100 m along the planned traverse irrespective of sulphide mineralization at the site, as well as at other localities of interest.

Data capture was done using a handheld smartphone with Qfield software. The GPS accuracy of the smartphone is 2-5 m depending on satellite coverage. The location of photographs taken of sample sites with the smartphone were geotagged. For the best potential spatial accuracy, the GPS on the smartphone was left to stabilize before a position was captured. To maintain data consistency and cleanliness, pre-set drop-down menus using appropriate codes related to core logging were utilized. With every rock sample collected for assay, a small reference sample was collected. The reference sample was put into a kraft paper bag and labelled with the sample number, sampler initials, sample type and date. As a physical back up, the sample station coordinates were recorded in the laboratory sample tag book, along with the date, sampler initials and the sample type. At each sample station an aluminum tag with pink flagging tape was left with sampling information inscribed (Titley and Harper, 2022).

Samples were brought back to camp, sealed in rice bags, transported by Company operated trucks to Prince George, BC, and delivered via Bandstra Transportation System Ltd. from Prince George, BC, to Vancouver BC, to be analyzed at Bureau Veritas Mineral Laboratories Canada (Bureau Veritas).

11.1.2 Sample Preparation and Analyses

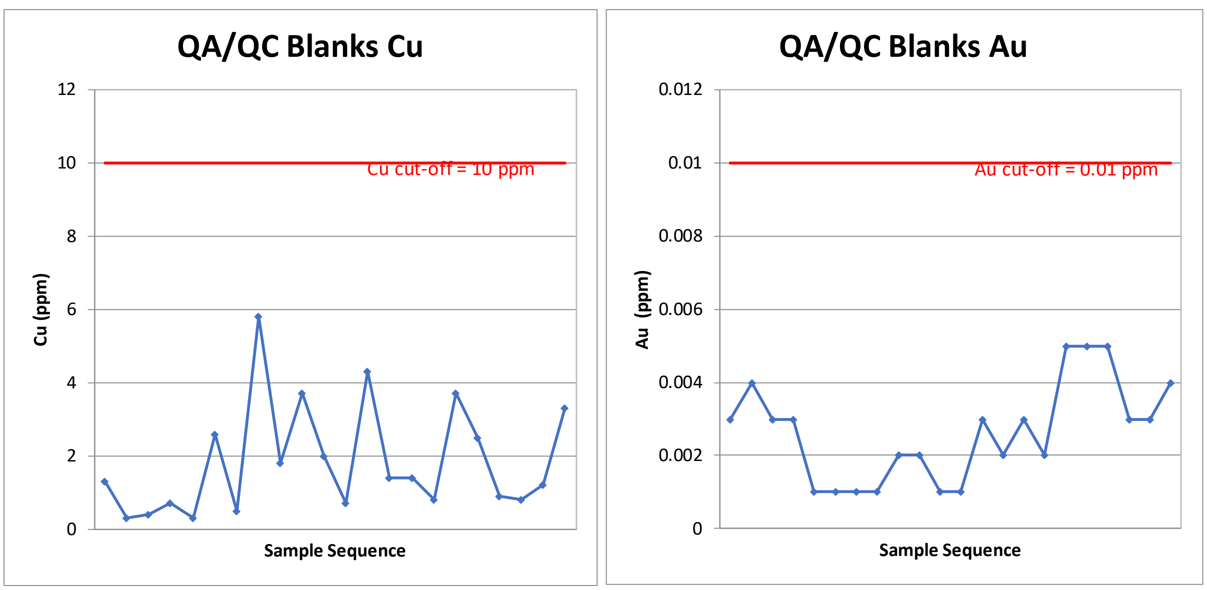
Bureau Veritas (BV) is an ISO 9001:2015 and 17025 accredited analytical laboratory. BV is independent of the Company and the Authors. At BV, samples were prepared by crushing, splitting and pulverizing 250 g of rock to -200 mesh (PRP70-250). Copper and silver analyses were determined via four acid digestion followed by induced coupled plasma mass spectrometer (ICP-MS) method MA250, which is capable of determining up to 10,000 ppm copper and 200,000 ppb silver. Gold, platinum and palladium were determined by fire assay atomic absorption (FA/AAS method FA330 using a 30-gram sub-sample with lead collection, and has an upper detection limit of 10 ppm for gold, platinum and palladium. Overlimit copper analyses were determined by four acid digestion ICP-ES finish, ore grade method MA370 with a lower detection limit of 0.001% for copper.

11.1.3 Quality Assurance / Quality Control Procedures

Quality analysis and quality control (QA/QC) for NorthWest Copper's Lorraine 2021 rock sampling program included internal procedures as well as relying on laboratory QA/QC procedures. NorthWest Copper's internal procedures included the insertion of blanks within the rock sampling sequence. QA/QC measures at BV include routine screen tests to verify crushing and pulverizing efficiency, sample preparation duplicates, and analytical quality controls: blanks, standards, duplicates (duplicates from rejects and pulp replicates). At the laboratory, quality control samples are inserted on each analytical run, based on the rack sizes associated with the method. Results of NorthWest Copper's internal QA/QC procedures for the rock sampling program are presented in this section.

A total of 316 rock samples were collected, including 22 blanks (7% of total samples from the sampling program). These blanks consisted of country rock material with negligible mineralization features. Assays from blanks yielded values below or at threshold detection limit for both copper (10 ppm or 0.01%) and gold (0.01 ppm) (Figure 11.1).

Figure 11.1 QA/QC rock blank plots for selected elements



11.2 2021 Surface Sampling: Soils

11.2.1 Sample Collection and Shipping

Soil samples were collected from the Ah horizon unless that was unavailable, in which case, O or B horizons were sampled and the horizon change was recorded. Soils were put into brown paper kraft bags along with a sample tag and sealed with zip ties. Data capture was done using a handheld smartphone with Qfield software. The GPS accuracy of the smartphone is 2-5 m depending on satellite coverage (Titley and Harper, 2022).

Samples were sealed and delivered via Bandstra Transportation System Ltd. from Prince George, BC, to Vancouver BC, to be analyzed at Bureau Veritas.

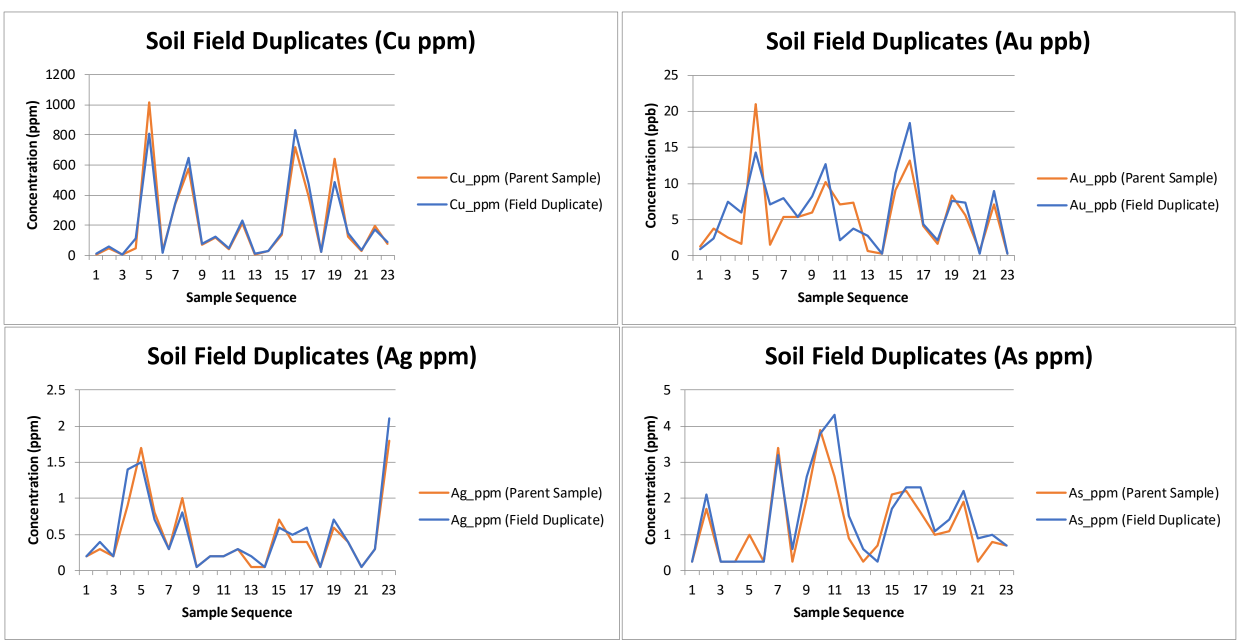
11.2.2 Sample Preparation and Analyses

Bureau Veritas is an ISO 9001:2015 and 17025 accredited analytical laboratory. At BV, samples were prepared by drying at 60°C, sieving 100 g to -80 mesh (SS80) and after aqua regia digestion, analyzed by an ultra-trace ICP-ES/MS method AQ201 for 15 g test weight or method AQ202 0.5 g test weight, for 37 elements.

11.2.3 Quality Assurance / Quality Control Procedures

Quality analysis and quality control (QA/QC) for NorthWest Copper's Lorraine 2021 soil sampling program included internal procedures as well as relying on laboratory QA/QC procedures. NorthWest Copper's internal procedures included the insertion of field duplicates within soil sampling sequence. QA/QC measures at BV laboratories include routine screen tests to verify crushing and pulverizing efficiency, sample preparation duplicates, and analytical quality controls: blanks, standards, duplicates (duplicates from rejects and pulp replicates). At the laboratory quality control samples are inserted on each analytical run, based on the rack sizes associated with the method. Results of NorthWest Copper's internal QA/QC procedures for the soil sampling program are presented in this section.

Figure 11.2 QA/QC soil field duplicate and parent sample sequence plots for selected elements.



A total of 1,236 sites were sampled with a total of 24 field duplicates collected (2% of total samples within sampling program). These field duplicates consisted of separate

APEX Geoscience Ltd.

samples collected from the same location, marked with the next number in sequence from the original (parent) sample and marking on sampling form the number of parent sample for easy identification within assay database. Assays from field duplicate compared to original samples for copper are within the same order of magnitude, and while for gold it is less consistent, it is still considered within the same order of magnitude. In general, the variability observed when compared in plots (Figure 11.2) for all these field duplicates is consistent with the type of sample and mineralization characteristics. The 2021 soil sample results are deemed acceptable based upon the QA/QC data.

11.3 2021 Surface Sampling: Stream Sediments/Silts

11.3.1 Sample Collection and Shipping

Stream sediment samples were collected from 13 sites on drainages within the Lorraine claim group. Collection was done by sieving sediments using a #4 mesh (0.25”) to remove coarse debris. Information on the sample site was collected including stream flow, vegetation, stream order, slope, bank type, and sample site (type of bed or bar the sample was collected from). Sample location GPS and data capture was mapped using a handheld smartphone with QField software. The GPS accuracy of the smartphone is 2-5 m depending on satellite coverage. For the best potential spatial accuracy, the GPS on the smartphone was left to stabilize before a position was captured. To maintain data consistency and cleanliness pre-set drop-down menus using the mapping and quick logging codes were used (Titley and Harper, 2022).

Samples were brought back to camp, sealed in rice bags, transported by Company operated trucks to Prince George, BC, and delivered via Bandstra Transportation System Ltd. from Prince George, BC, to Vancouver BC, to be analyzed at Bureau Veritas Mineral Laboratories Canada (Bureau Veritas).

11.3.2 Sample Preparation and Analyses

Bureau Veritas is an ISO 9001:2015 and 17025 accredited analytical laboratory. At Bureau Veritas, samples were prepared by drying at 60°C, sieving 100 g to -80 mesh (SS80) and after aqua regia digestion, analyzed by an ultra-trace ICP-ES/MS method AQ201 for 15 g test weight or method AQ202 0.5 g test weight, for 37 elements.

11.3.3 Quality Assurance / Quality Control Procedures

Quality analysis and quality control (QA/QC) for NorthWest Copper’s Lorraine 2021 stream sampling program relied on laboratory QA/QC procedures. QA/QC measures at BV laboratories include routine screen tests to verify crushing and pulverizing efficiency, sample preparation duplicates, and analytical quality controls: blanks, standards, duplicates (duplicates from rejects and pulp replicate analysis). At the laboratory quality control samples are inserted on each analytical run, based on the rack sizes associated with the method.

11.4 Historical Diamond Drill Core Data used in Current Mineral Resource

NorthWest Copper have compiled and constructed a database of all historical exploration data from the Lorraine Property. The historical data has for the most part been provided in its entirety or has been accessible to APEX personnel. However, certain aspects of the database particularly the metadata for historical sampling, security, analytical profiles, and QA/QC methods and data are incomplete with respect to the life time exploration that has been conducted at the Property, particularly with the use of a number of laboratories for assaying between 1949 and 2002. NorthWest Copper has provided and APEX personnel have reviewed all of the available historical drilling documentation for work completed prior to 2009. The current NorthWest Copper drillhole database has undergone an extensive data verification program and has been compared to available historical assessment report information.

The Authors of this Technical Report reviewed approximately 10% of the historical drillhole pre-2003 geological logs and assay certificates for holes in the Lorraine resource area. In addition, all of the 2003 to 2008, drillhole original data including geological logs, sample logs and assay certificates were reviewed by the Authors and used to verify the current database. Current database includes QA/QC data from drilling programs starting in 2005 until 2008. In total, more than 20% of the historical drillhole geological and assay data was checked and reviewed against copies of original documents by the Authors. Including statistical review and comparison of all of the digital data files and databases, effectively the entire assay database was reviewed and checked. The updated drillhole database is considered by the Authors to be acceptable for resource estimation.

11.4.1 Sample Collection and Shipping

In general, drillhole programs were helicopter supported. Drill core was taken by helicopter to the sample preparation and processing facility throughout the different historical exploration programs. Most processing was done at the onsite camps within the Property. At the onsite core processing facility, core was laid out, conversions of the run-blocks depth in feet to metres was carried out and core boxes were labeled with a weather-proof metal tag. The laid-out core was examined by project geologists who did a preliminary evaluation of the hole's potential, identified the main rock types, estimated recoveries, marked the contacts and divided core into sample intervals. Sample intervals were generally 1 to 3 metres depending on variations in rock types or the intensity and character of the mineralization. Core was then split using a mechanical core splitter with half the sample bagged and the other half left in the core boxes for detailed logging and permanent onsite storage. Core splitters filled in books of pre-printed sample numbers as they worked. Individual bags of core samples, generally weighing approximately five kilograms were collected into larger shipment bags weighing approximately 30 kilograms and closed (Morton, 2002; Garratt, 2005).

Sample bags were shipped to Vancouver, BC for analysis either via Fort St James, BC, or Prince George, BC, by means of commercial freight companies to the analytical laboratories (Morton, 2002; Garratt, 2005a,b). For the 1995 drilling program, drill core was flown to Germansen Landing for processing initially and later drill core was taken to Vancouver, BC, for logging and splitting and after this, drill core was returned to the Property for storage (Richardson, 1995a).

According to records from assessment reports most laboratory analysis between 1991 and 2005 were carried out at ACME Analytical Laboratories Ltd. (“ACME”, today known as Bureau Veritas), which was and is an ISO 9001:2000 company. Drillholes from 1993, by Kennecott, were analyzed at MINER Environmental Laboratories (MIN-En LABS). Drilling programs by Teck between 2006 and 2008 drill core analyses were carried out at Global Discovery Labs (“GDL”).

11.4.2 Sample Preparation and Analyses

At the analytical laboratories samples were crushed and pulverized to be later digested by means of aqua regia to be later analyzed by ICP/ ICP-MS analysis for 30 to 37 elements while gold was analysed by fire assay.

More detailed records on specific type of analysis was available from assessment reports since 2005:

According to Garratt, 2005, analyses done for 2005 drilling program at ACME took place within either of the following analytical groups:

- GROUP 1DX, for 36 element: 0.50 mg sample leached with 3mL 2-2-2 HCL-HNO_3-H_2O at 95°C for one hour, diluted to 10 ml, analyzed by ICP-MS. Au g/t values were determined by FA from 1 assay ton (1AT) sample aliquots. Acme’s Standard DS5/AU-1 contained 3.45 g/t Au.

- GROUP 7AR, for values greater than 1000 ppm Cu: 1.000gm sample, using hot aqua-Regia (HCL-HNO3-H2O) digestion to 250 ml for determination of base-metal sulphides and precious metal ores. It is analyzed by ICP-ES.

- Group 6 FA/ICP-ES, for gold determination: 29.2g assayed by classical lead collection FA. Analyzed by ICP emission spectrometry ICP-ES after digestion of the doré bead. Fire assay gold detection limit is 0.028 g/t.

According to Baxter and Devine (2007), for the 2006 drilling program at the Lorraine Property, the analytical laboratory was changed from ACME to GDL. The standard analytical package at GDL used on all samples implied an aqua regia digestion of 0.5 g followed by a multi-element ICP package and a trace level gold geochemical package. Any sample that returned an initial ICP copper value higher than 2,000 ppm was flagged for re-analysis by assay methods for ore grade (%) copper. Similarly for gold, any initial geochemical gold result higher than 200 ppb Au was re-analyzed by FA for g/t Au.

11.4.3 Quality Assurance / Quality Control Procedures

Information on QA/QC for drilling programs at the Lorraine Property is available for programs starting in 2005. Prior to this year, most sampling programs, on record, relied on laboratory QA/QC procedures exclusively. At the laboratory quality control samples are inserted on each analytical run, based on the rack sizes associated with the method. Historical QA/QC measures at ACME included routine screen tests to verify crushing and pulverizing efficiency, sample preparation duplicates, and analytical quality controls mainly standards and duplicates (duplicates from rejects and pulp replicates).

After 2005, internal QA/QC programs were implemented with the use of standards, blanks and duplicates by the operators of the Lorraine Project exploration. The frequency in which these QA/QC samples were inserted was every eleventh sample (Morton, 2006, Baxter and Devine, 2007). These control samples included standards and field duplicates from programs between 2005 and 2008. For the 2008 drilling program field blanks were also inserted in the sample sequence (Baxter, 2008). Duplicates included half core, quarter core and duplicates prepared at a laboratory.

Standards and blanks are compared to expected values to ensure the laboratory results fall within the acceptable margin of error. Similarly, duplicate sample results are compared to originals to test the repeatability of laboratory results. In the author's opinion, the QA/QC procedures were reasonable for this type of deposit and the current level of exploration. Based on the results of the QA/QC sampling summarized below, the analytical data is considered accurate; the analytical sampling is considered to be representative of the drill sample.

11.4.3.1 Standards

Analytical standards (SRMs) were inserted into the sample stream to verify the accuracy of the laboratory analysis. A total of eight different kinds of standard types were implemented through out the 2005 to 2008 drilling exploration programs adding to a total of 393 standard samples inserted into the sample stream. The standards utilized were all certified reference standards (SRMs) for copper and gold with low grade, medium and high grade values.

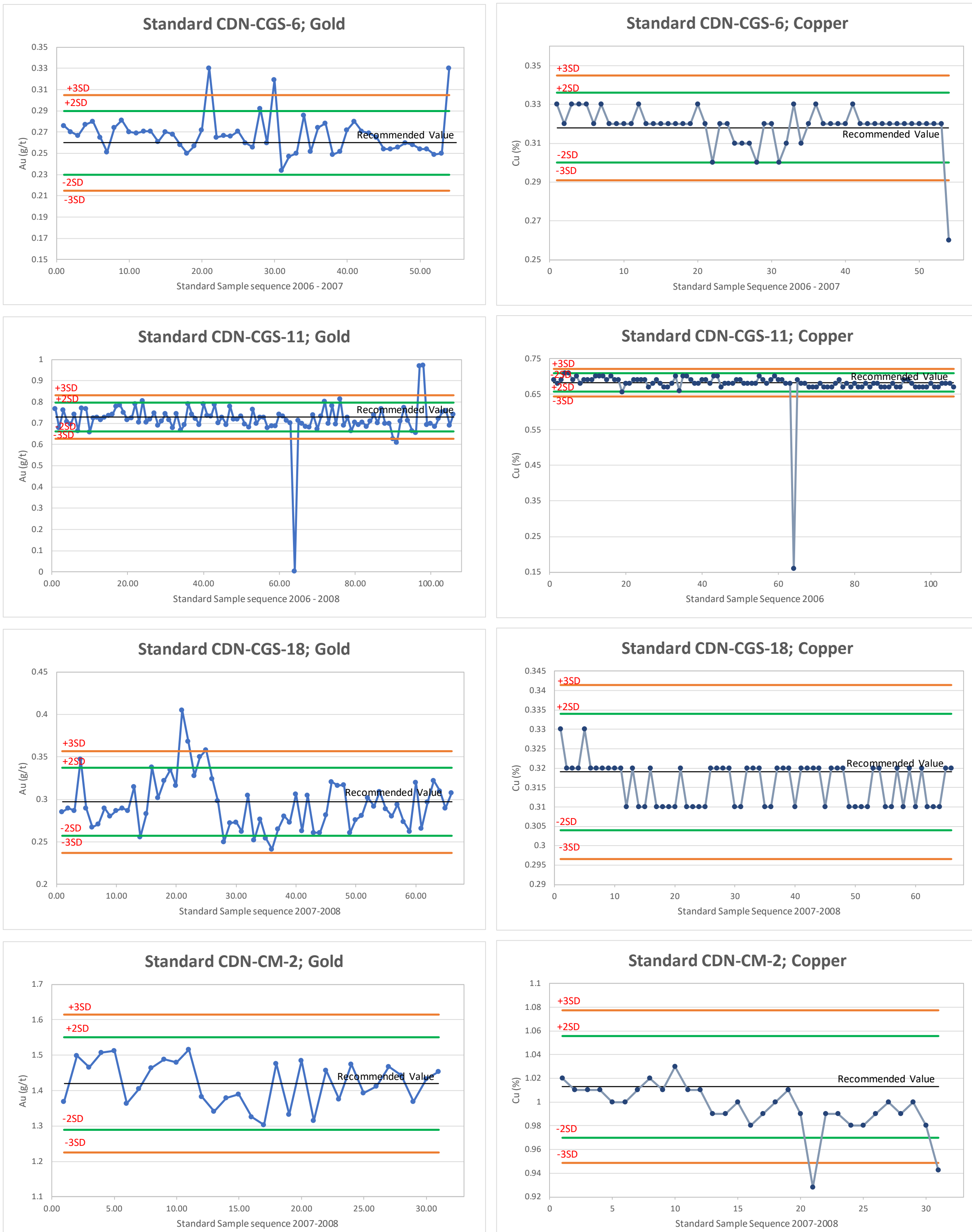
A number of QA/QC summary charts for copper, and gold are presented in Figures 11.3 (2005) and 11.4 (2006 - 2008). Cyclicity patterns and drifting is evident, however, the charts indicate the measured values for copper and gold were mostly within or close to the two standard deviation SD limits. A total of six standard failures (2% of standard dataset) were detected within the historical sampling QA/QC program, and most of these were the low (below resource cut-off) copper standard. The SRMs returned reasonable and within expected range of results, therefore the 2005 to 2008 drilling assay data is considered to be reasonably reliable, and acceptable for mineral resource estimation.

Values for standard CDN-CGS-2 for copper appear mostly below the true and expected value. However, this is attributed to overlimit analyses not being performed on these standard samples for copper (Figure 11.3). Only two standard sample assays were analysed by the overlimit technique for copper, with most if not all the ICP data yielding a maximum value of 1% copper.

Figure 11.3 QA/QC performance for 2005's drilling programs standards.

The 2006 to 2008 SRMs are plotted on charts in Figure 11.4. The results are good with only a few failures outside of 2 standard deviation (SD) or 3 SD limits. There is some drift with some marginally low bias indicated but overall the SRMs performed well. The Authors consider the data to be in good shape and acceptable for mineral resource estimation.

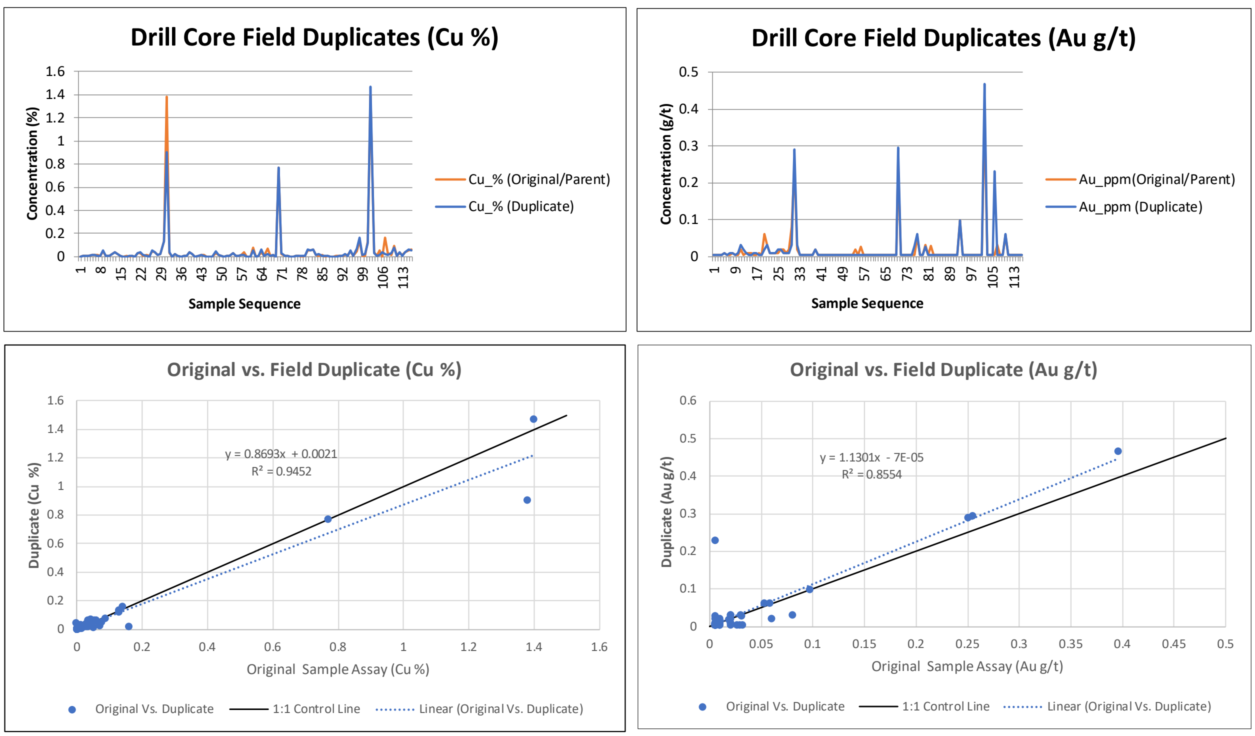
Figure 11.4 QA/QC performance for 2006-2008's drilling programs standards.



11.4.3.2 Duplicates

Exploration programs between 2005 and 2008 included the implementation of field duplicate samples (half core and quarter core). A comparison of duplicate analysis permitted an assessment of Lorraine's drill core mineralization heterogeneity (within sample variation). A comparison of 116 duplicate pair samples collected between 2005 and 2008 indicates that no significant within sample variability exists for copper and gold (Figure 11.5). For this dataset, the correlation coefficient for copper is 0.97 while for gold is 0.92. The results indicate some inherent variability of copper and gold within the Lorraine Deposit, yet a good correlation between original and duplicate assay.

Figure 11.5 Original vs field duplicate sample pairs for 116 samples.

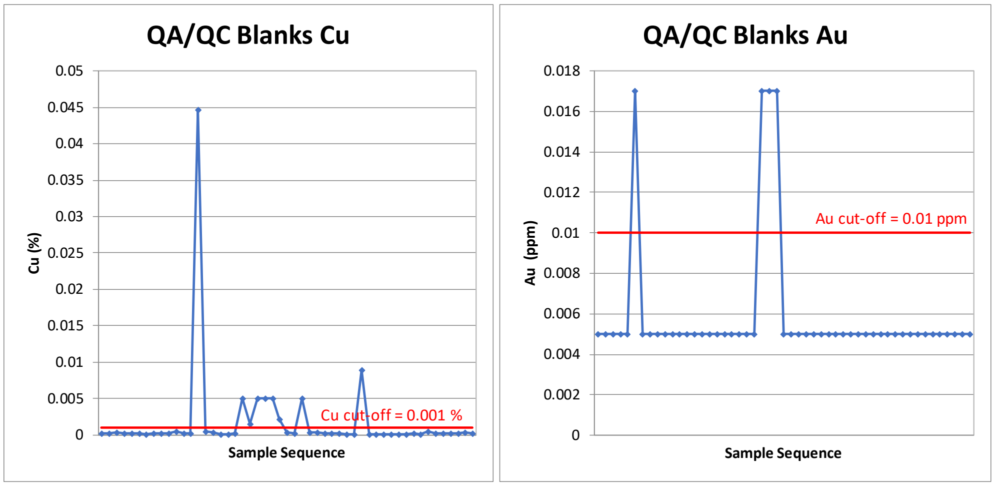


11.4.3.3 Blanks

Barren coarse material (of unknown origin) was used for coarse "blank" samples to monitor potential contamination during the sample preparation procedure. These were implemented for the 2007 and 2008 exploration drilling programs (Figure 11.6).

A total of 51 blanks were analyzed. Nine blanks failed for copper and four blanks failed for copper and gold, however these failures fall well below the resource cut-off and are not consider significant enough to impact mineral resource estimation. The Authors consider the data to be in adequate shape and acceptable for mineral resource estimation.

Figure 11.6 Coarse blanks for 51 samples during the 2007 and 2008 programs.



11.5 NorthWest Copper 2021 Historical Drill Core Sampling

11.5.1 Sample Collection and Shipping

Samples were collected during re-logging every 10 to 30 metres based on changes in lithology, alteration and mineralization. Samples measure 10 to 30 cm. A total of 180 samples were collected and divided into three pieces: one piece remained in the Company office as a representative sample, a second piece was sent for assay and whole rock major oxide analysis, and a third piece was kept for other testing. Thirty-seven samples were used to make thin sections for petrographic analysis. The samples were also collected for physical properties testing, including chargeability/resistivity and conductivity and density. These tests had not been completed or were not available by the effective date of this Report. Samples were submitted to Bureau Veritas in Vancouver for Analysis.

11.5.2 Quality Assurance / Quality Control Procedures

Information on QA/QC for drilling programs at the Lorraine Property is available for programs starting in splitting and pulverizing 250 g of rock to -200 mesh (PRP70-250). Copper and silver analyses were determined via four acid digestion followed by induced coupled plasma mass spectrometer ICP-MS method MA250, which is capable of determining up to 10,000 ppm copper and 200,000 ppb silver. Gold, platinum and palladium were determined by fire assay atomic absorption Fire Assay/AAS method FA330 using a 30-gram sub-sample with lead collection and has an upper detection limit of 10 ppm for gold, platinum and palladium. Overlimit copper analyses were determined by four acid digestion ICP-ES finish, ore grade method MA370 with a lower detection limit of 0.001% for copper.

Each sample was also sent for whole rock major oxide analysis by XF700, which uses which is a method consisting of x-ray fluorescence (XRF) on fused discs. It uses

Li2B4O7/LiBO2 fusion for Whole rock analysis. It is capable of determining major oxides to 0.01% for Si, Al, Fe, Ca, Mg, Na, K, Mn, Ti, P, Cr, Ba and to 0.002% for S and Sr.

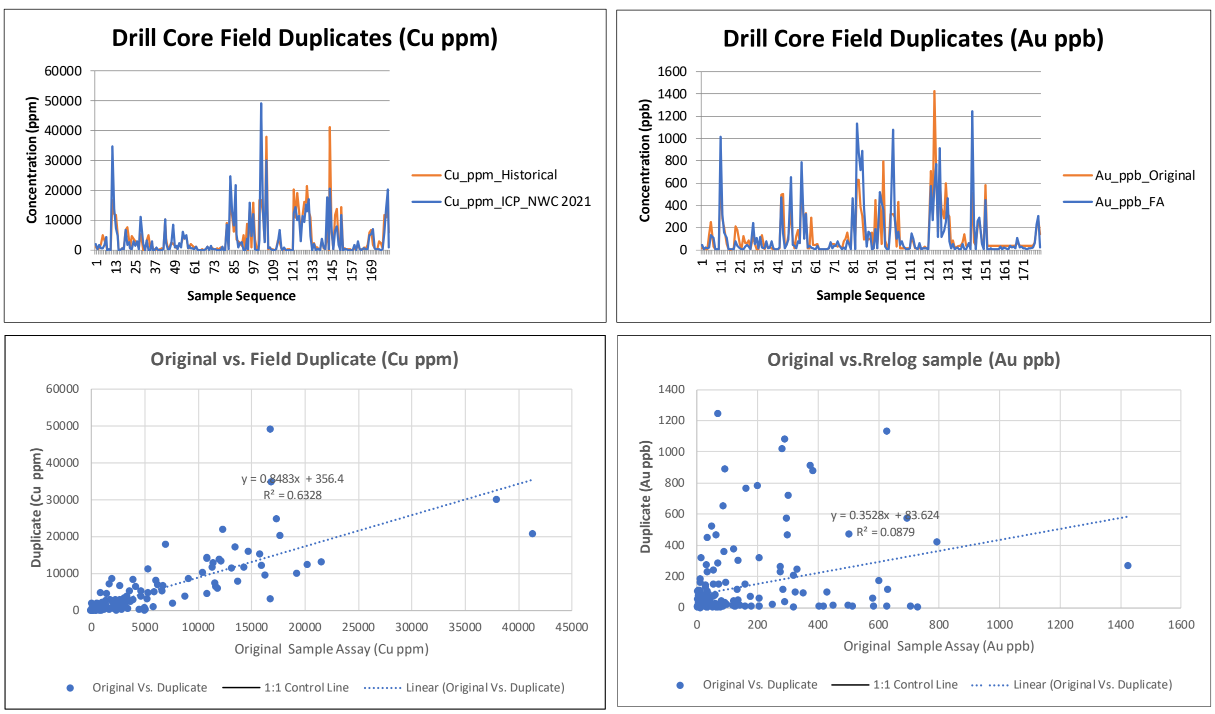
11.5.3 Quality Assurance / Quality Control Procedures

QA/QC for NorthWest Copper's Lorraine 2021 core sampling program relied on laboratory QA/QC procedures. QA/QC measures at BV laboratories include routine screen tests to verify crushing and pulverizing efficiency, sample preparation duplicates, and analytical quality controls: blanks, standards, duplicates (duplicates from rejects and pulp replicate analysis). At the laboratory quality control samples are inserted on each analytical run, based on the rack sizes associated with the method.

11.5.4 Results of drill core sampling

The 2021 core sampling only includes a small part of the entire sample length, thus it is not expected to exhibit the same repeatability as a proper core duplicates collected over the entire length of the original sample. However, copper assays from lithogeochemical core samples are within range of error of original drillhole assays while gold results were more erratic for these samples (Figure 11.7).

Figure 11.7 Original vs core partial duplicate sample pairs for 180 samples.



11.6 Adequacy of Sample Collection, Preparation, Security and Analytical Procedures

It is Author's opinion that the sampling techniques and procedures used, sample security and transportation completed by NorthWest Copper and previous operators of the Lorraine Project were adequate and the data is considered suitable for its use herein.

12 Data Verification

12.1 Data Verification Procedures

Mr. Alfonso Rodriguez, M.Sc., P. Geo., senior geologist with APEX completed a site visit on September 23rd, 2021. The site visit included a tour of the Property to verify historical exploration results and to confirm the geology and mineralization of the Property. Mr. Rodriguez located three historical drillholes. The locations of the historical collars were consistent with those reported and recorded in the drillhole database. Drill core was found at three different core yards located within the Property. Additionally, Mr. Rodriguez visited showings and outcrops exhibiting mineralization features (Figure 12.1). Mr. Rodriguez collected a total of 6 samples including 4 half core samples from historical drillholes and 2 rock grab samples from historical showings (Figure 12.2). The results of historical drill core sampling are compared to the results of drill core sampling carried out by the Author. Differences between assays are less than 0.09% for copper and less than 0.06 g/t for gold, which is within expected variation. The descriptions and geochemical results of the site visit samples are listed in Table 12.1

The QP site verification samples were collected, bagged, sealed and delivered via Bandstra Transportation System Ltd. from Prince George, BC, to ALS Canada Ltd. (ALS) in North Vancouver, BC. ALS is an ISO 9001:2015 certified, ISO/IEC 17025:2005 accredited geo-analytical laboratory and is independent of NorthWest Copper and the Authors of this Report. At the independent laboratory, the samples were subjected to ALS' standard sample preparation and analytical practices. The samples were assayed for 48 element (including copper) geochemistry using four-acid digestion with inductively coupled plasma mass spectrometry (ICP-MS) finish (ALS method ME-MS61) with ooverlimit (>10000 ppm) analysis for copper (Cu-OG62). Gold was analyzed by 30 g fire assay using aqua regia digestion with AAS finish (ALS method Au-AA23).

The Authors of this Technical Report reviewed approximately 10% of the historical drillhole pre-2003 geological logs and assay certificates for holes in the Lorraine resource area. In addition, all of the 2003 to 2008, drillhole original data including geological logs, sample logs and assay certificates were reviewed by the Authors and used to verify the current database. Current database includes QA/QC data from drilling programs starting in 2005 until 2008. In total, more than 20% of the historical drillhole geological and assay data was checked and reviewed against copies of original documents. Including statistical review and comparison of all of the digital data files and databases, effectively the entire assay database was reviewed and checked. The updated drillhole database is considered by the Authors to be acceptable for resource estimation.

12.2 Validation Limitations

Given the age of some of the historical drilling along with the sampling and assaying by historical operators, the majority of which occurred during the 1970's through 1990's, the lack of information with respect to drilling, sampling procedures, security, and QAQC procedures at that time the Authors deem this is not unusual. The Authors have validated the database to the extent in which it can validated. Further validation as the Project progresses will require additional drilling, including infill and/or twinning of historical pre 2000 drillholes in order to determine if there is any bias positive or negative with respect to the historical drillholes in terms of geochemistry and location.

As an example, most of the post 2000 drillholes contain downhole surveys. A portion of the 1990's drillholes contain downhole surveys, but a portion do not. Most of the holes prior to the 1990's do not contain any downhole survey information. There are a large number of 1970's drillholes in the Lower Main resource area along with a number of post 2000 drillholes. The large number of 1970's drillholes with no downhole surveys could increase risk associated with that portion of the resource in terms of location of the mineralization intercepts. The 1970's drillholes tend to have been fairly short drillholes generally less than 200 m in depth and many around the 100 m depth mitigating some of the risk associated with undocumented drillhole deviation.

The Lorraine Upper Main and Bishop zones contain a significant number of 1990's and post 2000 drillholes that contain downhole survey information. There is likely less risk associated with the location of these mineralized intercepts.

12.3 Adequacy of the Data

The QP's reviewed the adequacy of the exploration information from the historical and recent exploration programs completed by NorthWest Copper. Based on the data review along with the results of the traverse and verification sampling, and review of the historical drill core, the Author's have no reason to doubt the reported exploration results from historical drilling programs.

The QP is of the opinion that a slight variation in assays is expected due to the variable distribution of sulphide minerals within a core section.

The Authors are satisfied, and take responsibility, to include the historical and recent exploration data including drill information as background information for this Technical Report.

It is the Author's opinion that the data verification methods and steps completed by NorthWest Copper and previous operators of the Lorraine Property Project were adequate for the purposes of this Technical Report.

Table 12.1 QP site visit sample locations, descriptions, and geochemical results. Northwest Copper (NWC) assays presented for comparison on table.

SampleID	Easting UTM NAD83z10	Northing UTM NAD83z10	Elevation (m)	Type	DDH	FROM (m)	TO (m)	AssayID_ NWC	Description	NWC Cu %	Cu %	NWC Au ppm	Au ppm	Pb ppm	Zn ppm
21ARM006	347,264	6,200,585	1,560	Drill Core	2002-63	51	54	A 205265	Syenite. K-spar altered. Disseminated cpy, qz+sx veins (cpy, py), minor malachite. Moderately oxidized.	0.1898	0.1885	0.106	0.119	8.3	95
21ARM007	347,309	6,200,623	1,503	Drill Core	2002-63	134	137	A 205293	Syenite. K-spar/quartz altered. Disseminated cpy, qz+sx veins (cpy, py), Strongly magnetic.	0.3694	0.3880	0.262	0.269	20.9	115
21ARM008	347,665	6,200,535	1,746	Drill Core	L-94-8	38.7	40	96114	Original sample according to file is 3 m long from 38.18 m to 41.18 m. Mineralization: malachite, pyrite, chalcopyrite, bornite.	1.536	1.6250	0.856	0.802	13.6	139
21ARM009	348,550	6,199,927	1,609	Drill Core	L-96-43	133.2	136.2	43 133.2-136.2	Pyroxenite. Mineralization: bornite, covellite (?), minor chalcopyrite adjacent to quarzt carbonate veinlet	0.4506	0.4980	0.034	0.096	3.4	180
21ARP001	347,326	6,200,719	1,664	Rock Grab	N/A	N/A	N/A	N/A	K-spar altered monzodiorite/monzonite with scattered cpy. Near DDH 2001-59. Assays from sample C117931 from 2.13 m -5.18 m. Not equivalent to surface sample.		0.0287	0.009	0.01	14	44
21ARP002	347,317	6,200,734	1,664	Rock Grab	N/A	N/A	N/A	N/A	Weakly magnetic, K-spar altered monzodiorite (?). Up to 2 % malachite, scattered cpy. Near DDH 2001-59.		0.3620	0.05	0.344	24.2	132

Figure 12.1. Site review. A. Historical core. B, C and D. NorthWest Copper core review program and XRF scanning (2021). E. Upper Main Zone outcrops. F. Malachite on chlorite-biotite alteration. G. Disseminated bornite in gabbro. H. and I. K-spar altered syenite, chalcopyrite disseminated and in veins.

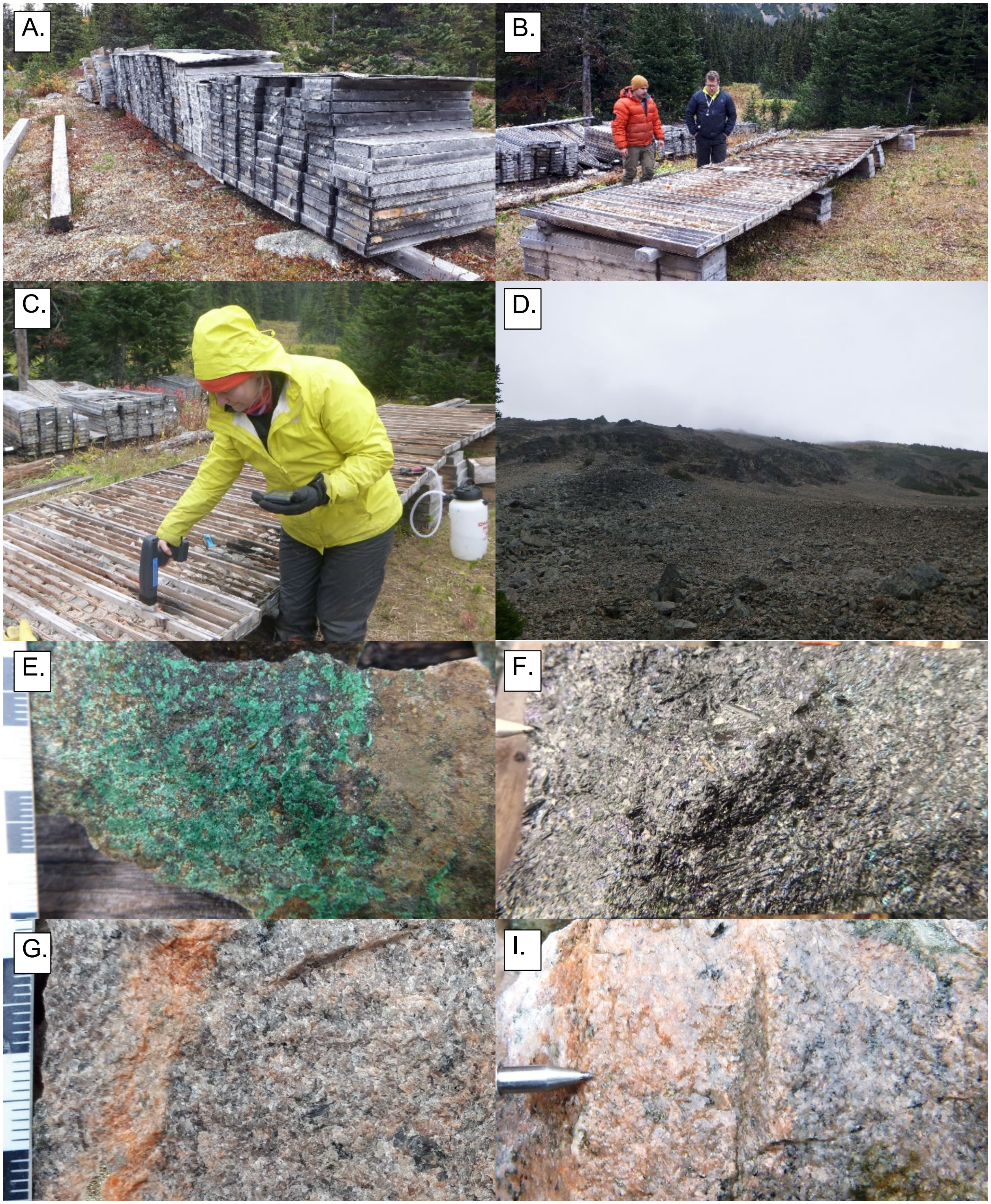
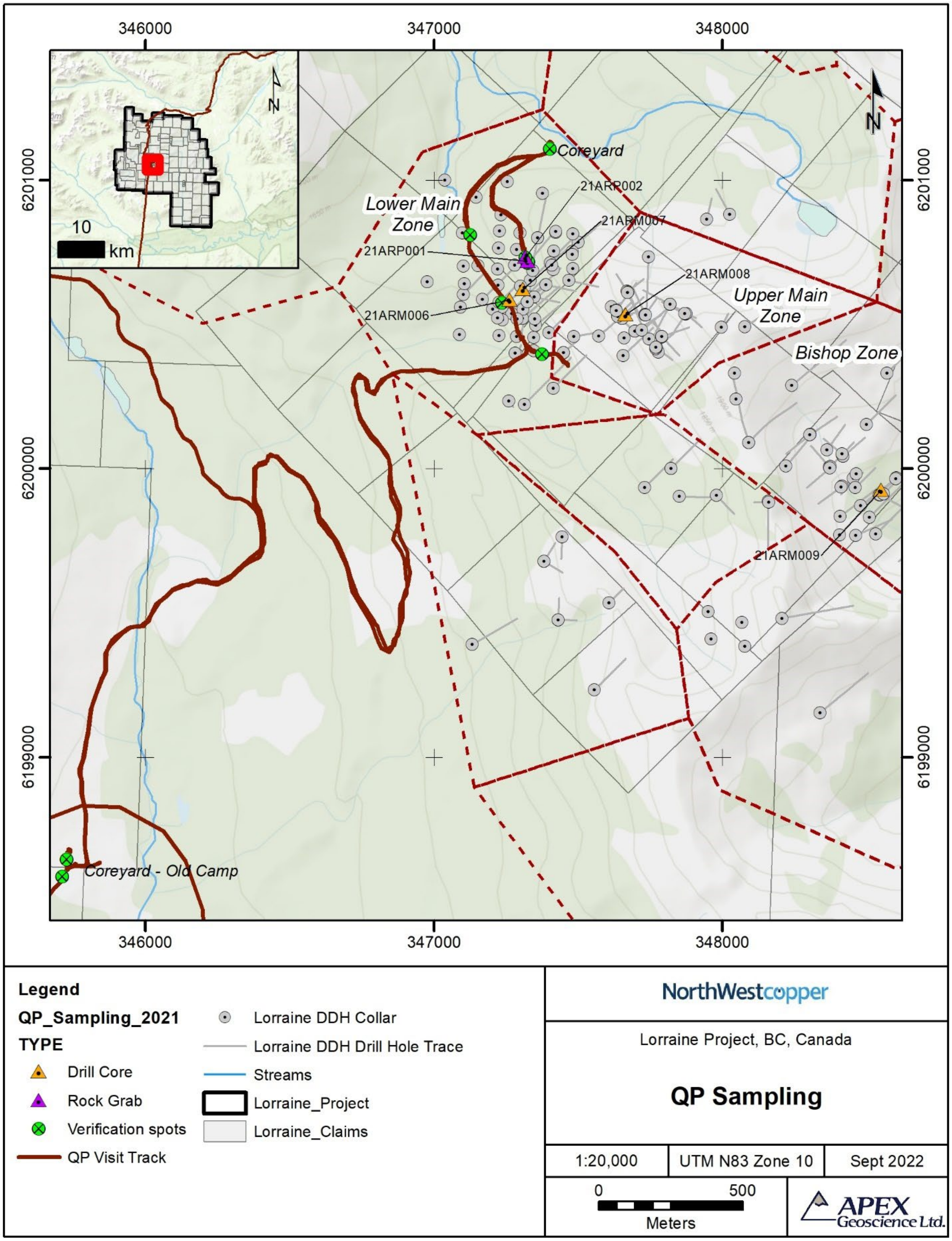


Figure 12.2. QP site visit sample locations



13 Mineral Processing and Metallurgical Testing

The Company has not undertaken any metallurgical testing.

14 Mineral Resource Estimates

The Mineral Resource Estimate (MRE) herein is based upon the historical drilling and supersedes all of the prior resource estimates for the Lorraine Project. The MRE provided by Giroux and Lindinger (2016) for Lorraine is superseded based upon a new geological model and pit optimization constraint factors. Other older resource estimates constructed for other companies are also superseded and are considered historical in nature.

This section details an updated National Instrument (NI) 43-101 MRE completed for the Lorraine Project by APEX Geoscience Ltd. (APEX) of Edmonton, Alberta, Canada and RockRidge Consulting Ltd. of Vancouver, BC. Mr. Michael Dufresne, M.Sc., P.Geol., P. Geo and President of APEX is responsible for the mineral resource estimate and was assisted by Mr. Deon van der Heever, B.Sc., a Resource Specialist with RockRidge. Mr. Dufresne is the QP and takes responsibility for Section 14 and the MRE. Co-author Mr. Rodriguez visited the property most recently in September, 2021. The effective date of the current MRE is June 30th, 2022.

Definitions used in this section are consistent with those adopted by the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Council in “Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines” dated November 29, 2019 and “Definition Standards for Mineral Resources and Mineral Reserves” dated May 10th, 2014, and prescribed by the Canadian Securities Administrators' NI 43-101 and Form 43-101F1, Standards of Disclosure for Mineral Projects. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

The previous Lorraine MRE was completed in 2012 and released in May, 2016 for Lorraine Copper Corp. by Giroux Consultants Ltd. of Vancouver, British Columbia (Giroux and Lindinger, 2016). The 2012-2016 MRE was constructed by using a polygonal section interpretation that was digitized and joined into a 3D model in Gemcom and utilized 131 drillholes and 21,465 m of drilling. The 2012-2016 MRE was not constrained in a pit shell.

Although no new drilling has been completed since the 2012-2016 model was constructed, the current MRE is an updated estimate from a database consisting of 63,445.03 m in 398 drillholes; of which 25,506.42 m in 167 drillholes was utilized in the current estimate. The current MRE incorporates a new geological and structural model developed through lithological and structural modeling in Leapfrog by NorthWest Copper geologists. It is clear that the historical 2012-2016 model did not capture all the potential mineralized samples and all of the available potential mineralized volumes. A review of the historical 2012-2016 block model shows a number of drillholes and intersections in the current database that were not utilized in the historical 2012-2016 estimate.

An optimized Lerchs - Grossmann pit shell further constrains the resource volume in the current MRE in order to fulfil the requirement for “reasonable prospects for eventual economic extraction”.

The July 2022 mineral resource is summarized below. (Table 14.1)

Table 14.1 Mineral Resource Estimate Summary at a lower cut-off of 0.2% Cu.

Resource Classification	Tonnes (000s)	Grades			In Situ Metal	
		%Cu	g/t Au	CuEq (%)	Cu (lbs) ('000)	Au (troy oz)
Indicated Resources	12,952	0.55	0.16	0.66	156,093	68
Inferred Resources	45,452	0.43	0.10	0.50	427,931	145

Notes:

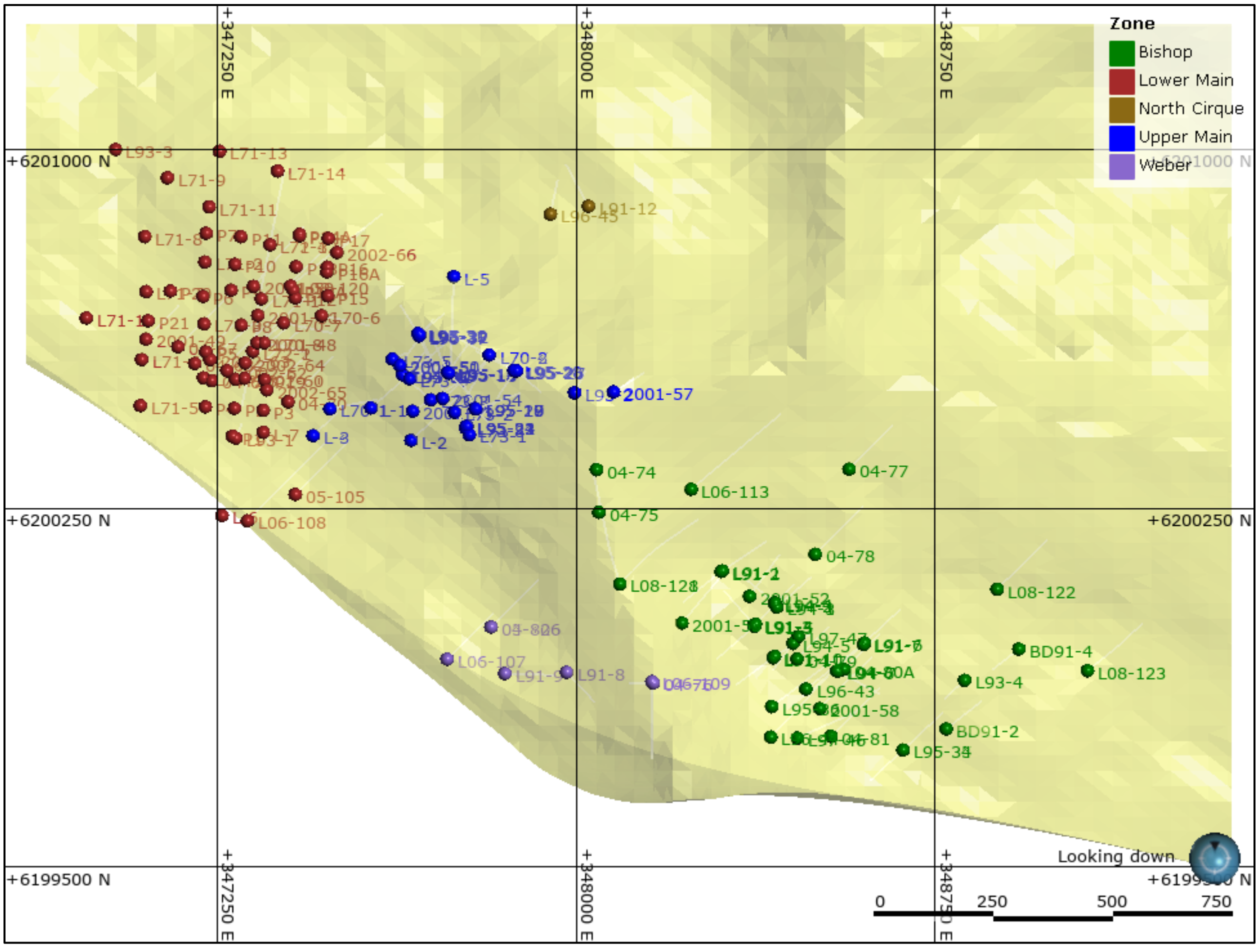
- Indicated and Inferred Mineral Resources are not Mineral Reserves. Mineral resources which are not mineral reserves do not have demonstrated economic viability. There has been insufficient exploration to define the inferred resources tabulated above as an indicated or measured mineral resource, however, it is reasonably expected that the majority of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. There is no guarantee that any part of the mineral resources discussed herein will be converted into a mineral reserve in the future. The estimate of mineral resources may be materially affected by environmental, permitting, legal, marketing or other relevant issues. The mineral resources have been classified according to the Canadian Institute of Mining (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May, 2014).and CIM Estimation of Mineral Resources & Mineral Reserves Best Practices Guidelines (2019).
- Cu Equivalent (CuEq) grade is based on 90% Cu recovery and 85% Au Recovery. The conversion used for Au grade (g/t) to Cu Eq grade (%) is: Au (g/t) * 0.6493, at a price of Cu US$3.50/lb and Au US$1,650/oz.
- The Mineral Resource Estimate is constrained in an LG pit optimization utilizing Cu at US$3.50/lb, Au at US$1,650/oz, Mining at CDN$ 3.50/tonne, Processing and G&A at CDN$ 14.50/tonne, pit slopes at 45° and an exchange rate of 0.77.
- Differences may occur in totals due to rounding

14.1 Database

The resource database consists of a total of 63,445.03 m of sampling in 398 drillholes. Of the total holes in the database 25,506.42 m of sampling from 167 holes are included in the resource estimate area. The database was supplied by the Company in the form of Leapfrog project files. Records were checked to ensure each drillhole had assay, survey, and collar information. The database was audited and master data tables in .csv format were exported for further checks. For statistical analysis and grade estimation, missing assays were assigned an absent value. Drillhole information in this database includes older historical data, gathered by operators of the project before the Lorraine exploration campaign.

Drill spacing is generally less than 50 m in the densely drilled portions of the Property, particularly for the core areas of the Lorraine resource area including the Lower Main, Upper Main and Bishop mineralized zones. A plan view showing the drillhole locations within the resource boundary is presented in (Figure 14.1)

Figure 14.1 Lorraine resource area drillhole locations (van der Heever, 2022).

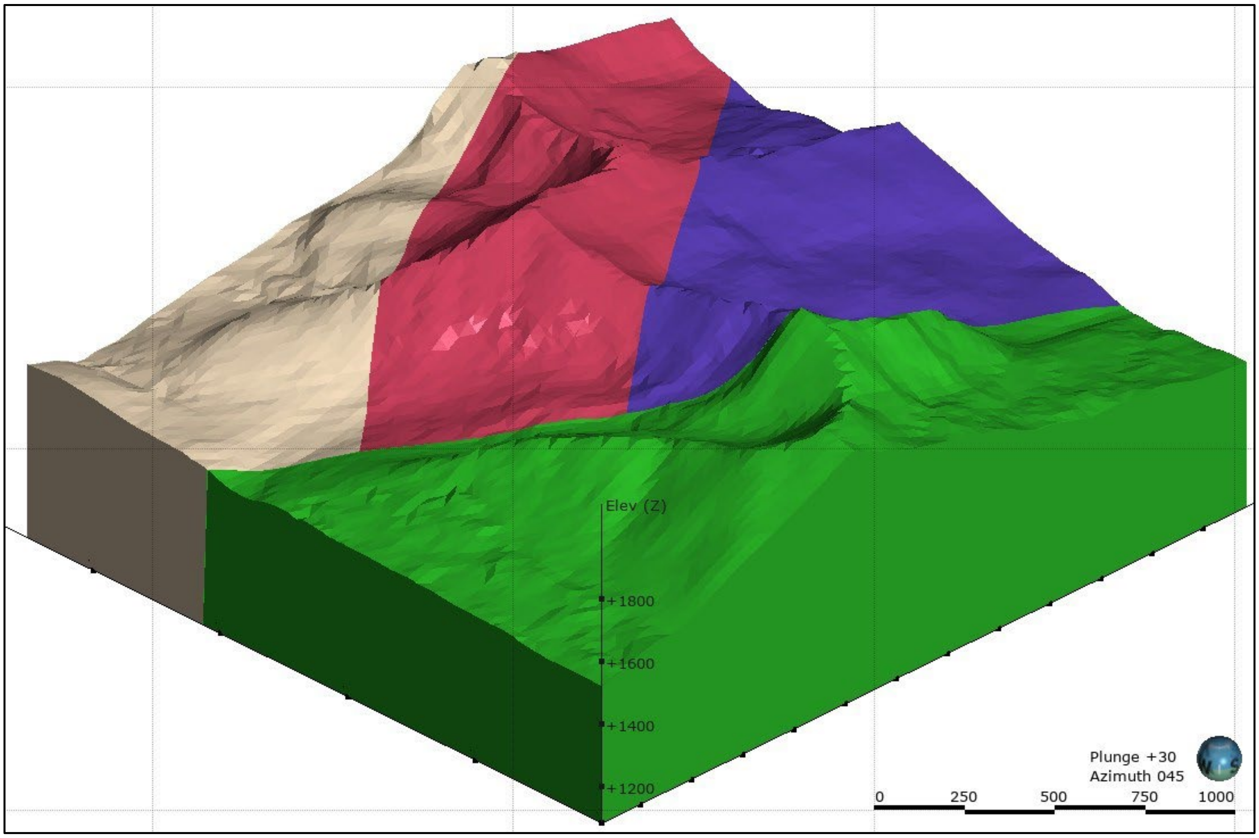


14.2 Geological Modeling

14.2.1 Structural Model

Structural domains were modelled using surface maps, geology sections and logged lithologies in drillholes. The structural model was inspected to identify the magnitude of displacements and only faults with significant displacements were selected to be the bounding planes for fault blocks. This resulted in the creation of four blocks bounded by major structures as shown in (Figure 14.2).

Figure 14.2 Lorraine resource area fault blocks (van der Heever, 2022).



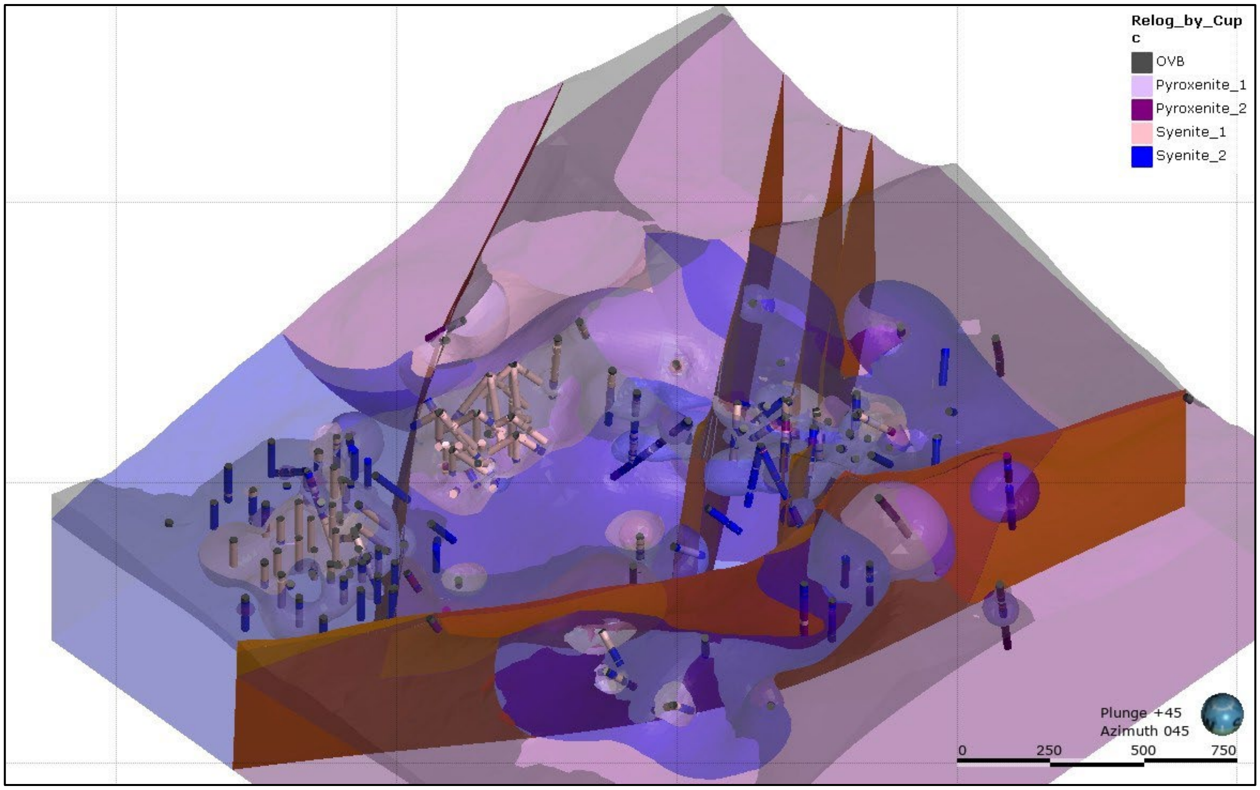
14.2.2 Lithological Model

An updated geologic interpretation was completed by Northwest Copper and reviewed for use in the resource model. The geologic interpretation was modeled inside each fault block and then used to create shapes for constraining mineralized zones. Based on the updated drilling and on refinement of previous interpretations, the solids and surfaces created for the Lorraine modelling include:

- Overburden
- Syenite 1 - Syenite unit with high grade mineralization
- Syenite 2 - Syenite unit with low grade mineralization
- Pyroxenite 1 - Pyroxenite unit with high grade mineralization
- Pyroxenite 2 - Pyroxenite unit with low grade mineralization

See Figure 14.3 below.

Figure 14.3 Lorraine resource area lithology model (van der Heever, 2022).



Estimation Domains

Fault blocks and lithological boundaries showing clear breaks in mineralization were used as constraining boundaries to create five final estimation domains. Three high grade mineralized targets were modeled as separate domains by creating grade shells with 0.2% Cu boundaries within the previously modeled lithological and structure model (Figure 14.4). These are:

- Upper Main
- Lower Main
- Bishop Zone

The surrounding volumes were split into a medium grade Syenite domain and low grade Syenite-Pyroxenite domain (Figure 14.5).

14.3 Grade and Composite Statistics

The data was examined to determine a suitable composite interval. The chosen interval should standardize the assay intervals to give an equal weight to each record, but still reflect the variability in the original data as far as possible. A too large a composite interval will over-smooth the data and tend to artificially increase the continuity between samples (the range of the variogram), whereas a too small a composite interval will tend to understate the short-range variability of the data (the nugget).

Figure 14.4 Lorraine resource area high grade estimation domains (van der Heever, 2022).

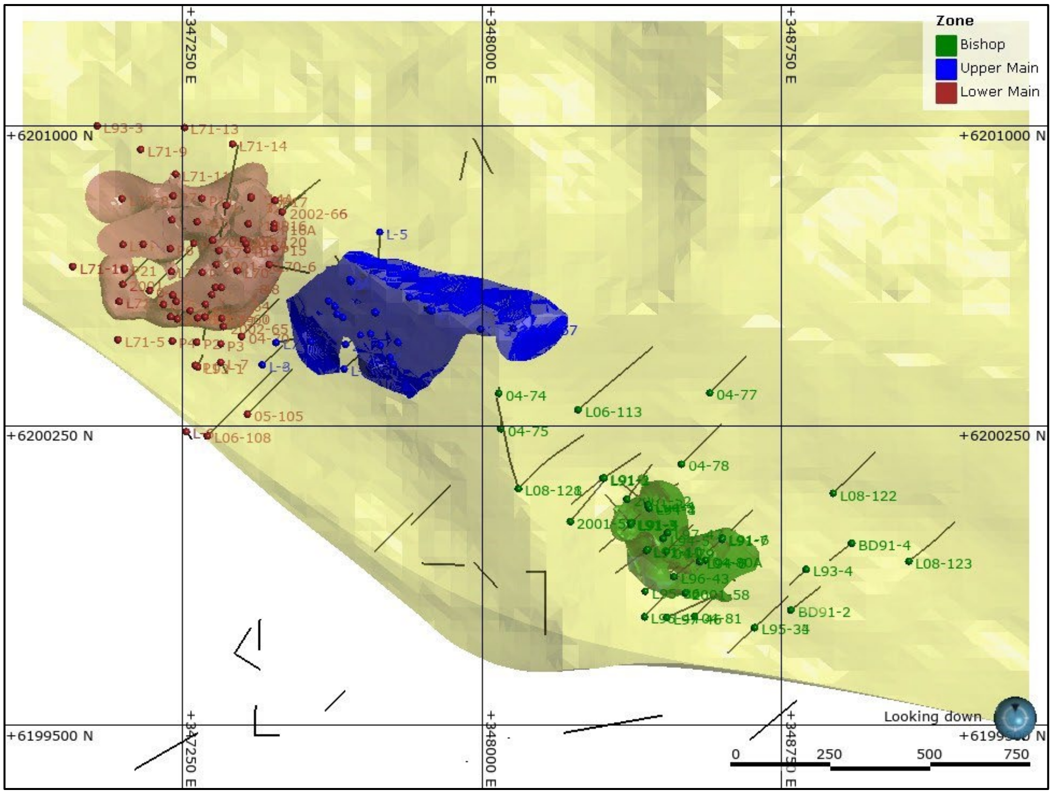
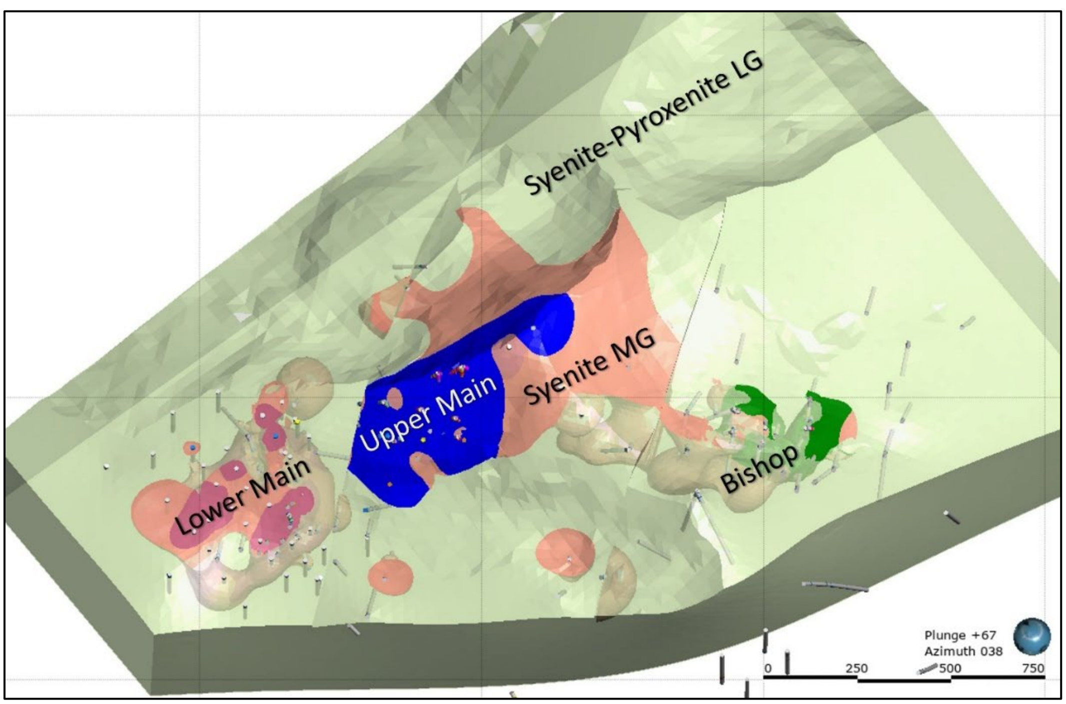


Figure 14.5 Lorraine resource area all estimation domains (van der Heever, 2022).



APEX Geoscience Ltd.

The Lorraine drill core was predominantly sampled at an interval of about 3 m or less (Figure 14.6). Assay records were assigned a domain code and then composited to approximate 3 m intervals. The composite interval was varied around an average of the selected 3 m interval while keeping as close as possible to a full 3m as a best fit method. This was done where required to in order to avoid excessively short interval composites from forming at domain boundaries or at the ends of holes.

Naïve statistics for Au and Cu per domain (Table 14.2) show quite low standard deviation to mean ratios (Coefficient of Variation) in the high-grade domains and only moderately high ratios in the lower grade domains.

14.4 Capping of Grade Outliers

The presence of high-grade outlier values was investigated as these anomalous values could adversely influence the estimate. In all estimation domains and for all elements, the location of the high-grade outliers was not concentrated in an area, but rather disseminated throughout each domain. Appropriate cutting limits were selected by studying coefficient of variation plots, probability plots and decile analyses plots. Statistics summarizing variability and capping for each domain is provided in Table 14.3.

Figure 14.6 Lorraine histogram of sample interval lengths (van der Heever, 2022).

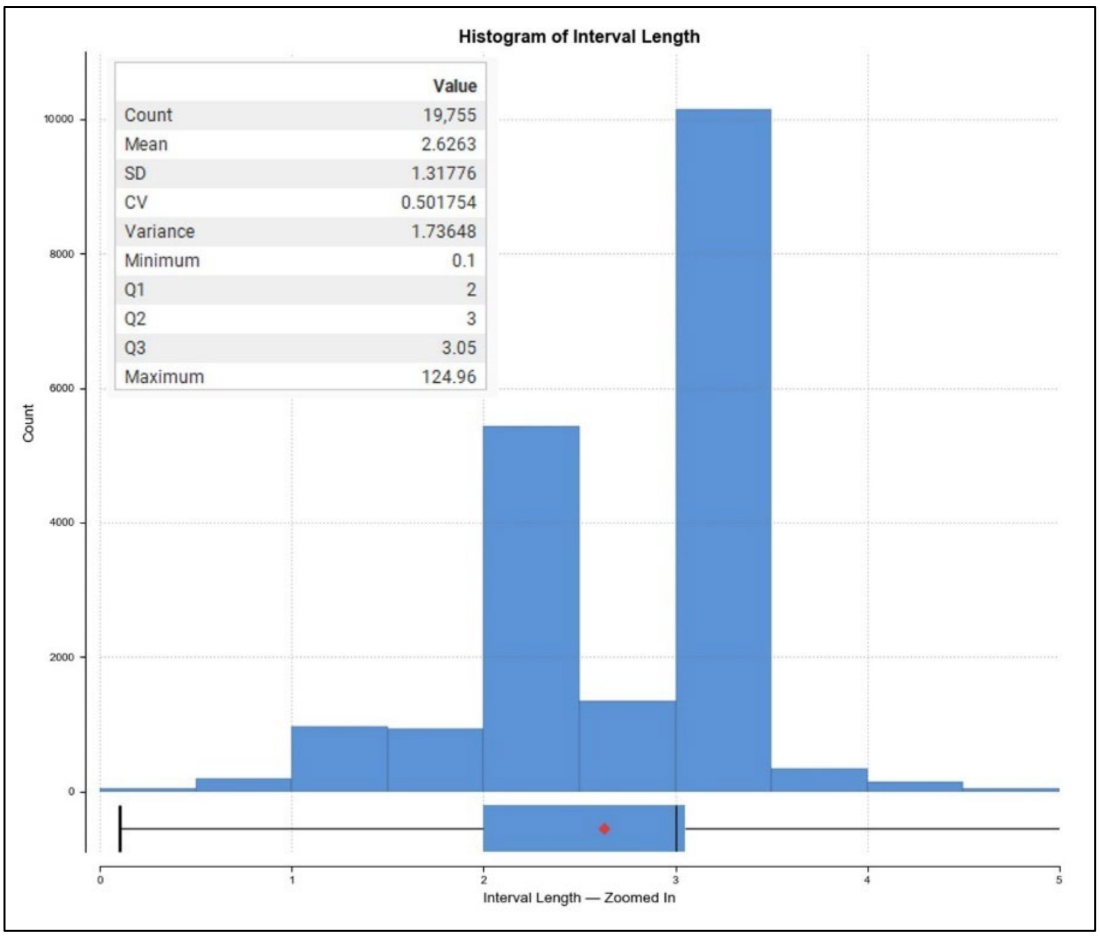


Table 14.2 Naïve Statistics by each domain used in the resource estimate.

Cu	Main Lower		Main Upper		Bishop		Sy MG		Sy-Py LG	
	Comp	Raw	Comp	Raw	Comp	Raw	Comp	Raw	Comp	Raw
Count	970	990	1268	1266	548	560	1416	1489	4266	4265
Length	2829.95	2829.71	3711.09	3716.92	1585.37	1635.12	4014.90	4023.19	12531.13	12503.24
Mean	0.416	0.418	0.576	0.575	0.553	0.538	0.150	0.150	0.044	0.043
SD	0.334	0.377	0.498	0.524	0.491	0.545	0.236	0.254	0.096	0.105
CV	0.803	0.901	0.865	0.912	0.889	1.013	1.570	1.696	2.179	2.418
Variance	0.112	0.142	0.248	0.275	0.241	0.297	0.056	0.064	0.009	0.011
Minimum	0.005	0.001	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000
Q1	0.204	0.200	0.238	0.220	0.217	0.151	0.044	0.036	0.007	0.005
Q2	0.313	0.310	0.394	0.387	0.438	0.400	0.095	0.090	0.020	0.018
Q3	0.514	0.502	0.766	0.784	0.754	0.728	0.156	0.159	0.045	0.041
Maximum	2.347	3.800	3.595	4.400	4.183	4.183	2.337	2.940	1.808	2.170

Au	Main Lower		Main Upper		Bishop		Sy MG		Sy-Py LG	
	Comp	Raw	Comp	Raw	Comp	Raw	Comp	Raw	Comp	Raw
Count	970	990	1268	1266	548	560	1416	1489	4266	4265
Length	2829.95	2829.71	3711.09	3716.92	1585.37	1635.12	4014.90	4023.19	12531.13	12503.24
Mean	0.115	0.115	0.198	0.198	0.127	0.124	0.057	0.058	0.020	0.019
SD	0.216	0.237	0.513	0.671	0.247	0.304	0.157	0.181	0.034	0.043
CV	1.870	2.055	2.589	3.394	1.953	2.458	2.726	3.135	1.745	2.200
Variance	0.047	0.056	0.263	0.450	0.061	0.092	0.024	0.033	0.001	0.002
Minimum	0.008	0.002	0.007	0.002	0.001	0.001	0.001	0.001	0.001	0.001
Q1	0.010	0.010	0.039	0.030	0.034	0.029	0.010	0.010	0.010	0.010
Q2	0.010	0.010	0.113	0.103	0.060	0.053	0.020	0.015	0.010	0.010
Q3	0.126	0.119	0.217	0.217	0.147	0.137	0.059	0.056	0.017	0.013
Maximum	2.371	2.969	13.194	21.880	3.533	5.387	4.785	4.785	0.918	2.140

Table 14.3 High Grade subdomains and capping statistics.

Capping Statistics – Cu

Domain	BISHOP	LOWER MAIN	UPPER MAIN	SY-MG	SY-PY LG
Total Composites	548	970	1268	1415	4261
Min Before Capping	0.001	0.005	0.001	0.001	0.000
Max Before Capping	4.183	2.347	3.595	2.34	1.81
Mean Before	0.548	0.413	0.568	0.15	0.04
Std Dev Before	0.505	0.334	0.497	0.23	0.10
CV Before	0.92	0.81	0.88	1.57	2.17
Capping Value	2.95	2	2.78	1.44	0.45
No of Capped Comps	3	3	1	10	43
Mean After	0.544	0.412	0.568	0.15	0.04
Std Dev After	0.481	0.331	0.494	0.22	0.07
CV After	0.88	0.80	0.87	1.47	1.66
Capped %	0.5%	0.3%	0.1%	0.7%	1.0%
Metal % Capped	0.7%	0.2%	0.1%	2%	7%

DECILE ANALYSIS Cu	BISHOP	LOWER MAIN	UPPER MAIN	SY-MG	SY-PY LG
Last Decile Before (<40 Rule)	30%	29%	31%	45%	53%
Last Percentile Before (<10 Rule)	6%	5%	5%	12%	17%
Last Decile After Cap	30%	29%	30%	44%	49%
Last Percentile After Cap	5%	5%	4%	10%	10%

Capping Statistics – Au

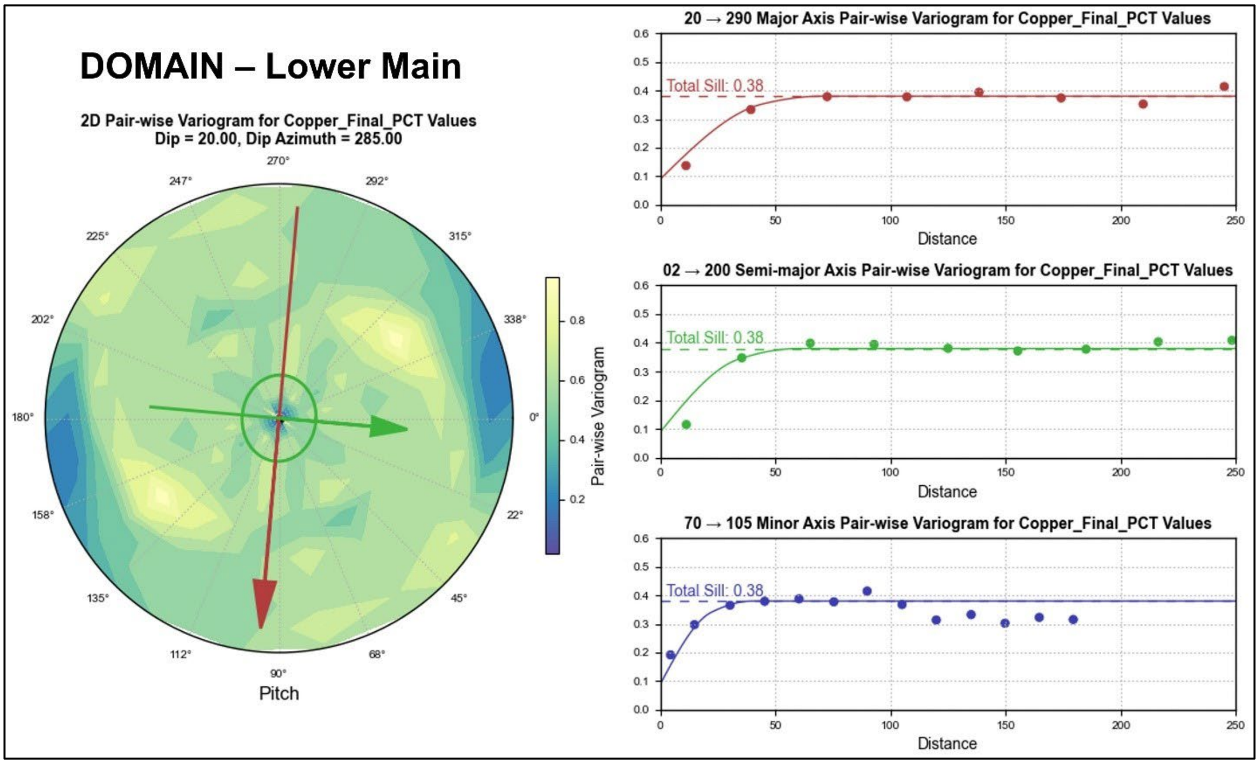
Domain	BISHOP	LOWER MAIN	UPPER MAIN	SY-MG	SY-PY LG
Total Composites	548	970	1268	1416	4266
Min Before Capping	0.001	0.008	0.007	0.001	0.001
Max Before Capping	3.533	2.371	13.194	4.79	0.92
Mean Before	0.124	0.114	0.196	0.06	0.02
Std Dev Before	0.243	0.214	0.507	0.20	0.04
CV Before	1.96	1.88	2.60	3.28	1.77
Capping Value	0.8	1	2.5	0.58	0.20
No of Capped Comps	6	8	3	15	32
Mean After	0.112	0.109	0.182	0.05	0.02
Std Dev After	0.138	0.187	0.255	0.08	0.03
CV After	1.23	1.71	1.41	1.65	1.40
Capped %	1.1%	0.8%	0.2%	1.1%	0.8%
Metal % Capped	10.1%	3.6%	7.1%	14%	4%

DECILE ANALYSIS Au	BISHOP	LOWER MAIN	UPPER MAIN	SY-MG	SY-PY LG
Last Decile Before (<40 Rule)	46%	55%	46%	56%	45%
Last Percentile Before (<10 Rule)	17%	13%	17%	24%	14%
Last Decile After Cap	40%	53%	42%	49%	43%
Last Percentile After Cap	7%	9%	10%	10%	10%

14.5 Variography

Experimental pairwise relative semi-variograms were calculated and modeled for each metal in each mineralized domain. Spherical two structure models were fitted to experimental semi-variograms in all cases. An example of experimental semi-variograms with fitted model for Cu is shown in Figure 14.7.

Figure 14.7 Example of variogram modeling (van der Heever, 2022).



All the domains had sufficient samples to create good experimental semi-variograms for each metal. Strong anisotropy was observed for the high-grade domains and directional variogram models were used. The nugget values (i.e., the sample variability at close distance) were established from downhole variograms.

Nugget values were on average around 20% of the total sill value for all elements in all domains. Major axes range for the short first structures of all the variograms were approximately 30m and the ranges for the second structure were 75m on average. All variogram model parameters are listed per element in Table 14.4.

Table 14.4 Lorraine domain variogram model parameters.

General	Direction					Structure 1				Structure 2			
Variogram Name	**Dip**	**Dip Azi**	**Pitch**	**Var**	**Nugget**	**Sill**	**Major**	**Semi**	**Minor**	**Sill**	**Major**	**Semi**	**Minor**
Au_Bishop	90	320	145	0.059	0.019	0.0041	40	34	20	0.01	82	72	48
Au_Main_Lower	20	285	95	0.046	0.004	0.0062	44	34	22	0.03	70	60	40
Au_Main_Upper	20	295	90	0.257	0.059	0.0839	58	30	24	0.04	70	58	42
Au_Out_Sy MG	0	0	90	0.038	0.006	0.0064	20	20	20	0.01	60	60	60
Au_Out_Sy-Py LG	0	0	90	0.001	0.000	0.0001	24	24	24	0	80	80	80
Cu_Bishop	90	320	145	0.255	0.079	0.0255	40	34	20	0.07	82	72	48
Cu_Main_Lower	20	285	95	0.112	0.010	0.0152	44	34	22	0.02	70	60	40
Cu_Main_Upper	20	295	90	0.247	0.045	0.0287	30	26	22	0.05	70	58	42
Cu_Out_Sy MG	0	0	90	0.055	0.009	0.0151	16	16	16	0	60	60	60
Cu_Out_Sy-Py LG	0	0	90	0.009	0.001	0.0014	14	14	14	0	80	80	80

14.6 Estimation

Anisotropic search orientations along mineralization trends were used to select data informing block estimates. Search radii were based on the variogram ranges. Ordinary kriging was used to estimate all blocks into the model in three estimation passes whereby each successive pass utilized a less restrictive sample search strategy to estimate any remaining un-estimated blocks. Search radii for the first estimation pass equals half of the variogram range. The second pass increases the search to the range and the third pass further expands to twice the variogram range.

The orientation of the sample search ellipse is aligned with the variogram models for copper and the search ranges for the successive passes are factors of the modelled variogram range. The search ellipse orientations in all cases display the strongest trend NNW-SSE with a steep dip towards the west and a northward plunge. All domains were estimated using ordinary kriging. Search orientations and sample selection criteria for each domain is shown below in Table 14.5.

14.7 Density

At the time of this study the authors were not aware that any specific gravity)or density) determinations were available and captured for the Property. An assumed density of 2.75 g/cm^3 was used in a previous historical mineral resource estimate (Peatfield, 1998) and in the most recent historical estimates in 2012 and 2016 (Giroux and Lindinger, 2016). For this estimate a density of 2.7 g/cm^3 was used for the bulk density and converting volume to tonnes. However, NorthWest Copper has recently provided information from their ongoing exploration and relogging program for the regional Lorraine property and there are approximately 200 new specific gravity measurements with a mean density based on that information of about 2.75 g/cm^3 (Titley, pers. comm., 2022).

It is recommended that specific gravity determinations be made in all future drill programs to characterize different rock and waste lithologies, particularly for the resource areas for both waste and mineralized rocks.

14.8 Block Model

The block model was constructed to fill the domain volumes with 20 m x 20 m x 5 m blocks in the X, Y and Z directions to best represent the data density of deposit shapes, and to minimize blocks unsupported by data. The model was rotated clockwise by 40 degrees to better fit the alignment of the domains.

Accurate representation of the domain volume was achieved by allowing sub-blocks to be created at domain boundaries. Each parent cell could be split in the X, Y and Z directions. For both sets of parent cell sizes described above, blocks in the X and Y directions were split with a minimum possible size of 5 m, while the height of the block was truncated precisely against the wireframe boundary. Each sub-block was assigned the estimate derived for the parent block. Two long sections and three cross sections through the model are shown in Figures 14.8 to Figure 14.12. Figure 14.8 is a location map showing the position of the sections. A 3D view of the block model is shown in Figure 14.12.

Table 14.5 Lorraine domain search parameters.

Domain	Pass	Ellipsoid Ranges			Ellipsoid Directions			Nr of Samples		Samples
		Max	Int	Min	Dip	Dip Azi	Pitch	Min	Max	per Hole
					Gold					
Bishop	1	41	36	24	90	320	145	8	16	5
	2	82	72	48	90	320	145	6	16	4
	3	164	144	96	90	320	145	4	16	3
Lower Main	1	35	30	20	20	285	95	8	16	5
	2	70	60	40	20	285	95	6	16	4
	3	140	120	80	20	285	95	4	16	3
Upper Main	1	35	29	21	20	295	90	8	16	5
	2	70	58	42	20	295	90	6	16	4
	3	140	116	84	20	295	90	4	16	3
Sy MG	1	30	30	30	0	0	90	8	16	5
	2	60	60	60	0	0	90	6	16	4
	3	120	120	120	0	0	90	4	16	3
Sy-Py LG	1	20	20	20	0	0	90	8	16	5
	2	40	40	40	0	0	90	6	16	4
	3	80	80	80	0	0	90	4	16	3
					Copper					
Bishop	1	41	36	24	90	320	145	8	16	5
	2	82	72	48	90	320	145	6	16	4
	3	164	144	96	90	320	145	4	16	3
Lower Main	1	35	30	20	20	285	95	8	16	5
	2	70	60	40	20	285	95	6	16	4
	3	140	120	80	20	285	95	4	16	3
Upper Main	1	35	29	21	20	295	90	8	16	5
	2	70	58	42	20	295	90	6	16	4
	3	140	116	84	20	295	90	4	16	3
Sy MG	1	30	30	30	0	0	90	8	16	5
	2	60	60	60	0	0	90	6	16	4
	3	120	120	120	0	0	90	4	16	3
Sy-Py LG	1	20	20	20	0	0	90	8	16	5
	2	40	40	40	0	0	90	6	16	4
	3	80	80	80	0	0	90	4	16	3

Figure 14.8 Lorraine locations of drill sections (van der Heever, 2022).

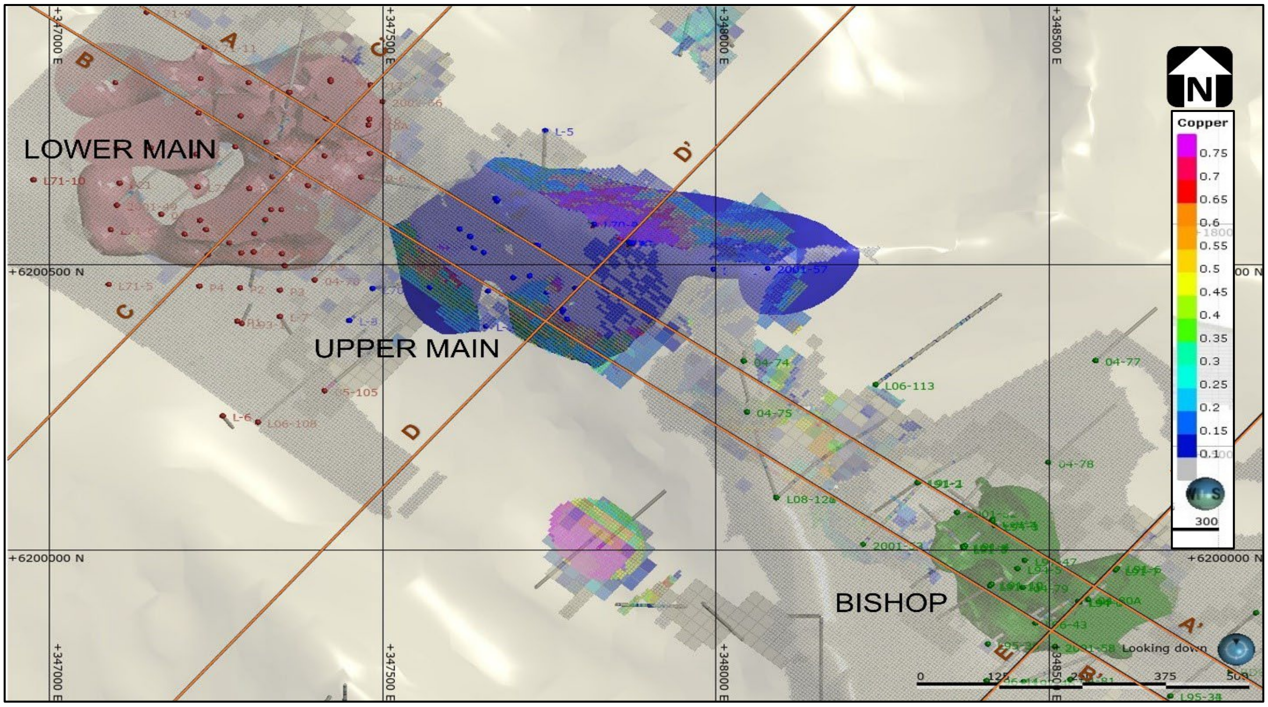


Figure 14.9 Lorraine long section A-A' (van der Heever, 2022).

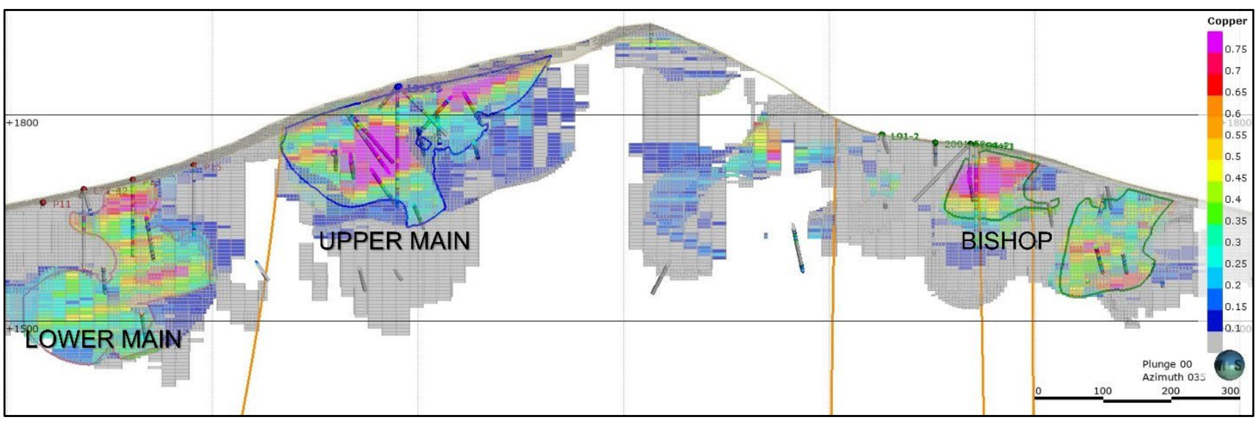


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Figure 14.10 Loraine long section B-B' (van der Heever, 2022).

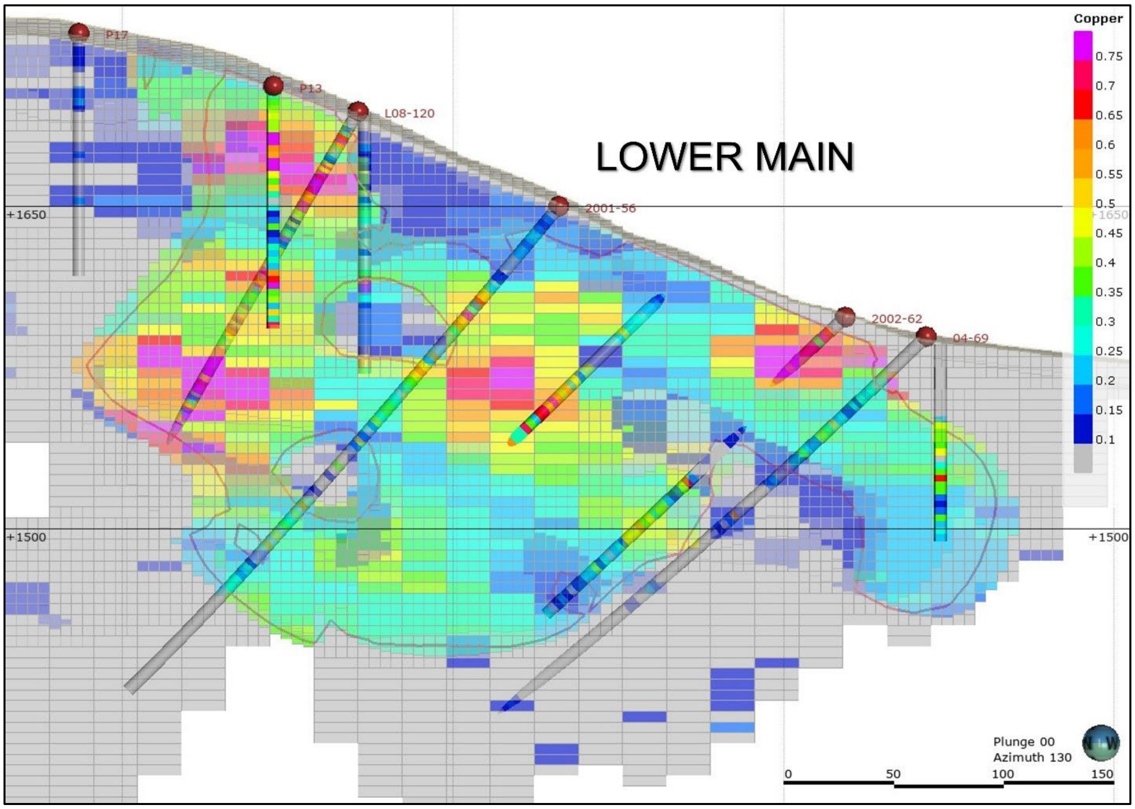


Figure 14.11 Lorraine cross-section C-C' (van der Heever, 2022).

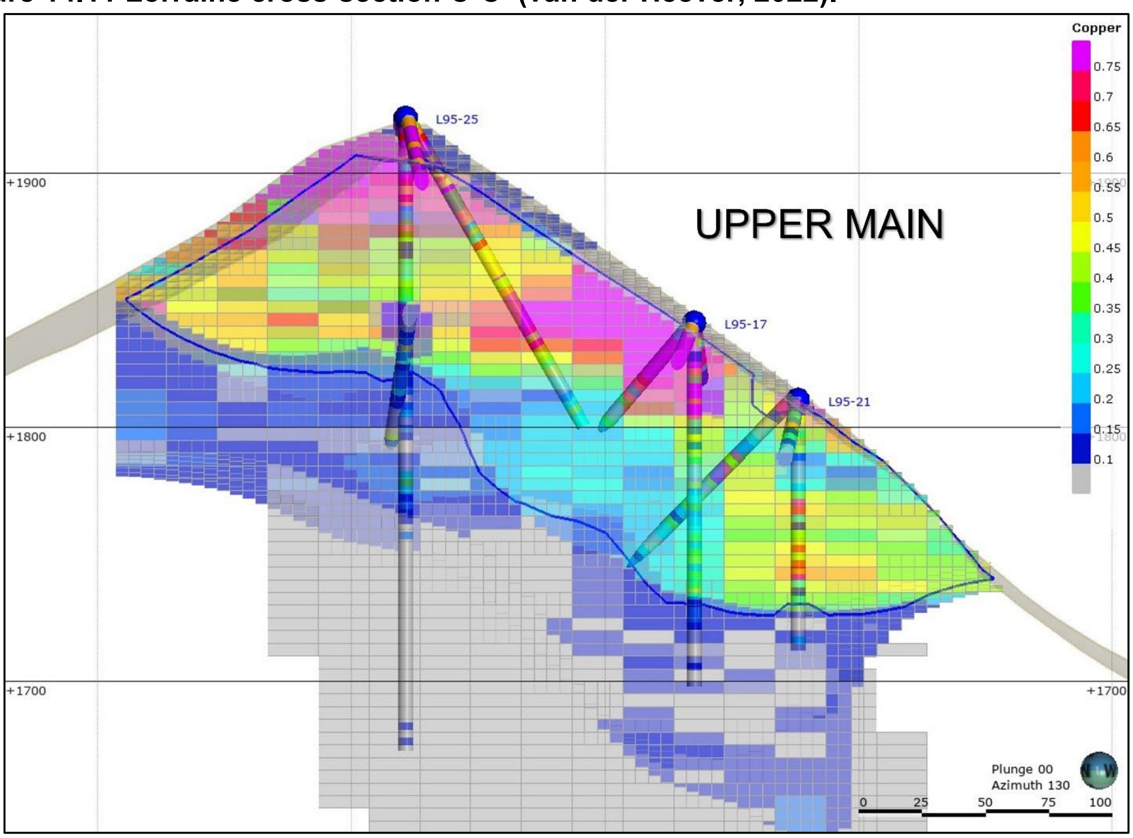


Figure 14.12 Lorraine cross-section D-D' (van der Heever, 2022).

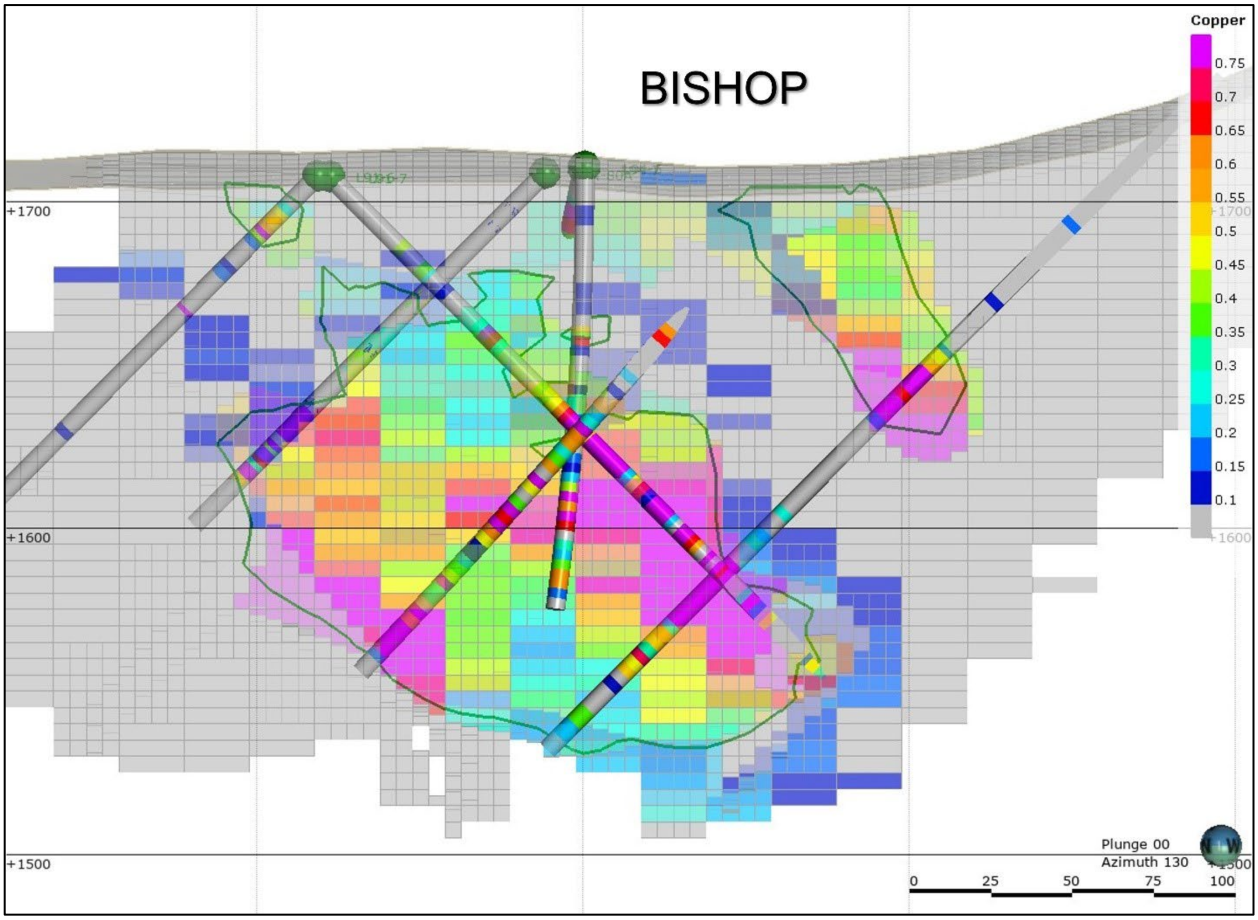
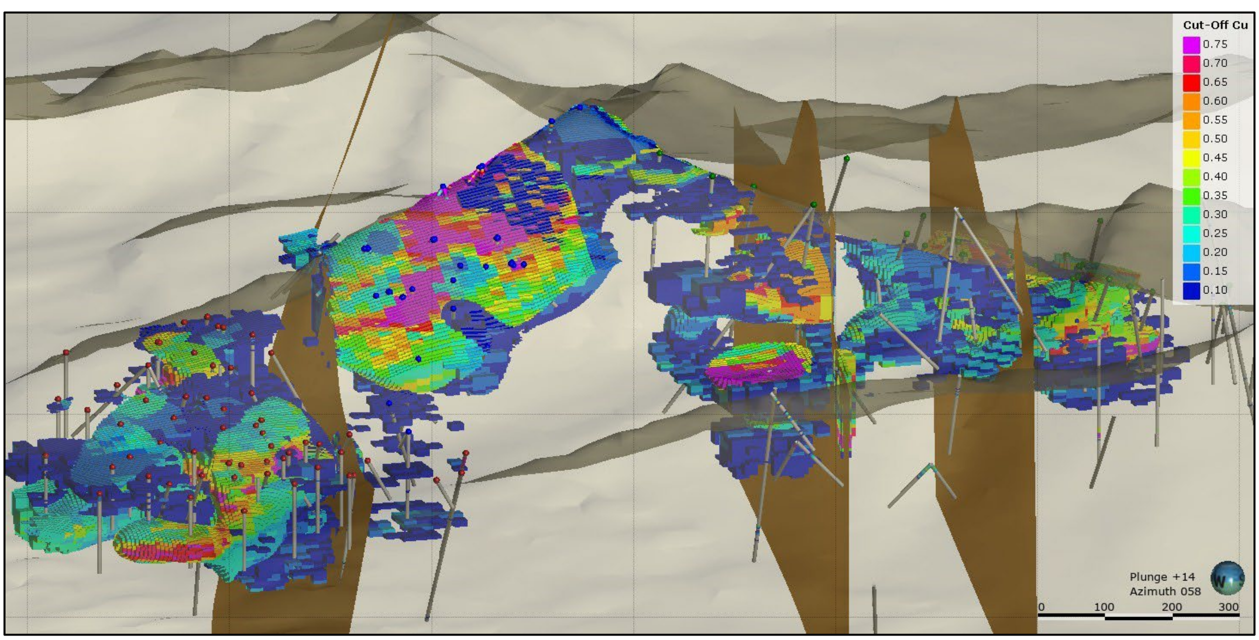


Figure 14.13 Lorraine three-dimensional (3D) view of the block model (van der Heever, 2022).



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14.9 Validation

The block estimates were validated by completing a series of visual comparisons stepping through the model comparing block grades vs. composite grades for each of the estimated elements for each domain. Several random blocks were interrogated to verify that the informing data was selected according to the search strategy and the weights applied to each composite matched the block estimate.

Additionally, swath plots were generated for eastings, northings, and elevation for Cu and Au. Figure 14.14 shows the swath plot for copper grades for all Domains. The average modelled grade agrees with the average grade of the composites from south to north across the model. The swath plots for gold are shown in Figure 14.15.

Figure 14.14 Swath plots of Cu estimates (van der Heever, 2022).

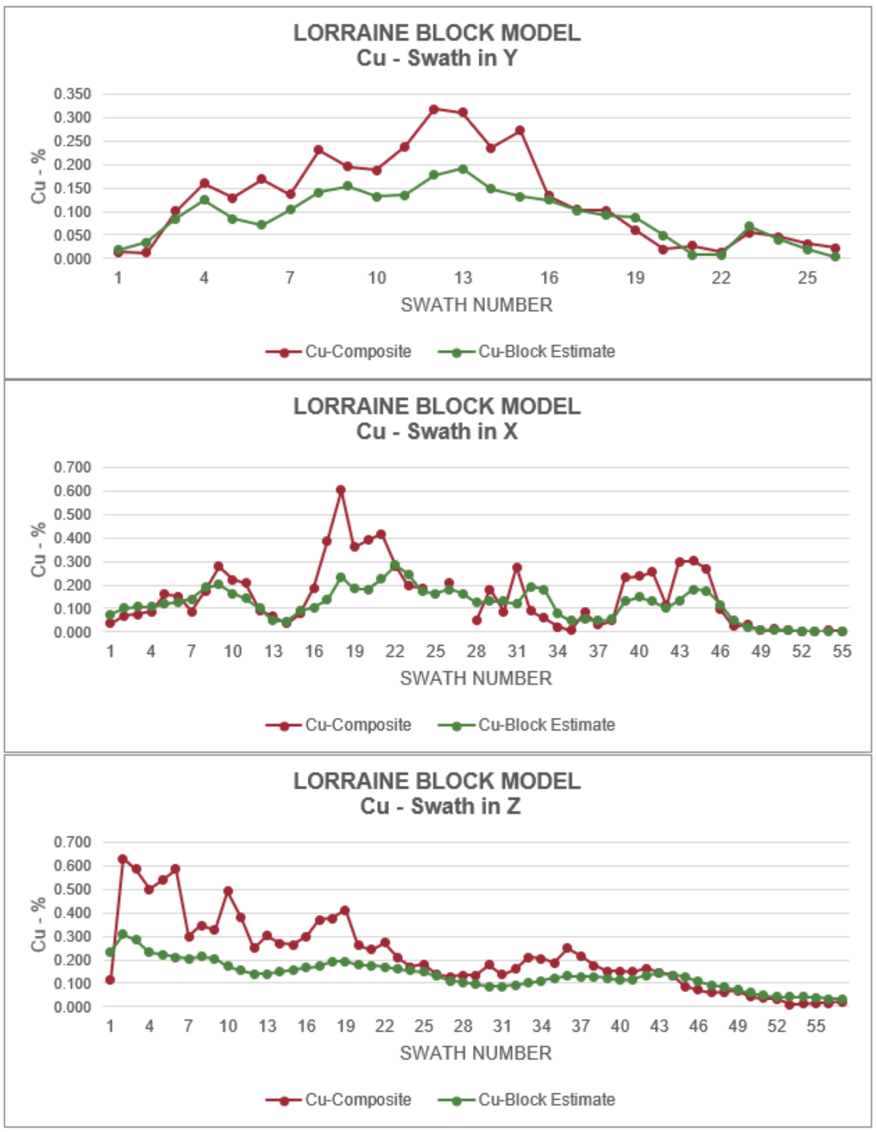
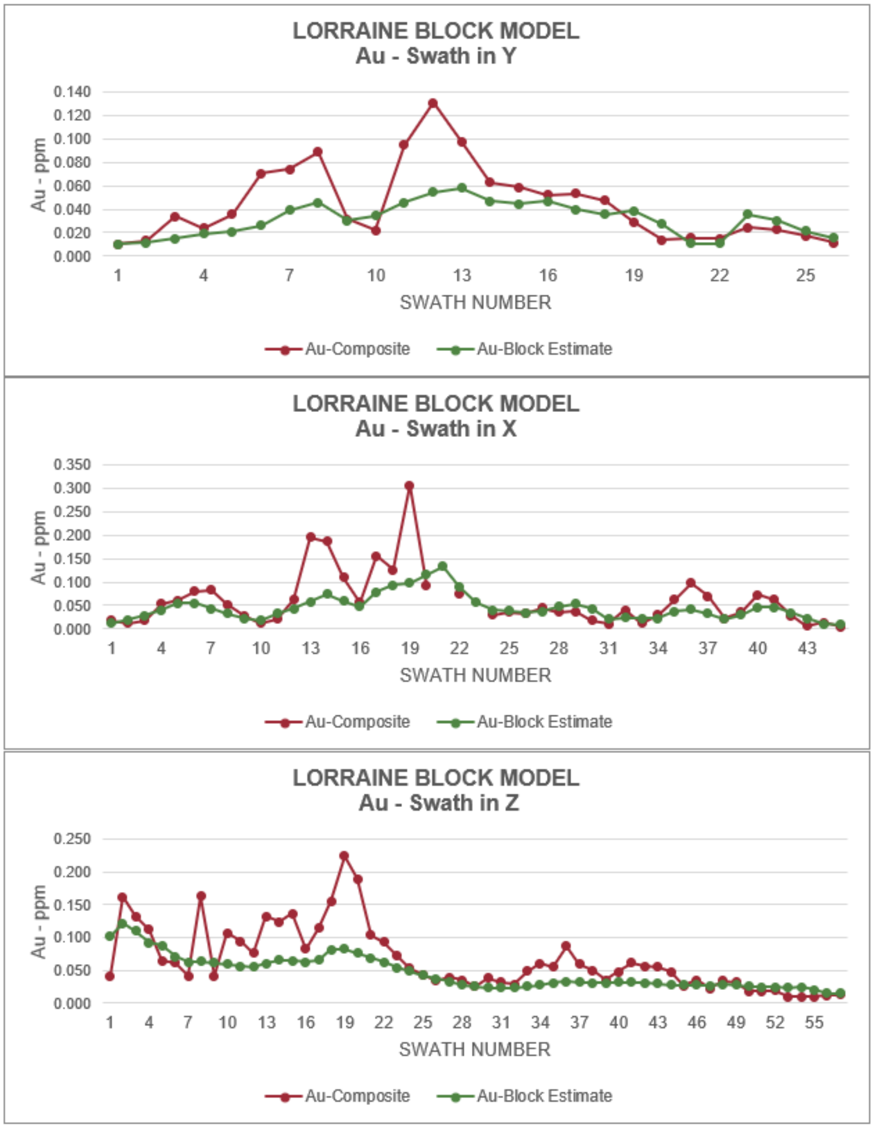


Figure 14.15 Swath plots of Au estimates (van der Heever, 2022).



14.10 Mineral Resource Classification

The block model was classified into Indicated and Inferred mineral resource categories. Blocks were assigned a preliminary classification based on the variography, drillhole spacing and number of samples in each pass as well as by domain as illustrated in Table 14.6. The MRE is classified as inferred and indicated according to the CIM definition standards. The classification of the indicated and inferred resources is based on geological confidence, data quality and grade continuity of the data.

Search distances for the first pass were generally half the variogram range and this was used as the initial classification for assigning blocks to the Indicated mineral resource category. Blocks estimated in the second pass employed a search distance of the full variogram range and were allocated to the Inferred resource category. Blocks estimated in the third pass that allowed a relaxed search up to three times the range were also assigned to the Inferred resource category. The search distances along with the minimum number of drillholes and samples is provided in Table 14.6. The preliminary classification boundaries, in particular, were then limited to the three main mineralized zones and are illustrated in Figure 14.16.

Table 14.6 Search Restrictions Applied During each Run of the Multiple-Pass Classification Strategy.

Domain	Pass	Minimum Number of Drillholes	Minimum Number of Samples	Ellipsoid Ranges			Classification
				Max	Int	Min	
Bishop	1	2	8	41	36	24	**Indicated**
	2	2	6	82	72	48	Inferred
	3	2	4	164	144	96	Inferred
Lower Main	1	2	8	35	30	20	**Indicated**
	2	2	6	70	60	40	Inferred
	3	2	4	140	120	80	Inferred
Upper Main	1	2	8	35	29	21	**Indicated**
	2	2	6	70	58	42	Inferred
	3	2	4	140	116	84	Inferred
Sy MG	1	2	8	30	30	30	Inferred
	2	2	6	60	60	60	Inferred
	3	2	4	120	120	120	Inferred
Sy-Py LG	1	2	8	20	20	20	Inferred
	2	2	6	40	40	40	Inferred
	3	2	4	80	80	80	Inferred

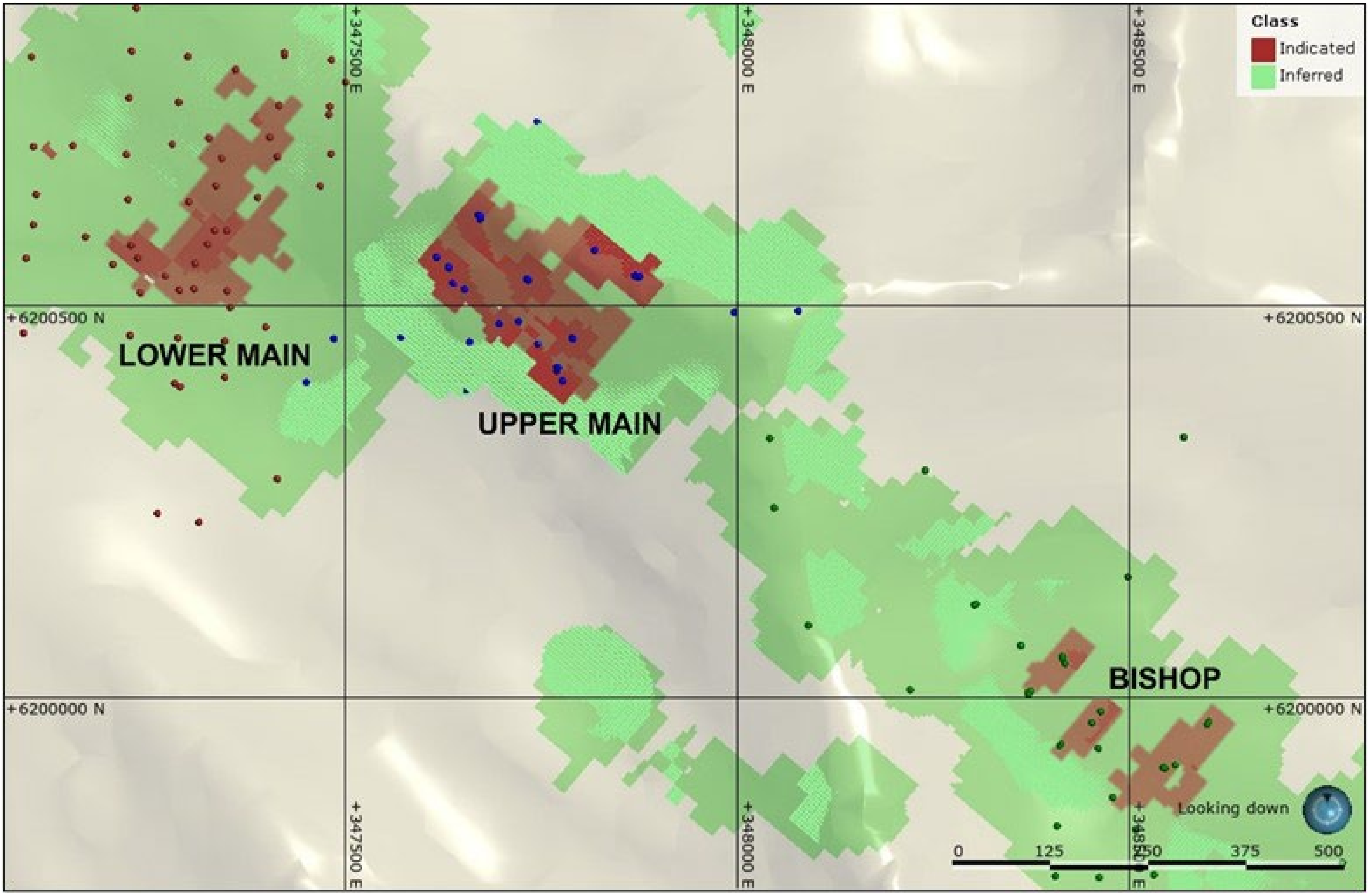
14.11 Mineral Resource Statement

The Lorraine mineral resources were classified as comprising Indicated and Inferred, mineral resources in accordance with the CIM Definition Standards for Mineral Resources and Mineral Reserves (CIM, 2014), which provides the following definitions:

A **Mineral Resource** is 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. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.

An **Inferred Mineral Resource** is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity.

Figure 14.16 Plan map showing classification for the three main resource areas (van der Heever, 2022).



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

An **Indicated Mineral Resource** is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.

Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.

A **Measured Mineral Resource** is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.

Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation.

A **Measured Mineral Resource** has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.

The Lorraine mineral resources reported in this Report are mineral resources, and not mineral reserves. The extraction and processing of the known mineralization has not yet been determined to be economically and technically viable, and there is no guarantee that the Measured and Indicated resources will become mineral reserves in future. Inferred resources cannot become reserves unless future drilling improves the confidence in these areas so that they can later be classified as Measured or Indicated resources.

The “reasonable prospects for eventual economic extraction” requirement generally implies that the quantity and grade estimates meet certain reasonable economic thresholds and that the mineral resources are reported at an appropriate cut-off grade considering potentially reasonable extraction scenarios and processing recoveries. The Author and QP considers that the Lorraine mineralization is potentially amenable to open pit extraction and that constraining the reported resources to a resource pit shell meets the “reasonable prospects” requirement of the CIM Definition Standards.

In this regard, a series of Lerchs-Grossman (LG) pit optimizations were constructed using a number of scenarios of metal pricing, recovery and mining parameters in order to demonstrate and report mineral resources that have a reasonable prospect for eventual future economic extraction.

Key assumptions for the chosen mineral resource scenario are outlined directly below:

- Commodity prices: Cu - US$3.50/lb., Au - US$1,650/oz.
- Metallurgical recoveries: Cu – 90%, Au 85%.
- Operating costs: mining costs of CDN$3.50/t for mineralized rock and waste along with combined processing and G&A costs of CDN$14.50/t of mineralized rock. An exchange rate of 0.77 was used to convert from CDN to US dollars.
- Pit slopes: 45º.
- USD to CDN dollar exchange rate of 0.77.
- Commodity price assumptions were guided by the regulatory requirement for the MRE to have reasonable prospects for eventual economic extraction.

The MRE assumed a 0.2% Cu cut-off for the mineralization (Table 14.7).

Table 14.7 Lorraine 2022 Mineral Resource Estimate at a cut-off of 0.2% Copper.

Domain	Class	Tonnes (000s)	Avg Cu Grade (%)	Avg Au Grade (g/t)	Ave CuEq Grade (%)	Cu (‘000 lbs)	Au ('000 oz)
Bishop	Indicated	2,541	0.58	0.12	0.66	32,284	10
	Inferred	9,082	0.51	0.1	0.57	101,730	29
Lower Main	Indicated	3,828	0.45	0.15	0.55	38,342	18
	Inferred	21,282	0.38	0.07	0.43	179,032	49
Upper Main	Indicated	6,584	0.59	0.19	0.71	85,467	40
	Inferred	15,089	0.44	0.14	0.53	147,169	67
Total	Indicated	12,952	0.55	0.16	0.65	156,093	68
	Inferred	45,452	0.43	0.1	0.49	427,931	145

Notes:

- Indicated and Inferred Mineral Resources are not Mineral Reserves. Mineral resources which are not mineral reserves do not have demonstrated economic viability. There has been insufficient exploration to define the inferred resources tabulated above as an indicated or measured mineral resource, however, it is reasonably expected that the majority of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. There is no guarantee that any part of the mineral resources discussed herein will be converted into a mineral reserve in the future. The estimate of mineral resources may be materially affected by environmental, permitting, legal, marketing or other relevant issues. The mineral resources have been classified according to the Canadian Institute of Mining (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May, 2014).and CIM Estimation of Mineral Resources & Mineral Reserves Best Practices Guidelines (2019).
- Cu Equivalent (CuEq) grade is based on 90% Cu recovery and 85% Au Recovery. The conversion used for Au grade (g/t) to Cu Eq grade (%) is: Au (g/t) * 0.6493, at a price of Cu US$3.50/lb and US$1,650.
- The Mineral Resource Estimate is constrained in an LG pit optimization utilizing Cu at US$3.50/lb, Au at US$1,650/oz, Mining at CDN$ 3.50/tonne, Processing and G&A at CDN$ 14.50/tonne, pit slopes at 45° and an exchange rate of 0.77.
- Differences may occur in totals due to rounding

The updated Lorraine MRE is reported at a range of copper cut-off grades as shown in Table 14.8 for Indicated and Inferred categories. The Indicated and Inferred MRE takes into account the likely process option and are constrained to lie within an open pit shell since this is the extraction scenario that would be used to mine this mineralization. The preferred MRE statement is at a cut-off of 0.2% Cu and is highlighted.

Table 14.8 Sensitivity to cut-off grades of the Lorraine MRE.

Cutoff Cu (%)	Tonnes (1000 kg)	Avg Cu Grade (%)	Avg Au Grade (g/t)	Avg CuEq Grade (%)	Cu (lbs) '000	Au (oz)	Class
0	48,138,000	0.41	0.10	0.48	437,797	148,400	Inferred
0.1	47,953,000	0.41	0.10	0.48	437,459	148,300	
0.2	**45,452,000**	**0.43**	**0.10**	**0.49**	**427,931**	**144,800**	
0.3	34,528,000	0.48	0.11	0.55	366,134	124,300	
0.4	20,553,000	0.57	0.13	0.66	258,898	87,800	
0.5	11,809,000	0.66	0.15	0.76	172,902	57,000	
0	13,514,000	0.53	0.16	0.63	158,066	69,500	Indicated
0.1	13,459,000	0.53	0.16	0.64	157,984	69,500	
0.2	**12,952,000**	**0.55**	**0.16**	**0.65**	**156,093**	**68,400**	
0.3	10,302,000	0.62	0.19	0.74	141,157	61,700	
0.4	7,662,000	0.72	0.21	0.85	120,817	51,600	
0.5	5,440,000	0.83	0.23	0.98	98,967	40,900	

Notes:

- Indicated and Inferred Mineral Resources are not Mineral Reserves. Mineral resources which are not mineral reserves do not have demonstrated economic viability. There has been insufficient exploration to define the inferred resources tabulated above as an indicated or measured mineral resource, however, it is reasonably expected that the majority of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. There is no guarantee that any part of the mineral resources discussed herein will be converted into a mineral reserve in the future. The estimate of mineral resources may be materially affected by environmental, permitting, legal, marketing or other relevant issues. The mineral resources have been classified according to the Canadian Institute of Mining (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May, 2014).and CIM Estimation of Mineral Resources & Mineral Reserves Best Practices Guidelines (2019).
- Cu Equivalent (CuEq) grade is based on 90% Cu recovery and 85% Au Recovery. The conversion used for Au grade (g/t) to Cu Eq grade (%) is: Au (g/t) * 0.6493, at a price of Cu US$3.50/lb and US$1,650/oz.
- The Mineral Resource Estimate is constrained in an LG pit optimization utilizing Cu at US$3.50/lb, Au at US$1,650/oz, Mining at CDN$ 3.50/tonne, Processing and G&A at CDN$ 14.50/tonne, pit slopes at 45° and an exchange rate of 0.77.
- Differences may occur in totals due to rounding

14.12 Discussion of Resource Modelling, Risks and Uncertainties

The re-modeling of the three main mineralized zones using Leapfrog implicit modeling software vs. the traditional cross section polygonal interpretation linking method used in prior mineral resource estimates greatly improved the volumes and shapes of domains versus the prior efforts to construct a mineral resource.

A geological model of the main lithologic units and main structures was completed by Company staff geologists and was used to refine the domain model. This model was reviewed, modified and accepted by the QP and Author. There is however, a need for relogging and bringing the geological model up to a better and more consistent standard. A twinning and infill drill program will also be required to improve the understanding of mineralization controls and improve the confidence in the location and use of the historical drillhole data.

Geochemical analysis of the historical drilling represents a moderate risk to the MRE. No historical density sample testing has been completed on the property and this constitutes another moderate risk. However, this risk is partially mitigated in that NorthWest Copper has recently provided information from their ongoing exploration and relogging program for the regional Lorraine property for approximately 200 new specific gravity measurements that yield a mean density of about 2.75 g/cm^3 (Titley, pers. comm., 2022). This may indicate that there is potential to increase the values for density of the MRE, which could lead to more tonnes in the model.

There have been no studies on metallurgical recovery methods on the Lorraine property to date. Metallurgical recovery of copper in these types of deposits is well known, however, metallurgical work is required to confirm recoverability and address potential future issues such as deleterious elements and acid rock drainage (ARD).

The wider drill grid spacings and lack of downhole survey data in some areas pose some risk to the relative position of the geological structures as well as the mineralized rock and waste contact positions. Some areas of the deposit edges are only covered by wide drill grid spacings, with opportunity for extension outwards.

Sample preparation, analytical procedures, and secure data management was addressed in the 2016 Technical Report. An exploration program was recommended for 2016 but was not completed. Additional drilling will be required to provided confidence in the use of the historical assaying completed for historical drilling.

The authors are not aware of any other significant material risks to the MRE other than the risks that are inherent to mineral exploration and development in general. The authors of this report are not aware of any specific environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant factors that might materially affect the results of this resource estimate and there appear to be no obvious impediments to expanding and developing the MRE at the Lorraine Project.

Sections 15-22 are not included as this Technical Report for the Lorraine Project provides an update Mineral Resource Estimate only.

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23 Adjacent Properties

The Lorraine Property is situated within the Triassic-Jurassic Quesnel arc, part of the Intermontane belt which hosts pre- and post-accretionary porphyry copper deposits. Both calc-alkaline porphyry Cu±Mo±Au and alkaline porphyry Cu-Au deposits trend NW along the belt, and the Lorraine property sits in the middle of this trend. Notable projects proximal to Lorraine include the Mt Milligan Mine, also trending along this belt (Figure 15.1).

Immediately adjacent to the Lorraine Property are mineral claims are owned by R.M. Dorfeld, Northwest Copper Corp, Thane Minerals Inc., C.O. Naas, R. Kalt, and Orogenic Regional Exploration Ltd.

The author has been unable to verify the information pertaining to the adjacent properties in the area. This information is not necessarily indicative of the mineralization on the Lorraine Property.

23.1 Mt. Milligan

The Mt Milligan Deposit lies approximately 130 km southeast of the Lorraine Property and is owned by Centerra Gold Inc. (Centerra). It is located within the Triassic-Jurassic Quesnel arc at the southern end of the Hogem Batholith, on trend with the Chuchi syenite complex. It is currently a conventional open-pit copper and gold mine. The overall Mt Milligan Deposit is roughly tabular, near-surface porphyry measuring approximately 2,500 m north-south and 1,500 m east-west, with vertical extension greater than 500 m. Early exploration activity was recorded in 1937; the Property is currently owned by Centerra Gold (Fitzgerald et al., 2019).

The Mt Milligan Deposit is a silica-saturated alkalic Cu-Au porphyry deposit, and mineralization consists of early-stage porphyry gold-copper and late-stage high-gold low-copper. Porphyry Cu-Au mineralization coincides with potassic alteration zones and high-gold low-copper mineralization with structurally controlled quartz-sericite-pyrite-carbonate alteration. Two principal porphyritic intrusions make up the deposits, the magnetite breccia (MBX) and Southern Star stocks (Figure 23.2). Both are composite monzonite porphyry stocks that dip moderately to the west, and the shape of mineralized bodies are irregular and gradational (Fitzgerald et al., 2019). Table 23.1 shows the current mineral reserve statement for the Mt. Milligan Mine effective as of Dec 31, 2021 (Centerra, 2022).

The Mt. Milligan Resource Statement was calculated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) “CIM Definition Standards - For Mineral Resources and Mineral Reserves" adopted by the CIM Council (as amended, the “CIM Definition Standards”) in accordance with the requirements of National Instrument 43-101 “Standards of Disclosure for Mineral Projects" (“NI 43-101”). The Authors of this Technical Report have not visited the Property or verified the Mt. Milligan Resource Statement, however the Reserve and MRE was prepared by QPs in accordance with the NI 43-101 and are considered to be valid and current. The Author does not imply any size or grade relationship between the Mt. Milligan Deposit and the Lorraine Property and note that this information is not necessarily indicative of the mineralization known or to be expected at Lorraine, which is the subject of this Technical Report.

Table 23.1 Mt. Milligan Mineral Reserve and Resource Estimates (Centerra, 2022).

Mineral Reserve Category	Tonnes (kt)	Copper Grade (%)	Gold Grade (g/t)	Contained Copper (Mlb)	Contained Gold (koz)
Proven	107,444	0.23	0.39	534	1,342
Probable	42,531	0.21	0.36	201	496
Proven + Probable	149,975	0.22	0.38	736	1,838

Resource Category	Tonnes (kt)	Copper Grade (%)	Gold Grade (g/t)	Contained Copper (Mlb)	Contained Gold (koz)
Measured	134,531	0.16	0.31	479	1,331
Indicated	149,426	0.15	0.30	495	1,428
Measured + Indicated	283,957	0.16	0.31	974	2,759
Inferred	17,232	0.19	0.37	47	203

Notes:
• Indicated and Inferred Mineral Resources are not Mineral Reserves. Mineral resources which are not mineral reserves do not have demonstrated economic viability. There has been insufficient exploration to define the inferred resources tabulated above as an indicated or measured mineral resource, however, it is reasonably expected that the majority of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. There is no guarantee that any part of the mineral resources discussed herein will be converted into a mineral reserve in the future. The estimate of mineral resources may be materially affected by environmental, permitting, legal, marketing or other relevant issues. The mineral resources have been classified according to the Canadian Institute of Mining (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May, 2014).and CIM Estimation of Mineral Resources & Mineral Reserves Best Practices Guidelines (2019).

Figure 23.1 Mt. Milligan project location.

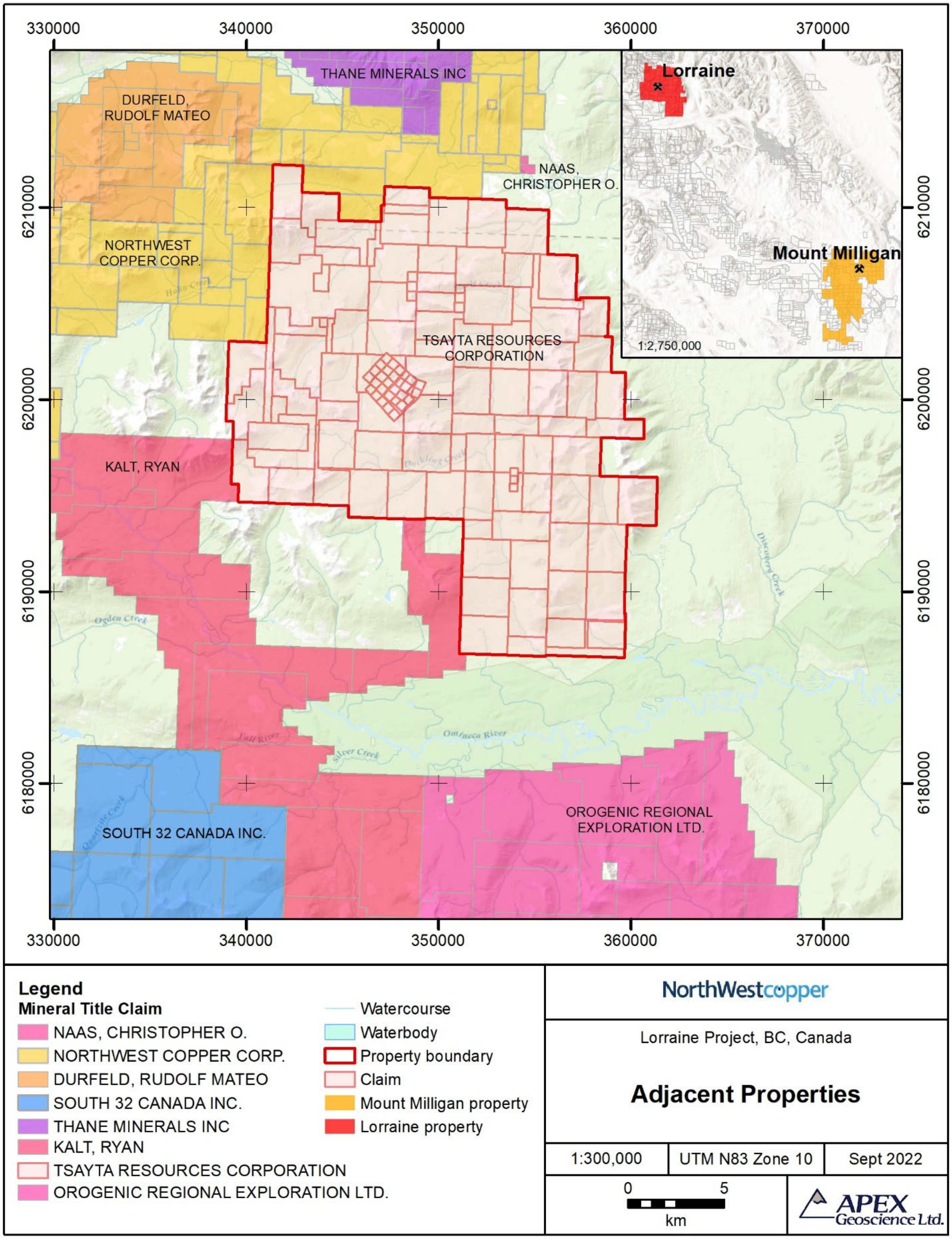
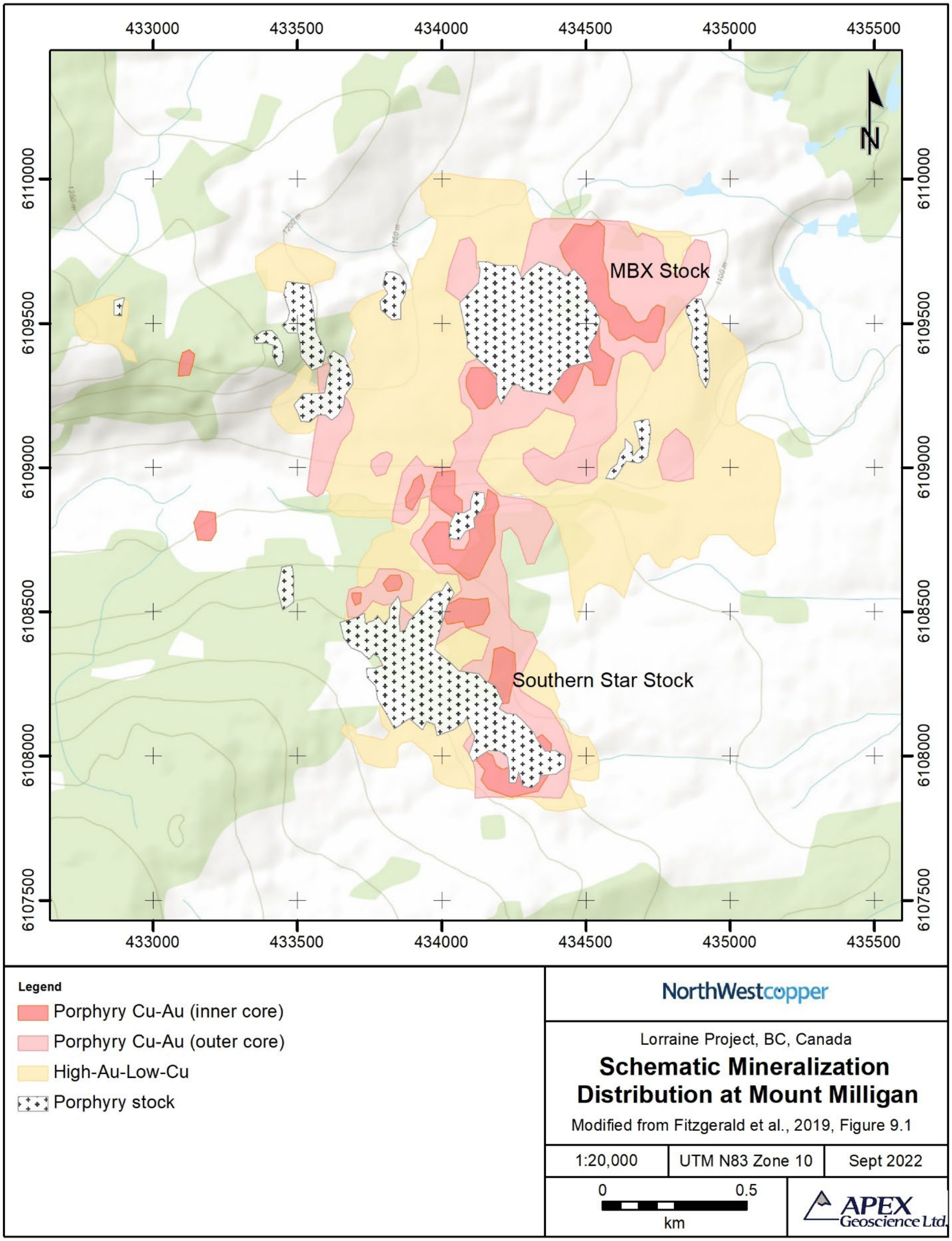


Figure 23.2 Mt. Milligan mineralization distribution (after Fitzgerald et al., 2019).



24 Other Relevant Data and Information

NorthWest Copper has a 100% interest in the nearby Kwanika and Stardust deposits.

24.1 Kwanika Project

The Kwanika Deposit is located 40 km south of the Lorraine Property and lies within the south-western edge of the Hogem Batholith. The deposit consists of the Central Zone and South Zone. The Kwanika Deposit is a porphyry Cu deposit. The Central Zone contains copper and gold mineralization occurring primarily in potassic and sericite-carbonate alteration zones. The South Zone comprises mineralization of coarse-grained chalcopyrite disseminations and molybdenite mineralization along fractures and quartz selvages. MRE's for the Kwanika Central Zone and South Zone are presented in Table 24.1 and 24.2, respectively.

Table 24.2 Kwanika Central Zone MRE – Total Pit and Underground (Bird et al., 2019).

PIT-CONSTRAINED									
Category	Cutoff	Quantity	In situ Grade				In situ Contained Metal		
	CuEq (%)	(Mt)	CuEq (%)	Cu (%)	Au (g/t)	Ag (g/t)	Cu (Mlbs)	Au (koz)	Ag (koz)
Measured	0.13%	24.2	0.51	0.34	0.33	1.07	179	254	833
Indicated		80.4	0.3	0.2	0.18	0.69	360	454	1,784
Total M+I		104.6	0.35	0.23	0.21	0.78	540	708	2,617
Inferred		5.7	0.23	0.16	0.13	0.65	20	25	119
UNDERGROUND									
Category	Cutoff	Quantity	In situ Grade				In situ Contained Metal		
	CuEq (%)	(Mt)	CuEq (%)	Cu (%)	Au (g/t)	Ag (g/t)	Cu (Mlbs)	Au (koz)	Ag (koz)
Measured	0.27% confining shape -	18.7	0.58	0.36	0.4	1.15	151	239	692
Indicated		100.2	0.44	0.29	0.27	0.92	634	884	2,964
Total M+I		118.9	0.46	0.3	0.29	0.96	784	1,123	3,656
Inferred		84.7	0.27	0.17	0.18	0.6	319	480	1,634
COMBINED PIT AND UNDERGROUND									
Category	Cutoff	Quantity	In situ Grade				In situ Contained Metal		
	CuEq (%)	(Mt)	CuEq (%)	Cu (%)	Au (g/t)	Ag (g/t)	Cu (Mlbs)	Au (koz)	Ag (koz)
Measured	0.13%- open pit, and 0.27% ug	42.9	0.54	0.35	0.36	1.1	330	493	1,525
Indicated		180.6	0.38	0.25	0.23	0.82	994	1,338	4,748
Total M+I		224	0.41	0.27	0.25	0.87	1,324	1,831	6,273
Inferred		90.4	0.26	0.17	0.17	0.6	339	504	1,753

Notes:

- Indicated and Inferred Mineral Resources are not Mineral Reserves. Mineral resources which are not mineral reserves do not have demonstrated economic viability. There has been insufficient exploration to define the inferred resources tabulated above as an indicated or measured mineral resource, however, it is reasonably expected that the majority of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. There is no guarantee that any part of the mineral resources discussed herein will be converted into a mineral reserve in the future. The estimate of mineral resources may be materially affected by environmental, permitting, legal, marketing or other relevant issues. The mineral resources presented herein have been estimated in conformity with generally accepted CIM guidelines (CIM, 2014) and are reported in accordance with Canadian Securities Administrators (CSA) National Instrument 43-101 (CSA, 2016).

- The CuEq cut-offs are based on prices of US$3.25/lb of copper, US$1,350/oz of gold, US$17/oz of silver and assumed recoveries of 91% for copper, 75% for gold, 75% for silver.
- Copper equivalents (CuEq) values are calculated using the formula below based on the above metal prices and recoveries. They include smelter terms and a $US:$CAD exchange rate of 0.77 which results in the following equation.
- CuEq = Cu% + ((Auoz*CAD$1620.77*75%) + (Agoz*CAD$18.79 *75%)) / (CAD$3.71*91%*22.0462)

Table 24.2 Kwanika South Zone MRE (Bird et al., 2019).

Category	Cutoff	Quantity	In situ Grade				In situ Contained Metal			
	CuEq (%)	(x1000 Tonnes)	Cu (%)	Au (g/t)	Ag (g/t)	Mo (%)	Cu (000's lb)	Au (koz)	Ag (koz)	Mo (000's lb)
Inferred	0.13%	33,300	0.26	0.08	1.64	0.01	191,400	80	1,760	7,470

Notes:

- Indicated and Inferred Mineral Resources are not Mineral Reserves. Mineral resources which are not mineral reserves do not have demonstrated economic viability. There has been insufficient exploration to define the inferred resources tabulated above as an indicated or measured mineral resource, however, it is reasonably expected that the majority of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. There is no guarantee that any part of the mineral resources discussed herein will be converted into a mineral reserve in the future. The estimate of mineral resources may be materially affected by environmental, permitting, legal, marketing or other relevant issues. The mineral resources presented herein have been estimated in conformity with generally accepted CIM guidelines (CIM, 2014) and are reported in accordance with Canadian Securities Administrators (CSA) National Instrument 43-101 (CSA, 2016).
- The CuEq cutoff is based on prices of US$3.00/lb of copper, US$1,300/oz of gold, US$20/oz of silver and assumed recoveries of 89% for copper, 70% for gold, 75% for silver and 60% for molybdenum.
- Copper equivalents (CuEq) values are calculated using the formula below based on the above metal prices and recoveries.
- CuEq = Cu% + Au(g/t)*0.497 + Ag(g/t)*0.00813 + Mo(%)*2.02247

The Kwanika Mineral Resource Estimates were calculated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") "CIM Definition Standards - For Mineral Resources and Mineral Reserves" adopted by the CIM Council (as amended, the "CIM Definition Standards") in accordance with the requirements of National Instrument 43-101 "Standards of Disclosure for Mineral Projects" ("NI 43-101"). The Authors of this Technical Report have not verified the Kwanika Mineral Resource Estimates, however the MREs were prepared by QPs in accordance with NI 43-101 and are considered to be valid and current. The Authors do not imply any size or grade relationship between the Kwanika deposits and the Lorraine Deposit and note that this information is not necessarily indicative of the mineralization known or to be expected at Lorraine, which is the subject of this Technical Report.

24.2 Stardust Project

The Stardust (formerly 'Lustdust') project lies 40 km south of the Lorraine Property. The Stardust Property lies just west of the Pinchi fault. In this area, the Pinchi marks the contact between the Pennsylvanian-Permian Cache Creek terrane to the southwest and the Quesnellia Terrane to the northeast. The Quesnelia Terrane includes the Jurassic Hogem Batholith and Triassic-Jurassic Takla rocks. The Stardust Property hosts several styles of mineralization including porphyry, skarn, carbonate replacement, vein, and sediment hosted. An updated MRE for the Stardust Project Canyon Creek Skarn Zone is presented in Table 24-3. It is based on a cut-off of US $65/tonne and 2.5 m minimum mining width.

Table 24.3 Stardust MRE – Canyon Creek Zone (Simpson, 2021)

Class	Tonnes (000)	Grades			
		%Cu	g/t Au	g/t Ag	CuEq
Indicated	1,963	1.31	1.44	27.1	2.59
Inferred	5,843	0.86	1.17	20	1.88

Notes:

- Indicated and Inferred Mineral Resources are not Mineral Reserves. Mineral resources which are not mineral reserves do not have demonstrated economic viability. There has been insufficient exploration to define the inferred resources tabulated above as an indicated or measured mineral resource, however, it is reasonably expected that the majority of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. There is no guarantee that any part of the mineral resources discussed herein will be converted into a mineral reserve in the future. The estimate of mineral resources may be materially affected by environmental, permitting, legal, marketing or other relevant issues. The mineral resources have been classified according to the Canadian Institute of Mining (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May, 2014).and CIM Estimation of Mineral Resources & Mineral Reserves Best Practices Guidelines (2019).
- Block tonnes were estimated using a density of 3.4 g/cm3 for mineralized material.
- Copper Equivalent was calculated using the metal price assumptions stated above: CuEq = Cu + Au * 0.718 + Ag * 0.009.

The Stardust Mineral Resource Estimate was calculated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) “CIM Definition Standards - For Mineral Resources and Mineral Reserves" adopted by the CIM Council (as amended, the “CIM Definition Standards”) in accordance with the requirements of National Instrument 43-101 “Standards of Disclosure for Mineral Projects" (“NI 43-101”). The authors of this Technical Report have not verified the Stardust Mineral Resource Estimates, however the MREs were prepared by QPs in accordance with NI 43-101 and are considered to be valid and current. The Authors do not imply any size or grade relationship between the Stardust Deposit and the Lorraine Property and note that this information is not necessarily indicative of the mineralization known or to be expected at Lorraine, which is the subject of this Technical Report.

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25 Interpretation and Conclusions

The Lorraine Project is in North Central British Columbia, Canada, approximately 280 kilometres (km) northwest of Prince George, BC. The Property comprises 142 mineral claims covering a combined area of approximately 39,227 ha, located in the Omineca Mining Division of Northern British Columbia.

This Report on the Lorraine Project has been prepared by Mr. Alfonso Rodriguez, M.Sc., P. Geo, Senior Geologist with APEX and Mr. Michael Dufresne, M.Sc., P. Geol., P. Geo., President of APEX. The intent and purpose of this Report is to disclose a current MRE and provide a technical summary of the Lorraine Property geology, including details of recent exploration activities completed by the Company during 2021. The effective date of the Report and the MRE is June 30th, 2022.

The Property is located in a favorable geological setting, within the DCSC, part of the Mesozoic age composite intrusive complex known as the Hogem Batholith. The Hogem Batholith is a massive, 200-km-long expanse of intrusive rock within the Quesnel Terrane. To the west, older, uplifted Cache Creek Group rocks are separated from this belt by the Pinchi fault zone. The Hogem Batholith is composed of four main Jurassic-Cretaceous intrusive suites: 1) Early Jurassic calc-alkaline intrusive rocks of the Thane Creek suite (granodiorite, diorite, quartz monzonite, granite), which form the oldest intrusive component of this part of the Quesnel Terrane; 2) Early Jurassic alkalic intrusive rocks represented by the DCSC and the Chuchi syenite body; 3) Late Jurassic calc-alkaline granitoids of the Osilinka suite; and 4) Early Cretaceous calc-alkaline intrusive rocks of the Mesilinka suite (granodiorite, granite, quartz monzonite). Several ultramafic and gabbro-diorite intrusive complexes also form part of the intrusive component of Quesnel terrane, although they are not historically included in the definition of the Hogem Batholith.

Copper-gold mineralization, commonly described as “porphyry-style” disseminated and local vein-related mineralization in the southern Hogem Batholith, is focused around the syenite bodies (Nelson and Bellefontaine, 1996, Devine et al., 2014). Ultramafic bodies are notable for occurrences of platinum group elements PGEs (Nixon et al., 1997). Cretaceous-age intrusions locally host occurrences of copper and molybdenum in the Hogem region (Garnett, 1978).

25.1 Historical Exploration

Exploration within the Property dates to the 1930s when the Property was staked and later acquired by Cominco in 1943. The initial mineral claims of Lorraine were restricted to the Upper Main and Lower Main mineralized zones. From the mid-1990’s onwards, a process of claim consolidation from various operators has resulted in the current extent of the Lorraine Property. Mineral exploration programs have included surface geochemical sampling, airborne and ground geophysical surveys, geological mapping as well as drilling. The authors of this report have identified approximately 1,180 rock samples, 1,240 silt samples, and 15,750 soil samples that have been collected from the Property between 1948 and 2011. These samples are documented in 25 historical assessment reports, which describe exploration that was conducted within the current extent of the Property. Historical drilling on the Property has been conducted by several companies from 1949 to 2009. In total, information for 398 historical drillholes totalling 63,445.03 m completed on or in the immediate vicinity of the current Lorraine Property is compiled in the drillhole database of the Project. The number of historical drillholes completed within the current boundaries of the Lorraine Property is 322 totaling 52,290.17 m. A total of 167 holes in the database totalling 25,506.42 m are included in the resource estimate area and were utilized in the current MRE.

25.2 2021 Exploration Program

NorthWest Copper carried out a mineral exploration at the Property between June and September, 2021. This program comprised rock and soil geochemical sampling, stream sediment sampling, PIM sampling, re-logging and sampling of historical drill core, along with IP and resistivity ground geophysical surveys. An airborne magnetic geophysical survey and a LiDAR survey were also completed during July, 2021.

A total of 316 rock samples were collected during the 2021 exploration program. Mapping and rock sampling identified or confirmed a number of target areas in the Lorraine and Tam-Boundary areas prospective for copper sulphide mineralization, including Lorraine Peak and Copper Peak, Boundary zones and North Cirque. The Boundary targets are associated with robust alteration and chalcopyrite ± bornite mineralization. During this process a total of 24.4 km of geological mapping traverses were completed.

A total of 1,258 soil samples were collected. Soil sampling was completed on what is labeled as the Lorraine grid and the Tam-Boundary grid, confirming anomalies within a 2.5 km northwest trend extending through the Bishop and the Lower Main zones, but also including anomalies higher than 500 ppm copper, extending known mineralization to North Cirque, Weber, Ekland Jeno Ridge, Copper//Page, among others. Soil sampling at the-Boundary showed overall lower copper values than Lorraine, displaying somewhat diffuse anomalous values through the central and eastern areas of the grid. However, clear anomalies were identified both upslope and downslope.

Additionally, 13 PIMs and silt samples were collected. A total of 1,255 m of core from 10 holes was relogged and 180 core samples were collected. A total of 20.8 km of ground IP was surveyed over 8 lines. Two aeromagnetic grids totaling 5,080ha of coverage were flown along with LiDAR surveying and orthophotographic imagery.

25.3 Updated 2022 Mineral Resource

The 2022 Lorraine Project MRE is reported in Table 25.1 for Indicated and Inferred categories. The Indicated and Inferred Mineral Resources are undiluted and use a cut-off grade of 0.2% Cu, which is constrained within an LG optimized pit shell and includes an Indicated Mineral Resource of 12,952,000 tonnes at 0.55% Cu, 0.16 g/t Au and 0.65% CuEq. and an Inferred Mineral Resource of 45,452,000 tonnes at 0.43% Cu, 0.1 g/t Au and 0.49% CuEq. The conversion to CuEq is provided in Table 25.1 notes below.

Table 25.1 Lorraine 2022 Mineral Resource Estimate at a cut-off of 0.2% Copper.

Domain	Class	Tonnes (000s)	Avg Cu Grade (%)	Avg Au Grade (g/t)	Ave CuEq Grade (%)	Cu (‘000 lbs)	Au ('000 oz)
Bishop	Indicated	2,541	0.58	0.12	0.66	32,284	10
	Inferred	9,082	0.51	0.1	0.57	101,730	29
Lower Main	Indicated	3,828	0.45	0.15	0.55	38,342	18
	Inferred	21,282	0.38	0.07	0.43	179,032	49
Upper Main	Indicated	6,584	0.59	0.19	0.71	85,467	40
	Inferred	15,089	0.44	0.14	0.53	147,169	67
Total	Indicated	12,952	0.55	0.16	0.65	156,093	68
	Inferred	45,452	0.43	0.1	0.49	427,931	145

Notes:

- Indicated and Inferred Mineral Resources are not Mineral Reserves. Mineral resources which are not mineral reserves do not have demonstrated economic viability. There has been insufficient exploration to define the inferred resources tabulated above as an indicated or measured mineral resource, however, it is reasonably expected that the majority of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. There is no guarantee that any part of the mineral resources discussed herein will be converted into a mineral reserve in the future. The estimate of mineral resources may be materially affected by environmental, permitting, legal, marketing or other relevant issues. The mineral resources have been classified according to the Canadian Institute of Mining (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May, 2014).and CIM Estimation of Mineral Resources & Mineral Reserves Best Practices Guidelines (2019).
- Cu Equivalent (CuEq) grade is based on 90% Cu recovery and 85% Au Recovery. The conversion used for Au grade (g/t) to Cu Eq grade (%) is: Au (g/t) * 0.6493, at a price of Cu US$3.50/lb and US$1,650/oz.
- The Mineral Resource Estimate is constrained in an LG pit optimization utilizing Cu at US$3.50/lb, Au at US$1,650/oz, Mining at CDN$ 3.50/tonne, Processing and G&A at CDN$ 14.50/tonne, pit slopes at 45° and an exchange rate of 0.77.
- Differences may occur in totals due to rounding

The 2022 MRE for the Lorraine Deposit was completed by Mr. Michael B. Dufresne, M.Sc., P. Geol., P.Geo. Mr. Deon van der Heever, B.Sc. contributed to the MRE under the supervision of Mr. Dufresne, QP, who takes responsibility for Section 14 and the MRE.

The Lorraine resource database consists of a total of 63,445.03 m of sampling in 398 drillholes. A total of 167 drillholes for a total of 25,506.42 m of sampling are included in the resource estimate area. Drill spacing is generally less than 50 m in the densely drilled portions of the project. The database was supplied in the form of Leapfrog project files.

The resource has been estimated within three dimensional solids based on an updated geologic interpretation that was completed by Northwest Copper and reviewed and modified as needed for use in the resource model. The geological interpretation was modeled inside each fault block and then used to create shapes for constraining mineralized zones. Fault blocks and lithological boundaries showing clear breaks in mineralization were used as constraining boundaries to create five final estimation domains. Three high grade mineralized targets were modeled as separate domains by creating grade shells with 0.2% Cu boundaries within the previously modeled lithological and structure model: These are: Upper Main, Lower Main and Bishop Zone. The surrounding volumes were split into a medium grade Syenite domain and low grade Syenite-Pyroxenite domain.

The copper grade was estimated within a block model that was constructed to fill the domain volumes with 20m x 20m x 5m blocks in the X, Y and Z directions to best represent the data density and deposit shapes, and to minimize blocks unsupported by data. The model was rotated clockwise by 40° to better fit the alignment of domains. Ordinary kriging was used to estimate grade in all blocks. Three estimation passes were completed whereby each successive pass utilized a less restrictive sample search strategy to estimate any remaining un-estimated blocks. For this estimate 2.7 g/cm^3 was used for the bulk density and converting volume to tonnes. At the time the resource was estimated, data on density was not available. Density data for approximately 200 samples has since been captured and according to Northwest Copper has an average of 2.75 g/cm^3.

The 2022 Lorraine Project resource has been classified as comprising Indicated and Inferred Mineral Resources according to recent CIM definition standards. The classification of the Lorraine resource was based on geological confidence, data quality and grade continuity. All reported mineral resources occur within a pit shell optimized using values of $US 3.50/lb for copper and $US 1,650/oz for gold. Mineral resources are not mineral reserves and do not have demonstrated economic viability.

25.4 Data Verification

The author of this Report, Mr. Rodriguez, completed a site inspection of the Lorraine Property on September 23rd, 2021. The site visit included a tour of the Property to verify historical exploration results and to confirm the geology and mineralization of the Property. Mr. Rodriguez collected a total of six samples with sample 12ARM008 returning 1.625 % copper and 0.802 ppm gold and sample 21ARM009 returning 0.456 % copper and 0.096 ppm gold. The QP verification samples were collected from historical drillholes and outcrops and the results were within expected parameters.

Based upon a review of available information, historical exploration data, and the Author's site visit, the Authors consider the Lorraine Property to be a property of merit that is prospective for porphyry copper style mineralization. The Property is hosted by units exhibiting porphyry style alteration and mineralization in an area with a long history of mineral exploration. The exploration conducted recently by NorthWest Copper in conjunction with the current MRE and historical exploration demonstrates that there is potential to expand upon the current mineral resource and proceed to more advanced studies and with additional positive results to eventual development.

25.5 Risks and Uncertainties

Given the alpine environment in which the Property is located, exploration work will require careful planning and execution to mitigate any environmental concerns identified by government agencies, First Nations and/or the public. First Nations consultations is recommended as a high priority to ensure success of any future exploration and development Northwest Copper is currently engaged in First Nations consultations.

The Lorraine Property is subject to the typical external risks that apply to all mining projects, such as changes in metal prices, availability of investment capital, changes in government regulations, community engagement and general environmental concerns.

There is a need for continued relogging of historical drill core and bringing the geological model up to a better and more consistent standard. A twinning and infill drill program will also be required to improve the understanding of mineralization controls for the Lorraine Project.

Geochemical analysis of the historical drilling represents a moderate risk to the MRE. No historical density sample testing has been completed on the property and this constitutes another moderate risk. However, this risk is partially mitigated in that NorthWest Copper has recently provided information from their ongoing exploration and relogging program for the regional Lorraine property for approximately 200 new specific gravity measurements that yield a mean density of about 2.75 g/cm^3 (Titley, pers. comm., 2022). This may indicate that there is potential to increase the values for density of the MRE, which could lead to more tonnes in the model.

There have been no studies on metallurgical recovery methods on the Lorraine property to date. Metallurgical recovery of copper in these types of deposits is well known, however, metallurgical work is required to confirm recoverability and address potential future issues such as deleterious elements and acid rock drainage (ARD).

The wider drill grid spacings and lack of downhole surveys in some areas pose some risk to the relative position of geological structures as well as the mineralized rock and waste contact positions. Some areas of the deposit edges are only covered by wide space drilling, with opportunity for extension outwards.

There is no guarantee that further diamond drilling will result in the discovery of additional mineralization, definition of additional mineral resources, or an economic mineral deposit. Nevertheless, in the Author’s opinion there are no significant risks or uncertainties, other than mentioned above, that could reasonably be expected to affect the reliability or confidence in the currently available exploration information with respect to the Lorraine Property.

26 Recommendations

Based on the data compilation, interpretation of geology, and the mineral resource estimate additional exploration work is recommended, including drilling, geochemical survey as well as strategic mapping.

- Drilling:
    - A follow up drilling program is recommended to test lateral extension of mineralization along the northwest trend to the northwest of Lower Main zone, and to the southeast of the Bishop zone and follow up on chargeability anomalies for geophysics.
    - Infill drilling in order to test mineralization extension between the Upper Main and Bishop zones.
    - Additional drilling for infill in the Lower Main and Upper Main zones and to increase confidence within inferred resource zones and to convert some of the resource into an indicated category.
    - Drilling in the North Cirque zones and Weber zones where recent geochemical surveys also confirmed mineralization of interest.
    - Collection of geotechnical information during drilling or considering geotechnical drillholes for development evaluation.
    - Systematic collection of density data during these drilling programs is strongly recommended.

- Geochemical sampling and regional prospecting:
    - Soil geochemical surveys to follow up on geophysical anomalies. Considering both strategic grids as well as ridge and spur sampling of Ah

or B soil horizon. The use of XRF equipment during these programs may help orient follow up surveys while in the field.

- Historical core relogging:
  - Additional strategic relogging as well as confirmation sampling should be considered for the historical core. This will aide keeping standard parameters while processing core for upcoming programs as well as reconciling historical information with current.
  - Alteration studies by means of short-wave infrared spectrum SWIR analysis may aide understand better alteration pattern and fluid vectoring.

- Regional alteration analysis derived from satellite surveys may also be applicable to identify alteration patterns in other areas of the Property that are similar to known mineralization may be identified in other areas of the Property.

- Metallurgical Studies: An initial orientation study on representative metallurgical samples from the different zones should be considered.

As part of Phase 1, mapping, geochemical prospecting and initial follow up infill drilling of 8,000 m are recommended. The estimated cost of the Phase 1 program is CDN$2,800,000.

Phase 2 exploration is dependent on the results of Phase 1 and includes additional follow up diamond drilling (~6000 m), alteration studies, metallurgical studies and regional satellite alteration surveys. The recommended Phase 2 drilling at the Lorraine Property will test targets generated in Phase 1. The estimated cost of the Phase 2 program is CDN$2,200,000.

Collectively, the proposed exploration program has a total estimated cost of CDN$5,000,000, not including GST. The estimated cost of the recommended work program at the Lorraine Property is presented in Table 26.1.

Table 26.1 Proposed budget for the recommended exploration program at the Lorraine Property.

Phase 1	
Activity Type	**Cost**
Geochemical Surveying (Rock and Soil Sampling)	$150,000
Relogging	$25,000
Diamond Drilling (Approximately 8,000 m at $300/m)	$2,400,000
Subtotal Phase 1	$2,575,000
Contingency (~10%)	$225,000
Phase 1 Activities Subtotal	$2,800,000

Phase 2	
Diamond Drilling (Approximately 6,000 m at $300/m)	$1,800,000
Metallurgical sampling/testing	$75,000
Satellite Survey	$50,000
Alteration studies on core	$75,000
Subtotal Phase 2	$2,000,000
Contingency (~10%)	$200,000
Phase 2 Activities Subtotal	$2,200,000
Grand Total	$5,000,000

APEX Geoscience Ltd.
EGBC Permit to Practice # 1003016
APEGA Permit to Practice # P005824

"Signed & Sealed"

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Alfonso Rodriguez, M.Sc., P.Geo.

"Signed & Sealed"

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Michael B. Dufresne, M.Sc., P.Geol., P.Geo.

September 12th, 2022
Edmonton, Alberta, Canada
Vancouver, British Columbia, Canada

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28 Certificates of Authors

I, **Alfonso Rodriguez Madrid**, M.Sc., P.Geo, do hereby certify that:

1. I am a Senior Geologist of: APEX Geoscience Ltd.,
410-800 West Pender Street,
Vancouver, British Columbia, Canada

2. I graduated with a degree in Geology from the Santander Industrial University (UIS) in Colombia in 2005 and with a M.Sc. in Geological Sciences from the University of British Columbia in 2014.

3. I am a Professional Geoscientist registered with EGBC (Association of Professional Engineers and Geoscientists of British Columbia) since September 2015 (Licence 44993), and I am a 'Qualified Person' in relation to the subject matter of this Technical Report.

4. I have practiced my profession continuously since my graduation in 2005. Over the past 16 years I have been involved with exploration programs specific to deposits having similar geological characteristics to the Lorraine Property in North and South America.

5. I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person.

6. I am a responsible for Sections 1.1 to 1.6, 1.8, 2 to 12, 25.1, 25.2, 25.4, 26, 27 of this Technical Report titled: "**Lorraine Copper Project NI 43-101 Report and Mineral Resource Estimate, Omineca Mining Division, B.C**", with an effective date of June 30th, 2022 (the "Technical Report"). I have visited the Property that is the subject of this Technical Report on September 23rd, 2021.

7. APEX was retained as geological consultants in 2021 by NorthWest Copper.

8. I am not aware of any scientific or technical information with respect to the subject matter of the **Technical Report** that is not reflected in the **Technical Report**, the omission to disclose which makes the **Technical Report** misleading.

9. I am independent of the Property and the issuer applying all of the tests in section 1.5 of NI 43-101.

10. I have read National Instrument 43-101 and Form 43-101F1, and the **Technical Report** has been prepared in compliance with that instrument and form.

11. I consent to the filing of the **Technical Report** with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files or their websites.

Signed: September 12th, 2022
Vancouver British Columbia, Canada

"Signed and Sealed"

Alfonso Rodriguez Madrid, M. Sc., P. Geo. (#44993)
Senior Geologist, APEX Geoscience Ltd.

I, **Michael B. Dufresne**, M.Sc., P.Geol., P.Geo., do hereby certify that:

1. I am President of: APEX Geoscience Ltd. (APEX)
   Suite 100, 11450 – 160th Street NW
   Edmonton, Alberta T5M 3Y7
   Phone: 780-467-3532
2. I graduated with a B.Sc. in Geology from the University of North Carolina at Wilmington in 1983 and with a M.Sc. in Economic Geology from the University of Alberta in 1987.
3. I am and have been registered as a Professional Geologist with the Association of Professional Engineers and Geoscientists of Alberta since 1989 (Licence# 48439). I have been registered as a Professional Geologist with the association of Professional Engineers and Geoscientists of BC (Licence# 37074) since 2011.
4. I have worked as a geologist for more than 30 years since my graduation from university and have extensive experience with the exploration for, and the evaluation of, base and precious metal deposits of various types, including porphyry copper style mineralization. I have constructed and supervised mineral resource estimates on numerous copper deposits over the last 20 years.
5. I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person.
6. I am responsible for or directly supervised and am responsible for Sections 1.7, 13 to 24 and 25.3 of the Technical Report titled *"**Lorraine Coper Project NI 43-101 Report and Mineral Resource Estimate, Omineca Mining Division, B.C**"*, with an effective date of June 30th, 2022 (the "**Technical Report**"). I have not performed a site visit.
7. APEX was retained as geological consultants in 2021 by NorthWest Copper.
8. I am not aware of any scientific or technical information with respect to the subject matter of the **Technical Report** that is not reflected in the **Technical Report**, the omission to disclose which makes the **Technical Report** misleading.
9. I am independent of the Property and the issuer applying all of the tests in section 1.5 of NI 43-101.
10. I have read National Instrument 43-101 and Form 43-101F1, and the **Technical Report** has been prepared in compliance with that instrument and form.
11. I consent to the filing of the **Technical Report** with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files or their websites.

Signed: September 12th, 2022
Edmonton, Alberta, Canada

"Signed and Sealed"

____
Michael B. Dufresne, M.Sc., P.Geol., P.Geo.
President, APEX Geoscience Ltd.

APPENDIX 1. Drilling completed at the Lorraine Property.

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company
49D-1	353,488	6,195,868	1242.68	88	-42	174.04	1949	Dorothy	DDH	AX	NorthWestern
49D-2	353,540	6,195,780	1263.29	84	-40	147	1949	Dorothy	DDH	AX	NorthWestern
49D-3	353,509	6,195,695	1244.03	97	-35	25	1949	Dorothy	DDH	AX	NorthWestern
49D-4	353,508	6,195,686	1242.49	97	-35	96.05	1949	Dorothy	DDH	AX	NorthWestern
L-1	347,571	6,200,460	1702.06	49	-43	280.42	1949	Upper Main	DDH	AX	Kennex (Kennecott Corporation)
L-2	347,655	6,200,392	1711.94	47	-35.5	177.7	1949	Upper Main	DDH	AX	Kennex (Kennecott Corporation)
L-3	347,450	6,200,402	1624.08	47	-85.5	152.4	1949	Upper Main	DDH	AX	Kennex (Kennecott Corporation)
L-4	347,450	6,200,402	1624.08	47	-30	81.08	1949	Upper Main	DDH	AX	Kennex (Kennecott Corporation)
L-5	347,744	6,200,734	1743.74	182	-40	273.1	1949	Upper Main	DDH	AX	Kennex (Kennecott Corporation)
L-6	347,260	6,200,235	1612	144	-60	49.68	1963	Lower Main	N.I.	N.I.	N.I.
L-7	347,346	6,200,409	1600.6	151	-60	68.28	1963	Lower Main	N.I.	N.I.	N.I.
1963-DY-1	353,564	6,194,938	1194.65	0	-90	10	1963	Dorothy	DDH	AX	NorthWestern
1963-DY-2	352,724	6,196,434	1120	0	-90	10	1963	Dorothy	DDH	AX	NorthWestern
70-01	355,437	6,189,381	1531.43	0	-45	86	1970	Mackenzie			
70-02	355,497	6,189,373	1533.85	0	-45	147.5	1970	Mackenzie			
70-03	355,386	6,189,177	1490	190	-45	10	1970	Mackenzie			
70-04	355,371	6,189,087	1501.18	260	-45	50	1970	Mackenzie			
70-05	355,368	6,189,070	1505.68	180	-45	90.5	1970	Mackenzie			
DDH70_1	356,989	6,198,481	1644.74	55	-60	166.2	1970	Rhonda			
DDH70_2	356,975	6,198,630	1627.46	235	-60	157.58	1970	Rhonda			
DDH70_3	357,079	6,198,689	1609.97	235	-60	192.02	1970	Rhonda			
DDH70_4	357,145	6,198,589	1652.01	235	-45	212.45	1970	Rhonda			

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company
DDH70_5	356,989	6,198,481	1644.74	235	-45	198.42	1970	Rhonda			
L70-1	347,485	6,200,458	1652.65	79	-55	182.27	1970	Upper Main			
L70-2	347,818	6,200,571	1898.93	118	-55	179.22	1970	Upper Main			
L70-3	347,818	6,200,571	1898.93	208	-55	182.88	1970	Upper Main			
L70-4	347,818	6,200,571	1898.93	298	-55	182.27	1970	Upper Main			
L70-5	347,818	6,200,571	1898.93	0	-90	152.4	1970	Upper Main			
L70-6	347,468	6,200,653	1707.82	102	-55	181.66	1970	Lower Main			
L70-7	347,388	6,200,638	1665	102	-55	183.18	1970	Lower Main			
L70-8	347,348	6,200,596	1637.67	102	-55	154.84	1970	Lower Main			
L71-1	347,342	6,200,688	1660.96	0	-90	131.98	1971	Lower Main			
L71-10	346,976	6,200,648	1596.91	0	-90	121.92	1971	Lower Main			
L71-11	347,233	6,200,880	1656.97	0	-90	122.53	1971	Lower Main			
L71-12	347,360	6,200,801	1692.19	0	-90	122.22	1971	Lower Main			
L71-13	347,255	6,200,996	1649.08	0	-90	131.06	1971	Lower Main			
L71-14	347,376	6,200,955	1688.37	0	-90	130.76	1971	Lower Main			
L71-2	347,224	6,200,765	1635.6	0	-90	92.35	1971	Lower Main			
L71-3	347,223	6,200,636	1610.73	0	-90	107.59	1971	Lower Main			
L71-4	347,221	6,200,523	1585.94	0	-90	92.05	1971	Lower Main			
L71-5	347,089	6,200,465	1570.77	0	-90	91.44	1971	Lower Main			
L71-6	347,092	6,200,561	1578.28	0	-90	107.9	1971	Lower Main			
L71-7	347,101	6,200,703	1603.99	0	-90	95.1	1971	Lower Main			
L71-8	347,099	6,200,818	1607.02	0	-90	97.84	1971	Lower Main			
L71-9	347,146	6,200,941	1627.78	0	-90	96.32	1971	Lower Main			
P71-01	357,626	6,198,063	1638.12	0	-90	76.2	1971	Rhonda			
P71-02	354,993	6,196,005	1590	0	-90	12.19	1971	Rhonda			
P71-03	354,499	6,197,040	1439.7	0	-90	18.29	1971	Rhonda			
P71-04	354,499	6,197,026	1440.85	78	-60	36.6	1971	Rhonda			

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company
P71-05	354,646	6,197,275	1514.55	0	-90	91.44	1971	Rhonda			
P71-06	355,285	6,197,126	1594.52	0	-90	76.2	1971	Rhonda			
P71-07	355,402	6,197,190	1574.44	0	-90	76.2	1971	Rhonda			
P71-08	356,972	6,198,751	1581.66	234	-60	73.15	1971	Rhonda			
P71-09	357,064	6,198,830	1554.69	54	-60	73.15	1971	Rhonda			
P71-10	357,298	6,199,519	1459.56	290	-60	76.2	1971	Rhonda			
NCP-1	358,086	6,197,994	1582.58	0	-90	76.2		Rhonda			
PR72-01	355,850	6,197,820	1534.12	0	-90	36.58	1972	Rhonda			
PR72-02	355,847	6,197,825	1533.63	0	-90	60.96	1972	Rhonda			
PR72-03	355,387	6,197,607	1524.25	0	-90	60.96	1972	Rhonda			
PR72-04	355,063	6,196,644	1688.84	0	-90	24.38	1972	Rhonda			
PR72-05	355,213	6,196,540	1699.6	0	-90	60.96	1972	Rhonda			
PR72-06	355,667	6,196,446	1833.95	0	-90	45.72	1972	Rhonda			
PR72-07	355,574	6,197,470	1590.95	0	-90	36.58	1972	Rhonda			
PR72-08	355,287	6,197,425	1536.15	0	-90	33.53	1972	Rhonda			
L72-1	347,324	6,200,578	1625.36	191	-45	167.64	1972	Lower Main			
L72-2	347,324	6,200,578	1625.36	11	-41	167.34	1972	Lower Main			
L72-3	347,360	6,200,801	1692.19	191	-55	233.17	1972	Lower Main			
L72-4	347,360	6,200,801	1692.19	11	-41	204.22	1972	Lower Main			
P1	347,282	6,200,401	1592.32	0	-90	112.78	1972	Lower Main	Percussion		Grandby Mining Company*
P2	347,286	6,200,459	1596.49	0	-90	100.58	1972	Lower Main	Percussion		Grandby Mining Company*
P3	347,346	6,200,455	1607.49	0	-90	112.78	1972	Lower Main	Percussion		Grandby Mining Company*
P4	347,225	6,200,462	1583.82	0	-90	112.78	1972	Lower Main	Percussion		Grandby Mining Company*
P5	347,226	6,200,577	1599.96	0	-90	94.49	1972	Lower Main	Percussion		Grandby Mining Company*
P6	347,220	6,200,693	1617.25	0	-90	121.92	1972	Lower Main	Percussion		Grandby Mining Company*

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company
P7	347,227	6,200,825	1648.69	0	-90	121.92	1972	Lower Main	Percussion		Grandby Mining Company*
P8	347,300	6,200,633	1631.36	0	-90	115.82	1972	Lower Main	Percussion		Grandby Mining Company*
P9	347,279	6,200,706	1640.76	0	-90	121.92	1972	Lower Main	Percussion		Grandby Mining Company*
P10	347,287	6,200,760	1659.46	0	-90	121.92	1972	Lower Main	Percussion		Grandby Mining Company*
P11	347,299	6,200,818	1672.85	0	-90	9.14	1972	Lower Main	Percussion		Grandby Mining Company*
P12	347,413	6,200,690	1691.82	0	-90	15.24	1972	Lower Main	Percussion		Grandby Mining Company*
P12A	347,409	6,200,706	1693.92	0	-90	121.92	1972	Lower Main	Percussion		Grandby Mining Company*
P13	347,415	6,200,755	1705.86	0	-90	112.78	1972	Lower Main	Percussion		Grandby Mining Company*
P14	347,422	6,200,820	1711.14	0	-90	27.43	1972	Lower Main	Percussion		Grandby Mining Company*
P14A	347,422	6,200,823	1711.55	0	-90	112.78	1972	Lower Main	Percussion		Grandby Mining Company*
P15	347,481	6,200,694	1727.25	0	-90	103.63	1972	Lower Main	Percussion		Grandby Mining Company*
P16	347,480	6,200,754	1732.79	0	-90	27.43	1972	Lower Main	Percussion		Grandby Mining Company*
P16A	347,479	6,200,744	1732.41	0	-90	106.68	1972	Lower Main	Percussion		Grandby Mining Company*
P17	347,482	6,200,814	1730.42	0	-90	112.78	1972	Lower Main	Percussion		Grandby Mining Company*
P18	347,288	6,200,520	1601.72	0	-90	70.1	1972	Lower Main	Percussion		Grandby Mining Company*
P19	347,349	6,200,519	1613.45	0	-90	109.73	1972	Lower Main	Percussion		Grandby Mining Company*
P20	347,152	6,200,704	1608.8	0	-90	91.44	1972	Lower Main	Percussion		Grandby Mining Company*
P21	347,105	6,200,642	1597.22	0	-90	121.92	1972	Lower Main	Percussion		Grandby Mining Company*
72-01	343,450	6,204,408	1680.78	130	-45	151.2	1972	Cirque/Fault; Jan-Tam-Misty	DDH	BQ	Varitech Resource Ltd. / Major General Resources Ltd.

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company
72-02	343,538	6,204,342	1738.53	130	-45	145.4	1972	Cirque/Fault; Jan-Tam-Misty	DDH	BQ	Varitech Resource Ltd. / Major General Resources Ltd.
72-03	343,381	6,204,074	1672.77	90	-45	147.2	1972	Cirque/Fault; Jan-Tam-Misty	DDH	BQ	Varitech Resource Ltd. / Major General Resources Ltd.
72-04	343,493	6,204,067	1685.12	90	-45	161.8	1972	Cirque/Fault; Jan-Tam-Misty	DDH	BQ	Varitech Resource Ltd. / Major General Resources Ltd.
72-05	343,388	6,204,195	1696.1	90	-45	153	1972	Cirque/Fault; Jan-Tam-Misty	DDH	BQ	Varitech Resource Ltd. / Major General Resources Ltd.
73-01	343,689	6,206,021	1349.77	0	-90	60.65	1973	Boundary; Jan-Tam-Misty	DDH	BQ	Varitech Resource Ltd. / Major General Resources Ltd.
73-02	343,573	6,206,025	1331.1	60	-45	14.93	1973	Boundary; Jan-Tam-Misty	DDH	BQ	Varitech Resource Ltd. / Major General Resources Ltd.
L73-1	347,777	6,200,404	1810.62	47	-45	31.09	1973	Upper Main			
L73-2	347,746	6,200,451	1807.36	47	-45	48.16	1973	Upper Main			
L73-3	347,696	6,200,477	1794.04	47	-45	24.38	1973	Upper Main			
L73-4	347,652	6,200,521	1783.62	67	-45	55.47	1973	Upper Main			
L73-5	347,616	6,200,562	1776.01	67	-45	48.16	1973	Upper Main			
L73-6	347,652	6,200,521	1783.62	0	-90	45.11	1973	Upper Main			
L73-7	347,696	6,200,477	1794.04	0	-90	24.08	1973	Upper Main			
L73-8	347,770	6,200,417	1808.35	0	-90	1.22	1973	Upper Main			
M-1	343,146	6,199,819	1653.99	50	-45	177.9	1970-1973	Misty	DDH	N.I.	El Paso Mining and Milling Company*

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company
M-2	343,058	6,199,917	1670.49	37	-45	199	1970-1973	Misty	DDH	N.I.	El Paso Mining and Milling Company*
M-3	342,545	6,200,202	1739.05	257	-40	201.2	1970-1973	Misty	DDH	N.I.	El Paso Mining and Milling Company*
M-4	343,626	6,198,906	1415.58	0	-90	148.6	1970-1973	Misty	DDH	N.I.	El Paso Mining and Milling Company*
M-5	342,921	6,199,983	1660.4	36	-45	159.4	1970-1973	Misty	DDH	N.I.	El Paso Mining and Milling Company*
M-6	342,602	6,200,197	1721.45	50	-45	128.8	1970-1973	Misty	DDH	N.I.	El Paso Mining and Milling Company*
M-7	342,790	6,200,110	1680.49	50	-45	153.8	1970-1973	Misty	DDH	N.I.	El Paso Mining and Milling Company*
M-8	343,245	6,199,662	1601.6	50	-45	150.11	1970-1973	Misty	DDH	N.I.	El Paso Mining and Milling Company*
M-9	342,827	6,199,934	1662.59	220	-40	198.4	1970-1973	Misty	DDH	N.I.	El Paso Mining and Milling Company*
RH-1	343,750	6,198,933	1425.21	0	-90	54.3	1970-1973	Misty	Rotary Percussion*		El Paso Mining and Milling Company*
RH-2	343,739	6,198,810	1404.51	0	-90	48.2	1970-1973	Misty	Rotary Percussion*		El Paso Mining and Milling Company*
RH-4	343,508	6,198,986	1433.78	0	-90	12.2	1970-1973	Misty	Rotary Percussion*		El Paso Mining and Milling Company*
RX-1	342,646	6,200,225	1717.77	0	-90	91.4	1970-1973	Misty	Rotary Percussion*		El Paso Mining and Milling Company*
RX-2	342,685	6,200,248	1717.71	0	-90	98.8	1970-1973	Misty	Rotary Percussion*		El Paso Mining and Milling Company*

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company
RX-3	342,629	6,200,179	1715.47	0	-90	98.8	1970-1973	Misty	Rotary Percussion*		El Paso Mining and Milling Company*
RX-4	343,278	6,199,705	1628.06	0	-90	42.1	1970-1973	Misty	Rotary Percussion*		El Paso Mining and Milling Company*
RX-5	343,335	6,199,696	1640.32	0	-90	42.1	1970-1973	Misty	Rotary Percussion*		El Paso Mining and Milling Company*
74-03	341,848	6,207,979	1335.01	25	-45	85.6	1974	Slide; Jan-Tam-Misty			
74-04	343,886	6,205,737	1436.49	220	-45	91.44	1974	Boundary			
74-05	343,500	6,203,967	1670.2	180	-45	60.4	1974	Cirque/Fault; Jan-Tam-Misty			
74-06	343,758	6,206,074	1339.94	232	-45	206.2	1974	Boundary	DDH	BQ	Varitech Resource Ltd. / Major General Resources Ltd.
74-07	343,739	6,206,122	1324.76	232	-45	206.7	1974	Boundary	DDH	BQ	Varitech Resource Ltd. / Major General Resources Ltd.
74-08	343,739	6,206,122	1324.76	52	-45	47.85	1974	Boundary	DDH	BQ	Varitech Resource Ltd. / Major General Resources Ltd.
74-09	343,742	6,206,189	1306.86	232	-45	258.5	1974	Boundary	DDH	BQ	Varitech Resource Ltd. / Major General Resources Ltd.
74-10	343,817	6,206,061	1349.05	232	-45	132.6	1974	Boundary			
74-11	344,026	6,205,721	1440.81	232	-45	182	1974	Boundary			
74-12	344,151	6,205,702	1437.52	232	-45	182.9	1974	Boundary			
74-13	343,858	6,206,153	1330.35	232	-45	328.57	1974	Boundary			
74-14	343,643	6,205,981	1353.45	232	-45	206.7	1974	Boundary			
74-15	343,659	6,206,217	1291.43	232	-45	212.8	1974	Boundary			

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company
75-16	342,210	6,207,817	1249.7	232	-45	121.3	1975	Slide			
75-17	341,915	6,208,254	1463.54	0	-90	119.3	1975	Slide			
75-18	343,576	6,206,256	1272.68	232	-45	122.6	1975	Boundary			
75-19	343,479	6,206,219	1271.13	232	-45	121.9	1975	Boundary			
BD91-1	347,250	6,196,680	1319.38	40	-46	94	1991	TooGood	DDH	NQ	BP Resources Canada
BD91-2	348,773	6,199,789	1649.1	52	-45	133.8	1991	Bishop	DDH	BQ	BP Resources Canada
BD91-3	349,348	6,199,472	1528.61	132	-45	22	1991	Boot	DDH	BQ	BP Resources Canada
BD91-4	348,925	6,199,956	1663.2	232	-45	100.5	1991	Bishop	DDH	BQ	BP Resources Canada
DC91-01	359,322	6,189,255	1117.25	0	-90	164.3	1991	ST 12	DDH*	NQ*	Kennecott Canada Inc.*
DC91-02	359,326	6,189,628	1141.22	0	-90	151.5	1991	ST 12	DDH*	NQ*	Kennecott Canada Inc.*
DC91-03	359,344	6,189,955	1198.48	0	-90	108.7	1991	ST 12	DDH*	NQ*	Kennecott Canada Inc.*
L91-1	348,305	6,200,120	1771.42	56	-47	160.63	1991	Bishop	DDH*	NQ*	Kennecott Canada Inc.*
L91-2	348,303	6,200,118	1771.28	231	-47	152.4	1991	Bishop	DDH*	NQ*	Kennecott Canada Inc.*
L91-3	348,371	6,200,006	1751.6	319	-45	136.86	1991	Bishop	DDH*	NQ*	Kennecott Canada Inc.*
L91-4	348,375	6,200,008	1751.96	44	-46	167.34	1991	Bishop	DDH*	NQ*	Kennecott Canada Inc.*
L91-5	348,372	6,200,004	1751.33	229	-45	147.83	1991	Bishop	DDH*	NQ*	Kennecott Canada Inc.*
L91-6	348,602	6,199,969	1707.77	47	-45	148.74	1991	Bishop	DDH*	NQ*	Kennecott Canada Inc.*
L91-7	348,600	6,199,966	1707.64	229	-45	237.43	1991	Bishop	DDH*	NQ*	Kennecott Canada Inc.*

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company
L91-8	347,980	6,199,908	1757.11	137	-45	124.66	1991	Weber	DDH*	NQ*	Kennecott Canada Inc.*
L91-9	347,851	6,199,905	1701.73	92	-45	149.05	1991	Weber	DDH*	NQ*	Kennecott Canada Inc.*
L91-10	348,414	6,199,941	1732.06	58	-55	152.09	1991	Bishop	DDH*	NQ*	Kennecott Canada Inc.*
L91-11	348,412	6,199,938	1731.66	234	-45	138.7	1991	Bishop	DDH*	NQ*	Kennecott Canada Inc.*
L91-12	348,025	6,200,881	1741.97	332	-45	142.95	1991	North Cirque	DDH*	NQ*	Kennecott Canada Inc.*
L93-1	347,289	6,200,397	1592.01	22	-80	182.6	1993	Lower Main	DDH	N.I.	Kennecott Canada Inc.
L93-2	347,996	6,200,492	1971.75	27	-77	275.8	1993	Upper Main	DDH	N.I.	Kennecott Canada Inc.
L93-3	347,037	6,201,000	1589.09	322	-80	13.5	1993	Lower Main	DDH	N.I.	Kennecott Canada Inc.
L93-4	348,811	6,199,891	1671.83	227	-45	78.9	1993	Bishop	DDH	N.I.	Kennecott Canada Inc.
L94-1	348,419	6,200,044	1756.67	0	-90	154.57	1994	Bishop	DDH	BQTW	Lysander Gold Corporation
L94-2	348,415	6,200,050	1757.74	224	-69	151.52	1994	Bishop	DDH	BQTW	Lysander Gold Corporation
L94-3	348,419	6,200,044	1756.67	49	-45	139.33	1994	Bishop	DDH	BQTW	Lysander Gold Corporation

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company
L94-4	348,415	6,200,053	1758.07	309	-45	117.97	1994	Bishop	DDH	BQTW	Lysander Gold Corporation
L94-5	348,453	6,199,968	1737.29	0	-90	102.74	1994	Bishop	DDH	BQTW	Lysander Gold Corporation
L94-6	348,544	6,199,911	1710.62	0	-90	136.28	1994	Bishop	DDH	BQTW	Lysander Gold Corporation
L94-7	348,546	6,199,910	1710.23	118	-45	138.22	1994	Bishop	DDH	BQTW	Lysander Gold Corporation
L94-8	347,637	6,200,529	1773.25	79	-45	152.1	1994	Upper Main	DDH	BQTW	Lysander Gold Corporation

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company
L94-9	347,637	6,200,530	1773.11	44	-45	93.6	1994	Upper Main	DDH	BQTW	Lysander Gold Corporation
L94-10	347,637	6,200,530	1773.11	44	-38	93.6	1994	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-11	347,637	6,200,529	1772.83	0	-90	88.7	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-12	347,638	6,200,529	1773.57	132	-45	123.4	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-13	347,732	6,200,534	1841.03	0	-90	176	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-14	347,732	6,200,534	1841.28	35	-45	103.6	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-15	347,731	6,200,534	1840.92	336	-45	140.2	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-16	347,734	6,200,533	1841.87	136	-45	100.6	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-17	347,790	6,200,458	1841.27	0	-90	143.2	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-18	347,790	6,200,458	1841.54	71	-45	140.7	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company
L95-19	347,789	6,200,459	1841.01	334	-45	94.5	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-20	347,789	6,200,459	1840.76	137	-45	125.9	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-21	347,770	6,200,421	1810.84	0	-90	98.75	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-22	347,772	6,200,422	1811.97	51	-45	106.95	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-23	347,770	6,200,422	1810.74	323	-45	100.6	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-24	347,770	6,200,421	1810.61	127	-45	100.6	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-25	347,872	6,200,538	1921.97	0	-90	249.4	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-26	347,872	6,200,537	1921.84	213	-60	140.2	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-27	347,875	6,200,538	1922.93	131	-45	100.6	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-28	347,870	6,200,539	1921.28	297	-45	127.4	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-29	347,671	6,200,614	1829.62	0	-90	100.6	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-30	347,671	6,200,615	1829.94	52	-45	100.6	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-31	347,669	6,200,616	1829.29	328	-45	100.6	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation
L95-32	347,673	6,200,613	1830.28	154	-45	140.2	1995	Upper Main	DDH	BQTW	Lysander Gold Corporation

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company
L95-33	348,756	6,198,320	1913.3	0	-90	90.73	1995	Jeno Ridge	DDH	BQTW	Lysander Gold Corporation
L95-34	348,682	6,199,745	1644.16	47	-45	164.6	1995	Bishop	DDH	BQTW	Lysander Gold Corporation
L95-35	348,682	6,199,745	1644.16	227	-45	137.1	1995	Bishop	DDH	BQTW	Lysander Gold Corporation
L95-36	348,408	6,199,836	1730.46	53	-45	242.9	1995	Bishop	DDH	BQTW	Lysander Gold Corporation
L96-37	347,672	6,200,611	1829.1	157	-50	233.8	1996	Upper Main	DDH	BQTW	Lysander Gold Corporation
L96-38	347,381	6,199,680	1717.92	122	-45	106.7	1996	Eckland	DDH	BQTW	Lysander Gold Corporation
L96-39	347,381	6,199,680	1717.92	32	-45	106.7	1996	Eckland	DDH	BQTW	Lysander Gold Corporation
L96-40	347,444	6,199,765	1768.12	182	-45	110	1996	Eckland	DDH	BQTW	Lysander Gold Corporation
L96-41	347,431	6,199,477	1699.73	2	-45	106.7	1996	Eckland	DDH	BQTW	Lysander Gold Corporation
L96-42	347,431	6,199,477	1699.73	92	-45	90.5	1996	Eckland	DDH	BQTW	Lysander Gold Corporation

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company
L96-43	348,480	6,199,873	1713.77	52	-50	212.4	1996	Bishop	DDH	BQTW	Lysander Gold Corporation
L96-44	348,406	6,199,772	1738.54	43	-45	292	1996	Bishop	DDH	BQTW	Lysander Gold Corporation
L96-45	347,946	6,200,865	1732.63	12	-45	105.8	1996	North Cirque	DDH	BQTW	Lysander Gold Corporation
L97-46	348,462	6,199,770	1715.61	66	-50	211.84	1997	Bishop	DDH	DB-BGM	Lysander Gold Corporation
L97-47	348,464	6,199,982	1739.48	217	-57	161.54	1997	Bishop	DDH	DB-BGM	Lysander Gold Corporation
DD97-48	356,979	6,198,490	1642.39	80	-45	138.68	1997	Rhonda	DDH	DB-BGM	Lysander Gold Corporation
DDH97-1	353,541	6,195,675	1257.16	0	-90	128.02	1997	Dorothy	DDH	DB-BGM	Lysander Gold Corporation
DDH97-2	353,583	6,195,778	1280.51	3	-43	23.77	1997	Dorothy	DDH	DB-BGM	Lysander Gold Corporation
DDH97-3	353,510	6,195,908	1256.43	107	-47	245.4	1997	Dorothy	DDH	DB-BGM	Lysander Gold Corporation
DDH97-4	353,512	6,196,104	1282.65	66	-47	286.5	1997	Dorothy	DDH	DB-BGM	Lysander Gold Corporation

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company
MAC-0-1	353,904	6,189,453	1011.26	168	-45	90.22	2000	Mackenzie	DDH	BQ	Eastfield Resources Ltd. and Lysander Minerals Corporation
MAC-0-2	353,912	6,189,728	1029.89	193	-60	91.44	2000	Mackenzie	DDH	BQ	Eastfield Resources Ltd. and Lysander Minerals Corporation
MAC-0-3	353,912	6,189,728	1029.89	231	-45	42.06	2000	Mackenzie	DDH	BQ	Eastfield Resources Ltd. and Lysander Minerals Corporation
MAC-0-4	353,847	6,190,002	1020	30	-45	60.96	2000	Mackenzie	DDH	BQ	Eastfield Resources Ltd. and Lysander Minerals Corporation
MAC-0-5	353,894	6,189,422	1010	64	-44	67.06	2000	Mackenzie	DDH	BQ	Eastfield Resources Ltd. and Lysander Minerals Corporation
2001-48	347,333	6,200,596	1632.54	47	-45	205.13	2001	Lower Main	DDH	BQTW	Eastfield Resources Ltd.
2001-49	347,101	6,200,604	1590.86	44	-50	152.4	2001	Lower Main	DDH	BQTW	Eastfield Resources Ltd.
2001-50	347,632	6,200,550	1780.2	36	-45	167.64	2001	Upper Main	DDH	BQTW	Eastfield Resources Ltd.
2001-51	347,632	6,200,548	1779.66	0	-90	101.5	2001	Upper Main	DDH	BQTW	Eastfield Resources Ltd.

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company
2001-52	348,362	6,200,066	1760.02	36	-45	152.4	2001	Bishop	DDH	BQTW	Eastfield Resources Ltd.
2001-53	348,221	6,200,010	1815.47	40	-48	202.69	2001	Bishop	DDH	BQTW	Eastfield Resources Ltd.
2001-54	347,721	6,200,480	1810.69	49	-45	167.64	2001	Upper Main	DDH	BQTW	Eastfield Resources Ltd.
2001-55	347,658	6,200,454	1761.65	58	-45	207.26	2001	Upper Main	DDH	BQTW	Eastfield Resources Ltd.
2001-56	347,335	6,200,653	1649.9	45	-51	298.7	2001	Lower Main	DDH	BQTW	Eastfield Resources Ltd.
2001-57	348,078	6,200,493	1975.06	58	-60	152.4	2001	Upper Main	DDH	BQTW	Eastfield Resources Ltd.
2001-58	348,509	6,199,832	1700.41	45	-45	213.36	2001	Bishop	DDH	BQTW	Eastfield Resources Ltd.
2001-59	347,326	6,200,714	1662.88	40	-50	252.98	2001	Lower Main	DDH	BQTW	Eastfield Resources Ltd.
2001-60	347,307	6,200,522	1606.2	49	-45	234.39	2001	Lower Main	DDH	BQTW	Eastfield Resources Ltd.
2002-61	347,307	6,200,522	1606.2	50	-70	186.05	2002	Lower Main	DDH	BQTW	Eastfield Resources Ltd.

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company
2002-62	347,270	6,200,538	1598.36	50	-43	243.84	2002	Lower Main	DDH	BQTW	Eastfield Resources Ltd.
2002-63	347,235	6,200,561	1597.5	50	-45	198.12	2002	Lower Main	DDH	BQTW	Eastfield Resources Ltd.
2002-64	347,308	6,200,554	1611.93	50	-45	175.25	2002	Lower Main	DDH	BQTW	Eastfield Resources Ltd.
2002-65	347,353	6,200,498	1612.86	50	-45	149.35	2002	Lower Main	DDH	BQTW	Eastfield Resources Ltd.
2002-66	347,500	6,200,785	1738.73	50	-60	152.4	2002	Lower Main	DDH	BQTW	Eastfield Resources Ltd.
04-67	347,168	6,200,588	1591.86	45	-45	206.96	2004	Lower Main	DDH	NQ	Eastfield Resources Ltd.
04-68	347,203	6,200,553	1586.23	45	-45	176.48	2004	Lower Main	DDH	NQ	Eastfield Resources Ltd.
04-69	347,238	6,200,517	1589.28	45	-45	265.18	2004	Lower Main	DDH	NQ	Eastfield Resources Ltd.
04-70	347,398	6,200,473	1621.35	45	-45	182.88	2004	Lower Main	DDH	NQ	Eastfield Resources Ltd.
04-71	345,978	6,201,767	1526.89	45	-45	273.1	2004	All Alone Dome	DDH	NQ	Eastfield Resources Ltd.
04-72	346,150	6,201,929	1552.38	45	-45	200.56	2004	All Alone Dome	DDH	NQ	Eastfield Resources Ltd.
04-73	345,876	6,201,930	1483.22	45	-45	165.81	2004	All Alone Dome	DDH	NQ	Eastfield Resources Ltd.
04-74	348,042	6,200,331	1934.04	3	-85	215.49	2004	Bishop	DDH	NQ	Eastfield Resources Ltd.
04-75	348,047	6,200,242	1909.64	3	-85	274.32	2004	Bishop	DDH	NQ	Eastfield Resources Ltd.
04-76	348,161	6,199,885	1884.88	270	-75	201.17	2004	Weber	DDH	NQ	Eastfield Resources Ltd.
04-77	348,570	6,200,332	1814.18	45	-45	178.61	2004	Bishop	DDH	NQ	Eastfield Resources Ltd.

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company
04-78	348,499	6,200,154	1765.06	45	-45	201.17	2004	Bishop	DDH	NQ	Eastfield Resources Ltd.
04-79	348,461	6,199,935	1726.14	45	-45	139.29	2004	Bishop	DDH	NQ	Eastfield Resources Ltd.
04-80A	348,559	6,199,914	1708.64	45	-45	152.4	2004	Bishop	DDH	NQ	Eastfield Resources Ltd.
04-81	348,532	6,199,774	1691.97	45	-45	203.91	2004	Bishop	DDH	NQ	Eastfield Resources Ltd.
04-82	347,822	6,200,002	1690.33	45	-88	130.76	2004	Weber	DDH	NQ	Eastfield Resources Ltd.
04-83	348,077	6,199,385	1849.52	0	-90	151.79	2004	Copper/Page	DDH	NQ	Eastfield Resources Ltd.
04-84	348,068	6,199,468	1849.74	0	-90	158.19	2004	Copper/Page	DDH	NQ	Eastfield Resources Ltd.
04-85	347,556	6,199,234	1780.3	45	-45	211.84	2004	Eckland	DDH	NQ	Eastfield Resources Ltd.
04-86	347,607	6,199,536	1790.06	45	-60	153.31	2004	Eckland	DDH	NQ	Eastfield Resources Ltd.
04-87	345,736	6,197,579	1357.63	0	-90	153.62	2004	TooGood	DDH	NQ	Eastfield Resources Ltd.
04-88	347,961	6,199,410	1775.36	0	-90	151.79	2004	Copper/Page	DDH	NQ	Eastfield Resources Ltd.
04-89	347,950	6,199,506	1777.77	0	-90	191.41	2004	Copper/Page	DDH	NQ	Eastfield Resources Ltd.
05-90	356,207	6,190,857	1610.86	180	-45	179.83	2005	Mackenzie	DDH	NQ*	Teck
05-91	355,306	6,189,236	1502.14	30	-50	228.82	2005	Mackenzie	DDH	NQ*	Teck
05-92	354,584	6,189,383	1410.16	180	-50	280.42	2005	Mackenzie	DDH	NQ*	Teck
05-93	356,153	6,190,067	1712.52	175	-50	161.84	2005	Mackenzie	DDH	NQ*	Teck
05-94	354,880	6,187,788	1060.55	30	-47	184.04	2005	Mackenzie	DDH	NQ*	Teck
05-95	357,041	6,198,582	1638.24	278	-50	256.1	2005	Rhonda	DDH	NQ*	Teck
05-96	357,203	6,198,563	1667.12	270	-49	225.55	2005	Rhonda	DDH	NQ*	Teck
05-97	356,921	6,198,571	1624.58	270	-50	221.59	2005	Rhonda	DDH	NQ*	Teck
05-98	345,405	6,197,839	1355.86	45	-51	252.98	2005	TooGood	DDH	NQ*	Teck
05-99	346,275	6,197,415	1359.66	45	-50	185.93	2005	TooGood	DDH	NQ*	Teck
05-100	346,635	6,197,741	1409.33	45	-50	252.98	2005	TooGood	DDH	NQ*	Teck
05-101	346,801	6,197,241	1369.74	45	-50	206.35	2005	TooGood	DDH	NQ*	Teck

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company
05-102	348,128	6,196,390	1291.94	45	-50	170.69	2005	TooGood	DDH	NQ*	Teck
05-103	347,578	6,195,901	1308.9	45	-50	149.35	2005	TooGood	DDH	NQ*	Teck
05-104	346,385	6,196,869	1351.78	225	-50	277.37	2005	TooGood	DDH	NQ*	Teck
05-105	347,413	6,200,279	1615.18	45	-50	252.98	2005	Lower Main	DDH	NQ*	Teck
05-106	347,822	6,200,002	1690.33	45	-50	222.5	2005	Weber	DDH	NQ*	Teck
JTM06-01	342,486	6,200,442	1755.38	218	-50	365.8	2006	Misty	DDH	NQ	Teck
JTM06-02	342,212	6,200,212	1833.15	38	-50	286.5	2006	Misty	DDH	NQ	Teck
JTM06-03	341,745	6,200,715	1754.59	38	-50	334.95	2006	Misty	DDH	NQ	Teck
JTM06-04	341,202	6,200,990	1889.38	38	-50	346.67	2006	Misty	DDH	NQ	Teck
JTM06-05	342,561	6,199,942	1777.37	38	-50	302.3	2006	Misty	DDH	NQ	Teck
JTM06-06	343,825	6,198,713	1390.96	38	-50	353.57	2006	Misty	DDH	NQ	Teck
JTM06-07	341,580	6,208,415	1575.2	30	-50	365.8	2006	Slide; Jan-Tam-Misty	DDH	NQ	Teck
JTM06-08	341,577	6,208,410	1572.08	210	-50	187.5	2006	Slide; Jan-Tam-Misty	DDH	NQ	Teck
JTM06-09	341,577	6,208,410	1572.08	210	-47	323.1	2006	Slide; Jan-Tam-Misty	DDH	NQ	Teck
JTM06-10	342,050	6,207,455	1096.66	30	-50	203.5	2006	Slide; Jan-Tam-Misty	DDH	NQ	Teck
L06-107	347,730	6,199,935	1692.74	45	-65	329.2	2006	Weber	DDH	NQ	Teck
L06-108	347,313	6,200,224	1613.23	45	-50	362.7	2006	Lower Main	DDH	NQ	Teck
L06-109	348,158	6,199,888	1884.42	180	-50	256	2006	Weber	DDH	NQ	Teck
L06-110	348,206	6,199,482	1939.3	80	-60	545.6	2006	Copper/Page	DDH	NQ	Teck
L06-111	348,670	6,199,464	1786.34	50	-70	451.1	2006	Copper/Page	DDH	NQ	Teck
L06-112	347,132	6,199,391	1589.45	60	-50	280.4	2006	Eckland	DDH	NQ	Teck
L06-113	348,240	6,200,290	1846.87	50	-50	381	2006	Bishop	DDH	NQ	Teck
JTM07-11	341,878	6,208,385	1517.85	30	-50	170.7	2007	Slide; Jan-Tam-Misty	DDH*	NQ*	Teck*
JTM07-12	341,740	6,208,197	1429.68	15	-50	435.9	2007	Slide; Jan-Tam-Misty	DDH*	NQ*	Teck*
JTM07-13	341,428	6,208,509	1685.58	30	-50	362.7	2007	Slide; Jan-Tam-Misty	DDH*	NQ*	Teck*

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company
JTM07-14	341,266	6,208,327	1537.87	30	-50	317.6	2007	Slide; Jan-Tam-Misty	DDH*	NQ*	Teck*
JTM07-15	342,242	6,207,385	1077.86	30	-60	268.2	2007	Slide; Jan-Tam-Misty	DDH*	NQ*	Teck*
JTM07-15A	342,203	6,207,300	1065.13	30	-50	48.8	2007	Slide; Jan-Tam-Misty	DDH*	NQ*	Teck*
L08-114	345,600	6,202,468	1427.52	50	-50	241	2008	All Alone Dome	DDH	NQ	Teck
L08-115	345,882	6,202,194	1482.02	50	-60	398	2008	All Alone Dome	DDH	NQ	Teck
L08-116	346,538	6,196,980	1349.15	45	-68	407	2008	TooGood	DDH	NQ	Teck
L08-117	346,654	6,197,182	1349.09	75	-70	384	2008	TooGood	DDH	NQ	Teck
L08-118	347,592	6,196,443	1314.65	45	-55	396	2008	TooGood	DDH	NQ	Teck
L08-119	347,589	6,196,440	1314.41	225	-50	189	2008	TooGood	DDH	NQ	Teck
L08-120	347,403	6,200,715	1693.96	50	-60	507	2008	Lower Main	DDH	NQ	Teck
L08-121	348,091	6,200,092	1876.7	345	-57	411	2008	Bishop	DDH	NQ	Teck
L08-122	348,879	6,200,081	1686.71	45	-50	234	2008	Bishop	DDH	NQ	Teck
L08-123	349,068	6,199,911	1633.63	50	-60	322.5	2008	Bishop	DDH	NQ	Teck
L08-124	348,339	6,199,155	1750.65	47	-65	498	2008	Copper/Page	DDH	NQ	Teck
L08-125	350,291	6,198,820	1637.04	50	-65	255	2008	Boot	DDH	NQ	Teck
L08-126	351,182	6,199,189	1339.43	50	-50	222	2008	Boot	DDH	NQ	Teck
L08-127	348,203	6,196,496	1327.44	45	-50	402	2008	TooGood	DDH	NQ	Teck
L08-128	348,091	6,200,092	1876.7	45	-60	432	2008	Bishop	DDH	NQ	Teck
L08-129	345,150	6,202,784	1418.64	50	-50	450	2008	All Alone Dome	DDH	NQ	Teck
JTM08-16	343,041	6,205,756	1341.52	50	-70	561	2008	Boundary	DDH	NQ	Teck
JTM08-17	343,596	6,205,664	1429.13	50	-80	411	2008	Boundary	DDH	NQ	Teck
JTM08-18	343,938	6,202,829	1400.07	50	-60	215	2008	Target X	DDH	NQ	Teck

Total drill holes within Property boundary: 322 Drill holes

Total metres drilled within Property boundary: 52,290.17 metres

Easting, Northing, UTM NAD 83 zone 10 N

Drill holes in current Resource Estimate (this Report) are from Lower Main, Upper Main and Bishop zones.

Hole ID	Easting	Northing	Elev. (masl)	Azimuth (°)	Dip (°)	Total Length (m)	Year	Zone	Type	Diameter	Company

*Information is not detailed or clearly stated in assessment report.

N. I.: No information on assessment report

Blank: Information not available

APPENDIX 2. Historical Drillhole Highlights from the Lorraine Property, drillhole intersects averaging 1% Cu or higher.

*True thickness is interpreted to be approximately 80% of drilled width.

Hole_ID		From (m)	To (m)	Length (m)	Cu (%)
73-01		2.3	11.4	9.1	1.92
	includes	2.3	5.3	3	2.20
74-06		3.7	18.9	15.2	2.08
	includes	9.8	15.8	6	2.46
74-06		25	34.1	9.1	1.90
	includes	25	28	3	2.24
74-06		37.2	40.2	3	1.07
74-06		82.9	86	3.1	1.30
74-06		134.7	137.8	3.1	4.14
	includes	134.7	137.8	3.1	4.14
74-06		140.8	143.9	3.1	1.04
74-07		28.7	31.7	3	1.00
74-07		165.8	168.9	3.1	1.56
74-07		171.9	175	3.1	1.61
74-09		152.4	155.4	3	1.48
04-68		20.38	33	12.62	1.65
	includes	20.38	23.74	3.36	2.13
04-74		24.38	28.6	4.22	1.63
04-79		50.5	52.52	2.02	1.22
04-80A		101.24	114.3	13.06	1.53
04-80A		116.75	118.7	1.95	1.20
04-80A		119.99	123.31	3.32	1.16
04-81		114.64	117.75	3.11	1.08
04-81		121.61	130.75	9.14	1.21
04-82		5.79	8.84	3.05	1.17
04-82		11.89	13.91	2.02	1.10
04-82		17.34	19.05	1.71	1.12
04-82		30.41	39.01	8.6	1.31
04-82		44.07	47.64	3.57	1.37
04-82		69.64	72.66	3.02	1.04
04-82		88.92	109	20.08	1.58
	includes	94.49	97.54	3.05	2.42
04-89		142.64	146.21	3.57	1.95
	includes	145.88	146.21	0.33	2.21
04-89		148.14	150.3	2.16	1.76
05-105		6.5	18.29	11.79	1.43
05-105		21.34	30.48	9.14	1.53
	includes	21.34	24.38	3.04	2.02

Hole_ID		From (m)	To (m)	Length (m)	Cu (%)
05-106		1.52	15.75	14.23	1.20
05-95		79.75	80.7	0.95	1.18
05-95		94.89	95.24	0.35	2.06
	includes	94.89	95.24	0.35	2.06
05-96		136.85	137.31	0.46	2.00
	includes	136.85	137.31	0.46	2.00
05-96		169.04	169.59	0.55	7.92
	includes	169.04	169.59	0.55	7.92
05-97		85.69	87.1	1.41	1.38
2001-48		33.26	42.98	9.72	1.41
2001-48		166.93	171.65	4.72	1.09
2001-50		42.67	48.77	6.1	1.37
2001-53		172.21	174.28	2.07	1.55
2001-57		45.72	48.77	3.05	1.11
2001-58		106.68	108.14	1.46	2.47
	includes	106.68	108.14	1.46	2.47
2001-58		108.88	110.45	1.57	4.18
	includes	108.88	110.45	1.57	4.18
2001-58		139.09	143.05	3.96	1.01
2001-58		185.93	207	21.07	1.13
2001-59		172.82	176.59	3.77	1.32
2001-60		36.6	45	8.4	1.25
2001-60		60.66	63.7	3.04	1.11
2001-60		94.38	97.23	2.85	2.04
	includes	94.38	97.23	2.85	2.04
2001-60		106.38	118.57	12.19	1.55
	includes	109.42	112.47	3.05	2.13
2001-60		121.62	124.66	3.04	1.54
2002-62		12	14.95	2.95	1.10
2002-62		18	21	3	1.00
2002-62		26.65	32.82	6.17	2.37
	includes	26.65	32.82	6.17	2.37
2002-62		91	94	3	1.34
2002-62		114.92	117	2.08	1.77
2002-63		16.4	21	4.6	1.08
2002-65		43.41	46.5	3.09	1.07
2002-65		57.37	59.76	2.39	1.93
49D-1		146.3	149.35	3.05	1.40
49D-2		35.05	38.1	3.05	1.09
49D-2		45.72	48.77	3.05	1.42
49D-2		84.43	85.95	1.52	1.03
49D-2		88.7	97.23	8.53	1.64

Hole_ID		From (m)	To (m)	Length (m)	Cu (%)
	includes	91.44	92.66	1.22	2.40
	includes	96.01	97.23	1.22	2.40
49D-2		110.95	111.25	0.3	1.62
49D-3		13.29	14.17	0.88	1.05
49D-4		35.97	37.8	1.83	2.01
	includes	36.58	37.8	1.22	2.24
JTM06-07		266.2	272.2	6	1.68
JTM06-07		284.2	293	8.8	1.31
JTM06-07		305.9	307.5	1.6	1.24
JTM06-07		314.8	317	2.2	1.23
JTM06-08		107.1	109.3	2.2	1.15
JTM06-09		112.3	113.7	1.4	2.89
	includes	112.3	113.7	1.4	2.89
JTM06-09		115.1	116.6	1.5	1.14
JTM06-10		83	86.9	3.9	1.23
JTM06-10		92.3	94.7	2.4	1.08
JTM07-11		32	34.8	2.8	1.30
JTM07-12		67.9	69.4	1.5	1.69
JTM07-12		85.8	91.1	5.3	1.25
JTM07-12		95.4	97.9	2.5	1.23
JTM07-12		204.5	205.8	1.3	2.39
	includes	204.5	205.8	1.3	2.39
JTM07-12		293.7	295.1	1.4	1.23
JTM07-12		308.9	311.3	2.4	1.36
JTM07-12		321	323.4	2.4	1.11
JTM07-12		325.9	327.6	1.7	2.63
	includes	325.9	327.6	1.7	2.63
JTM07-13		249.2	251.1	1.9	1.51
JTM07-14		124.6	126.2	1.6	1.80
JTM07-15		189	191	2	1.01
JTM07-15		197	199	2	1.30
L08-120		31.9	34	2.1	1.74
L08-120		36	43.2	7.2	1.11
L08-120		50.6	53.2	2.6	1.23
L08-120		83.7	87.1	3.4	1.67
L08-120		92.2	93.5	1.3	1.60
L08-120		103.1	105.5	2.4	1.27
L08-120		109.6	110.9	1.3	1.83
L08-120		114.5	115.5	1	1.23
L08-120		128.5	130.5	2	1.40
L08-120		132.5	141	8.5	1.79
	includes	134.5	136.5	2	2.03

Hole_ID		From (m)	To (m)	Length (m)	Cu (%)
L08-120		143.8	144.8	1	2.72
	includes	143.8	144.8	1	2.72
L08-120		146	150.4	4.4	1.38
L08-120		158.2	159.4	1.2	3.80
	includes	158.2	159.4	1.2	3.80
L08-120		166.4	167.2	0.8	1.78
L08-121		160.3	170.3	10	2.04
	includes	162.3	166.3	4	2.41
	includes	168.3	170.3	2	2.94
L08-128		186	188	2	1.82
L-1		27.43	30.48	3.05	1.16
L70-2		0	9.14	9.14	1.89
	includes	3.05	6.1	3.05	3.04
L70-2		18.29	21.34	3.05	2.02
	includes	18.29	21.34	3.05	2.02
L70-2		24.38	27.43	3.05	2.10
	includes	24.38	27.43	3.05	2.10
L70-2		33.53	39.62	6.09	1.07
L70-2		48.77	54.86	6.09	1.48
L70-3		3.05	18.29	15.24	2.10
	includes	3.05	6.1	3.05	2.75
	includes	9.14	12.19	3.05	2.20
	includes	15.24	18.29	3.05	2.40
L70-3		27.43	33.53	6.1	1.44
L70-3		45.72	48.77	3.05	1.00
L70-4		3.05	6.1	3.05	1.71
L70-4		15.24	18.29	3.05	1.22
L70-4		27.43	36.58	9.15	1.97
	includes	27.43	33.53	6.1	2.29
L70-4		54.86	64.01	9.15	1.70
	includes	57.91	60.96	3.05	2.40
L70-4		94.49	97.54	3.05	2.09
	includes	94.49	97.54	3.05	2.09
L70-5		4.11	6.1	1.99	1.38
L70-5		21.34	27.43	6.09	1.29
L70-5		76.2	79.25	3.05	1.08
L71-1		83.21	86.26	3.05	1.23
L71-1		89.31	93.57	4.26	1.49
L71-1		99.67	102.72	3.05	1.45
L71-1		105.77	108.81	3.04	1.10
L71-12		36.58	39.62	3.04	1.35
L71-12		42.67	45.72	3.05	1.70

Hole_ID		From (m)	To (m)	Length (m)	Cu (%)
L71-12		54.86	57.91	3.05	1.70
L71-12		115.82	118.87	3.05	1.05
L71-3		67.06	70.1	3.04	1.05
L71-6		64.01	67.06	3.05	1.25
L71-6		73.15	76.2	3.05	1.12
L71-7		28.04	31.09	3.05	1.40
L72-1		42.67	54.86	12.19	1.94
	includes	45.72	51.82	6.1	2.33
L72-3		173.74	176.78	3.04	1.44
L73-2		15.24	18.29	3.05	1.32
L73-2		30.48	33.53	3.05	1.04
L73-4		3.05	18.29	15.24	2.14
	includes	6.1	15.24	9.14	2.60
L73-4		21.34	42.67	21.33	1.47
L73-4		45.72	55.47	9.75	1.74
	includes	48.77	55.47	6.7	2.05
L73-5		39.62	42.67	3.05	1.08
L73-6		6.1	21.34	15.24	2.22
	includes	9.14	18.29	9.15	2.80
L91-10		56	63.05	7.05	1.93
	includes	56	58	2	2.10
	includes	60	63.05	3.05	2.01
L91-11		120	123	3	1.14
L91-12		45	47	2	1.02
L91-3		94	96	2	1.55
L91-4		45	52	7	1.47
L91-4		54	61.9	7.9	1.56
L91-4		64	70	6	1.26
L91-4		82	91.4	9.4	1.15
L91-4		94.85	98	3.15	1.24
L91-6		23	25	2	1.60
L91-6		57	58.6	1.6	2.17
	includes	57	58.6	1.6	2.17
L91-7		105.15	108	2.85	2.87
	includes	105.15	108	2.85	2.87
L91-7		114	117	3	1.35
L91-7		120	129.2	9.2	1.22
L91-7		141	149	8	1.84
	includes	142.9	145.9	3	3.04
L91-7		153	157.7	4.7	1.63
L91-7		164.9	167	2.1	1.12
L91-7		172.75	175.15	2.4	1.66

Hole_ID		From (m)	To (m)	Length (m)	Cu (%)
L91-7		183	185	2	1.37
L93-2		116.5	119	2.5	2.09
	includes	116.5	119	2.5	2.09
L94-1		35.6	38.6	3	1.47
L94-1		47.6	50.6	3	1.11
L94-1		59.6	62.6	3	1.55
L94-1		70.6	73.6	3	1.06
L94-10		1.52	5.6	4.08	1.07
L94-10		39.6	51.6	12	1.63
L94-2		36	42	6	1.36
L94-2		45	48	3	1.09
L94-2		51	63	12	1.39
L94-2		66	69	3	1.05
L94-3		14	17	3	1.22
L94-3		53	56	3	1.24
L94-3		68	71	3	1.74
L94-5		11.4	14.4	3	1.00
L94-6		106	109	3	2.87
	includes	106	109	3	2.87
L94-7		13.8	19.8	6	1.49
L94-8		1.52	14.18	12.66	1.50
	includes	8.18	11.18	3	2.02
L94-8		17.18	20.18	3	1.09
L94-8		23.18	44.18	21	1.69
	includes	29.18	32.18	3	2.40
L94-8		50.18	66.8	16.62	1.56
	includes	63.8	66.8	3	2.14
L94-8		69.8	93.56	23.76	1.66
	includes	78.8	81.8	3	2.15
L94-8		95	101	6	1.05
L94-9		28.8	31.8	3	1.90
L94-9		34.8	49.8	15	1.65
	includes	43.8	46.8	3	2.09
L94-9		52.8	58.8	6	1.37
L95-11		4.5	21.5	17	1.72
	includes	15.5	18.5	3	2.42
L95-12		3.5	18.5	15	1.53
	includes	6.5	9.5	3	2.16
L95-12		30.5	39.5	9	1.19
L95-13		4.5	9.5	5	1.36
L95-13		15.5	18.5	3	1.05
L95-13		60.5	63.5	3	1.50

Hole_ID		From (m)	To (m)	Length (m)	Cu (%)
L95-13		74	95	21	1.49
	includes	83	86	3	2.10
L95-13		110	113	3	1.26
L95-13		155	158	3	1.07
L95-14		4.5	10.5	6	1.26
L95-14		61.5	64.5	3	1.38
L95-15		4.5	16.5	12	1.31
L95-15		55.5	58.5	3	1.56
L95-16		4	7	3	1.67
L95-16		13	16	3	1.03
L95-17		1.4	6	4.6	1.87
	includes	1.4	3	1.6	2.45
L95-17		15.25	18	2.75	1.28
L95-17		24	30	6	1.07
L95-18		0.6	3	2.4	1.60
L95-18		9	21	12	1.36
L95-18		24	30	6	1.33
L95-19		10	26	16	1.62
	includes	16	21	5	2.41
L95-19		30.8	37	6.2	1.17
L95-20		2.7	6	3.3	1.77
L95-20		15	18	3	1.40
L95-21		0.6	6	5.4	1.09
L95-21		68.5	71	2.5	1.22
L95-22		2.75	9	6.25	1.09
L95-22		31	34	3	1.01
L95-22		37	40	3	1.04
L95-23		2.65	6	3.35	1.23
L95-23		39	42	3	1.06
L95-24		4	17.4	13.4	1.37
L95-25		73.5	81.7	8.2	1.42
L95-25		91	94	3	1.07
L95-26		31	33	2	1.05
L95-26		83	86	3	1.19
L95-27		3.2	18	14.8	1.59
L95-27		61	63	2	1.38
L95-28		6	12	6	1.36
L95-28		18	21	3	1.39
L95-28		30	53.65	23.65	1.68
	includes	48	53.65	5.65	2.31
L95-28		59.35	71	11.65	1.36
L95-28		86.5	89.8	3.3	1.30

Hole_ID		From (m)	To (m)	Length (m)	Cu (%)
L95-28		97	100	3	1.08
L95-29		30	42.2	12.2	1.52
	includes	36	38.5	2.5	2.08
L95-32		70	76	6	1.34
L95-32		82	91	9	1.64
L95-32		94	112	18	1.50
	includes	97	100	3	2.39
L95-32		115	124	9	1.35
L95-32		127	140.2	13.2	1.62
	includes	130	133	3	2.45
L95-36		71	77	6	1.17
L95-36		160.6	163.7	3.1	1.04
L95-36		188.1	191.1	3	1.56
L95-36		221.6	224.6	3	1.04
L96-37		87.5	118	30.5	1.65
	includes	90.5	93.6	3.1	2.62
L96-37		121	148.4	27.4	1.59
	includes	130.2	133.2	3	2.38
	includes	139.3	145.4	6.1	2.24
L96-39		3	11.3	8.3	2.06
	includes	3	8.5	5.5	2.57
L96-43		108.8	111.9	3.1	4.14
	includes	108.8	111.9	3.1	4.14
L96-43		130.2	133.2	3	1.41
L96-43		142.3	145.4	3.1	1.16
L96-43		148.4	151.5	3.1	1.37
L96-43		185	188.1	3.1	1.05
L96-43		191.7	203.9	12.2	1.41
L96-44		130.2	133.2	3	1.08
L96-44		139.3	147.5	8.2	1.78
	includes	142.3	145.4	3.1	2.20
L96-44		215.5	237.2	21.7	1.90
	includes	218.8	222.5	3.7	2.96
	includes	227.7	233.8	6.1	2.37
L96-45		29.6	30.9	1.3	1.53
L97-47		15.24	21.34	6.1	2.11
	includes	15.24	18.29	3.05	2.50
P10		30.48	33.53	3.05	1.00
P13		21.34	24.38	3.04	1.50
P13		36.58	39.62	3.04	1.35
P19		33.53	36.58	3.05	1.00
P21		79.25	82.3	3.05	1.76

Hole_ID		From (m)	To (m)	Length (m)	Cu (%)
P21		91.44	94.49	3.05	1.52
P8		51.82	54.86	3.04	1.00