Technical Report Summarizing Exploration Work on the IKE Project, British Columbia, Canada

National Instrument 43-101 Technical Report

Prepared for:

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Effective Date: **May 29th, 2020**

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TABLE OF ELEMENTS

Element	Name	Element	Name	Element	Name	Element	Name
Al (Al_2O_3)	Aluminum	Eu	Europium	Nd	Neodymium	Ta	Tantalum
Ag	Silver	Fe (Fe_2O_3)	Iron	P (P_2O_5)	Phosphorus	Tb	Terbium
As	Arsenic	Ga	Gallium	Pb	Lead	Ti (TiO_2)	Titanium
Au	Gold	Gd	Gadolinium	Pd	Palladium	Th	Thorium
Ba (BaO)	Barium	Hf	Hafnium	Pt	Platinum	Tm	Thulium
Bi	Bismuth	Ho	Holmium	Pr	Praseodymium	U	Uranium
C	Carbon	K (K_2O)	Potassium	Rb	Rubidium	V	Vanadium
Ca (CaO)	Calcium	La	Lanthanum	Re	Rhenium	W	Tungsten
Ce	Cerium	Lu	Lutetium	S	Sulphur	Y	Yttrium
Cr (Cr_2O_3)	Chromium	Mg (MgO)	Magnesium	Si (SiO_2)	Silicon	Yb	Ytterbium
Cs	Cesium	Mn (MnO)	Manganese	Sm	Samarium	Zn	Zinc
Cu	Copper	Mo	Molybdenum	Sb	Antimony	Zr	Zirconium
Dy	Dysprosium	Na (Na_2O)	Sodium	Sn	Tin		
Er	Erbium	Nb	Niobium	Sr (SrO)	Strontium		

LIST OF UNITS AND ABBREVIATIONS

Abbreviation	Unit or Description
AAS	Atomic Absorption Spectrometry (geochemical analysis)
Acme	ACME Laboratories Ltd. (geochemical analysis laboratory) acquired by Bureau Veritas Commodities Canada Ltd. in February 2012 and rebranded as BV in January 2015)
ALS	ALS Global Laboratories Ltd. (geochemical analysis laboratory)
AR	Aqua Regia, a mixture of hydrochloric and nitric acid (geochemical analysis)
AR-MS(UT1)	Aqua Regia Mass Spectrometry (Actlabs Laboratory Ultratrace geochemical analytical method)
ARIS	Assessment report index system (British Columbia government)
AQ	Drill core size (2.7 cm diameter)
ASL	Above sea level (elevation reference point)
AW	Drill core size (3.0 cm diameter)
BC	British Columbia, Canada
BCGS	BC Geological Survey
BCGS-RGS	BC Geological Survey Regional Geochemical Survey
BQ	Drill core size (3.64 cm diameter)
BTW	Drill core size (4.2 cm diameter)

Abbreviation	Unit or Description
BV	Bureau Veritas Commodities Canada Ltd. (geochemical analysis laboratory)
cm	Centimetre
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
CPC	Coast Plutonic Complex
CRM	Certified reference material (geochemical standard)
CuEQ	Copper equivalent
°	Degrees (angle)
°C	Degrees Celsius
EM	Electromagnetic survey (geophysics)
EX	Drill core size (2.3 cm diameter)
FA	Fire Assay (precious metal geochemical analysis)
FA-ICP	Fire Assay with ICP finish (geochemical analysis)
Fm	Formation (geology)
FSR	Forest service road
GBC	Geoscience BC (Government Geoscience Agency)
g	Gram
g/t	Grams per tonne (in geochemistry 1 g/t = 1 ppm = 1,000 ppb)
>	Greater than
≥	Greater than or equal to
Ha	Hectare (10,000 m^2)
HF	Hydrofluoric acid
HQ	Drill core size (6.3 cm diameter)
IEX	Drill core size (2.5 cm diameter)
IP	Induced Polarization (geophysical survey)
ICP-AES	Inductively Coupled Plasma - Atomic Emission Spectrometry (geochemical analysis)
ICP[-MS]	Inductively Coupled Plasma [mass spectrometry] (geochemical analysis)
ICP-OES	Inductively Coupled Plasma - Optical Emission Spectrometry (geochemical analysis)
K-Ar	Potassium argon (geochronology)
km	Kilometre
km^2	Square kilometre
lb	Pound (weight)
<	Less than
≤	Less than or equal to
LDL	Lower detection limit
m	Metre
M	Million
m^2	Square metre
Ma	Mass in air (density measurement)
Ma	Millions of years ago (geochronology)
Mt	Million tonnes
Mw	Mass in water (density measurement)
MW	Megawatt
MEMPR	Ministry of Mines, Energy and Petroleum Resources (BC Government)
mm	Millimetre

Abbreviation	Unit or Description
‘	Minute (plane angle)
MS	Mass Spectrometry (geochemical analysis)
NAD	North American Datum (mapping)
NI	National Instrument (43-101)
NPI	Net Profits Interest (royalty)
NQ	Drill core size (4.76 centimetre diameter)
NSR	Net Smelter Return (royalty)
NTS	National Topographic System (map sheets in Canada)
OES	Optical Emission Spectrometry (geochemical analysis)
oz	Troy ounce
±	Plus or minus (above or below, more or less)
%	Percent (in geochemistry 1% = 10,000 ppm)
ppb	Parts per billion (in geochemistry 1 ppb = 0.001 ppm)
ppm	Parts per million (in geochemistry 1 ppm = 1 g/t = 1,000 ppb)
QAQC	Quality assurance / quality control
QP	Qualified Person (defined by NI 43-101)
$	Canadian Dollars (used unless otherwise specified)
SG	Specific gravity (density)
SQL	Structured query language (database)
SWIR	Short Wave Infra-Red (spectroscopy)
RQD	Rock quality designation (geotechnical)
3D	Three dimensional
t	Tonne (1,000 kg)
TD-ICP	Total digestion (4-acid) ICP-MS (Actlabs laboratory assay method)
TMI	Intensity of the total magnetic field (geophysics)
UTEM	University of Toronto Electromagnetic system (geophysics)
UTM	Universal Transverse Mercator (mapping)
Vangeochem	Vangeochem Laboratories (geochemical analysis)
VLF-EM	Very Low Frequency Electromagnetic survey (geophysics)
XRF	X-ray Fluorescence (geochemical analysis)
ZTEM	Z-axis Tipper Electromagnetic Survey (geophysics)

1. Executive Summary

1.1. Property Description, Location, and Ownership

The 462 km^2 IKE Project is located approximately 35 km northwest of the town of Gold Bridge in southwestern British Columbia ("BC"), and in proximity to industrial infrastructure, power, highways and rail.

Although forestry roads come within about 10 km of the Project, access is currently by helicopter from the Gun Lake airstrip, some 7.5 km from Gold Bridge via maintained gravel roads. The flight time from the Gun Lake Airstrip to the Project is approximately 15 minutes.

The Project is 100% owned and operated by Amarc Resources Ltd. ("Amarc").

1.2. Geology and Mineralization

The IKE Project straddles the northeastern margin of the Cretaceous Coast Plutonic Complex ("CPC") where it has intruded volcano-sedimentary rocks. The CPC comprises a chain of overlapping batholiths formed as a result of subduction of oceanic crust beneath the western margin of North America, from approximately Early Jurassic to Early Tertiary time (Schiarizza et al. 1997). Rocks bordering the CPC to the northeast comprise a highly tectonized assemblage of Paleozoic to Mid-Mesozoic oceanic sedimentary and volcanic rocks assigned to several different terranes (Bridge River, Cadwallader and Methow), Middle Jurassic through Mid-Cretaceous sedimentary rocks of the Tyaughton-Methow basin, and Late Cretaceous continental arc volcanic rocks (Schiarizza et al., 1997).

Within the IKE Project, the main CPC intrusive phase, and primary host of the IKE porphyry deposit, is a homogeneous granodiorite (EGD1). Northwards, some 5 km from the IKE deposit and within the Greater Empress Cu-Au Project ("GECAP") sub-area where the outer contact zone of the CPC lies against the volcano-sedimentary host rocks is the Empress border phase ("Empress Phase") pluton, a typically heterogeneous quartz-monzonite. A series of Eocene hornblende feldspar porphyritic dykes intrude both EGD1 and the Empress phase of the CPC.

The most evident structural element is the northwest-trending Tchaikazan Fault. An early stage of sinistral displacement (of unknown magnitude) on the fault is inferred to be broadly contemporaneous with the Late Cretaceous Cu-Au mineralization at GECAP and may have exerted control on its emplacement. Aeromagnetic patterns in the south and eastern parts of the IKE Project suggest the presence of numerous southeast-trending splays to the fault zone that form a horsetail architecture. Abundant Eocene mafic to felsic dykes occur along the Tchaikazan splays, including the significant swarm of northwest to north-northwest trending dykes that is one of the main hosts to mineralization at the IKE porphyry deposit.

Hydrothermal alteration and mineralization are present at numerous locations throughout the IKE Project, most of which are interpreted to be intrusion-related hydrothermal systems; a smaller number have epithermal characteristics. The widespread and varied types of hydrothermal effects attest to the highly fertile character of the Project area.

At the IKE calc-alkaline porphyry Cu-Mo-Ag deposit, mineralization predominantly occurs as hypogene pyrite, chalcopyrite and molybdenite, primarily associated with K-silicate alteration and is broadly uniform in all intrusive phases. Chalcopyrite and pyrite occur as disseminated grains, and fine disseminations with early halo and later quartz-sulphide veins. Quartz-molybdenum veins are the primary host of molybdenite that post-dates the majority of the Cu mineralization. The mean total sulphide concentration of the deposit is 2.54%.

Hydrothermal alteration and mineralization are present throughout the 15 by 1 to 2 km GECAP sub-area of the IKE Project. It is host to the higher-grade Empress Cu-Au-Ag replacement deposit and at least eight other porphyry and replacement-style Cu-Au±Mo±Ag deposit targets – including Empress East, Empress Gap, Empress West, Granite, Buzzer, Taylor Windfall, Spokane and Syndicate. The Au-bearing deposit target types at GECAP formed at approximately 85-90 Ma, distinct from the Eocene-age hydrothermal activity that formed the IKE porphyry deposit. Mineralization at the Empress deposit formed predominantly by replacement of previously altered volcanic rock by a quartz-magnetite-sulphide assemblage (Blevings, 2008; Lang, 2017), reminiscent of replacement styles of some skarn-type deposits, with a relatively nearby, concealed porphyry-style Cu-Au-Ag±Mo target being the likely source of mineralizing replacement fluids (Lang, 2017). The main Cu-Au mineralization occurs with massive silicification proximal to the contact between the volcanics and the Empress Phase intrusion, but may also occur higher up in the sequence. In the immediate vicinity of the Empress deposit, two zones of mineralization (the Granite deposit target immediately to the north and the Buzzer deposit target to the southeast) support the model for derivation of mineralizing fluids from a hidden porphyry deposit.

A number of other significant porphyry and epithermal mineral occurrences have also been identified outside the IKE deposit and GECAP area in the IKE district; these include the Rowbottom and Mad Major porphyry Cu deposit targets.

1.3. Exploration

Mapping, geochemical sampling and geophysical surveys have been completed by numerous companies in the area of the IKE project since 1963. Historical drilling took place on the IKE Project in 24 different years over a 55 years period from 1956 to 2011, including 284 core and shallow percussion holes for a total length of 31,382 m. The historical drill programs identified a number of porphyry Cu, replacement Cu-Au and epithermal Au-Ag occurrences on the Project, many of which show significant exploration potential and remain to be fully explored.

Amarc has been the operator of the IKE Project since 2014, and has completed 189 km^2 of geological mapping, collected 3,016 geochemical samples (talus fines, rock-chip and stream sediment), run 163.6 line-km of IP geophysical surveys, flown 1,069 line-km of airborne magnetic geophysical surveys, and drilled over 18,157 m of core. This new high-quality exploration data, combined with historical geological, geochemical, and geophysical survey and drilling information has significantly advanced exploration, leading to, for example, the recognition of the size potential of the IKE Cu-Mo-Ag deposit and the recognition of the porphyry and replacement Cu±Au±Mo±Ag potential of the GECAP.

Until recently, the IKE porphyry Cu-Mo-Ag deposit was the primary focus of Amarc's exploration activity. The company has completed 15,455.34 m of core drilling in 26 widely-spaced holes, confirming the presence of a substantial body of porphyry Cu-Mo-Ag mineralization with encouraging grades, over an area 1,200 m east-west by 1,000 m north-south and to 875 m depth; that remains open to expansion.

More recently, the GECAP area been evaluated mainly through the compilation of historical data combined with initial re-logging of some historical core and field mapping observations. This work has defined a promising potential for higher-grade Cu-Au-Ag replacement and associated porphyry Cu±Au±Mo±Ag mineralization over a 15 km by 1 to 2 km area of the IKE Project, centred around the Empress Cu-Au deposit.

Amarc has also completed initial ground assessment, with limited drill testing, of a number of exploration targets across the eastern areas of the tenure within approximately 8 km of the IKE deposit. These exploration targets include the Rowbottom and Mad Major deposit targets.

1.4. Conclusions and Recommendations

At a provincial scale, the IKE Project occurs in a prospective metallogenic region in which many centres of porphyry and epithermal-related magmatic-hydrothermal activity in similar geological settings have produced large porphyry Cu-Au deposits such as Poison Mountain and New Prosperity. The Project itself occupies a fertile block of crust where magmatic-hydrothermal-structural characteristics are favorable for the formation of intrusion-related Cu±Au±Mo±Ag deposits with good grade. These characteristics are common to most porphyry districts around the globe that host major, and commonly multiple, Cu±Au±Mo±Ag deposits.

The crustal-scale Tchaikazan Fault was active from at least the mid-Cretaceous through the Eocene, which coincides temporally with the range in ages of intrusions and mineralization in the area, and it likely exerted direct or indirect structural control on both. Multiple mineralized centres in the Project area appear to be related to north-northwest and/or northeast-trending splays off the main structure.

The presence of these multiple centres of mineralization, strong and widespread alteration with abundant sulphide and a variety of deposit types - including porphyry Cu±Au±Mo±Ag, high-temperature Cu-Au-Ag replacements, and Au-Ag high-sulphidation epithermal and possibly low sulphidation epithermal – occurring at a variety of paleodepths demonstrate the current potential and also the opportunity for discovery of additional deposits at IKE.

Largely co-incident magnetics, IP chargeability, geochemical talus fines and mapped alteration anomalies have defined a 9 km^2 hydrothermal system at the IKE deposit. Amarc's work has revealed the importance and potential of this system. Wide-spaced drilling with long and continuous intercepts of mineralization, has outlined a large volume of porphyry Cu-Mo-Ag mineralization that is open to further expansion and at depth; and requires additional step-out as well as in-fill drilling to define the full extent and grade of the mineralization. A phased core drill program is warranted, with the goal of delineating a mineral resource at the IKE deposit.

The 35 km^2 GECAP area, which straddles the CPC contact for some 15 km, is an important sub-area of the IKE Project. Explored historically since the 1920's, Amarc compiled and integrated useful historical geochemical and geophysical surveys and drilling information from GECAP, to better understand the potential in the area and identify significant porphyry Cu±Au±Mo-Ag and Cu-Au replacement deposit targets, including the:

- Empress Cu-Au-Ag replacement-style deposit, which is characterized by well mineralized intersections and relatively good continuity that is not fully delineated. Clear potential exists to upgrade and expand the mineralization with a core-drilling program.
- Empress East Cu-Au-Ag deposit target that is located approximately 1 km east of Empress. Limited historical drilling has intercepted mineralization similar to that at the Empress deposit, and this drilling, together with favorable IP chargeability and a distinct magnetic feature, suggest significant potential exists to enlarge the area of known mineralization, and find higher-grades with further core drilling.
- Empress Gap Cu-Au-Ag deposit target has seen only limited historical shallow percussion and core drilling in the 1 km gap between the Empress and Empress East. Historical drill and IP chargeability data suggest the potential for Cu-Au-Ag mineralization at this underexplored Cu-Au-Ag target.
- At the Granite porphyry Cu±Au±Mo-Ag deposit target, mineralization has been intersected by only a limited number of tightly collared drill holes, and results suggest that it could be the source of the mineralizing fluids for the Empress deposit. Step-out drilling from the known mineralization, including the testing of proximal magnetic and IP chargeability high features is required.
- Empress West Cu-Au-Ag target area, which extends some 2.2 km to the west of Empress along the favorable CPC-volcanic contact, has only been tested by widely-spaced drill holes. Its potential is indicated by the results of the historical drilling combined with magnetic and IP survey data, and elevated Cu±Au±Mo in soils. Modern IP and drilling is required to test a series of targets in this area.
- Norwest Cu-Au target area is located to the west along the CPC contact from the Empress West, and is characterized by locally elevated geochemical results and distinctive alteration, with widespread veining. This target warrants geological mapping, rock sampling and an IP survey to inform drill target selection.
- Taylor-Windfall West IP Target is a strong chargeability anomaly located to the west of the historical Taylor-Windfall Au mine, and north of the Tchaikazan Fault, and could represent a lithocap to an underlying or adjacent porphyry Cu±Au-Ag±Mo deposit. The target warrants additional IP and drill testing.

Several known centres of porphyry Cu mineralization (Rowbottom, Mad Major, OMG) and epithermal mineralization (Battlement, Taylor-Windfall, Mewtwo) occur within the IKE district in proximity to the IKE deposit and GECAP areas. Limited exploration by historical operators and/or Amarc indicates that further survey work followed by drilling is warranted at these targets.

A two-phase, success contingent, drill program (Figure 18-1) is recommended for the IKE deposit with the goal of delineating a mineral resource to provide the basis for more advanced studies to be undertaken in the future. Phase 1 comprises 21 drill holes (17,500 m). Nine of the planned core holes are designed to define the grade and geometry of two higher-grade areas of mineralization in the Northwest and Southwest Cirques; and 12 of the core holes would infill between the higher-grade centres in Northwest and Southwest Cirques as well as testing the eastward, shallower extension of the known mineralization at depth. The estimated cost of this program is $8.1 M. In Phase 2, 20 core holes (15,200 m) are proposed, contingent on a successful Phase 1 infill-drilling program. These drill holes are planned to test the potential expansion of the known mineralization around the previously drilled area at a cost of approximately $7.6 M.

A two-phase, partly success contingent program is recommended for the GECAP area (Figures 18-2 and 18-3). The Phase 1 program includes core drilling of some 17 holes (3,800 m) to commence delineation of the grade and volume at the Empress and Empress East Cu-Au deposits; test the expansion potential of the known Granite porphyry Cu-Au-Ag-Mo mineralization; and test priority targets within the Empress West and Empress Gap areas. The program will also include relogging of select historical drill core from the Empress Cu-Au replacement and Buzzer porphyry Cu-Au-Ag±Mo deposits; detailed geology and alteration mapping (with surface geochemical sampling, as warranted); and/or IP surveys to better define the sulphide system and refine drill targets at the Empress, Empress East, Empress Gap, Empress West and Norwest. The estimated cost for this program is $2.7 M. The recommended Phase 2 program will focus on the core drilling of 38 holes (9,700 m) to continue to delineate the grade and geometry of the Empress deposit and Empress East deposit target; test prospective targets that were not drill tested during Phase 1; and follow up of positive Phase 1 program results. The total cost of this program is approximately $4.7 M.

2. Introduction

2.1. Terms of Reference and Purpose

This report was prepared by Mr. C. Mark Rebagliati, P. Eng., and Mr. Eric Titley, P. Geo., at the request of Dr. Diane Nicolson, President and CEO of Amarc to provide an up-to-date summary of exploration work completed on the IKE Project, located in BC. The objective of this report is to summarize historical work, outline exploration completed by Amarc to date, appraise the exploration potential of the Project and if warranted, make recommendations for future exploration work.

The authors have completed this report in compliance with National Instrument 43-101 of the Canadian Securities Administrators ("NI 43-101") and the guidelines in Form 43-101 F1. The authors are QPs within the meaning of NI 43-101.

The content of this report is based on information provided by Amarc. Other information, as indicated was obtained from the public domain. The authors have no reason to doubt the reliability of this information.

This technical report is based on the following sources of information:

- Information from Amarc for matters relating to permits, environmental studies, social or community impacts, surface rights, royalties, agreements and encumbrances relevant to this report;
- Information from geophysical, geochemical and geological surveys and also drilling conducted or commissioned by Amarc;
- Information from historical geophysical, geochemical and geological surveys and also drilling;
- Compilation, integration and review of the exploration datasets from work by both historical operators and Amarc;
- Exploration targeting utilizing Amarc and historical information from geophysical, geochemical and geological surveys and drilling;
- Discussions with Amarc personnel;
- Inspection of the IKE Project and surrounding area; and
- Additional information from public domain sources, including Government datasets from, for example, Assessment Reports and information from the BCGS or GBC.

This report has been prepared by QP Mark Rebagliati and QP Eric Titley, with assistance from Dr. Andrew J. Fagan under the supervision of the QPs. The information, opinions and conclusions contained herein are based on:

Information available to the authors at the time of preparation of this report;
Assumptions, conditions and qualifications as set forth in this report; and
Data, reports and other information supplied by Amarc and other third party sources.

Standard professional procedures were followed in preparing the contents of this report. Data used in this report has been verified where possible and the authors have no reason to believe that the data was not collected in a professional manner. Table 2-1 summarizes the sections for which each QP is responsible.

The report was assembled in Vancouver, Canada during March to June 2020. The effective date of this report is May 29th, 2020.

Table 2-1: Qualified Persons Responsible for Each Section of this Technical Report.

Section	Report Section	Responsibility	
		Company	QP & Professional Accreditation
1.0	Executive Summary	Amarc	C. Mark Rebagliati, P.Eng Eric Titley, P.Geo
2.0	Introduction	Amarc	C. Mark Rebagliati, P.Eng
3.0	Reliance on Other Experts	Amarc	C. Mark Rebagliati, P.Eng
4.0	Project Description and Location	Amarc	C. Mark Rebagliati, P.Eng
5.0	Accessibility, Climate, Local Resources, Infrastructure and Physiography	Amarc	C. Mark Rebagliati, P.Eng
6.0	History	Amarc	C. Mark Rebagliati, P.Eng Eric Titley, P.Geo
7.0	Geological Setting	Amarc	C. Mark Rebagliati, P.Eng
8.0	Deposit Type	Amarc	C. Mark Rebagliati, P.Eng
9.0	Exploration	Amarc	C. Mark Rebagliati, P.Eng Eric Titley, P.Geo
10.0	Drilling	Amarc	C. Mark Rebagliati, P.Eng Eric Titley, P.Geo
11.0	Sample Preparation, Analyses and Security	Amarc	Eric Titley, P.Geo
12.0	Data Verification	Amarc	Eric Titley, P.Geo C. Mark Rebagliati, P.Eng
13.0	Mineral Processing and Metallurgical Testing	Amarc	C. Mark Rebagliati, P.Eng
14.0	Mineral Resource Estimates	Amarc	C. Mark Rebagliati, P.Eng
15.0	Adjacent Properties	Amarc	C. Mark Rebagliati, P.Eng
16.0	Other Relevant Data and Information	Amarc	C. Mark Rebagliati, P.Eng
17.0	Interpretation and Conclusions	Amarc	C. Mark Rebagliati, P.Eng Eric Titley, P.Geo
18.0	Recommendations	Amarc	C. Mark Rebagliati, P.Eng Eric Titley, P.Geo
19.0	References	Amarc	C. Mark Rebagliati, P.Eng Eric Titley, P.Geo

2.2. Site Visit

In accordance with the NI 43-101 guidelines, QP Mark Rebagliati has visited the IKE Project. The last such QP inspection occurred during operations, inclusive of drilling, on August 14 to 15, 2018. During the site visit a review of all operations was completed, which included safety, working procedures, QAQC and data management. The QP also reviewed the drill core geology and the veracity of geological observations recorded during core logging, core sample layout, diamond saw half-core cutting, sample bagging, onsite core and sample storage and shipping procedures to the laboratory. All aspects of the program were found to be of a suitable standard.

3. Reliance on Other Experts

Standard professional procedures were followed in preparing the contents of this report. Data used in this report has been verified where possible and the authors have no reason to believe that the data was not collected in a professional manner.

The QP has not independently verified the legal status or title of the claims, and has not investigated the legality of any of the underlying agreements that may exist concerning the IKE Project, and has relied on legal counsel in terms of the confirmation of these matters.

QP Mark Rebagliati relied on a letter from Trevor Thomas, LLB, Amarc's legal counsel, dated May 29th, 2020, confirming that title to the mineral claims and crown grants comprising the IKE Project are held in the name of Amarc and that all are in good standing. Legal counsel further confirmed that the disclosure in the report accurately summarizes the current agreements and royalties for the IKE Project.

4. Project Description and Location

4.1. Project Description and Location

The 462 km^2 (46,200 Ha) IKE Project is located in the Clinton and Lillooet Mining Divisions, approximately 35 km northwest of Gold Bridge in west central BC (Figures 4-1 and 4-2).

The Project area lies on NTS map sheets 92O/03, 04 and 092J/14, and BCGS maps 092O.002, 003, 004, 012, 013, 014, and 092J.093 and 094. The centre of work on the IKE deposit is located at 51° 02' 32" N Latitude and 123° 22' 20" W Longitude; or UTM Zone 10 (NAD 83) at 5,654,600 m N and 473,900 m E (Figures 4-2 and 4-3).

The expansive IKE Project (Figure 4-3) includes the:

- IKE deposit;
- Greater Empress Copper-Gold Project ("GECAP"), which forms a sub-area of the IKE Project and includes the Empress deposit; and
- IKE district which includes a number of other exploration targets outside of the IKE deposit and GECAP areas.

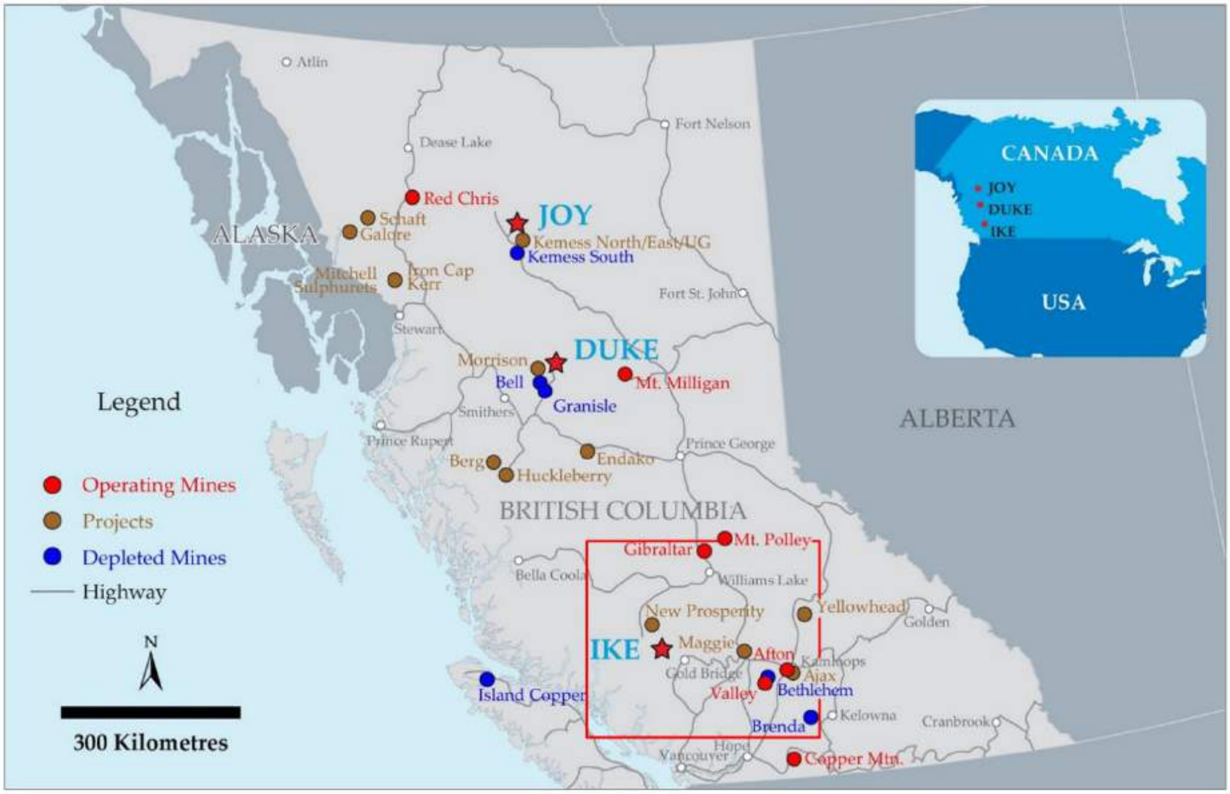

Figure 4-4-1: Map of BC Showing the Location of the IKE Project (red star) in Respect to Operating and Past Producing Porphyry Mines, and Advanced Stage Porphyry Projects. Approximate Area Outlined in Figure 4-2 (red box). Also Shown are the Locations of Amarc's Other Porphyry Projects JOY and DUKE (red stars).

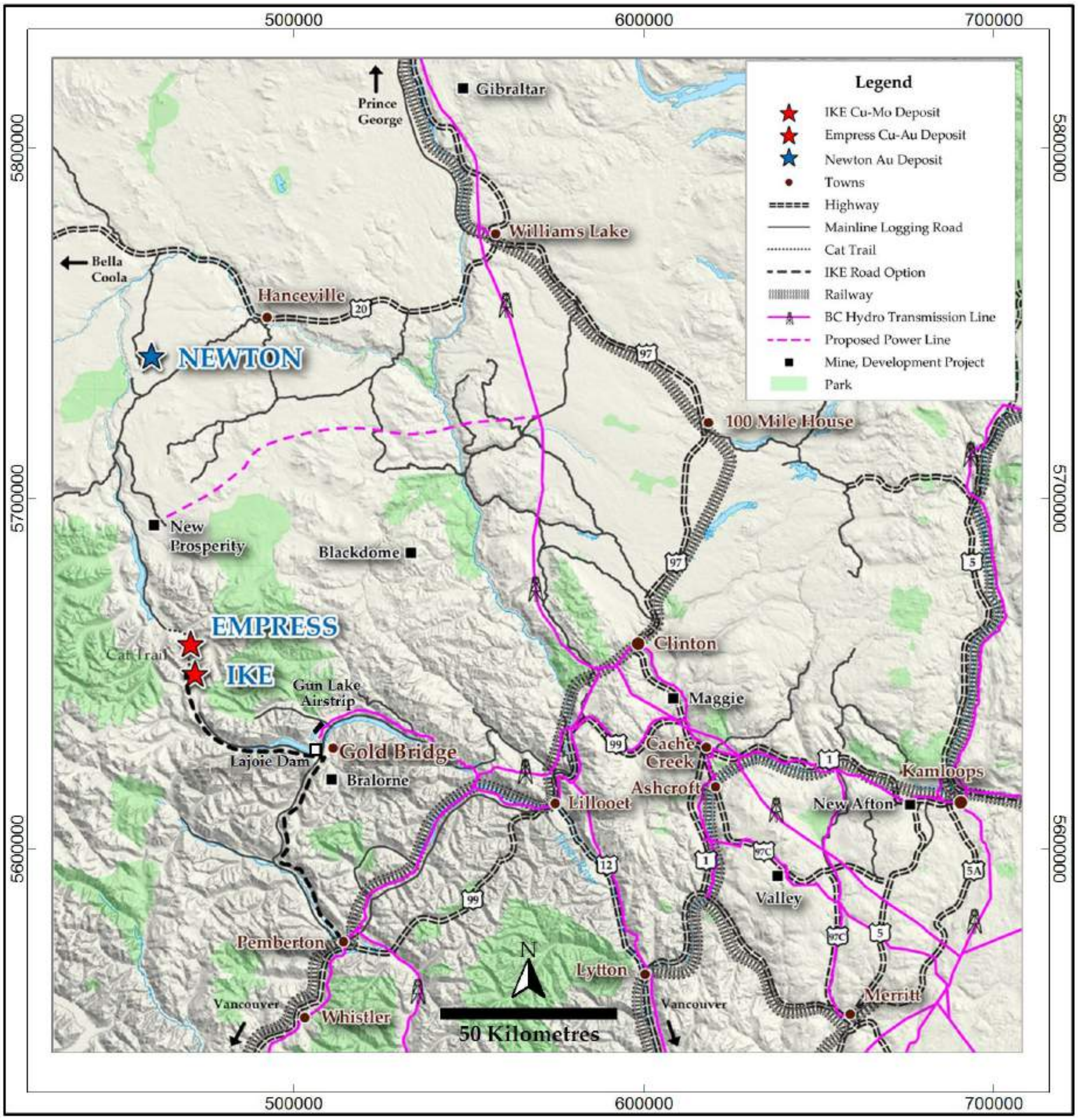

Figure 4-4-2: Regional IKE Project Location Map Showing Infrastructure Within the Regional Area as Outlined in the Red Box Delineated in Figure 4-1.

4.2. Current Agreements, Royalties and Encumbrances

Amarc owns 100% interest and is the operator of the IKE Project.

The IKE Project comprises the adjoining IKE, Galore, Granite and Juno properties (Figure 4-3). The mineral claims comprising the Juno property were staked and are owned 100% by Amarc.

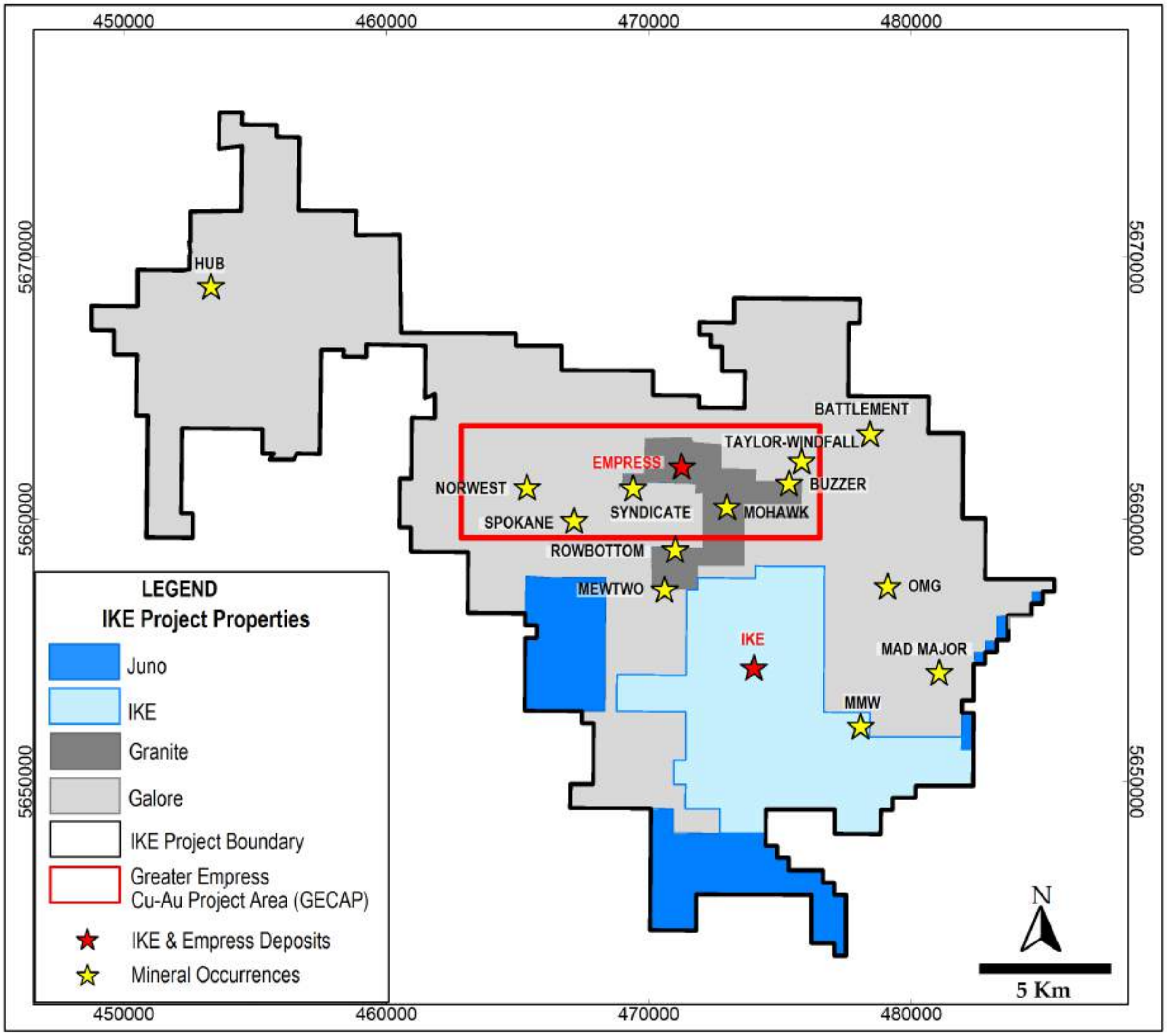

Figure 4-3: IKE Project Showing the Various Mineral Tenure Blocks Acquired and Consolidated by Amarc. The Red Box (inset) Depicts the GECAP Area.

The property acquisition agreements relating to the IKE, Galore and Granite properties as outlined below are further detailed in the Amarc MD&A December 31, 2019.

In July 2014, Amarc acquired a 100% interest in the IKE property from Oxford Resources Inc. ("Oxford", formerly Highpoint Exploration Inc.). At that time Oxford's ownership interest was converted to a 1% NSR royalty, which can be purchased at any time for $2 million (payable in cash or common shares of Amarc at the company's sole election).

The IKE property is also subject to a 2% underlying NSR royalty to two underlying owners, whereby Amarc has the right to purchase: (1) one half of the royalty (1%) for $2 million ($1 million of which is payable in cash, Amarc common shares, or any such combination of cash and shares, at Amarc's discretion) at any time prior to commercial production; and (2) the second half of the royalty (1%) also for $2 million ($1 million of which is payable in cash, and the balance in Amarc common shares, or any such combination of cash and shares, at Amarc's discretion) at any time on or before a commercial mine production decision has been made in respect of the IKE property. Amarc has agreed that upon completion of a positive feasibility study it will issue 500,000 common shares to the underlying owners.

In November 2014, Amarc acquired a 100% interest in the adjoining Granite property from Great Quest Fertilizers Ltd. ("Great Quest", previously known as Great Quest Metals Ltd., which is also referred to as "Great Quest" herein). Great Quest holds a 2% NSR royalty on that property which can be purchased for $2 million, on or before commercial production (payable in cash, Amarc common shares, or any such combination of cash and shares, at Amarc's discretion). In addition, there is an underlying 2.5% NSR royalty on certain mineral claims within the Granite property, which can be purchased at any time for $1.5 million less any amount of royalty already paid.

In January 2017, Amarc acquired a 100% interest in the adjoining Galore property from Galore Resources Inc. ("Galore Resources"), clear of any royalties to Galore Resources. In January 2018, Amarc concluded an agreement with the underlying owners of the Galore property, whereby Amarc acquired all of the underlying owners' residual interest in and to the Galore property, including five NSR and five NPI royalties.

On September 3, 2015, Amarc entered into an agreement (the "Agreement") with Thompson Creek (now a wholly owned subsidiary of Centerra Gold Inc. ("Centerra") pursuant to which Thompson Creek could acquire, through a staged investment process within five years, a 30% ownership interest in mineral claims and crown grants covering the IKE Project. Under the terms of the Agreement, Thompson Creek also received an option, after acquiring its 30% interest, to acquire an additional 20% interest in the IKE Project, subject to certain conditions, including the completion of a Feasibility Study. On January 11, 2017, Amarc announced that Thompson Creek, having been acquired by gold-focused Centerra, relinquished its option to earn up to a 50% interest in the IKE Project. Thompson Creek had a 10% participating interest in the IKE Project by investing $6 million in exploration programs undertaken in 2015 and 2016, and elected to exchange its participating interest for a 1% Conversion NSR royalty from mine production, which is capped at a total of $5 million. As a result, Amarc re-acquired 100% interest in the IKE Project.

4.3. Current Tenure

Amarc holds a 100% interest in the 126 mineral claims and 9 crown grants that comprise the 46,178.02 Ha IKE Project; these include the tenures of the Juno property that were staked by Amarc, and also those of the adjoining IKE, Granite and Galore property tenures (Tables 4-1 and 4-2; Figure 4-4).

Table 4-1: Juno, IKE, Granite and Galore Properties Mineral Claims.

Tenure Number	Claim Name	Owner	Issue Date	Good To Date	Area (ha)
208502	NEW GOLD 3	100% Amarc	1988/SEP/12	2027/NOV/21	300.00
208503	NEW GOLD 2	100% Amarc	1988/AUG/30	2027/NOV/21	250.00
208505	NEW BUZZ	100% Amarc	1988/SEP/26	2027/NOV/21	375.00
208506	NEW GOLD 1	100% Amarc	1988/SEP/24	2027/NOV/21	150.00
208507	NEW GOLD 4	100% Amarc	1988/SEP/24	2027/NOV/21	200.00
208579	MARS 1	100% Amarc	1988/OCT/21	2027/NOV/21	25.00
208580	MARS 2	100% Amarc	1988/OCT/21	2027/NOV/21	25.00
208581	MARS 3	100% Amarc	1988/OCT/21	2027/NOV/21	25.00
208582	MARS 4	100% Amarc	1988/OCT/21	2027/NOV/21	25.00
208583	MARS 5	100% Amarc	1988/OCT/21	2027/NOV/21	25.00
208584	MARS 6	100% Amarc	1988/OCT/21	2027/NOV/21	25.00
208585	MARS 7	100% Amarc	1988/OCT/21	2027/NOV/21	25.00
208586	MARS 8	100% Amarc	1988/OCT/21	2027/NOV/21	25.00
208587	MARS 9	100% Amarc	1988/OCT/21	2027/NOV/21	25.00
208588	MARS 10	100% Amarc	1988/OCT/21	2027/NOV/21	25.00
208590	MARS 19	100% Amarc	1988/OCT/21	2027/NOV/21	25.00
208791	ROW	100% Amarc	1989/AUG/14	2027/NOV/21	400.00
209156	ODIN	100% Amarc	1990/JUL/13	2027/NOV/21	500.00
354051	COUGAR	100% Amarc	1997/MAR/02	2027/NOV/21	500.00
354057	COUGAR #7	100% Amarc	1997/MAR/02	2027/NOV/21	450.00
358599	LISA #1	100% Amarc	1997/AUG/14	2027/NOV/21	500.00
358602	JANICE	100% Amarc	1997/AUG/13	2027/NOV/21	450.00
358603	JANICE #2	100% Amarc	1997/AUG/13	2027/NOV/21	450.00
358607	HW #3	100% Amarc	1997/AUG/13	2027/NOV/21	25.00
358613	P #1	100% Amarc	1997/AUG/17	2027/NOV/21	25.00
358614	P #2	100% Amarc	1997/AUG/17	2027/NOV/21	25.00
375960	DISCOVERY	100% Amarc	2000/APR/17	2027/NOV/21	500.00
375964	MAGIC #2	100% Amarc	2000/APR/17	2027/NOV/21	375.00
376123	DIS #8	100% Amarc	2000/APR/17	2027/NOV/21	500.00
415582	BAT #3	100% Amarc	2004/OCT/27	2027/NOV/21	450.00
415583	ZC #1	100% Amarc	2004/OCT/27	2027/NOV/21	400.00
415584	ZC #2	100% Amarc	2004/OCT/27	2027/NOV/21	400.00
415586	ZC #4	100% Amarc	2004/OCT/27	2027/NOV/21	400.00
416348	MOLY #3	100% Amarc	2004/NOV/28	2027/NOV/21	225.00
416349	MOLY #4	100% Amarc	2004/NOV/28	2027/NOV/21	50.00
416351	LISA #5	100% Amarc	2004/NOV/28	2027/NOV/21	400.00
416352	MICE #5	100% Amarc	2004/NOV/28	2027/NOV/21	450.00
416508	TAS #5	100% Amarc	2004/NOV/28	2027/NOV/21	400.00
507495		100% Amarc	2005/FEB/18	2028/MAR/28	1320.28
507507		100% Amarc	2005/FEB/18	2028/MAR/28	1341.22
510762	SWAMP	100% Amarc	2005/APR/14	2027/NOV/21	202.74

Tenure Number	Claim Name	Owner	Issue Date	Good To Date	Area (ha)
510764		100% Amarc	2005/APR/14	2027/NOV/21	547.30
510765		100% Amarc	2005/APR/14	2027/NOV/21	607.78
510767		100% Amarc	2005/APR/14	2027/NOV/21	627.76
510971	TASMAGIC	100% Amarc	2005/APR/18	2027/NOV/21	426.02
510972	TAS2MAGIC	100% Amarc	2005/APR/18	2027/NOV/21	324.52
510973	TAS3MAGIC	100% Amarc	2005/APR/18	2027/NOV/21	243.43
510974	TAS4MAGIC	100% Amarc	2005/APR/18	2027/NOV/21	486.85
510975	GRIS	100% Amarc	2005/APR/18	2027/NOV/21	487.46
510976	GRISW2	100% Amarc	2005/APR/18	2027/NOV/21	406.29
510979	GRISWORLD	100% Amarc	2005/APR/18	2027/NOV/21	426.66
511134	RIDGE	100% Amarc	2005/APR/20	2027/NOV/21	405.65
511136	CAT	100% Amarc	2005/APR/20	2027/NOV/21	406.43
511138	CAT2	100% Amarc	2005/APR/20	2027/NOV/21	508.10
511139	EXTAS	100% Amarc	2005/APR/20	2027/NOV/21	101.58
511307	GOLD	100% Amarc	2005/APR/21	2027/NOV/21	284.48
511418	PORT	100% Amarc	2005/APR/22	2027/NOV/21	487.85
511775	RIVER	100% Amarc	2005/APR/27	2027/NOV/21	304.09
511777		100% Amarc	2005/APR/27	2027/NOV/21	121.69
511778		100% Amarc	2005/APR/27	2027/NOV/21	567.57
511779		100% Amarc	2005/APR/27	2027/NOV/21	588.68
511780	RAT	100% Amarc	2005/APR/27	2027/NOV/21	365.11
513817		100% Amarc	2005/JUN/02	2027/NOV/21	852.65
513837		100% Amarc	2005/JUN/02	2027/NOV/21	649.37
513839		100% Amarc	2005/JUN/02	2027/NOV/21	588.43
513840		100% Amarc	2005/JUN/02	2027/NOV/21	608.73
513841		100% Amarc	2005/JUN/02	2027/NOV/21	80.98
514549		100% Amarc	2005/JUN/15	2027/NOV/21	548.23
514550		100% Amarc	2005/JUN/15	2027/NOV/21	446.69
514552		100% Amarc	2005/JUN/15	2027/NOV/21	365.54
514553		100% Amarc	2005/JUN/15	2027/NOV/21	609.08
514555		100% Amarc	2005/JUN/15	2027/NOV/21	568.17
514557		100% Amarc	2005/JUN/15	2027/NOV/21	609.27
514558		100% Amarc	2005/JUN/15	2027/NOV/21	486.94
514559		100% Amarc	2005/JUN/15	2027/NOV/21	487.49
514568		100% Amarc	2005/JUN/15	2027/NOV/21	690.20
514570		100% Amarc	2005/JUN/15	2027/NOV/21	406.13
514571		100% Amarc	2005/JUN/15	2027/NOV/21	709.81
514572		100% Amarc	2005/JUN/15	2027/NOV/21	486.90
514685		100% Amarc	2005/JUN/17	2027/NOV/21	547.62
514691		100% Amarc	2005/JUN/17	2027/NOV/21	365.18
514743	TOP	100% Amarc	2005/JUN/18	2027/NOV/21	40.61
514744		100% Amarc	2005/JUN/18	2027/NOV/21	629.29
514745		100% Amarc	2005/JUN/18	2027/NOV/21	527.82
517854	YO	100% Amarc	2005/JUL/16	2027/NOV/21	40.49
517855	WEDGE	100% Amarc	2005/JUL/16	2027/NOV/21	223.35
517856	AIRPORT	100% Amarc	2005/JUL/16	2027/NOV/21	121.74
517870	FRACTBASIN	100% Amarc	2005/JUL/17	2027/NOV/21	101.51

Tenure Number	Claim Name	Owner	Issue Date	Good To Date	Area (ha)
517871	CORNER	100% Amarc	2005/JUL/17	2027/NOV/21	20.30
517872	ADJOINT	100% Amarc	2005/JUL/17	2027/NOV/21	20.30
517873	ADDFR	100% Amarc	2005/JUL/17	2027/NOV/21	20.30
522692	BRECCIA	100% Amarc	2005/NOV/25	2027/NOV/21	60.80
529338	ROW B	100% Amarc	2006/MAR/03	2027/NOV/21	81.25
532241	DISCOVERY2	100% Amarc	2006/APR/17	2027/NOV/21	507.17
532242	DISCOVERY5	100% Amarc	2006/APR/17	2027/NOV/21	202.93
532889	DIVIDE	100% Amarc	2006/APR/22	2027/NOV/21	81.25
550905	TASCO FOUR	100% Amarc	2007/FEB/01	2028/MAR/28	1016.62
550907	TASCO FIVE	100% Amarc	2007/FEB/01	2028/MAR/28	1525.37
550908	TASCO THREE	100% Amarc	2007/FEB/01	2028/MAR/28	1219.91
553934	ILLITE	100% Amarc	2007/MAR/08	2027/NOV/21	508.29
553937	ILLITE#2	100% Amarc	2007/MAR/08	2027/NOV/21	508.51
553942	ILLITE #3	100% Amarc	2007/MAR/08	2027/NOV/21	508.46
556557	LAKE1	100% Amarc	2007/APR/17	2027/NOV/21	101.21
560873	MOHAWK	100% Amarc	2007/JUN/20	2027/NOV/21	40.60
565593	POW	100% Amarc	2007/SEP/04	2027/NOV/21	506.82
565594	POWELL	100% Amarc	2007/SEP/04	2027/NOV/21	506.86
565596	POWELL LAKE	100% Amarc	2007/SEP/04	2027/NOV/21	506.75
602343	TASCO 0901	100% Amarc	2009/APR/09	2028/MAR/28	162.75
758582	GQ FRACTION	100% Amarc	2010/APR/26	2027/NOV/21	40.60
841974	TASCO WEST	100% Amarc	2010/DEC/30	2028/MAR/28	365.86
1028843	BATTLE	100% Amarc	2014/JUN/09	2027/NOV/21	487.51
1028844	SPOKANE	100% Amarc	2014/JUN/09	2027/NOV/21	223.51
1028845	BATTLE 2	100% Amarc	2014/JUN/09	2027/NOV/21	365.05
1028888	JUNO 1	100% Amarc	2014/JUN/11	2027/NOV/21	834.36
1028889	JUNO 2	100% Amarc	2014/JUN/11	2027/NOV/21	732.68
1028890	JUNO 3	100% Amarc	2014/JUN/11	2027/NOV/21	325.71
1028891	JUNO 4	100% Amarc	2014/JUN/11	2027/NOV/21	975.51
1028892	JUNO 5	100% Amarc	2014/JUN/11	2027/NOV/21	568.76
1039791	RAD	100% Amarc	2015/NOV/04	2027/NOV/21	60.99
1039849	RAD1	100% Amarc	2015/NOV/08	2027/NOV/21	20.32
1039850	RAD2	100% Amarc	2015/NOV/08	2027/NOV/21	20.32
1040609		100% Amarc	2015/DEC/18	2027/NOV/21	20.30
1040610		100% Amarc	2015/DEC/18	2027/NOV/21	101.48
1040611		100% Amarc	2015/DEC/18	2027/NOV/21	60.91
1047304	RAD3	100% Amarc	2016/OCT/17	2027/NOV/21	40.63
1047305	RAD4	100% Amarc	2016/OCT/17	2027/NOV/21	20.31

Amarc holds surface rights in relation to nine crown grants located within the Galore property (Table 4-2 and Figure 4-4). BC mining law allows for access and use of a mineral claims surface for exploration through notification of surface rights holders.

Table 4-2: Galore Property Crown Grants.

PIN	Short Description	Type, Status	Effective Date	Rights Type[1]	Area (ha)	Area (km^2)
6505310	DL 2643, WINDFALL MC	Crown Grants, Active	1922/JAN/01	Surface & Mineral	15.07	0.1507
6505440	DL 2644, WINDFALL NO. 2 MC	Crown Grants, Active	1922/JAN/01	Surface & Mineral	20.87	0.2087
6505570	DL 2649, PROVINCE MC	Crown Grants, Active	1923/JAN/01	Surface & Mineral	16.86	0.1686
6200880	DL 7831, WASH MC	Crown Grants, Active	1955/JAN/01	Surface & Mineral	14.75	0.1475
6200910	DL 7832, CLEANUP MC	Crown Grants, Active	1955/JAN/01	Surface & Mineral	20.90	0.2090
6201080	DL 7833, BEAR MC	Crown Grants, Active	1955/JAN/01	Surface & Mineral	20.90	0.2090
6201110	DL 7834, GRIN MC	Crown Grants, Active	1955/JAN/01	Surface & Mineral	20.90	0.2090
6201240	DL 7835, SAKES FRACTION MC	Crown Grants, Active	1955/JAN/01	Surface & Mineral	7.16	0.0716
6201370	DL 7836, HAM MC	Crown Grants, Active	1955/JAN/01	Surface & Mineral	20.90	0.2090

1. Crown grants assign the holder the right to use the surface, subsurface and all timber on the Crown Grant.

One placer claim is located within the Galore property; this covers a certain area directly downstream of the historical Taylor Windfall mine. Amarc holds no interest in the placer claim.

The IKE Project is situated within the asserted traditional territory of certain First Nations. Amarc works closely with local First Nations and other project stakeholders in order to advance its mineral properties responsibly, and seeks early and meaningful engagement to ensure its mineral exploration and development activities are well-coordinated and broadly supported, to address local priorities and concerns, and to optimize opportunities for collaboration and local benefit.

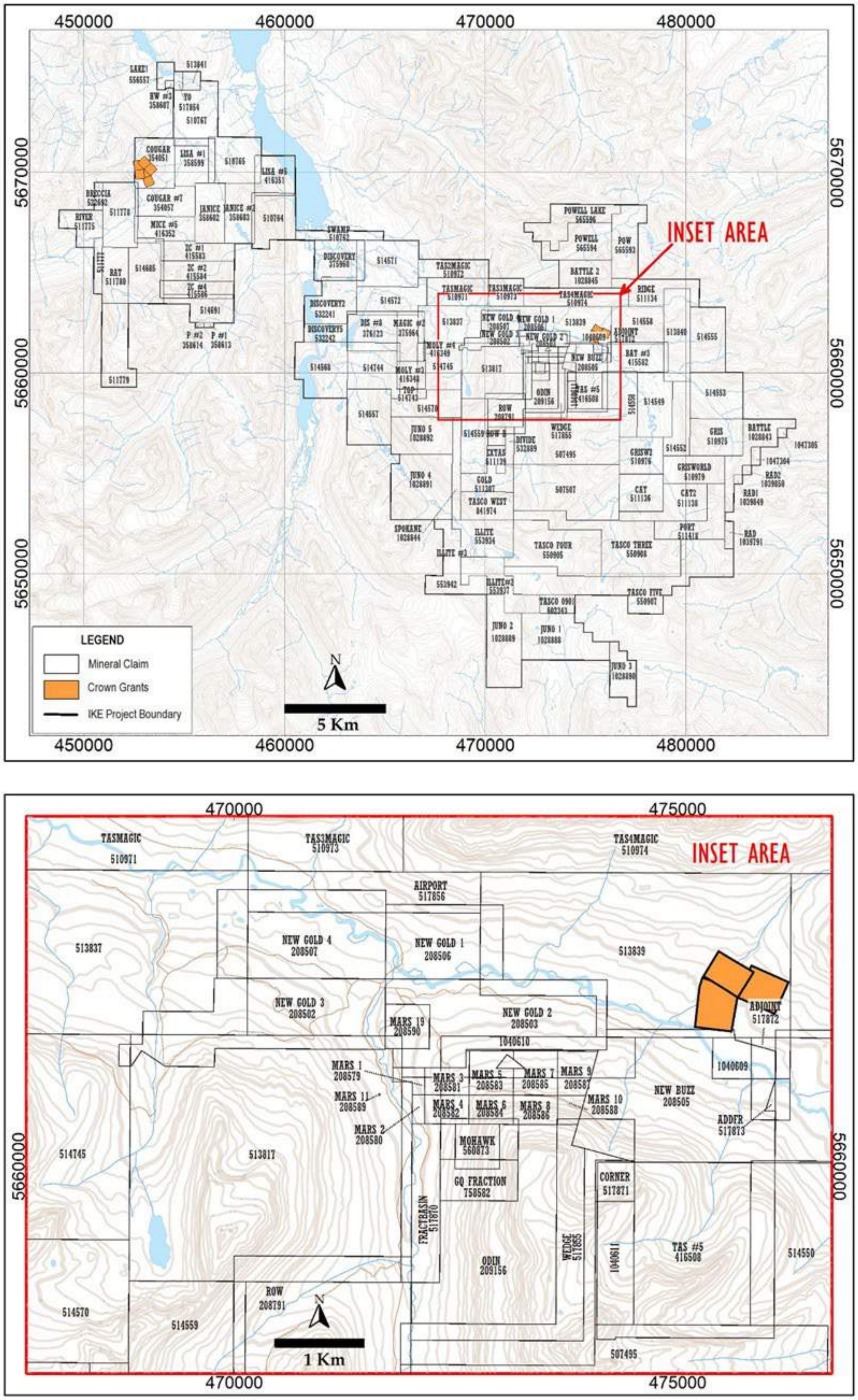

Figure 4-4: IKE Project Mineral Claim and Crown Grant Tenure Map.

4.4. Permits

All government permits required for Amarc's completed and proposed surface geophysical surveys and drilling on the IKE Project have been acquired under BC Mines Act Permit MX-4-600 (the "Permit"), which was transferred into to Amarc's name in March 2014 from Oxford, the former owner and operator of the IKE property (Section 4-2). Permissions granted to Amarc under amendments to the Permit include the following:

- A Deemed Authorization (based on the Oxford drill permit) received in September 2014, for 40 line-km of IP ground geophysical survey over the immediate area of the IKE deposit, on the IKE property;
- Permission to complete up to 50 drill holes over the immediate area of the IKE deposit on the IKE property, over an additional 2 year period was granted in April 2015, and was further amended in December 2015 extending the permission for up to a 5 year period;
- In June 2016, permission was granted to complete up to 230 line-km of IP ground geophysical survey over the Mad Major-OMG, Rowbottom and Buzzer targets on the Galore and Granite properties over a period of up to 5 years;
- In March 2017, permission was granted to drill up to 300 holes over an area in the eastern part of the Project tenure (covering the IKE and Granite properties, a large area of the Galore property and certain parts of the Juno property), for a period of up to 5 years. In June 2017, a Deemed Authorization permission was granted to complete up to 250 line-km of IP ground geophysical survey over the same area and period of time; and
- All permissions have been accompanied by the required Free Use Timber Permits.

4.5. Current Environmental Liabilities

The authors are not aware of any existing environmental liabilities on the IKE Project related to Amarc's activities.

4.6. Factors Affecting Access

The authors are not aware of any adverse matters related to accessing the IKE Project.

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

5.1. Access

The IKE Project is located 35 km northwest of the town of Gold Bridge in southwestern BC. Although forestry roads come within approximately 10 km of the Project, access is currently by helicopter from the Gun Lake airstrip, which is located some 7.5 km from Gold Bridge via maintained gravel roads (Figure 4-2). The flight time from the Gun Lake Airstrip to the Project is approximately 15 minutes.

Gold Bridge can be accessed by proceeding approximately 255 km north from Vancouver on paved Highway 99 through Squamish, Whistler and Pemberton to Lillooet, then west on the partially paved Highway 40 some 105 km to Gold Bridge (Figure 4-2). This route takes approximately 5.5 hours and is maintained from Lillooet westwards throughout the year for residents, forestry activities and BC Hydro operations. Gold Bridge can also be accessed from Pemberton Meadows (some 20 km northwest of Pemberton) via the gravel Hurley River FSR. This route takes about 4.5 hours to drive from Vancouver.

The Project was also previously accessible by road for some 215 km from the City of Williams Lake via paved Highway 20 to Hanceville, and then southwestwards and south along maintained and subsequently non-maintained gravel roads to the Taseko River, and the northeastern part of the IKE Project. There is currently no bridge across the Taseko River, but from the area of the Empress deposit an historical cat track proceeds southwards up Granite creek and into the area of the IKE deposit.

5.2. Physiography and Climate

The Project is situated within the Cariboo-Chilcotin Forest District of the Cariboo Forest Region. Topography on the Project is moderate to steep mountain slopes, except where the claims cover more gentle terrain in the broader valley bases. The area drilled at the IKE deposit comprises a series of rocky cirques above tree line, where elevations vary from 2,450 m at the top of the cirque to 1,850 m at Granite creek. The Empress deposit is located in the lower reaches of Granite creek, near the confluence with the Taseko River, in an area characterized by more gentle rolling topography at about 1,650 m elevation.

Temperatures can range from 6 to 25^{0}C in summer and -30 to -2^{0}C in winter. Average precipitation is approximately 530 mm, with about 45% falling as snow. Extreme weather conditions may occur at high elevations.

Current helicopter supported fieldwork on the IKE Project can be carried out between May and October, depending on the weather conditions in a given season and location of the work in terms of altitude.

5.3. *Local Resources and Infrastructure*

Gold Bridge and the neighboring historical gold mining community of Bralorne (located some 11 km to the southeast of Gold Bridge) have approximately 40 and 36 full time residents, respectively, and have only limited facilities. The town of Lillooet, which has a long mining history starting as one of main centres of the Fraser Canyon Gold Rush of 1858–59, and the town of Pemberton are relatively near to the Project and provide a broader range of services. Through Lillooet and Pemberton, the Project is linked via both paved highways and rail line to Vancouver and its port facilities.

Gold Bridge and Bralorne are connected to the BC electric power grid. BC Hydro's Bridge River system comprises the Lajoie Dam and Powerhouse (Downton Reservoir), located directly west of Gold Bridge (and some 35 km from the IKE Project; see Figure 4.2), the Bridge 1 and 2 Powerhouses (Terzaghi Dam and Carpenter Lake Reservoir) and the Seton Dam and Powerhouse (Seton Lake). BC Hydro has recently spent about $400 M to upgrading this three-tiered system that uses the Bridge River waters to generate 445 MW (with capabilities of up to 550 MW) of power, comprising 6 to 8% of BC's electrical supply.

6. History

6.1. IKE Project History Overview

The 462 km[2] IKE Project includes Amarc's IKE Cu-Mo-Ag deposit, the GECAP area that includes the Empress Cu-Au-Ag deposit, and the IKE district that hosts several other mineral occurrences that are located primarily within the eastern area of the tenure (Figure 6-1). In addition to the Empress deposit, the GECAP area includes eight other known exploration porphyry and replacement-style Cu-Au±Mo±Ag deposit targets including Empress East, Empress Gap, Empress West, Granite, Buzzer, Taylor Windfall, Spokane and Syndicate. In the IKE district, mineral occurrences that have seen historical drilling include Rowbottom, Mad Major, Battlement and Hub.

A summary of the known historical exploration works completed within, or overlapping with, the current area of the IKE Project is given in Table 6-1.

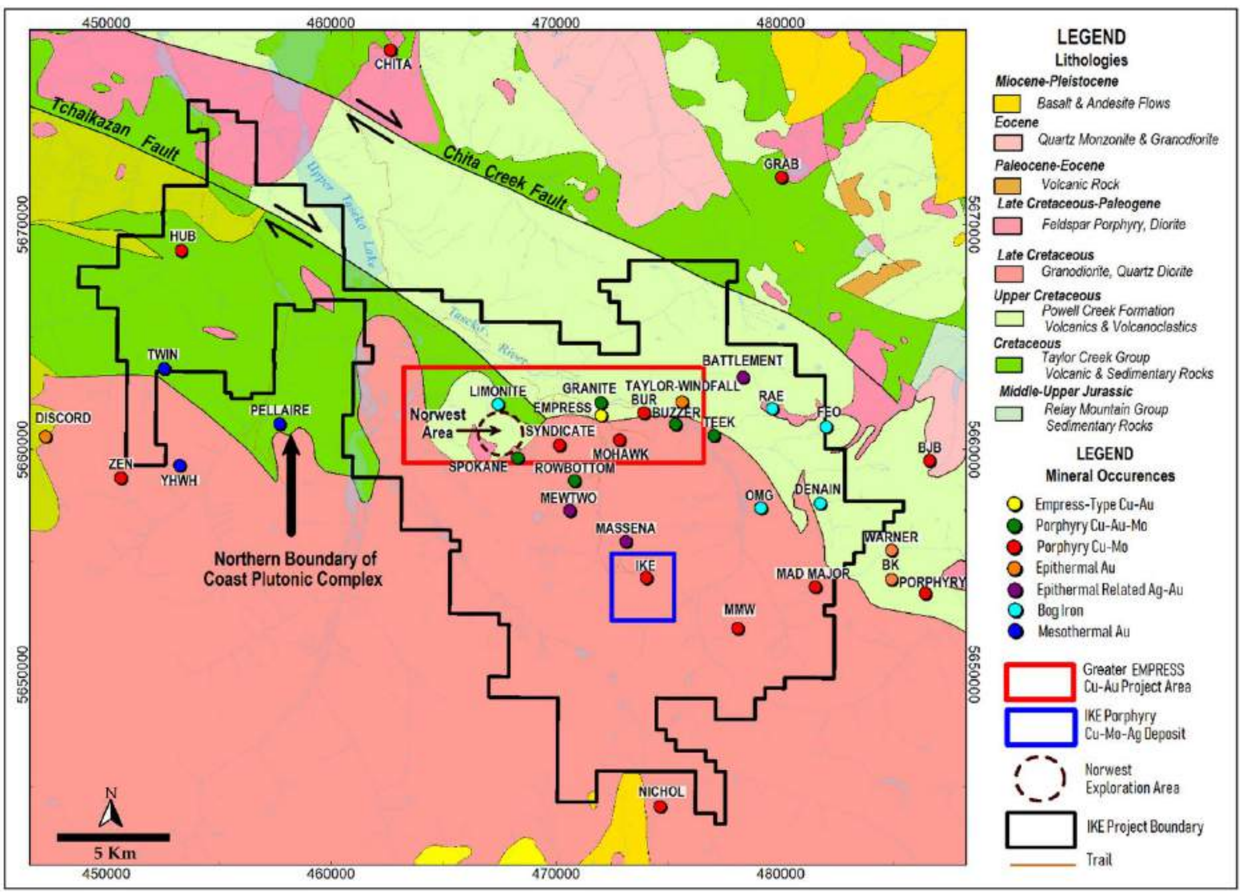

Figure 6-6-1: Location of the IKE and Empress Deposits, the GECAP Area, and the IKE District Known Mineral Occurrences all Within the IKE Project.

Table 6-1: IKE Project Exploration History.

Work Year	ARIS #	Operator	Work Categories	Target Area
1928 - 1935	PF-013134	Motherlode Mining Co.	Geological, Drilling, Bulk Samples, Mining	Motherlode-Mohawk
1963	00527	Canex Aerial Exploration Ltd.	Geological, Geochemical	Bur & Top
1963	00552	Phelps Dodge Corporation	Geochemical, Geological	IKE deposit area & Mad Major
1964	00556	Kennco Explorations (Canada) Limited	Geophysical	Taseko River Area
1964	00610	Phelps Dodge Corporation	Geochemical	IKE deposit area & Mad Major
1967	n/a	Falconbridge Mining Limited	Geological, Geochemical	Hub
1968	01729	American Smelting and Refining Co.	Geochemical	Taseko River Area
1968	PF-01606	Berthex Explorations Ltd.	Geochemical	Banner-Taseko-Empress
1969	02226A	Scurry-Rainbow Oil Limited	Geophysical	Buzzer, Empress & Rowbottom
1969	02134A	Cannoo Mines	Geophysical	Empress Group & Spokane-Syndicate Group Claims
1970	02364	Scurry-Rainbow Oil Limited	Physical, Geophysical	Buzzer
1970	02803	Hafuno Resources	Geochemical	Teek Group
1970	PF-820996	Sumitomo Metal Mining	Geological	Taseko-Empress
1971	n/a	Rio Tinto Canada Exploration Inc.	Drilling	Hub
1971	03131	Rio Tinto Canada Exploration Inc.	Geochemical, Prospecting, Geological	Warren Eggs Claims
1971	03270	Hafuno Resources	Geological	TEEK
1971	-	American Smelting and Refining Co.	Geological	Mad Major
1971	-	Victor Mining Corp	Geological	Rowbottom
1971	03507	Rio Tinto Canada Exploration Inc.	Geophysical	Tchaikazan River
1972	03850	Cominco Ltd.	Geological	Lorn & Jim Claims
1974	05420	Meyer, W.	Geological, Geochemical	Taseko Lake Area
1975	05848	Meyer, W.	Geological, Geochemical	Wil Claim, Taseko Lake
1975	05764	Quintana Minerals Corp.	Physical, Drilling	Empress
1976	06085	Quintana Minerals Corp.	Physical, Drilling	Empress
1980	09561	Polischuk, S.	Prospecting	Sarah Claim, Taseko Lake

Work Year	ARIS #	Operator	Work Categories	Target Area
1981	09570	E & B Explorations Ltd.	Geological, Geochemical	Sage Claim
1981	10112	Barrier Reef Resources Ltd.	Geochemical	Sluice Claim
1981	10455	United Gunn Resources	Drilling	IKE deposit area
1981	10191	BHP-Utah Mines	Geochemical, Geological, Physical	West from Taseko River, Rae Creek
1981	PF-826451	Genoveva Resources Ltd.	Geological, Geochemical	Spokane
1981	10330	Suncor Resources Group	Geochemical, Geological	Tchaikazan River
1981	9550	E & B Explorations Ltd.	Geochemical	Mad Major West
1982	10774A	Suncor Resources Group	Geophysical, Geochemical, Geological, Physical	Taseko Lake Area
1982	11073	Rem Ray Holdings	Geochemical, Geological, Physical	Mohawk
1983	11676	Cominco Ltd.	Geochemical, Geological	Between Limonite and Spokane
1983	12105	Suncor Resources Group	Geochemical, Geological, Geophysical, Physical	IKE Project Regional
1983	11696	Westmin Resources Ltd.	Geological, Drilling, Physical, Geochemical	Taylor Windfall
1984	PF-013137	Genoveva Resources Ltd.	Geological, Geochemical	Mohawk-Motherlode
1985	14159A	Brinco Mining Limited	Drilling, Geochemical, Geological, Geophysical, Physical	Taseko Claims
1985	13742	BHP-Utah Mines	Geochemical, Geological	Warner Claims
1986	14629	Westmin Resources Ltd	Geochemical, Physical, Drilling, Geochemical	North of Battlement Creek
1986	15755A	Esso Resources Canada Limited	Geochemical, Geological, Geophysical, Physical	North of Chilcotin Fe occurrence
1987	15979	ESSO Minerals Canada	Geochemical, Geological, Geophysical, Drilling, Physical	NW of Limonite
1988	17038	Golden Pick Resources Ltd.	Geochemical, Geological, Physical	Tchaikazan River
1988	17871	Westmin Resources Ltd.	Drilling	Lake Zone
1989	18715	Bond Gold Canada Inc.	Geophysical, Physical	IKE Project Regional
1989	19565	Westpine Metals Ltd.	Geochemical, Physical, Drilling	Rowbottom

Work Year	ARIS #	Operator	Work Categories	Target Area
1989	19466	Canmark International Resources	Geological, Drilling	Spokane
1990	20889	Asarco Exploration Co. of Canada Limited	Drilling, Geochemical	Empress
1990	20721	United Gunn Resources	Geochemical, Geological, Physical	IKE deposit area
1990	20935	Pioneer Metals Corp.	Geochemical	IKE Project Regional
1990	20613	Canmark International Resources	Geochemical, Geological, Drilling, Geophysical, Physical	Spokane
1991	21984	Asarco Exploration Co. of Canada, Limited	Drilling, Geochemical, Physical	Empress
1991	21836	Noranda Mining and Exploration Inc.	Geochemical, Geological, Physical	MM West
1991	22312	Lac Minerals Ltd.	Geological, Geochemical	IKE Project Regional
1991	PF-90590	Westpine Resources / ASARCO Ltd.	Geological, Geochemical	Taseko-Empress
1992	PF-826448	Westpine Resources	Geological, Geochemical, Prospecting	Taseko-Empress
1993	23361	Westpine Metals Ltd.	Drilling, Geochemical, Geological	Empress
1995	24088	Westpine Metals Ltd.	Geophysical, Physical, Geochemical	Rowbottom soil grid, Buzzer East Zone IP
1996	24753	Westpine Metals Ltd.	Geological	Empress
1997	25262	Westpine Metals Ltd.	Geochemical	Rowbottom
1998	25726	Pellaire Gold Mines Ltd.	Geochemical	IKE Project Regional
1998	25759	Great Quest Metals Ltd.	Geological, Geochemical	West of the Buzzer zone
1999	26037	Great Quest Metals Ltd.	Geological	Empress deposit area
1999	25915	Pellaire Gold Mines Ltd.	Geological	Lord River
2000	26358	Maple Syndicate	Prospecting	IKE deposit area
2005	28305	Galore Resources Inc.	Geological, Geophysical, Geochemical	Taseko Lakes
2006	28360A	Zelon Enterprises Ltd.; Galore Resources Inc.	Physical, Geophysical, Geochemical	Taseko
2006	28360B	Galore Resources Inc. Chapman & Carlson	Geological, Geochemical, Petrographic, Physical	Taseko

Work Year	ARIS #	Operator	Work Categories	Target Area
2007	30193	Galore Resources Inc.	Drilling, Geochemical, Geophysical	Between Spokane & Empress
2007	30169	Great Quest Metals Ltd.	Drilling, Geochemical, Geophysical	Empress deposit area
2007	29725	Hi Ho Silver Resources Inc.	Geophysical	Rowbottom
2008	31141	Galore Resources Inc.	Drilling, Geological, Geochemical	IKE Project Regional
2009	31549	Galore Resources Inc.	Drilling, Geochemical	Taseko
2010	32064	Great Quest Metals Ltd.; Granite Creek Gold Ltd.	Geochemical	Buzzer
2010	31825	Highpointe Exploration Inc.	Geophysical, Prospecting, Geochemical	IKE deposit area
2011	33392	Granite Creek Gold Ltd.[1]	Drilling, Geochemical	Buzzer
2011	32841	Galore Resources Inc.	Geophysical	Empress & surrounding
2011	33063	Oxford Resources Inc.	Drilling, Geochemical	IKE deposit area

Note: Physical work includes trenching, line-cutting, road preparation and other such physical works. The majority of the reports referenced are ARIS assessment reports, with some being Province of British Columbia Ministry of Energy, Mines and Petroleum Resources Property File numbered reports ("PF").

1. Granite Creek Gold Ltd. drilled at Buzzer under an Option Agreement with Great Quest Metals Ltd. as announced on August 25, 2010. For simplicity from herein in this report these Buzzer holes are quoted as having been completed by Great Quest Metals Ltd.

6.2. IKE Project Historical Surficial Geochemical Sampling

Some 52 of the 77 known historical workers (see Table 6-1), have utilized surface geochemical exploration methods on the IKE Project over a period of 48 years commencing in 1963 (e.g. Melihercsik 1963, Meyer, 1965; Meyer 1967; Arscott and Ng 1976). These sampling programs mainly have focused on the collection of traditional B horizon soil samples, although they also included other forms of geochemical sampling such as stream sediment and rock chip. Amarc has reviewed much of the historical data, and a total of 1,123 soil, talus and silt samples were imported into the IKE surface geochemical database (Table 6-2). This historical data combined with information from the company's extensive talus fine sampling program (described in Section 9.2.2) has assisted exploration efforts from 2014 onwards.

Table 6-2: Historical Surficial Geochemical Samples in Amarc Database.

Year	Operator	Soil and Talus	Silt	Total	Analytical Laboratory
1981	Utah	0	10	10	ALS
1989	Westpine Metals	415	0	415	Vangeochem
2007	Galore Resources	390	244	634	Acme
2008		0	64	64	ALS
Total		**805**	**318**	**1,123**	

Typically, the pre-1981 historical reports do not include assay certificates, or where the certificates are present a significant digitization program would be required to transpose the sample locations from local grid georeferenced maps to their modern UTM-based positions. The GECAP is the only area on the Project where Amarc has undertaken this for historical soil geochemical sampling (Section 9.2.4).

Historical surficial samples added to the Amarc database include the:

- 1981 Utah Mines Ltd. ("Utah") surficial samples data where the sample locations were georeferenced and the results entered by Amarc from maps by Deighton (1981);
- 415 soil samples from the program of Westpine Metals Ltd. ("Westpine") on the eastern GECAP, where sample location data was georeferenced by Amarc from maps in Lambert (1989), and the Vangeochem laboratory assays in this report manually entered; and
- 698 GECAP and IKE district surficial samples of Galore Resources Ltd. ("Galore Resources"), where assay certificates were acquired directly from the analytical laboratories BV (formerly Acme, 2007) and ALS Minerals ("ALS", 2008), and the assay data imported into the Amarc database. The locations for these samples were georeferenced by Amarc from maps in Churchill et al (2008) and from the appendices of Bartsch et al (2009).

With respect to the historical soil samples collected from the GECAP area, other than those by Utah and Westpine as referenced above, location information was digitized from scanned and georeferenced maps included in various historical reports. Local grids were transposed to their modern UTM-based position (UTM NAD83, Zone 10 North). Copper data was contoured at concentrations of ≥ 200 ppm and ≥ 80 ppm, and Au (not always reported) at ≥ 50 ppb and ≥ 20 ppb, and then digitized. In areas where there was insufficient samples with anomalous values for Cu and Au data for contouring, due to for example the depth of overburden which can reduce the effectiveness of the soil geochemistry to detect mineralization at its base, individual sample information was reviewed in terms of the Cu and Au ranges stated above and a value assigned. Notably in many cases historical drilling in the GECAP area has encountered sub-surface Cu ± Au mineralization co-incident with the historical soils anomalies (Section 9.2.4).

Further information on the IKE deposit, GECAP and IKE district surficial sample preparation, analysis and QAQC is provided in Section 11.1. Table 11-5 in this Section provides a summary by year and project operator of the historical and Amarc surficial geochemical samples in the Amarc database.

Exploration on the IKE Project has progressed beyond the utility of historical stream sediment geochemistry and as such, these results are not discussed. This is due to the fact that Amarc carried out its own stream sediment sample survey over the eastern area of the Project tenure in 2014 (Section 9.2.1). In addition, most historical surficial rock samples across the Project are considered select character samples that may not be representative of the mineralization at each sample locality. As such, Amarc did not consider them during exploration targeting and they are not discussed further.

6.3. IKE Project Historical Geological Mapping

A number of different operators have completed geological mapping over various restricted areas of the IKE Project since the late 1920's. This approach has limited the usefulness of the historical mapping. In addition, historical interpretive and outcrop maps as reported in various company reports, and government assessment and property file reports (e.g. Property File 820996, Sumitomo Metal Mining, 1970, Dean, 1983) often, for example, utilize local grids which make them challenging to accurately georeferenced into a digital UTM-based format.

6.4. IKE Project Historical Geophysics

A number of historical ground and airborne geophysical surveys have been completed since the 1960's in various areas on IKE Project. A variety of methods were utilized, including ground magnetic, ground EM, VLF-EM, IP-resistivity, reflective seismic, aeromagnetic, airborne time domain electromagnetic, and Z-axis tipper electromagnetic. Amarc has reviewed available historical survey data and as deemed useful incorporated the information into its exploration programs (e.g. Reynolds, 2008). Historical survey data has been of particular use in the evaluation of the GECAP area and is further discussed in Section 9.3.3.

6.4.1. IKE Porphyry

In 2006, Cal Data was contracted by John Chapman and Gerry Carlson ("Chapman & Carlson") to complete an ASTER satellite spectral image analysis over an area of the IKE Project, which included the IKE porphyry (Chapman et al. 2007). This analysis identified a significant spectral anomaly defining a large oval alteration pattern over the known geochemically anomalous IKE porphyry Cu area.

In 2007, Hi Ho Silver Resources Inc. ("Hi Ho") completed AeroTEM-2 electromagnetic and magnetic surveys. In 2010, Oxford completed a large ZTEM helicopter-borne geophysical survey over a subarea of the IKE Project focused on the IKE deposit (Venter et al., 2010). Both these surveys showed a significant anomaly over the IKE porphyry.

6.4.2. GECAP Area

In 1969-70 Scurry-Rainbow Oil Limited ("Scurry") completed time domain EM and magnetometer surveys over the Buzzer-Bur, Empress East, and the Spokane and Syndicate areas (Doal, 1969). Several EM conductors were outlined in the Empress deposit area. At Spokane-Syndicate, the survey showed only minor conductivity that was attributed to thicker overburden. The accompanying magnetic survey over Spokane showed an isolated magnetic high trending east-west with a 150 m strike length, over an area of disseminated chalcopyrite; this area has seen initial drilling (see Section 6.5).

In 1970, Sumitomo Metal Mining ("Sumitomo") completed a frequency domain IP survey over a sizable part of the GECAP area, including Empress, Empress West, Empress East, Spokane and Rowbottom. The CPC contact was well-established using resistivity modelling. A small seismic survey was utilized to test overburden depths; this showed that in some areas the depth to bedrock was less than previously understood.

In 1986, Esso Resources Canada Limited ("Esso") conducted a 21.1 line-km VLF survey over the western area of the GECAP as part of its exploration program aimed at identifying epithermal-style Au-Ag mineralization associated with advanced argillic altered volcanic units (Melnyk et al., 1986a). A further 31 line-km of VLF-EM and geochemical surveying were completed on the neighboring western Scurry property, which detected a number of weak conductors under areas with sparse surface outcrop (Melnyk, 1986b).

In 1990, Canmark International Resources ("Canmark") completed 0.3 line-km of IP surveying, 11.5 line-km of magnetic surveys and 11.3 line-km of electromagnetic-VLF surveying (Hepp, 1990). These surveys show VLF-EM anomalies in the northern part of the survey area. The planned IP survey was unsuccessful due to poor ground conductivity.

In 1995, Westpine completed 16 line-km IP survey over Buzzer-Bur area (Lambert, 1995). Several IP anomalies were located with the IP chargeability increasing northward towards the Buzzer target area. Amarc resurveyed a portion of this area with IP in 2017 (Section 9.3).

6.4.3. IKE District

In 1969, Scurry carried out an IP survey at Rowbottom and Buzzer. This survey was shallow penetrating (approximately 60 m depth penetration) but identifies IP chargeability and resistivity anomalies at both targets.

In 1964, Kennco Explorations Canada Ltd. ("Kennco") completed an IP survey on the east side of the Taseko River to follow-up historical Cu in soil anomalies around the Mad Major area (Hallof, 1964). This shallow IP survey covered the area from the historical American Smelting and Refining Company ("ASARCO") trenching on the large magnetic low anomaly, located at Amarc's OMG deposit target (Figure 7-3). Several weaker chargeability anomalies were discovered.

In 2006, Chapman & Carlson, completed an ASTER satellite imagery survey outlining a northwest trending zone of kaolinite-illite alteration west of Granite creek, which in part aligns with Amarc's Mewtwo exploration target (Figure 9-2).

In 2007, Galore Resources contracted Aeroquest International to fly a helicopter-borne AeroTEM 2 time domain electromagnetic and caesium vapour magnetometer survey over the IKE Project area. Total coverage over the Project was 2,117 line-km at a 150 m line-spacing utilizing N-S flight lines. The total survey area was approximately 280 km^2 and focused on the northern, northwestern, and GECAP areas of the project.

6.5. IKE Project Historical Drilling

Historical drilling took place on the IKE Project in 24 different years over a 55 years period from 1956 to 2011. The 284 drill holes (including 173 core and 111 shallow percussion drill holes) completed have a total length of 31,382 m, and are herein referred to as the historical holes (Figure 6-2). The historical drill programs identified a number of porphyry Cu, replacement Cu-Au-Ag and epithermal Au-Ag occurrences on the Project, many of which show significant exploration potential and remain to be fully explored.

Table 6-3 provides a summary of the drilling completed by the 17 historical operators over the IKE Project, and Table 6-4 presents this historical drilling on a mineral occurrence and year basis. A plan of the historical diamond and percussion drill holes completed is provided in Figure 6-2. Shallow percussion drilling completed on the Project includes all 68 Sumitomo holes completed in 1970, 4 holes of Victor Mining Corp. ("Victor Mining") drilled in 1971, and the 39 Q-Series holes of Quintana Minerals Corp. ("Quintana") drilled in 1976.

Table 6-3: IKE Project Summary of Historical Drilling by Operator and Year.

Operator	Year(s)	No. of Holes	Total Core (m)	Total Percussion (m)
CANEX	1956	3	69.50	0
Phelps Dodge	1963, 1964, 1965	8	968.65	0
ASARCO	1968	5	250.00	0

Operator	Year(s)	No. of Holes	Total Core (m)	Total Percussion (m)
Scurry	1969	15	520.73	0
Sumitomo	1970	68	0	3,742.61
Victor Mining	1970, 1972	4	462.14	
	1971	4	0	350.53
Quintana	1976	9	1,297.84	-
	1976	39	-	1,356.36
United Gunn	1981	5	976.89	0
Westmin	1984, 1985, 1987	7	986.19	0
ESSO	1986	2	435.66	0
Unknown[1]	1987	2	2.00	0
Westpine	1988, 1989, 1983	25	2,556.06	0
Canmark	1989, 1993	5	710.65	0
Westpine-Asarco	1990, 1991	39	7,334.25	0
Galore Resources	2007 – 2009	20	4,280.94	0
Great Quest	2007, 2008, 2011	22	4,397.31	0
Oxford	2011	2	684.00	0
Total Historical and Amarc	**Between 1956 and 2011**	**284**	**25,932.81**	**5,449.5**

1. The actual length of these two holes is unknown. Amarc inserted an arbitrary hole length of 1 m into the database.

Table 6-4: IKE Project Historical Drilling and Sampling Summary by Area and Year.

Area	Year(s)	No. of Holes	Total Core (m)	Total Percussion (m)	No. of Samples
Spokane	1956, 1963, 1969, 1987, 1993, 2008	19	1,058.26	0.00	242
IKE deposit	1964, 1970 - 1972, 1981, 2011	16	2,180.94	350.53	872
Buzzer	1965, 1969, 1970, 1989, 2011	30	2,522.53	685.80	857
Mad Major	1968, 2008	6	500.00	0.00	169
Empress deposit	1969, 1970, 1976, 1988 – 1991, 1993, 2007, 2008	87	9,005.95	1,387.84	3,630
Empress East	1969, 1970, 1976, 1989, 1991, 1993, 2008	37	2,239.22	682.75	689
Taylor Windfall	1969, 1984, 1985	7	870.98	0.00	138
Empress Gap	1970, 1991, 1993	15	499.26	466.34	249
Empress West	1970, 2992, 3007	26	759.12	1,111.19	454
Rowbottom	1970	11	0.00	716.28	202
Granite	1976, 1991, 2007, 2008	11	1,861.94	48.77	608
Battlement	1986, 1987, 2007	7	1,032.24	0.00	376
Fortune	2007	1	296.57	0.00	113
Hub	2008, 2009	9	2,625.40	0.00	2,072
Syndicate	1970, 1991, 2008	2	480.40	0.00	349
Total Historical	**Between 1956 and 2011**	**284**	**25,932.81**	**5,449.5**	**11,020**

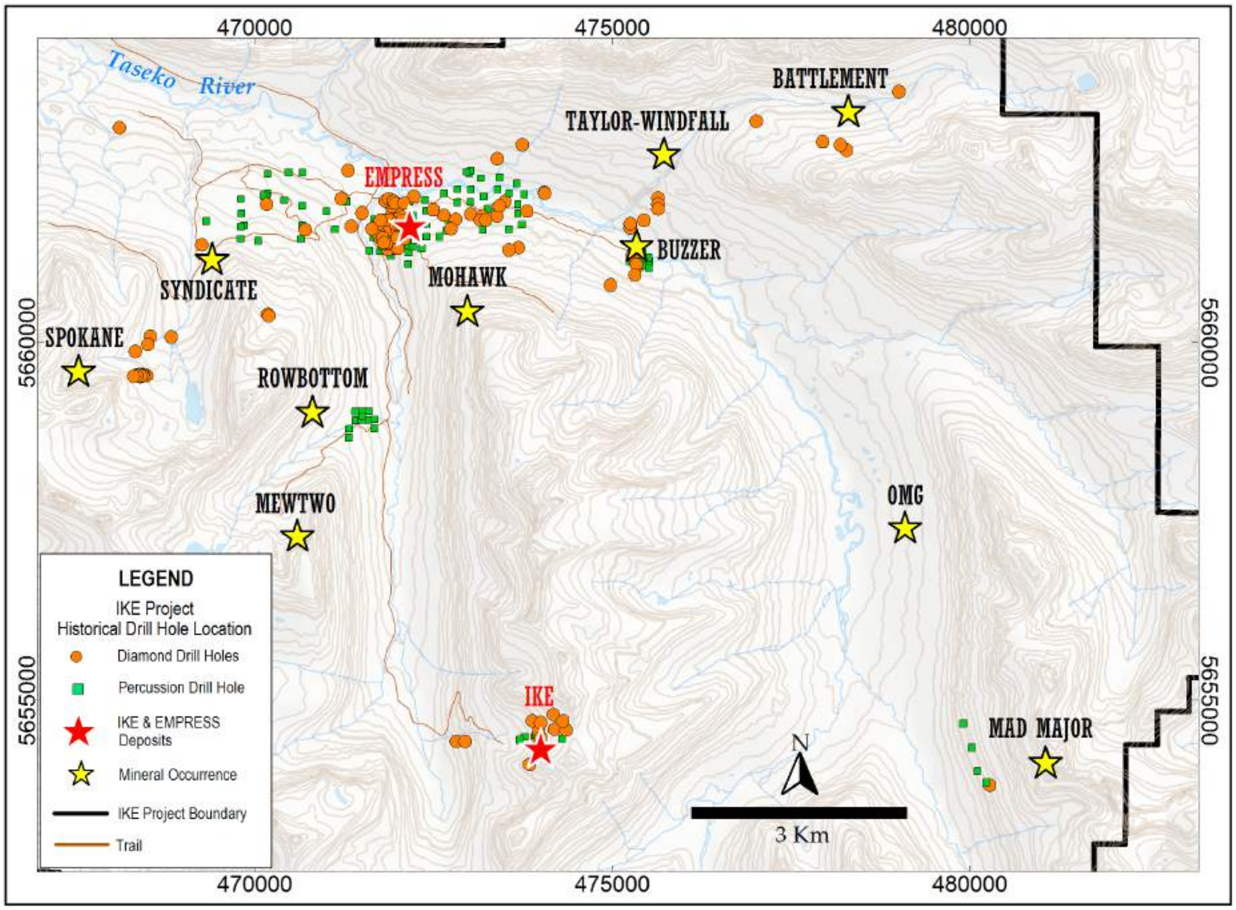

Figure 6-2: Historical Diamond and Percussion Drill Hole Plan.

6.6. IKE Porphyry Cu-Mo-Ag Deposit Exploration History

Phelps Dodge Corporation of Canada ("Phelps Dodge") identified porphyry-type mineralization within the area of the currently known IKE deposit in 1964, which was ground tested with minor trenching and one short diamond drill hole (64-1, 57.9 m length) (Arscott and Meyer, 1970; Table 6-5). Phelps Dodge referred to the IKE deposit area as Rowbottom.

In February 1968, the property was staked by the ASARCO. No record of that exploration work has been located.

Victor Mining held the prospect from 1969 to 1972 and also focused on the area referred to at that time as Rowbottom, but changed the name of that prospect from Rowbottom to NW & Bill, to avoid confusion with the newly discovered mineralization at the Rowbottom creek prospect. Four diamond drill holes and four percussion holes were drilled between 1970 and 1972 at NW & Bill. A syndicate of Victor Mining, Granite Mountain Mines Limited and Galveston Mines Limited performed this work.

The claims lapsed in 1975 and United Gunn Resources Ltd. ("United Gunn") re-staked the area in the same year, referring to it as the Copper Zone. In August 1980, two trenches were completed which uncovered malachite stained rocks. In 1981, five diamond drill holes were completed at Copper Zone.

United Gunn also completed a geological and geochemical soil sampling survey over the Copper Zone showing in 1990 (Payne, 1990).

The prospect lay dormant for much of the period from 1990 until February 2004, when it was staked by Chapman & Carlson, and renamed Tasco. In 2006, Chapman & Carlson contracted Cal Data Ltd. of Kelowna, BC, to complete an Aster satellite spectral image analysis over and around the Tasco prospect.

In 2007, Hi Ho optioned the Copper Zone on the Tasco property from Chapman & Carlson, and contracted Aeroquest International of Mississauga, Ontario, to carry out a helicopter-borne AeroTEM II electromagnetic and magnetic survey. Hi Ho dropped its option in 2008.

In May 2010, Oxford optioned the Tasco property from Chapman & Carlson, and contracted Geotech Ltd. of Aurora, Ontario to conduct a ZTEM helicopter-borne geophysical survey over the IKE deposit and surrounds. In addition, a limited prospecting, geological mapping and rock sampling program was carried out in July 2010 and in October 2011, two diamond drill holes were completed.

When Amarc became the operator in 2014, the deposit target was renamed IKE.

Table 6-5: IKE Porphyry Exploration History Summary.

Year	Owner/Operator	Work Done	Assessment Report
1964	Phelps Dodge	Trenching and one short diamond drill-hole (64-1[1], 57.9 m)	
1969	Victor Mining	Trenching (61.0 m total)	
1970	Victor Mining	Surface mapping, road construction (9.7 km total), trenching (914.4 m total), two diamond drill holes 70-1[1]and 70-2[1] (243.8 m total)	
1971	Victor Mining	Surface mapping, road construction (2.4 km total), four percussion holes 71-1[1] to 71-4[1] (347.5 m total)	
1972	Victor Mining, Granite Mountain Mines Ltd. and Galveston Mines.	Surface mapping, two diamond drill holes 72-1 and 72-2 (305.4 m total)	
1980	United Gunn	Trenching	10455
1981	United Gunn	Five diamond drill holes 81-1 - 81-5 (976.9 m total)	10455
1990	United Gunn	Mapping, soil sampling, re-sampling of historical core for Au	20721
2000	Maple Syndicate	One day visit, prospecting and rock sampling	26358
2006	Oxford	Aster satellite image analysis	28847
2007	Hi Ho	Helicopter-borne AeroTEM II electromagnetic and magnetic survey	29335, 29725
2010	Oxford	Helicopter-borne ZTEM electromagnetic survey and magnetometer survey, mapping and rock sampling	31825
2011	Oxford	Two diamond drill holes (684 m total), 11-1[2] and 11-2[2]	33063

1. Historical holes were re-numbered to conform to the historical protocol of pre-fixing the year drilled to the hole-number. 64-1 is historical hole PDH-1; 70-1 and 70-2 are historical holes A1 and A2, respectively; 71-1 to 71-4 are historical holes PH1 to PH4, respectively.
2. 11-1 and 11-2 are historical holes 891-01 and 891-02, respectively.

6.6.1. *IKE Porphyry Cu-Mo-Ag Historical Drilling*

Historical drilling on the IKE porphyry Cu-Mo-Ag target took place in 6 different years over a 48 year period between 1964 and 2011. Sixteen holes were completed for a total length of 2,531 m, with 12 holes being core holes for a total length of 2,181 m and four holes being percussion holes for a total length of 350 m (Table 6-6 and Figure 6-2). Holes drilled prior to the arrival of Amarc in 2014 are herein referred to as the historical holes.

Table 6-6: IKE Porphyry Deposit Historical and Amarc Drilling Summary.

Operator	Year	Drill Hole ID	No. of Holes	Core Size	Total (m)	Average Hole Length (m)
Phelps Dodge	1964	64-1	1	Unknown	57.91	58
Victor Mining	1970	70-1 to 70-2	2	AW	248.78	124
	1971	71-1 to 71-4	4	Percussion	350.53	88
	1972	72-1 to 72-2	2	Unknown	213.36	107
United Gunn	1981	81-1 to 81-5	5		976.89	195
Oxford	2011	11-1 to 11-2	2	NQ	684.00	342
Historical Subtotal	**1964 to 2011**		**16**		**2,531.47**	**152**
Amarc	2014	IK14001 to IK14009	9	HQ & NQ	5,409.29	601
	2015	IK15010 to IK15018	9	NQ	5,028.85	559
	2016	IK16019 to IK16021	3		1,923.00	641
	2018	IK18022 to IK18027	5		3094.20	619
Amarc Subtotal	**2014 to 2018**		**26**	**NQ-HQ**	**15,455.34**	**590**
Totals	**1964 to 2018**		**51**		**20,688.81**	**406**

Amarc has revised some of the original historical drill hole names at the IKE porphyry for database consistency, by taking a simple combination of a shortened year prefix and sequential hole number. These revisions are summarized below in Table 6-7.

Table 6-7: Historical IKE Porphyry Drill Hole Names as Revised by Amarc.

Current Name	Historical Name
64-1	PDH-1
70-1	A-1
70-2	A-2
71-1	PH-1
71-2	PH-2

Current Name	Historical Name
71-3	PH-3
71-4	PH-4
11-1	891-01
11-2	891-02

Phelps Dodge located the main showings in August 1964, and completed a single 57.91 m core hole inclined at -45° and at an azimuth believed to be about 030°. The collar location of this hole is derived from a map by Phendler, P. Eng. (1982). Amarc is unaware of any drill core, core samples, core photographs, individual assay interval results or geology logs from this hole. The drill core size and core recovery are also unknown.

Victor Mining completed eight drill holes in 1970, 1971 and 1972 for a total of 798.57 m. Two inclined core holes were completed in 1970, 4 vertical percussion holes in 1971 (Ramsey and Meyer, 1969; Meyer, 1971), and two inclined core holes were drilled to the east in 1972 (Meyer, 1976; Meyer, 1977). Amarc is unaware of any drill core, assay certificates, core samples, core photographs or geology logs from the Victor Mining holes. The 1970 holes were drilled with AW sized core (3.0 cm diameter); the core size of the 1972 holes and percussion borehole size of the 1971 holes is unknown. The percentage of core or chip recovery and method of sampling for the Victor Mining 1970-1972 holes are also unknown.

In 1981, United Gunn completed five vertical core drill holes for a total of 976.89 m. Of this, 914.41 m was cored and 62.48 m was overburden that was not recovered. Phendler (1982) provided geology logs in a report on the work. Core recovery was generally good averaging 96.9% for the five holes. Amarc is unaware of any remaining drill core, analytical pulp or reject samples from the United Gunn holes.

Oxford drilled two NQ core size vertical diamond drill holes in 2011 for total metreage of 684 m. Of this, 651.2 m was cored and 32.8 m was overburden that was not recovered. Geological logs by Koffyberg (2012) include descriptions of geologic units encountered and detailed information on alteration and mineralization type and intensity. Geotechnical logs by D. Salinger include recovery and rock quality designator ("RQD") data recorded by drill run interval which average 3 m in length. Average measured core recovery and RQD was 93.4% and 73.6%, respectively, for hole 11-1 and 98.8% and 59.2%, respectively, for hole 11-2. The remaining half drill core is stored at Amarc's facility in Williams Lake, BC.

6.6.2. IKE Porphyry Cu-Mo-Ag Historical Drill Hole Surveying

The collar coordinates of the 1970 to 2011 historical drill holes used in the Amarc database are from a report by Koffyberg and Gilmour (2012). The drill hole map on page 15 of this report was georegistered and digitized in UTM NAD83, Zone 10 North coordinates. The location of hole 64-1 is from a report by Phendler (1982). Drill pad locations are generally still evident on the ground and Amarc was able to verify the locations of historical drill holes 81-2, 11-1 and 11-2 using a hand held GPS. The coordinates and orientations of the historical holes are listed in Table 6-8. Amarc is unaware of any downhole surveying performed prior to its 2014 program.

Table 6-8: IKE Porphyry Historical Drill Hole Coordinates and Orientations.

Drill Hole	Year	Easting-X (m)	Northing-Y (m)	Elevation-Z (m)	Length (m)	Azimuth (°)	Dip (°)
64-1	1964	472,822	5,654,426	2,250	57.91	030	-45
70-1	1970	473,953	5,654,499	2,278	121.95	135	-45
70-2	1970	472,944	5,654,426	2,002	126.83	045	-45
71-1‡	1971	473,933	5,654,514	2,271	121.92	000	-90
71-2‡	1971	474,302	5,654,460	2,396	73.15	000	-90
71-3‡	1971	473,778	5,654,489	2,235	64.02	000	-90
71-4‡	1971	473,709	5,654,446	2,221	91.44	000	-90
72-1	1972	474,180	5,654,802	2,402	121.92	000	-90
72-2	1972	473,884	5,654,716	2,285	91.44	090	-60
81-1	1981	473,849	5,654,105	2,361	213.36	090	-45
81-2	1981	473,975	5,654,571	2,287	303.89	000	-90
81-3	1981	474,198	5,654,597	2,347	154.23	000	-90
81-4	1981	474,359	5,654,585	2,422	152.40	000	-90
81-5	1982	474,314	5,654,714	2,421	153.01	000	-90
11-1	2011	474,002	5,654,691	2,316	417.00	000	-90
11-2	2011	474,001	5,654,473	2,290	267.00	000	-90

Note: Coordinates are UTM NAD83, Zone 10, azimuths and dips are at collar.

‡ Percussion drill hole.

6.6.3. *IKE Porphyry Historical Drilling Results*

Significant assay intervals from the historical drilling at the IKE porphyry are shown in Table 6-9. These results have been assessed and intervals of ≥0.30% CuEQ are shaded in orange, and those intervals with ≥0.50% CuEQ are shown with a red background. These colours illustrate the higher-grade intercepts from the historical drilling. See footnotes to Table 6-9 for descriptions and assumptions in respect to the calculation of CuEQ% in column 10 of the table.

Table 6-9: Significant Historical IKE Porphyry Drill Intercepts[1]. The CuEQ is Based on Conceptual Metallurgical Recoveries from Other Porphyry Cu Deposits.

Year	Drill Holes	From (m)	To (m)	Int. (m)[2,3]	Cu (%)	Mo (%)[4]	Ag (g/t)[4]	Au (ppb)[4]	CuEQ (%)[5,6]
1970	70-1	16.76	102.11	85.35	0.26	0.007	-	-	0.28
	70-2	15.24	27.43	12.19	0.19	0.004	-	-	0.21
1971	71-1‡	18.29	60.96	42.67	0.25	0.008	-	-	0.28
	and	73.15	88.39	15.24	0.23	0.006	-	-	0.26
	and	97.54	115.82	18.28	0.24	0.005	-	-	0.26
	71-2‡	33.15	67.06	33.91	0.21	0.005	-	-	0.23
1972	72-1†	76.20	121.92	45.72	0.22	0.005	-	-	0.24
	72-2†⸸	54.86	91.44	36.58	0.28	-	-	-	0.28
1981	81-1	24.38	51.82	27.44	0.28	0.005	-	-	0.30
	and	185.93	207.26	21.33	0.24	0.007	-	-	0.26
	81-2	15.24	57.00	41.76	0.22	0.012	-	-	0.26
	and	63.40	136.55	73.15	0.28	0.006	-	-	0.31
	and	151.79	303.89	152.10	0.26	0.037	-	-	0.40
	81-3	48.16	66.45	18.29	0.23	0.008	-	-	0.26
	and	136.55	148.74	12.19	0.29	0.001	-	-	0.29
2011	11-1	192.00	216.00	24.00	0.22	0.012	2.2	5	0.28
	and	222.00	408.00	186.00	0.31	0.022	1.9	12	0.41
	Incl.	266.00	324.00	58.00	0.39	0.031	1.9	20	0.52
	11-2	20.00	140.00	120.00	0.31	0.020	3.3	14	0.41
	Incl.	62.00	94.00	32.00	0.42	0.028	6.3	18	0.58
	and	154.00	202.00	48.00	0.20	0.021	2.1	8	0.29
	and	254.00	267.00	13.00	0.09	0.084	0.8	5	0.41

1. Drill holes at the IKE porphyry with no significant intervals: core hole 64-1, 81-4 and 81-5; and percussion holes 71-3 and 71-4.
2. Widths reported are drill widths, such that the thicknesses are unknown.
3. All assay intervals represent length-weighted averages.
4. (-) means not assayed for.
5. The estimated metallurgical recoveries for the copper equivalent (CuEQ) are conceptual in nature. There is no guarantee that the metallurgical testing required to determine metal recoveries will be done or, if done, the metallurgical recoveries could be at the level of the conceptual recoveries used to determine the CuEQ.
6. CuEQ calculations use metal prices of: Cu US$3.00/lb, Mo US$12.00/lb, Ag US$18.00/oz and Au US$1,400.00/oz and conceptual recoveries of: Cu 90%, Au 72%, Ag 67% and Mo 82%. Conversion of metals to an equivalent copper grade based on these metal prices is relative to the Cu price per unit mass factored by predicted recoveries for those metals normalized to the Cu recovery. The metal equivalencies for each metal are added to the Cu grade. The general formula for this is: CuEQ

% = Cu% + (Au g/t * (Au recovery / Cu recovery) * (Au US$ per oz/ 31.1034768) / (Cu US$ per lb* 22.04623)) + (Ag g/t * (Ag recovery / Cu recovery) * (Ag US$ per oz/ 31.1034768) / (Cu US$ per lb* 22.04623)) + (Mo % * (Mo recovery / Cu recovery) * (Mo US$ per lb / Cu US$ per lb)).

‡ Percussion drill hole.

† Assay interval from historically reported composite. Individual assay results are unknown.

⸸ Assay composites reported as "CuEQ". It is not known how this equivalency was calculated.

6.7. *GECAP Exploration History*

The GECAP area includes the Empress deposit together with the Empress Gap, Empress East, Empress West, Granite, Buzzer, Spokane, Syndicate and Taylor Windfall deposit targets. The GECAP area has seen exploration completed by several companies since the 1920's, and was a focus of porphyry and epithermal style exploration throughout the 1960's and 1980-90's (see Table 6-1). Recent work by Amarc has compiled this historical exploration work and leveraged it to define new Cu-Au and Au-Ag deposit targets for future exploration (see Section 9).

6.7.1. GECAP Historical Drilling

Drilling of various targets within the GECAP took place over 17 years by 12 different project operators between 1956 and 2011. During this time 234 holes were drilled totaling 23,680 m. Of these holes, 138 were core holes totaling 19,298 m and 96 were short percussion holes totaling 4,382 m.

Most of the assay results for the GECAP holes drilled from 1965 to 1991 by Phelps Dodge, Scurry, Sumitomo, Quintana, Alpine-Westley, Westpine and Westpine-ASARCO are derived from a drill hole compilation report by Lambert (1991). A summary of the historical GECAP drilling by operator and year is given in Table 6-10.

Table 6-10: Summary of Historical GECAP Drilling by Operator and Year.

<table>
<tr><th>Area</th><th>Operator</th><th>Year</th><th>Hole ID</th><th>No. of Holes</th><th>Core Size</th><th>Total (m)</th><th>Avg (m)</th></tr>
<tr><td rowspan="2">Spokane</td><td>CANEX</td><td>1956</td><td>56-1 to 56-3</td><td>3</td><td>IEX</td><td>69.50</td><td>23</td></tr>
<tr><td rowspan="2">Phelps Dodge</td><td>1963</td><td>PDS-1 to PDS-2</td><td>2</td><td>EX</td><td>115.21</td><td>58</td></tr>
<tr><td rowspan="2">Buzzer</td><td>1965</td><td>DDH-1 to DDH-5</td><td>5</td><td rowspan="5">Unknown</td><td>795.53</td><td>159</td></tr>
<tr><td rowspan="4">Scurry</td><td rowspan="4">1969</td><td>A-4, X-1 to X-4</td><td>5</td><td>295.20</td><td>59</td></tr>
<tr><td>Spokane[2]</td><td>A-1 to A-3, X-5 to X-7</td><td>6</td><td>6.00</td><td>Unk</td></tr>
<tr><td>Empress - Granite</td><td>A-6. A-7, X-8</td><td>3</td><td>85.72</td><td>29</td></tr>
<tr><td>Taylor Windfall</td><td>A-5</td><td>1</td><td>133.81</td><td>134</td></tr>
<tr><td>Buzzer</td><td rowspan="2">Sumitomo</td><td rowspan="2">1970</td><td>S-11 to S-18, S-54 to S-56</td><td>12</td><td rowspan="2">Percussion</td><td>685.80</td><td>57</td></tr>
<tr><td rowspan="3">Empress – Granite[1]</td><td>S-1 to S-10, S-16 to S-20A, S-38 to S-42, S-52 to S-53A, S-58 to S-60</td><td>45</td><td>2,340.53</td><td>52</td></tr>
<tr><td rowspan="2">Quintana</td><td rowspan="2">1976</td><td>76-1 to 76-8</td><td>9</td><td>BQ/AQ</td><td>1,297.84</td><td>144</td></tr>
<tr><td>Q-1 to Q-39</td><td>39</td><td>Percussion</td><td>1,356.36</td><td>35</td></tr>
<tr><td rowspan="2">Taylor Windfall</td><td rowspan="2">Westmin</td><td>1984</td><td>84-03 to 84-06</td><td>4</td><td rowspan="2">Unknown</td><td>455.70</td><td>114</td></tr>
<tr><td>1985</td><td>85-1 to 85-2</td><td>2</td><td>281.47</td><td>141</td></tr>
<tr><td>Spokane[2]</td><td>Unknown</td><td>1987</td><td>87-2 to 87-2</td><td>2</td><td rowspan="2">Unknown</td><td>2.00</td><td>Unk</td></tr>
<tr><td rowspan="2">Empress - Granite</td><td rowspan="3">Westpine</td><td rowspan="2">1988</td><td>88-1 to 88-7</td><td>7</td><td>445.63</td><td>64</td></tr>
<tr><td>89-1 to 89-13</td><td>14</td><td rowspan="2">NQ</td><td>1,751.68</td><td>125</td></tr>
<tr><td>Buzzer</td><td rowspan="2">1989</td><td>89-14 to 89-15</td><td>2</td><td>139.30</td><td>70</td></tr>
<tr><td>Spokane</td><td>Canmark</td><td>S89-1</td><td>1</td><td>Unknown</td><td>8.70</td><td>9</td></tr>
</table>

Area	Operator	Year	Hole ID	No. of Holes	Core Size	Total (m)	Avg (m)
Empress - Granite	Westpine-Asarco	1990	90-17 to 90-35	19	NQ	3,502.17	184
		1991	91-36 to 91-55	20		3,832.08	192
	Westpine	1993	93-56 to 93-57	2	Unknown	219.45	110
Spokane	Canmark		93-1 to 93-4	4		701.95	175
	Galore Resources	2007	07-04SP to 07-05SP	2	NQ	242.48	121
Empress-Granite[1]			07-58 to 07-63	6		1,421.30	237
Spokane		2008	08TSK-12	1	HQ/NQ	154.90	155
Syndicate			08TSK-09, TSK-11	2		480.40	240
Empress – Granite[1]	Great Quest		08-64 to 08-73	10	BTW	1,567.14	157
Buzzer		2011	GC11-74 to GC11-79	6	Unknown	1,292.50	215
TOTALS		**17 Years**		**234**		**23,680.35**	**101**

1. Empress – Granite: in this table includes the Empress deposit, and the Empress East, Empress Gap, Empress West and Granite areas.
2. The actual length of the Spokane 1969 and 1987 holes is unknown ("Unk"). Amarc applied an arbitrary length of 1 m.

Amarc noted the use of the same or similar historical drill hole names several times on the GECAP area. To provide a unique name for each hole in the database and to better identify them, Amarc renamed a number of historical holes. Table 6-11 matches the current name and historical drill hole names for GECAP.

Table 6-11: List of Historical GECAP Drill Holes with Current Drill Hole Name[1].

Current Name	Historical Name	Current Name	Historical Name	Current Name	Historical Name	Current Name	Historical Name
56-1	S1	89-16	W89-16	90-26	W90-26	91-45	W91-45
56-2	S2	89-2	W89-2	90-27	W90-27	91-46	W91-46
56-3	S3	89-3	W89-3	90-28	W90-28	91-47	W91-47
87-1	DDH 87-1	89-4	W89-4	90-29	W90-29	91-48	W91-48
87-2	DDH 87-2	89-5	W89-5	90-30	W90-30	91-49	W91-49
88-1	T88-1	89-6	W89-6	90-31	W90-31	91-50	W91-50
88-2	T88-2	89-7	W89-7	90-32	W90-32	91-51	W91-51
88-3	T88-3	89-8	W89-8	90-33	W90-33	91-52	W91-52
88-4	T88-4	89-9	W89-9	90-34	W90-34	91-53	W91-53
88-5	T88-5	S89-1	DDH 89-1	90-35	W90-35	91-54	W91-54
88-6	T88-6	90-17	W90-17	91-36	W91-36	91-55	W91-55
88-7	T88-7	90-18	W90-18	91-37	W91-37	93-1	DDH-93-1
89-1	W89-1	90-19	W90-19	91-38	W91-38	93-2	DDH-93-2
89-10	W89-10	90-20	W90-20	91-39	W91-39	93-3	DDH-93-3
89-11	W89-11	90-21	W90-21	91-40	W91-40	93-4	DDH-93-4
89-12	W89-12	90-22	W90-22	91-41	W91-41	93-56	W93-56
89-13	W89-13	90-23	W90-23	91-42	W91-42	93-57	W93-57
89-14	W89-14	90-24	W90-24	91-43	W91-43		
89-15	W89-15	90-25	W90-25	91-44	W91-44		

1. In addition to those reported in this table, the Amarc database was populated with all 68 Sumitomo 1970 percussion holes which are currently prefixed '*S-*', these holes were originally prefixed '*PDH S-*'. Also all 39 Quintana 1976 percussion holes in the database are currently prefixed '*Q-*', that were originally prefixed '*PDH Q-*'.

6.7.2. Empress

The Empress (referred to by Amarc as the Empress deposit) was drilled by five different operators over nine years between 1969 and 2008, with 60 core holes and 27 shallow percussion holes totaling 9,006 m and 1,388 m, respectively. Table 6-12 provides key information for these holes. Significant assay intervals from the historical drilling at the Empress deposit are shown in Table 6-21.

In 1969 Scurry intersected 9.6 m of 0.26% Cu from 0.76 m in its first hole (hole X-8), which was a shallow −33° north dipping core hole.

Sumitomo followed with 15 short percussion holes in 1970. Three of these holes intersected significant Cu-Mo mineralization, including two that ended in mineralization; for example hole S-9 returned 33.53 m from 27.43 m of 0.42% CuEQ at 0.39% Cu and 0.008% Mo. Only Cu and Mo results were reported. Notably, many of these percussion holes in the GECAP area have provided valuable information for Amarc's evaluation of the GECAP (Section 9-4).

In 1976, Quintana drilled seven core and 12 shallow percussion holes, successfully intersecting significant mineralization in five of the core holes and two of the percussion holes, including core hole 76-3 that intersected 76.05 m from 26.82 m for 1.72% CuEQ at 0.92% Cu, 4.7 g/t Ag, and 1,418 ppb (1.4 g/t) Au (Mo was not analyzed for). Vertical hole 76-2 is the by far the longest hole drilled in Empress at 317.3 m, and is well-mineralized to a depth of 215.8 m where the last assay was reported. Although this hole reportedly extended 100 m below any other Empress hole, no assay or geological information is available for this lower portion of the hole.

In 1988, Westpine cored seven shallow holes in a variety of orientations and averaged 64 m in length that all intersected significant intervals of Cu-Au-Ag±Mo mineralization. For example, hole 88-2 intercepted 42.97 m from 7.32 m for 0.57% CuEQ at 0.36% Cu, 0.005% Mo , 326 ppb (0.33 g/t) Au, 1.3 g/t Ag and. Westpine followed up in 1989 with 13 NQ size core holes averaging 125 m in length, only two of which failed to intersect significant mineralized intervals. In 1990 Westpine-ASARCO completed a 19-hole NQ core drill program of holes averaging 184 m in length, that further expanded the known extent of Empress mineralization. Drill hole 90-17 completed that year returned 56.38 m from 143.87 m of 2.35% CuEQ at 1.38% Cu, 0.009% Mo, 4.1 g/t Ag and 1,666 ppb (1.67 g/t) Au, and is one of the better drill intervals returned on the IKE Project. Westpine-ASARCO continued with a five hole program of NQ coring of similar average length in 1991 that was also successful.

After a 16 year drilling hiatus, in 2007 Great Quest completed three NQ core holes averaging 168 m in length, which were followed up by five BTW size (42 mm diameter) core holes in 2008 averaging 188 m in length. Five of these eight holes intersected significant intervals of Cu-Au-Ag±Mo mineralization.

Significant assay intervals from the historical drilling at the Empress deposit are shown in Table 6-21.

Table 6-12: Empress Deposit Historical Drill Hole Coordinates and Orientations[1].

Year	Operator[2]	Drill Hole	Easting-X (m)	Northing-Y (m)	Elevation-Z (m)	Length (m)	Azimuth (°)	Dip (°)
1969	Scurry	X-8	472,101	5,661,420	1,666	20.00	0	-33
1970	Sumitomo	S-10	471,900	5,661,312	1,661	60.96	0	-90
1970	Sumitomo	S-3	471,916	5,661,707	1,637	60.96	0	-90
1970	Sumitomo	S-30[3]	471,292	5,661,974	1,708	1.00	180	-45
1970	Sumitomo	S-38	471,912	5,661,214	1,657	60.96	0	-90
1970	Sumitomo	S-39	472,152	5,661,342	1,686	60.96	0	-90
1970	Sumitomo	S-4	471,903	5,661,580	1,649	60.96	0	-90
1970	Sumitomo	S-40	472,151	5,661,463	1,670	60.96	0	-90
1970	Sumitomo	S-41	472,156	5,661,256	1,696	60.96	0	-90
1970	Sumitomo	S-42	472,215	5,661,336	1,696	60.96	0	-90
1970	Sumitomo	S-5	471,912	5,661,462	1,655	60.96	0	-90
1970	Sumitomo	S-52	471,292	5,661,962	1,614	12.19	180	-45
1970	Sumitomo	S-6	471,669	5,661,462	1,641	60.96	0	-90
1970	Sumitomo	S-7	471,678	5,661,720	1,634	60.96	0	-90
1970	Sumitomo	S-8	471,675	5,661,584	1,642	51.82	180	-45
1970	Sumitomo	S-9	471,972	5,661,399	1,666	91.44	0	-45
1976	Quintana	76-1	472,035	5,661,451	1,671	145.39	0	-90
1976	Quintana	76-2	471,904	5,661,574	1,648	317.30	0	-90
1976	Quintana	76-2B	471,900	5,661,574	1,648	37.49	160	-45
1976	Quintana	76-3	471,908	5,661,310	1,661	124.36	0	-90
1976	Quintana	76-4	471,972	5,661,341	1,670	153.62	0	-90
1976	Quintana	76-5	471,901	5,661,394	1,654	160.93	0	-90
1976	Quintana	76-6	471,915	5,661,773	1,631	166.73	0	-90
1976	Quintana	Q-11	472,219	5,661,589	1,660	39.62	0	-90
1976	Quintana	Q-13	472,221	5,661,772	1,620	39.62	0	-90
1976	Quintana	Q-14	472,048	5,661,773	1,626	54.86	0	-90
1976	Quintana	Q-15	472,219	5,661,560	1,663	64.01	0	-90
1976	Quintana	Q-37	472,149	5,661,095	1,693	18.29	0	-90
1976	Quintana	Q-38	471,758	5,661,277	1,638	30.48	0	-90
1976	Quintana	Q-39	471,605	5,661,283	1,631	18.29	0	-90
1976	Quintana	Q-4	471,791	5,661,526	1,649	60.96	0	-90
1976	Quintana	Q-5	471,792	5,661,340	1,643	36.58	0	-90
1976	Quintana	Q-6	472,033	5,661,331	1,679	60.96	0	-90
1976	Quintana	Q-7	472,035	5,661,463	1,670	76.20	0	-90
1976	Quintana	Q-8	472,036	5,661,588	1,654	60.96	0	-90
1988	Westpine	88-1	471,899	5,661,316	1,661	46.94	180	-45
1988	Westpine	88-2	471,905	5,661,324	1,661	66.45	357	-55
1988	Westpine	88-3	471,898	5,661,318	1,661	45.72	315	-55
1988	Westpine	88-4	471,933	5,661,353	1,663	65.23	0	-55
1988	Westpine	88-5	471,976	5,661,376	1,668	74.37	357	-45
1988	Westpine	88-6	471,867	5,661,299	1,659	76.51	2	-55
1988	Westpine	88-7	472,003	5,661,397	1,669	70.41	0	-50
1989	Westpine	89-1	471,992	5,661,445	1,665	118.26	0	-47
1989	Westpine	89-10	471,955	5,661,606	1,650	165.51	180	-50
1989	Westpine	89-11	471,852	5,661,525	1,651	85.95	180	-50
1989	Westpine	89-12	471,881	5,661,615	1,646	217.63	180	-50

Year	Operator[2]	Drill Hole	Easting-X (m)	Northing-Y (m)	Elevation-Z (m)	Length (m)	Azimuth (°)	Dip (°)
1989	Westpine	89-16	471,851	5,661,381	1,652	50.90	0	-47
1989	Westpine	89-2	471,992	5,661,434	1,665	131.06	181	-70
1989	Westpine	89-3	472,057	5,661,435	1,674	109.12	181	-55
1989	Westpine	89-4	471,996	5,661,563	1,653	140.21	177	-50
1989	Westpine	89-5	472,101	5,661,453	1,671	99.67	179	-55
1989	Westpine	89-6	472,003	5,661,314	1,677	133.20	3	-55
1989	Westpine	89-7	471,856	5,661,464	1,652	108.20	180	-50
1989	Westpine	89-8	471,918	5,661,599	1,649	136.25	180	-50
1989	Westpine	89-9	471,918	5,661,647	1,645	133.50	180	-50
1990	Westpine-Asarco	90-17	471,854	5,661,651	1,641	215.49	0	-90
1990	Westpine-Asarco	90-18	471,793	5,661,536	1,648	191.11	0	-90
1990	Westpine-Asarco	90-19	471,914	5,661,471	1,654	209.40	0	-90
1990	Westpine-Asarco	90-20	471,955	5,661,610	1,650	217.02	0	-90
1990	Westpine-Asarco	90-21	471,819	5,661,582	1,647	221.59	0	-90
1990	Westpine-Asarco	90-22	471,793	5,661,647	1,641	211.23	0	-90
1990	Westpine-Asarco	90-23	471,763	5,661,595	1,644	206.35	0	-90
1990	Westpine-Asarco	90-24	471,824	5,661,709	1,635	197.21	0	-90
1990	Westpine-Asarco	90-25	471,761	5,661,455	1,650	140.21	0	-90
1990	Westpine-Asarco	90-26	471,850	5,661,372	1,652	87.48	178	-50
1990	Westpine-Asarco	90-27	471,850	5,661,393	1,652	99.67	178	-65
1990	Westpine-Asarco	90-28	472,039	5,661,773	1,626	133.20	0	-90
1990	Westpine-Asarco	90-29	471,919	5,661,656	1,645	218.54	0	-90
1990	Westpine-Asarco	90-30	471,881	5,661,588	1,648	223.42	0	-90
1990	Westpine-Asarco	90-31	471,997	5,661,572	1,653	205.13	0	-90
1990	Westpine-Asarco	90-32	471,730	5,661,530	1,651	180.75	0	-90
1990	Westpine-Asarco	90-33	471,733	5,661,651	1,638	203.30	0	-90
1990	Westpine-Asarco	90-34	471,213	5,662,012	1,616	167.03	0	-90
1990	Westpine-Asarco	90-35	471,502	5,661,808	1,621	174.04	0	-90
1991	Westpine-Asarco	91-36	471,791	5,661,464	1,654	146.30	0	-90
1991	Westpine-Asarco	91-37	471,642	5,661,591	1,643	152.40	0	-90
1991	Westpine-Asarco	91-44	471,353	5,661,626	1,632	169.77	0	-90
1991	Westpine-Asarco	91-45	471,309	5,662,403	1,588	170.69	0	-90
1991	Westpine-Asarco	91-48	471,995	5,661,464	1,663	217.93	0	-90
2007	Great Quest	07-61	471,887	5,661,711	1,655	106.10	0	-90
2007	Great Quest	07-62	471,883	5,661,710	1,655	215.50	90	-65
2007	Great Quest	07-63	471,766	5,661,709	1,638	182.90	0	-90
2008	Great Quest	08-67	471,973	5,661,660	1,632	210.01	0	-90
2008	Great Quest	08-68	472,034	5,661,658	1,605	186.84	0	-90
2008	Great Quest	08-71	472,102	5,661,654	1,620	197.82	0	-90
2008	Great Quest	08-72	472,072	5,661,712	1,610	212.50	0	-90
2008	Great Quest	08-73	471,810	5,661,395	1,645	134.11	180	-55

1. Coordinates are UTM NAD83, Zone 10, azimuths and dips are at collar.
2. Sumitomo only drilled percussion holes. All Quintana holes prefixed 'Q-' are percussion holes.
3. The actual length of hole S-30 is unknown. Amarc applied an arbitrary length of 1 m.

6.7.3. *Empress East*

Empress East area includes the current Empress East deposit target located approximately 1 km east of the Empress deposit (Figure 9-5). On and in the general vicinity of the broad (1.5 km N-S, 1 km E-W) Empress East deposit target 37 holes totaling 2,922 m and averaging 79 m in depth were completed. Only five of the core holes and seven percussion holes have been drilled into the Empress East mineralized area outlined in Figure 9-5, totaling 1,209 m and averaging 69 m in length. Table 6-13 lists key information for these drill holes. Significant assay intervals from the historical drilling in the Empress East area are provided in Table 6-21.

Of the 25 holes, in the broader surrounding area, nine were core holes totaling 1,332 m and averaging 148 m in length, and 16 were shallow percussion holes totaling 381 m and averaging 24 m deep. For example, 12 core and percussion holes were collared close to or north of the Tchaikazan Fault, mainly on the north side of the Taseko River. Shallow Sumitomo percussion hole S-20A collared just north of the Tchaikazan Fault ended at 9.14 m with a 3 m intercept from 6.1 m of 0.29% Cu and 0.01% Mo terminating in mineralization at 9.14 m, Au was not assayed for.

Scurry drilled two vertical core holes totaling 66 m in 1969 in the Empress East area. Sumitomo followed with 6 shallow percussion holes in 1970 totaling 219.45m and averaging 37 m in depth, including one hole (S-1; Figures 9-22A and 9-23) with a significant mineralized intercept. The 17 shallow percussion holes completed by Quintana in 1976 totalled 463 m, and averaged 27 m in depth. All but two of the percussion holes were vertical.

Thirteen years later in 1989, Westpine drilled one 122 m core hole. Following on, the Westpine-ASARCO venture completed a further eight core holes in a 1,654 m program in 1991 that averaged 207 m in hole depth. Four of the 1991 holes drilled within 100 m of drill hole S-1 have significant mineralized intercepts. This includes the nearby hole 91-39 with 39.93 m from 107.59 m of 0.60% CuEQ at 0.40% Cu, 332 ppb (0.33 g/t) Au, 0.8 g/t Ag and 0.004% Mo. A further Westpine hole was competed in 1993. Great Quest drilled two core holes totaling 289.56 m in depth 300 m south of the previous drilling and south of the northern boundary of the CPC. One of these two holes was not sampled and the other was weakly mineralized.

Table 6-13: Empress East Area Historical Drill Hole Coordinates and Orientations[1].

Year	Operator[2]	Drill Hole	Easting-X (m)	Northing-Y (m)	Elevation-Z (m)	Length (m)	Azimuth (°)	Dip (°)
1969	Scurry	A-6	474052	5662097	1600.2	45.72	0	-90
1969	Scurry	A-7	473502	5661974	1666	20	0	-90
1970	Sumitomo	S-1	473196	5661769	1638.3	60.96	0	-90
1970	Sumitomo	S-19	473075	5661771	1635.25	64.01	180	-45
1970	Sumitomo	S-2	473198	5661680	1667.26	60.96	0	-90
1970	Sumitomo	S-20A	473005	5662361	1632.2	9.14	0	-45
1970	Sumitomo	S-53	473026	5662399	1618.49	12.19	0	-90
1970	Sumitomo	S-53A	472970	5662384	1613.92	12.19	0	-90
1976	Quintana	Q-1	473170	5662292	1600.2	30.48	0	-90
1976	Quintana	Q-2	473427	5662306	1612.39	30.48	0	-90
1976	Quintana	Q-21	473029	5662137	1592.58	30.48	0	-90
1976	Quintana	Q-23	473020	5661963	1598.68	30.48	0	-90
1976	Quintana	Q-24	473206	5662036	1627.63	15.24	0	-90
1976	Quintana	Q-25	473383	5661893	1618.49	24.38	0	-90

Year	Operator[2]	Drill Hole	Easting-X (m)	Northing-Y (m)	Elevation-Z (m)	Length (m)	Azimuth (°)	Dip (°)
1976	Quintana	Q-26	473402	5662138	1593.19	30.48	0	-90
1976	Quintana	Q-27	473561	5662085	1595.63	30.48	0	-90
1976	Quintana	Q-28	473776	5662070	1595.63	15.24	0	-90
1976	Quintana	Q-29	473684	5661931	1603.25	30.48	0	-90
1976	Quintana	Q-3	473669	5662220	1621.54	30.48	0	-90
1976	Quintana	Q-30	473684	5661801	1635.25	33.53	0	-90
1976	Quintana	Q-31	473559	5661582	1685.54	18.29	0	-90
1976	Quintana	Q-32	473742	5661645	1665.73	21.34	0	-90
1976	Quintana	Q-33	473376	5661771	1648.97	45.72	0	-90
1976	Quintana	Q-34	473195	5661574	1682.5	15.24	0	-90
1976	Quintana	Q-35	473262	5661864	1618.49	30.48	0	-90
1989	Westpine	89-13	473022	5661794	1627.63	122.22	180	-50
1991	Westpine-Asarco	91-38	473388	5661768	1652.02	192.02	0	-90
1991	Westpine-Asarco	91-39	473186	5661769	1641.35	221.89	0	-90
1991	Westpine-Asarco	91-40	473811	5661832	1609.34	182.27	0	-90
1991	Westpine-Asarco	91-51	474055	5662087	1600.2	243.84	0	-90
1991	Westpine-Asarco	91-52	473394	5662568	1650.49	223.11	0	-90
1991	Westpine-Asarco	91-53	473744	5662763	1685.54	219.15	0	-90
1991	Westpine-Asarco	91-54	473160	5661712	1656.59	240.79	0	-90
1991	Westpine-Asarco	91-55	473233	5661714	1661.16	130.45	0	-90
1993	Westpine	93-57	473425	5661907	1666	108.2	180	-70
2008	Great Quest	08-69	473690	5661324	1660	142.04	180	-65
2008	Great Quest	08-70	473558	5661295	1635	147.52	180	-70

1. Coordinates are UTM NAD83, Zone 10, azimuths and dips are at collar.
2. Sumitomo only drilled percussion holes. All Quintana holes prefixed 'Q-' are percussion holes.

6.7.4. Empress Gap

The area occupied by the Empress Gap deposit target extends for approximately 1 km to the east of the Empress deposit to Empress East (Figure 9-5), and has seen less than 1,000 m of drilling in 15 widely spaced shallow holes. Sumitomo and Quintana drilled 11 shallow percussion drill holes averaging 43 m in the area in 1970 and 1976 as part of their broad regional reconnaissance programs. Several of these holes intersected elevated Cu mineralization. They were only assayed for Cu and Mo.

Four core holes completed in this area include two by Quintana in 1976 and one each by Westpine-ASARCO in 1991 and Westpine in 1993. These core holes average 125 m in depth, however, hole 76-7 is only 11.6 m long. Core hole 76-8 to the north also intersected elevated concentrations of Cu, but it was also not assayed for Au. Assays for the lower 98 m of this vertical hole are not reported in the historical documents and it is not known if it was sampled or assayed. Holes 91-41 and 93-56, drilled 800 m east of the main Empress deposit intercepted significant mineralization, including Au.

Table 6-21 lists significant historical drill intercepts for the Empress Gap area, and key information for these drill holes is provided in Table 6-14.

Table 6-14: Empress Gap Historical Drill Hole Coordinates and Orientations[1].

Year	Operator[2]	Drill Hole	Easting-X (m)	Northing-Y (m)	Elevation-Z (m)	Length (m)	Azimuth (°)	Dip (°)
1970	Sumitomo	S-60	472684	5661565	1680.06	60.96	0	-90
1976	Quintana	76-7	472650	5661777	1633.73	11.58	0	-90
1976	Quintana	76-8	472500	5661854	1618.49	180.44	0	-90
1976	Quintana	Q-10	472409	5661478	1682.5	60.96	0	-90
1976	Quintana	Q-12	472411	5661658	1645.92	30.48	0	-90
1976	Quintana	Q-18	472651	5662082	1594.1	15.24	0	-90
1976	Quintana	Q-19	472389	5661992	1600.2	21.34	0	-90
1976	Quintana	Q-20	472838	5661952	1607.82	54.86	0	-90
1976	Quintana	Q-22	472840	5662139	1589.53	15.24	0	-90
1976	Quintana	Q-36	472341	5661315	1709.93	39.62	0	-90
1976	Quintana	Q-9	472587	5661474	1687.07	45.72	0	-90
1991	Westpine-Asarco	91-41	472814	5661722	1648.97	195.99	0	-90
1993	Westpine	93-56	472748	5661589	1666	111.25	0	-90

1. Coordinates are UTM NAD83, Zone 10, azimuths and dips are at collar.
2. Sumitomo only drilled percussion holes. All Quintana holes prefixed 'Q-' are percussion holes.

6.7.5. *Empress West*

The current Empress West exploration target covers a broad area that extends for up to 3 km west of Empress (Figure 9-5). Historical drilling comprises 26 mostly shallow percussion drill holes totaling 1,870 m, drilled to an average depth of 72 m. Collars elevations of the Empress West holes average about 100 m higher than the Empress holes. Table 6-15 lists key information for these drill holes.

Sumitomo drilled 1,111 m in 21 shallow percussion holes in Empress West in 1970, as part of their wide-ranging regional program. Two of these holes, S-27 and S-31B drilled adjacent to the Coastal Plutonic Complex ("CPC", see Sections 7 and 9) contact have elevated Cu mineralization. They were only assayed for Cu and Mo. Twenty-one years later, Westpine-ASARCO drilled three core holes totaling 517 m. Hole 91-47, which was drilled immediately north of the CPC contact had two significant mineralized intercepts; these include 7.93 m from 73.15 m grading 0.42% CuEQ at 0.22% Cu, 104 ppb (0.1 g/t), Au, 0.039% Mo and 0.4 g/t Ag, and 5.49 m from 138.38 m grading 0.42% CuEQ at 0.31% Cu, 80 ppb (0.08 g/t) Au, 0.016% Mo and 0.6 g/t Ag. Galore Resources followed up 16 years later with two core holes of 242 m total length. None of the five core holes were assayed from top to bottom. Table 6-21 lists significant intercepts of the Empress West historical drilling.

Table 6-15: Empress West Historical Drill Hole Coordinates and Orientations[1].

Year	Operator[2]	Drill Hole	Easting-X (m)	Northing-Y (m)	Elevation-Z (m)	Length (m)	Azimuth (°)	Dip (°)
1970	Sumitomo	S-27	471128	5661585	1657.5	60.96	0	-90
1970	Sumitomo	S-28	471008	5661830	1658.11	60.96	0	-90
1970	Sumitomo	S-29	470185	5662085	1666	20	180	-45
1970	Sumitomo	S-31A	469440	5661163	1908.05	18.29	180	-45
1970	Sumitomo	S-31B	469446	5661179	1908.05	91.44	180	-45
1970	Sumitomo	S-32	470655	5661448	1779.42	64.01	180	-45
1970	Sumitomo	S-33	470053	5661421	1847.09	60.96	0	-90
1970	Sumitomo	S-34	469809	5661446	1825.75	60.96	0	-90
1970	Sumitomo	S-35	470671	5661632	1726.69	60.96	0	-90

Year	Operator[2]	Drill Hole	Easting-X (m)	Northing-Y (m)	Elevation-Z (m)	Length (m)	Azimuth (°)	Dip (°)
1970	Sumitomo	S-36	470669	5661907	1690.12	60.96	0	-90
1970	Sumitomo	S-37	470417	5661987	1702.31	48.77	0	-90
1970	Sumitomo	S-43	469820	5661800	1764.79	60.96	0	-90
1970	Sumitomo	S-44	469811	5662003	1754.12	60.96	0	-90
1970	Sumitomo	S-45	469853	5661635	1764.79	27.43	0	-90
1970	Sumitomo	S-46	470177	5662045	1711.45	24.38	180	-45
1970	Sumitomo	S-47	470127	5662053	1717.55	33.53	0	-90
1970	Sumitomo	S-48	469811	5661616	1775.46	51.82	0	-90
1970	Sumitomo	S-49	469329	5661694	1822.09	60.96	0	-90
1970	Sumitomo	S-50	470674	5662372	1629.16	60.96	0	-90
1970	Sumitomo	S-51	470479	5662374	1638.3	60.96	0	-90
1970	Sumitomo	S-57	470185	5662352	1674.88	60.96	0	-90
1991	Westpine-Asarco	91-46	470711	5661575	1732.79	76.51	0	-90
1991	Westpine-Asarco	91-47	469263	5661364	1856.23	203.3	0	-90
1991	Westpine-Asarco	91-50	470172	5661935	1731.26	236.83	0	-90
2007	Galore Resources	07-04SP	468111	5662999	1675	148.23	180	-65
2007	Galore Resources	07-05SP	468111.01	5662999	1675	94.25	0	-90

1. Coordinates are UTM NAD83, Zone 10, azimuths and dips are at collar.
2. Sumitomo only drilled percussion holes.

6.7.6. Granite

The current Granite deposit target area is located approximately 200 m north of the Empress deposit (Figure 9-5). The 11 holes, totaling 1,911 m, completed in the general Granite area average 174 m in length. They include nine core holes averaging 207 m in length and 2 short percussion drill holes 18 and 30 m in length. Table 6-16 lists the key information for these drill holes.

Quintana drilled the first holes at Granite, completing two percussion holes in 1976. Westpine-Asarco drilled three core holes totaling 609 m 15 years later, including hole 91-49 that intersected 92.05 m from 183.18 m of 0.28% CuEQ at 0.22% Cu, 232 ppb (0.23 g/t) Au, 0.4 g/t Ag and 0.008% Mo. Great Quest completed 1,253 m in six core holes in their 2007 and 2008 programs. Three of the Great Quest holes drilled within 205 m of drill hole 91-49 also intersected significantly mineralized intercepts, including hole 07-60 with 0.40% CuEQ at 0.19% Cu, 370 ppb (0.37 g/t) Au, 0.4 g/t Ag and 0.002% Mo over 14.9 m from 273.90 m. Table 6-21 lists the significant historical intercepts.

Table 6-16: Granite Historical Drill Hole Coordinates and Orientations[1].

Year	Operator[2]	Drill Hole	Easting-X (m)	Northing-Y (m)	Elevation-Z (m)	Length (m)	Azimuth (°)	Dip (°)
1976	Quintana	Q-16	471,920	5,661,934	1,599	30.48	0	-90
1976	Quintana	Q-17	472,165	5,661,960	1,588	18.29	0	-90
1991	Westpine-Asarco	91-42	471,979	5,661,903	1,603	57.30	0	-90
1991	Westpine-Asarco	91-43	471,916	5,661,901	1,606	253.14	0	-90
1991	Westpine-Asarco	91-49	471,891	5,661,956	1,597	298.40	0	-90
2007	Great Quest	07-58	471,828	5,661,978	1,651	304.60	0	-90
2007	Great Quest	07-59	471,878	5,662,006	1,638	304.60	0	-90
2007	Great Quest	07-60	471,944	5,661,978	1,653	307.60	0	-90
2008	Great Quest	08-64	471,968	5,661,945	1,657	118.07	0	-90

Year	Operator[2]	Drill Hole	Easting-X (m)	Northing-Y (m)	Elevation-Z (m)	Length (m)	Azimuth (°)	Dip (°)
2008	Great Quest	08-65	472,230	5,662,041	1,657	54.25	90	-60
2008	Great Quest	08-66	472,095	5,661,947	1,630	163.98	0	-90

1. Coordinates are UTM NAD83, Zone 10, azimuths and dips are at collar.
2. All Quintana holes prefixed "Q-" are percussion holes.

6.7.7. Buzzer

The Buzzer porphyry is located 3.5 km east of Empress and 2 km southeast of Empress East (Figure 9-5). Buzzer was the first GECAP target drilled. Five different historical operators have completed 30 holes totaling 3,208 m in five different years between 1965 and 2011. Of these holes, 18 were core holes totaling 2,522 m and 12 were short percussion holes of 686 m total length. Table 6-17 lists key drill hole information for the Buzzer historical drilling. Significant assay intervals from the Buzzer porphyry deposit are shown in Table 6-21.

Table 6-17: Buzzer Historical Drill Hole Coordinates and Orientations[1].

Year	Operator[2]	Drill Hole	Easting-X (m)	Northing-Y (m)	Elevation-Z (m)	Length (m)	Azimuth (°)	Dip (°)
1965	Phelps Dodge	DDH-1	475,388	5,661,087	1,629	170.69	26	-60
1965	Phelps Dodge	DDH-2	475,289	5,661,157	1,631	167.64	62	-64
1965	Phelps Dodge	DDH-3	475,304	5,661,265	1,625	153.01	142	-60
1965	Phelps Dodge	DDH-4	475,389	5,661,181	1,625	158.50	342	-60
1965	Phelps Dodge	DDH-5	475,304	5,661,265	1,625	145.69	76	-60
1969	Scurry	A-4	475,344	5,661,147	1,628	151.18	0	-90
1969	Scurry	X-1	475,349	5,661,212	1,630	42.52	0	-90
1969	Scurry	X-2	475,358	5,661,196	1,629	26.21	0	-90
1969	Scurry	X-3	475,317	5,661,198	1,629	44.20	0	-90
1969	Scurry	X-4	475,303	5,661,194	1,628	31.09	181	-45
1970	Sumitomo	S-11	475,525	5,661,134	1,623	60.96	0	-90
1970	Sumitomo	S-12	475,436	5,661,184	1,628	60.96	0	-90
1970	Sumitomo	S-13	475,437	5,661,139	1,629	60.96	0	-90
1970	Sumitomo	S-14-1	475,522	5,661,067	1,629	15.24	0	-90
1970	Sumitomo	S-14-2	475,518	5,661,039	1,632	60.96	0	-90
1970	Sumitomo	S-15	475,430	5,661,069	1,632	60.96	0	-90
1970	Sumitomo	S-16	475,337	5,661,093	1,635	60.96	0	-90
1970	Sumitomo	S-17	475,250	5,661,137	1,635	60.96	0	-90
1970	Sumitomo	S-18	475,249	5,661,196	1,631	60.96	0	-90
1970	Sumitomo	S-54	475,510	5,661,189	1,620	60.96	0	-90
1970	Sumitomo	S-55	475,438	5,661,254	1,618	60.96	0	-90
1970	Sumitomo	S-56	475,315	5,661,303	1,615	60.96	0	-90
1989	Westpine	89-14	475,284	5,661,222	1,625	87.48	55	-45
1989	Westpine	89-15	475,363	5,661,272	1,622	51.82	235	-65
2011	Great Quest	GC11-74	475,340	5,661,094	1,666	204.00	0	-90
2011	Great Quest	GC11-75	475,340	5,661,094	1,666	177.00	254	-55
2011	Great Quest	GC11-76	474,977	5,660,803	1,666	110.50	0	-90
2011	Great Quest	GC11-77	474,977	5,660,803	1,666	399.00	231	-60
2011	Great Quest	GC11-78	475,320	5,660,946	1,666	192.00	205	-60

Year	Operator[2]	Drill Hole	Easting-X (m)	Northing-Y (m)	Elevation-Z (m)	Length (m)	Azimuth (°)	Dip (°)
2011	Great Quest	GC11-79	475,320	5,660,946	1,666	210.00	287	-60

1. Coordinates are UTM NAD83, Zone 10, azimuths and dips are at collar.
2. Sumitomo only drilled percussion holes. All Quintana holes prefixed 'Q-' are percussion holes.

In 1965, Phelps Dodge drilled five core holes, averaging 159 m in length angled at various orientations. All holes successfully intersected significant Cu mineralization, including a 99.06 m intercept from 21.34 m of 0.58% CuEQ at 0.43% Cu and 0.042% Mo in drill hole DDH-3 (Lambert 1991). No Au or Ag results were reported. Detailed information for the Phelps Dodge drill program is lacking and no individual assays are known, only composited averages reported by Westpine have been located. Geological information, core size, sampling and analytical methods are also unknown.

Scurry core drilled four < 50 m long holes numbered X-1 to X-4 and one longer 150 m hole numbered A-4 in the vicinity of the Phelps Dodge holes in 1969. All intercepted significant Cu-Mo-Au-Ag mineralization, including an intercept of 44.20 m from 0.0 m of 1.14% CuEQ at 0.67% Cu, 496 ppb (0.50 g/t) Au, 0.046% Mo, and 5.3 g/t Ag comprising the entire length of vertical hole X-3 from surface and ending in mineralization and within this from 10.67 m of 1.51% CuEQ at 0.86% Cu, 724 ppb (0.72 g/t) Au 0.059% Mo and 6.6 g/t Ag.

Sumitomo followed up with 12 shallow, vertical percussion holes averaging 57 m in length, three (S-12, S14-2 and S-16) of which also had significant intercepts, including 33.5 m from 21.34 m of 0.54% CuEQ at 0.42% Cu and 0.032% Mo in hole S-12, including 15.24 m from 21.34m of 0.69% CuEQ with 0.55% Cu and 0.037% Mo. Only Cu and Mo were reported for any Sumitomo hole.

Two < 90 m long angled core holes drilled by Westpine were completed in 1989. Great Quest drilled six 100 to 400 m long angled core holes at Buzzer in 2011 numbered GC11-74 to GC11-79 (Westphal 2010, 2011, 2012). Two Great Quest holes reported significant intercepts from depths < 90 m.

6.7.8. Spokane

The Spokane prospect has been a target of exploration since 1956, with at least six different companies completing drilling (Figure 9-5). Records of this historical work vary in quality, and Amarc has applied a 'best efforts basis' in reporting and assessing the historical drill hole data from this prospect. Table 6-18 lists key drill hole information for the Spokane historical drilling. Significant assay intervals from Spokane are shown in Table 6-21.

In 1956, Canex Aerial Exploration Ltd. ("CANEX") drilled a total of 69.5 m in three shallow, small diameter core holes; all of these reported intercepts of significant mineralization near surface, including 22.86 m from 0.0 m of 1.84% CuEQ at 1.39% Cu, 686 ppb (0.69 g/t) Au and 12 g/t Ag in hole 56-2. Phelps Dodge completed a program in 1963, drilling two EX size (2.3 cm diameter) core holes, with PDS-1 recording 48.76 m from 5.49 m of 1.69% Cu, with no assay results for Au, Ag or Mo reported.

In 1969, Scurry drilled a total of eight holes but no record of these results has been located. An unknown company drilled two holes in 1987 but did not file assessment work and Amarc has not been able to recover information on these holes, other than their collar locations from a later drill-plan map. The lengths of the 1969 and 1987 holes are unknown and were arbitrarily assigned a length of 1 m in the Amarc database.

Canmark International Resources ("Canmark") completed two drill campaigns at Spokane in 1989 (a single 8.7 m hole) and 1993 (for 701.95 m), with no significant mineralization encountered (DiSpirito and Coffin, 1989; Osborne, 1994). Galore Resources drilled a single hole in 2008 (08TSK-12) for 154.9 m that returned 21 m from 21.00 m grading 1.92% CuEQ at 1.63% Cu, 301 ppb (0.3 g/t) Au 0,004% Mo and 17.4 g/t Ag.

Table 6-18: Spokane Historical Drill Hole Coordinates and Orientations[1].

Year	Operator	Drill Hole	Easting-X (m)	Northing-Y (m)	Elevation-Z (m)	Length (m)[2]	Azimuth (°)	Dip (°)
1956	CANEX	56-1	468,362	5,659,532	2,140	37.19	90	-45
1956	CANEX	56-2	468,397	5,659,524	2,130	22.86	90	-45
1956	CANEX	56-3	468,389	5,659,550	2,130	9.45	90	-45
1963	Phelps Dodge	PDS-1	468,400	5,659,520	2,140	54.25	90	-45
1963	Phelps Dodge	PDS-2	468,400	5,659,520	2,140	60.96	90	-45
1969	Scurry	A-1	468,492	5,659,538	2,140	1.00	0	-90
1969	Scurry	A-2	468,446	5,659,549	2,140	1.00	0	-90
1969	Scurry	A-3	468,352	5,659,544	2,140	1.00	0	-90
1969	Scurry	X-5	468,400	5,659,555	2,140	1.00	0	-90
1969	Scurry	X-6	468,397	5,659,549	2,140	1.00	0	-90
1969	Scurry	X-7	468,440	5,659,547	2,140	1.00	0	-90
1987	Unknown	87-1	468,443	5,659,535	2,140	1.00	0	-90
1987	Unknown	87-2	468,410	5,659,536	2,140	1.00	0	-90
1989	Canmark	S89-1	468,354	5,659,535	2,145	8.70	90	-45
1993	Canmark	93-1	468,545	5,660,088	2,140	192.63	0	-90
1993	Canmark	93-2	468,510	5,659,974	2,140	187.45	0	-90
1993	Canmark	93-3	468,334	5,659,877	2,140	127.71	0	-90
1993	Canmark	93-4	468,835	5,660,078	2,140	194.16	0	-90
2008	Galore Resources	08TSK-12	468,310	5,659,528	2,144	154.90	90	-57

1. Coordinates are UTM NAD83, Zone 10, azimuths and dips are at collar.
2. Lengths of the 1969 Scurry and 1987 unknown operator holes are unknown. Amarc applied an arbitrary total hole length of 1 m.

6.7.9. Syndicate

At Syndicate, drilling may have been completed in 1970 and 1991 however Amarc was unable to locate any information on these holes in historical documents (Figure 9-5). The only recorded drilling, for which Amarc can locate information is that completed at Syndicate by Galore, Resources, who completed 2 inclined holes with a total meterage of 480.40 m in 2008. These holes reached a maximum vertical depth below surface of approximately 160 m. Drill hole 08TK-09 returned a 43.50 m interval from 47.30 m grading 0.35% CuEQ at 0.17% Cu, 66 ppb (0.07 g/t) Au 0.039% Mo, and 0.5 g/t Ag, and drill hole 08TSK11 contained two 18.00 m intercepts from 77.00 m grading 0.56% CuEQ at 0.36% Cu, 160 ppb (0.16 g/t) Au, 0.025% Mo, and 2.5 g/t Ag from 183.50 m grading 0.98% CuEQ at 0.54% Cu, 607 ppb (0.61 g/t) Au, 0.012% Mo, and 9.3 g/t Ag respectively.

Table 6-19 lists key drill hole information for the Syndicate historical drilling. Significant assay intervals from the Syndicate are shown in Table 6-21.

Table 6-19: Syndicate Historical Drill Hole Coordinates and Orientations[1].

Year	Operator	Drill Hole	Easting-X (m)	Northing-Y (m)	Elevation-Z (m)	Length (m)	Azimuth (°)	Dip (°)
2008	Galore Resources	08TSK-09	470,186	5,660,397	2,115	203.60	0	-50
2008	Galore Resources	08TSK-11	470,199	5,660,375	2,115	276.80	245	-55

1. Coordinates are UTM NAD83, Zone 10, azimuths and dips are at collar.

6.7.10. Taylor Windfall

Six successful short holes were drilled in 1934 that resulted in the driving of an adit and five years of underground development at Taylor Windfall on Au veins (Hajek, 2007) (Figures 6-2; 9-17 and 9-18; note that these holes are not depicted on other GECAP figures). Mining resumed after World War II, and two diamond drill holes were completed but they were not encouraging (Hajek, 2007). Lack of documentation on the pre-1950 historical drilling and that by Westmin Resources Ltd. ("Westmin") in 1984 (holes 84-01 and 84-02) precluded their addition to the Amarc database or inclusion in drill hole summaries in this report.

Scurry drilled a 133.8 m long hole numbered A-5, at Taylor Windfall in 1969 as part of a regional program. It has a significant 3.05 m intercept from 57.91 m grading 10,970 ppb (10.97 g/t) Au and 138 g/t Ag with relatively low Cu and Mo concentrations. Assays for this hole are from a Westpine compilation (Lambert, 1991), however, information on the six Westmin 1984 holes is lacking. Holes 84-03 through 84-06 were drilled in the vicinity of the underground workings, possibly to test for extensions of the Au vein system. This program drilled a total of 737.17 m but few details exist for these holes and it is not known if they were assayed. Hole 84-04 is described as lost (Hajek, 2007). Westmin drilled holes 85-1 and 85-2 in 1985 (Lane, 1986). Hole 85-1 drilled in the vicinity of hole A-5 and hole 85-2 encountered only low levels of Au, Ag, Cu and Mo mineralization.

Table 6-20 lists key drill hole information for the Taylor Windfall holes in the Amarc database. The significant assay interval for Taylor Windfall hole A-5 is in Table 6-21.

Table 6-20: Taylor-Windfall Historical Drill Hole Coordinates and Orientations[1].

Year	Operator	Drill Hole	Easting-X (m)	Northing-Y (m)	Elevation-Z (m)	Length (m)	Azimuth (°)	Dip (°)
1969	Scurry	A-5	475,254	5,661,601	1,633	133.81	0	-90
1984	Westmin	84-03	475,641	5,662,018	2,200	90.00	0	-45
1984	Westmin	84-04	475,642	5,661,926	2,100	95.70	0	-45
1984	Westmin	84-05	475,642	5,661,934	2,100	150.00	0	-45
1984	Westmin	84-06	475,641	5,661,867	2,050	120.00	0	-45
1985	Westmin	85-1	475,254	5,661,660	1,634	136.39	160	-46
1985	Westmin	85-2	475,444	5,661,708	1,648	145.08	180	-47

1. Coordinates are UTM NAD83, Zone 10, azimuths and dips are at collar.

Significant assay intervals from the historical drilling at the Empress deposit and the Empress East, Empress Gap, Granite, Buzzer, Spokane, Syndicate and Taylor Windfall are shown in Table 6-21. These results have been assessed and intervals of ≥ 0.30% CuEQ are shaded in orange, and those intervals with ≥ 0.50% CuEQ are shown with a red background. These colours illustrate the higher-grade intercepts from the historical drilling. See footnotes to Table 6-21 for descriptions and assumptions in respect to the calculation of CuEQ% in column 10 below.

Table 6-21: Significant Historical GECAP Drill Intercepts[1], Including Empress, Empress East, Empress Gap, Empress West, Granite, Buzzer, Spokane, Syndicate and Taylor Windfall. The CuEQ is Based on Conceptual Metallurgical Recoveries from Other Porphyry Cu Deposits.

Year	Drill Holes	From (m)	To (m)	Int. (m)[1,2]	Cu (%)	Mo (%)	Ag (g/t)	Au (ppb)	CuEQ[3,4] (%)
Buzzer									
1965	DDH-1†	37.49	99.06	61.57	0.17	0.013	-	-	0.21
	DDH-2†	13.72	94.49	80.77	0.24	0.020	-	-	0.31
	DDH-3†	21.34	120.40	99.06	0.43	0.042	-	-	0.58
	DDH-4†	14.63	113.39	98.76	0.37	0.037	-	-	0.50
	DDH-5†	64.01	124.97	60.96	0.37	0.028	-	-	0.47
1969	A-4	5.49	73.76	68.27	0.33	0.019	5.8	172	0.53
	and	88.39	100.63	12.24	0.28	0.004	4.5	43	0.35
	and	111.25	137.46	26.21	0.18	0.002	6.5	211	0.35
	X-1	0.00	5.94	5.94	0.15	0.013	5.8	237	0.36
	and	9.45	42.52	33.07	0.26	0.042	3.4	175	0.53
	Incl.	24.69	40.84	16.15	0.40	0.064	5.0	268	0.81
	X-2	0.00	26.21	26.21	0.33	0.016	7.1	144	0.51
	X-3	0.00	44.20	44.20	0.67	0.046	5.3	496	1.14
	Incl.	10.67	38.10	27.43	0.86	0.059	6.6	724	1.51
	X-4	2.44	31.09	28.65	0.38	0.036	8.3	91	0.61
	Incl.	9.14	22.86	13.72	0.54	0.039	11.0	190	0.86
1970	S-12‡	21.34	54.86	33.52	0.42	0.032	-	-	0.54
	Incl.	21.34	36.58	15.24	0.55	0.037	-	-	0.69
	S-14-2‡	18.29	24.38	6.09	0.37	0.115	-	-	0.78
	S-16‡	51.82	60.96	9.14	0.23	0.005	-	-	0.25
2011	GC11-74	11.37	52.20	40.83	0.28	0.012	1.8	210	0.44
	Incl.	15.00	27.00	12.00	0.41	0.021	2.6	281	0.66
	GC11-75	14.10	27.00	12.90	0.18	0.007	1.5	150	0.30
	and	36.00	55.00	19.00	0.13	0.021	0.7	73	0.25
	and	72.00	87.00	15.00	0.19	0.005	0.9	116	0.27
Empress									
1969	X-8	0.76	10.36	9.60	0.26	-	-	-	0.26
1970	S-4‡	24.38	30.48	6.10	0.24	0.008	-	-	0.27
	and	48.77	60.96	12.19	0.28	0.010	-	-	0.31
	S-9‡	27.43	60.96	33.53	0.39	0.008	-	-	0.42
	Incl.	30.48	39.62	9.14	0.49	0.015	-	-	0.55
	S-10‡	30.48	36.58	6.10	0.32	0.007	-	-	0.34
	and	42.67	60.96	18.29	0.38	0.031	-	-	0.50
1976	76-1	4.88	11.58	6.70	0.31	-	-	302	0.48

Year	Drill Holes	From (m)	To (m)	Int. (m)[1,2]	Cu (%)	Mo (%)	Ag (g/t)	Au (ppb)	CuEQ[3, 4] (%)
	and	20.73	29.87	9.14	0.16	-	-	194	0.27
	and	44.50	60.20	15.70	0.64	-	-	606	0.97
	and	78.03	87.78	9.75	0.18	-	-	238	0.31
	and	96.93	109.12	12.19	0.13	-	-	165	0.22
	and	136.55	142.65	6.10	0.22	-	-	69	0.26
1976	76-2	51.21	114.91	63.70	0.37	-	0.1	492	0.64
	Incl.	60.35	72.39	12.04	0.51	-	-	442	0.76
	Incl.	103.02	114.91	11.89	0.75	-	0.4	721	1.15
	and	139.60	185.32	45.72	0.42	-	0.6	350	0.61
	Incl.	139.60	157.86	18.26	0.39	-	1.1	941	0.91
	Incl.	173.13	185.32	12.19	0.73	-	-	10	0.74
	and	209.40	215.80	6.40	0.74	-	-	758	1.15
	76-3	5.21	17.68	12.47	0.23	-	1.6	162	0.33
	and	26.82	102.87	76.05	0.92	-	4.7	1,418	1.72
	Incl.	26.82	37.64	10.82	0.49	-	2.3	4,244	2.81
	Incl.	42.67	74.37	31.70	1.11	-	4.5	1,388	1.89
	76-4	59.74	68.88	9.14	0.26	-	0.4	263	0.41
	and	90.40	115.21	24.81	0.24	-	0.4	407	0.46
	Incl.	93.45	101.80	8.35	0.42	-	1.0	898	0.91
	76-5	57.30	66.45	9.15	0.23	-	-	226	0.35
	and	82.60	96.93	14.33	0.26	-	-	229	0.39
	and	105.16	114.60	9.44	0.25	-	-	88	0.29
	Q-7	54.86	76.20	21.34	0.48	0.003	-	-	0.49
1988	88-1	28.96	35.05	6.09	0.32	0.002	0.7	260	0.47
	88-2	7.32	50.29	42.97	0.36	0.005	1.3	326	0.57
	Incl.	13.41	29.87	16.46	0.62	0.002	2.3	579	0.95
	88-3	7.62	16.15	8.53	0.29	0.001	0.5	292	0.46
	and	28.35	34.44	6.09	0.20	0.005	0.4	161	0.31
	88-4	11.13	22.56	11.43	0.22	0.008	0.7	183	0.36
	88-5	7.32	22.25	14.93	0.15	0.003	0.5	173	0.26
	and	29.57	74.37	44.80	0.35	0.002	1.2	232	0.49
	Incl.	29.57	44.50	14.93	0.60	0.003	2.3	293	0.78
	88-6	9.14	33.38	24.24	0.28	0.003	1.2	232	0.43
	Incl.	13.41	22.86	9.45	0.48	0.005	2.6	337	0.70
	and	43.89	61.57	17.68	0.18	0.003	0.7	234	0.33
	88-7	17.68	69.49	51.81	0.47	0.002	2.4	457	0.74
	Incl.	48.46	64.62	16.16	0.98	0.001	5.7	741	1.43

Year	Drill Holes	From (m)	To (m)	Int. (m)[1,2]	Cu (%)	Mo (%)	Ag (g/t)	Au (ppb)	CuEQ[3, 4] (%)
1989	89-1	81.99	91.14	9.15	0.17	0.001	0.7	357	0.37
	89-2	21.64	123.75	102.11	0.36	0.001	2.7	361	0.58
	Incl.	26.52	37.03	10.51	0.31	0.003	3.2	754	0.75
	Incl.	60.66	78.94	18.28	0.72	0.001	3.8	573	1.06
	Incl.	99.06	117.96	18.90	0.49	0.001	4.2	470	0.78
	89-3	5.94	49.07	43.13	0.20	0.002	1.0	401	0.43
	Incl.	5.94	13.41	7.47	0.48	0.001	3.8	960	1.04
	and	72.54	93.57	21.03	0.19	0.002	0.3	232	0.32
	and	99.67	109.12	9.45	0.17	0.004	0.5	259	0.33
1989	89-4	105.16	131.06	25.90	0.21	0.001	0.9	195	0.33
	89-5	19.81	32.31	12.50	0.27	0.003	0.5	338	0.47
	and	42.98	72.85	29.87	0.22	0.003	0.6	109	0.29
	89-6	19.51	25.91	6.40	0.46	0.001	0.4	74	0.50
	89-8	9.14	115.52	106.38	0.35	0.003	1.5	359	0.56
	Incl.	78.03	99.67	21.64	0.69	0.003	2.8	913	1.21
	89-9	30.78	49.07	18.29	0.25	0.008	0.5	251	0.42
	and	57.30	129.84	72.54	0.25	0.003	0.9	271	0.41
	Incl.	60.35	74.68	14.33	0.39	0.009	1.4	478	0.69
	89-10	88.70	133.20	44.50	0.32	0.002	1.5	365	0.54
	Incl.	92.35	114.60	22.25	0.43	0.003	2.4	522	0.74
	89-11	41.76	79.71	37.95	0.25	0.004	1.1	277	0.42
	Incl.	56.39	62.48	6.09	0.41	0.003	2.1	378	0.64
	Incl.	71.02	78.33	7.31	0.35	0.002	1.8	465	0.62
	89-12	22.56	45.72	23.16	0.25	0.002	1.1	262	0.41
	and	82.60	108.51	25.91	0.22	0.001	0.7	251	0.37
	and	148.44	217.63	69.19	0.58	0.002	1.9	426	0.83
	Incl.	163.68	174.04	10.36	1.46	0.004	5.5	1,172	2.15
	Incl.	198.73	215.49	16.76	0.66	0.001	2.9	516	0.97
1990	90-17	107.59	113.39	5.80	0.55	0.010	1.6	446	0.84
	and	143.87	200.25	56.38	1.38	0.009	4.1	1,666	2.35
	90-18	22.56	29.26	6.70	0.15	0.008	0.7	300	0.35
	and	35.05	40.54	5.49	0.15	0.006	0.3	523	0.46
	and	47.85	74.37	26.52	0.47	0.010	3.2	683	0.90
	and	79.86	92.66	12.80	0.15	0.003	0.4	254	0.31
	and	106.98	161.85	54.87	0.78	0.004	1.0	746	1.20
	90-19	44.81	53.34	8.53	0.22	0.002	0.4	146	0.30
	and	58.83	69.80	10.97	0.19	0.002	0.4	232	0.32

Year	Drill Holes	From (m)	To (m)	Int. (m)[1,2]	Cu (%)	Mo (%)	Ag (g/t)	Au (ppb)	CuEQ[3, 4] (%)
	and	80.77	94.79	14.02	0.32	0.003	0.7	372	0.53
	90-20	20.12	31.09	10.97	0.39	0.007	1.5	308	0.60
	and	43.89	52.43	8.54	0.38	0.002	0.9	372	0.60
	and	74.68	87.48	12.80	0.25	0.005	0.7	206	0.38
	and	96.35	105.46	9.11	0.44	0.005	0.7	353	0.65
	and	168.86	206.96	38.10	0.33	0.005	0.5	310	0.52
	90-21	10.36	19.51	9.15	0.31	0.011	0.5	336	0.53
	and	140.51	192.94	52.43	1.10	0.004	2.5	1,209	1.79
	Incl.	153.31	175.26	21.95	1.58	0.006	2.6	1,671	2.52
	Incl.	182.58	191.11	8.53	1.92	0.006	7.8	2,735	3.48
	and	198.42	218.85	20.43	0.30	0.002	1.3	542	0.61
	90-22	143.87	190.20	46.33	1.15	0.009	4.2	1,415	1.98
	90-23	135.33	187.76	52.43	0.29	0.003	0.8	288	0.46
1990	Incl.	153.62	171.30	17.68	0.45	0.003	1.4	455	0.72
	90-24	96.32	101.80	5.48	0.17	0.013	0.2	137	0.29
	and	111.56	120.55	8.99	0.17	0.003	0.2	101	0.24
	and	126.19	144.02	17.83	0.26	0.009	0.2	729	0.69
	and	159.11	182.27	23.16	0.67	0.021	1.8	920	1.26
	Incl.	168.86	182.27	13.41	1.01	0.008	2.9	1,401	1.82
	90-25	106.98	123.44	16.46	0.28	0.001	0.4	223	0.40
	90-26	48.77	79.55	30.78	0.41	0.005	1.2	316	0.60
	90-28	18.44	46.02	27.58	0.24	0.006	0.6	251	0.40
	and	69.80	75.29	5.49	0.37	0.003	1.8	600	0.72
	and	90.83	103.02	12.19	0.44	0.005	2.3	548	0.77
	90-29	94.18	110.64	16.46	0.43	0.003	1.3	171	0.55
	and	141.73	214.58	72.85	0.37	0.003	0.6	433	0.62
	Incl.	178.31	194.77	16.46	0.86	0.003	1.5	1,069	1.46
	90-30	11.89	31.70	19.81	0.26	0.006	0.8	368	0.48
	and	64.01	69.49	5.48	0.38	0.003	2.4	243	0.53
	and	94.49	103.63	9.14	0.25	0.002	0.7	118	0.32
	and	146.00	208.48	62.48	0.46	0.004	1.1	658	0.84
	Incl.	192.02	208.48	16.46	0.67	0.008	2.2	926	1.22
	90-31	89.92	99.06	9.14	0.20	0.002	0.3	266	0.36
	and	171.60	192.02	20.42	0.30	0.002	0.7	255	0.45
	90-32	121.92	138.38	16.46	0.43	0.008	1.8	492	0.74
	90-33	138.07	146.00	7.93	0.32	0.030	1.2	314	0.61
1991	91-36	25.30	68.58	43.28	0.24	0.002	0.4	296	0.41

Year	Drill Holes	From (m)	To (m)	Int. (m)[1,2]	Cu (%)	Mo (%)	Ag (g/t)	Au (ppb)	CuEQ[3, 4] (%)
	Incl.	27.13	35.97	8.84	0.51	0.001	0.9	391	0.74
	and	114.30	134.42	20.12	0.23	0.001	0.3	270	0.38
	91-37	136.86	147.52	10.66	0.34	0.006	0.6	276	0.51
	91-44	130.76	136.25	5.49	0.22	0.002	0.9	183	0.33
	and	150.57	161.54	10.97	0.18	0.001	0.4	135	0.26
	91-48	81.99	125.88	43.89	0.25	0.001	0.7	184	0.35
	and	155.14	182.58	27.44	0.40	0.000	1.0	137	0.48
2007	07-62	144.20	151.50	7.30	0.71	0.003	3.0	810	1.18
	and	164.30	181.70	17.40	0.26	0.007	1.9	233	0.43
2008	08-67	100.23	110.00	9.77	1.03	0.012	6.6	692	1.50
	08-68	113.00	123.00	10.00	0.38	0.001	1.0	234	0.52
	and	171.00	186.84	15.84	0.35	0.001	1.0	246	0.49
	08-71	20.36	28.00	7.64	0.25	0.004	1.2	183	0.37
	and	85.85	106.00	20.15	0.45	0.001	2.0	339	0.65
	08-72	18.00	24.00	6.00	0.14	0.002	0.9	157	0.24
	and	33.50	49.65	16.15	0.24	0.002	1.6	249	0.40
	and	59.43	84.73	25.30	0.17	0.002	0.9	193	0.28
	and	122.00	168.58	46.58	0.23	0.003	0.5	168	0.33
Empress East									
1970	S-1‡	30.48	36.58	6.10	0.45	0.001	-	-	0.45
1976	Q-33‡	18.29	24.38	6.09	0.32	0.001	-	-	0.32
1991	91-38	8.23	26.52	18.29	0.19	0.001	0.7	402	0.42
	and	56.69	67.67	10.98	0.14	0.000	0.2	202	0.26
	and	118.26	131.06	12.80	0.17	0.000	0.7	190	0.28
	91-39	9.75	37.80	28.05	0.34	0.002	1.2	543	0.66
	and	83.52	90.83	7.31	0.15	0.001	0.4	162	0.24
	and	107.59	147.52	39.93	0.40	0.004	0.8	332	0.60
	Incl.	141.43	147.52	6.09	1.23	0.009	2.2	928	1.78
	and	177.39	203.91	26.52	0.19	0.000	0.4	132	0.27
	91-54	73.15	85.04	11.89	0.31	0.001	0.7	221	0.44
	and	108.20	158.19	49.99	0.46	0.002	1.0	304	0.64
	and	180.44	187.76	7.32	0.23	0.000	0.7	30	0.25
	91-55	6.10	31.09	24.99	0.17	0.002	0.9	95	0.24
	and	37.49	43.28	5.79	0.25	0.002	0.7	87	0.31
	and	46.68	60.66	13.98	0.43	0.004	1.1	104	0.51
Empress Gap									
1991	91-41	82.30	109.73	27.43	0.18	0.001	0.7	138	0.26

Year	Drill Holes	From (m)	To (m)	Int. (m)[1,2]	Cu (%)	Mo (%)	Ag (g/t)	Au (ppb)	CuEQ[3, 4] (%)
	and	118.87	128.02	9.15	0.41	0.001	1.6	160	0.51
1993	93-56	21.34	38.10	16.76	0.21	-	0.5	148	0.29
Empress West									
1991	91-47	73.15	81.08	7.93	0.22	0.039	0.4	104	0.42
	and	138.38	143.87	5.49	0.31	0.016	0.6	80	0.42
Granite									
1991	91-43	78.33	85.65	7.32	0.16	0.019	0.6	58	0.26
	and	183.18	201.47	18.29	0.12	0.007	0.3	157	0.24
	and	227.38	243.84	16.46	0.21	0.003	0.8	472	0.49
	91-49	95.71	119.48	23.77	0.06	0.044	0.2	113	0.28
	and	183.18	275.23	92.05	0.22	0.008	0.4	232	0.38
2007	07-58	177.70	190.50	12.80	0.19	0.007	0.1	410	0.44
	07-60	273.50	288.40	14.90	0.19	0.002	0.4	370	0.40
2008	08-66	114.00	126.00	12.00	0.17	0.006	0.9	100	0.26
Spokane									
1956	56-1†	0.00	12.19	12.19	1.23	-	7.7	172	1.38
	and	29.96	35.05	5.09	2.03	-	9.1	2,289	3.34
	56-2†	0.00	22.86	22.86	1.39	-	12.0	686	1.84
	56-3	3.66	7.92	4.26	2.46	-	17.6	7,546	6.68
1963	PDS-1†	5.49	54.25	48.76	1.69	-	-	-	1.69
	PDS-2†	0.61	12.19	11.58	1.13	-	-	-	1.13
	and	32.00	60.96	28.96	0.75	-	-	-	0.75
2008	08TSK-12	20.70	41.70	21.00	1.63	0.004	17.4	301	1.92
Syndicate									
2008	08TSK-09	47.30	90.80	43.50	0.17	0.039	0.5	66	0.35
	08TSK-11	77.00	95.00	18.00	0.36	0.025	2.5	160	0.56
	and	183.50	201.50	18.00	0.54	0.012	9.3	607	0.98
Taylor Windfall									
1969	A-5	57.91	60.96	3.05	0.01	0.002	138.0	10,970	6.89

1 The following drill holes have no significant interval

a. Buzzer percussion holes: S-11, S-13, S-14-1, S-15, S-17, S-18 and S-54 to S-56;
b. Buzzer core holes: 89-14, 89-15 and GC11-76 to GC11-79
c. Empress percussion holes: S-3, S-5 to S-8, S-30, S-38 to S-42 and S-52, Q-4 to Q-6, Q-8, Q-11, Q-13 to Q-15 and Q-37 to Q-39;
d. Empress core holes: 76-2B, 76-6, 89-7, 89-16, 90-27, 90-34, 90-35, 91-45, 07-61, 07-63 and 08-73;
e. Empress East percussion holes: S-2, S-19, S-20, S-53, S-53A, Q-1 to Q-3, Q-21, Q-23 to Q-32, Q-34 and Q-35;
f. Empress East core holes: 89-13, 91-40, 91-51 to 91-53, 93-57 and 08-70;
g. Empress East core drill hole assays not located in the historical records: A-6 and A-7;
h. Empress East core hole not sampled: 08-69;
i. Empress Gap percussion holes: S-58 to S-60, Q-9, Q-10, Q-12, Q-18 to Q-20, Q-22 and Q-36;
j. Empress Gap core holes: 76-7 and 76-8;

k. Empress West percussion holes: S-27 to S-29, S-31A, S-31B, S-32 to S-37, S-43 to S-51 and S-57;
l. Empress West core holes: 91-46, 91-50, 07-04SP and 07-05SP;
m. Granite percussion holes: Q-16 and Q-17;
n. Granite core holes: 07-59, 08-64 and 08-65;
o. Granite core hole not sampled: 91-42;
p. Spokane core holes: 93-1 to 93-4;
q. Spokane core drill hole assays not located in the historical records: A-1 to A-3, X-5 to X-7, 87-1, 87-2 and S89-1.
r. Taylor Windfall core holes: 85-1 and 85-2;
s. Taylor Windfall core drill hole assays not located in the historical records: 84-03 to 84-06.

2 Widths reported are drill widths, such that the thicknesses are unknown.
All assay intervals represent length-weighted averages.
(-) means not assayed for.

3 The estimated metallurgical recoveries for Cu equivalent (CuEQ) are conceptual in nature. There is no guarantee that the metallurgical testing required to determine metal recoveries will be done or, if done, the metallurgical recoveries could be at the level of the conceptual recoveries used to determine the CuEQ.

4 CuEQ calculations use metal prices of: Cu US$3.00/lb, Mo US$12.00/lb, Ag US$18.00/oz and Au US$1,400.00/oz and conceptual recoveries of: Cu 90%, Au 72%, Ag 67% and Mo 82%. Conversion of metals to an equivalent copper grade based on these metal prices is relative to the Cu price per unit mass factored by predicted recoveries for those metals normalized to the Cu recovery. The metal equivalencies for each metal are added to the Cu grade. The general formula for this is: CuEq % = Cu% + (Au g/t * (Au recovery / Cu recovery) * (Au US$ per oz/ 31.1034768) / (Cu US$ per lb * 22.04623)) + (Ag g/t * (Ag recovery / Cu recovery) * (Ag US$ per oz/ 31.1034768) / (Cu US$ per lb * 22.04623)) + (Mo % * (Mo recovery / Cu recovery) * (Mo US$ per lb / Cu US$ per lb)).

‡ Percussion drill hole.

† Assay interval from historically reported composite. Individual assay results are unknown.

6.8. *IKE District Exploration History*

The IKE Project also hosts several exploration targets outside of the IKE porphyry and GECAP areas and within the IKE district. These are stand-alone deposit targets in their own right, hosting porphyry and epithermal style mineralization with potential for future discoveries, and include Rowbottom, Mad Major-OMG, Battlement and Hub (Figure 7-1). Each has received varying levels of historical exploration activity from basic soil and talus fines sampling, regional geophysics surveying, through to initial drilling.

Table 6-22 lists key drill hole information for the IKE district holes in the Amarc database. Note that Amarc has used drill hole names modified from those of historical workers as listed in Table 6-23. Each IKE district target is summarized below, with any significant intercepts from historical drilling shown in Table 6-24.

Table 6-22: Summary of Historical IKE District Drilling at Rowbottom, Mad Major, Battlement and Hub by Operator and Year.

Area	Operator	Year	Hole ID	No. of Holes	Core Size	Total (m)	Avg (m)
Rowbottom	Sumitomo	1970	S-20 to S-26, S-61 to S-64	11	Percussion	716.28	65
Battlement	ESSO	1986	86-2 to 86-3	2	NQ	435.66	218
	Westmin	1987	T87CH-1	1	HQ/NQ	249.02	249
	Galore Resources	2007	07-01BA to 07-03BA	4	NQ	347.56	87
Other			07-06FO	1		296.57	297
Hub		2008	08TSK-01 to -08	7	HQ/NQ	1,828.2	261
Mad Major			08TSK-10	1		250.00	250
Hub		2009	09TSK-13, 09TSK-14	2	Unknown	797.20	399
TOTALS		**6 Years**		**29**	**4,920.49**		**170**

Table 6-23: List of Historical Drill Holes at Rowbottom, Mad Major, Battlement and Hub with Current Drill Hole Name.

Current Name	Historical Name	Current Name	Historical Name	Current Name	Historical Name	Current Name	Historical Name
68-1	DDH 1	68-5	DDH 5	S-23	PDH S-23	S-61	PDH S-61
68-2	DDH 2	S-20	PDH S-20	S-24	PDH S-24	S-62	PDH S-62
68-3	DDH 3	S-21	PDH S-21	S-25	PDH S-25	S-63	PDH S-63
68-4	DDH 4	S-22	PDH S-22	S-26	PDH S-26	S-64	PDH S-64

Table 6-24: Significant Historical Battlement, Hub, Mad Major, Rowbottom, Drill Intercepts[1]. The CuEQ is Based on Conceptual Metallurgical Recoveries from Other Porphyry Cu Deposits.

Year	Drill Holes	From (m)	To (m)	Int. (m)[2]	Cu (%)	Mo (%)	Ag (g/t)[3]	Au (ppb)[3]	CuEQ (%)[4,5]
Battlement									
1986	86-2	134.20	166.92	32.72	0.33	0.001	1.2	25	0.36
	and	181.00	205.00	24.00	0.11	0.001	91.8	2	0.72
2007	07-03BA	100.39	121.09	20.70	0.18	0.001	20.9	17	0.33
	Incl.	114.99	121.09	6.10	0.24	0.001	41.0	20	0.52
Hub									
2008	08TSK-03	16.30	23.70	7.40	0.18	0.006	0.5	52	0.23
	and	100.00	131.90	31.90	0.22	0.013	0.9	45	0.30
	and	139.60	147.20	7.60	0.15	0.025	0.5	10	0.25
	and	290.50	296.50	6.00	0.16	0.017	0.7	11	0.23
	08TSK-04	150.20	157.90	7.70	0.22	0.012	0.6	16	0.28
	08TSK-06	44.30	49.30	5.00	0.21	0.022	0.9	130	0.37
	and	77.30	84.30	7.00	0.20	0.021	0.6	23	0.29
	and	89.50	98.00	8.50	0.14	0.038	0.5	21	0.29
	and	106.00	174.80	68.80	0.20	0.009	0.7	70	0.28
	and	243.80	254.30	10.50	0.22	0.007	0.7	26	0.26
	08TSK-07	41.00	47.10	6.10	0.15	0.025	0.5	25	0.26
	08TSK-08	200.60	206.70	6.10	0.16	0.014	0.6	9	0.22
2009	09TSK-13	267.50	284.00	16.50	0.16	0.018	0.5	44	0.25
	09TSK-14	266.51	273.00	6.49	0.20	0.004	1.0	12	0.23
Mad Major									
2008	08TSK-10	125.00	137.00	12.00	0.23	0.015	1.2	4	0.29
	and	152.00	159.50	7.50	0.23	0.021	0.9	14	0.32
Rowbottom									
1970	S-20‡	15.24	36.58	21.34	0.22	0.008	-	-	0.25
	S-22‡	9.14	21.34	12.20	1.10	0.008	-	-	1.13
	and	39.62	60.96	21.34	0.26	0.004	-	-	0.27
	S-23‡	3.05	21.34	18.29	0.29	0.001	-	-	0.30

Year	Drill Holes	From (m)	To (m)	Int. (m)[2]	Cu (%)	Mo (%)	Ag (g/t)[3]	Au (ppb)[3]	CuEQ (%)[4,5]
	S-24‡	18.29	60.96	42.67	0.28	0.032	-	-	0.40
	S-62‡	21.34	27.43	6.09	0.53	0.083	-	-	0.84
	S-64‡	3.05	51.82	48.77	0.49	0.007	-	-	0.51
	and	60.96	91.44	30.48	0.23	0.005	-	-	0.25

1. The following Battlement core drill holes have no significant interval: 86-3, T87CH-1, 07-01BA, 07-01BA2m and 07-02BA. The following core drill hole drilled 14 km northwest of the Empress deposit has no significant interval: 07-06FO. The following Hub core drill holes have no significant interval: 08TSK-01 and 08TSK-02. Assay results for Mad Major drill holes 68-1 through 68-5 were not located in the historical records and are unknown. Drill hole 08TSK-05 in this sequence is not located inside the current property boundary. The following Rowbottom percussion drill holes have no significant interval: S-21, S-25, S-26, S-61and S-63.
2. Widths reported are drill widths, such that the thicknesses are unknown.
   All assay intervals represent length-weighted averages.
3. (-) means not assayed for.
4. The estimated metallurgical recoveries for the Cu equivalent (CuEQ) are conceptual in nature. There is no guarantee that the metallurgical testing required to determine metal recoveries will be done or, if done, the metallurgical recoveries could be at the level of the conceptual recoveries used to determine the CuEQ.
5. CuEQ calculations use metal prices of: Cu US$3.00/lb, Mo US$12.00/lb, Ag US$18.00/oz and Au US$1,400.00/oz and conceptual recoveries of: Cu 90%, Au 72%, Ag 67% and Mo 82%. Conversion of metals to an equivalent Cu grade based on these metal prices is relative to the Cu price per unit mass factored by predicted recoveries for those metals normalized to the Cu recovery. The metal equivalencies for each metal are added to the copper grade. The general formula for this is: CuEq % = Cu% + (Au g/t * (Au recovery / Cu recovery) * (Au US$ per oz/ 31.1034768) / (Cu US$ per lb* 22.04623)) + (Ag g/t * (Ag recovery / Cu recovery) * (Ag US$ per oz/ 31.1034768) / (Cu US$ per lb* 22.04623)) + (Mo % * (Mo recovery / Cu recovery) * (Mo US$ per lb / Cu US$ per lb)).

‡ Percussion drill hole.

† Assay interval from historically reported composite. Individual assay results are unknown.

6.8.1. Rowbottom

The Rowbottom area hosts bog iron deposits that were discovered in the late 1920's (Lambert, 1990) (Figure 7-1). In 1956, Canadian Explorations Ltd. ("Canadian Explorations") completed preliminary exploration on a mineralized shear zone in Rowbottom creek (Lambert, 1990).

Following up on the Canadian Explorations' results, Scurry in 1969 and Sumitomo (for Scurry) in 1970, explored the porphyry potential at Rowbottom. Cu mineralization was reported in a 125 m long trench and intermittently 1,800 m along the base of Rowbottom creek (Yokoyama, 1970 and Lambert, 1990). Coincident IP and Cu-Mo soils anomalies over some 900 m by 200 m, were in part drill tested with 11 short percussion holes totaling 716 m. Eight of these holes were mineralized, with some ending in mineralization. Highlights of this drilling include hole S-64, where a 48.77 m interval from 3.05 m ran 0.51% CuEQ at 0.47% Cu and 0.007% Mo and hole S-22 which returned 12.20 m from 9.14 m grading 1.13% CuEQ at 1.10% Cu and 0.008% Mo and 21.34 m from 39.62 m grading 0.27% CuEQ at 0.26% Cu and 0.004% Mo. (Table 6-24). The drill holes were assayed for Cu and Mo only. Drill hole co-ordinate and orientation information for these percussion holes is provided in Table 6-25.

In 1989, 40 soil and 18 rock samples were collected by Westpine to confirm historical sampling results; these returned up to 1,402 ppm Cu and 30 ppb Au (0.03 g/t Au) in soil, and up to > 2% Cu and 1,490 ppb (1.49 g/t) Au in rock grab samples coincident with a quartz-diorite intrusion (Lambert, 1990).

In 1995, Westpine established a 16 line-km IP grid, resampled core for petrographic work, and took 127 in-fill soil samples from the base of Rowbottom creek. All soils were anomalous for Cu, Au, Ag, Mo and Pb

(Lambert, 1995). The IP survey identified several IP chargeability anomalies with chargeability increasing significantly from the southern part of the grid towards the Rowbottom target area (Lambert, 1995).

Table 6-25 lists key drill hole information for the Rowbottom historical drilling, and significant assay intervals are shown in Table 6-24.

Table 6-25: Rowbottom Historical Drill Hole Coordinates and Orientations[1].

Year	Operator[2]	Drill Hole	Easting-X (m)	Northing-Y (m)	Elevation-Z (m)	Length (m)	Azimuth (°)	Dip (°)
1970	Sumitomo	S-20	471,683	5,658,923	1,719	60.96	0	-90
1970	Sumitomo	S-21	471,597	5,658,915	1,743	60.96	0	-90
1970	Sumitomo	S-22	471,417	5,658,913	1,807	60.96	0	-90
1970	Sumitomo	S-23	471,499	5,658,917	1,780	60.96	0	-90
1970	Sumitomo	S-24	471,599	5,659,038	1,743	60.96	0	-90
1970	Sumitomo	S-25	471,321	5,658,671	1,850	60.96	0	-90
1970	Sumitomo	S-26	471,323	5,658,793	1,823	60.96	0	-90
1970	Sumitomo	S-61	471,678	5,658,800	1,734	60.96	0	-90
1970	Sumitomo	S-62	471,411	5,659,036	1,812	60.96	0	-90
1970	Sumitomo	S-63	471,507	5,659,038	1,780	76.20	0	-90
1970	Sumitomo	S-64	471,513	5,658,973	1,780	91.44	0	-90

1. Coordinates are UTM NAD83, Zone 10, azimuths and dips are at collar.
2. Sumitomo only drilled percussion holes.

6.8.2. Mad Major-OMG

Mad Major-OMG is a Late Cretaceous to Paleocene porphyry Cu-Mo-Ag±Au target (Figure 7-1). The target area comprises 32 km^2 of gossanous ridgelines and highly anomalous concentrations of Cu and Mo in stream sediment samples from a BC Government sampling program.

A reconnaissance soil grid in the southern area, and on the southwest flanks, of Wilson Ridge (Figure 9-2), was completed by Phelps Dodge in 1963. This survey delineated a high contrast Cu and Mo anomaly over a 900 m by 500 m area, within which there are two highly anomalous zones (Agnew, 1964).

In 1968, ASARCO followed up with five percussion holes into the 1963 soils anomaly. Collar locations, surface traces and azimuths for these holes are reported by E & B Explorations Inc. ("E&B"), and Galore Resources (Howell and Livingstone, and 1981; Bartsch et al, 2009; Table 6-26). No other information for these holes, such as assay data, has been located.

Subsequent to the Phelps Dodge work in 1963 and 1968 the BC Government completed regional stream sediment sampling across the region and their 1979 survey showed anomalous Cu, Mo and W. This survey led to renewed interest in the area and, in 1980, E&B completed an extensive soil geochemical survey on the southwest side of Wilson Ridge, approximately 1 mile south of the ASARCO grid (and drilling) on the eastern bank of Griswold creek. This soil survey confirmed the presence of a large soil anomaly > 1,000 ppm Cu and 40 ppm Mo (BC GEM Summary; Howell and Livingston, 1981).

In 1991, Noranda Exploration ("Noranda") staked the WIL claim group over the same area as the historical ASARCO and E&B work (McCorquodale, 1991). Noranda completed a soil grid on the western slopes of Wilson Ridge, confirming the consistently high (> 400 ppm) Cu concentrations versus background over an area approximately 2 km^2 on Wilson Ridge (McCorquodale, 1991). Noranda also ran two reconnaissance soil lines on the western bank of the Taseko River which returned anomalous values for Cu (5 samples > 300 ppm with the highest being 490 ppm Cu).

In 2008, Galore Resources drilled one diamond drill hole (08TSK-10) at Mad Major within the 1963 Phelps Dodge/1991 Noranda soils anomaly. This hole intercepted rock with anomalous geochemistry down almost its entire cored length, with an intercept of 224.4 m from 6.1 m grading 0.12% Cu, 0.004 % Mo, 0.5 g/t Ag and 4.5 ppb (0.0045 g/t) Au (Bartsch et al, 2009). This anomalous geochemistry over such a sizable interval could suggest that the hole was collared in the periphery of a porphyry system. Table 6-26 lists key drill hole information for the Mad Major historical drilling, and significant assay intervals are shown in Table 6-24.

Table 6-26: Mad Major Historical Drill Hole Coordinates and Orientation[1].

Year	Operator	Drill Hole	Easting-X (m)	Northing-Y (m)	Elevation-Z (m)	Lengt h (m)[2]	Azimut h (°)	Dip (°)
1968	ASARCO	68-1	480,281	5,653,815	2,025	60.00	115	-45
1968	ASARCO	68-2	480,281	5,653,815	2,025	50.00	75	-45
1968	ASARCO	68-3	480,129	5,653,969	2,000	40.00	85	-45
1968	ASARCO	68-4	480,049	5,654,304	2,010	50.00	70	-45
1968	ASARCO	68-5	479,920	5,654,643	2,010	50.00	75	-45
200 8	Galore Resources	08TSK-10	480,281	5,653,815	2,025	250.00	0	-55

1. Coordinates are UTM NAD83, Zone 10, azimuths and dips are at collar.
2. Actual length of the ASARCO holes are unknown. These lengths are estimated by Amarc.

6.8.3. Battlement

In 1986, Esso drilled two diamond holes at Battlement under an option agreement with Westmin (Melnyk, 1987). The two NQ sized core holes were drilled for a total of 434.94 m, targeting the Lake Zone (86-03) and the Quartz Breccia Zone (86-02) (Table 6-27). The drill core is reported to be on-site at the old Esso camp locality (Melnyk, 1987). Hole 86-03 is reported to have intercepted an intensely silicified breccia, and an andesitic porphyritic breccia between 98 – 126 m down hole. Hole 86-02 cut lapilli tuffs and agglomerates with intense silicification increasing down hole. 86-02 intercepted a 13 m wide fault zone (not true width) separating the altered volcanics (above) from a massive pyrite bearing unit (below). This latter unit is reported as a vuggy and laminated chalcedonic silica-rich unit, with variable barite, kaolinite, and pyrite. Within the vuggy silica zones there is a notable increase in concentration in Ag, As, Sb and Cu, but without any corresponding increase in the Au concentration. Significant intercepts in hole 86-02 include 32.72 m from 134.20, with 0.36% CuEQ at 0.33% Cu, 0.001% Mo, 1.2 g/t Ag and 25 ppb (0.03 g/t) Au, and 24.00 m from 181.00 m, at 0.72% CuEQ with 0.12% Cu, 0.001% Mo, 91.8 g/t Ag and 2 ppb (0.002 g/t) Au (Table 6-24). The drill hole ends in silicified weakly pyritic conglomerate with ovoids of sphalerite; this unit recorded the highest Au concentrations of 51 ppb (0.05 g/t). The area to the south of hole 86-2 remains untested (Melnyk, 1987).

In 2007, Galore Resources drilled four diamond (NQ) holes at Battlement, totaling 346.81 m (Churchill and Koffyberg 2009). The initial two holes failed to penetrate the thick overburden and were lost around 45 m. The third hole (07-02BA) was targeting the area of previous drilling (86-02 above), however, the hole was abandoned around 80 m but did recover a moderate amount of core. Hole four (07-03BA) was drilled from the same collar as 07-02A with a steeper drill angle targeting the mineralized zone identified in Westmin 86-2, The 2007 holes encountered variably silicified volcanic and sedimentary rocks with silica replacement and brecciated zones (Churchill and Koffyberg, 2009); with hole 07-03BA intercepting with 20.70 m from 100.39 m at 0.33% CuEQ with 0.18% Cu, 0.001% Mo, 20.9 g/t Ag and 17 ppb (0.017 g/t) Au, including 6.10 m from 114.99 m at 0.52% CuEQ with 0.24% Cu, 0.001% Mo, 41 g/t Ag and 20 ppb (0.02 g/t) Au (Table 6-24). The 2007 drilling did not penetrate deeper than historical hole 86-02 (220 m), as such the Battlement target below this depth has not been drill tested.

Panteleyev (1996) has suggested (and further expanded by Lang, 2019; see Section 9) that given the wider structural setting with the Tchaikazan Fault, the advanced argillic alteration, and associate polymetallic epithermal vein mineralization at Taylor-Windfall could indicate Battlement is more akin to a lithocap environment above a porphyry centre.

Table 6-27 lists key drill hole information for the Battlement historical drilling, and significant assay intervals are shown in Table 6-24.

Table 6-27: Battlement Historical Drill Hole Coordinates and Orientations[1].

Year	Operator	Drill Hole	Easting-X (m)	Northing-Y (m)	Elevation-Z (m)	Length (m)	Azimuth (°)	Dip (°)
1986	ESSO	86-2	478,276	5,662,688	2,158	219.76	109.88	-60
1986	ESSO	86-3	477,944	5,662,806	2,158	215.90	0	-60
1987	Westmin	T87CH-1	477,015	5,663,093	1,980	249.02	0	-75
2007	Galore Resources	07-01BA	479,011	5,663,504	2,144	45.00	180	-70
2007	Galore Resources	07-01BA2	479,011	5,663,504	2,144	45.75	180	-70
2007	Galore Resources	07-02BA	478,194	5,662,761	2,144	80.82	180	-65
2007	Galore Resources	07-03BA	478,194	5,662,761	2,144	175.99	180	-80

1. Coordinates are UTM NAD83, Zone 10, azimuths and dips are at collar.

6.8.4. Hub

The HUB target lies in the northwestern sector of the IKE Project, 25 km northwest of the IKE deposit. Exploration in this area began around 1945 with the discovery of Au and Ag quartz lodes in bedrock. Low grade Cu-Mo mineralization was discovered in bedrock by Falconbridge Mining Ltd. in 1967. This was followed-up in 1971 by Rio Tinto Canada Exploration Inc. ("Rio") which defined a 400 x 1600 m area. Rio drilled 7 holes but did not file for assessment work, thus a record of actual results has not been located (Troup and Peterson, 1971; Hawkins, 1981). Surficial work continued at various times through the 1980's and 1990's, but the site was not drilled again until 2008 when Galore Resources completed 7 NQ sized diamond drill holes to the northwest for a total metreage of 1,831.30 m. Galore Resources returned in 2009 to complete a further two NQ holes totaling 797.20 m (Bartsch et al. 2009). Low grade mineralization was intercepted across most holes, with hole 08TSK-06 intersecting 68.8 m from 106.00 m grading 0.28% CuEQ at 0.20% Cu, 0.009% Mo, 0.7 g/t Ag and 70 ppb (0.07 g/t) Au.

Table 6-28 lists key drill hole information for the Hub historical drilling, and significant assay intervals are shown in Table 6-24.

Table 6-28: Hub Historical Drill Hole Coordinates and Orientations[1].

Year	Operator	Drill Hole	Easting-X (m)	Northing-Y (m)	Elevation-Z (m)	Length (m)	Azi (°)	Dip (°)
2008	Galore Resources	08TSK-01	453,207	5,668,942	1,594	25.00	0	-65
2008	Galore Resources	08TSK-02	453,207	5,668,942	1,594	304.20	0	-60
2008	Galore Resources	08TSK-03	453,270	5,668,820	1,578	363.90	0	-65

Year	Operator	Drill Hole	Easting-X (m)	Northing-Y (m)	Elevation-Z (m)	Length (m)	Azi (°)	Dip (°)
2008	Galore Resources	08TSK-04	453,144	5,669,072	1,630	322.50	0	-65
2008	Galore Resources	08TSK-06	453,337	5,668,764	1,592	304.80	0	-65
2008	Galore Resources	08TSK-07	453,337	5,668,764	1,592	292.00	0	-65
2008	Galore Resources	08TSK-08	453,373	5,668,913	1,594	215.80	0	-70
2009	Galore Resources	09TSK-13	453,034	5,668,875	1,608	398.70	140	-50
2009	Galore Resources.	09TSK-14	453,027	5,668,881	1,605	398.50	320	-50

1. Coordinates are UTM NAD83, Zone 10, azimuths and dips are at collar.

6.9. Historical Drill Data Validation

Amarc's acquisition of historical analytical data, including drill hole collar locations and orientations, surficial sample locations and assay results in respect to the IKE porphyry, the GECAP and IKE district targets was from several sources. Acquisition of data for drill holes prior to 2007 was largely by manual data entry of scanned printouts of sampling information and assay results in ARIS assessment and historical internal company reports. The pre-2007 drill data keypunched by Amarc included some laboratory assay certificates, but mostly sampling logs and assay lists created by historical project operators and a few assay laboratory certificates. Most of the assay results for the GECAP holes drilled from 1965 to 1991 by Phelps Dodge, Scurry, Sumitomo, Quintana, Alpine-Westley, Westpine and Westpine-ASARCO derive from a drill hole compilation report by Lambert (1991). Only 3 pre-2007 drill holes have QAQC samples in the Amarc database, including Esso holes 86-2 and 86-3 and Westpine hole W89-13. Further review of the historical records is required to determine if more QAQC records remain to be entered. The drill data keypunched by Amarc represents about 58% of the historical assay intervals.

Data for the 2007, 2008, 2009 and 2011 drill programs of Galore Resources, Great Quest and Oxford was largely from digital files provided by the operators, representing about 42% of the assay intervals for the historical drilling. Digital assay certificates received directly from analytical laboratories ALS and BV, both of Vancouver, include all of the 2007 through 2011 drill hole assay and surface sample results of Galore Resources, Great Quest and Oxford. Amarc imported the assay certificates for these years as received directly from the analytical laboratories for these years for use in the drill hole database.

Information was lacking for many of the pre-2007 historical drill holes, including some or all of the following; core or percussion chip sampling method, sample chain of custody and client quality control protocols, QC sample descriptions, sample preparation and analytical laboratory name, sample preparation specifications, sample digestion and analytical methods used, element detection limits, assay certificates, laboratory-internal QAQC protocols and results, one or more of Cu, Au, Ag or Mo analyses and density measurements. In addition, percussion drilling is generally not as robust a method of obtaining representative samples for assay as core drilling methods. For these reasons, a recommendation is for a careful assessment of the analytical data from the historical percussion holes prior to use in any future use in advanced studies. There has been no such assessment to date. Further details are presented in Sections 11 and 12.

Overall, percussion drilling chip samples represent about 17% of the drill samples taken on the GECAP prospective area. In particular, samples from percussion holes make up 71% of the total at Empress West, and 43% of Empress Gap and 25% of both Empress East and Buzzer samples. Outside of the IKE deposit and GECAP, percussion samples make up about 6% of the total number of samples taken in the district targets. Analysis of percussion holes was only for Cu and Mo. In addition, geological information for the percussion holes is lacking in the historical records. A recommendation is for a careful assessment of the percussion chip sample results prior to use in any future resource estimation or advanced stage study.

Amarc imported geological information for historical 2007 through 2011 drill holes as provided by Galore Resources, Great Quest and Oxford including geological intervals, primary rock code and descriptions. Integration of these coding schemes and content with Amarc's standard schemes is pending. Amarc geologically relogged the 2011 Oxford drill holes and added them to the drill hole database. Importation of geological information for the pre-2007 drill holes is limited to a few volcanic-intrusive contact intercepts gleaned from historical logs by Amarc geologists. A recommendation is to assess the any historical drill core and geological logging information of historical operators to update this information in the Amarc database for detailed geological modeling purposes.

6.10. Historical Mineral Processing and Metallurgical Testing

Lambert (1989, p. 17) describes historical test-work carried out on samples from the 13 drill hole program by Westpine at the Empress deposit in 1989:

"Preliminary metallurgical testing of mineralized samples from the Taseko Property indicates excellent recoveries for Au (92.5%) and Cu (94.6%) using a simple flotation circuit with or without a gravity circuit (Hawthorn, 1988)".

The source material for this testing program is unknown, and the 1988 Hawthorn report referenced in this document has not been located.

Amarc is not aware of any other historical mineral processing or metallurgical testing completed on any of the other prospects on the IKE Project.

6.11. Historical Resource Estimates

The historical estimates described below do not use categories currently prescribed by CIM definitions and as required under 43-101. In some cases, no categories are used, and as such these estimates have limited relevance and are not reliable.

6.11.1. Empress

6.11.1.1. Westpine 1991

In a January 1991 newsletter to investors, Westpine reported an historical estimate of the quantity and grade of the Lower North Zone at the Empress Deposit. This historical estimate called a "preliminary geological mineral inventory" comprises 6.8 Mt grading 0.73% Cu, 0.82 g/t Au, and 1.7 g/t Ag (Westpine 1991). The estimate by Dr. Giles Peatfield used a cut-off grade of 0.15% Cu and an average density of 2.67 for a zone between 107 and 168 m below surface (Peatfield, 1991). The estimate excluded the Upper North and 76 Zones.

The QPs have not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves; and Amarc is not treating the historical estimate as current mineral resources or mineral reserves.

6.11.1.2. ASARCO 1991

A February 1991 pre-feasibility study of the Empress deposit was completed by James Askew Associates, Inc. of Denver, Colorado for ASARCO. This study included historical resource/reserve estimates based on 6,540 m of drilling in 44 holes.

In situ resources were estimated by polygonal methods from north-south cross-sections to be 11 Mt averaging 0.61% and 0.023 oz/t (0.79 g/t) Au (James Askew Associates, Inc., 1991). The parameters provided by ASARCO were a Cu cut-off grade of 0.40%; Cu and Au recoveries of 90% and 80%, respectively; and metal prices of $400 per ounce of Au and $1.00 per pound Cu.

Two conceptual open pit designs, Case 1 and Case 2, were prepared using the In-situ resources as a basis and applying 10% dilution at 0.20% Cu and 0.015 oz/t (0.51 g/t) and a cut-off of $7.20 per ton based on the ASARCO metal prices and recovery factors and a tonnage factor of 10.75 cu ft/ton (2.98 tonne/m^3). In Case 1, the pit would recover the entire in-situ resources in 3 mineralized zones with pit wall slopes of 55° except in the south wall were slopes were designed parallel to the quartz-diorite contact which averaged about 48°. Case 2 eliminated some of the narrower Cu-Au mineralization at the perimeter of the 'known Deeper North Zone', but otherwise used the same design parameters. Table 6-29 provides the results of the two historical Cases presented in the ASARCO estimate.

Table 6-29: Historical ASARCO Estimate.

Case	Tonnage (tons, millions)	Grade		Pounds Copper (million)	Gold (Oz)	Waste Tonnage (tons, millions)	Stripping Ratio
		Copper (%)	Gold (oz/t)				
1	12.186	0.574	0.022	139,825	271,200	82.790	6.8:1
2	10.474	0.582	0.022	122,028	236,700	62.81	5.9:1

The QPs have not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves; and Amarc is not treating the historical estimate as current mineral resources or mineral reserves.

6.11.2. Spokane

De Quadros (1981) includes a hand-written historical resource estimate of 1.29 Mt grading 1% Cu, 5.5 g/t Au, and 13.7 g/t Ag to a depth of 60 m. Metal recovery assumptions were Cu 90%, Au 90% and Ag 90%. The cut-off grades are 0.5% Cu and 1.7 g/t Au.

The QPs have not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves; and Amarc is not treating the historical estimate as current mineral resources or mineral reserves.

6.11.3. Buzzer

An historical estimate for Buzzer was completed by Quintana in 1976 that totals 5.0 Mt grading 0.35% Cu and 0.031% Mo. (Lambert, 1989). No mention of the cut-off or any other details of this estimate are in this report.

The QPs have not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves; and Amarc is not treating the historical estimate as current mineral resources or mineral reserves.

6.11.4. Limonite

An early historical estimate of the quantity and grade of the Limonite prospect comprising Forrest, Denain, FeO, Rae, Battlement, McClure Mountain, and associated deposits totals 0.6 Mt grading between 44 to 51.6% FeO (McKenzie, 1920).

The QPs have not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves; and Amarc is not treating the historical estimate as current mineral resources or mineral reserves.

6.12. Historical Production

6.12.1. Taylor-Windfall

Mining of limited tonnage from surface and underground occurred in high-grade Au pockets at Taylor Windfall in the 1930s. Reported historical hand-cobbed production was 180-225 tonnes grading 34 g/t Au taken out by horse pack-train (BC Mine Report, 1935).

7. Geological Setting

7.1. Regional Geological Setting

The IKE Project straddles the northeastern margin of the Coast Plutonic Complex ("CPC") where the CPC has intruded volcanic-sedimentary rocks (Figure 7-1, note this figure is a repeat of Figure 6-1 for ease of reader reference). The CPC comprises a chain of overlapping batholiths that formed as a result of subduction of oceanic crust beneath the western margin of North America, from approximately Early Jurassic to Early Tertiary time (Schiarizza et al. 1997). The CPC is located between the Intermontane superterrane to the east and the Insular superterrane to the west, with each superterrane representing a complex collage of smaller terranes. Rocks bordering the CPC to the northeast comprise a highly tectonized assemblage of Paleozoic to Mid-Mesozoic oceanic sedimentary and volcanic rocks assigned to several different terranes (Bridge River, Cadwallader and Methow), Middle Jurassic through Mid-Cretaceous sedimentary rocks of the Tyaughton-Methow basin, and Late Cretaceous continental arc volcanic rocks (Schiarizza et al., 1997).

U-Pb isotopic dates from equigranular hornblende-biotite granodiorite that forms a significant part of the CPC batholith within the area of the IKE Project, range from 103.8 ± 0.5 to 83.2 ± 2.3 Ma (Parrish, 1992; Israel, 2001; Blevings, 2008;). The CPC in the Project area intrudes to the north both the Lower Cretaceous Taylor Creek Group volcanic rocks (Lower Cretaceous Falls River succession of Blevings, 2008), and the unconformably overlying Upper Cretaceous Powell Creek Fm that comprises mainly andesitic tuffs, breccias and flows with lesser volcanic sandstones (Schiarizza et al., 1997). These volcanic extrusive and derived sedimentary rocks are believed to be part of a continental magmatic arc that migrated eastward across the Coast Belt during the Cretaceous.

Northwest to north-trending faults within the region reflect a protracted history of Mid-Cretaceous to Tertiary contractional, strike-slip and extensional deformation. Middle to early Late Cretaceous thrust faults are present throughout the region and are associated with the Bralorne and Pioneer orogenic gold deposits to the southeast of the Project (Schiarizza et al., 1997). This contractional event was likely caused by collision of the Insular and Intermontane superterranes (Monger et al., 1982). Sinistral strike slip and oblique reverse faults may represent relatively young structures within the Late Cretaceous, predominantly southwest-vergent contractional episode (Schiarizza et al., 1997; Israel, 2001). Both events appear to predate emplacement of the CPC batholiths on the IKE Project. Late Cretaceous through Middle to Late Eocene dextral strike slip faults include 115 km of offset along the Yalakom fault system (Schiarizza et al., 1997), and possibly 7 to 8 km of offset along the Tchaikazan fault in the northwest area of the Project (Mustard and van der Heyden, 1994).

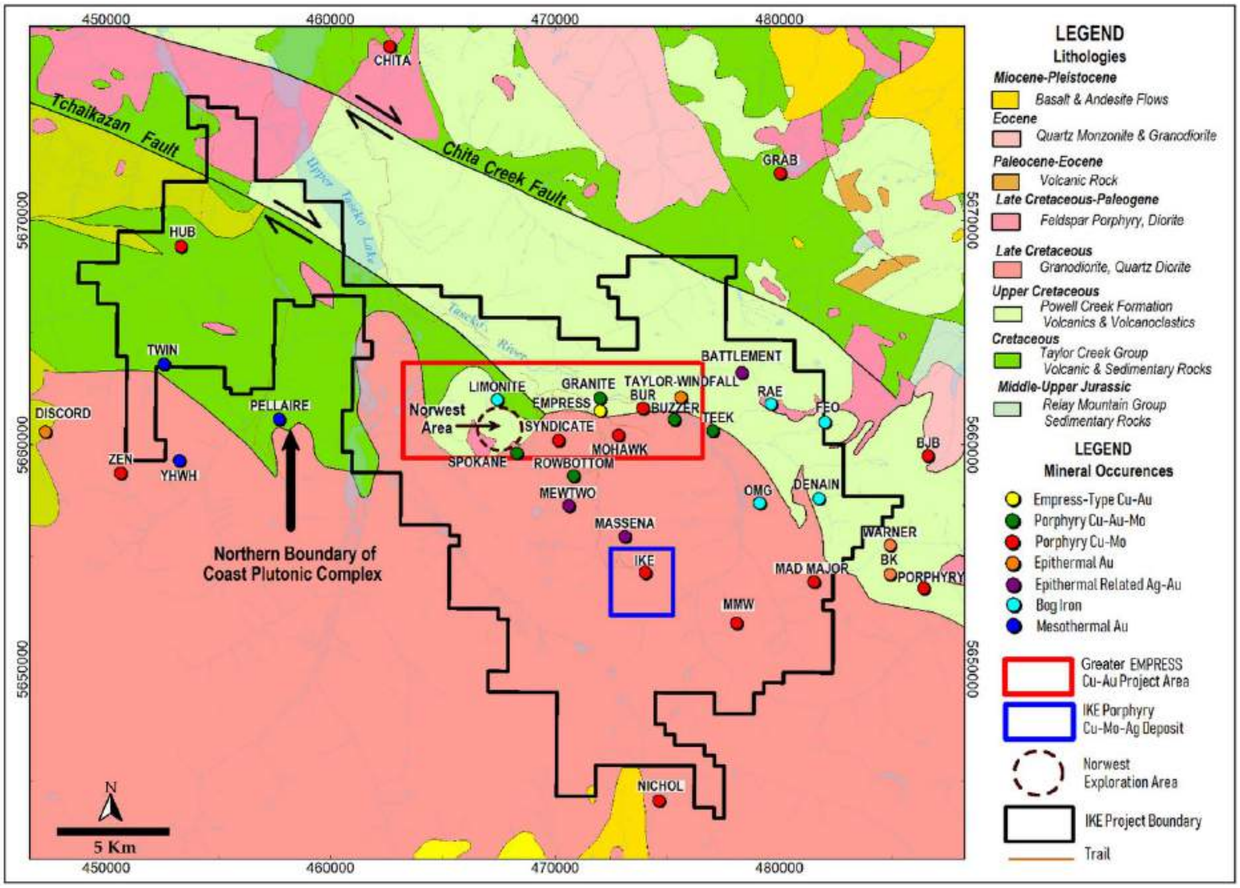

Figure 7-1: IKE Project Regional Geology Map. The Black Line Denotes the IKE Property, the Red Rectangle Indicates the GECAP Area and the Blue Square Outlines the IKE Deposit Area. Mineral Occurrences are Indicated by Style of Mineralization. Base Geology is from Government BC Digital Geology (Cui, Y., Miller, D., Schiarizza, P., and Diakow, L.J., 2017).

7.2. *Project Geology Overview*

Within the IKE Project the main intrusive phase of the CPC, and primary host of the IKE porphyry deposit, is a homogeneous, equigranular, medium- to coarse-grained biotite-hornblende granodiorite (EGD1) (Figures 7-1 and 7-2). Texturally, the EGD1 locally shows a very weak foliation and displays compositional layering defined by variations in hornblende concentration. Northwards from the IKE deposit and within the GECAP area, the outer contact zone of the CPC against its volcanic-sedimentary host rocks of the Powell Creek Fm and Taylor Creek Group comprises the Empress border phase pluton ("Empress Phase") (Figure 7-2). This unit is, in part, characterized by its comparative textural and compositional variability, and an increase in the proportion of K-feldspar relative to the EGD1 (typically the Empress Phase has quartz monzonitic compositions compared to granodioritic compositions). The relatively fine-grained K-feldspar and the quartz-rich syenogranitic to monzogranitic groundmass is very distinctive and very common, and where the groundmass is relatively abundant, the Empress Phase has a sub-porphyritic texture.

The more heterogeneous part of the Empress Phase consists largely of very pale coloured weathering, leucocratic, fine-to medium-grained granodiorite to biotite granodiorite that is sub-porphyritic to locally crowded and plagioclase phenocryst-rich. This phase also includes texturally and compositionally variable quartz monzonitic to granitic, and granodioritic rocks. The heterogeneous phase is generally more leucocratic and intrudes a more homogeneous medium-grained and more equigranular hornblende biotite quartz monzonite variant of the border phase, such as that documented at the Syndicate mineral occurrence (Figure 7-2). These more leucocratic rocks, which include abundant syenogranite, aplite and local syenogranite pegmatite, are commonly associated with chalcopyrite along with actinolite, magnetite, and biotite, and may be related to the formation of replacement-style mineralized systems such as at Empress and Empress East (Sections 7.4 and 7.5.2). There are also more homogeneous phases of the Empress Phase, which are typically medium-grained, mesocratic, hornblende biotite quartz monzonite, and commonly have a light pink cast.

A series of hornblende feldspar porphyritic dykes intrude both EGD1 and the Empress Phase of the CPC. A predominantly quartz- and biotite-rich suite of dykes is closely associated with, and an important host, to the Cu-Mo mineralization at the IKE porphyry deposit and also at other porphyry Cu-Mo occurrences on the wider Project, for example, Mad Major and Rowbottom (Figure 7-2). A generally quartz-poor suite of post-mineral dykes is widespread and is not typically associated with mineralization or alteration.

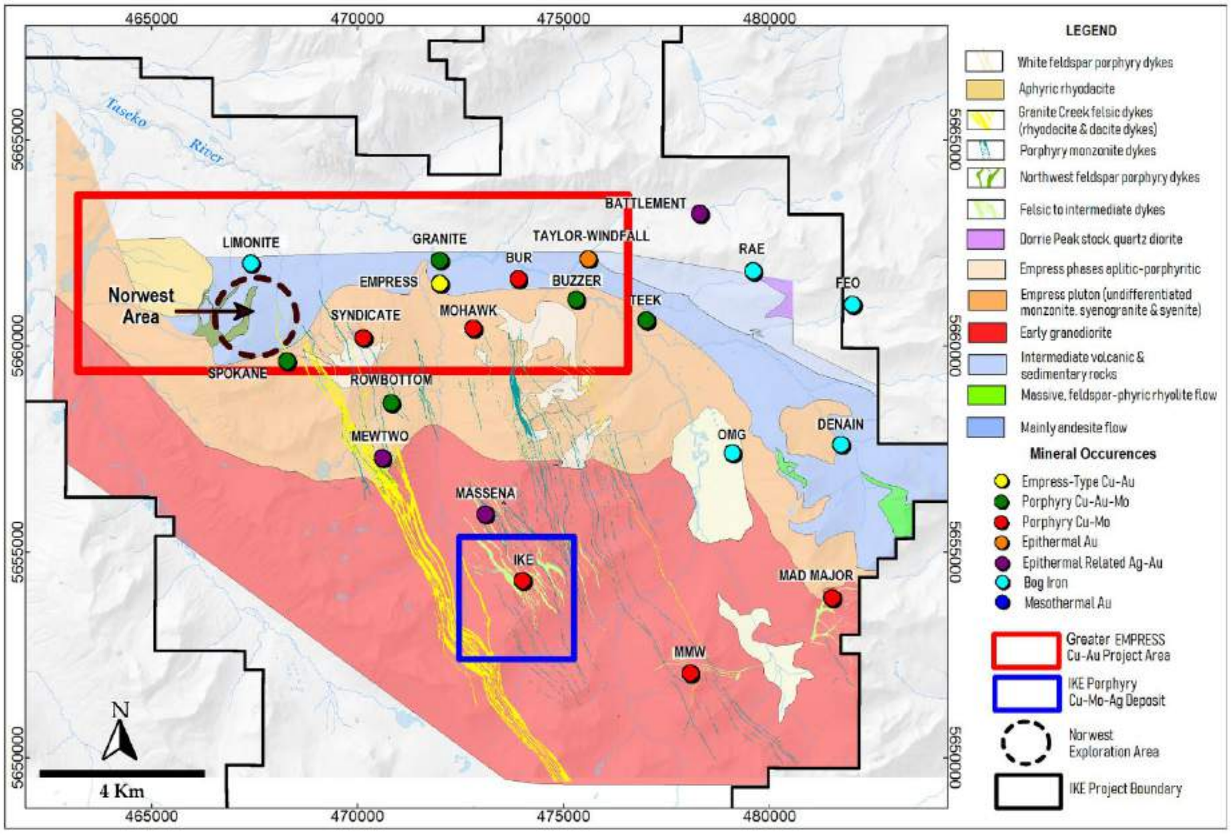

Figure 7-2: Amarc Geology Map of the IKE Project Tenure (Eastern Sector). In Contrast to the Texturally and Compositionally Consistent Main Phase Biotite Hornblende Granodiorite (EGD1, dark pink on map) of the CPC, the Empress Boarder Phase (pale pink/brown) is Texturally More Porphyritic and Compositionally Variable. Northwest to North-Northwest Trending Mafic to Felsic Dyke Swarms Occupy Splays from the Tchaikazan Fault (Figure 7-3).

The most evident structural element within the IKE Project is the northwest-trending Tchaikazan Fault ("Tchaikazan") which, based on topographic features and interpretation of aeromagnetic patterns, generally follows the Taseko River valley in the GECAP area (Figure 7-3). The Tchaikazan Fault is not exposed in the GECAP area (a sub-area of the IKE Project; Figure 7-2), but to the west of the Taseko Lakes it manifests an approximately vertical zone of distributed shearing up to 200 m wide (Israel et al., 2006).

The Tchaikazan Fault experienced an early stage of sinistral displacement of unknown magnitude (Israel et al., 2006); this deformation is interpreted to have been broadly contemporaneous with the Late Cretaceous Cu-Au mineralization recognized in the GECAP area and may have exerted control on emplacement. Current structural fabric in the area may, in part, reflect reactivation of older structures but more plausibly is a result of dextral displacement on the Tchaikazan Fault that occurred mostly during the Eocene (Schiarizza et al., 1997). Mustard and van der Heyden (1994) interpret 6 to 8 km of dextral displacement based on offsets of distinct limestone strata far to the northwest of the GECAP. In the vicinity of the GECAP and southwards into the eastern sector of the IKE Project, however, aeromagnetic patterns suggest the presence of numerous southeast-trending splays that form a horsetail architecture (Figure 7-3).

The Tchaikazan Fault is difficult to trace to the southeast of the Project and it is possible that the southeast splays represent terminal structures that have dissipated movement on the fault. In this scenario, displacement within the GECAP would be much less than 6 to 8 km and might have resulted in very little movement. Faults that cut CPC plutons include orientations of north, northwest and northeast. Abundant mafic to felsic dykes of Eocene age that have been dated at 46.2±0.87 Ma (Ar-Ar; Blevings, 2008; Figure 7-2) all strike north-northwest and were probably localized by dilation along the Tchaikazan splays. Substantial Eocene dilation is indicated by the wide (> 200 m) swarm of northwest-trending rhyolite dykes to the west of the GECAP and, importantly, at the IKE porphyry deposit where a significant swarm of northwest to north-northwest trending dykes is one of the main hosts to mineralization.

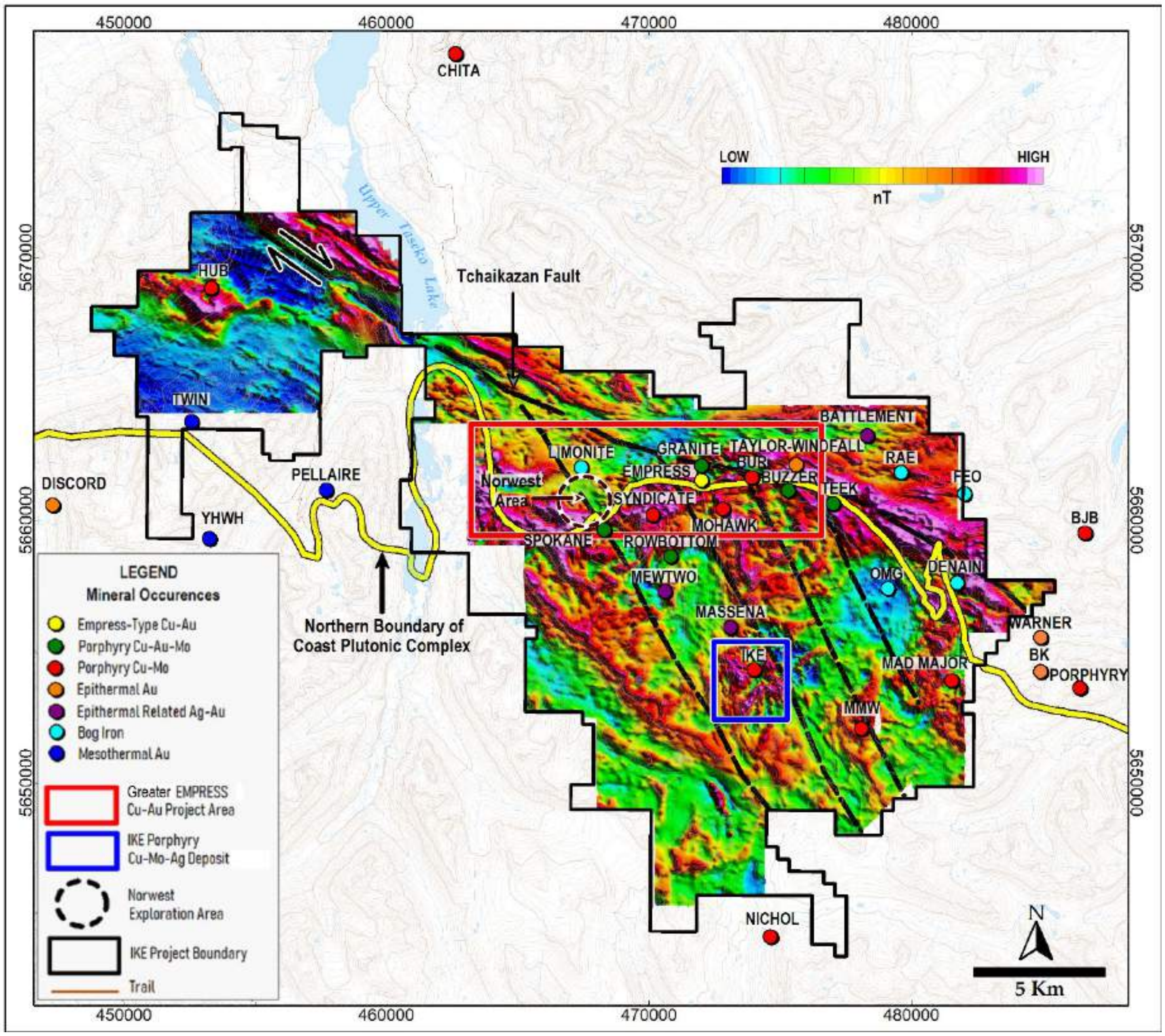

Figure 7-3: Compiled Historical and Amarc TMI Magnetic Surveys. The Main Structural Feature of the IKE Project is the Tchaikazan Fault, which had Sinistral Movement in the Cretaceous Followed by Dextral Movement Mostly in the Eocene. In the Eastern area of the IKE Project Lateral Movement Along the Tchaikazan Fault May Have Dissipated into Numerous Southeast-Trending Horsetails, Many of Which are Occupied by Dykes.

The geology and hydrothermal characteristics of the IKE deposit and the GECAP area are described in further detail below.

7.3. *IKE Deposit Geology and Hydrothermal Characteristics*

7.3.1. IKE Deposit Geology

The local surface geology of the IKE deposit area, as mapped by Amarc, is provided in Figure 7-4. The details of the intrusive units as primarily observed from drill core are discussed below. The main host to IKE deposit mineralization is the Cretaceous EGDI granodiorite intrusion that was itself intruded by a series of felsic to intermediate Eocene intra-, late-, and post-mineral dykes, the earlier phases of which host significant mineralization (Galicki et al., 2015; Galicki et al., 2016; Galicki et al., 2017; Roberts 2018; Fagan et al., 2019; Galicki et al., 2020).

7.3.1.1. Pre-Mineral Intrusion – EGD1

EGD1 is a medium-grained (2-5 mm), equigranular to seriate, biotite-bearing hornblende granodiorite (Figure 7-5a). This unit has a salt and pepper appearance due to interlocking grains of black biotite and hornblende and white/grey feldspar and quartz. The rock is composed of 40-45% plagioclase, 25-30% quartz, 15-20% hornblende and 5% biotite. Locally this unit contains larger (> 10 mm) hornblende crystals. Overall, EGD1 shows limited compositional and textural variation. A U-Pb date on zircons from an Amarc sample of EGD1 from within the IKE deposit returned a date of 85.7±1.1 Ma.

7.3.1.2. Intra-Mineral Intrusions – QMP1, GDP1, QMP2, QMP3, DIP1 and DIP2

A series of porphyritic, Early Eocene intra-mineral intrusions that range from granodiorite to quartz-monzonite and diorite intruded the Cretaceous EGD1 (Figure 7-4). These intrusions are mostly distinguished by their texture, composition, and cross-cutting relationships. The most abundant intra-mineral intrusions are listed below from oldest to youngest based on cross-cutting relationships in drill-core.

QMP1 is a porphyritic biotite monzodiorite to diorite (Figure 7-5d). It is a hiatal porphyritic intrusion with up to 5% subrounded quartz phenocrysts 1-4 mm in size, 15% subhedral, locally corroded and broken, plagioclase phenocrysts 2-10 mm in size, and up to 5% biotite phenocrysts 2-5 mm in size. The groundmass is typically is < 1 mm and consists mostly of plagioclase±biotite±quartz. One of the characteristic features of QMP1 is the broken shapes of plagioclase phenocrysts and glomerocrysts. The Cu-Mo-Ag mineralized QMP1 from the IKE deposit has been dated by Amarc at 47.6±0.6 Ma.

GDP1 is a porphyritic hornblende-bearing biotite granodiorite to granite that is one of the oldest intra-mineral intrusions (Figure 7-5b). It is leucocratic and displays porphyritic to hiatal porphyritic texture that comprises 10-20% rounded to square quartz phenocrysts 2-7 mm in size, 20-25% euhedral lath-shaped plagioclase phenocrysts 2-4 mm and 5-6 mm in size, up to 8% euhedral biotite phenocrysts 2-4 mm across, and less than 2% euhedral, prismatic hornblende phenocrysts 2-3 mm long. The groundmass is < 1 mm in size and contains quartz-plagioclase±biotite. Quartz glomerocrysts are a characteristic feature of GDP1 and have not been identified in other intrusive phases. Phase GDP1 from the IKE deposit has been dated by Amarc at 47.0±0.6 Ma.

QMP2 is a porphyritic hornblende-bearing, biotite quartz-monzonite to granodiorite (Figure 7-5c). It is commonly leucocratic, medium-grained and comprises up to 15% rounded to square quartz phenocrysts 2-3 mm in size, up to 25% sub- to anhedral plagioclase phenocrysts 1-10 mm in size, up to 5% subhedral hornblende biotite phenocrysts 1-3 mm in size, and up to 2% subhedral, prismatic hornblende phenocrysts 1-3 mm in size. The grain size of the plagioclase-quartz±biotite±hornblende groundmass is typically < 1 mm. Based on intersections in drill-core, QMP2 typically forms internally homogenous plug or stock-like bodies.

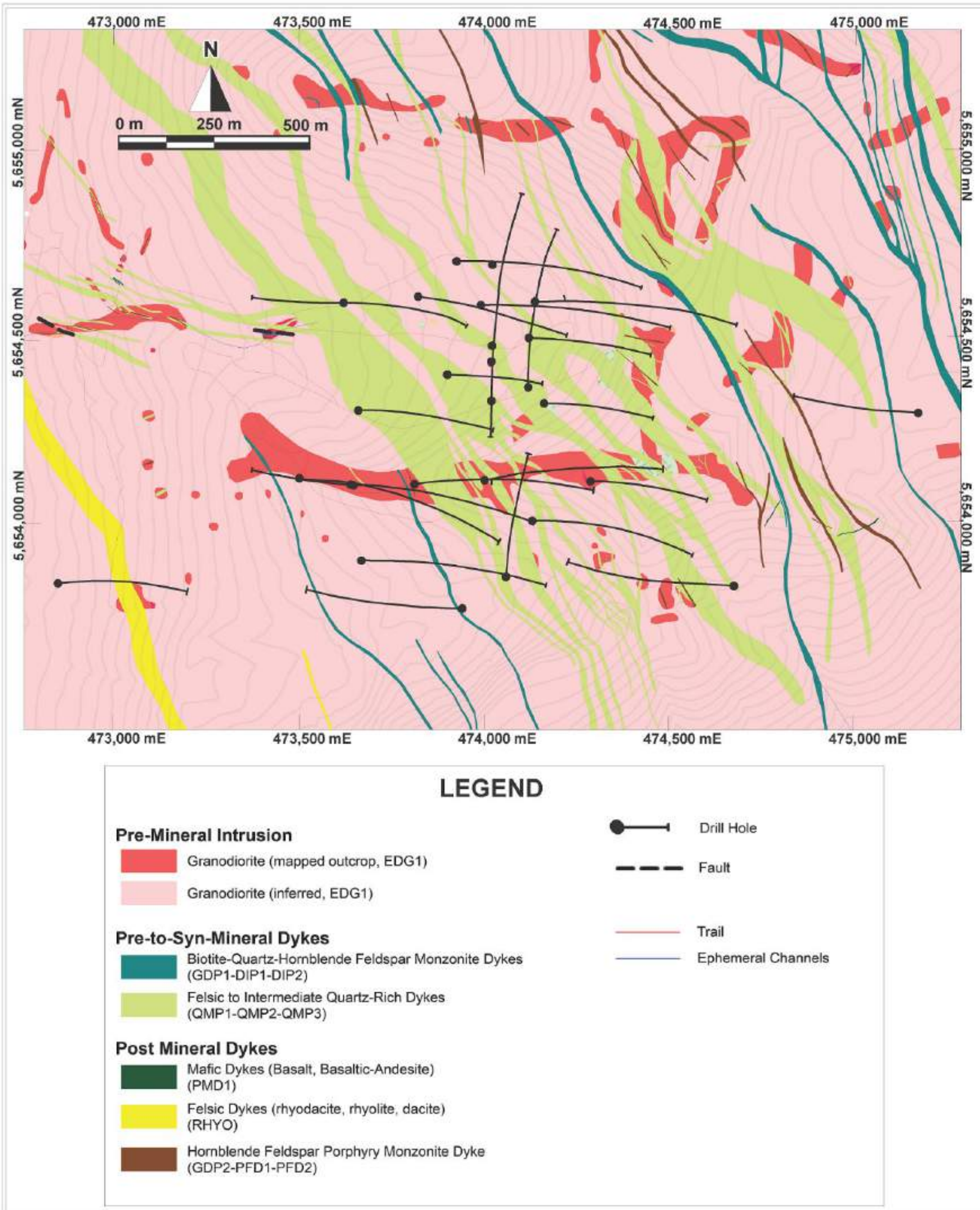

Figure 7-4: Amarc IKE Deposit Geology Map and Drill Hole Plan. Both the EDG1 Granodiorite (pink) and Many of the Felsic to Intermediate Pre-to-Syn Mineralization Dykes (pale green) Host Mineralization (see Figure 10-2 for a drill hole plan with hole numbers included).

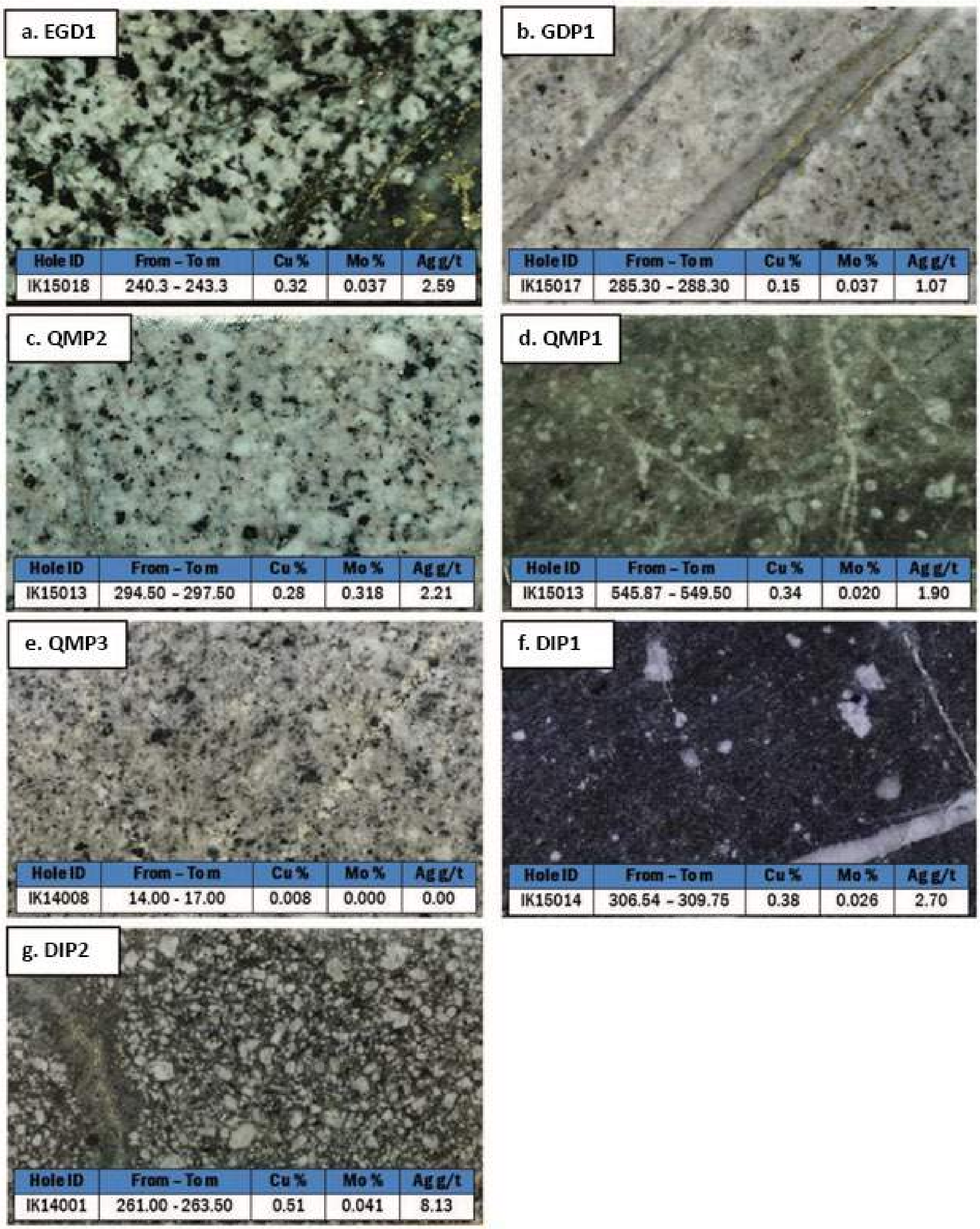

Figure 7-5: Lithological Plates From the IKE Deposit. a. Biotite-bearing Hornblende Granodiorite (EGD1); b. Porphyritic, Hornblende-Bearing, Biotite Granite to Granodiorite (GDP1); c. Porphyritic Hornblende-Bearing, Biotite Quartz-Monzonite to Granodiorite (QMP2); d. Porphyritic Biotite Monzodiorite to Diorite (QMP1); e. Porphyritic Hornblende-Bearing, Biotite Quartz-Monzonite (QMP3); f. Porphyritic Diorite (DIP1); g. Hornblende Diorite Porphyry (DIP2)QMP3 is a porphyritic hornblende-bearing biotite quartz-monzonite and is texturally similar to QMP2 but can be distinguished by its finer grain size and seriate texture (Figure 7-5e). Phenocrysts comprise up to 6% rounded quartz phenocrysts 1-2 mm in size, up to 35% euhedral, lath-like plagioclase phenocrysts 1-3 mm in size, up to 5% euhedral biotite 1-3 mm in size, and trace 1 mm prismatic hornblende. The grain size of the groundmass is typically < 1 mm.

DIP1 is a porphyritic diorite and is characterized by 20% subhedral plagioclase phenocrysts 2-5 mm in size hosted in a typically very fine grained, strongly biotite-altered groundmass that imparts a strong brown colour to the rock (Figure 7-5f). This unit, on average, contains the highest concentration of Cu mineralization among the many intrusive phases at the IKE deposit, but it is typically intersected only over short core lengths (1-5 m) and is volumetrically minor.

DIP2 is a hornblende diorite porphyry intrusion (Figure 7-5g). It is characterized by 30-40% crowded, subhedral plagioclase phenocrysts 1-4 mm in size, and up to 15% euhedral to subhedral, prismatic to equant hornblende phenocrysts 1-5 mm in size that are hosted in a < 1 mm plagioclase-hornblende groundmass. Similar to DIP1, this unit is typically intersected in drill core as narrow mineralized dykes (< 5 m) and is volumetrically insignificant.

7.3.1.3. Late- and Post-Mineral Intrusions

Late-mineral and post-mineral intrusions are volumetrically minor. The late mineral intrusions commonly display weak to strong propylitic ± phyllic alteration and are typically poorly Cu-Mo mineralized, indicating that they intruded late in the magmatic-hydrothermal sequence. Late-mineral intrusions include: (1) DIP3, a fine-grained porphyritic biotite-hornblende bearing diorite; and (2) GDP2, a sub-porphyritic to equigranular hornblende-bearing biotite granodiorite.

Post-mineral intrusions lack mineralization, are commonly unaltered by magmatic-hydrothermal fluids, form dykes < 1–10 m wide, and are volumetrically insignificant (Figure 7-4). Post-mineral intrusions include: (1) PMD1, a series of dark green, non-porphyritic, aphanitic andesite dykes to andesite porphyry dykes; (2) PFD1 and PFD2, a series of granite porphyry dykes; and (3) RYHO, an aphanitic, locally flow-banded and foliated rhyolite dyke. For the most part, post-mineral dykes have the same orientation as pre-, intra-, and late-mineral dykes except for some of the PFD1 dykes which trend northeast and cut across the generally northwest trend of most of the porphyry intrusions.

7.3.2. IKE Deposit Hydrothermal Characteristics

The following provides a summary of the hydrothermal features observed at the IKE deposit primarily in terms of the key aspects of alteration and veins, and their relation to mineralization (Table 7-1). Additional detail in respect to mineralization is provided in Section 7.5.1.

At the IKE deposit, potassic alteration dominated by biotite ± K-feldspar is associated with Cu-Mo-Ag mineralization that predominantly comprises hypogene chalcopyrite and molybdenite. Classic porphyry type quartz-sulphide veins as well as chalcopyrite-rich early halo veins are evident.

Table 7-1: Summary of Observations Relating to Alteration, Veining and Mineralization at IKE Deposit.

	K-silicate biotite (KSBT)	K-silicate K-feldspar (KSFS)	Propylitic (CCES)	Phyllic (QSP1)
Mineralogy (silicates and Al-rich minerals ± Quartz)	**Biotite**, quartz	**K-feldspar**, quartz	**Chlorite**, epidote, carbonate, actinolite	**Quartz, sericite**, chlorite
Key sulphides and oxides	**Chalcopyrite**, Pyrite, Magnetite	**Molybdenite**, Chalcopyrite, Pyrite	**Pyrite**	**Pyrite**, Chalcopyrite
Associated vein types	early halo veins (EVG1)	Quartz-molybdenite-chalcopyrite-pyrite (QZMO)		Pyrite-quartz±chalcopyrite (QZPY)
	Biotite±sulphide± magnetite (EVB1)			
	Quartz-chalcopyrite (QZCP)			
Vein density	0.5 – 1.5%	1-2%	Low	1-3%
Sulphide content	Low to moderate	Low	Low	Moderate

7.3.2.1. IKE Deposit Alteration

The local surface alteration of the IKE deposit as mapped by Amarc is illustrated in Figure 7-6. The details of the alteration as primarily observed from drill core are discussed below.

7.3.2.1.1. *K-silicate biotite ± magnetite alteration (KSBT)*

The earliest observed hydrothermal alteration is mineral selective to pervasive, and characterized by recrystallization of igneous ferromagnesian minerals to, and/or precipitation of newly formed, black to dark brown hydrothermal biotite. The hydrothermal biotite commonly has a 'shreddy' appearance. This alteration introduced the bulk of the Cu mineralization in the form of disseminated and minor vein-hosted chalcopyrite. Replacement of mafic phenocrysts by chalcopyrite is common. Locally, the cores of mafic phenocrysts are partly replaced by magnetite. Very fine, 'flaky' hydrothermal biotite dusting is also present in the groundmass. Plagioclase phenocrysts commonly show incipient to weak white mica alteration. Moderate and stronger intensity KSBT alteration is commonly characterized by irregular igneous ferromagnesian mineral grain boundaries. The vein density associated with this alteration ranges between 0.5 – 1.5% by volume, and common vein types include early halo type, biotite ± sulphide ± magnetite and quartz – chalcopyrite ± pyrite (see below). The intensity of this alteration varies significantly and is typically stronger in intra-hydrothermal intrusions and in intrusions with higher mafic mineral content (i.e., EGD1, DIP1 and DIP2). The Cu grade generally shows a positive correlation with the intensity of biotite alteration and the abundance of associated veins.

7.3.2.1.2. K-silicate quartz-K-feldspar alteration (KSFS)

The second phase of hydrothermal alteration is characterized by minor amounts of secondary K-feldspar. It commonly manifests as somewhat amorphous, white to buff-coloured alteration envelopes adjacent to some quartz–molybdenite–chalcopyrite ± pyrite veins. This alteration is widely distributed throughout the deposit, although it is typically very localized to narrow alteration envelopes around veins. KSFS alteration is more pervasive in zones of higher vein density (up to 2%) where vein envelopes coalesce.

There is no apparent correlation between the molybdenite content of quartz-molybdenite-chalcopyrite ± pyrite veins and the intensity of KSFS alteration.

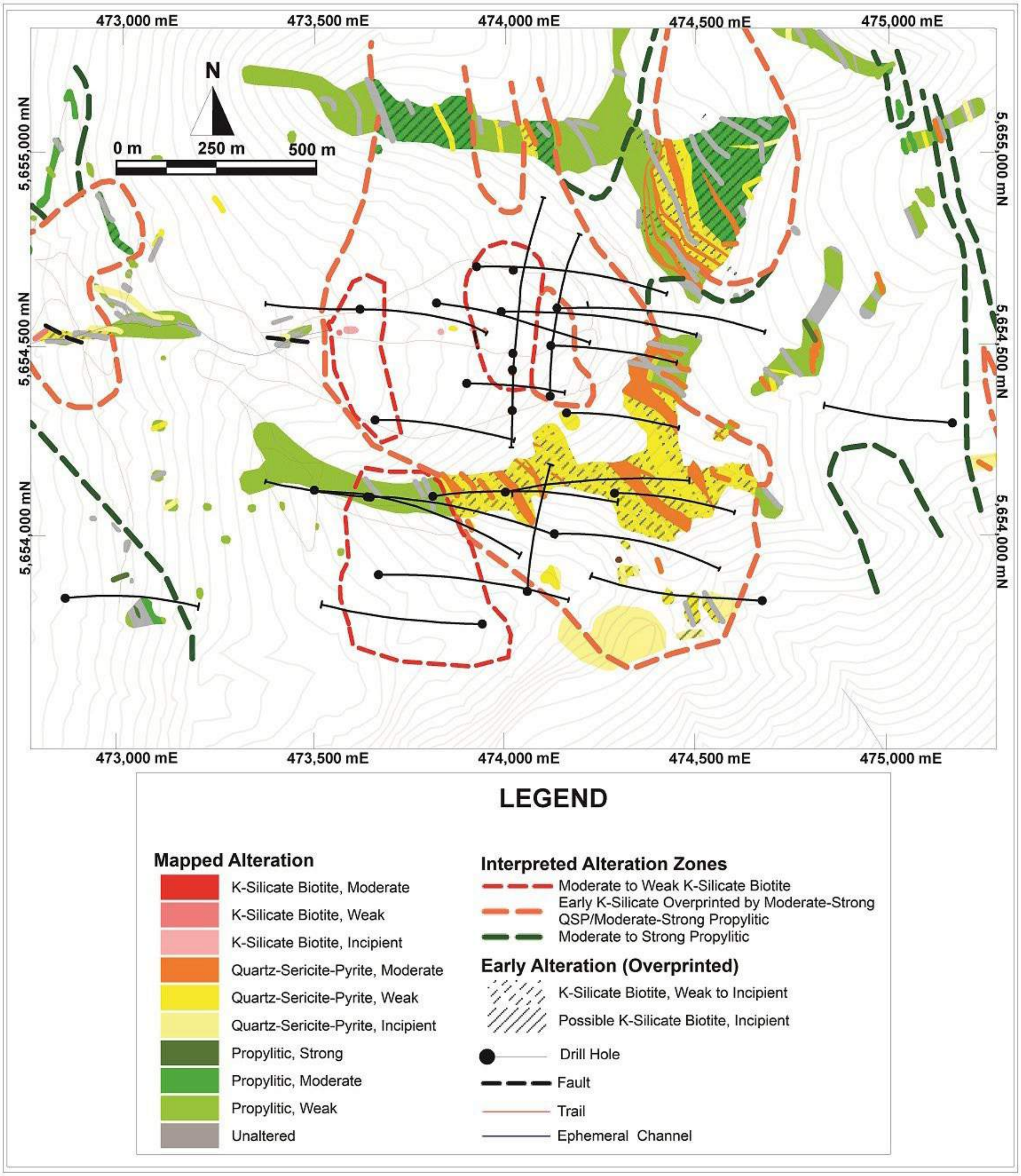

Figure 7-6: Amarc IKE Deposit Alteration Map and Core Drill Holes (see Figure 10-12 for a drill hole plan with hole numbers included).

7.3.2.1.3. Propylitic alteration (CCES)

Some biotite-altered rocks have been affected by a low-temperature overprint of chlorite±carbonate± epidote. CCES alteration is characterized by chlorite alteration on fractures and of hydrothermal biotite formed during KSBT alteration in the groundmass. Rare quartz-chlorite-epidote-sulphide veins are associated with this alteration, which indicates that at least some Cu was introduced (or remobilized) during CCES alteration. Locally, epidote rims sulphide patches and disseminations. Many of the chlorite veinlets and fracture coatings may be after earlier biotite veinlets and fracture coatings.

7.3.2.1.4. Phyllic alteration (QSP1)

Phyllic alteration post-dates KSBT, KSFS and CCES alteration and is associated with pyritic quartz veins enclosed by quartz-sericite-pyrite-chlorite alteration envelopes. Feldspar and mafic minerals, including biotite-altered igneous biotite and hornblende occur in the vein envelopes where they are commonly sericite and chlorite altered, respectively. QSP1 alteration envelopes are commonly 1-3 cm wide and are significantly wider than the associated QZPY veins (see below). QSP1 altered rocks exposed along the ridges of the IKE deposits cirques typically contain > 5% pyrite and are Cu- and Mo-deficient, probably due to grade-destruction by the QSP1 alteration. In drill-core, significant QSP1 alteration over more than a few tens of metres is rare. Commonly, QSP1 is restricted to envelopes of QZPY veins, some of which likely represent re-opened early halo type veins described below and in detail in Binner (2020).

7.3.3. IKE Deposit Vein Types

Vein type details discussed below are as primarily observed from drill core.

7.3.3.1. Early halo type veins (EGV1)

The earliest veins to have been recognized at the IKE deposit are the early halo type. These veins are characterized by a grey to brown alteration envelope (the halo) and a very narrow sulphide-rich (chalcopyrite±pyrite) centre-line, which can locally be absent. The vein envelopes, which range from 5 mm to several cm in width, contain variable amounts of muscovite, biotite, quartz, chlorite, pyrite, chalcopyrite and rare molybdenite.

The composition of early halo veins can be used as a temperature gradient to infer the level of vein formation within a hydrothermal system (Reed et al., 2013). Muscovite-dominant early halo veins typically form in the upper portion of a hydrothermal system, whereas biotite-dominant early halo veins usually form in the deeper and hotter parts of a hydrothermal system. At the IKE deposit, muscovite- and biotite-dominant early halo veins can be found in EGD1 and most intra-mineral intrusions but are absent in late-mineral and post-mineral intrusions. Also, the majority of the alteration envelopes around the early halo veins are muscovite-rich, with deeper drill holes intersecting early halo veins with biotite-rich envelopes. Higher Cu concentrations are associated with the early halo veins. Further bowtie and sericite-island textures in alteration halos are also common within the IKE deposit and are diagnostic features of early halo veins (Proffett, 2009; Reidel, 2015; Binner, 2020; Galicki et al. 2020).

7.3.3.2. *Biotite ± sulphide ± magnetite veinlets (EVB1)*

EVB1 veinlets are commonly < 1 mm wide, black, irregular, sinuous, locally discontinuous, and have no visible alteration envelopes. Locally, these veinlets may contain some chalcopyrite and/or pyrite, along with magnetite. EVB1 veinlets are widely distributed throughout the zone of Cu mineralization in EGD1 and are associated with the pervasive KSBT alteration that introduced much of the Cu±Ag to the deposit. These veinlets are comparable to early, dark micaceous veinlets as described in Seedorff et al. (2005) that are widespread at Butte and Bingham (Sillitoe, 2010).

7.3.3.3. Quartz-chalcopyrite ± pyrite (QZCP)

QZCP veinlets are dominated by clear quartz with variable concentrations of chalcopyrite and pyrite. The veins range from < 1 mm to 2 cm in width and commonly average 1–2 mm. Contacts with the host-rock can be diffuse but are more commonly sharp, and the veinlets have no readily recognizable alteration envelopes. The geometry of the veins is planar to sinuous. The QZCP veinlets are widely distributed throughout the zone of Cu mineralization in KSBT-altered rocks occurring in EGD1 and all early- and syn-hydrothermal intrusions. These veins commonly post-date EGV1 and EVB1 veins. Multiple cross-cutting generations of QZCP veins demonstrate more than one phase of formation. These veins are comparable to early A-type veins of Gustafson and Hunt (1975) and Sillitoe (2010).

7.3.3.4. Quartz-molybdenite-chalcopyrite ± pyrite (QZMO)

QZMO veins are widely distributed and contain the vast majority of Mo within the IKE deposit. They range in thickness from < 1 mm irregular stringers to 5 cm planar veins. Compositionally, QZMO veins range from quartz-dominated with sparse molybdenite, chalcopyrite, and/or pyrite, to molybdenite only. Locally, some are vuggy which may reflect dissolution of carbonate and/or anhydrite. Contacts with the host rock are commonly sharp with narrow white to pink K-feldspar alteration envelopes (KSFS), although most lack visible envelopes. More than one phase of QZMO vein formation has been noted. QZMO veins post-date EGV1, EVB1 and QZCP veins, and are comparable to B-type veins of Gustafson and Hunt (1975). An Amarc Re-Os date on molybdenite from a QZMO vein hosted by EGD1 granodiorite returned 46.4 ± 0.19 Ma, whereas a second QZMO vein in a rounded fragment of EGD1 enclosed in a very fine-grained crystallized intrusive groundmass yielded a date of 47.55 ± 0.24 Ma.

7.3.3.5. Quartz-pyrite ± chalcopyrite (QZPY)

The QZPY veins are dominated by pyrite accompanied by variable amounts of quartz along with trace to minor chalcopyrite and white carbonate. QZPY veinlets range in thickness from < 1 mm to > 10 cm but are mostly a few millimeters wide. They are typically planar, but locally irregular, in form and their contacts with host rocks are mostly sharp. These veinlets cross-cut all other major vein types within the IKE deposit and can also be found within older, reopened vein types. The veins are more prevalent around the margins of the deposit but occur throughout as isolated to low density populations. Locally in drill core, QZPY veins may contain significant chalcopyrite both in the vein and disseminated in the alteration envelope, indicating that some Cu was introduced or remobilized during QSP1 alteration. Some of the QZPY veins may be comparable to D-type veins (Gustafson and Hunt, 1975; Sillitoe, 2010).

7.4. GECAP Area Deposit Geology and Alteration

The GECAP area is located some 5 km to the north of the IKE porphyry Cu-Mo-Ag deposit. GECAP is centered on the CPC contact, a broadly east-trending contact zone that separates the plutons of the CPC to the south from the Lower Cretaceous volcanic rocks of Taylor Creek Group to the north (Figure 7-7).

Mapped plutons of the CPC in the GECAP area are subdivided into EGD1 in the south, and the Empress Phase in the north (Greig et al., 2016; Greig, 2017; Galicki et al. 2017; Figure 7-7). As discussed above in Section 7.2 in additional detail, the Empress Phase is more texturally and compositionally variable than the relatively homogeneous EGD1, particularly in the GECAP where it is proximal to the contact with volcanic and volcaniclastic rocks (Greig et al., 2016). The intrusions manifest as a range of mostly felsic compositions and isotopic dating has returned ages from 104 Ma to 81 Ma (e.g., Blevings, 2008; Schiarizza et al., 1997; Creaser, 2014), although most dates cluster around 87±3 Ma. Younger intrusions include a variety of (mostly undated) felsic to mafic dykes which, at project scale, are strongly sheeted with a preferred north-northwest strike. These dykes often have a more truly porphyritic texture with phenocrysts hosted in an aphanitic, as opposed to a fine-grained groundmass.

The mapped stratified rocks, which form a volcanic and volcaniclastic carapace to the CPC along its northern and northeastern margins, are typically highly altered being characterized by a strong overprint of high-level argillic to advanced argillic corundum-andalusite-quartz alteration (Galicki et al., 2017). In the vicinity of the Empress Cu-Au deposit, the contact between the volcanic and underlying CPC plutons appears to be intrusive rather than structural (Blevings, 2008; Lang, 2017, 2020).

These stratified rocks which are the most abundant of the mapped lithologies in the GECAP area appear to be conformable with volcanic-sedimentary rocks of the Upper Cretaceous Powell Creek Fm Lower Cretaceous Taylor Creek Group. The stratified rocks in the north and east that are intruded by the Empress pluton are characterized by a strong overprint of high-level argillic to advanced argillic alteration. Due to this overprint and limited exposure in lower lying areas, the rocks are currently not well understood.

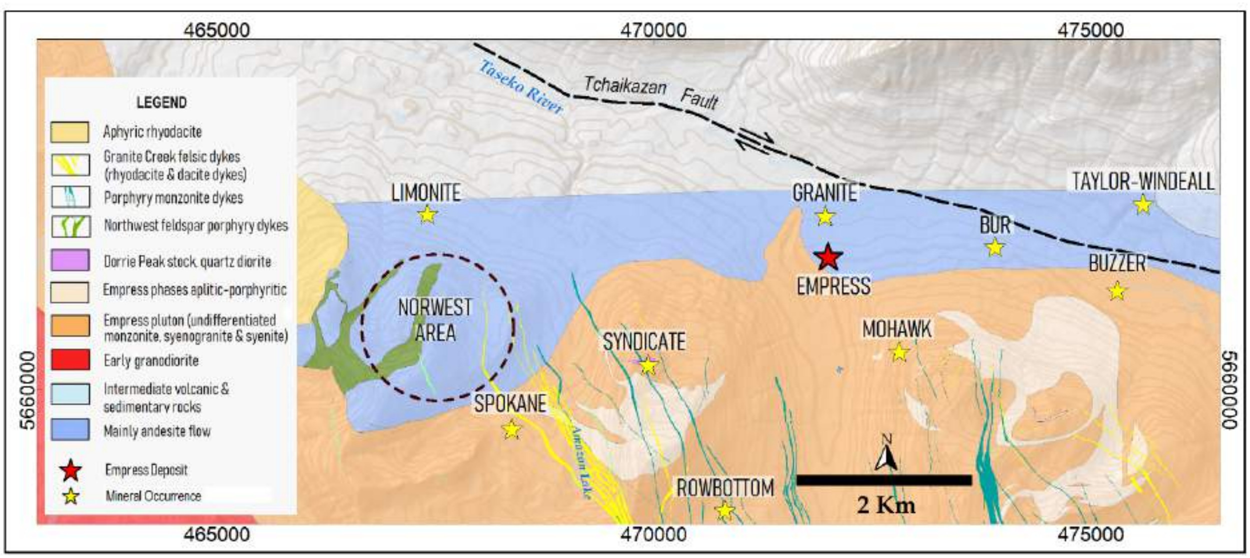

Figure 7-7: Amarc GECAP Surface Geology.

7.5. *Mineralization*

Hydrothermal alteration and mineralization are present at numerous locations throughout the IKE Project (Figures 7-2 and 7-3). Most occurrences are interpreted to be intrusion-related, whereas a smaller number have epithermal characteristics. The widespread and varied types of hydrothermal effects attest to the highly fertile character of the Project area. The mineralization at the IKE deposit, within the GECAP and in the IKE district are discussed below and are adapted from numerous sources including Greig et al., (2016), Greig (2017), Galicki et al. (2017), Lang (2017), Roberts (2018), Fagan et al. (2019), Lang (2020), Galicki et al. (2020).

7.5.1. IKE Porphyry Cu-Mo-Ag Deposit Mineralization and Alteration

Mineralization at the IKE porphyry deposit is dominated by hypogene sulphides and almost exclusively comprises pyrite, chalcopyrite and molybdenite. The style of Cu-Mo-Ag mineralization throughout the IKE deposit is broadly uniform across all intrusive phases, albeit with minor differences related to specific vein types and their associated alteration.

Pyrite and chalcopyrite occur: (1) primarily as very fine to coarse disseminated grains that most commonly replace igneous hornblende and biotite that in most cases have been altered to hydrothermal biotite; (2) as fine disseminations in the groundmass; and (3) and within early halo and later quartz-sulphide veins (Section 7.3.3). In biotite-altered rocks, mafic mineral replacement and fine groundmass, disseminations contribute more to the overall sulphide content than vein-hosted sulphides. In rocks affected by phyllic alteration the sulphides, for the most part, occur within QZPY veins and disseminated through their envelopes.

Molybdenite is primarily hosted by QZMO veins (Section 7.3.3). The molybdenite mostly occurs as 1-2 mm aggregates intergrown with chalcopyrite and/or pyrite, scattered sub-mm flakes, and sub-mm slivers at vein-margins. Rocks with strong Mo mineralization locally contain QZMO veins that are up to five cm in width, which contain large, irregular aggregates of molybdenite associated with lesser chalcopyrite.

The mean total sulphide concentration in the IKE deposit in zones with ≥ 0.15 Cu%, is 2.54% which represents the total of pyrite (1.69%), chalcopyrite (0.81%) and molybdenite (0.04%) as calculated from drill core geochemical data.

The IKE deposit mineralization formed as a result of the development of a magmatic-hydrothermal system associated with the episodic emplacement of a series of dyke-like and stock-like intra to late and post mineral porphyritic felsic to intermediate intrusions that were emplaced into Late Cretaceous intrusive rocks of the CPC (EGD1). Intra-mineral intrusions QMP2 and GDP1 typically intrude EGD1 as dykes that are up to tens of meters thick to plug-like bodies. Most intrusive contacts between EGD1 and QMP2 and GDP1 provided 'weak-zones' that were later exploited by other intra-mineral intrusions, as well as late- and post-mineral intrusions. QMP2 intrusions range from early intra-mineral to late-mineral.

Intra-mineral intrusions QMP1, DIP1, and DIP2 intrude both EGD1 and older intra-mineral intrusions QMP2 and GDP1. These younger intrusions are associated with intense, early, high-temperature KSBT alteration, with associated chalcopyrite precipitation, which suggests a close temporal and genetic association. These intra-mineral intrusions are assumed to have provided pathways for the Cu-mineralizing fluids, or are at least to some extent part of hydrothermal activity associated with Cu mineralization. While not always Cu mineralized, these intrusions commonly were affected by stronger KSBT alteration than the rocks they intrude.

Molybdenum mineralization and associated KSFS alteration show no recognized link to a particular intrusive phase. Cross-cutting relationships do, however, indicate that the Mo-bearing veins post-date the majority of the Cu mineralization and the related KSBT alteration. Molybdenum mineralized intrusions can also occur distal to potassic centers in rocks which are poorly Cu-mineralized, suggesting that Cu and Mo mineralizing events are, at least in part, temporally and spatially detached (e.g., Lang et al., 2013).

Late-mineral intrusions post-date both EGD1 and the intra-mineral intrusions, as well as all K-silicate alteration types (e.g., KSBT and KSFS) and their associated veins. These volumetrically minor intrusions such as GDP2 or DIP3, are commonly weakly QSP1 or CCES altered and poorly Cu-Mo mineralized. Late-mineral intrusions are evenly distributed throughout the deposit, which suggests that they intruded after or in the waning stages of the hydrothermal activity associated with Cu-Mo mineralization, rather than being peripheral and/or intra-hydrothermal intrusions. This interpretation is supported by the generally weak alteration of assemblages that in a classic porphyry Cu model formed later and at lower temperature (Seedorff et al., 2005; Sillitoe, 2010).

The lack of significant QSP1 alteration (and the absence of advanced argillic or argillic alteration) at IKE likely reflects that the system has largely been eroded down to the potassic zone alteration. This is supported by the excellent preservation of textures, the dominance of disseminated chalcopyrite, and the relatively low vein density.

7.5.2. GECAP Mineralization and Alteration

Hydrothermal alteration and mineralization are present at numerous locations throughout the GECAP (Figures 7-2 and 7-3). Many historical drill holes have encountered excellent grades over significant intervals in several of the deposits and deposit targets, exploration targets and prospects. Table 6-21 lists the significant drill intersections in the GECAP area, which highlight the potential to discover new, or expand existing, deposits and deposit targets with additional high-grade intersections.

The characteristics of the GECAP mineral occurrences are summarized in Table 7-2 (Lang, 2020). Further detail on the mineralization at the Empress deposit and Empress East, Empress Gap and Empress West and Cu-Au-Ag replacement Cu-Au-Ag style deposit and deposit targets, respectively, and also for the porphyry Cu-Au-Ag±Mo Granite and Buzzer deposit targets are provided below.

Table 7-2: GECAP Mineralization.

Prospect	Description
Buzzer	Cretaceous porphyry Cu-Au-Mo-Ag deposit. Pyrite-chalcopyrite-molybdenite mineralization locally hosted by quartz-sulphide veins but mostly disseminated through one or more granodiorite intrusions of the Empress Phase. Early potassic alteration is overprinted by sericite and chlorite. The mineralized zone has been drilled by several operators and hosts a small historical resource which is not NI 43-101 compliant and was not relied upon by Amarc during its GECAP exploration programs.
Empress	Late Cretaceous, intrusion-related, Cu-Au-Ag-(Mo) replacement deposit. High-grade mineralization is hosted mostly by volcanic rocks of the Early Cretaceous Powell Creek Fm and occurs most commonly within 100 m above the contact with underlying Empress Phase intrusion. The adjacent Empress Phase only locally contains significant mineralization. Porphyry Cu-Au and Mo mineralization occur in the Granite zone immediately to the north. The deposit has been drilled by several operators and hosts a small historical resource which is not NI 43-101 compliant and was not relied upon by Amarc during its GECAP exploration programs.

Prospect	Description
Mohawk Motherlode	Cretaceous intrusion-related polymetallic mineralization. Comprises two silicified, northeast-striking and southeast-dipping shear zones hosted by the Empress Phase. At surface the zones are at least 200 m long and 30 m wide. The zones contain quartz veins and local breccias. Alteration is mostly quartz-sericite-pyrite locally with tourmaline. High-grade Cu-Au mineralization occurs across a zone 8 m wide in the footwall of one of the shears, with lower grade mineralization more widespread. The nearby Motherlode vein is poorly described but is parallel to the Mohawk veins. Relatively extensive exploration by Cominco in the 1930s that included 130 m of underground development.
Spokane	Cretaceous intrusion-related Cu-Au-Mo mineralization. At least two north-striking 'vein-like' zones are hosted by the Empress Phase of the CPC. Veins within the zones contain quartz and abundant sulphides and have extensive envelopes of silicification. Argillic and sericitic alteration are widespread in talus. Historical significant intercepts include hole 08TSK-12 21.00 m from 20.70 m grading 1.92% CuEQ as 1.63% Cu, 301 ppb (0.30 g/t) Au, 0.004% Mo and 17.4 g/t Ag. The Road, Tarn and South sub-zones have been less explored; the Main zone has been explored by several companies but has not been drilled to sufficient depth. No formal resource exists for this target.
Syndicate	Cretaceous hydrothermal breccia with Cu-Au-Mo mineralization. A multi-stage hydrothermal breccia associated with silicification and disseminated sulphides in the Empress Phase. Local potassic alteration, and pre-breccia magnetite veins are common. Two historical holes intersected significant Cu-Au-Mo mineralization. Strong rock sample results in an area of 1.3 km^2 surrounding the main breccia; at least two other breccias have also been identified. Exploration of this target is very limited.
Norwest	Widespread alteration and local minor mineralization of uncertain style probable Cretaceous age. Affected hosts are volcanic and sedimentary rock of the Taylor Creek Group. Widespread alteration includes advanced argillic, sericite and propylitic assemblages. Chalcopyrite-bearing quartz-(tourmaline) veins occur in float and locally in outcrop. Pyrite is widespread. Surficial geochemical surveys have been completed but the area is undrilled.
Taylor-Windfall	Cretaceous epithermal polymetallic veins. Small historical producer of very high-grade gold mineralization from two narrow veins that dip steeply and strike northeast. Veins contain a high-sulphidation ore mineral assemblage and are surrounded by advanced argillic alteration.

7.5.2.1. Empress, Granite and Buzzer Alteration and Mineralization

Combined historical and Amarc surveys along with historical drilling confirm, that in the area surrounding the Empress and Empress East mineralized zones, a fertile magmatic-hydrothermal-structural setting exists that has a high discovery potential for intrusion-related replacement Cu-Au-Ag±Mo deposits, and also porphyry Cu-Au-Ag-Mo deposits (Section 9). Intense to moderate sulphide-rich hydrothermal alteration is consistently present over an east-west elongated area that measures at least 15 km long and 1 to 2 km in width, and straddles the contact between the volcanic and volcaniclastic rocks to the north and the CPC intrusions to the south. This sulphide mineralization occurs in a variety of alteration types commonly found in major porphyry centres (Lang, 2020). South of the volcanic and volcaniclastic rocks, Cu deposit targets and prospects in the Empress Phase pluton with strong porphyry affinities include Rowbottom, Spokane and Syndicate and also the Buzzer deposit. At the Empress deposit and likely Empress East deposit target, mineralization formed predominantly by replacement of previously altered volcanic and volcaniclastic rock by a quartz-magnetite-corundum-andalusite-sulphide assemblage. Importantly, the variations in style indicate that mineralization is likely exposed over a range of paleodepths across the area, which increases the range of target types and the probability of preservation of deposits.

Mineralization at the Empress deposit and Empress East deposit target remain to be fully drill-delineated, with areas between and beyond tested only by shallow reconnaissance drilling, while other exploration targets remain undrilled. These Au-bearing deposits and deposit target types formed at approximately 85-90 Ma, and are distinct from the Eocene hydrothermal activity that formed the large IKE porphyry Cu-Mo-Ag deposit target, located 5 km south of the GECAP. Mineralization at the Empress deposit formed predominantly by replacement of previously altered volcanic rock by a quartz-magnetite-sulphide assemblage (Blevings, 2008; Lang, 2017). Although considered a porphyry Cu-Au deposit by most historical workers (e.g., Blevings, 2008), the deposit does not itself exhibit characteristics typical of a porphyry deposit but instead manifests in a replacement style (Lang, 2017). It is likely that the source of mineralizing replacement fluids for the infiltration of metasomatic mineralization at Empress is a concealed porphyry-style Cu-Au-Ag±Mo target, somewhere in relatively close proximity to Empress.

Alteration at the Empress deposit is pervasive, commonly being intense and texture-destructive, and has little or no visible fracture or vein control (Lang, 2017). Proximal to the contact between the volcanics and the Empress Phase massive silicification occurs, whereas quartz-andalusite-pyrophyllite and plagioclase-quart-pyrophyllite are intercalated and formed further from the contact. The Cu-Au mineralization appears to be directly related to the younger silicification. Underlying quartz diorite intrusions are comparatively weakly biotite-magnetite-sulphide K-silicate altered. The strongest mineralization occurs in the volcanic rocks and, in most cases, in the first 100 m above the contact with the underlying intrusive Empress Phase, but some notable higher-grade intersections also occur further up in the system with intervening intervals of mineralization (Figures 9-19 and 9-20). The Empress Phase intrusion immediately below this mineralization exhibits only weak potassic alteration. This contact zone appears to be critical for channeling of mineralizing fluids, likely up-dip from an intrusive source potentially located to the west, north or east of the currently defined Empress zone.

Two zones of mineralization in the immediate vicinity of the Empress deposit support the model for derivation of mineralizing fluids from a hidden porphyry deposit. The first zone is at the Granite deposit target, which is located approximately 200 m to the north of Empress (Figure 9-18). Here historical drill hole 91-49 (Lang 2017; Figures 9-20 and 9-25) intersected consecutive intervals of Mo-rich and Cu-Au porphyry-style mineralization hosted by two different intrusions (the Mo-rich mineralization also extends into the overlying volcanic rocks). These intrusions are distinct both from each other and from the main body of poorly- to un-mineralized Empress Phase intrusion that underlies most of the target at Empress. Whether these mineralized intrusions are part of a small cupola or a large intrusive body cannot be determined from the limited historical drilling in the area, but the intrusions do reach the base of overburden and thus reach shallow levels. Copper-Au-Mo mineralization at Granite is associated with biotite-magnetite-sulphide alteration, which may be overprinted by a K-feldspar-sericite assemblage related to Mo-rich mineralization hosted by a different intrusive phase. Alteration peripheral to the mineralized centre is less intense, and more commonly manifests quartz-sericite-pyrite and quartz-chlorite-pyrite alteration in felsic and mafic host rocks, respectively.

The second zone is represented by the Buzzer porphyry deposit target, which is located east-southeast of the Empress East zone where historical drilling shows the presence of good grade intervals of porphyry-style Cu-Au-Ag-Mo mineralization (Section 6.7.10 and Table 6-21). The intrusion that hosts mineralization at Buzzer is also distinct from the main mass of the Empress Phase intrusion. Alteration is a selectively pervasive assemblage characterized by biotite accompanied by chalcopyrite, pyrite and minor molybdenite, after igneous minerals. There is a weak overprint of sericite/clay and chlorite.

The Granite and Buzzer porphyry systems demonstrate that significant Cretaceous porphyry-style mineralization is present in the GECAP, and that further exploration surveys and drilling have the potential to make new discoveries, both inboard and outboard from the CPC contact.

7.6. *IKE District Deposit Targets*

Table 7-3 summarizes the known centres of mineralization outside of the IKE deposit and the GECAP areas, within the IKE district (Lang, 2020). The Mad Major and Rowbottom deposit targets are discussed in more detail in Sections 6.8, 9 and 10, and historical significant drill intercepts are reported in Table 6-24.

Table 7-3: IKE District Deposit Targets.

Prospect	Description
Battlement	Cretaceous epithermal polymetallic mineralization. A large area marked by multi-element anomalies in soil and rock samples within volcano-sedimentary rocks of the Powell Creek Fm. Contains veins associated with advanced argillic alteration and small hydrothermal breccias. Alteration may be stratabound and has been interpreted to be a lateral manifestation of Taylor-Windfall style veins. A historical 1986 hole (86-2) intersected 70.8 m of vuggy silica and massive pyrite associated with strong Cu, Ag, As, Sb and Bi but without significant Au. Area has been explored by several companies but drilling is limited. Hole 86-2 is unconstrained.
Mad Major	Late Cretaceous to Paleocene porphyry Cu-Mo-Ag±Au target. Denoted by a high contrast, multi-element talus geochemical anomaly that is > 2 km^2 in size and by numerous, northeast-striking gossans. Encompasses several historical showings including Forrest, Toe and Canyon. May be related to a younger, more leucocratic phase of the CPC that cuts the older, more typical Cretaceous CPC phases. Only very limited drill exploration; the source of the very large geochemical anomaly has not yet been determined.
Mewtwo	Eocene epithermal alteration and associated precious metal mineralization. Defined by surface geochemical anomalies, particularly for Ag and Au-pathfinder elements. Spatially related to an extensive, northwest-striking rhyolite dyke swarm that cuts CPC intrusions. No significant exploration thus far.
OMG	A porphyry target, possibly of Late Cretaceous to Paleocene age. Defined by a large magnetic low located north-northwest of the Mad Major prospect. No significant exploration thus far.
Rowbottom	Cretaceous intrusion-related Cu-Mo-Au mineralization. Porphyry-style alteration and mineralization are intermittently exposed for at least 550 m in Rowbottom creek and are associated with an extensive IP chargeability anomaly. Limited historical drilling returned good Cu-Mo grades but did not analyze for Au-Ag; a single hole drilled by Amarc in 2017 confirmed the presence of Au and Ag. A soil geochemistry grid down-slope near Granite creek and extending north and south of Rowbottom creek indicates that a larger exploration target may be present.
Teek	Minor disseminated pyrite and chalcopyrite hosted by CPC intrusions. No meaningful descriptions available and age is uncertain.

8. Deposit Type

Amarc's exploration focus at the IKE Project is locating and defining porphyry-style Cu-Mo-Ag and Cu-Au-Ag±Mo deposits, and replacement-style Cu-Au±Ag±Mo deposits. Epithermal-style Au-Ag prospects are present but currently are not a focus of exploration.

8.1 Porphyry Cu-Mo-Ag Batholithic Type

The presence, characteristics and distribution of chalcopyrite-rich early halo veins and widespread potassic alteration suggest the IKE porphyry deposit is compatible with the batholithic Cu-Mo deposit model of Cheney and Tramell (1975).

Batholithic porphyry deposits include Chuquicamata (Lindsay et al., 1995), Lomas Bayas (Camus and Dilles, 2001, and references therein), and Los Pelambres (Atkinson et al., 1998) in Chile, Butte in Montana (Brimhall, 1977), and Highland Valley (Sutherland-Brown, 1976) and Gibraltar (Ash and Riveros, 2000) in BC. Batholithic porphyry deposits with early halo veins likely formed above igneous cupolas emplaced at > 4 km depth, and the majority of Cu mineralization within the deposits is, typically, introduced early and associated with potassic alteration (Proffett, 2009). The model for batholithic deposits characteristically includes the following:

- Large volumes of altered and mineralized rock that have Cu grades between 0.2% and 0.5% and which also commonly contain recoverable Mo and Ag;
- Primary igneous rock textures are well preserved, and igneous feldspars, at least locally, retain their primary composition;
- The main alteration type manifests replacement of igneous mafic minerals by secondary biotite. This alteration mostly occurs in pre-mineralization granitic host rocks and in porphyry dykes that are closest in age and, potentially, genetically related to the mineralization; and
- Zones of higher Cu grade are commonly coincident with more numerous and/or volumetrically significant early halo veins.

8.2 Replacement Cu-Au-Ag±Mo Type

The Cu- and Au-bearing replacement deposit targets on the IKE Project are believed to fall within the general bounds of the skarn model (e.g., Meinert et al., 2005). Skarns are complex, and variation in the composition of spatially and temporally related intrusions and their host rocks results in a wide variety of deposit styles. The most applicable subtype of skarns on the IKE Project may be those related to metaluminous, highly oxidized, generally barren or low grade, shallowly emplaced, calc-alkaline, volcanic arc plutons of quartz diorite, monzodiorite and/or granodiorite composition (Ettlinger et al., 1989; Ray and Dawson, 1998; Ray, 2013). The Cu-Au replacement deposits of this type express a common set of features:

- They occur in mobile belts that have undergone moderate deformation and that have been intruded by plutons associated with hydrothermal activity (Jensen and Bateman, 1981; Cox and Singer, 1987);
- Mineralization forms in chemically reactive host rocks that can maintain long-lived permeability. Faults, dyke and sill margins, bedding, and lithological contacts commonly focus the

hydrothermal fluids and control the location and geometry of mineralization. The mineralization precipitates in response to physicochemical gradients;

Mineralizing fluids are derived from underlying or adjacent intrusions. These intrusions can also host porphyry-style Cu-Au-Mo-Ag hydrothermal systems;

Mineralogical and chemical zoning along and surrounding controlling structures is common and can be used for vectoring during exploration (Ray, 2013);

Chlorite, calc-silicate, and potassic alteration types are common, as is advanced argillic alteration. Some deposits contain hydrothermal andalusite and corundum, which is the case at the Empress Cu-Au replacement deposit within the GECAP area of the IKE Project. Porphyry deposits associated with replacement deposits can also contain these minerals, which are otherwise comparatively rare, with notable examples at Butte, Montana (Brimhall, 1972), El Salvador, Chile (Gustafson and Hunt, 1975), North Sulawesi, Indonesia (Lower and Dow, 1978), the Elkhorn District, Montana (Steefel and Atkinson, 1984);

The deposits are typically tabular, podiform, or pipe shaped, and can occur as sheets along faults or lithological contacts;

Deposits commonly occur in clusters of deposits that have high Cu grades (commonly > 1%) accompanied by Au; and

The geochemical signature typically comprises Cu, Au, As, Sb, Bi, Ba and Ag.

8.3 Porphyry Cu-Au-Ag±Mo Deposits

The IKE Project has a favorable geological setting for classic porphyry Cu-Au-Ag±Mo deposits. The principal features of these deposits have been summarized by John et al. (2010), Hedenquist et al. (1998), Seedorff et al. (2005) and Sillitoe (2010) and are included in the following:

Deposits have a large tonnage amenable to bulk mining methods;

Cu is the main metal of economic interest and occurs at low to moderate grades typically between 0.15% and 2.0%. Other metals of co- or by-product potential include Au, Mo, Ag, Re, and W;

Mineralization can occur as disseminations, in veins, and/or in hydrothermal breccias;

The deposits are spatially and genetically related to porphyritic intrusions of intermediate to felsic composition that formed in convergent-margin tectonic settings;

The deposits formed at depths from 1 to > 5 km;

These deposits commonly occur in clusters and less commonly as single isolated bodies; and

Porphyry deposits commonly have a spatial association with other styles of intrusion-related mineralization, including skarns, polymetallic replacements and veins, intermediate to high-sulphidation epithermal deposits, and distal low-sulphidation Au-Ag epithermal deposits.

These characteristics correspond closely to the principal features observed at various exploration targets on the IKE Project, including Buzzer, Granite and Rowbottom.

8.4 Epithermal Au-Ag Type

The IKE Project also has potential to host epithermal Au-Ag deposits, although currently they are not a priority focus of exploration. The epithermal deposit model is described in detail by White and Hedenquist (1995) and Simmons et al. (2005). This class of deposits is commonly subdivided according to sulphur activity in the ore-forming fluids into high, intermediate, and low sulphidation subtypes. Epithermal target areas on the IKE Project, including the formerly producing Taylor Windfall mine and the Battlement prospect, have characteristics most compatible with the high sulphidation subtype. Characteristics of this deposit type are described below:

- These deposits are directly associated with centers of magmatism in convergent margin volcanic arc tectonic settings;
- The deposits are commonly polymetallic but economically the most important metals are Au, Ag and Cu;
- They typically form at depths of 0.5 to 1.5 km, above or lateral to an underlying, degassing, felsic to intermediate, porphyritic, calc-alkaline intrusion;
- Hydrothermal fluids in high sulphidation epithermal systems are primarily sourced initially from the underlying magmas but also commonly mix with meteoric waters as they ascend toward the surface. They range from saline to dilute brines and vapour-rich fluids, and have very high sulphur concentrations that make them highly acidic;
- The underlying intrusion is commonly associated with a porphyry Cu-Au deposit located beneath or lateral to the high sulphidation epithermal system;
- The most common host rocks for the epithermal alteration and mineralization are volcanic domes, diatremes, and volcaniclastic and/or clastic sedimentary host rocks;
- Where preserved, high sulphidation epithermal systems typically manifest a very large silica lithocap, which can be many times larger than the potential porphyry deposit at depth. The silica lithocap is typically an early alteration type that in most cases is weakly to unmineralized. A widespread and typically very early alteration type in the lithocap setting is vuggy silica, which is a porous rock in which only residual silica remains after leaching by the very acidic hydrothermal fluids;
- Advanced argillic is typically slightly younger than and lateral to the vuggy silica alteration. It is also widespread and is characterized by minerals such as alunite, pyrophyllite, diaspore, zunyite, tourmaline, dickite, kaolinite, sericite and sulphate minerals;
- Potentially economic, high sulphidation epithermal mineralization typically forms during a younger stage of hydrothermal activity that is focused along structural conduits and/or in zones of high primary or secondary (e.g., vuggy silica alteration zones) permeability that cut through the older lithocap alteration. Alteration is commonly siliceous;
- The lithocap environment is commonly separated from the porphyry system at depth by an intervening zone of poorly mineralized quartz-sericite-pyrite alteration;
- Mineralization styles and geometries reflect the underlying structural and permeability controls noted above, and include disseminated, veinlet-hosted, and/or breccia-hosted; and
- Ore minerals can be extremely diverse but among the more economically important are enargite/luzonite, chalcopyrite, bornite, tetrahedrite-tennantite, covellite, digenite, auriferous pyrite, and base and precious metal sulphosalts.

9. Exploration

Amarc has been the operator of the IKE Project since 2014, and has completed 189 km^2 of geological mapping, collected 3,017 geochemical samples (talus fines, rock-chip and stream sediment), run 163.6 line-km of IP geophysical surveys, flown 1,069 line-km of airborne magnetic geophysical surveys, and drilled over 18,000 m of core (see Section 10). More details of these exploration programs can be found in Galicki et al. (2015), Galicki et al. (2016), Greig et al. (2016), Galicki et al. (2017), Greig (2017), Roberts (2018), and Fagan et al. (2019). This high-quality exploration data as combined with significant historical geological, geochemical and geophysical survey and drilling information, has significantly advanced exploration leading to, for example, the recognition of both the size potential of the IKE Cu-Mo-Ag deposit and the potential of the GECAP area for Cu-Au porphyry and replacement deposits.

Until recently the IKE porphyry Cu-Mo-Ag deposit has been the primary focus of exploration activity, and now requires in-fill drilling to define the full extent and grade of the mineralization. Amarc has also completed the initial ground assessment, with limited drill testing, of a number of exploration targets across the IKE district within approximately 8 km of the IKE deposit. These exploration targets include, for example, Rowbottom and Mad Major. More recently, the GECAP area has been evaluated largely, but not entirely, through the compilation of historical data which has defined a promising potential for predominantly higher-grade Cu-Au replacement and porphyry Cu-Au±Mo±Ag mineralization, over a 15 km by 1 to 2 km sub-area of the IKE Project that is centred around the Empress Cu-Au deposit.

9.1. *Amarc Geological Mapping*

In 2014, a geological mapping survey was completed over the IKE Cu-Mo-Ag porphyry deposit, along with initial reconnaissance mapping at the Mad Major porphyry Cu-Mo and Rowbottom porphyry Cu-Mo-Au deposit targets and also at the Spokane and Syndicate prospects that lie within the GECAP area. Mapping in 2015 covered southwest extensions to the IKE deposit area and the eastern side of the Mad Major deposit target area including Wilson Ridge, with initial reconnaissance mapping in the area of the OMG exploration target on the west of Wilson Ridge. In 2016, Amarc undertook the first comprehensive district-scale geological mapping of the eastern sector of the Project tenure in order to better define and understand the geological framework for mineralization and alteration in this area. This was followed up in 2017 by more detailed mapping focused specifically on the Mad Major and certain targets within the GECAP area.

The geology of the IKE Project represents a highly fertile magmatic-hydrothermal-structural setting where most mineral occurrences are interpreted to be intrusion-related, and a smaller number have epithermal characteristics. Intrusion-related deposits and deposit targets include porphyry Cu±Au±Ag±Mo mineralization, for example, at IKE, Granite, Buzzer and Rowbottom and also the replacement-style Cu-Au-Ag deposits at Empress and Empress East. Importantly, the variations in style indicate that mineralization is likely exposed over a range of paleodepths across the area, which increases the range of target types and the probability of preservation of deposits.

As presented in additional detail in Section 7.2, the IKE Project straddles the northeastern margin of the CPC where it has intruded volcano-sedimentary rocks of the Cretaceous Powell Creek Fm and Taylor Creek Group. Amarc's mapping of the eastern area of the IKE Project tenure has confirmed that the IKE porphyry Cu-Mo-Ag deposit is hosted by Early to Late Cretaceous, homogeneous EGD1 of the CPC and a series of Eocene intra- to late-mineral porphyritic dykes that range from granodiorite to quartz-monzonite and diorite in composition. By comparison, to the north of the IKE deposit in the GECAP Cu-Au mineralized area, an outer more heterogeneous Empress Phase to the CPC is in contact against its Cretaceous volcanic-sedimentary host rocks. The Tchaikazan Fault may have exerted control on both the emplacement of younger dykes and mineralization at the IKE deposit, in the GECAP area and more broadly in the IKE district, where it exhibits a dilational horsetail architecture.

Summaries of the company's geological mapping at Rowbottom and Mad Major deposit targets, are provided below.

9.1.1. Rowbottom Porphyry Cu-Mo-Au Deposit Target

Reconnaissance mapping (Galicki et al., 2015) at the Rowbottom deposit target indicates that EGD1 is intruded by: (1) mineralized pink biotite granite dykes; (2) a series of post-mineral hornblende diorite dykes; and (3) at topographically higher levels in the upper western extremities of the Rowbottom valley, by an approximately 200 to 400 m wide northwest to north-northwest trending, steeply west dipping, rhyolite dyke swarm emplaced along a splay of the Tchaikazan Fault (Figure 7-2). Outcrop in the topographically lower areas of the target, which is largely covered by glacial-fluvial deposits, and largely restricted to an approximately 300 m long stretch of near-continuous mineralized outcrop in Rowbottom creek. Here, EGD1 exhibits chalcopyrite (0.3-2%) and pyrite (1-2%) mineralization associated with selectively pervasive to pervasive K-silicate, shreddy, hydrothermal biotite (and/or chlorite after biotite) alteration, with weak sericitization also evident. Sulphides occur replacing mafic mineral sites, associated with quartz±pyrite veins and in local hairline chalcopyrite-pyrite veinlets. Within this well-mineralized outcrop, low strain, north-northeast striking and steeply dipping, several metre-wide spaced zones with 1-2% chalcopyrite were observed.

This mineralized zone coincides spatially with significant historical results (Section 6.8.1) from:

- A series of 11 shallow an percussion holes, eight of which were mineralized, and where mineralization remains open laterally and to depth. For example, historical hole S-64, intercepted a 48.77 m interval from 3.05 m that ran 0.51% CuEQ at 0.49% Cu and 0.007% MoS (these historical drill samples were not analyzed for Au);
- A historical soils grid with anomalous Cu, Au, Ag, Mo, and Pb;
- Eight consecutive historical rock samples with Cu and Mo concentrations ranging between 962 and 5,280 ppm and 4 and 84 ppm, respectively, and two samples reporting 100 ppb (0.1 g/t) and 150 ppb (0.15 g/t) Au; and
- A shallow 650 by 150 m northeast trending IP chargeability anomaly that remains open to expansion.

In addition, northeast of the mineralized zone, three historical outcrop grab samples returned 1,140 ppm, 6,965 ppm and > 2% Cu, with the latter two samples also reporting 310 and 1,490 ppb Au. EGD1 is reported from outcrops in historical trenches located 1.2 km upstream of the main showing, with incipient K-silicate biotite alteration with minor, shreddy, biotite replacement of mafic grains, and occasional, minor (approximately 0.15 to 0.3%) chalcopyrite replacing mafic mineral sites. These results are further discussed in Section 6.8.1.

9.1.2. *Mad Major Porphyry Cu-Mo Deposit Target*

At Mad Major, EGD1 and Late Cretaceous volcanic rocks are intruded by limited areas of younger intrusive rocks, which include potentially Late Cretaceous biotite granite, possibly Eocene fine-grained quartz diorite and minor rhyolite dykes as well as post-mineral hornblende-plagioclase-phyric mafic dykes (Galicki et al., 2015; Greig et al., 2016; Greig, 2017; Galicki et al. 2017). Some exposures of EGD1, especially at Wilson Ridge (Figure 9-2) differ slightly from the typical IKE deposit EGD1, having more biotite than hornblende. Late Cretaceous volcanic rocks of the Powell Creek Fm at Wilson Ridge consist of andesitic and subordinate dacitic flows, tuffs and epiclastics.

Where EGD1 has intruded the volcanic rocks at Mad Major, especially andesitic volcanics, a strong biotite-bearing hornfels is evident within approximately 100 m of the contact, which grades outwards to moderate to weak amphibole-chlorite hornfels (Figure 7-2). Early alteration of the intrusions is dominated by a weak to moderate replacement of hornblende by black shreddy biotite, which is commonly retrograded to chlorite. Magmatic biotite is normally unaffected. Weak propylitic (chlorite ± epidote) assemblages surround the secondary biotitic zones. Late alteration is subdivided into weak and moderate quartz-sericite-pyrite, quartz-sericite-pyrite breccia, quartz-sericite-alunite, vuggy quartz-pyrite and silicic ± tourmaline assemblages. Pyrite and/or chalcopyrite contents range up to approximately 2% in intrusive rocks, and increase to 2 to 5% in volcanic rocks.

The southern area of Mad Major locally hosts well-developed porphyry-style alteration, veining and/or mineralization. K-silicate biotite alteration is not uncommon; for example, it occurs in proximity to historical diamond drill hole 08TSK-10, which intersected 224.20 m of 0.12% Cu and 38 ppm Mo from 6.1 to 230.3 m. This hole was collared within a high contrast and sizable historical soils anomaly (Section 6.8.2), and at higher elevation in and around quartz diorite intrusions, and immediately surrounding an area of 10 cm wide quartz-chalcopyrite veins. In these locations, fine-grained shreddy hydrothermal biotite replaces hornblende crystals in the host hornblende granodiorite. Mineralization is generally vein or fracture-hosted, with locally abundant quartz±pyrite±chalcopyrite veins and pyrite-chalcopyrite±biotite±magnetite veinlets which are generally associated with K-silicate biotite altered outcrops. Barren grey irregular quartz veins are most common but in areas of higher vein density, quartz-pyrite-chalcopyrite veins predominate. Volumetrically minor actinolite-epidote-pyrite veins are locally observed and may represent a weakly developed propylitic halo. EGD1 outcrop commonly contains minor hairline veinlets of pyrite-chalcopyrite that are easily overlooked as the host rock generally appears fresh, unaltered and non-gossanous. Notably, the results of drill hole 08TSK-10 are similar to historical drill hole 70-2 at the IKE deposit, which yielded 0.11% Cu and 0.004% Mo over its entire sampled length (124 m). The similar results and mineralization and alteration styles indicate drill-hole 08TSK-10 is potentially peripheral to significant porphyry Cu-Mo mineralization.

Brittle shear zone structures at Mad Major trend dominantly northeast and have effectively localized the post mineral dykes and quartz-sericite altered zones. Widespread tourmaline is distributed across Wilson Ridge and is closely associated with the CPC contact zone.

Mapping suggests that vein mineralogy in the northern area of Wilson Ridge is similar to that observed in the Taylor-Windfall area (Figure 7-2, Tables 7-2 and 7-3), typically displaying pyrite-tennantite-sphalerite-chalcopyrite mineralization with vein alteration assemblages comprising corundum (sapphire)-andalusite-quartz. The timing of mineralization in this region roughly correlates with the 88 Ma age of the Taylor-Windfall occurrence, suggesting a common formational timing. The extensive pyrite mineralization on Wilson Ridge appears to be entirely associated with the contact aureole of the main batholith, and is separated from the Mad Major (and southern extent of Wilson Ridge) pyrite-bearing units by a large block of unmineralized EDG1.

9.2. Amarc Surficial Geochemistry

From 2014 – 2017, Amarc collected 151 stream sediment samples, 2,609 talus fines samples and 256 rock samples.

9.2.1. Stream Sediment Geochemistry Survey Results

During the 2014 stream sediment survey, 151 stream sediment samples were collected at roughly 200 m intervals along the main streams and selected tributaries, covering most of the eastern tenure of the IKE

Project. Samples were shipped to ActLabs in Kamloops, BC where they were dried, sieved and analyzed (Section 11.2.2).

Samples from streams draining the IKE deposit (#1 on Figure 9-1) and at Mad Major (#3) are strongly anomalous in Cu and Mo. Sediment samples from Granite creek and east draining tributary streams, including Rowbottom creek, contain strongly anomalous concentrations of Ag (Figures 9-1 and 9-2). These streams drain the north-northwest-trending Mewtwo (#6) rhyolite dyke swarm, intruding a splay from the Tchaikazan Fault (Section 7-2; Figures 7-2 and 7-3). Follow up talus sampling confirmed a substantial Ag anomaly. The geological setting is permissive for either, or both, porphyry or epithermal-type deposits. Detailed mapping, prospecting and rock sampling are required to determine the source, extent, intensity and character of alteration and mineralization.

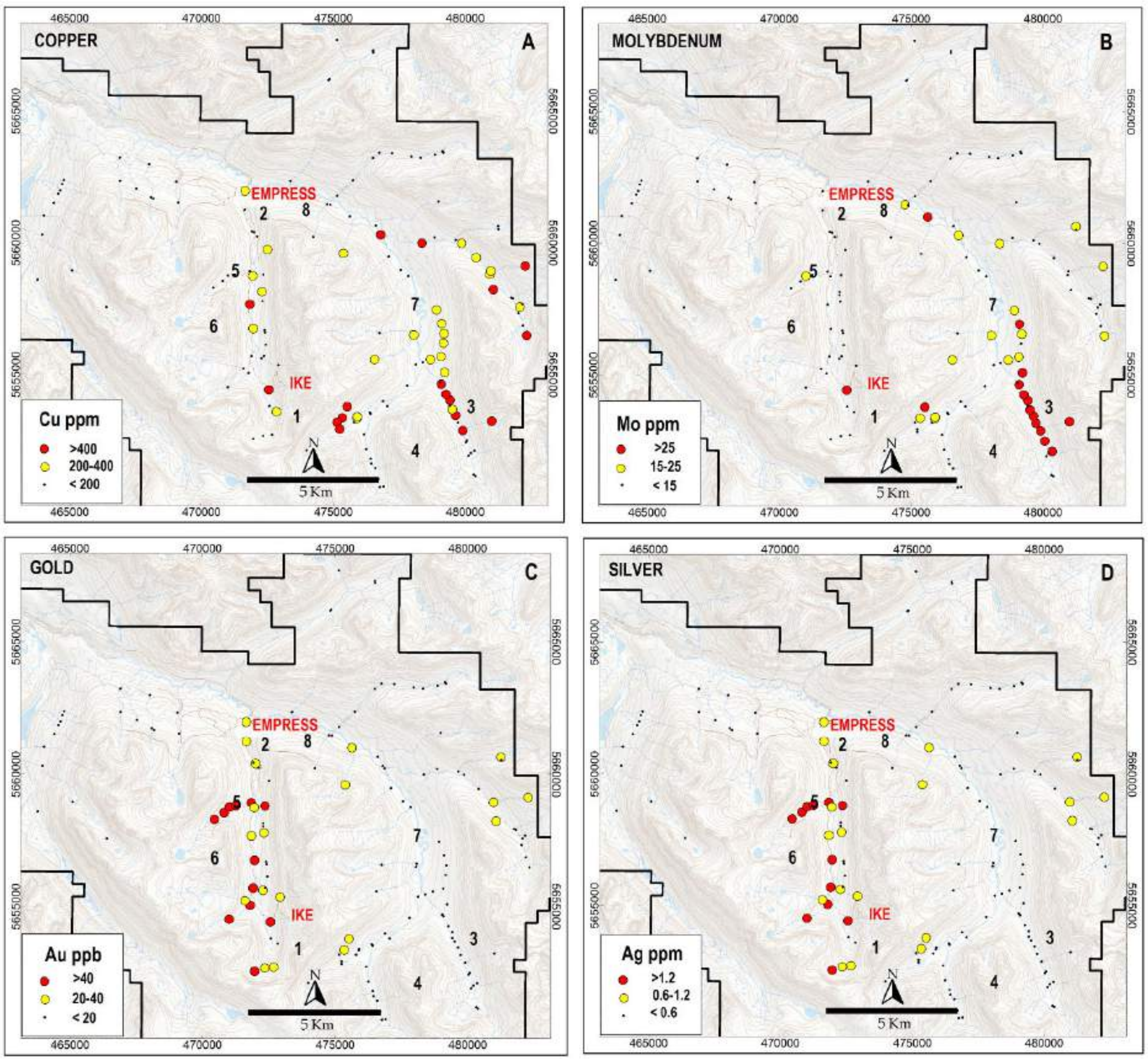

Figure 9-1: Amarc 2014 IKE Project Stream Sediment Geochemical Survey and Sample Locations: A) Cu; B) Mo; C) Au; and D) Ag Results. Yellow Symbols Indicate Moderately Anomalous Concentrations and Red Strongly Anomalous Concentrations. IKE Deposit (#1), Empress Deposit (#2), Mad Major (#3), Mad Major West [MMW](#4), Rowbottom (#5), Mewtwo (#6), OMG (#7) and Buzzer (#8).

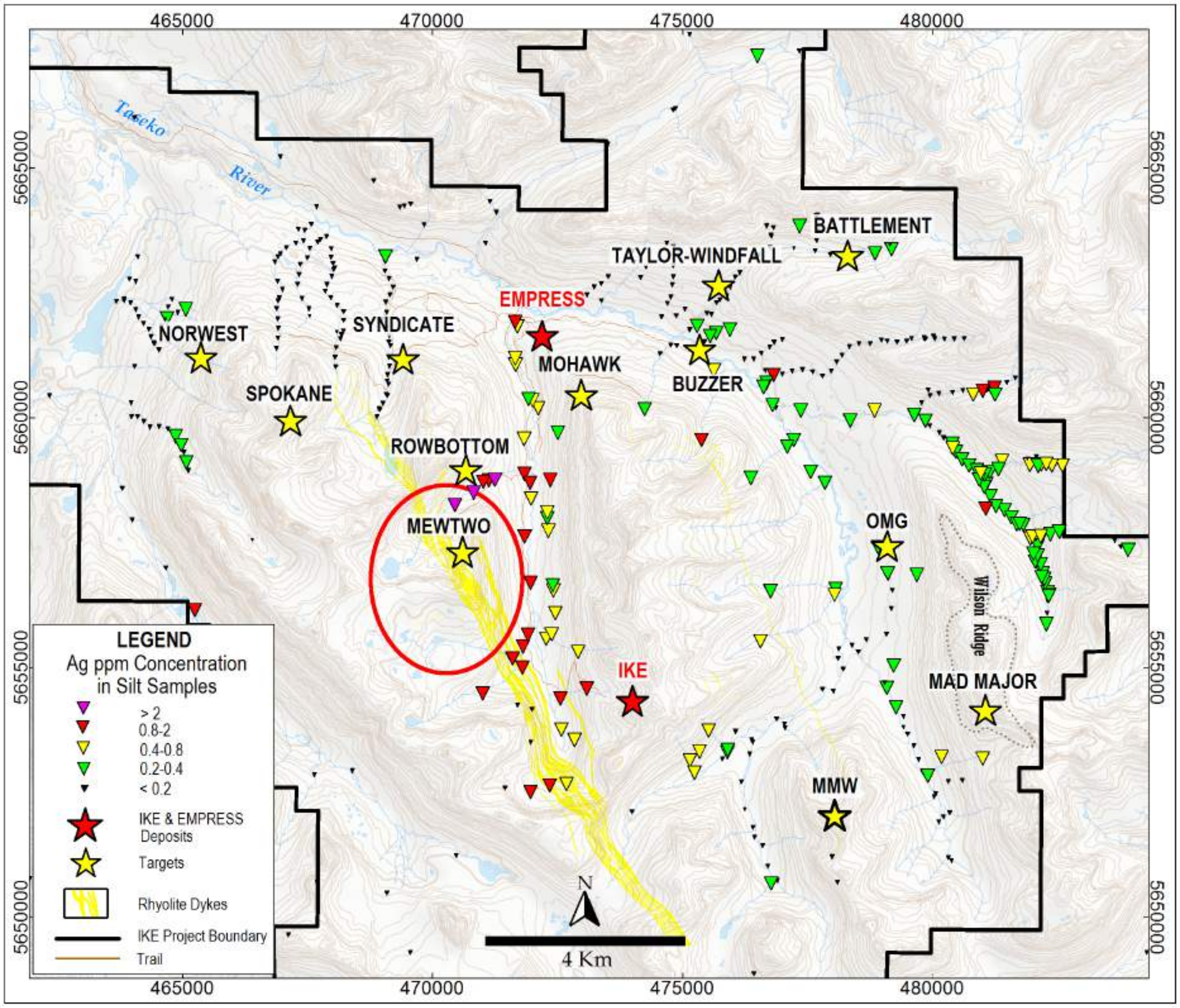

Figure 9-2: Amarc Stream Sediment Samples with Anomalous Ag Concentrations Cluster Along Streams Draining the Mewtwo Rhyolite Dyke Swarm and the IKE Deposit.

9.2.2. Talus Fines Geochemistry Survey Results

The number of talus fines samples collected and analyzed in 2014, 2015, 2016, 2017 and 2018 were 247, 391, 1,258, 616 and 97 respectively (Figure 9-3). Sample spacing was 50 m in 2014 at the IKE deposit, and 100 m in the following years over various exploration targets located in the eastern area of the IKE Project tenure. Typically, talus fines samples were pre-sieved at the site of collection and fragments larger than 0.5 cm were discarded. 151 stream samples were also taken in 2014. Samples were shipped to ActLabs in Kamloops, BC where they were dried, sieved and analyzed. Stream sediment, talus fines were analyzed for 63 elements by ICP-MS.

Amarc's verification and QAQC procedures for the surficial samples are described in Sections 11.

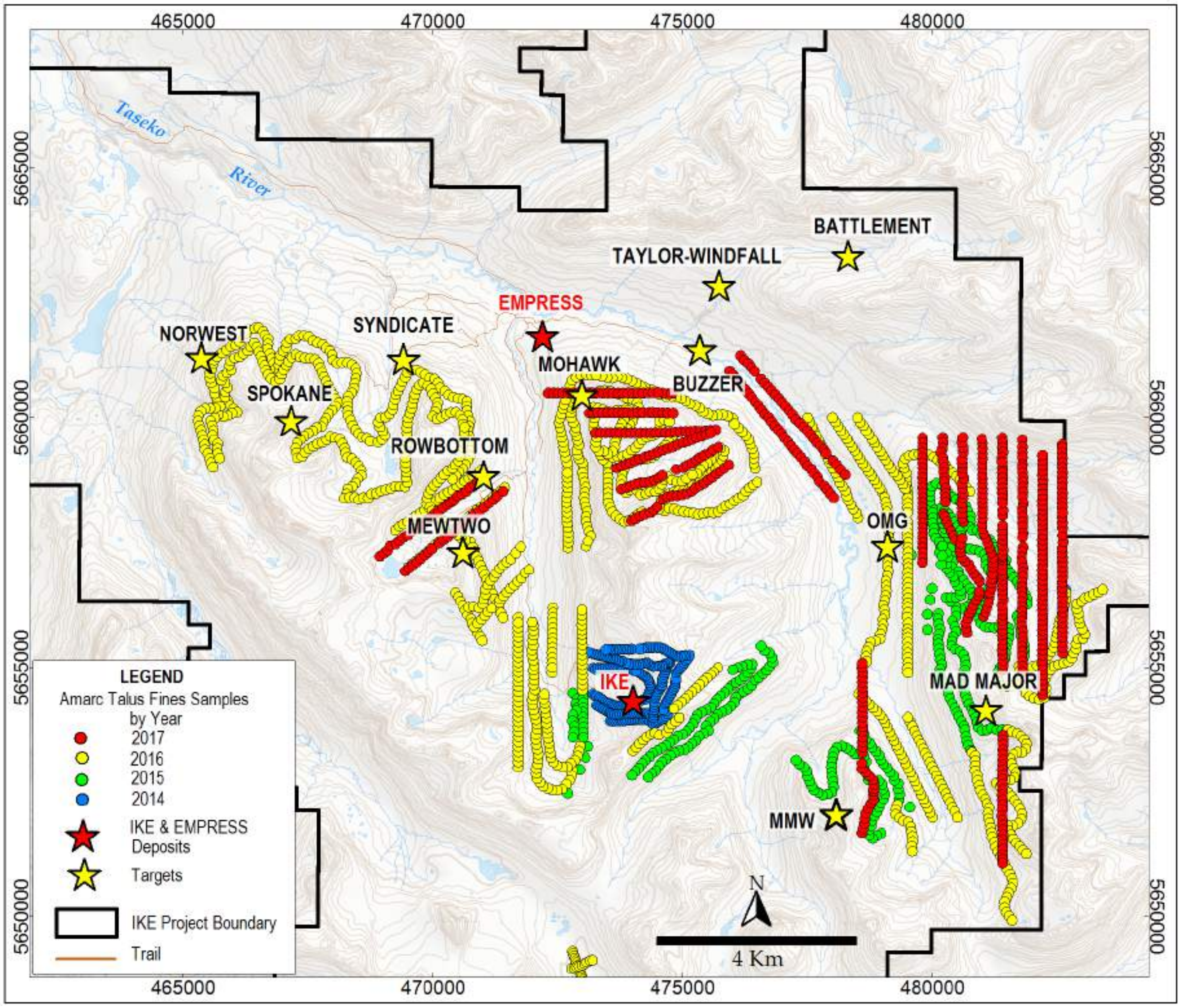

Figure 9-3: Amarc Talus Fines Geochemical Surveys by Year.

The areas covered by the talus fines geochemical survey defined geochemical anomalies for a variety of ore and pathfinder metals (Figure 9-4).

The area of the IKE deposit is characterized by a strongly coincident cluster of samples with moderately to highly anomalous concentrations of Cu, Mo, Ag and Bi with associated, widely scattered, weakly to moderately anomalous Au concentrations within an approximately 6 km^2 area (#1, Figure 9-4). Within this area, core drilling has subsequently identified a large 1 by 1.2 km area of porphyry Cu-Mo-Ag mineralization that remains open to expansion laterally and to depth. Delineation core drilling is recommended at the IKE porphyry (Sections 10 and 18.1).

Six km east of IKE, the approximately 12 km^2 moderate to high contrast Cu-Mo-Ag-Au-Bi Mad Major-MMW–OMG (#3, #4 and #7, respectively; Figure 9-4) anomaly overlaps the outer edge of the CPC and the intruded volcanic-volcaniclastic rocks. Limited drilling within this geographically large anomaly has neither identified the source of the mineralization indicated by both Amarc's stream sediment and talus fines geochemistry, nor the large lower elevation historical soil geochemical anomaly (Section 6.8.2). Additional drilling to explore this very large, multi-element anomaly for porphyry-type Cu-Mo deposits is recommended.

On the west side of the Granite creek valley (running southwest from Rowbottom, #5; Figure 9-4), talus samples returned highly anomalous concentrations of Ag and Bi, and moderately anomalous concentrations of Cu and Mo, in the vicinity of the north-northwest-trending Mewtwo rhyolite dyke swarm. Epithermal-type Au-Ag mineralization, at much higher topographical elevations than Rowbottom creek is associated with this rhyolite dyke swarm. The strong Ag-Bi with moderate Cu-Mo-Au geochemical response southeast of Mewto (#6, Figure 9-4) has porphyry affinities. These two areas warrant careful geological investigation to determine their epithermal and/or porphyry association and potential.

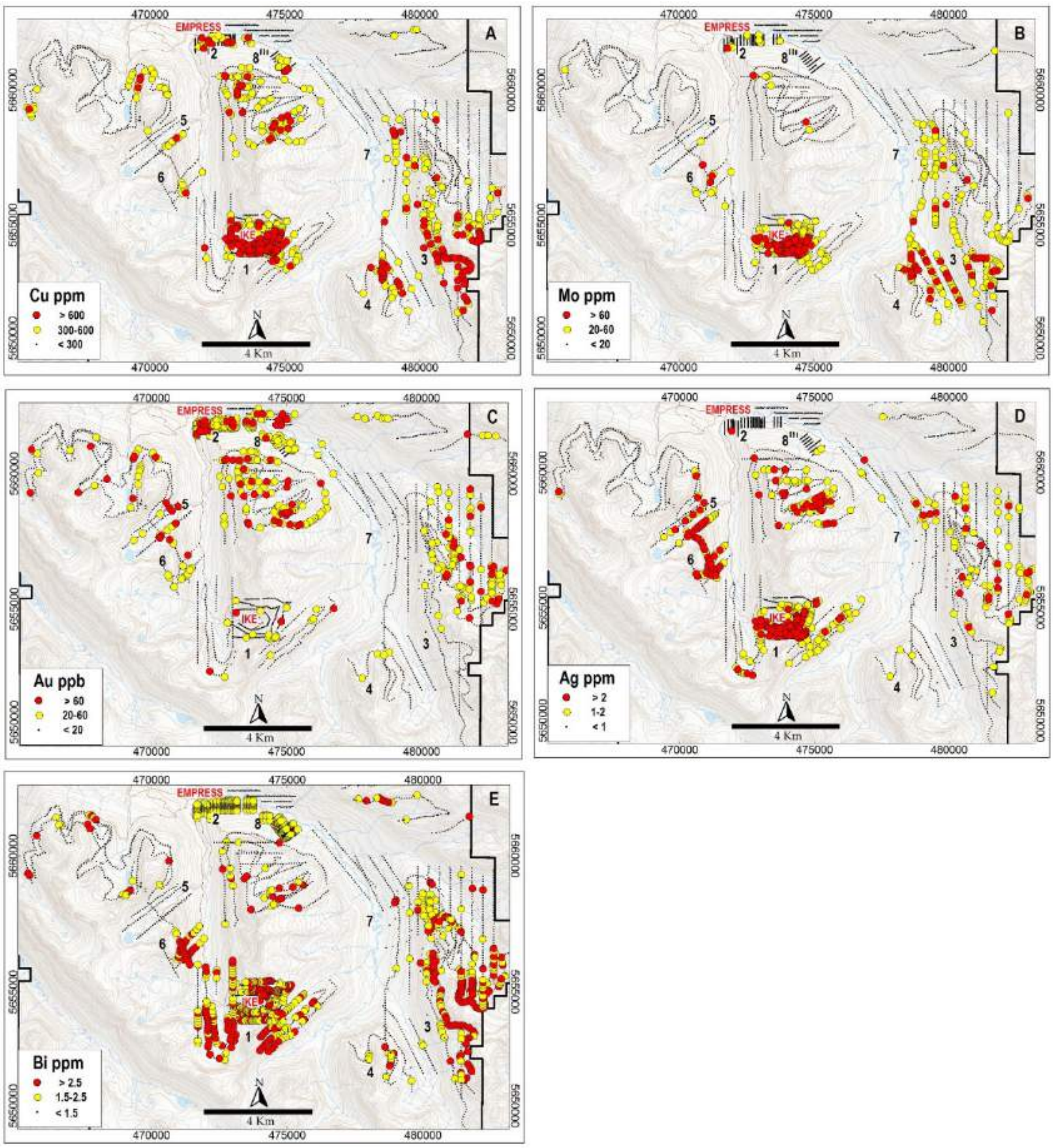

Figure 9-4: Amarc Talus Fines Cu, Mo, Au, Ag and Bi Results. Moderately Anomalous Results are Represented by Yellow Symbols, and Strongly Anomalous by Red. IKE Deposit (#1), Empress Deposit (#2), Mad Major (#3), Mad Major West [MMW](#4), Rowbottom (#5), Mewtwo (#6), OMG (#7) and Buzzer (#8).

9.2.3. Rock Geochemistry

From 2014 to 2017 a total of 256 rock samples were collected primarily as lithological type samples to standardize unit names and some were selected as non-representative samples of mineralization. As such, these samples will not be discussed further.

9.2.4. Historical GECAP Soil Geochemical Survey Results

Amarc has compiled and verified to the extent appropriate, or possible, a historical soil (mainly "B" horizon) geochemical results over the GECAP area (see Sections 6.2 and 11.1.2). This confirmed and delineated a series of Cu and Au anomalies (with associated pathfinder metals where information was available) related to porphyry and replacement deposit-types. These historical soil data, in conjunction with the Cu and Au concentrations in the uppermost three samples from historical drill holes, form an integral part of the modern exploration targeting by Amarc within the GECAP (Figures 9-5 and 9-7). The GECAP historical geochemical survey information combined with historical drill holes data are considered by the QPs to be adequate to guide current exploration.

From the Buzzer porphyry Cu-Mo-Au-Ag deposit target in the east of the GECAP to beyond the Empress West target area, historical Cu and Au soil anomalies trend westerly along +6 km of the volcanic contact with the Empress Phase of the CPC (Figure 9-5). In most cases, these soil anomalies correspond spatially with areas of mineralization identified by historical drilling and/or strong historical IP chargeability anomalies (Figure 9-12). North of the trace of the CPC-volcanic contact from the Bur prospect across to Empress East, Empress Gap and Empress soil samples with Cu concentrations > 200 ppm, closely reflect historical drill holes where the first three samples of bedrock at the base of overburden have Cu concentrations > 0.025% (250 ppm) (Figures 9-5 and 9-7). In the general vicinity of Empress West, soil samples with Cu concentrations in the range of 80 to 200 ppm become widely scattered, and their spatial correlation with drill holes where the first three samples have 0.010-0.025% Cu (100 to 250 ppm Cu) decreases. There is a similar, although less apparent, correlation with Au as many historical soil and drill samples were not analysed for Au. The same spatial correlation of anomalous Cu concentrations in soil to Cu concentrations over the full length of the historical drill hole is similar to the first three samples (Figures 9-6 and 9-8). The lack of Au analyses in the older historical holes has left the Au potential untested.

West from the Empress East deposit target, the anomalies predominately overlie Taylor Creek Group volcanic rocks that host the Empress and East-Empress replacement-type Cu-Au-Ag mineralization. Overburden thickness at lower elevation increases to the north and west reducing the effectiveness of soil geochemistry to detect mineralization at its base. Given the emerging potential along the CPC-volcanic contact in the GECAP area, an extension of the soil geochemical survey along the northern trace of the volcanic-CPC contact to the western extent of the Norwest area is recommended (further described in Table 7-2; Figure 7.2 and Section 9.4.6; see Figure 7.2 for geology).

Analysis of the surficial geochemical data by Benn (2019) shows that geochemical data subdivides statistically into two suits that manifest signatures for epithermal precious and polymetallic deposits and porphyry-style/intrusion-related deposits. The GECAP south of Tchaikazan Fault has a strong porphyry geochemical signature, whereas north of the fault the signature is epithermal, which is consistent with the exposed styles of mineralization and with differences in paleodepths indicated by fluid inclusion studies (Blevings, 2008, Lang, 2020).

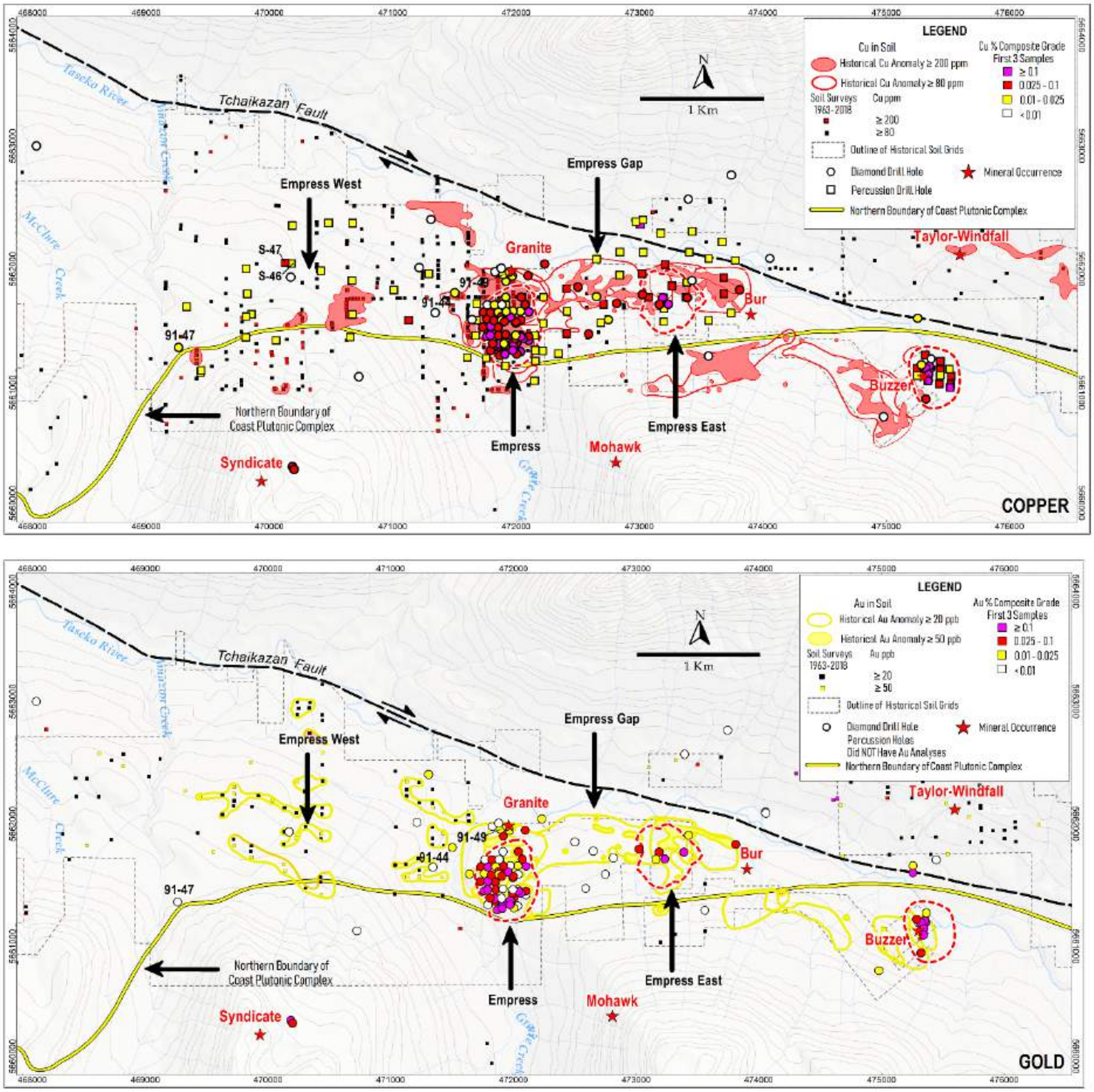

Figure 9-5: GECAP Historical Soil Survey Data: Upper Figure Cu and Lower Figure Au (many historical soil samples were not analysed for Au), with Shallow Historical Percussion and Core Holes Showing Concentration of Au in the First Three Samples of Bedrock Below the Base of Overburden.

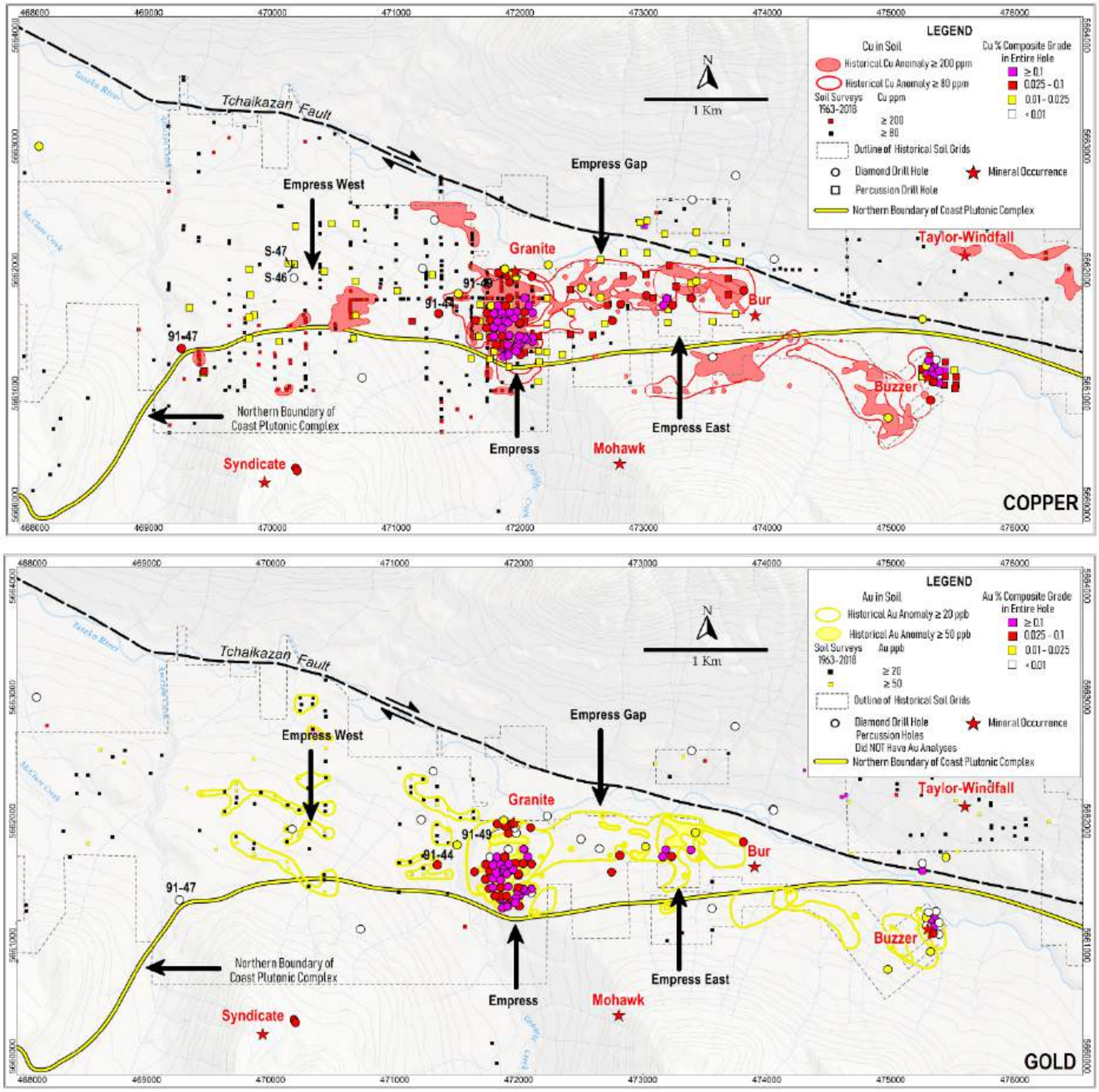

Figure 9-6: GECAP Historical Soil Survey Data: Upper Figure Cu and Lower Figure Au (many historical soil samples were not analysed for Au), with Shallow Historical Percussion and Core Holes Showing Concentration of Au in the Entire Hole.

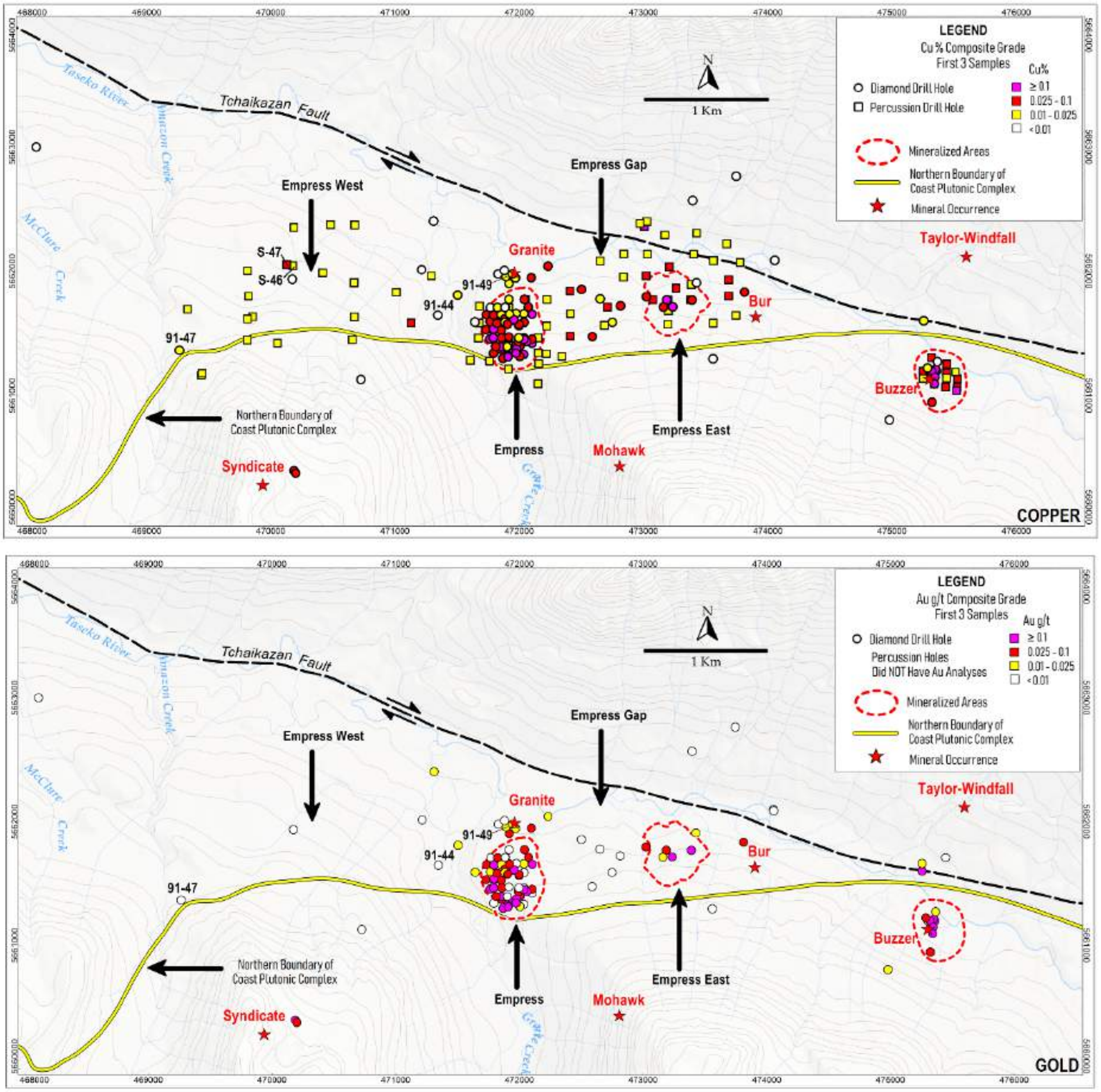

Figure 9-7: GECAP Historical Shallow Percussion and Core Holes in Spatial Reference to the Tchaikazan Fault, the Northern Boundary of the CPC at surface, and Cu-Au Replacement and Porphyry Targets. Upper Figure Shows Concentration of Cu, and Lower Figure Concentration of Au in the First Three Samples of Bedrock Below the Base of Overburden.

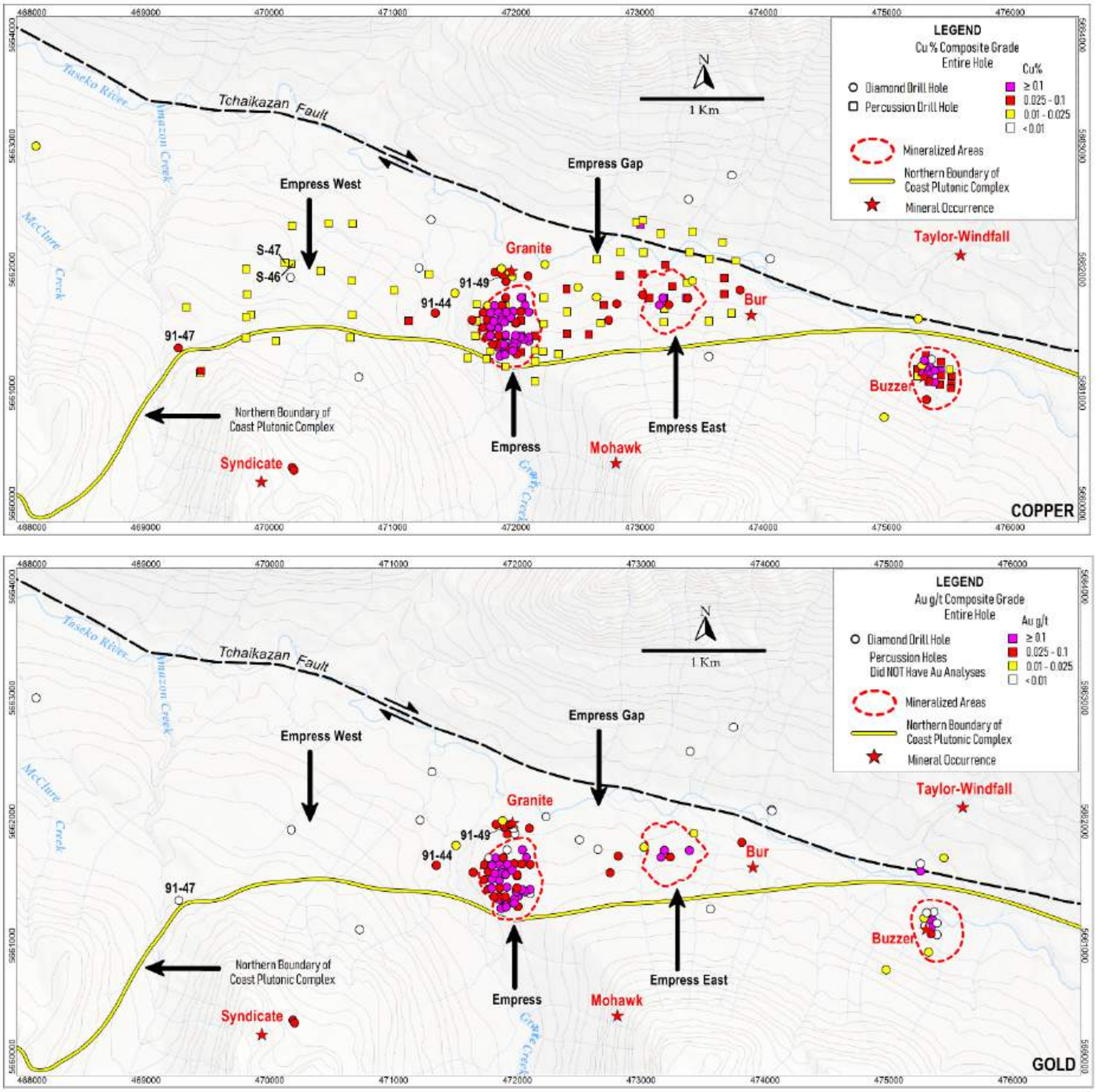

Figure 9-8: GECAP Shallow Historical Percussion and Core Holes in Spatial Reference to the Tchaikazan Fault, the Northern Boundary of the CPC at surface, and Cu-Au Replacement and Porphyry Targets. Upper Figure Shows Concentration of Cu, and Lower Figure Concentration of Au in the Entire Hole.

9.3. Geophysical Surveys

9.3.1. Amarc IP Surveys

Amarc conducted IP surveys in 2014, 2016 and 2017 covering 17.6, 63.5 and 82.5 line-km respectively, for a total of 163.6 line-km (Walcott, 2018) (Figure 9-9). The surveying was conducted utilizing the pole-dipole technique measuring the 1st to 10th separations and a 100 m dipole separation in both pole-dipole and dipole pole geometries. Survey results are presented in Figure 9-10.

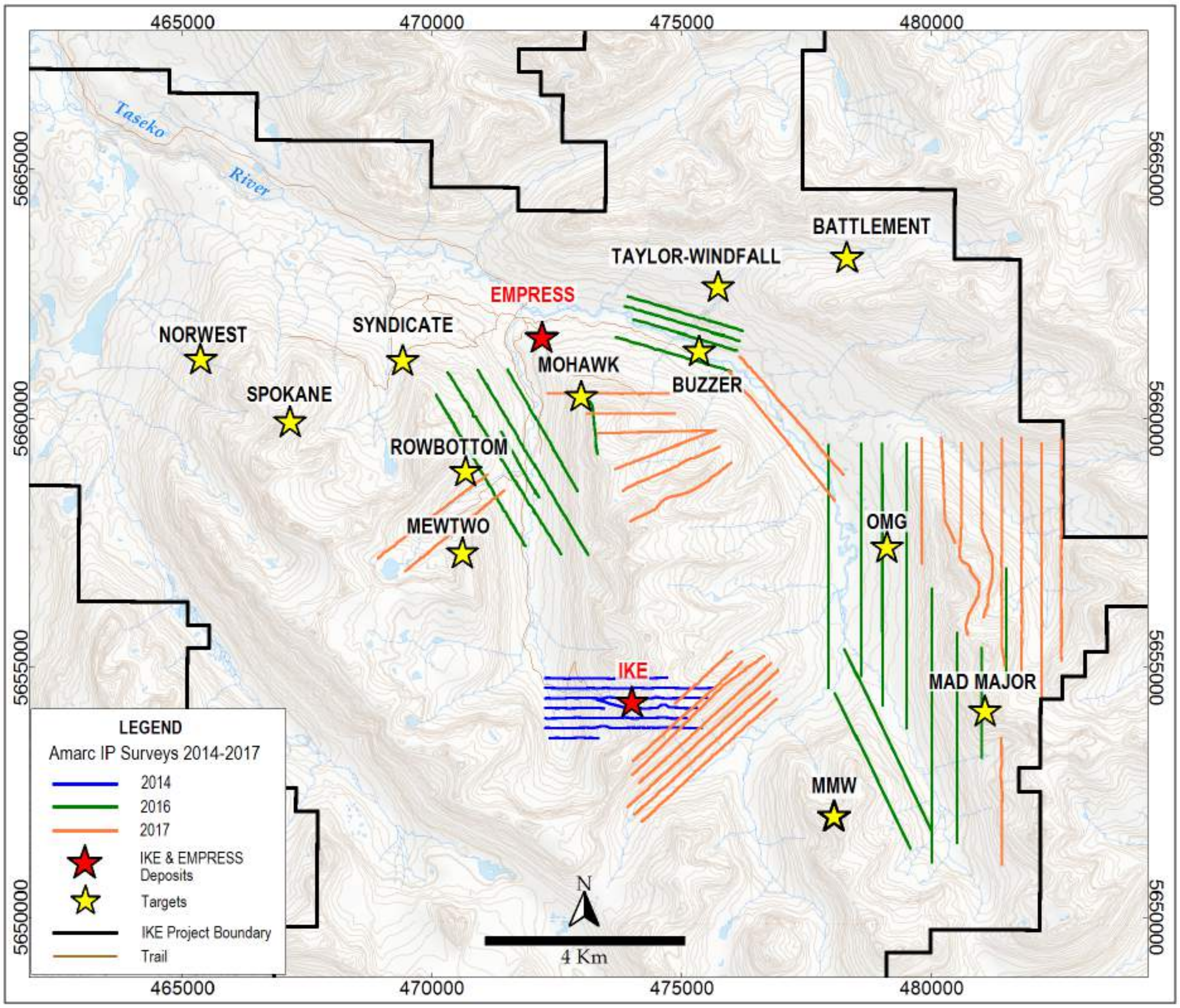

Figure 9-9: Amarc IP Survey Grids by Year.

9.3.2. Amarc IP Survey Results

Strong IP chargeability anomalies are identified at the IKE deposit, and also at Mad Major-OMG, Rowbottom, Mewtwo and the Buzzer north exploration targets (Figure 9-10).

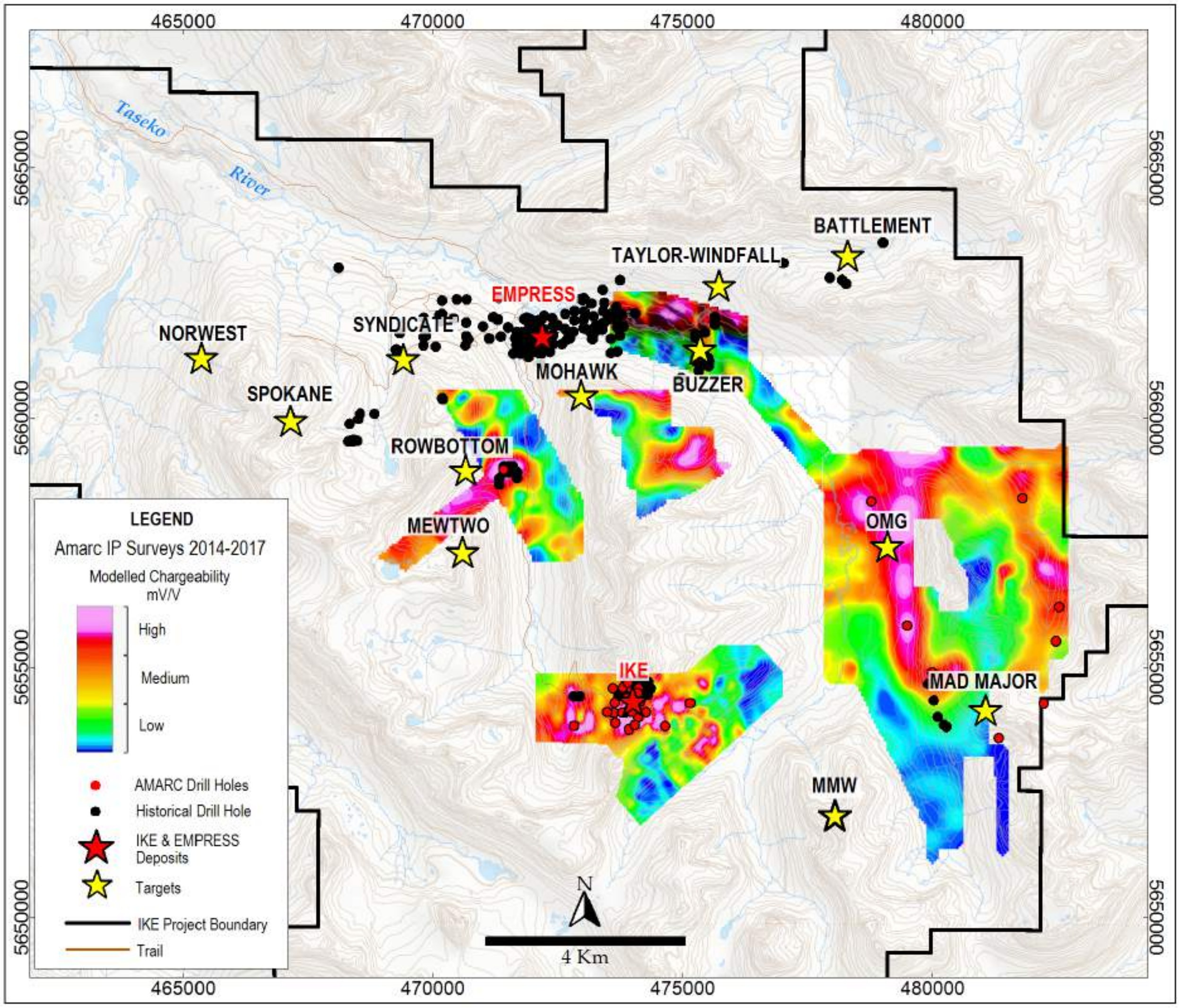

Figure 9-10: Amarc IP Chargeability Survey Compilation with Historical and Amarc Drill Holes. Hot Colours Represent High Chargeability.

At the IKE deposit a strong approximately 6 km^2 chargeability anomaly is coincidental with the moderate to strong talus multi-element Cu-Mo-Ag-Bi±Au anomaly (Figures 9-4 and 9-11), and a roughly circular magnetic high that disrupts the general magnetic fabric internal to the CPC showing evidence of internal northwest to north-northwest dilation zones (Figures 9-13 and 9-14). Within the IP chargeability anomaly, core drilling has confirmed and partially defined a large porphyry Cu-Mo-Ag system that remains open to expansion. Additional drilling is required to determine the full lateral and vertical extent of the IKE deposit (Sections 10 and 18-1).

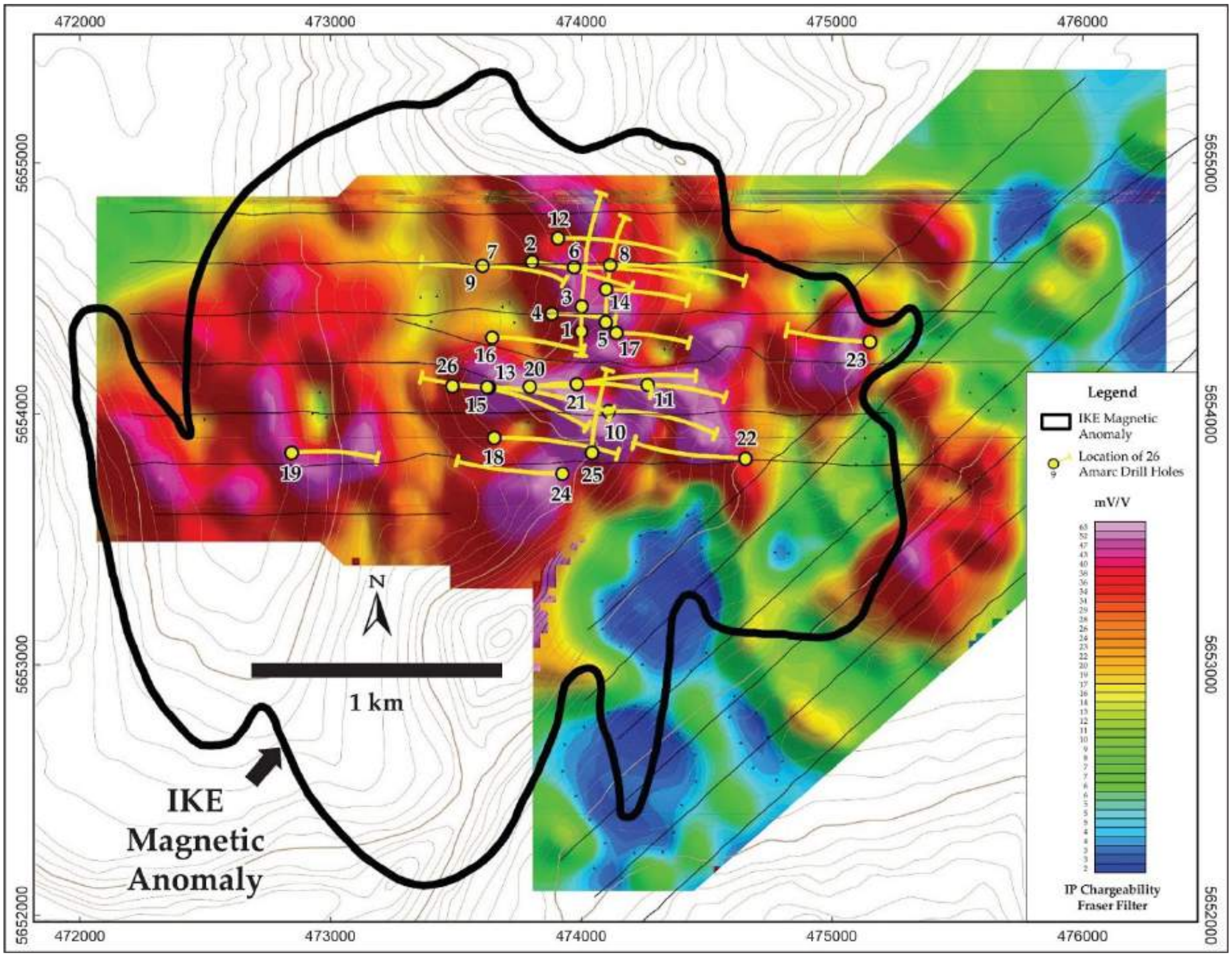

Figure 9-11: IKE Deposit Fraser Filtered IP Chargeability and Amarc's Core Hole Plan with Outline of the Magnetic Feature.

The +7.5 km^2, open-ended Mad Major-OMG IP chargeability anomaly has been by tested by only three very widely-spaced Amarc drill holes, and remains a prospective exploration drill target (Section 10.6).

In the Rowbottom-Mewtwo area, a moderate intensity IP chargeability anomaly has been only partially tested by historical short percussion drill holes, and by a single Amarc core drill hole (Section 10.6), all of which were collared in the topographically lower area of the Rowbottom target (Sections 6.8.1 and 10.6). Both the historical and Amarc drilling returned intersections of porphyry-type Cu-Mo-Au-Ag mineralization. Additional IP surveying and drilling are warranted in this area to determine the full extent and grade of the porphyry target.

The IP chargeability anomaly located to the north of Buzzer porphyry Cu-Au-Mo-Ag system and the projected trace of the Tchaikazan Fault (Figure 9-10)**,** could represent a porphyry or a replacement-style deposit target or, alternatively, could be the result of pyrite-bearing stratified volcano-sedimentary rocks of the Powell Creek Fm. A few drill holes are necessary to determine the source of the northern Buzzer IP chargeability anomaly (Section 18.2).

Moderate intensity and partially defined IP chargeability anomalies also lie between Buzzer and OMG and to the east and southeast of Mohawk (Figure 9-10). Additional IP surveying is required in these areas to determine the size and intensity of these anomalies prior to drill testing.

9.3.3. Historical GECAP IP Surveys

The GECAP historical IP chargeability data was rectified into NAD 83 Zone 10 coordinates, digitized, combined, leveled, inverted and subsequently integrated with Amarc's chargeability data from the Buzzer north IP grid located to the north of the Tchaikazan Fault (Figures 9-10 and 9-12). The compilation shows strong IP chargeability anomalies extending over many square km and generally corresponding with soil geochemical anomalies (Figure 9-5). The presence of sulphide mineralization is confirmed by widely-spaced historical drill holes across the GECAP at, for example, the Empress Gap and Empress West target areas.

The prospectivity of the Empress West target area IP chargeability anomaly is indicated by historical core holes 91-44 and 91-47 (Section 9.4; Figures 9-18, 9-24, 9-26 and 9-27). These drill holes intersected intervals of Cu-Au mineralization, and some more extensive intervals with elevated Mo concentrations, in volcanic rocks within the first approximately 100 m above the CPC contact which, occurs at approximately 180 m depth. Shallow historical holes between and north of core holes 91-44 and 91-47, neither reached the prospective interval above the CPC contact nor potential porphyry mineralization below. However, for example, shallow historical percussion holes S-47 and S-46 located to the north of the above mentioned core holes did intercept anomalous geochemistry and are coincident with the IP chargeability anomaly, and also a strong magnetic anomaly and elevated Cu, Au and Mo in soils (Figures 9-5, 9-6, 9-12 and 9-15; and Section 9.4.5). This further demonstrates the prospectivity of the target area. Most of the 3 km by 1 km highlighted IP chargeability anomaly at Empress West has not been adequately tested by the historical drill holes.

The reprocessed GECAP historical IP survey data combined with historical drill holes information are considered by the QP's to be adequate to guide current exploration.

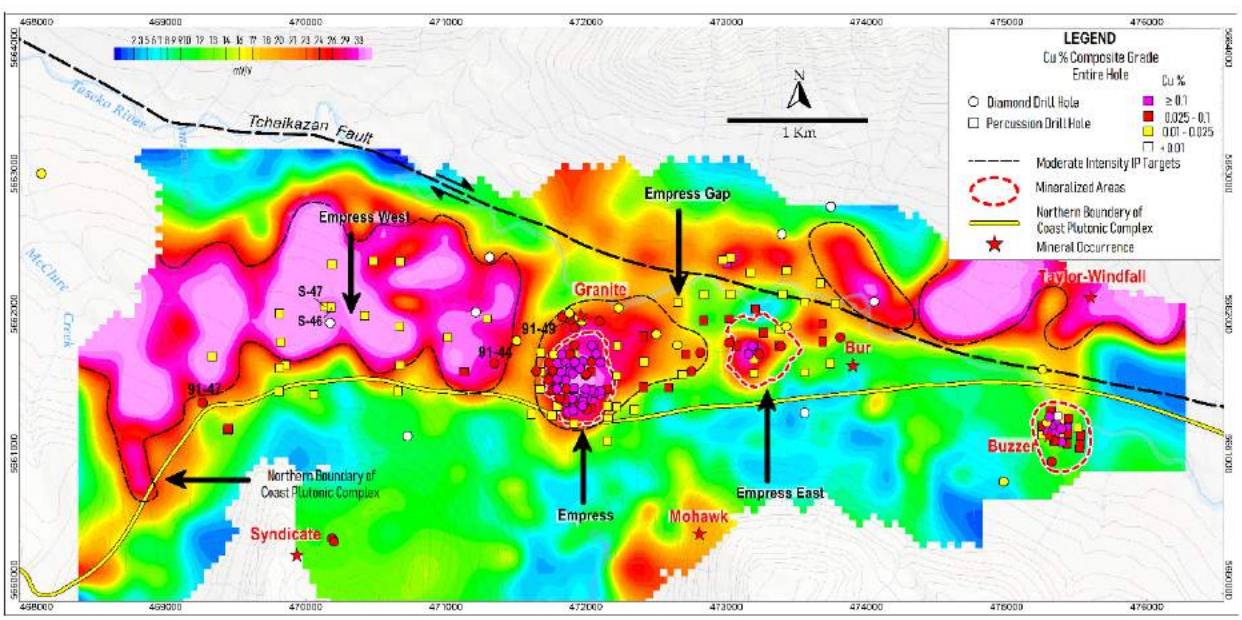

Figure 9-12: Reprocessed GECAP Area Historical Shallow Penetrating IP Chargeability Combined with Amarc Buzzer North IP Chargeability Survey Data, Showing Historical Percussion and Core Drill Holes.

9.3.4. Amarc and Historical Aeromagnetic Survey

In 2014 Amarc completed a total of 1,069 line-km of high resolution, helicopter-borne aeromagnetic surveying over the IKE Project, with 180 line-km over the IKE deposit and 889 line-km over other parts of the Project tenure. Two survey line orientations were used during the course of the survey. Over the majority of the area lines were flown in a north-south orientation at a nominal line spacing of 200 m, with east-west tie lines at 1,000 m intervals. Over the Rowbottom and Mad Major deposit targets, the line spacing was decreased to 100 m. Over the IKE deposit, lines were oriented at 045°/135° with a nominal line spacing of 75 m, with 135°/315° tie lines at 500 m intervals. Amarc's data was integrated with a 2007 survey by Galore Resources whose 2,117 line-km survey covered the north-western, northern, and GECAP areas of the Project. The integration of the 2014 Amarc survey over the IKE deposit and across the southern portion of the Project with the Galore Resources historical dataset provided complete high resolution magnetic coverage over the entire IKE Project (Section 6.4).

The high-resolution aeromagnetic survey clearly shows: 1) the northwest-trending Tchaikazan Fault and related horse tail architecture in the eastern part of the tenure, with numerous extensional southeast-trending splays near its probable terminus; and 2) and the CPC contact with the intruded volcanic and volcaniclastic rocks along the east and north sides of the pluton (Figure 7-3).

The IKE deposit lies within a roughly circular approximately 2.75 km diameter magnetic feature that disrupts the general magnetic fabric of the CPC. An internal north to north-northwest-trending magnetic low is considered to reflect an underlying magnetite-poor felsic pluton (Figures 7-3, 9-13 and 9-14). This magnetic feature coincides with the multi-element Cu-Mo-Ag-Bi±Au talus fines geochemical anomaly and the strong approximately 6 km^2 chargeability anomaly (Figures 9-4 and 9-11).

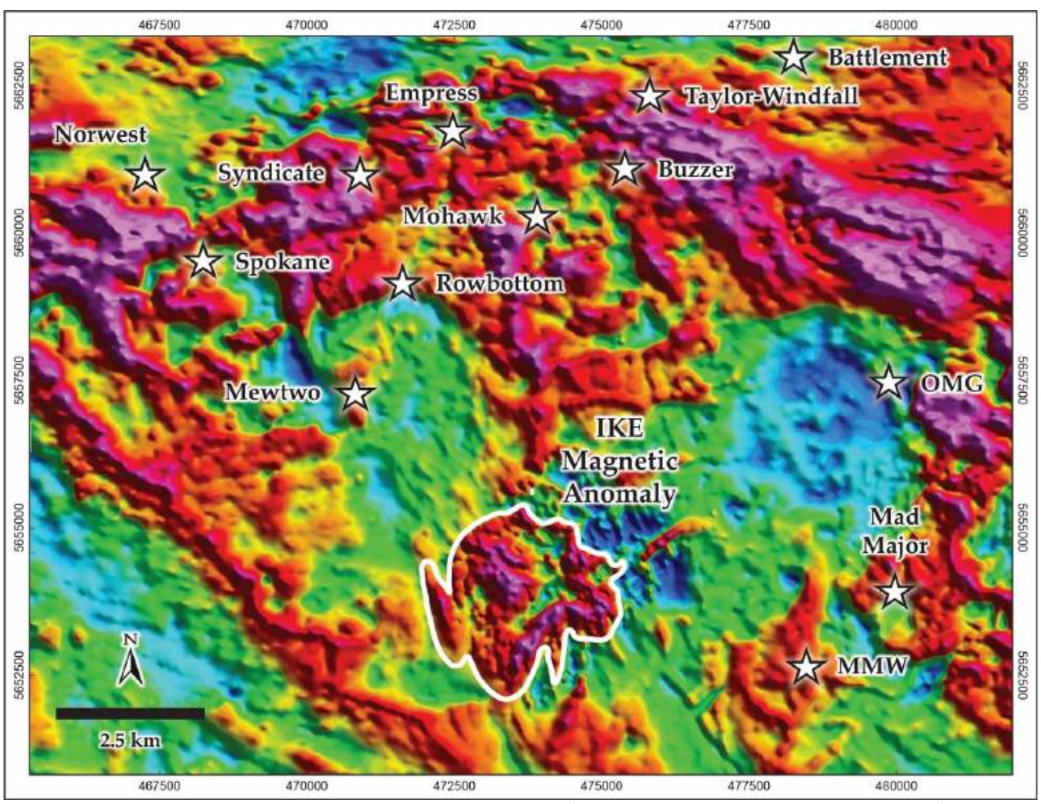

Figure 9-13: TMI of the Eastern Area of the IKE Project (IKE Deposit and GECAP Areas) with the IKE Magnetic Feature Outlined in White.

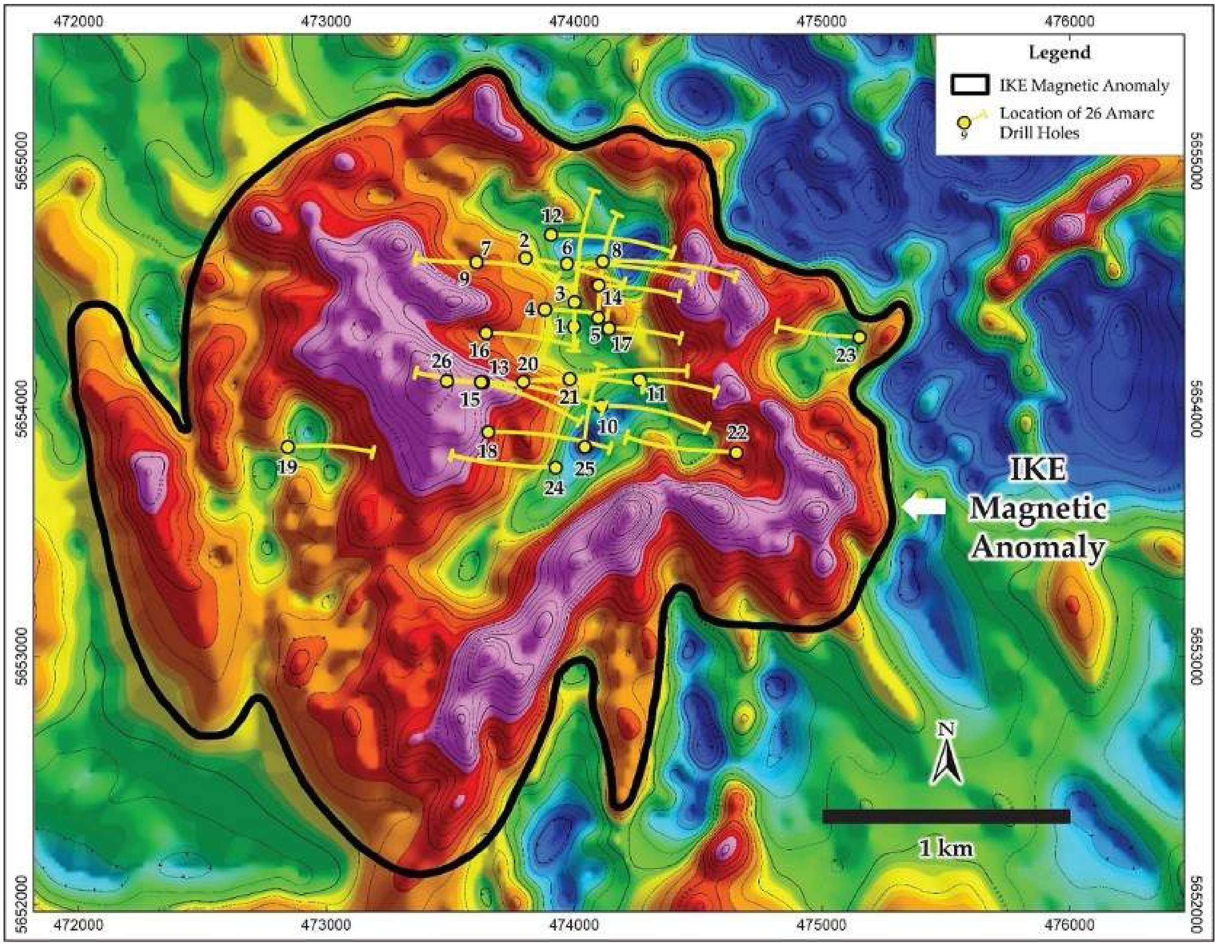

Figure 9-14: TMI, IKE Deposit Magnetic Feature with Amarc's Drill Hole Plan.

In the GECAP area, there are a series of closely spaced magnetic highs located outboard of and in proximity to the northern edge of the CPC (Figure 9-15). Two of these magnetic highs partially coincide with variably distributed elevated concentrations of hydrothermal magnetite, which is part of the alteration mineral assemblages associated with Cu-Au-Ag replacement mineralization at the Empress deposit and Empress East deposit target (Sections 7.4 and 7.5). Numerous magnetic highs remain to be drilled. At Empress East, strong Cu-Au mineralization was intersected within or at the margin of one small part of a much larger magnetic high that has not been explored further or to an appropriate depth (Section 9.4). Notably, there is a close spatial association of the magnetic highs and IP chargeability anomalies. However, the known porphyry-style mineralization at the Granite deposit target is located on the flanks of a magnetic high.

Cross section 5,661,700N in Figure 9-16 (see Figure 9-15 for section location) through the modelled magnetics illustrates both the association of the historically known mineralization along with magnetic high feature, illustrating both the proximal expansion potential, and also the shallow magnetic features along the CPC-volcanic contact zone that remain underexplored or to be explored.

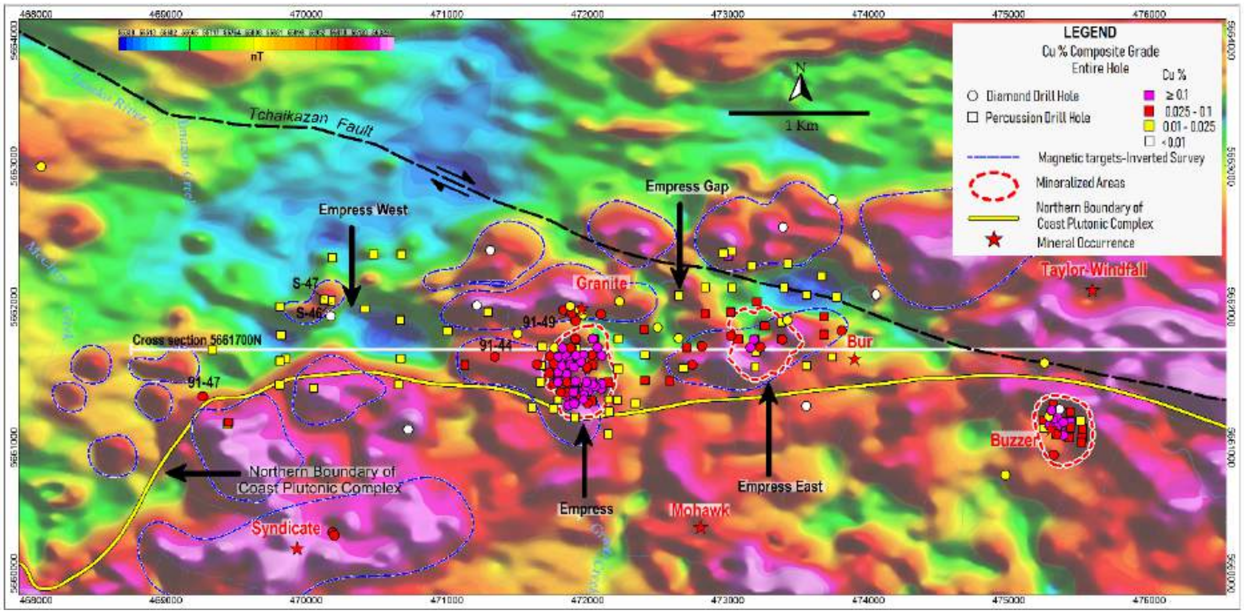

Figure 9-15: TMI of the GECAP Area with Cu Concentrations Over the Full Length of the Historical Shallow Percussion and Core Drill Holes. Historically Known Mineralized Zones Outlined by Dashed Red Lines. There is no Apparent Off-Set of the Magnetic Features by the Tchaikazan Fault. Cross Section 5,661,700N Shown in Figure 9-16, is Represented by the White West to East Trending Line.

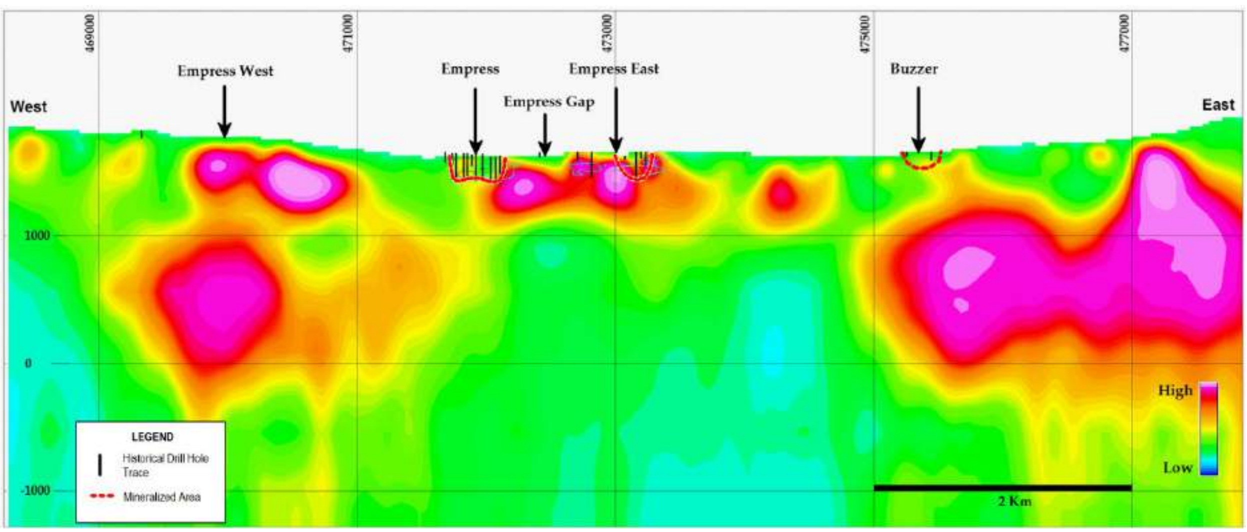

Figure 9-16: Inverted Magnetic Field Cross Section 5,661,700N, Looking North. The Section Line is Located in Figure 9-14.

The historical drill hole data combined with Amarc's magnetic survey data are considered by the QPs to be adequate to guide current exploration.

9.4. *Historical GECAP Drilling and Integrated Exploration Targeting*

The GECAP area of the IKE Project was identified for special focus by Amarc due to its high prospectivity for discovery of: 1) porphyry Cu-Au-Ag±Mo; 2) intrusion-related high-grade Cu-Au-Ag replacement; and 3) auriferous, polymetallic/mesothermal, deposits (Lang, 2020). These Au-bearing or Au-rich deposits and deposit target types formed at approximately 85-90 Ma, and are distinct from the Eocene hydrothermal activity that formed the large IKE porphyry Cu-Mo-Ag deposit, located 5 km south of the GECAP (Figure 7-2). None of the deposits and exploration targets are fully drill-delineated, several are tested only by reconnaissance drilling, while others remain to be drill tested. A high metallogenic fertility for this area is supported by the magmatic-hydrothermal-structural characteristics of the area as discussed in Sections 6, 7 and 9 and include:

- The Empress deposit Cu-Au higher-grade replacement-style mineralization that remains open to expansion;
- The presence of several large and Au-bearing porphyry deposits in the region;
- Known centres of hydrothermal mineralization are widespread;
- Deposits and prospects span a range of ages and mineralization styles;
- Magmatism was very active over a protracted period;
- Excellent syn-hydrothermal structural environment; and
- Hydrothermal alteration that contains abundant sulphide minerals is widespread.

The prospective ground lies in a belt extending from the Buzzer deposit target located some 6 km east to Express West, and possibly farther west to the Norwest Area (Figure 7-2). The historical and Amarc geological, geochemical and geophysical survey data that supports this potential is discussed in Sections 6, 7, 9.2.4 and 9.3, while this section presents and integrates a summary of the findings from the compiled historical drill hole data and further outlines the potential of the area.

A total of 234 historical exploratory shallow percussion (for 23,680 m) and 138 core (for 19,298 m) drill holes were drilled by various operators across the GECAP, to investigate the potential of soil geochemical and IP chargeability survey anomalies, and also to test areas of mineralized outcrop near to the CPC contact (Figures 9-5 and 9-12; Sections 6, 7.4, 9.2.4 and 9.3.3). This drilling established that centres of hydrothermal Cu-Au replacement and/or porphyry Cu-Au-Ag±Mo mineralization are widespread in the GECAP area. Figure 9-17 illustrates for the reader, which GECAP historical holes are represented in Table 6-21 as having significant intersections (and also for the Rowbottom deposit target which is marginal to the GECAP area, Table 6-24).

Of the 234 historical holes drilled at the GECAP, Sumitomo and Quintana in 1970 and 1986, respectively, collectively completed 96 shallow percussion holes, analyzing only for Cu and Mo, over a large area that surrounds and extends to the east and west of the Empress (Figures 9-17, and 9-18). Among these drill holes, only 3 exceeded 65 m in length (maximum of 91.4 m). However, comparison of the cross sections in Figures 9-19 and 9-20 with the long sections in Figure 9-24 suggests that shallow drilling in the Empress Gap Zone and also Empress East, likely would not have been deep enough to have a reasonable chance to intersect higher-grade Empress-style Cu-Au mineralization, which is generally concentrated in magnetite rich siliceous zones closer to the underlying intrusive contact. The potential significance of the near surface, anomalous Cu concentrations in shallow drill holes as an indicator of potential for high-grade Empress-style Cu-Au mineralization at depth is further illustrated in the patterns in near surface and entire-hole drill composites (Figures 9-7 and 9-8). Deeper drilling is clearly warranted across the GECAP area and is further supported by the handful of deeper holes outside of the Empress deposit that have intersected mineralization and alteration similar to that at Empress.

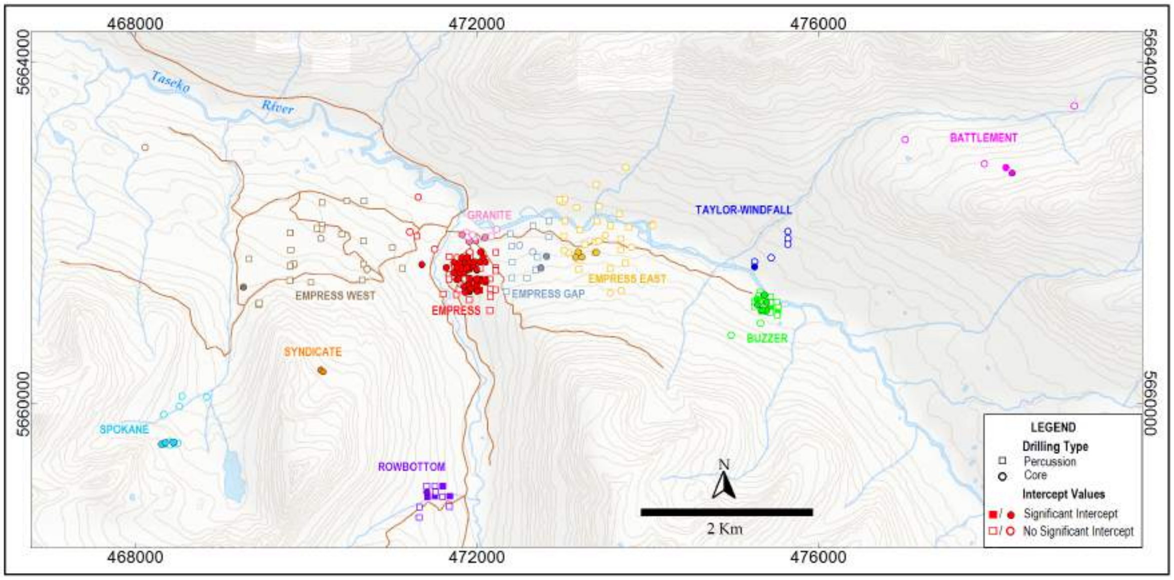

Figure 9-17: GECAP Historical Drill Plan with Holes Colour Coded by Text Referenced Target Areas.

9.4.1. Historical Empress - Empress Gap - Empress East Drilling and Exploration Potential

The GECAP historical drilling, especially core drilling, was primarily focused at the Empress deposit, and to a lesser extent at the Empress East deposit target (Figure 9-18). The results of this drilling in terms of Cu-Au, Cu-Mo and CuEQ grade bars are present below in two cross sections through the Empress deposit (cross sections, 471,810E and 471,900E), in one cross section through the Empress East deposit target (cross section 473,180E), and in a long section that extends from west of Empress and through both the Empress Gap and Empress East areas (long section 5,661,748 N), showing (Figures 9-19 to 9-24).

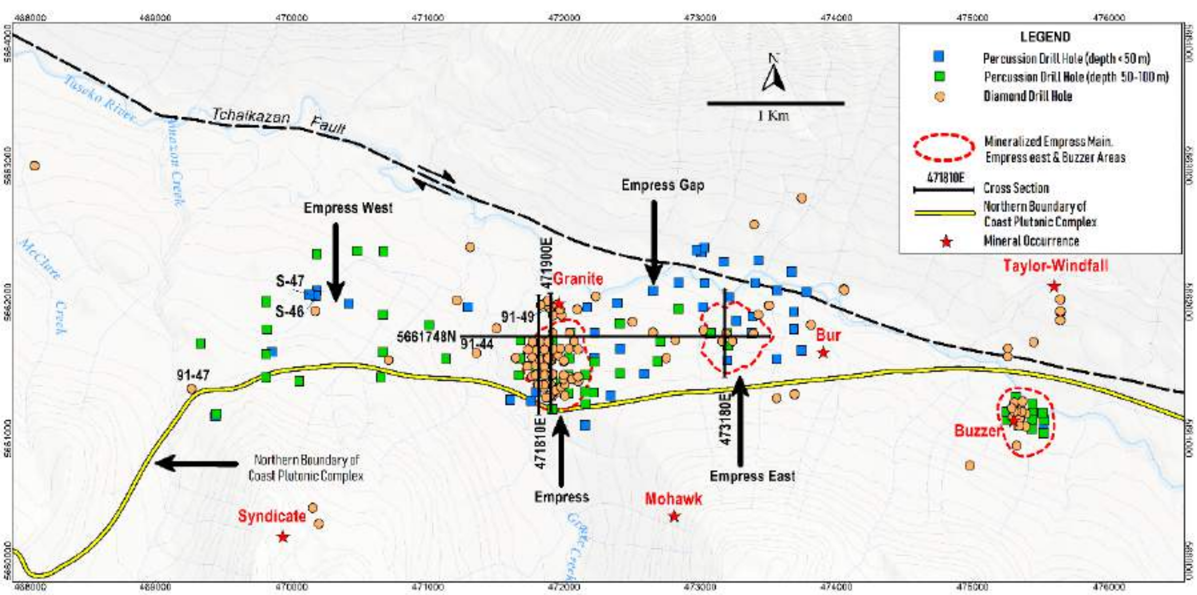

Figure 9-18: Location of Historical Core and Percussion Holes Within the GECAP. Percussion Holes Shown in Blue Have < 50 m Vertical Penetration, and Those in Green Ended Between 50 and 100 m Vertical Penetration. The Location of the Cross Sections Shown in Figures 9-18 through 9-29 are Shown by the Black Lines Labelled with the Section Numbers.

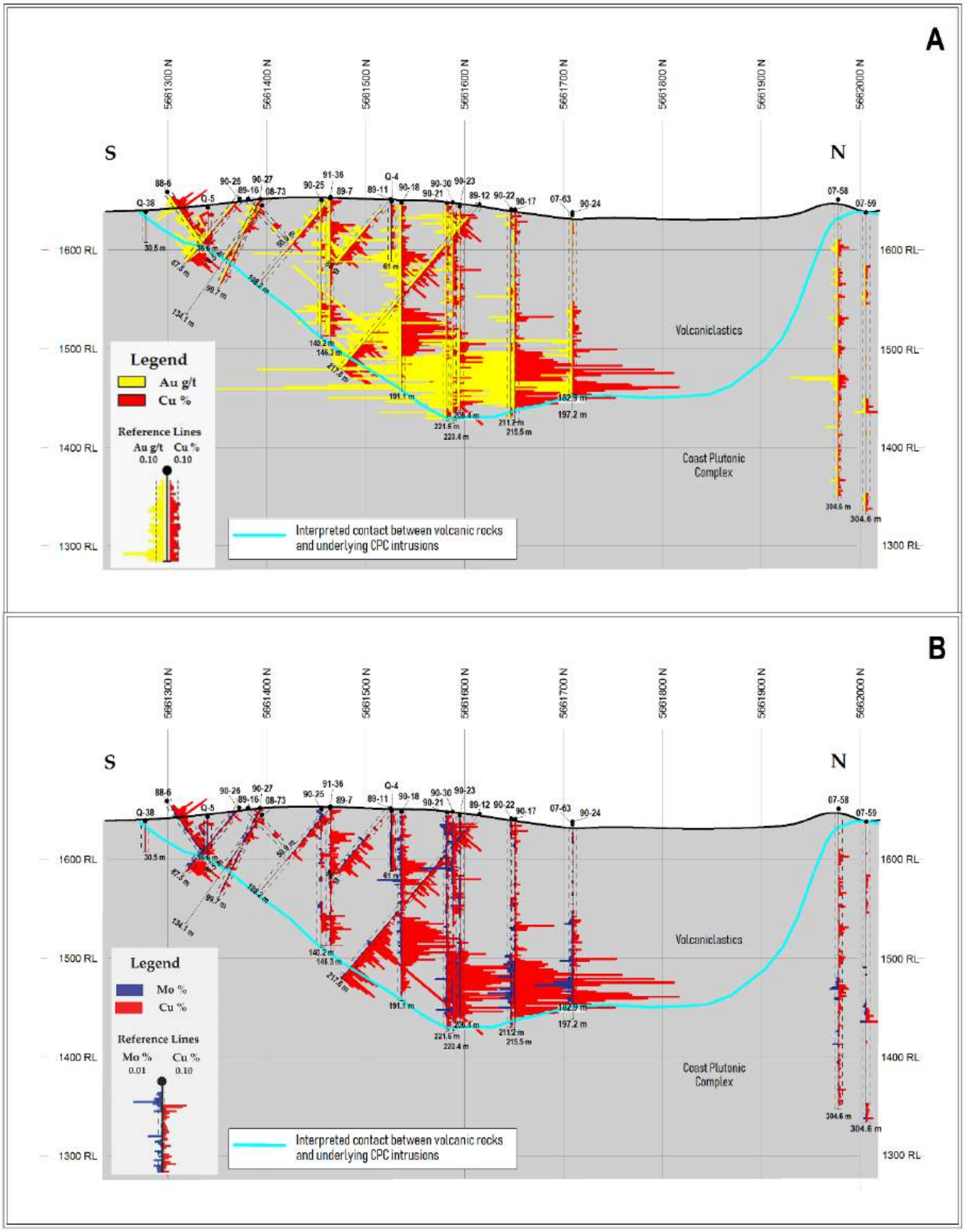

Figure 9-19: South to North Cross Section 471,810E Through the Empress Deposit Drilling Looking West, Showing Drill Hole Sample Bar Graphs for: A) Cu-Au grades; and B) Cu-Mo grades. Note the Location of the CPC-Volcanic Contact as Shown by the Blue Line.

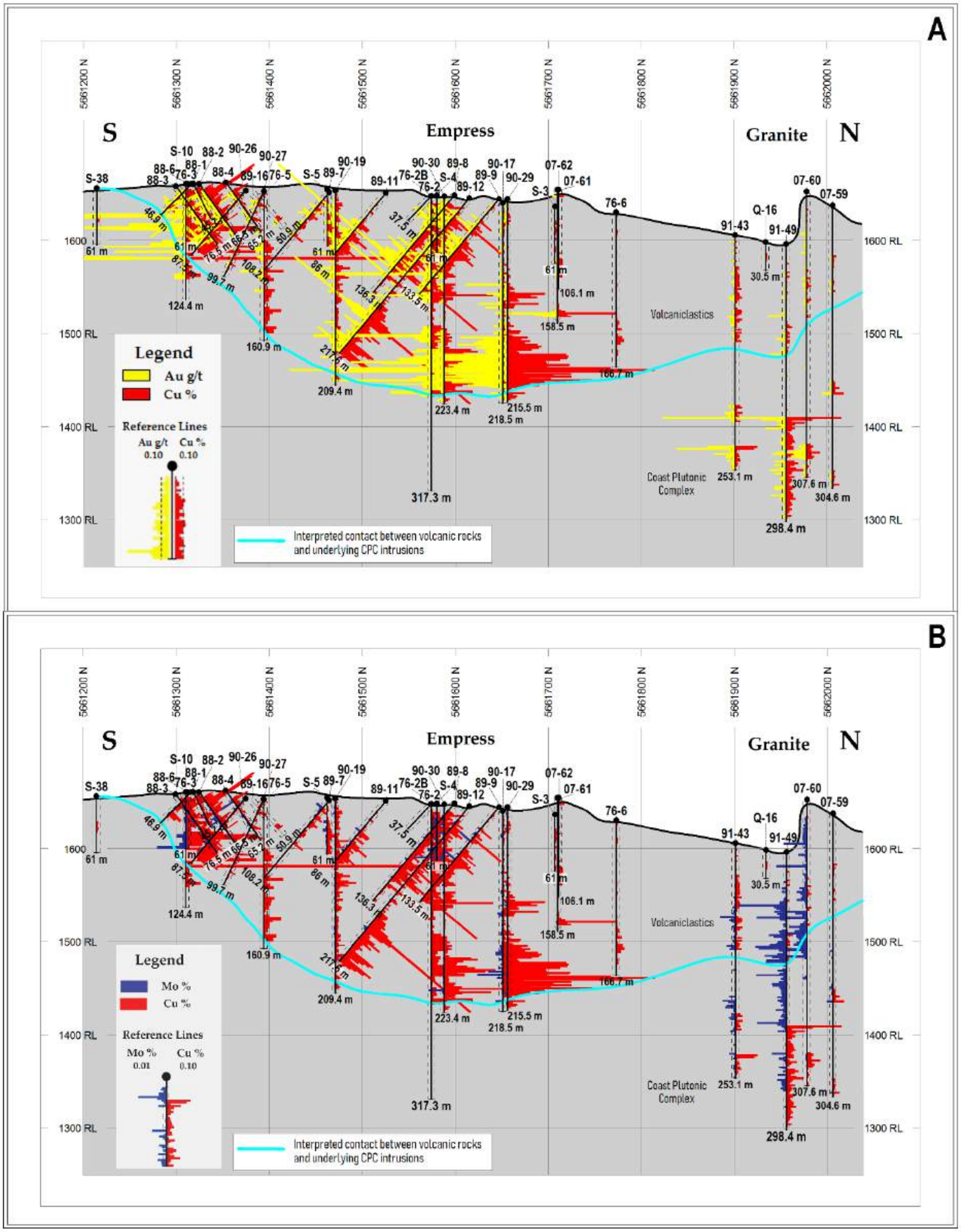

Figure 9-20: South to North Cross Section 471,900E Through the Empress Deposit Drilling Looking West, Showing Drill Hole Sample Bar Graphs for: A) Cu-Au grades; and B) Cu-Mo grades. Note the Location of the CPC-Volcanic Contact as Shown by the Blue Line.

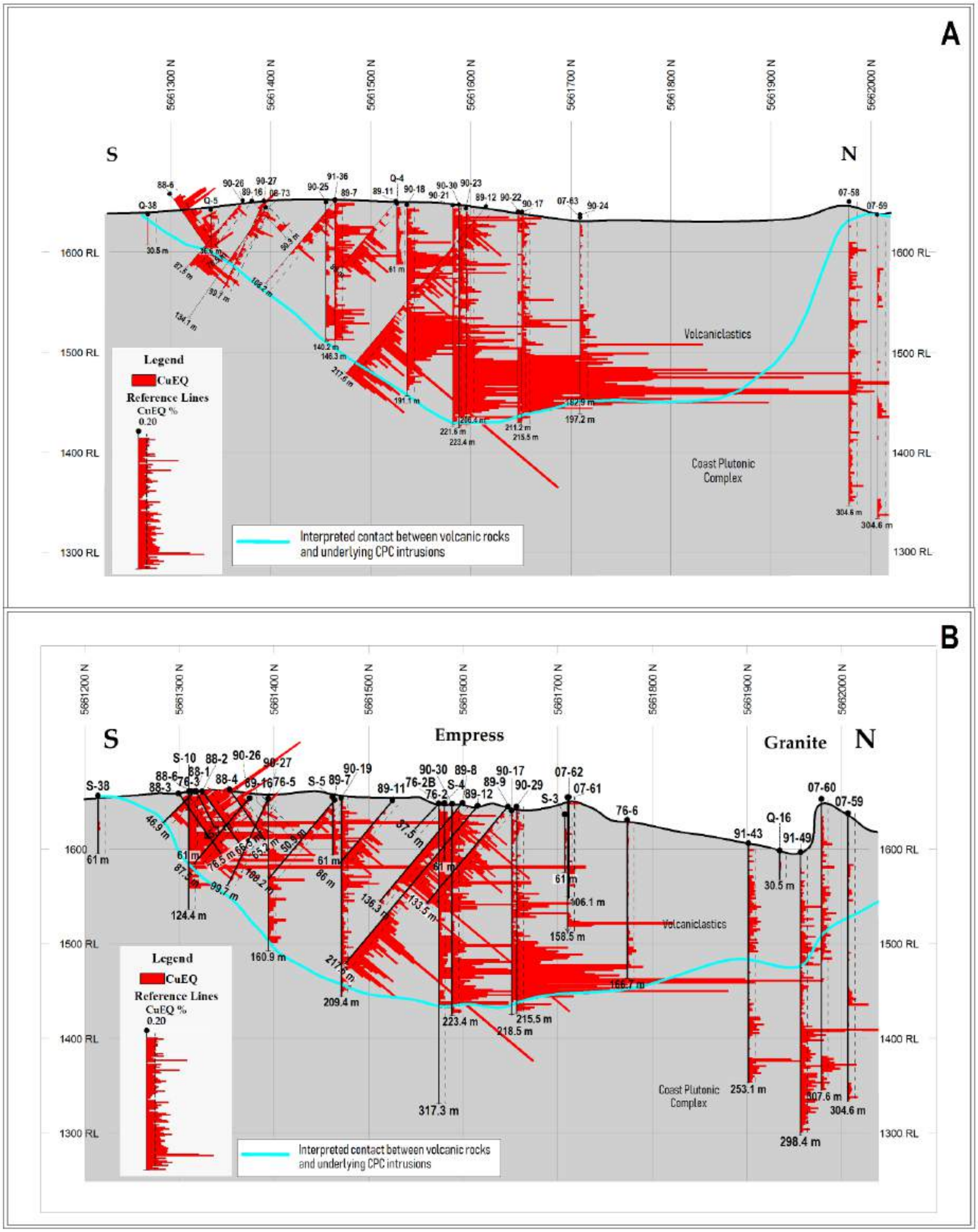

Figure 9-21: South to North Cross Sections, A) 471,810E and B) 471,900E through the Empress Deposit Drilling Looking West, Showing CuEQ Sample Bar Graphs. Note the Shallowing of the CPC-Volcanic Contact as Shown by the Blue Line. Refer to Table 6-21 and Note 4 for CuEQ Calculation Information.

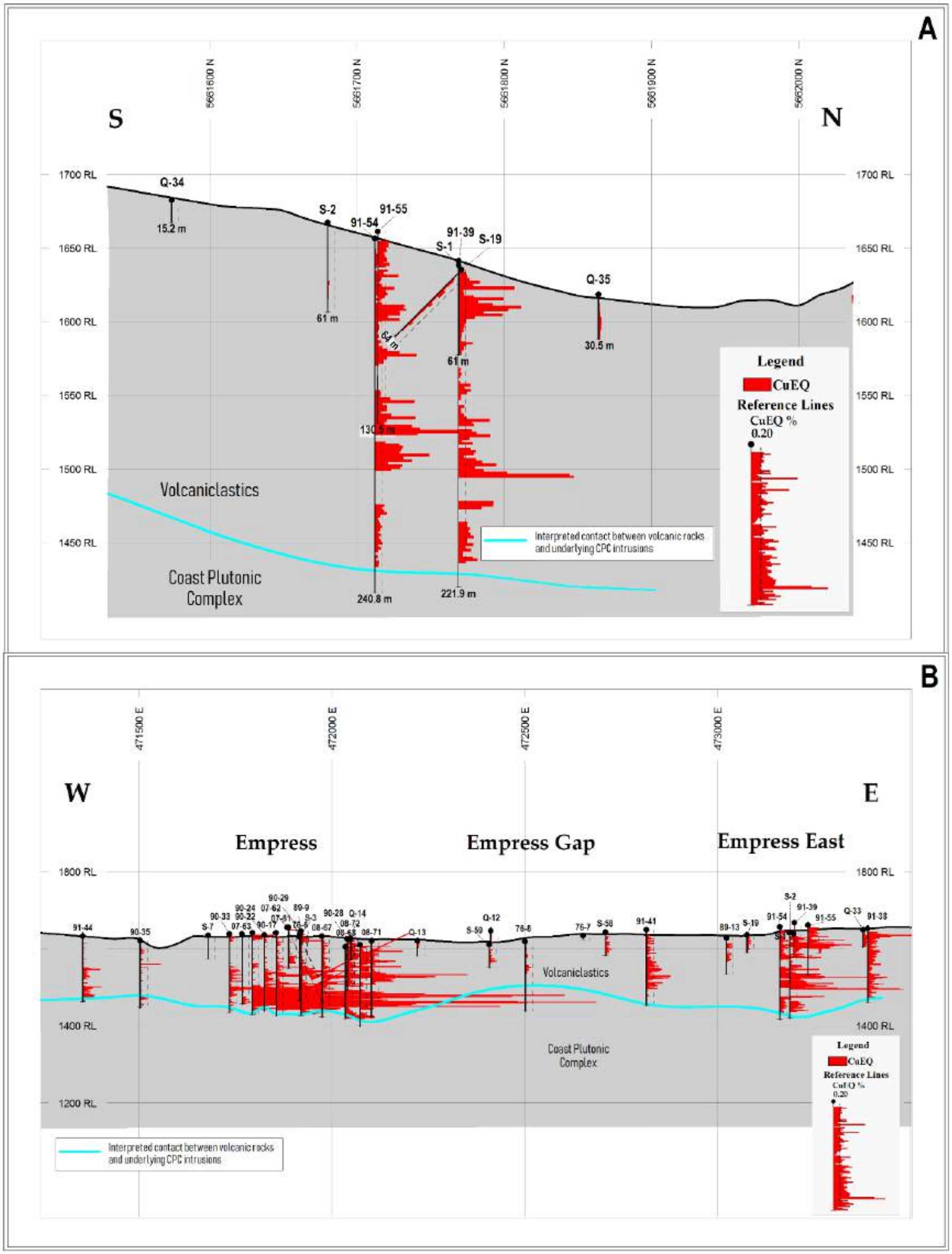

Figure 9-22: A) South to North Cross Section 473,180E Through the Empress East Deposit Target Drilling Looking West, Showing CuEQ Grades; and B) West to East Long Section 5,661,748N Through the Empress, Empress Gap and Empress East Drilling, Looking North, Showing CuEQ Grades. Note the Paucity of Holes Reaching the Depth of the CPC-Volcanic Contact as Depicted by the Blue Line. Refer to Table 6-21 and Note 4 for CuEQ Calculation Information.

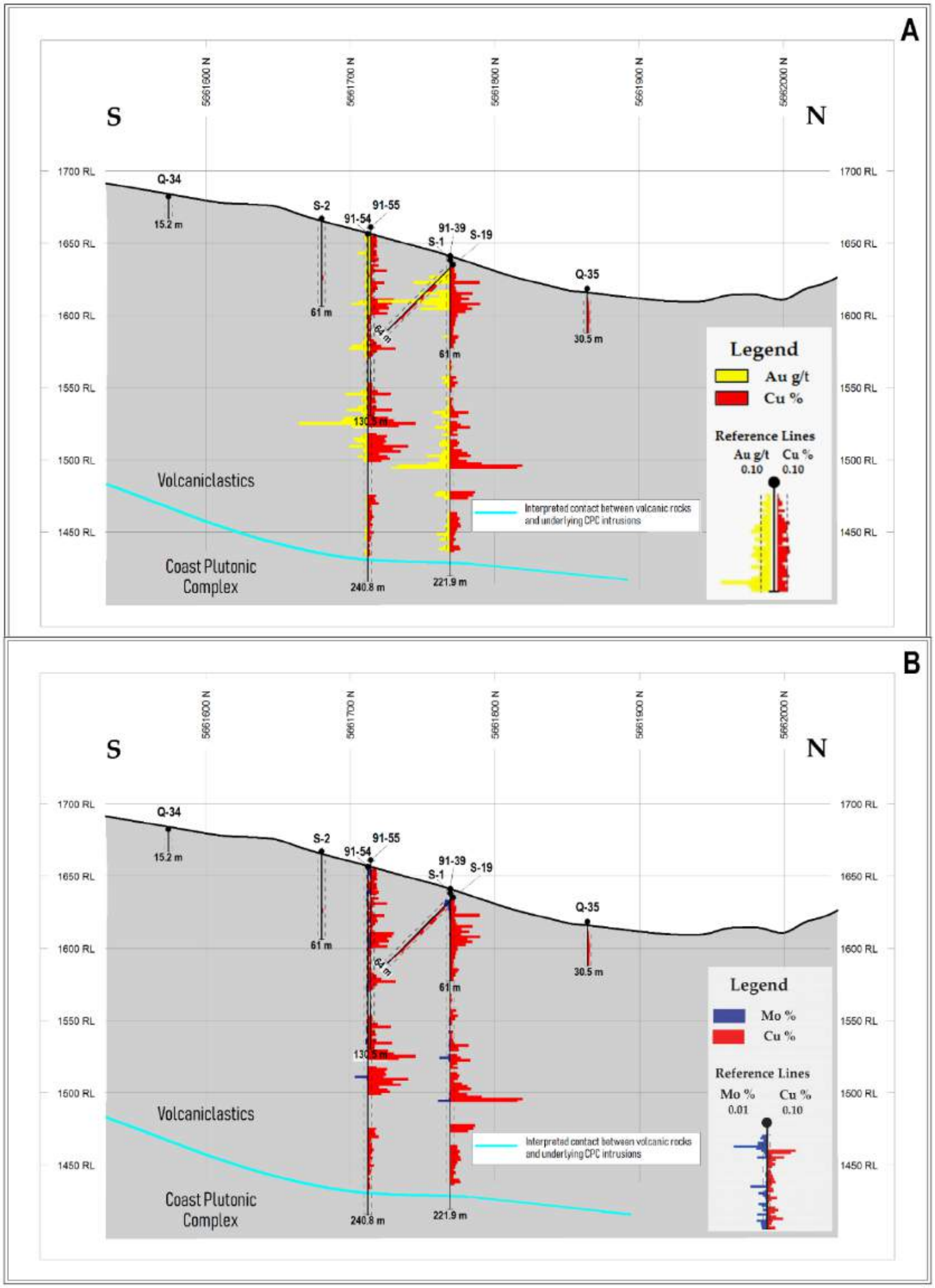

Figure 9-23: South to North Cross Sections 473,180E through the Empress East Deposit Target Drilling Looking West, Showing: A) Cu-Au Grades; and B) Cu-Mo Grades. Note the CPC-Volcanic Contact as Shown by the Blue Line.

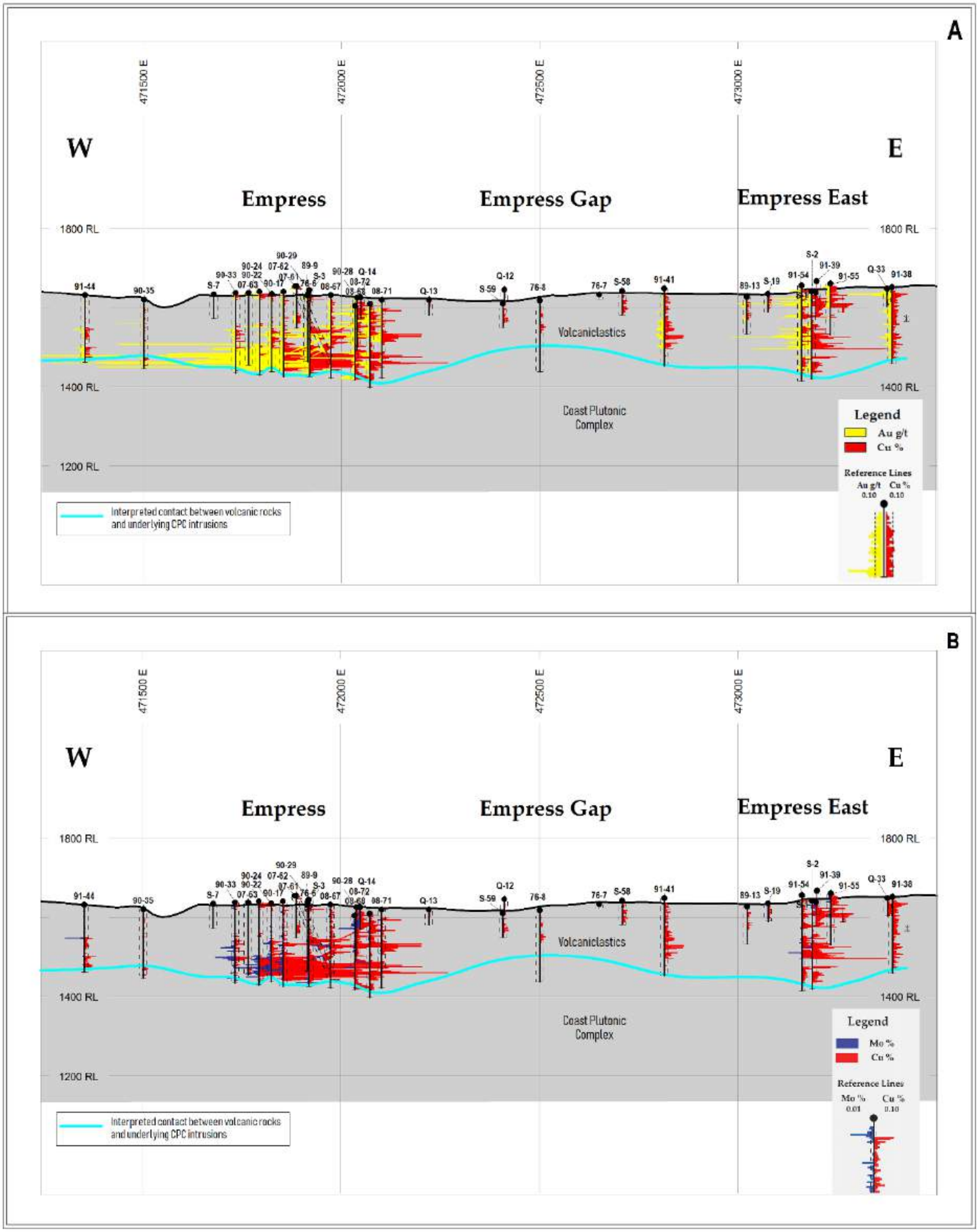

Figure 9-24: West to East Long Section 5,661,748N Through the Empress, Empress Gap and Empress East Drilling, Looking North, Showing: A) Cu-Au Grades; and B) Cu-Mo Grades. Note the CPC-Volcanic Contact as Shown by the Blue Line.

9.4.2. *Empress Cu-Au Replacement-Style Deposit*

Historical drilling at the Empress deposit outlined significant Cu-Au replacement-type mineralization with good grade, such as Hole 89-8 that returned 106.38 m from 9.14 m of 0.56% CuEQ at 0.35% Cu, 359 ppb (0.36 g/t) Au, 0.003% Mo and 1.5 g.t Ag, including 21.64 m from 78.03 m of 1.21% CuEQ at 0.69% Cu, 913 ppb (0.91 g/t) Au, 0.003% Mo and 2.8 g/t Ag (Table 6-21). Mineralization remains open to expansion in a number of areas that require drilling, with an additional +1 km potential immediately to the east at Empress Gap and Empress East (Table 6-21; Figures 9-17 through 9-21, 9-22B and 9-24). The Empress mineralization exhibits good lateral grade continuity particularly in zones with higher-grade intersections, which supports potential for extensive lateral control and discovery of new higher-grade zones. In most sections through the Empress deposit, longer intervals of higher Cu and Au grades are within, but are not entirely restricted to, the approximately 100 m vertical interval above the CPC-volcanic contact. For example, new drilling on section 471,810E in the +250 m gap between historical holes 90-24 and 07-58, to below the CPC-volcanic contact, has the potential to delineate additional mineralization of significant grade (Figures 9-19 and 9-21A)).

Further, new deeper drilling to below the CPC-volcanic contact on section 471,900E between historical holes 90-29 and 91-43, where the position of the contact is uncertain, also has potential delineate more mineralization of higher-grade (Table 6-21; Figures 9-20 and 9-21B). The intersection of Cu-Au and Mo mineralization below the contact could be indicative of an underlying porphyry in proximity to this locality. Also of note is the apparent correlation of Au and Cu concentrations in individual samples that indicates a reasonable probability that most Au resides in Cu sulphides and, as such, would report to a Cu flotation concentrate, with the potential to produce a concentrate with an appreciable Au content (Figures 9-19, 9-20, 9-23 and 9-24). There is no guarantee that the metallurgical testing required to determine metal recoveries will be done or, if done, that test work would confirm an appreciable Au content in a potential Cu concentrate. There is no apparent spatial correlation between Cu and Mo (Figure 9-19B, 9-20B, 9-21B and 9-24B).

9.4.3. *Granite and Buzzer Porphyry Cu-Au-Mo Exploration Targets*

Although most historical workers considered Empress a porphyry Cu-Au deposit, its characteristics are clearly more reminiscent of a replacement-style deposit (Lang, 2017). It is likely, however, that the source of the replacement fluids at Empress is a concealed porphyry Cu-Au-Ag±Mo deposit located in the vicinity, with the CPC-volcanic contact channeling fluids up-dip from an intrusive source (Section 7.5.2.1). An initial review by Amarc of historical drill core from the Granite zone, located some 200 m the north of the Empress deposit, has identified two distinct intrusive phases that host Cu-Au porphyry-style mineralization in hole 91-49, with Cu-Au and Mo mineralization below the CPC-volcanic contact and the Mo-rich mineralization also extending into the overlying volcanic rocks (Figure 9-18, 9-20 and 9-25). Only seven closely spaced core holes have been drilled in this area, one of which (91-42) encountered a post mineral dyke and was aborted. This porphyry Cu-Au-Ag±Mo target, which also has co-incident Cu and Au in soil and IP chargeability anomalies on the flanks of a magnetic high, has not been adequately tested and requires further drilling (Figure 9-5, 9-12 and 9-15; Section 18.2).

At the Buzzer porphyry Cu-Au-Ag-Au target, located two km to the east of Empress East where mineralization is also hosted in an intrusive distinct from the Empress Phase of the CPC, further supports the derivation of mineralizing fluids from a porphyry deposit that deposited the replacement-type mineralization at Empress and Empress East (Sections 6.7 and 7.5.2). The surface of the Buzzer porphyry is projected to lie a short distance below the now eroded CPC-volcanic contact. Whether these mineralized intrusions, such as at Buzzer, are part of a small cupola or a large intrusive body cannot be determined from the limited drilling in the area, but the intrusions do reach the base of overburden and are thus shallow targets. Additionally, Buzzer could be the upper/high level manifestation of a large underlying porphyry deposit. This concept warrants investigation.

9.4.4. Empress East and Empress Gap Cu-Au-Ag Replacement-Style Deposit Targets

In assessing the potential of the Empress East and, particularly, the Empress Gap (and also Empress West) deposit targets, it is important to note that of the 234 historical holes drilled at GECAP by Sumitomo and Quintana in 1970 and 1986, respectively, 96 were shallow percussion holes. These holes were drilled over a large area that surrounds, and also extends to the east and west of the Empress deposit (Figure 9-18). In addition, drill samples from these holes were analyzed only for Cu and Mo. Only five of these percussion holes exceeded 65 m in length (maximum of 91.4 m). Comparison of the cross sections in Figures 9-19, 9-20 and 9-21 with the long sections in Figures 9-22B and 9-24, suggests that shallow drilling in the Empress Gap Zone and Empress East would likely not have been deep enough to have a reasonable chance of intersecting higher-grade Empress-style Cu-Au mineralization, which is generally concentrated in magnetite rich siliceous zones closer to the underlying intrusive contact (Section 7.5.2). The potential significance of the near surface, anomalous Cu concentrations in shallow drill holes as an indicator of potential for high-grade Empress-style Cu-Au mineralization at depth is further illustrated in the patterns in near surface and entire-hole drill composites (Figures 9-7 and 9-8). Deeper drilling is clearly warranted across the greater Empress area, and is further supported by the handful of deeper holes outside of the Empress deposit area that have intersected mineralization and alteration similar to that at Empress.

The Empress East mineralized area outlined in red Figure 9-18 has only been tested by five historical core holes, all of which encountered Cu-Au mineralization (Figures 9-22A, 9-23 and 9-24). As at the Empress deposit, the mineralization at Empress East is related to magnetite, and occurs within a large magnetic anomaly that extends both to the east and west of the historical drilling (Figure 9-15). The shallow historical percussion drill holes in this area commonly contain anomalous Cu (for example, see historical hole Q-35 Figures 9-22A and 9-23, and historical holes S-19 and Q-33 Figures 9-22B and 9-24), and in some cases Mo which, as discussed above, is consistent with the degrees of enrichment at the top of many Empress holes that encountered higher-grade mineralization at depth. There is a complete absence of drill holes in the southern part of this target which is at a position that is analogous to shallower, higher-grade Cu-Au mineralization in the Empress deposit (Figures 9-19 and 9-20). The expansion potential is further highlighted by favorable IP chargeability anomalies of moderate to locally strong intensity (Figure 9-12). Significant potential exists to both enlarge and increase the grade of the Empress East deposit target with further drilling, focused on the large magnetic highs in which historical drilling has already intersected strong Cu-Au mineralization. In addition, south of hole 91-55 the depth of the CPC-volcanic contact is shallower, and new drilling here would have the potential to delineate more mineralization with good Cu and Au concentrations above the contact, and to probe for underlying porphyry mineralization at shallower depth (Figure 9-22 and 9-23).

In the +1 km wide Empress Gap zone is located between the Empress and Empress East, historical drilling is limited to eleven shallow percussion drill holes and three deeper core holes (Figures 9-18). Many of the short percussion holes returned anomalous Cu-Mo, potentially indicative of potentially higher-grade mineralization below (Figures 9-22B and 9-24). Of the deeper holes, Cu-Au mineralization associated with alteration similar to that at the Empress deposit is reported, but only two of these holes reached the CPC-volcanic contact. The interpreted depth to this anomaly is approximately that at which Empress-style magnetite-rich mineralization would be anticipated to occur.

The Empress Gap deposit target is also marked by a prominent, laterally-extensive anomaly in the inverted magnetic survey (Figure 9-15), which generally coincides with favorable IP chargeability results (Figure 9-12). The Gap zone is significantly underexplored by drilling and is a clear opportunity for discovery of additional Cu-Au mineralization. Proposed drilling includes locations close to the volcanic-intrusive contact in the south, deeper drilling below shallow percussion holes that have encouraging geochemical signatures, and holes on the margins of magnetic highs (Section 18-2).

9.4.5. Empress West Exploration Target

This large target area extends for over 2.2 km to the west of Empress (Figure 9-18) and approximately 1 km north of the volcanic-intrusive contact. The area is geologically analogous to that of the Empress deposit (Section 7.5.2). Similar to the Empress Gap deposit target, it has only been tested by historical widely-spaced, shallow percussion holes and by seven diamond drill holes (four of which are located proximal to the Empress deposit). The entire area exhibits significant IP chargeability highs (Figure 9-12) and numerous magnetic highs (Figure 9-15), including a magnetic high at modest depth comparable to the targets in the Empress Gap zone (Figure 9-16), and it hosts several Cu and Au soil anomalies (Figures 9-5 and 9-6).

The potential of the area is highlighted by results from drill holes 91-44 and 91-47 (Figures 9-18, 9-26 and 9-27). Only a few of the historical holes reached the CPC-volcanic contact in Empress West but in hole 91-44, located a few hundred metres west of Empress, a broad interval of volcanic rock immediately overlying the CPC contact is altered and mineralized with Cu-Au-Ag and sporadic Mo, demonstrating the continuation of mineralization westward (Figure 9-26). Hole 91-47, located approximately 2 km to the west of 91-44, also intersected Cu-Au-Ag mineralization with strong Mo in volcanic rocks above the CPC contact (Table 6-21; Figure 9-27). This mineralized interval demonstrates the potential for replacement deposits to have formed in the volcanic rocks from the Empress area to and possibly beyond Norwest. The high Mo concentrations in 91-47 are similar to those in hole 91-49 at the Granite target (Figures 9-20B and 9-25), and may also be indicative of a porphyry deposit in the vicinity.

An intriguing target is indicated by anomalous geochemistry in shallow percussion holes S-47 and S-46 of < 50 m depth (Figures 9-5, 9-6 and 9-18). These holes are located above a strong magnetic anomaly that is at least several hundred metres in northeast dimension (Figure 9-15); this area also manifests a strong IP chargeability anomaly (Figure 9-12) and has nearby zones of elevated Cu, Au and Mo in soils (Figure 9-5).

Drilling of magnetic and IP chargeability anomalies to below the contact is recommended throughout the GECAP area to explore for other deposits of replacement and porphyry type mineralization (Section 18-2).

9.4.6. Other Deposit Targets

The Norwest area is located west of the Empress West deposit target area (Figure 7-2), within a geological setting similar to that of the GECAP. Historical exploration is largely restricted to surficial geochemical surveys and geological mapping, and the area has not been drilled. Geochemical results are locally elevated, and observations during recent property-scale mapping (Greig et al., 2016) identified an extensive zone of propylitic, sericitic and local potassic alteration, as well as widespread quartz±carbonate±sulphide veins. This area warrants additional exploration.

The strong IP chargeability anomaly located west of the Taylor-Windfall mine and north of the Buzzer deposit (Figure 9-12), which is also spatially associated with a very strong magnetic anomaly (Figure 9-15), may represent a lithocap to an underlying or adjacent porphyry Cu-Au-Ag±Mo deposit that contains magnetite alteration. In this scenario, the advanced argillic alteration and polymetallic mineralization at Taylor-Windfall would be surface manifestation of this target. This area warrants additional exploration.

Other mineralized zones hosted by intrusions of the Empress Phase south of the CPC-volcanic contact, including the Spokane, Syndicate and Mohawk porphyry prospects, all of which require further exploration (Section 7.5.2 and Table 7-2).

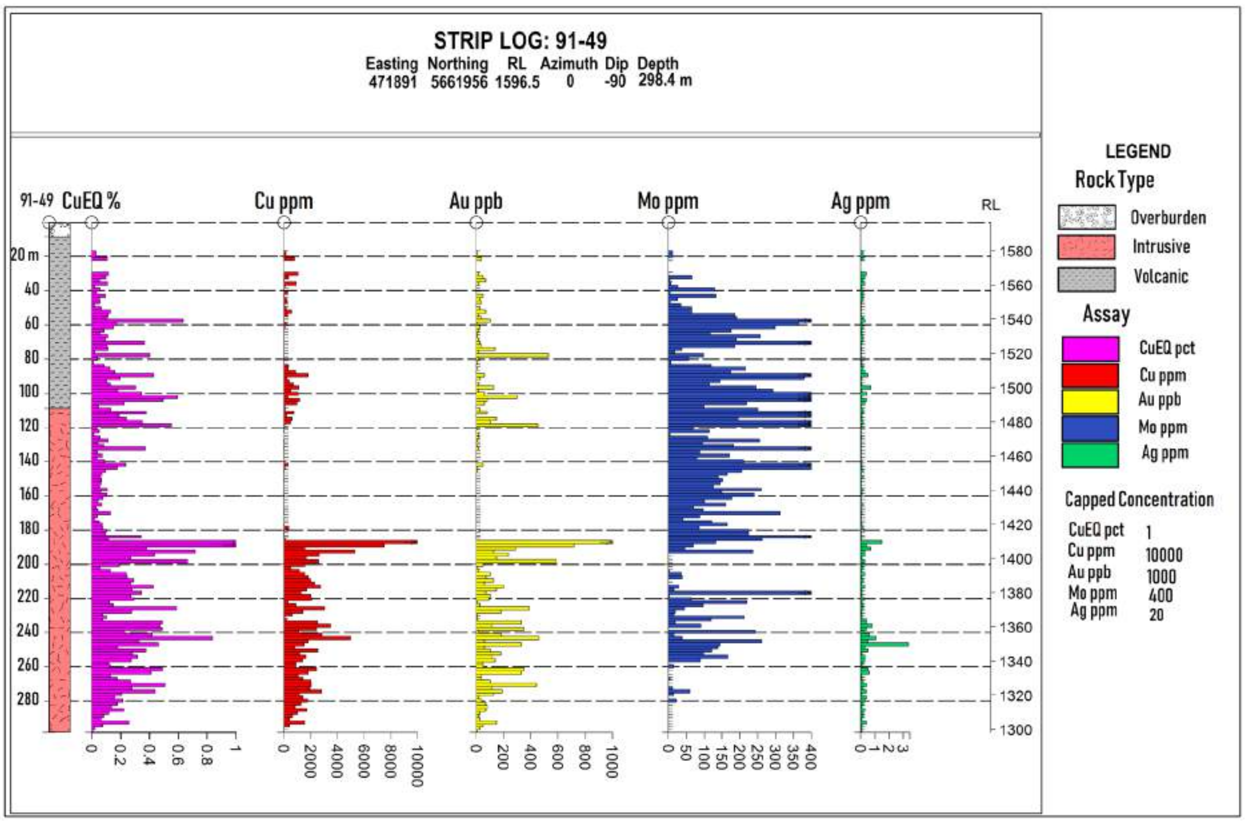

Figure 9-25: Strip Log for Historical Core Hole 91-49 Located to the North of the Empress Deposit in the Granite Deposit Target, Shows the Distribution of Cu, Au, Mo, Ag and CuEQ Relative to the Volcanic-CPC Contact. Higher Concentrations of Cu, Au and Ag are Hosted by Intrusive Rocks than by Volcanics. In Contrast, Mo-Rich Mineralization Extends Well Into the Overlying Volcanic Rocks which is Indicative of a Proximal Porphyry Source. Refer to Table 6-21 and Note 4 for CuEQ Calculation Information.

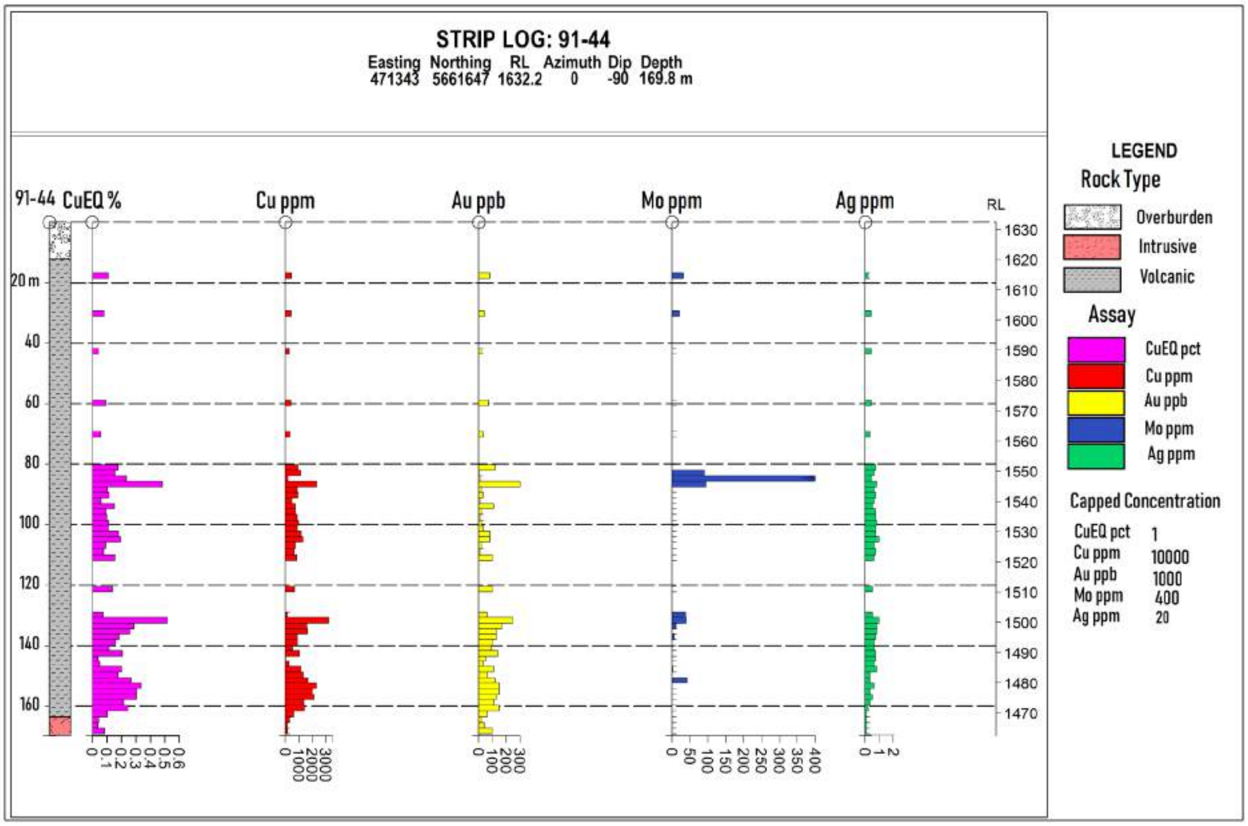

Figure 9-26: Strip Log for Historical Core Hole 91-44 Located to the West of the Empress Deposit, Showing Geology and Assay Sample Bar Graphs and the Distribution of Cu, Au, Mo, Ag and CuEQ Relative to the Volcanic-CPC Contact. Refer to Table 6-21 and Note 4 for CuEQ Calculation Information.

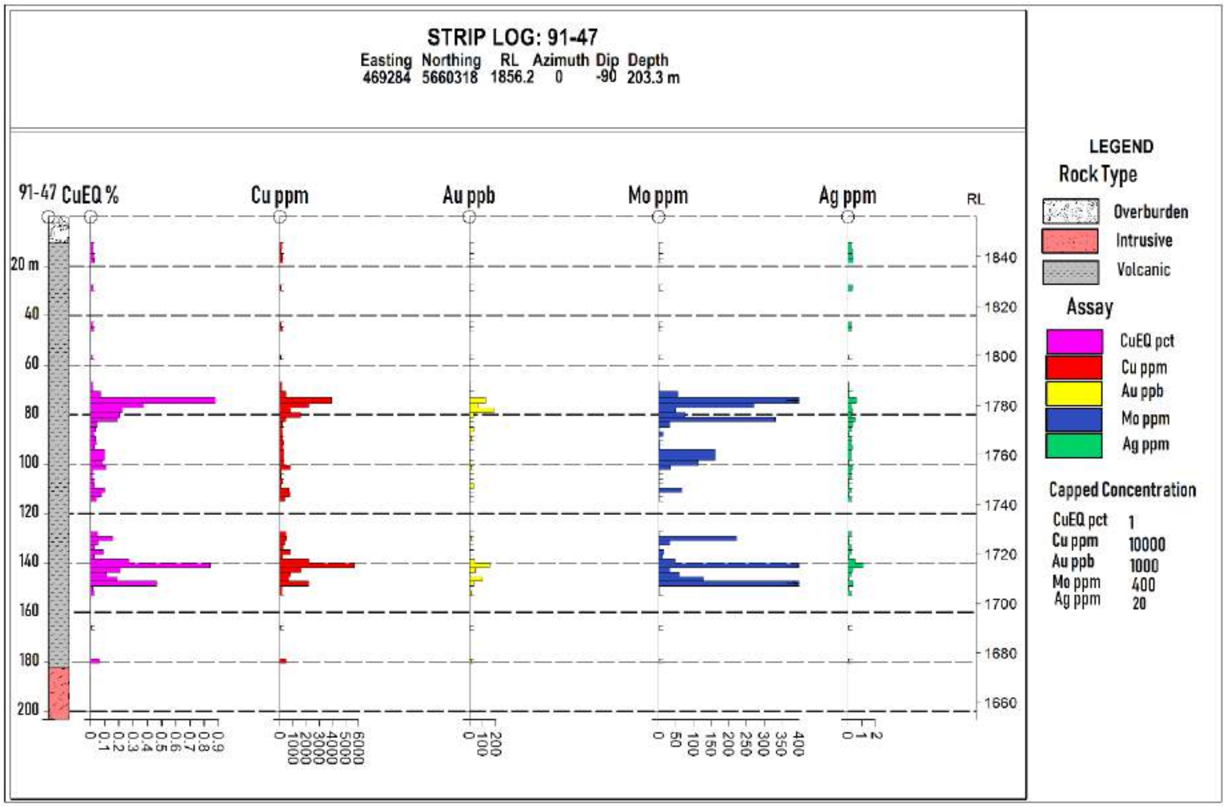

Figure 9-27: Strip Log for Historical Core Hole 91-47 Located in Empress West, Showing Geology and Assay Sample Bar Graphs and the Distribution of Cu, Au, Mo, Ag and CuEQ Relative to the Volcanic-CPC Contact. Refer to Table 6-21 and Note 4 for CuEQ Calculation Information.

10. Drilling

Amarc has compiled a database including 319 historical and Amarc drill holes totalling 49,540 m for the IKE Project. The historical drilling compiled on in IKE Project database is from 24 different years over a 55 years period from 1956 to 2011, prior to Amarc acquiring its interest in the Project in 2014. The 284 historical drill holes (including 173 core and 111 percussion drill holes) completed have a total length of 31,382 m. The historical drill programs identified a number of porphyry Cu±Au±Mo±Ag, replacement Cu-Au-Ag and epithermal Au-Ag targets on the Project, many of which show significant exploration potential and remain to be fully explored. Amarc has been the operator of the IKE Project since 2014, and has drilled 18,157 m of core in 35 holes to continue this exploration. A few early historical drill holes were not included in the Amarc database because the hole name, location, orientation and downhole information was lacking in the historical records.

10.1. *Historical Collar Co-ordinates, Drill Hole Orientations and Type*

Details of the collar coordinates and orientations of the bulk of 1972 to 2011 historical drill holes used in the Amarc database are described in Section 6.5. Amarc has not verified or re-surveyed any of the historical drill hole locations, however Amarc was able to verify the collar locations of important historical IKE deposit drill holes 81-2, 11-1 and 11-2. No information has been located in respect to downhole surveying on any holes prior to 2011.

The lack of confirmatory drill hole collar surveys and paucity of downhole surveys for the historical holes, could have a material impact on the accuracy and reliability of the downhole location information for the analytical results. It is recommended that the locations of critical historical drill holes be confirmed by site investigation and re-surveying, wherever possible, in order to increase the level of confidence in the downhole location information particularly for holes in the Empress deposit area.

Amarc has complied and integrated into the company's drill database information from 284 historical holes for 31,382 m of drilling, which has been verified to the extent possible (see Section 6.5 and 11-1).

The historical drill hole data are considered by the QP's to be adequate to guide current exploration.

10.2. *Amarc IKE Project Drilling*

Amarc completed 35 core holes for a total of 18,157.34 m from 2014 through 2018 on the IKE Project (Figure 10-2). A summary of the Amarc drilling is provided in Tables 10-1 through 10-3. A total of 49,540 m of drilling in 319 historical and Amarc drill holes has been completed across the Project.

Of the 35 Amarc core holes, 26 widely-spaced holes were completed for 15,455.34 m at the IKE porphyry deposit in 2014 - 2016 and 2018. These holes cut long continuous intercepts of varying but significant chalcopyrite and molybdenite mineralization over a broad area which at surface measures 1,200 m east-west by 1,000 m north-south, and extends over a vertical extent 875 m, and remains open to expansion. The remaining 9 core holes include initial and very widely-spaced exploratory holes at the Rowbottom and Mad Major-OMG porphyry deposit targets. These holes were collared to test coincident geophysical ± geochemical anomalies and, in the case of Rowbottom a coincident area of shallow historical percussion holes that returned promising porphyry–style mineralization and grade (Sections 6-8 and 7-6; Table 7-3).

All core recovered in the Amarc drill programs was photographed, geologically and geotechnically logged, sampled and assayed. Many of the cored holes were advanced through overburden using a tricone bit with no core recovery. These overburden lengths are included in the core drilling total. The average core recovery and RQD for the 2014 through 2018 drill programs are 95.7% and 52.7% respectively, from 5,995 drill runs averaging 3 m in length (Table 10-2). Core sizes, total metreage and average hole lengths are summarized in Table 10-1.

Table 10-1: Amarc 2014-2018 Drilling Hole Size, Metreage and Average Hole Length by Year.

Year	No. of Holes	Casing (m)	HQ Core (m)	NQ Core (m)	Total (m)	Average Length (m)
2014	9	70.02	3,899.58	1,439.69	5,409.29	601
2015	9	101.85	0.00	4,927.00	5,028.85	559
2016	3	19.67	0.00	1,903.33	1,923.00	641
2017	9	65.00	0.00	2,637.00	2,702.00	300
2018	5	71.10	0.00	3,023.10	3,094.20	619
Total	**35**	**327.64**	**3,899.58**	**13,930.12**	**18,157.34**	**519**
Percentage		**1.8**	**21.5**	**76.7**	**100.0**	

Table 10-2: Amarc 2014-2018 Drill Runs and Geotechnical Summary by Year.

Year	Total Runs	Average Run Length (m)	Average REC (%)	Average RQD (%)
2014	1,818	2.9	94.6	42.8
2015	1,645	3.0	94.5	54.1
2016	635	3.0	96.9	51.8
2017	884	3.0	95.7	45.2
2018	1,013	3.0	98.9	75.2
Total	**5,995**	**3.0**	**95.7**	**52.7**

Table 10-3: Amarc 2014-2018 Collar Location and Drill Hole Information.

Drill Hole	Target	Year	Easting (m)	Northing (m)	Elevation (m)	Length (m)	Azi. (deg.)	Dip (deg.)
IK14001	IKE deposit	2014	473,999.29	5,654,324.28	2,305.7	742.19	0	-45
IK14002	IKE deposit	2014	473,801.16	5,654,605.12	2,240.7	551.08	100	-45
IK14003	IKE deposit	2014	474,001.56	5,654,425.11	2,282.9	419.40	180	-60
IK14004	IKE deposit	2014	473,880.32	5,654,395.03	2,259.4	388.62	90	-50
IK14005	IKE deposit	2014	474,098.62	5,654,361.21	2,324.2	772.67	0	-60
IK14006	IKE deposit	2014	473,970.49	5,654,582.35	2,269.3	681.84	90	-45
IK14007	IKE deposit	2014	473,600.50	5,654,588.35	2,184.3	688.54	90	-60
IK14008	IKE deposit	2014	474,116.54	5,654,591.60	2,302.6	788.83	90	-45
IK14009	IKE deposit	2014	473,600.50	5,654,588.35	2,184.3	376.12	270	-45
IK15010	IKE deposit	2015	474,109.56	5,654,001.70	2,368.4	615.00	88	-45
IK15011	IKE deposit	2015	474,267.05	5,654,108.27	2,472.2	486.30	88	-45
IK15012	IKE deposit	2015	473,905.70	5,654,700.00	2,280.6	675.00	88	-45
IK15013	IKE deposit	2015	473,627.22	5,654,097.31	2,280.5	693.30	88	-45
IK15014	IKE deposit	2015	474,099.99	5,654,493.86	2,307.8	480.85	88	-45
IK15015	IKE deposit	2015	473,619.85	5,654,098.77	2,277.4	423.30	268	-50
IK15016	IKE deposit	2015	473,639.96	5,654,298.78	2,198.7	483.30	88	-45
IK15017	IKE deposit	2015	474,141.58	5,654,317.65	2,365.0	441.30	88	-45
IK15018	IKE deposit	2015	473,648.74	5,653,894.75	2,233.0	730.50	88	-45
IK16019	IKE deposit	2016	472,829.65	5,653,833.89	1,919.3	477.00	85	-45
IK16020	IKE deposit	2016	473,791.60	5,654,100.37	2,336.0	699.00	85	-45
IK16021	IKE deposit	2016	473,981.92	5,654,111.62	2,411.7	747.00	80	-45
MM17001	Mad Major-OMG	2017	481,325.00	5,653,599.32	2,300.0	391.50	0	-45
MM17002	Mad Major-OMG	2017	479,997.00	5,654,911.00	2,100.0	283.00	90	-45
MM17003	Mad Major-OMG	2017	479,489.82	5,655,839.23	1,890.0	137.00	90	-45
MM17004	Mad Major-OMG	2017	478,781.00	5,658,328.00	1,730.0	213.00	90	-45
MM17005	Mad Major-OMG	2017	482,228.00	5,654,282.00	2,343.0	375.00	250	-45
MM17006	Mad Major-OMG	2017	482,475.00	5,655,531.00	2,189.0	282.00	90	-45
MM17007	Mad Major-OMG	2017	482,538.00	5,656,214.00	2,082.0	296.00	90	-45
MM17008	Mad Major-OMG	2017	481,800.00	5,658,393.00	1,981.0	320.00	0	-45
RB17001	Rowbottom	2017	471,413.20	5,658,968.51	1,800.0	404.50	90	-50
IK18022	IKE deposit	2018	474,653.00	5,653,828.00	2,321.0	639.20	270	-45

Drill Hole	Target	Year	Easting (m)	Northing (m)	Elevation (m)	Length (m)	Azi. (deg.)	Dip (deg.)
IK18023	IKE deposit	2018	475,151.00	5,654,292.00	2,322.0	485.00	270	-45
IK18024	IKE deposit	2018	473,922.00	5,653,766.00	2,257.0	584.00	270	-45
IK18025	IKE deposit	2018	474,039.00	5,653,849.00	2,291.0	572.00	0	-45
IK18026	IKE deposit	2018	473,482.00	5,654,115.00	2,228.0	814.00	90	-45

10.3. Core Drilling 2014

The nine widely-space core hole (5,409 m) drilling program in 2014 was guided by the integration of historical drill data with Amarc's 2014 magnetic and IP geophysical talus fines geochemical and alteration mapping surveys. The drill program was designed to confirm, or not, if IKE had the potential to host an important-scale porphyry Cu system deserving of additional detailed exploration work. The nine core holes, IK14001 to IK14009, tested an area of 1,000 m east-west by 600 m north-south, and to vertical depths of 500 m in the Northwest Cirque (Figure 10-2).

Of particular significance were three widely-spaced, historical drill holes (81-2, 11-1 and 11-2) which intercepted long intervals of continuous, coarse grained chalcopyrite and molybdenum mineralization with encouraging grades. Examples of intersections from these holes are 186 m from 222.00 m at 0.41% CuEQ at 0.31% Cu, 0.022% Mo and 1.9 g/t Ag including 58 m from 266.00 m grading 0.52% CuEQ, at 0.39% Cu and 0.031% Mo and 1.9 g/t Ag in hole 11-1; 120 m from 20.00 m at 0.41% CuEQ at 0.31% Cu, 0.020% Mo and 3.3 g/t Ag, including 32 m from 62.00 m at 0.58% CuEQ at 0.42% Cu, 0.028% Mo and 6.3 g/t Ag in hole 11-2; and 152 m from 151.79 m of 0.40% CuEQ at 0.26% Cu, 0.037% Mo in hole 81-2 (no Ag assays are available) (Table 6-9). Holes 81-2 and 11-2 ended in mineralization. Other, generally shallower, historical drill holes returned geologically significant intersections of Cu and Mo concentrations indicative of a sizable mineralized system. These holes were not believed to have intersected the main area of interest.

The first Amarc drill hole was collared at the IKE porphyry in mid-July 2014. A total of 5,409 m were drilled in nine holes, numbered IK14001 through IK14009, with an average length of 601 m. Of this total, 5,339 m were cored bedrock and the remaining 70 m were drilled through overburden that was not recovered, logged or sampled. The cored portion of these holes comprised 1,818 drill run intervals averaging 3 m in length with an average core recovery of 94.5% and an average RQD of 42.8% (Table 10-2). Of the cored portions, 73% are HQ (6.35 cm diameter) and 27% are NQ (4.76 cm diameter) size (Table 10-1).

Holes were drilled at inclinations (dips) ranging from -45° to -60°. Drilled orientations varied with four holes drilled due east, two due north, one due south, one due west and one was at an azimuth of 100° (Table 10-3).

Significant results from the 2014 drilling program are shown in Table 10-5 and discussed below in Section 10.10.

10.4. Core Drilling 2015

The nine widely-spaced core holes (5,029 m) completed during the 2015 program were collared to test for extensions to the porphyry Cu-Au-Ag mineralization encountered in the 2014 program. Seven of the 2015 holes stepped out over 400 m to the south of the 2014 drilling into the Southwest Cirque, primarily guided by the 2014 drill results and also the continuation of the strong chargeability high and talus fine geochemistry. One 2015 drill hole stepped out approximately 100 m to the north of the 2014 drilling in the Northwest Cirque; and a single 2015 drill hole was collared in the Northwest Cirque on the eastern side of the 2014 collars and drilled eastwards (Figure 10-2).

Hy-Tech Drilling ("Hy-Tech") completed the nine hole program in September 2015. The holes, numbered IK15010 to IK15018, were drilled to an average length of 559 m. Of this total, 4,929 m was cored bedrock and the remaining 106 m was drilled in overburden that was not recovered, logged or sampled. The cored portion comprised 1,645 drill run intervals averaging 3 m in length with an average core recovery of 94.8% and an average RQD of 54.1% (Table 10-2). The cored portions of these holes were drilled NQ (4.76 cm diameter). Eight of the holes were oriented at an azimuth of 088° and inclination of -45°. IK15015 was the sole exception to this; it was drilled at an orientation of 268° azimuth, -50° inclination (Table 10-3).

Significant results from the 2015 drilling program are shown in Table 10-5 and discussed below Section 10.10.

10.5. Core Drilling 2016

Amarc re-commenced drilling at the IKE porphyry in mid-July 2016. Two drill holes were located to continue to test the extent of the mineralization in the Southwest Cirque, and one hole was drilled approximately 1 km west of Amarc's most southerly drilling in the southwest cirque to test an IP chargeability high (Figure 10-2).

Hy-Tech completed the three drill holes for 1,923 m. The holes, numbered IK16019, IK16020 and IK16021, were drilled to an average length of 641 m. Of the total metreage, 1,903 m was cored bedrock and the remaining 20 m was drilled in overburden that was not recovered, logged or sampled. The cored portion was drilled NQ size and comprised 635 drill run intervals averaging 3 m in length with an average core recovery of 96.9% and an average RQD of 51.8% (Table 10-2). All holes were drilled in an easterly direction at -45° inclination (Table 10-3).

Significant results from the 2016 drilling program are shown in Table 10-5 and discussed below Section 10.10.

10.6. Core Drilling 2017

The 2017 drilling focused on initial very widely-spaced drill testing of the Mad Major-OMG and Rowbottom porphyry Cu deposit targets, located within 4.5 km to 10 km of the IKE deposit. Nine drill holes, totaling 2,702 m, were completed by contractor Radius, between July and September 2017. The holes, numbered MM17001 through MM17008 and RB17001, were drilled to an average length of 300 m. Of the total meterage, 2,641 m was cored bedrock and the remaining 61 m was drilled in overburden that was not recovered, logged or sampled. The cored portion was drilled NQ size and comprised 884 drill run intervals averaging 3 m in length with an average core recovery of 95.7% and an average RQD of 45.2% (Table 10-2). Five holes at Mad Major were drilled due east, two due north and one in a southwesterly direction, all at -45° inclination (Table 10-3). The single Rowbottom hole was drilled due east at -50° inclination.

Eight, very widely-spaced wildcat exploration holes were completed in the greater Mad Major-OMG deposit target area, which are characterized by anomalous Cu, Mo and W surface geochemistry combined with extensive IP chargeability anomalies (Figures 9-4 and 9-10), One hole in the extensive Mad Major target area, MM17005, returned Cu and Mo concentrations within a dyke-like body (Table 10-5).

The single hole drilled at the Rowbottom porphyry Cu deposit target intersected significant intervals of porphyry Cu-Mo mineralization hosting elevated Ag and Au concentrations, which are cut by a number of post mineral dykes. This hole was drilled into an Amarc IP chargeability anomaly measuring 1.3 by 1.0 km that remains open to expansion and further surveying (Section 9-3.2). Additional drilling is required both laterally and at depth in order to determine the geometry and grade distribution of the Rowbottom deposit target. Assay results from hole RB17001 are tabulated below in Table 10-4.

Table 10-4: Significant Amarc Mad Major Exploration and Rowbottom Target Drill Intercepts. The CuEQ is Based on Conceptual Metallurgical Recoveries from Other Porphyry Cu Deposits.

Drill Holes[1]	From (m)	To (m)	Int. (m)[2,3]	Cu (%)	Mo (ppm)	Ag (g/t)	Au (ppb)	CuEQ[4,5] (%)
Mad Major								
MM17005	81.00	87.00	6.00	0.78	0.065	3.8	-	1.05
Rowbottom								
RB17001	63.00	129.00	66.00	0.29	0.006	4.1	82	0.38
and	321.00	327.00	6.00	0.19	0.006	2.6	-	0.23
and	333.12	354.00	20.88	0.38	0.007	4.3	-	0.43

1 Drill holes MM17001 to MM17004 and MM17006 to MM17008 have no significant intervals
2 Widths reported are drill widths, such that the thicknesses are unknown.
3 All assay intervals represent length-weighted averages.
4 The estimated metallurgical recoveries used for the Cu equivalent (CuEQ) are conceptual in nature. There is no guarantee that the metallurgical testing required to determine metal recoveries will be done or, if done, the metallurgical recoveries could be at the level of the conceptual recoveries used to determine the CuEQ.
5 CuEQ calculations use metal prices of: Cu US$3.00/lb, Mo US$12.00/lb, Ag US$18.00/oz and Au US$1,400.00/oz and conceptual recoveries of: Cu 90%, Au 72%, Ag 67% and Mo 82%. Conversion of metals to an equivalent Cu grade based on these metal prices is relative to the Cu price per unit mass factored by predicted recoveries for those metals normalized to the Cu recovery. The metal equivalencies for each metal are added to the copper grade. The general formula for this is: CuEQ % = Cu% + (Au g/t * (Au recovery / Cu recovery) * (Au US$ per oz/ 31.1034768) / (Cu US$ per lb* 22.04623)) + (Ag g/t * (Ag recovery / Cu recovery) * (Ag US$ per oz/ 31.1034768) / (Cu US$ per lb* 22.04623)) + (Mo % * (Mo recovery / Cu recovery) * (Mo US$ per lb / Cu US$ per lb)).

10.7. Core Drilling 2018

In 2018, Amarc completed an additional five very widely-spaced core holes at the IKE deposit to continue to delineate the Cu, Mo and Ag grade distribution within the overall 3.5 km by 2 km mineralized system. Two holes were located to follow up on IP geophysical survey work completed in 2017 that significantly expanded the IKE mineralized system to the east, and three were drilled in the Northwest and Southeast Cirques to test for extensions of the known mineralization to both the south and west (Figure 10-1).

Radius completed the five -45° inclination core holes, totaling 3,094 m and with an average length of 619 m, from July to August 2018 (Table 10-1 and 10-3). Hole numbers were IK18022 through IK18026. Of the total meterage, 3,023 m was cored bedrock and the remaining 328 m was drilled in overburden that was not recovered, logged or sampled. The cored portion was drilled NQ size and comprised 1,013 drill run intervals averaging 3 m in length with an average core recovery of 98.9% and an average RQD of 75.2% (Table 10-2). All holes were drilled at -45° inclination, three to the west, one east and one north.

Significant results from the 2018 drilling program are shown in Table 10-5 and discussed below Section 10.10.

10.8. Amarc Drill Hole Surveying

All drill hole collars have been surveyed using a differential global positioning system. The 2014 –2018 Amarc drill holes are tied to Canadian Department of National Defence survey monument 70A-506 (BC Geodetic Control Marker 615435) situated at 471,965.367 E, 5,651,830.788 N, and 2,550.871 m elevation. Amarc personnel surveyed drill hole collar locations using a Magellan ProMark differential GPS tool. Radius (2014, 2017 and 2018) and Hy-Tech (2015 and 2016) drill contractors obtained downhole survey measurements with a Reflex EZ-Shot magnetic and gravimetric instrument. Measurements were taken immediately below the casing and approximately every 50 m downhole until completion. All coordinates in this report are in NAD83 / UTM Zone 10 North coordinates unless otherwise stated. Table 10-3 lists the drill hole collar coordinates and orientations at the collar of the 35 Amarc drill holes.

10.9. Density Measurements

An overall median density of 2.659 was obtained on 1,514 bulk density (also described as specific gravity or "SG" in some descriptions) measurements taken on the core from 2014 to 2016 programs. Measurements were taken at the IKE Project core logging facility in 2014 and at a company warehouse in 2016. The results are illustrated in Figure 10-1. A water immersion method was employed on dry, uncoated sections of whole core. The A&D EJ2000 electronic balance used for measuring density was calibrated daily with Mettler-Toledo certified standard weights. Core samples free of visible moisture were selected for measurement. Samples selected ranged from 8 to 20 cm in length and averaged 10 cm. They were dried, allowed to cool and weighed in air on a digital scale with a capacity of 2,100 g. The mass in air (Ma) was recorded to the nearest 0.1 g. The sample was then suspended in water below the scale and the mass in water (Mw) measured and recorded.

Measurements were made at minimum 30 m intervals within continuous rock units down hole. As different rock units were encountered, more measurements were taken. Because of this variation, the typical distance between measurements is actually about 10 m. Where the sample selection point occurred in a section of missing core, or poorly consolidated material unsuitable for measurement, the nearest intact piece of core was measured instead. Measurements were made on whole pieces of drill core from the 2014 - 2016 drill programs. Calculation of density was made using the following formula:

$$\text{Density} = Ma / (Ma - Mw)$$

Figure 10-1 is a plot of the density measurements from the 2014-2016 drill core.

No density measurements were taken on the 2017 or 2018 drill core.

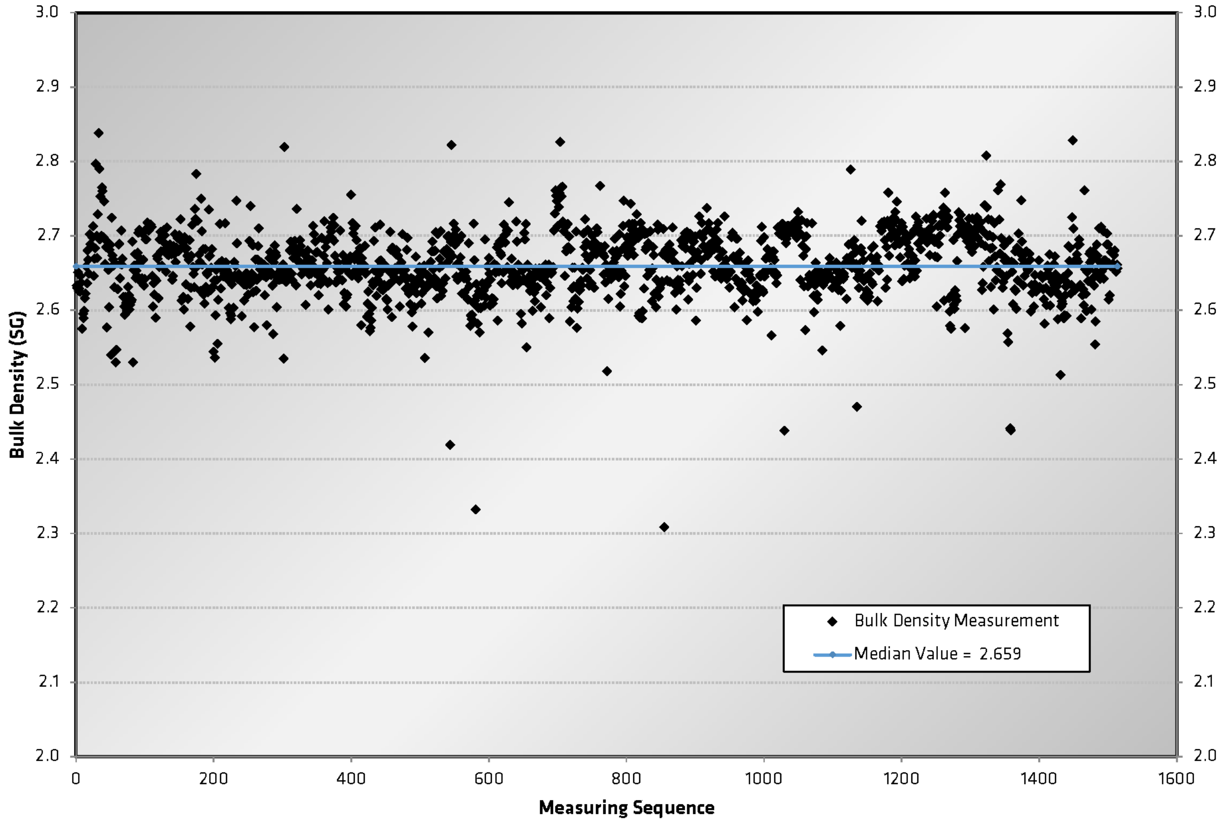

Figure 10-1: Drill Core Density Measurements.

The Amarc drill hole data are considered by the QPs to be adequate to guide current exploration and more advanced studies.

10.10. IKE Deposit Drilling Results Interpretation

The potential of the IKE porphyry and the overall Project was first recognized by Amarc during a review of porphyry occurrences located within underexplored belts in BC. Of particular interest were the three historical drill holes, 81-02, 11-01 and 11-02, located in the Northwest Cirque at the IKE porphyry. These holes intercepted, long intervals of porphyry-style fine to coarse grained chalcopyrite and molybdenum mineralization with encouraging grades, with two holes ending in mineralization (Figures 10-2 and 10-3; Table 10-5). Amarc drilling in proximity to historical hole 81-2 returned grades substantially similar in character and grade range to those in 82-1. Amarc's surface and airborne geological, geochemical, geophysical and geological alteration mapping surveys delineated a hydrothermal system some 9 km^2. Within a sector of this system the company's 26 widely-spaced core holes have outlined a substantial body of calc-alkaline porphyry Cu-Mo-Ag mineralization. Mineralization is primarily hosted within the Cretaceous EGD1 of the CPC, but also in a series of north-northwest to northwest trending felsic to intermediate, pre-, intra- to late mineralization and K-silicate altered Eocene dykes (Section 7.3.2 and 7.5.1).

The IKE deposit mineralization, which is now known to extend over an area 1,200 m east-west by 1,000 m north-south, to 875 m depth, that remains open to expansion to all directions. Within this area there are two higher-grade centres focused in the Northwest and Southwest Cirques (Figures 10-2 and 10-3).

Drill intercepts from the Northwest Cirque include IK14002, 259.06 m from 195.94 m for 0.40% CuEQ at 0.25% Cu, 0.038% Mo and 1.6 g/t Ag, and from the Southwest Cirque for hole IK15013, 321.80 m from 372.50 m grading 0.47% CuEQ at 0.32% Cu, 0.038% Mo and 2.3g/t Ag, including 124 m from 527.40 m at 0.68% CuEQ at 0.43% Cu, 0.063% Mo and 3.3 g/t Ag (Table 10-5). A phased drill program is warranted to delineate a mineral resource at the IKE deposit (Section 18.1).

The results of the Amarc drilling at the IKE deposit are presented in Table 10-5. Data has been assessed and intervals of ≥0.30% CuEQ are shaded in orange, and those intervals with ≥0.50% CuEQ are shown with a red background. See footnotes to Table 10-4 for descriptions and assumptions in respect to the calculations of CuEQ% in column nine of the table.

Table 10-5: Significant Amarc IKE Deposit Drill Intercepts. The CuEQ is Based on Conceptual Metallurgical Recoveries from Other Porphyry Cu Deposits.

Drill Holes	From (m)	To (m)	Int. (m)[1,2]	Cu (%)	Mo (ppm)	Ag (g/t)	Au (ppb)[3]	CuEQ[4,5] (%)
IK14001	40.00	213.66	173.66	0.27	0.019	2.4	-	0.35
and	241.98	395.20	153.22	0.29	0.023	2.3	-	0.39
and	404.13	489.00	84.87	0.30	0.045	1.7	-	0.48
Incl.	478.50	489.00	10.50	0.67	0.014	3.4	-	0.74
and	528.00	634.56	106.56	0.23	0.009	1.9	-	0.27
IK14002	57.34	180.11	122.77	0.32	0.017	2.5	-	0.40
Incl.	99.00	127.00	28.00	0.56	0.021	4.0	-	0.67
and	195.94	455.00	259.06	0.25	0.038	1.6	-	0.40
Incl.	342.00	353.00	11.00	0.44	0.048	3.3	-	0.64
and	465.55	476.77	11.22	0.21	0.032	1.4	-	0.34
and	483.33	494.64	11.31	0.20	0.050	1.8	-	0.39
and	521.67	537.00	15.33	0.17	0.113	0.8	-	0.59
IK14003	10.16	104.77	94.61	0.31	0.020	2.1	-	0.39
Incl.	14.00	26.00	12.00	0.53	0.021	2.2	-	0.62
and	153.37	169.32	15.95	0.22	0.015	1.5	-	0.28
and	282.00	297.00	15.00	0.08	0.040	0.5	-	0.23
IK14004	124.75	147.40	22.65	0.19	0.024	1.7	-	0.28
and	163.00	196.40	33.40	0.14	0.045	0.9	-	0.31
IK14005	32.00	80.00	48.00	0.23	0.007	1.4	-	0.26
and	269.40	325.38	55.98	0.31	0.064	1.6	-	0.55
and	339.05	426.20	87.15	0.36	0.054	0.7	-	0.56
Incl.	347.73	378.64	30.91	0.47	0.052	1.2	-	0.67
and	437.64	554.60	116.96	0.27	0.021	0.3	-	0.35
and	602.88	616.10	13.22	0.29	0.009	0.6	-	0.32
and	626.00	637.00	11.00	0.24	0.009	0.4	-	0.28
and	669.00	695.00	26.00	0.20	0.006	0.2	-	0.22
IK14006	9.00	28.00	19.00	0.26	0.008	1.7	-	0.30

Drill Holes	From (m)	To (m)	Int. (m)[1,2]	Cu (%)	Mo (ppm)	Ag (g/t)	Au (ppb)[3]	CuEQ[4,5] (%)
and	35.78	84.00	48.22	0.20	0.007	1.3	-	0.23
and	121.00	329.22	208.22	0.26	0.022	2.0	-	0.36
Incl.	147.00	165.40	18.40	0.41	0.063	3.9	-	0.66
and	344.01	432.22	88.21	0.29	0.062	1.5	-	0.52
and	441.92	490.00	48.08	0.27	0.044	1.8	-	0.44
and	507.57	574.33	66.76	0.23	0.008	1.6	-	0.27
and	592.00	605.53	13.53	0.25	0.006	1.3	-	0.28
and	618.00	633.00	15.00	0.18	0.008	1.1	-	0.22
and	671.00	681.84	10.84	0.28	0.007	2.0	-	0.32
IK14007	7.86	24.90	17.04	0.22	0.020	1.1	-	0.30
and	139.50	155.00	15.50	0.07	0.067	0.6	-	0.32
and	250.00	274.00	24.00	0.06	0.067	0.9	-	0.31
and	320.15	381.00	60.85	0.13	0.028	0.7	-	0.24
and	500.23	539.00	38.77	0.10	0.063	0.2	-	0.33
and	573.02	588.11	15.09	0.18	0.044	0.9	-	0.34
IK14008	135.36	168.00	32.64	0.24	0.009	2.0	-	0.29
and	191.00	216.04	25.04	0.19	0.013	1.3	-	0.25
and	230.33	258.53	28.20	0.23	0.022	1.4	-	0.32
and	278.08	313.90	35.82	0.28	0.020	1.9	-	0.36
and	320.00	462.78	142.78	0.29	0.028	1.7	-	0.40
Incl.	327.00	341.52	14.52	0.46	0.026	2.8	-	0.57
Incl.	359.00	383.00	24.00	0.40	0.044	2.7	-	0.58
and	475.06	567.00	91.94	0.28	0.017	1.5	-	0.36
and	605.00	648.00	43.00	0.19	0.012	1.0	-	0.24
IK14009	10.52	29.05	18.53	0.25	0.018	1.1	-	0.33
and	41.00	116.00	75.00	0.18	0.022	1.4	-	0.27
and	134.00	149.00	15.00	0.19	0.017	1.9	-	0.26
and	164.00	176.00	12.00	0.14	0.023	0.6	-	0.22
IK15010	204.00	268.00	64.00	0.30	0.015	2.9	-	0.38
and	293.00	421.00	128.00	0.33	0.022	3.1	-	0.43
Incl.	298.53	330.00	31.47	0.43	0.032	4.3	-	0.58
and	444.00	506.00	62.00	0.24	0.020	2.3	-	0.32
and	519.00	603.00	84.00	0.22	0.005	2.0	-	0.25
IK15011	20.05	60.00	39.95	0.31	0.023	2.5	-	0.41
IK15012	213.00	285.95	72.95	0.28	0.008	2.2	-	0.32
and	301.85	371.26	69.41	0.32	0.028	3.0	-	0.44
and	401.00	414.00	13.00	0.23	0.031	2.1	-	0.36
and	420.30	522.15	101.85	0.28	0.022	1.9	-	0.37

Drill Holes	From (m)	To (m)	Int. (m)[1,2]	Cu (%)	Mo (ppm)	Ag (g/t)	Au (ppb)[3]	CuEQ[4,5] (%)
IK15013	48.00	60.00	12.00	0.23	0.017	1.7	-	0.31
and	75.00	99.00	24.00	0.24	0.044	1.9	-	0.41
and	129.00	307.70	178.70	0.32	0.025	2.2	-	0.42
and	339.50	366.50	27.00	0.18	0.030	1.2	-	0.30
and	372.50	693.30	320.80	0.32	0.038	2.3	-	0.47
Incl.	527.40	651.50	124.10	0.43	0.063	3.3	-	0.68
IK15014	249.67	341.23	91.56	0.32	0.030	2.1	-	0.44
Incl.	264.30	285.30	21.00	0.40	0.085	2.6	-	0.73
IK15015	312.30	378.30	66.00	0.19	0.085	1.9	-	0.51
and	405.30	420.30	15.00	0.15	0.082	1.2	-	0.45
IK15016	243.00	261.00	18.00	0.05	0.065	0.8	-	0.29
and	285.00	369.30	84.30	0.16	0.032	1.6	-	0.29
IK15017	15.00	48.00	33.00	0.28	0.004	1.7	-	0.31
and	54.00	84.00	30.00	0.24	0.006	1.9	-	0.28
and	129.00	141.79	12.79	0.20	0.006	1.7	-	0.24
and	196.74	207.00	10.26	0.18	0.009	1.2	-	0.22
and	240.00	355.70	115.70	0.18	0.039	1.2	-	0.33
IK15018	135.00	162.00	27.00	0.24	0.015	1.5	-	0.30
and	216.00	270.30	54.30	0.36	0.013	2.5	-	0.42
and	276.30	312.35	36.05	0.30	0.010	2.4	-	0.35
and	423.30	435.00	11.70	0.21	0.004	1.1	-	0.23
and	471.30	540.30	69.00	0.25	0.017	1.8	-	0.32
and	549.30	567.30	18.00	0.21	0.006	1.4	-	0.24
and	603.30	616.50	13.20	0.22	0.007	1.3	-	0.26
and	651.30	730.50	79.20	0.23	0.012	1.5	-	0.29
IK16019	208.72	222.00	13.28	0.19	0.027	2.5	-	0.30
IK16020	111.00	156.00	45.00	0.25	0.015	1.7	-	0.31
and	314.48	381.90	67.42	0.35	0.023	2.8	-	0.45
Incl.	366.00	381.90	15.90	0.45	0.044	3.5	-	0.64
and	395.80	456.00	60.20	0.53	0.045	3.7	-	0.72
and	528.00	543.00	15.00	0.16	0.035	1.3	-	0.30
and	549.00	582.00	33.00	0.23	0.110	1.6	-	0.64
IK16021	90.00	126.00	36.00	0.24	0.003	1.2	-	0.26
and	149.65	165.00	15.35	0.24	0.021	1.6	-	0.33
and	171.00	206.00	35.00	0.23	0.028	2.2	-	0.35
and	219.75	290.91	71.16	0.22	0.018	2.5	-	0.30
and	336.00	435.00	99.00	0.29	0.026	2.6	-	0.41
Incl.	384.00	420.00	36.00	0.39	0.042	3.3	-	0.57

Drill Holes	From (m)	To (m)	Int. (m)[1,2]	Cu (%)	Mo (ppm)	Ag (g/t)	Au (ppb)[3]	CuEQ[4,5] (%)
and	448.25	462.18	13.93	0.30	0.024	2.9	-	0.40
and	479.06	627.25	148.19	0.33	0.013	2.0	-	0.39
IK18022	387.00	459.00	72.00	0.27	0.014	1.5	7	0.33
and	501.00	531.00	30.00	0.18	0.036	1.2	4	0.31
and	546.00	639.20	93.20	0.34	0.023	2.0	19	0.45
Incl.	562.60	588.00	25.40	0.44	0.029	2.5	13	0.57
IK18024	380.00	399.25	19.25	0.24	0.012	1.6	11	0.30
IK18025	215.00	236.00	21.00	0.22	0.005	1.6	14	0.25
and	257.00	351.70	94.70	0.37	0.020	2.5	20	0.47
Incl.	308.00	345.40	37.40	0.48	0.030	3.4	25	0.62
and	358.95	437.00	78.05	0.44	0.037	3.0	19	0.61
and	461.00	482.00	21.00	0.14	0.054	1.0	5	0.35
IK18026	158.20	285.40	127.20	0.28	0.042	2.0	19	0.46
Incl.	251.00	281.00	30.00	0.28	0.088	1.9	22	0.63
and	290.00	305.50	15.50	0.09	0.047	1.0	11	0.27
and	458.00	488.00	30.00	0.09	0.036	0.7	7	0.23
and	557.00	779.00	222.00	0.19	0.038	1.4	5	0.34

1 Drill hole IK18023 has no significant interval.

2 Widths reported are drill widths, such that the thicknesses are unknown.
All assay intervals represent length-weighted averages.

3 (-) means not assayed for.

4 The estimated metallurgical recoveries for Cu equivalent (CuEQ) are conceptual in nature. There is no guarantee that the metallurgical testing required to determine metal recoveries will be done or, if done, the metallurgical recoveries could be at the level of the conceptual recoveries used to determine the CuEQ.

5 CuEQ calculations use metal prices of: Cu US$3.00/lb, Mo US$12.00/lb, Ag US$18.00/oz and Au US$1,400.00/oz and conceptual recoveries of: Cu 90%, Au 72%, Ag 67% and Mo 82%. Conversion of metals to an equivalent Cu grade based on these metal prices is relative to the Cu price per unit mass factored by predicted recoveries for those metals normalized to the Cu recovery. The metal equivalencies for each metal are added to the copper grade. The general formula for this is: CuEQ % = Cu% + (Au g/t * (Au recovery / Cu recovery) * (Au US$ per oz/ 31.1034768) / (Cu US$ per lb* 22.04623)) + (Ag g/t * (Ag recovery / Cu recovery) * (Ag US$ per oz/ 31.1034768) / (Cu US$ per lb* 22.04623)) + (Mo % * (Mo recovery / Cu recovery) * (Mo US$ per lb / Cu US$ per lb)).

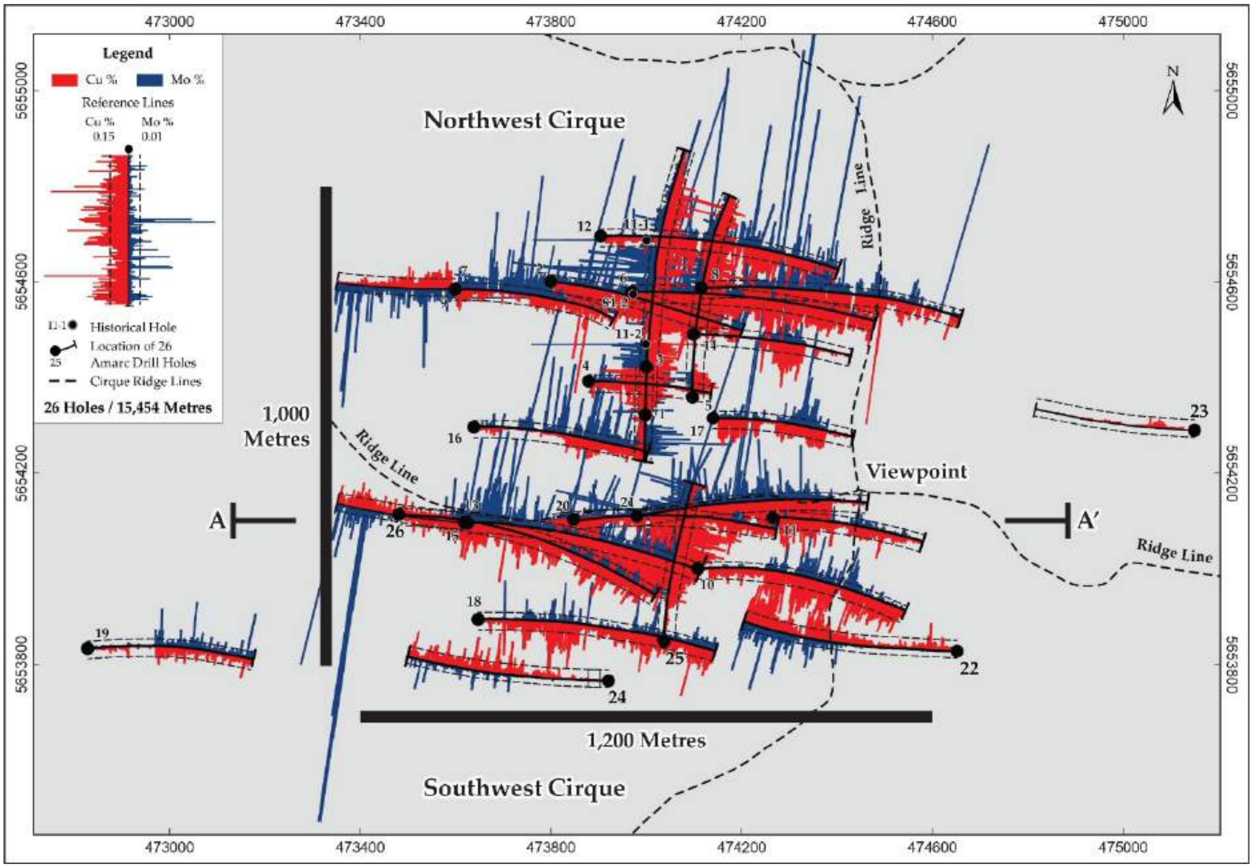

Figure 10-2: IKE Deposit Amarc Drill Hole Plan with Cu and Mo Sample Grade Bars Showing Continuity of Mineralization Over Long Intervals (hole number prefix "IK" and year removed).

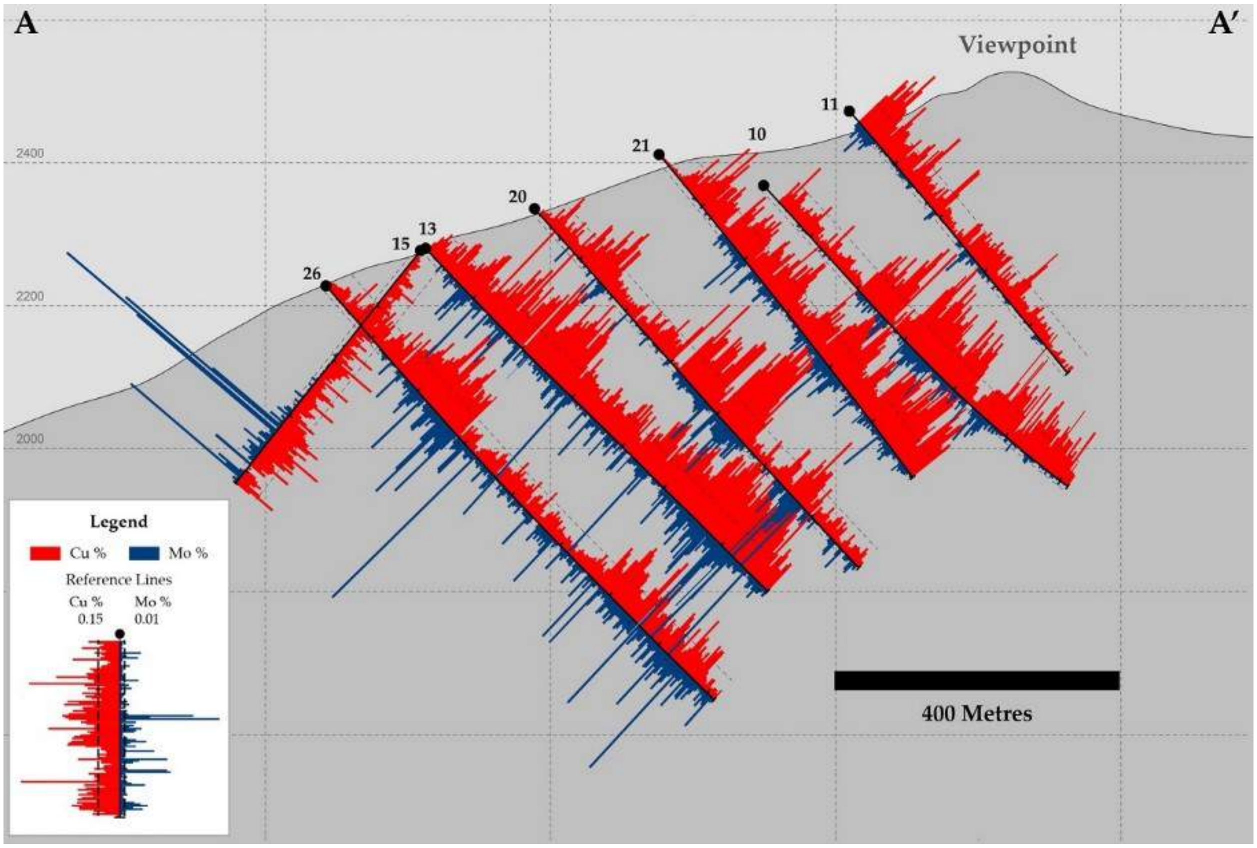

Figure 10-3: Cross Section A-A' With Cu and Mo Grade Bars, Looking North, Showing Grade Continuity Between Drill Holes in the Southwest Cirque.

11. Sample Preparation, Analysis, and Security

The number of samples taken and analyzed in the historical and Amarc drill programs total 16,919. Table 11-1 summarizes, by year, the number of regular mainstream drill hole samples taken and analyzed for selected elements for the historical and Amarc drill programs. The percentage of historical and Amarc drill samples that were analysed for each of the elements is: Cu 99%, Mo 97%, Ag 87% and Au 87%, and for multiple elements 83%. Table 11-2 is a summary of the sample preparation and analytical laboratories by year for historical and Amarc drill sample analysis. Drill hole quality control sampling and analysis is summarized Table 11-3. Table 11-4 lists the 25 historical drill holes lacking assay results in the Amarc drill hole database.

Table 11-1: Historical and Amarc Drill Core Samples Taken and Analyzed for Various Elements by Year.

Year	Area	Samples[1]	Cu	Mo	Ag	Au[1]	Fe	Pb	Zn
1956	Spokane	14	14	0	10	12	0	0	0
1963	Spokane	3	3	0	0	0	0	0	0
1964	IKE deposit	1	1	0	0	0	0	0	0
1965	Buzzer	5	5	5	0	0	0	0	0
1969	Buzzer	145	145	144	118	66	0	0	0
1969	Empress-Granite	1	1	0	1	0	0	0	0
1969	Taylor Windfall	15	15	16	15	2	0	0	0
1970	Buzzer	208	208	208	0	0	0	0	0

Year	Area	Samples[1]	Cu	Mo	Ag	Au[1]	Fe	Pb	Zn
1970	Empress-Granite	683	683	682	0	0	0	0	0
1970	IKE deposit	73	73	69	0	0	0	0	0
1970	Rowbottom	202	202	201	0	0	0	0	0
1971	IKE deposit	108	108	108	0	0	0	0	0
1972	IKE deposit	2	2	1	0	0	0	0	0
1976	Empress-Granite	670	670	328	167	195	0	0	0
1981	IKE deposit	303	303	303	0	0	0	0	0
1985	Taylor Windfall	119	0	0	119	119	0	0	0
1986	Battlement	154	154	154	154	153	0	154	154
1987	Battlement	60	60	60	60	60	60	60	60
1988	Empress-Granite	170	169	169	169	170	169	169	169
1989	Buzzer	14	13	13	14	14	13	13	13
1989	Empress-Granite	638	638	629	637	638	629	629	629
1990	Empress-Granite	1,441	1,441	1,433	1,435	1,441	1,433	1,433	1,433
1991	Empress-Granite	1,126	1,126	1,126	1,126	1,126	1,126	1,125	1,122
1993	Empress-Granite	50	50	0	51	50	0	0	0
1993	Spokane	103	103	100	59	103	0	88	103
2007	Battlement	147	147	147	147	147	147	147	147
2007	Empress-Granite	398	396	396	398	398	398	398	398
2007	Fortune	109	109	109	109	109	109	109	109
2008	Empress-Granite	401	401	401	401	401	401	401	401
2008	Hub	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413
2008	Mad Major	154	154	154	154	154	154	154	154
2008	Spokane	104	104	104	104	104	104	104	104
2008	Syndicate	324	324	324	324	324	324	324	324
2009	Hub	502	502	502	502	502	502	502	502
2011	Buzzer	461	461	461	461	461	461	461	461
2011	IKE deposit	327	327	327	327	327	327	327	327
2014	IKE deposit	1,875	1,875	1,875	1,875	*1,875*	1,875	1,875	1,875
2015	IKE deposit	1,670	1,670	1,670	1,670	*1,670*	1,670	1,670	1,670
2016	IKE deposit	649	649	649	649	*649*	649	649	649
2017	Mad Major	749	749	749	749	*749*	749	749	749
2017	Rowbottom	134	134	134	134	*134*	134	134	134
2018	IKE deposit	1,008	1,008	1,008	1,008	1,008	1,008	1,008	1,008
Total		**16,733**	**16,610**	**16,172**	**14,560**	**14,574**	**13,855**	**14,096**	**14,108**

1. Au assays for 5,077 samples from 2014 - 2017 (except 30 from Rowbottom), are by small aliquot size geochemical method AR-MS.

Table 11-2: Summary of Historical and Amarc Drill Hole Sampling and Assaying by Year and Operator.

<table>
<tr><th>Year</th><th>Project Operator</th><th>Sample Preparation and Analytical Laboratories</th></tr>
<tr><td>1956</td><td>CANEX</td><td rowspan="8">Unknown Laboratories</td></tr>
<tr><td>1963</td><td rowspan="3">Phelps Dodge</td></tr>
<tr><td>1964</td></tr>
<tr><td>1965</td></tr>
<tr><td>1969</td><td>Scurry</td></tr>
<tr><td>1970</td><td>Sumitomo</td></tr>
<tr><td>1970</td><td rowspan="2">Victor Mining</td></tr>
<tr><td>1971</td></tr>
</table>

<table>
<tr><th>Year</th><th>Project Operator</th><th>Sample Preparation and Analytical Laboratories</th></tr>
<tr><td>1972</td><td></td><td rowspan="2"></td></tr>
<tr><td>1976</td><td>Quintana</td></tr>
<tr><td>1981</td><td>United Gunn</td><td>Acme, Vancouver BC</td></tr>
<tr><td>1985</td><td>Westmin</td><td>ALS, N. Vancouver, BC</td></tr>
<tr><td>1986</td><td>ESSO</td><td>Acme, Vancouver BC</td></tr>
<tr><td>1987</td><td>Westmin</td><td>ALS, N. Vancouver, BC</td></tr>
<tr><td>1988</td><td rowspan="2">Westpine.</td><td rowspan="4">Vangeochem, N. Vancouver, BC</td></tr>
<tr><td>1989</td></tr>
<tr><td>1990</td><td rowspan="2">Westpine-Asarco</td></tr>
<tr><td>1991</td></tr>
<tr><td rowspan="2">1993</td><td>Canmark</td><td>Unknown Laboratory</td></tr>
<tr><td>Westpine</td><td>Vangeochem, N. Vancouver, BC</td></tr>
<tr><td>2007</td><td>Galore Resources</td><td>Acme, Vancouver, BC</td></tr>
<tr><td>2007</td><td rowspan="2">Great Quest</td><td rowspan="4">ALS, N. Vancouver, BC</td></tr>
<tr><td>2008</td></tr>
<tr><td>2008</td><td rowspan="2">Galore Resources</td></tr>
<tr><td>2009</td></tr>
<tr><td>2011</td><td>Great Quest</td><td rowspan="2">BV, Vancouver, BC</td></tr>
<tr><td>2011</td><td>Oxford</td></tr>
<tr><td>2014</td><td rowspan="5">Amarc</td><td rowspan="5">Actlabs, Kamloops, BC</td></tr>
<tr><td>2015</td></tr>
<tr><td>2016</td></tr>
<tr><td>2017</td></tr>
<tr><td>2018</td></tr>
</table>

Table 11-3: Historical and Amarc Drill Core Samples Taken by Year, QC[1], Area, Operator and QC Code

Year	Area[2]	Operator	CS	MS	DP	DX	DC	BL	ST	QC	Total
1956	Spokane	CANEX	2	12	0	0	0	0	0	0	14
1963		Phelps Dodge	3	0	0	0	0	0	0	0	3
1964	IKE deposit		1	0	0	0	0	0	0	0	1
1965	Buzzer		5	0	0	0	0	0	0	0	5
1969		Scurry	0	145	0	0	0	0	0	0	145
1969	Empress-Granite		0	2	0	0	0	0	0	0	2
1969	Taylor Windfall		0	16	0	0	0	0	0	0	16
1970	Buzzer	Sumitomo	0	208	0	0	0	0	0	0	208
1970	Empress-Granite		0	683	0	0	0	0	0	0	683
1970	Rowbottom		1	201	0	0	0	0	0	0	202
1970	IKE deposit	Victor Mining	0	74	0	0	0	0	0	0	74
1971			0	108	0	0	0	0	0	0	108
1972			2	0	0	0	0	0	0	0	2
1976	Empress-Granite	Quintana	2	671	0	0	0	0	0	0	673
1981	IKE	United Gunn	0	303	0	0	0	0	0	0	303
1985	Taylor Windfall	Westmin	0	119	0	0	0	0	0	0	119
1986	Battlement	ESSO	0	154	0	2	0	0	8	0	164
1987		Westmin	0	60	0	0	0	0	0	0	60
1988	Empress-Granite	Westpine	0	170	0	0	0	0	0	0	170
1989	Buzzer		0	14	0	0	0	0	0	0	14
1989	Empress-Granite		0	638	1	0	0	0	0	0	639
1990		Westpine-Asarco	0	1,441	0	0	0	0	0	0	1,441
1991			0	1,126	0	0	0	0	0	0	1,126
1993	Spokane	Canmark	0	103	0	0	0	0	0	0	103
1993	Empress-Granite	Westpine	0	51	0	0	0	0	0	0	51
2007	Battlement	Galore Resources	0	148	0	0	0	4	0	0	152
2007	Fortune		0	109	0	0	0	4	0	0	113
2007	Empress-Granite		0	61	0	0	0	0	0	0	61
2007		Great Quest	0	338	0	0	0	0	0	0	338
2008	Hub	Galore Resources	0	1,414	63	14	0	19	19	1	1,530
2008	Mad Major		0	155	7	2	0	3	2	0	169
2008	Spokane		0	104	5	1	0	2	1	1	114
2008	Syndicate		0	324	15	2	0	3	5	0	349
2008	Empress-Granite	Great Quest	0	402	11	0	0	17	16	0	446
2009	Hub	Galore Resources	0	502	6	0	6	0	27	1	542

Year	Area[2]	Operator	CS	MS	DP	DX	DC	BL	ST	QC	Total
2011	Buzzer	Great Quest	0	461	9	0	0	7	8	0	485
2011	IKE deposit	Oxford	0	327	0	19	0	21	17	0	384
2014	IKE deposit	Amarc	0	1,875	0	100	0	34	92	0	2,101
2015	IKE deposit	Amarc	0	1,670	0	86	0	25	84	0	1,865
2016	IKE deposit	Amarc	0	649	0	35	0	8	35	0	727
2017	Mad Major	Amarc	0	749	0	40	0	8	40	0	837
2017	Rowbottom	Amarc	0	134	0	7	0	5	7	0	153
2018	IKE deposit	Amarc	0	1,008	0	53	0	11	54	0	1,126
TOTAL			**16**	**16,729**	**117**	**361**	**6**	**171**	**415**	**3**	**17,818**

1. QC codes are as follows: CS = composited mainstream sample, MS = regular mainstream sample, DP = pulp duplicate control sample, DX = coarse reject duplicate control sample, DC = core duplicate control sample, BL = blank control sample, ST = standard control sample, QC = undifferentiated control sample.
2. Empress-Granite – Includes the Empress deposit and the Empress East, Empress Gap, Empress West and Granite deposit targets.

Table 11-4: Historical Drill Holes with No Assay Data in the Amarc Database.

<table>
<tr><th>Drill Hole</th><th>Area</th><th>Comment</th></tr>
<tr><td>68-1</td><td rowspan="5">Mad Major</td><td rowspan="9">No downhole information available</td></tr>
<tr><td>68-2</td></tr>
<tr><td>68-3</td></tr>
<tr><td>68-4</td></tr>
<tr><td>68-5</td></tr>
<tr><td>A-1</td><td rowspan="3">Spokane</td></tr>
<tr><td>A-2</td></tr>
<tr><td>A-3</td></tr>
<tr><td>A-6</td><td rowspan="2">Empress East</td></tr>
<tr><td>A-7</td><td>Report states: "no significant values"</td></tr>
<tr><td>X-5</td><td rowspan="3">Spokane</td><td rowspan="3">No downhole information available</td></tr>
<tr><td>X-6</td></tr>
<tr><td>X-7</td></tr>
<tr><td>S-29</td><td rowspan="2">Empress West</td><td>Hole abandoned. Actual depth unknown</td></tr>
<tr><td>S-30</td><td>Hole abandoned</td></tr>
<tr><td>Q-17</td><td>Granite</td><td>Hole is all overburden</td></tr>
<tr><td>84-03</td><td rowspan="4">Taylor Windfall</td><td>No downhole information available</td></tr>
<tr><td>84-04</td><td>Hole abandoned</td></tr>
<tr><td>84-05</td><td rowspan="4">No downhole information available</td></tr>
<tr><td>84-06</td></tr>
<tr><td>87-1</td><td rowspan="3">Spokane</td></tr>
<tr><td>87-2</td></tr>
<tr><td>S89-1</td><td>Hole stopped in bedrock due to equipment problems</td></tr>
<tr><td>91-42</td><td>Granite</td><td>Hole not sampled no mineralization (dyke)</td></tr>
<tr><td>07-01BA</td><td rowspan="2">Battlement</td><td rowspan="2">Hole abandoned. Casing broke off, did not reach bedrock</td></tr>
<tr><td>07-01BA2</td></tr>
<tr><td>08-69</td><td>Empress East</td><td>Report states: "No samples collected from this hole"</td></tr>
</table>

The total number of surficial geochemical samples taken in the historical and Amarc programs is 4,139, including 3,414 talus fines, 469 stream sediment and 256 rock samples. Table 11-5 is a summary of the surficial geochemical sampling programs.

Table 11-5: Historical and Amarc Surface Geochemical Samples in Amarc Database.

Year	Operator	Soil/Talus	Silt/Stream Sediment	Rock	Total	Summary	Analytical Laboratory
1981	Utah	0	10	0	10	Historical samples: 805 soil, 318 silt Total = 1,123	ALS
1989	Westpine	415	0	0	415		Vangeochem
2007	Galore Resources	390	244	0	634		Acme
2008		0	64	0	64		ALS
2014	Amarc	247	151	178	576	Amarc samples: 2,609 talus, 151 stream sediment, 256 rock Total = 3,016	Actlabs
2015		391	0	8	399		
2016		1,258	0	68	1,326		
2017		616	0	2	618		
2018		97	0	0	97		
Total		**3,414**	**469**	**256**	**4,139**		

11.1. Historical Sampling, Sample Preparation, Analyses and Security

Descriptions of historical drilling and data acquisition on the IKE porphyry Cu-Mo-Ag deposit, GECAP area porphyry Cu-Au±Mo±Ag and replacement-style Cu-Au-Ag targets and prospects, and IKE district targets and prospects outside of the IKE porphyry and GECAP areas are provided in Section 6.

11.1.1. IKE Deposit

Amarc is unaware of any information on the sampling method, security, sample preparation procedures, analytical methods and analytical laboratories used in the 1964, 1970, 1971 and 1972 drill programs of Phelps Dodge and Victor Mining on the IKE porphyry Cu-Mo-Ag deposit. Copper results for the 1964 Phelps Dodge drill hole are only known as a single composited assay interval (Phendler, 1980). No other elements were included. The 1970 and 1971 Victor Mining drill hole assay data for Cu and Mo were digitized by Amarc from cross-sections in Meyer (1971). The 1972 Victor Mining drill hole assays are only known from composited assay interval information provided by Meyer (1977). No other elements were included.

United Gunn systematically sampled and analyzed all drill core from their 1981 drill holes for Cu and Mo, and took 55 additional samples for Au analysis by FA. All results are from hand-written geology and assay logs in a report by Phendler (1982) that Amarc digitized in 2013. Phendler states that the 1981 sampling was under his supervision and that Acme, of Vancouver, BC assayed the samples. Phendler (1982) provided geology logs and assays for holes 81-3 and 81-4 in a 1982 assessment report (10455) on the work. Assays for holes 81-1, 81-2 and 81-5 were not included in the filed assessment report. They were located in an internal company document by Phendler with the same date (May 31, 1982) and digitized by Amarc. The sampling method, security, preparation procedures and analytical methods are unknown and no assay certificates were provided.

Oxford sampled the entire length of core drilled in their two 2011 drill holes. They took 327 regular samples, inserted 57 QC samples, and shipped all 384 drill samples to the ISO 9001 registered and ISO/IEC 17025:2005 accredited laboratory of Acme for sample preparation and analysis. Sample crushing was to 80% minus 10 mesh and pulverization was of a 250 g split to > 85% passing minus 200 mesh. Sample analysis was by Acme geochemical method 1DX2, which included digestion of a 15 g sub-sample in hot (95°C) AR (HCl-HNO3-H2O) and an ICP-MS finish. This multi-element analytical method included determinations of Cu, Mo, Ag, Au and 32 additional elements.

One over-limit re-analysis for Mo on a single sample from 254 m depth in hole 11-2 was completed in the 2011 program. This was by Acme assay-level method 7AR for higher-grade samples, which included digestion of a 1 g sample in AR and finish by ICP-OES analysis.

Amarc is unaware of any analytical QAQC programs carried out in relation to the 1970, 1971, 1972 or 1981 drill programs on the IKE deposit.

The 2011 Oxford drill program QAQC protocol included insertion and analysis of the OREAS52Pb analytical standard with the regular mainstream samples 15 times. This standard has a certified mean value of 3,338 ppm Cu by a combination of four acid and AR digestion methods. There were two failures (mean ±3 standard deviation control limits) of this standard in hole 11-2 by the AR digestion ICP-AES analytical method performed by Acme. Identification of this failure and the performance of reruns is not evident in the historical records. The failed samples, 800275 and 800345, have Acme Cu results of 2968.8 and 3076.4 ppm, respectively, whereas the acceptable range is between 3109 to 3567 ppm. In their 2013 due diligence program, Amarc re-analyzed sections of this hole and obtained acceptable QAQC results for corresponding intervals from this hole.

Acme achieved good performance, with respect to Au on standard OREAS51Pb, and all 15 insertions of this standard passed QC for Au in 2011.

Amarc reviewed the 2011 Oxford program analytical procedures in detail and resampled the two drill holes as part of their 2013 due diligence program as described further in Section 11.2.8.1.

11.1.2. GECAP and Regional

Documentation of the sampling method, sample preparation procedures, sample security, analytical methods and analytical laboratories used in the GECAP and IKE district areas outside the IKE deposit varies considerably with the age of the historical drill holes and surficial sampling programs. Whereas information for the 1956 through 1976 historical drill programs is almost completely lacking in the available records, descriptions for the 1981 through 2011 programs, particularly the most recent ones, are for the most part, reasonably well recorded in the ARIS reports filed with BC Government. Most of the assay results for the GECAP holes drilled from 1965 to 1991 by Phelps Dodge, Scurry, Sumitomo, Quintana, Alpine-Westley, Westpine and Westpine-ASARCO derive from a drill hole compilation report by Lambert (1991). No assay certificates were provided in this report.

There are no analytical quality control samples on drill programs prior to the 1986 campaign of ESSO, and whether they were done varies between then and 2008. The 2008, 2009 and 2011 historical programs of Galore Resources, Great Quest and Oxford include analytical quality control procedures.

Westpine sent 415 soil samples taken in 1989 to Vangeochem, Vancouver, BC for preparation and analysis. At Vangeochem, screening of dried soil samples was to -80 mesh (180 micron). AR digestion of a 0.5 g sub-sample of the minus fraction and determination of Cu, Mo, Ag and 23 additional elements by ICP-AES followed. Analysis for Au was by AR digestion of a 5-10 g sub-sample of the minus fraction with AAS finish.

Galore Resources sent 634 soil and silt taken in 2007 samples to Acme for preparation and analysis. Acme dried the samples at 60°C and took a portion of the -80-mesh fraction for AR digestion and analysis (Acme method SS80). For silt samples, digestion was of a 30 g sub-sample followed by ultratrace ICP-MS analysis for Cu, Mo, Ag, Au and 33 other elements (Acme method 1F30). For soil samples, digestion was of a 15 g sample followed by ICP-AES analysis for Cu, Mo, Ag, Au and 32 other elements (Acme method 1DX15).

The 2007 surficial sampling program of Galore Resources included 79 QC samples including, 5 blanks, 16 field duplicates, 58 pulp duplicates and 10 standards.

Galore Resources sent surficial samples to the ISO 9001:2000 registered and ISO 17025:2005 accredited laboratory of ALS in North Vancouver for preparation and analysis in 2008. The sample preparation protocol used (ALS method SCR-41) is essentially the same as for the Galore Resources 2007 soils and silts. Following digestion by AR of a 0.5 sub-sample, determination of Cu, Mo, Ag, Au and 32 other elements was by ICP-AES (ALS method ME-ICP41). Determination of Au was by FA of 30 g sub-sample followed by AAS finish (ALS method Au-AA23).

Work on verification of the historical geochemical and geological datasets outside the IKE deposit by Amarc is limited. Thorough investigation of the historical analytical methods used and method descriptions is lacking in these areas. A few crosschecks were made of data imported to the Amarc database against the original source documents, however, the scope of this work was not very comprehensive. With the exception of the 2011 Oxford core, no new samples have been taken from historical drill core by Amarc, as these materials have not yet been properly rehabilitated, inventoried and re-logged.

In general, the oldest historical IKE Project analytical data is less reliable than the more recent data. Documentation as to the provenance of some of the oldest data is poor, particularly for the pre-1981 data. Another issue with much of the older analytical data is the inability to validate it in terms of accuracy and precision due to lack of accompanying QAQC information in the original source records. For some of the more recent years, QAQC information exists in the historical records for the 2008 and 2009 drill data, but for expediency, it has not been compiled in the Amarc database. For this reason, the use of this historical analytical data as it is must be carefully assessed prior to use in more advanced studies.

For 16 historical 1956 – 1976 holes from several target areas, drill hole assays are only known as selected composited intervals reported in historical reports, such that original assay intervals are unknown. A further 17 historical holes from 1968 – 1987, particularly in the Spokane and Mad Major areas, are only known from collar locations and downhole traces plotted on historical plan maps, such that no downhole information, including assays are known. Prior to their inclusion in exploration or advanced studies, investigation and assessment of the impact of these holes is recommended.

Chip samples were taken from 4,783 m of shallow percussion drilling in 111 holes from 1970 through 1976 at the IKE deposit, GECAP and Rowbottom. In some portions of GECAP, shallow percussion drilling makes up more than half of the total samples. Historical percussion drilling is not as robust a method of obtaining representative samples for assay as core drilling methods. Overall, chip samples represent about 12% of the drill related samples taken on the Project. The use of these chip sample results in any future resource estimation or other advanced studies must be carefully assessed.

The QP asserts that the use of well-documented, modern analytical and QAQC procedures in the 2007, 2009 and 2011 historical drill core and 2007 surficial sampling programs are reasonable and sufficient to lend credence to the veracity this set of analytical results. The quality information on the pre-2007 drill holes varies considerably and is considered less reliable, however the data quality is considered adequate for use in exploration targeting.

Some reports on historical drill programs mention on-site core storage. Investigation by Amarc as to the location of these facilities and the condition of any remaining core is pending. Amarc is unaware of any drill core rejects or pulps available from the historical drill programs.

11.2. Amarc Sampling, Sample Preparation, Analyses and Security

11.2.1. Drill Core Sampling 2014 - 2018

Amarc systematically sampled and analyzed all potentially mineralized sections of drill core from their drill programs at the IKE deposit, Rowbottom and Mad Major target areas. A total of 6,085 regular samples of half sawn core, with an average length of 3.0 m were submitted for preparation and analysis. There was no recovery or sampling of overburden (See Figure 11-1).

Full chain of custody control - from collection at the drill rig through to delivery at the analytical laboratory - was implemented for all analytical samples in the 2014 – 2018 drill campaigns and for 2014 - 2018 Amarc surficial sampling programs. Upon completion of all core-logging procedures, the core went to a secure cutting facility for processing and sampling by Amarc core cutters trained and supervised by experienced Amarc technical staff. Sample guidelines marked by a geologist denoted the intervals to cut lengthwise using a rock saw. The sampling procedure involved placing the bottom tab of the sample tag from the sample book into a pre-marked plastic sample bag and stapling the stub from the tag book to the core box at the beginning of each sample interval. Core cutters always selected samples from the same side of the whole core to avoid sample bias. This also ensured that the remaining half-core pieces fit together when placed back in the core box for storage. One-half of the cut core was placed into the appropriate sample bag which was securely closed with a plastic cable tie upon completion of sampling. At the end of each shift, the sample bags were placed into labelled rice bags (3 to 4 samples per bag), which were also securely closed with cable ties and made ready for transport to the analytical laboratory. The rice bags and sample shipment paperwork were collected and transported, on a weekly basis by an Amarc contractor vehicle or Actlabs laboratory vehicle, directly to the Actlabs facility in Kamloops. The drill core and samples were stored in locked and secured conditions upon shipment, to maintain control and ensure chain of custody. The half core remaining after sampling is stored in a facility in Williams Lake.

11.2.2. Surficial Sampling 2014 - 2018

A total of 3,016 surficial samples were collected in the project area from 2014 - 2018, including 2,609 soil-talus fine, 256 rock and 151 stream sediment samples. Surface sampling took place in September 2014; October 2014; September-October 2015; July, September and October 2016; July-August 2017; and August 2018. Areas sampled include the IKE deposit and the Rowbottom, Mad Major, OMG, Buzzer, Empress, Mohawk, TEM, Syndicate, Spokane and Granite creek target areas. Further details on these programs are in the IKE Project Reports listed in the references.

Full chain of custody control was maintained for all surface samples from collection through delivery to the analytical laboratory in 2014 through 2018, in a similar and parallel manner to the drill core samples.

11.2.3. Drill Core Sample Preparation 2014 - 2018

Amarc samples were submitted to Actlabs, Kamloops, BC for sample preparation and analysis between July 22 and October 17 in 2014; September 23 and October 27 in 2015; July 19 and September 29 in 2016; August 1 and October 3 in 2017; August 1 and September 5, 2018.

The drill core samples were prepared under Actlabs laboratory code RX1. They were weighed (2014 only), dried and crushed to > 90% passing to 2 mm, then a 250 g riffle split was taken. The sub-sample was pulverized to > 95% passing 105 microns prior to aliquot selection for digestion and analysis. Figure 11-1 is a sampling, sample preparation, security and analytical flow chart for the Amarc 2014 – 2018 drill programs.

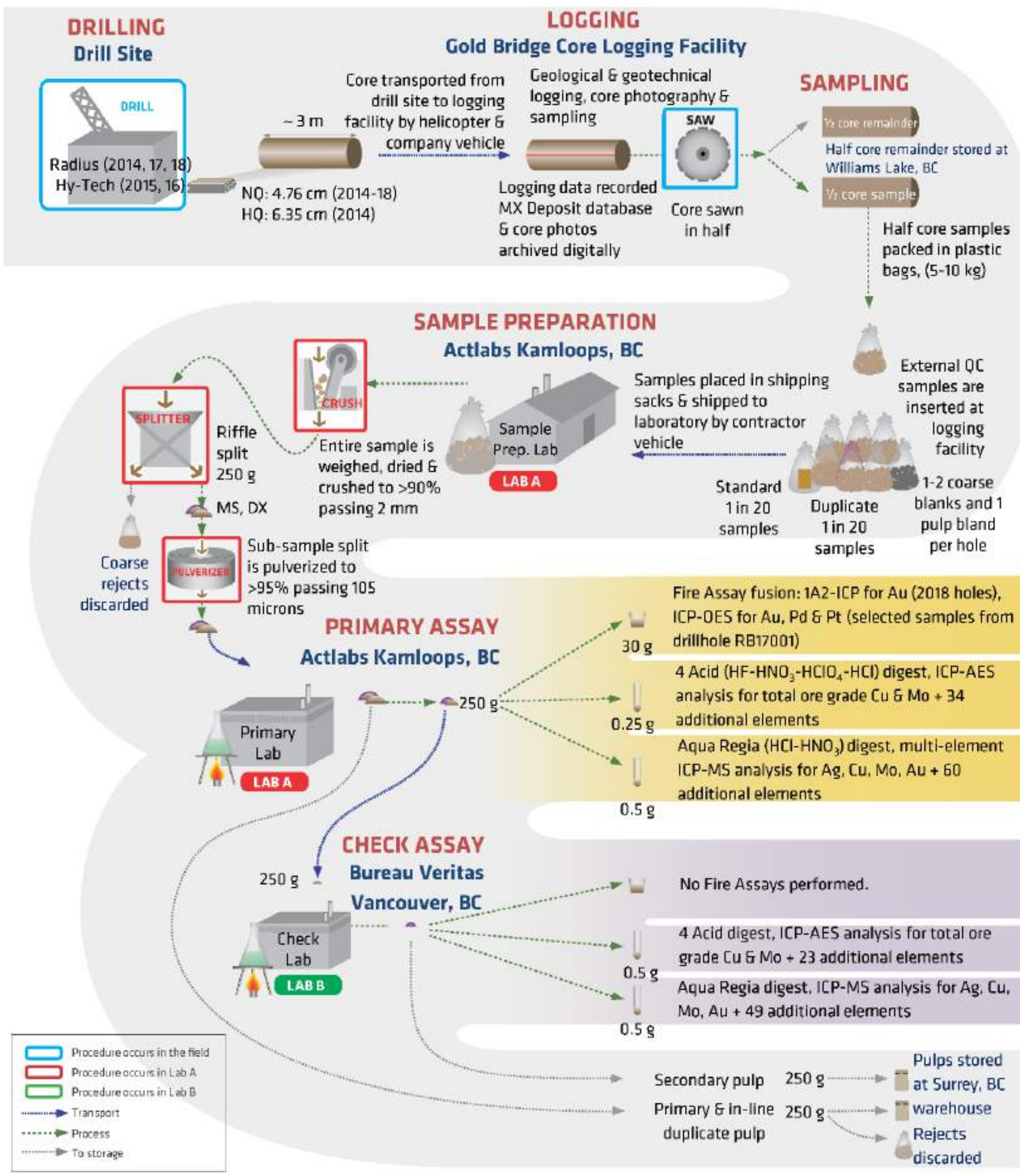

Figure 11-1: Amarc Sampling, Sample Preparation, Security and Analytical Flow Chart for Drill Samples.

11.2.4. Surficial Sample Preparation 2014 - 2018

Pre-sieving of talus fines samples occurred at the collection site to remove and discard fragments larger than 0.5 cm. Preparation of surficial soil/talus samples at Actlabs was under laboratory code S3-150. The samples were dried (60°C) and sieved to -150 mesh (105 microns) and the minus fraction used for aliquot selection, digestion and analysis. If, as very rarely occurred, insufficient sample existed after Method S3-150, the sample was screened to 80 mesh (0.18mm) followed by pulverization to > 95% passing 150 mesh (Method RX4).

Rock chip and grab samples were prepared using Actlabs laboratory code RX1, the same method as described above for drill core samples in Section 11.2.3.

After the completion of sample preparation and assay analysis, the coarse rejects, surficial sample rejects and assay pulps were stored at Actlabs in Kamloops, BC. Transfer of all Amarc assay pulps including those derived from drill core, surficial rock samples, and soil samples to a company warehouse in Surrey, BC for long-term storage took place in late 2019. Amarc discarded the coarse reject portion of all drill core, surficial rock, soil/talus, silt assay samples in storage at Actlabs Kamloops in mid-2019.

11.2.5. Drill Core Sample Assay Analysis 2014 - 2018

The 2014 - 2018 drill core samples were processed and analyzed at the ISO 17025 accredited Actlabs laboratory in Kamloops, BC. Amarc coordinated analytical method selection with Actlabs prior to initiation of analytical work on the 2014 IKE deposit drilling. All Amarc drill core samples were digested and analyzed by a minimum of two separate analytical methods. A 36 element four acid (total) digestion ICP-OES method (TD-ICP or 1F2) and a 63 element AR digestion ICP-MS method (AR-MS or UT1). In all, 63 elements were determined by these two methods. In 2017, a 30 g FA ICP-AES finish method for Au was added to selected drill core samples from a single hole, and subsequently in 2018 this method was used on all core samples. The analytical methods used on the Amarc drill core samples are:

1. 36 element four acid (total) digestion ICP-OES;
    a. Method TD-ICP (1F2-Assay);
        i. All drill core.
2. 63 element AR digestion ICP-MS;
    a. Method AR-MS (UT1).
        i. All drill core.
3. 30 g FA fusion FA-ICP;
    a. Method 1C-OES for Au, Pd and Pt;
        i. Drill hole RB17001 only.
    b. Method 1A2-ICP for Au;
        i. 2018 drill holes.

In all, 63 elements were determined for all drill core and 65 elements were determined for hole RB17001.

The selected Cu and Mo assay protocol for drill core analysis is Actlabs analytical method 1F2-Assay Amarc- Kamloops Total Digestion ICP, (TD-ICP on the certificates of analysis). In this method, a 0.25 g sample is digested with four acids (HF-HNO3-HClO4-HCl) beginning with hydrofluoric, followed by a mixture of nitric and perchloric acids, heated using precise programmer controlled heating in several ramping and holding cycles that takes the samples to incipient dryness. After samples attain incipient dryness, they are brought back into solution using AR. Analysis of the samples is by ICP-OES (sometimes referred to as ICP-AES). QC for the digestion is 14% for each batch, five method reagent blanks, ten in-house controls, ten sample duplicates, and eight certified reference materials. QC is performed an additional 13% of the samples as part of the instrumental analysis to ensure quality in the areas of instrument drift. Table 11-6 lists the 36 elements analyzed and the detection limits of this method.

Table 11-6: Multi-Element Analytical Method 1F2 Total Digestion ICP-OES (TD-ICP) Elemental Limits.

Element	Unit	Detection Limit	Upper Limit	Note	Element	Unit	Detection Limit	Upper Limit	Note
Ag	ppm	3	100		Mo	%	0.001	10,000	
Al	%	0.1	-	*	Na	%	0.1	-	
As	ppm	30	5,000		Ni	%	0.001	10,000	
Ba	ppm	70	1,000		P	%	0.01	-	
Be	ppm	10	-	*	Pb	ppm	30	5,000	
Bi	ppm	20	-		S	%	0.1	20	
Ca	%	0.1	-		Sb	ppm	50	10,000	
Cd	ppm	3	2,000		Sc	ppm	40	-	
Co	ppm	10	-		Sr	ppm	10	-	
Cr	ppm	10	10,000		Te	ppm	20	-	
Cu	%	0.001	-		Ti	%	0.1	-	
Fe	%	0.1	-		Tl	ppm	50	-	
Ga	ppm	10	-	*	U	ppm	100	-	*
Hg	ppm	10	-		V	ppm	20	-	
K	%	0.1	-		W	ppm	5	-	*
Li	ppm	10	-		Y	ppm	10	10,000	*
Mg	%	0.1	-		Zn	%	0.001	10,000	
Mn	%	0.001	100,000		Zr	ppm	50	-	*

Note: * Element may only be partially extracted.

In Actlabs, laboratory analytical method Ultratrace-1-Kamloops AR ICP/MS, (AR-MS on the certificates of analysis, also known as Method UT1), digestion of a 0.5 g sample is by AR at 90°C in a microprocessor controlled digestion block for 2 hours. Dilution and analysis of digested samples is by ICP-MS. One blank is run for every 68 samples. An in-house control is run every 33 samples. Digested standards are run every 68 samples. Analysis of a digestion duplicate occurs after every 15 samples. The instrument is recalibrated every 68 samples. Table 11-8 lists the 63 elements analyzed and the detection limits of this method.

Analysis of all 2018 drill core and 2018 surficial samples was for Au by Actlabs method 1A2-ICP (FA-ICP). In this method, a 30 g aliquot of the sample is mixed with fluxes (borax, soda ash, silica and litharge) and with Ag added as a collector and the mixture is placed in a fire clay crucible. Fusion of this mixture is at 1060°C. Cupellation of the lead button at 950°C recovers the Ag (doré bead) plus Au. The entire Ag doré bead is dissolved in AR and the gold content is determined by ICP-OES. On each tray of 42 samples, the laboratory QC samples include 2 blanks, 3 sample duplicates and 2 certified reference materials, one high and one low (QC 7 out of 42 samples). Thirty of the 134 regular samples in Rowbottom drill hole RB17001 were selected for precious metal analysis by 30 g FA fusion using Actlabs method 1C-OES (FA-ICP) for Au, Pd and Pt which is similar to method 1A2 but with Pd and Pt determinations. The three elements analyzed and the detection limits of the FA-ICP methods are in Table 11-7. Gold analysis for the 2014 through 2017 programs and the remaining 104 samples in hole RB17001 was by the AR-MS (UT1), a small sample aliquot (0.5 g) geochemical method.

Table 11-7: Precious Metal FA Analytical Method (1C-OES) and Au Only Method (1A2-ICP) Limits.

Element[1]	Unit	Detection Limit	Upper Limit
Au	ppb	2	30,000
Pt	ppb	5	30,000
Pd	ppb	5	30,000

1. Only Au determined in method 1A2-ICP.

Table 11-8: Multi-Element Analytical Method AR Digest ICP-MS (AR-MS) Elemental Limits.

Element	Unit	Detection Limit	Upper Limit	Note	Element	Unit	Detection Limit	Upper Limit	Note
Ag	ppm	0.002	100	*	**Mo**	ppm	0.01	10,000	
Al	%	0.01	10	*	**Na**	%	0.001	5	*
As	ppm	0.1	10,000	*	**Nb**	ppm	0.1	500	*
Au	ppb	0.5	10,000	*	**Nd**	ppm	0.02	-	*
B	ppm	1	5,000	*	**Ni**	ppm	0.1	10,000	*
Ba	ppm	1	6,000	*	**P**	%	0.001	-	*
Be	ppm	0.1	1,000	*	**Pb**	ppm	0.01	10,000	*
Bi	ppm	0.02	2,000		**Pr**	ppm	0.1	-	
Ca	%	0.01	50	*	**Rb**	ppm	0.1	500	*
Cd	ppm	0.01	-		**Re**	ppm	0.001	100	
Ce	ppm	0.01	10,000	*	**S**	%	1	-	*
Co	ppm	0.1	5,000		**Sb**	ppm	0.02	500	
Cr	ppm	0.5	5,000	*	**Sc**	ppm	0.1	-	
Cs	ppm	0.02	-	*	**Se**	ppm	0.1	1,000	
Cu	ppm	0.01	10,000		**Sm**	ppm	0.1	100	*
Dy	ppm	0.1	-		**Sn**	ppm	0.05	200	*
Er	ppm	0.1	-		**Sr**	ppm	0.5	1,000	*
Eu	ppm	0.1	100	*	**Ta**	ppm	0.05	50	*
Fe	%	0.01	50	*	**Tb**	ppm	0.1	100	*
Ga	ppm	0.02	500	*	**Te**	ppm	0.02	500	
Gd	ppm	0.1	-		**Th**	ppm	0.1	200	*
Ge	ppm	0.1	500	*	**Ti**	ppm	0.001	-	*
Hf	ppm	0.1	500	*	**Tl**	ppm	0.02	500	*
Hg	ppb	10	10,000	*	**Tm**	ppm	0.1	-	

Element	Unit	Detection Limit	Upper Limit	Note		Element	Unit	Detection Limit	Upper Limit	Note
Ho	ppm	0.1	-			**U**	ppm	0.1	10,000	*
In	ppm	0.02	-			**V**	ppm	1	1,000	*
K	%	0.01	5	*		**W**	ppm	0.1	200	*
La	ppm	0.5	1,000	*		**Y**	ppm	0.01	-	*
Li	ppm	0.1	-			**Yb**	ppm	0.1	200	*
Lu	ppm	0.1	100	*		**Zn**	ppm	0.1	10,000	*
Mg	%	0.01	10	*		**Zr**	ppm	0.1	5,000	*
Mn	ppm	1	10,000	*						

Note: * May not be total. Unaltered silicates and resistate minerals may not be dissolved.

The majority of Cu drill results used in the drill hole database are by the TD-ICP assay method, with the exception of some of the very lowest concentrations reported. No overlimit analyses were required, the maximum values received by TD-ICP for Cu and Mo being 1.78% and 6,390 ppm, respectively. All Ag concentrations and most of the Mo concentrations in the current database are by AR-MS.

All drill core samples are analyzed by two analytical methods and 37 elements are determined two different analytical methods. Selection of the most appropriate combination of digestion and analytical method for use in instances requiring the reporting of a single value for each element is according to the analytical hierarchy listed in Table 11-9. For samples analyzed more than once, particularly in the case of QAQC reruns, the digital compilation used the first valid analytical result received that passed QAQC from the primary laboratory. This compilation also respects the priority in the analytical hierarchy. The digital compilation of assay results for samples analyzed multiple times or by different methods does not employ averaging.

Ten selected samples from IKE deposit holes IK14001 to IK14004 with relatively high tin (Sn) and tungsten (W) values were analysed by Actlabs method UT-7 ICPMS, sodium peroxide (Na_2O_2) fusion ICP-MS. This method generally provides a more total extraction than four acid digestion for these two extremely resistate minerals. The results of this analysis are provided in Table 11-10.

An average 18-day analytical turnaround was achieved for the 2014 through 2016 drilling and surficial sampling programs, from the date the laboratory received the samples to the certification date, including weekends and holidays. In 2017, analytical turnaround was 19 days at the start of the program and 40 days towards the end. Analytical turnaround for 2018 was 23 days. These figures do not include QC reruns or inter-laboratory duplicates.

Table 11-9: Analytical Hierarchy.

Element	Method	Element	Method	Element	Method
Ag	If TD-ICP<30, then AR-MS	**Ge**	AR-MS	**S**	TD-ICP
Al	TD-ICP	**Hf**	AR-MS	**Sb**	AR-MS
As	AR-MS	**Hg**	AR-MS	**Sc**	If TD-ICP<80, then AR-MS
Au	FA-ICP if exists, else AR-MS	**Ho**	AR-MS	**Se**	AR-MS
B	AR-MS	**In**	AR-MS	**Sm**	AR-MS
Ba	TD-ICP	**K**	TD-ICP	**Sn**	AR-MS
Be	If TD-ICP<20, then AR-MS	**La**	AR-MS	**Sr**	If TD-ICP<10, then AR-MS
Bi	If TD-ICP<40, then AR-MS	**Li**	If TD-ICP<10, then AR-MS	**Ta**	AR-MS
Ca	TD-ICP	**Lu**	AR-MS	**Tb**	AR-MS
Cd	If TD-ICP<6, then AR-MS	**Mg**	TD-ICP	**Te**	If TD-ICP<20, then AR-MS
Ce	AR-MS	**Mn**	TD-ICP	**Th**	AR-MS
Co	If TD-ICP<30, then AR-MS	**Mo**	If TD-ICP<0.006, then AR-MS	**Ti**	If TD-ICP<0.1, then AR-MS
Cr	If TD-ICP<10, then AR-MS	**Na**	If TD-ICP<0.1, then AR-MS	**Tl**	If TD-ICP<50, then AR-MS
Cs	AR-MS	**Nb**	AR-MS	**Tm**	AR-MS
Cu	If TD-ICP<0.01, then AR-MS	**Nd**	AR-MS	**U**	If TD-ICP<300, then AR-MS
Dy	AR-MS	**Ni**	AR-MS	**V**	If TD-ICP<20, then AR-MS
Er	AR-MS	**P**	TD-ICP	**W**	If TD-ICP<50, then AR-MS
Eu	AR-MS	**Pb**	If TD-ICP<70, then AR-MS	**Y**	If TD-ICP<20, then AR-MS
Fe	TD-ICP	**Pr**	AR-MS	**Yb**	AR-MS
Ga	If TD-ICP<10, then AR-MS	**Rb**	AR-MS	**Zn**	If TD-ICP<0.001, then AR-MS
Gd	AR-MS	**Re**	AR-MS	**Zr**	If TD-ICP<50, then AR-MS

Table 11-10: Samples Analyzed for Sn and W by Sodium Peroxide Fusion.

HOLE - ID	From (m)	To (m)	Sample ID	Lab Cert.	Sn ppm (AR-MS)	Sn ppm (Fusion)	W ppm (AR-MS)	W ppm (4A-ES)	W ppm (Fusion)
IK14001	189.00	191.80	715071	A14-04942	2.85	7.4	184.0	250	240.0
IK14001	261.00	263.50	715097	A14-04942	2.88	7.1	> 200	320	322.0
IK14001	379.80	382.60	715145	A14-05118	19.10	1.8	33.4	60	44.5
IK14001	386.00	388.10	715148	A14-05118	2.41	3.6	32.7	60	49.9
IK14002	279.00	282.00	716605	A14-05117	1.46	1.8	5.8	< 50	16.2
IK14002	361.00	364.00	716639	A14-05117	24.90	1.5	12.0	< 50	21.6
IK14002	528.00	532.29	716702	A14-05117	25.50	1.8	4.7	< 50	12.6
IK14003	389.00	392.00	716849	A14-05308	1.75	1.3	> 200	820	756.0
IK14004	163.00	165.45	715336	A14-05299	1.47	1.5	> 200	260	252.0
IK14004	171.00	174.00	715339	A14-05299	1.91	1.8	> 200	370	360.0

In 2015 and 2016, the assay pulps of 62 mainstream samples from drill holes IK15010, IK15012, IK15013, IK16020 and IK16021, and 3 standards were sent to the ISO 9001 registered and ISO/IEC 17025:2005 accredited laboratory of BV, Vancouver for inter-laboratory duplicate check assays. Two analytical methods were performed on these duplicate samples at BV. Method MA-370 is a 4 acid digest of a 0.5 g sample with ICP-AES finish for Cu, Mo, Ag and 20 additional elements. This method is comparable with Actlabs method 1F2 (TD-ICP). BV method AQ251-EXT involves an AR digest of a 15 g sample with ICP-AES/MS finish to determine Cu, Mo, Ag, Au and 49 additional elements. This method is generally comparable to Actlabs method AR-MS, except a much larger sub-sample is digested and analyzed.

11.2.6. Surficial Sample Assay Analysis 2014 - 2018

Amarc 2014 - 2018 surficial samples were processed and analyzed at Actlabs, Kamloops. All Amarc surficial samples were digested and analyzed by Actlabs 63 element AR digestion method ICP-MS method (AR-MS). From 2014 – 2017 surficial samples were also analyzed by Actlabs 36 element four acid (total) digestion method ICP-OES (TD-ICP or 1F2). The 2018 surficial samples from the Buzzer deposit target were also analyzed for Au by Actlabs 30 g FA method 1A2-ICP. The analytical methods are described in more detail in Section 11.2.4. In summary, they are:

1. 63 element AR digestion ICP-MS;
    a. Method AR-MS (UT1).
        i. All surficial samples (soil/talus, silts, rocks).
2. 36 element four acid (total) digestion ICP-OES;
    a. Method TD-ICP (1F2-Assay);
        i. 2014-2017 surficial samples.
3. 30 g FA fusion FA-ICP;
    a. Method 1A2-ICP for Au;
        i. 2018 soil samples.

In all, 63 elements were determined for all 2014 – 2018 surficial samples.

11.2.7. Analytical Results

The Cu, Mo, Ag and CuEQ results for the Amarc drilling are presented in Table 10-4 through Table 10-7. Figure 11-2 is box-plot statistical summary of the 2011 to 2018 multi-element analytical results from all Amarc drill core samples.

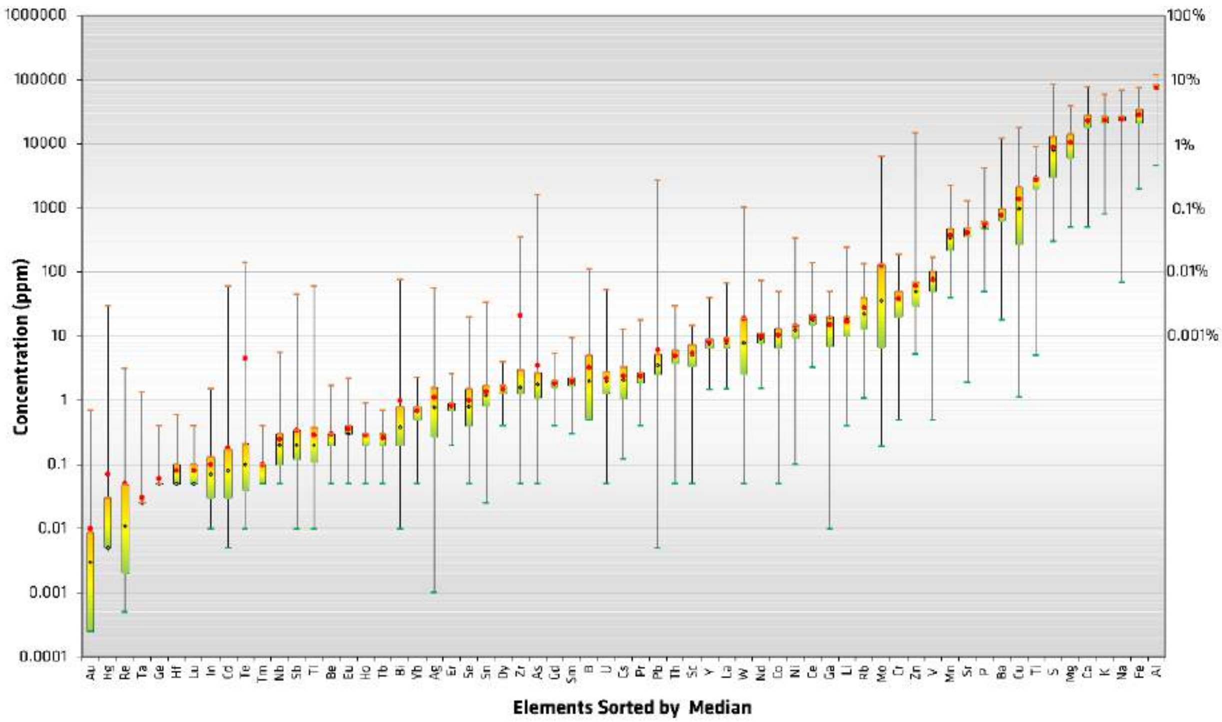

Figure 11-2: Box Plot Statistical Summary of 2011-2018 Drill Results.

In the opinion of the QP, the sampling preparation, security and analytical methods performed by Amarc are appropriate for use. Gold mineralization varies considerably in tenor across the various deposit types on the IKE Project. An important consideration in terms of the exploration for and assessment of Au mineralization is the use of an appropriate aliquot size FA analytical method in areas where the Au concentrations are likely to be above a threshold of interest. The higher cost of this type of analysis must be weighed against the requirement for more precise and accurate determinations for Au on an area-by-area basis.

11.2.8. Amarc QAQC

Several verification procedures applied to the IKE Project drill hole data confirm the appropriateness and accuracy of this information for use in public disclosure and more advanced studies.

Amarc implemented an effective external QAQC system consistent with industry best practice and applied it to the, 2014 - 2018 drilling and 2014 – 2018 surficial programs. The results of this QAQC program lend credence to the veracity of the geological and analytical data.

11.2.8.1. Due Diligence 2013

As part of Amarc's 2013 due diligence program leading into the acquisition of the IKE Project, the historical drilling by Oxford was verified. The results from this work are outlined below.

2013 Sample Preparation, Analysis and Security

In late 2013, QP Mark Rebagliati took the remaining half of NQ drill core from eight intervals originally sampled by Oxford in 2011 for preparation and re-analysis as part of a due diligence program. After collecting the samples he transported them to the Vancouver office, where three additional similarly-numbered QAQC samples, one coarse granite blank, and two assay standards were inserted into the sequence. They were then forwarded to the Acme laboratory in Vancouver. This group of 11 half core and QC samples was designated series "DD1". They were prepared at Acme by method R200-250. All samples were weighed. Half core and inserted coarse blank samples were dried, crushed to 80% passing 10 mesh (2 mm), then a 250 g split was taken and pulverized to 85% passing 200 mesh (75 micron). Samples received by the laboratory as CRM pulps, were lightly pulverized to re-homogenize them. Seven initial talus fines samples were also taken in September 2013 and sent to Acme to confirm the presence of anomalous Cu-Mo-Ag mineralization in soils at the IKE deposit.

The prepared DD1 half core samples were analyzed by Acme geochemical method 1E, in which a 1 g aliquot is digested in four acids (HNO_3, $HClO_4$, HF and HCl) followed by analysis for Cu, Mo, Ag and 32 additional elements by ICP-AES. Acme also analysed each sample for Au, but taking a 30 g sub-sample from each sample and subjecting it to classical lead collection FA fusion followed by ICP-AES finish (Acme method 3B). The 7 talus fines samples were prepared and analyzed under Acme methods SS80 and 1DX15 respectively. These methods are the same as those described in Section 11.1.2 on the Galore Resources 2007 soil samples.

After analysis of the 11 DD1 samples was complete, the coarse reject and pulp samples were returned to the Vancouver office and re-numbered as listed in Table 11-11. The 11 re-numbered pulps are series "DD2" and the 11 re-numbered coarse rejects series "DD3" for a total of 33 due diligence samples overall. Groups DD2 and DD3 were analyzed by Acme Group 1E as above. The average Au concentration of the half core DD1 series samples was 15 ppb Au. No Au analysis was performed on the pulp and reject re-runs of groups DD2 and DD3.

Table 11-11: Amarc Due Diligence Samples 2013.

HOLE-ID	Amarc SAMPLE ID	FROM (m)	TO (m)	QC CODE	ORIGINAL SAMPLE ID or QC NAME	COMMENT
11-1	957652	350	352	DC	800194	Amarc due diligence, other half of core (DD1)
11-1	957651	368	370	DC	800207	
11-1	957650	388	390	DC	800218	
11-1	957658			BL	Granite	Amarc due diligence, new QC samples inserted (DD1)
11-1	957659			ST	PLP1	
11-2	957660			ST	PLP8	
11-2	957656	90	92	DC	800286	Amarc due diligence, other half of core (DD1)
11-2	957657	134	136	DC	800312	
11-2	957655	170	172	DC	800332	
11-2	957654	182	184	DC	800339	Amarc due diligence, other half of core (DD1)
11-2	957653	264	266	DC	800388	
11-1	933302	350	352	DN	800194	Amarc due diligence pulp re-numbered and re-run (DD2)
11-1	933303	368	370	DN	800207	

HOLE-ID	Amarc SAMPLE ID	FROM (m)	TO (m)	QC CODE	ORIGINAL SAMPLE ID or QC NAME	COMMENT
11-1	933304	388	390	DN	800218	
11-1	933306			BL	Granite	Amarc due diligence, original QC samples from DD1 re-numbered and re-run (DD2)
11-1	933307			ST	PLP1	
11-2	933308			ST	PLP8	
11-2	933305	90	92	DN	800286	Amarc due diligence pulp re-numbered and re-run (DD2)
11-2	933309	134	136	DN	800312	
11-2	933310	170	172	DN	800332	
11-2	933311	182	184	DN	800339	
11-2	933312	264	266	DN	800388	
11-1	933302	350	352	DY	800194	Amarc due diligence coarse reject re-numbered and re-run (DD3)
11-1	933303	368	370	DY	800207	
11-1	933304	388	390	DY	800218	
11-1	933306			BL	Granite	Amarc due diligence, new QC samples inserted (DD3)
11-1	933307			SD	PLP1	
11-2	933308			SD	PLP8	
11-2	933305	90	92	DY	800286	Amarc due diligence coarse reject re-numbered and re-run (DD3)
11-2	933309	134	136	DY	800312	
11-2	933310	170	172	DY	800332	
11-2	933311	182	184	DY	800339	
11-2	933312	264	266	DY	800388	

Assay Results

A summary of the original and due diligence analytical results for Cu, Mo and Ag are listed in Table 11-12. The results are quite comparable and generally confirm the veracity of the original analytical results of the eight half core samples taken by Amarc. The due diligence results, particularly for Mo and Cu, are for the most part, somewhat higher than the original results. This may be due to the use of the more total four acid digestion method in the due diligence program versus the somewhat weaker partial AR digestion used in the original work. The results for Ag are somewhat more variable, but still quite comparable. The variability may be due to a number of possible factors: the spatial variation of the samples themselves (in that they are derived from the other half of the drill core); the precious metal nugget effect; and somewhat lower recovery of Ag by the four acid digestion method in this grade range. Zn results were also compared and they match extremely well. In addition, Au results were compared. Although the matched pairs are by different two methods, and are from the other half of core, they compare reasonably well in the 5 to 40 ppb grade range for results received.

Table 11-12: Summary of Cu-Mo-Ag Due Diligence Analytical Results on the Historical Drill Core from the IKE Deposit.

Original (Orig) Assay vs Other Half of Core Due Diligence (DD) Assay and Pulp and Reject Re-Runs (DD2)

HOLE-ID	FROM (m)	TO (m)	Sample Orig	Sample DD Core	Sample DD2 Pulp or Reject	Cu ppm Orig	Cu ppm DD1 Core	Cu ppm DD2 Pulp	Cu ppm DD3 Reject	Mo ppm Orig	Mo ppm DD1 Core	Mo ppm DD2 Pulp	Mo ppm DD3 Reject	Ag ppm Orig	Ag ppm DD1 Core	Ag ppm DD2 Pulp	Ag ppm DD3 Reject
891-01	350.00	352	800194	957652	933302	2377	2118	2288	2271	153	140	148	166	2.2	1.1	1.7	2.1
891-01	368.00	370	800207	957651	933303	2124	2276	2224	2408	233	354	374	374	1.4	1.4	1.3	1.6
891-01	388.00	390	800218	957650	933304	3910	4048	3815	4229	114	137	154	157	2.8	2.5	2.7	2.6
891-01	BL	Granite		957658	933306		5	9	5		<2	<2	<2		<0.5	<0.5	<0.5
891-01	ST	PLP1		957659	933307		2960	2844	3011		151	152	158		1.7	1.6	1.8
891-02	ST	PLP8		957660	933308		4005	3920	3868		407	401	416		1.3	1.4	1.2
891-02	90.00	92	800286	957656	933305	6245	6527	6205	6576	101	100	95	105	10.1	8.1	9.3	8.6
891-02	134.00	136	800312	957657	933309	2121	2981	2869	2694	33	46	40	45	1.2	1.8	2.1	1.7
891-02	170.00	172	800332	957655	933310	4055	4628	4604	4310	66	181	198	197	3.2	3.3	3.7	3.1
891-02	182.00	184	800339	957654	933311	3736	3789	3807	3750	525	651	626	612	2.8	2.2	2.8	2.5
891-02	264.00	266	800388	957653	933312	1022	1007	999	1052	1285	1246	1238	1322	0.9	0.9	0.6	0.8
						Cu0	**Cu1**	**Cu2**	**Cu3**	**Mo0**	**Mo1**	**Mo2**	**Mo3**	**Ag0**	**Ag1**	**Ag2**	**Ag3**
			Minimum			1022	5	9	5	33	46	40	45	0.9	0.9	0.6	0.8
			Median			3056	2981	2869	3011	134	166	176	182	2.5	1.75	1.9	1.95
Summary Statistics			**Mean**			3199	3122	3053	3107	314	341	343	355	3.08	2.43	2.72	2.6
			Maximum			6245	6527	6205	6576	1285	1246	1238	1322	10.1	8.1	9.3	8.6
			Std Dev.			1522	1703	1626	1677	395	348	342	361	2.77	2.01	2.35	2.1
			Correlation			1 vs 2	2 vs 3	1 vs 3	2 vs 4	1 vs 2	2 vs 3	1 vs 3	2 vs 4	1 vs 2	2 vs 3	1 vs 3	2 vs 4
						0.979	**0.998**	**0.981**	**0.996**	**0.988**	**0.999**	**0.986**	**0.998**	**0.980**	**0.994**	**0.986**	**0.987**

Due Diligence QA-QC - Standards

All due diligence results of Cu, Mo and Ag for the 6 instances of the two inserted standards are within the control limits as defined by round robin analysis. Although both standards are low by about 30% for As, a reasonable explanation was provided by Acme that relates to volatilization of this element in the four acid digestion method performed. The original results for As, which were also determined by Acme, are in a fairly low range (<0.5 to 28 ppm). These original results were determined after AR digestion, a method that Acme recommends as more appropriate for this element.

Table 11-13: Quality Control Samples Used in the IKE Deposit 2013 Due Diligence Program.

Standard	Times Used	Cu ppm mean	1 Std. Dev. Cu	Mo ppm mean	1 Std. Dev. Mo	Ag ppm mean	1 Std. Dev. Ag	As ppm mean	1 Std. Dev. As
PLP-1	3	2970	80	154	4	1.74	0.07	106	4
PLP-8	3	4030	100	415	16	1.34	0.04	22.1	1.1
Granite1[1]	3	<10	-	<2	-	<0.5	-	<5	-

1. Note, not a CRM. The anticipated value listed is based on analytical experience.

Due Diligence QA-QC - Blanks

Three samples of 1 to 2 cm size barren material, consisting of grey granitic, landscape rock (Granite1), were inserted as field blanks. This material is relatively homogeneous and has returned consistently low base and precious metals assays in analysis at several laboratories. It was deemed suitable for use in the in the due diligence program to test for possible contamination or cross-contamination. None of the granitic material inserted in this program returned any appreciable Cu, Mo or Ag values.

Due Diligence QA-QC - Duplicates

Results from the original 2011 samples and the three types of 2013 due diligence duplicate groups were analyzed:

1. Original – samples taken in 2011 by Oxford;
2. Duplicate - DD1 - Other half of core samples taken by Amarc in 2013;
3. Duplicate – DD2 - Re-runs of the Amarc due diligence DD1 pulps; and
4. Duplicate – DD3 - Re-runs of new pulps taken from the Amarc due diligence coarse rejects.

The 2013 core duplicate results support and confirm the original values reported in the 2011 analytical program. For further information, including the individual scatterplots, see Galicki et al. (2013). All 7 initial talus fines samples confirmed anomalous Cu-Mo-Ag concentrations in talus fines at the IKE deposit.

11.2.8.2. *Amarc Drill Program QAQC 2014 - 2018*

In the 2014 – 2018 Amarc drill programs, QAQC samples were designated by the core logging geologists at the Project core logging facility. Appropriate QC samples were inserted within the regular sample stream prior to shipment of samples to the preparation and analytical laboratory. This “external” QAQC system is in addition to the QAQC procedures used internally by the analytical laboratories. Table 11-14 outlines the types of external QAQC sample types used in this system. A summary or mainstream (MS) and QAQC sampling is shown in Table 11-10.

Table 11-14: QAQC Sample Types Used in Amarc 2014 - 2018 Drill Programs.

QC Code	Sample Type	Description	Percent of Total
MS	Regular Mainstream	Regular samples submitted for preparation and analysis at the primary laboratory.	88%
DX **DP**	Duplicate or Replicate	An additional split taken from the remaining pulp reject ("DP") and coarse reject ("DX"). Random selection using pre-numbered sample tags.	6%
ST	Standard or Certified Reference Material or CRM	Mineralised material in pulverised form with a known concentration and distribution of element(s) of interest. Inserted at primary laboratory ("ST") and check laboratory ("SD") Randomly inserted using pre-numbered sample tags.	4.5% 9 in 200
BL	Blank	Sample containing negligible or background amounts of elements of interest to test for contamination. Includes pulp blanks and coarse (1-2 cm size) blanks	1.5% 3 in 200

Table 11-15: Drill Hole Sampling and Analysis Summary by QC[1] Code for All Years.

Year	MS	BL	DC	DX	DP	SD	ST	Total
2013 DD†	0	3	8	8	8	4	2	33
2014	1,875	34	0	100	0	0	92	2,101
2015	1,670	25	0	86	35	2	84	1,902
2016	649	8	0	35	27	1	35	755
2017	883	13	0	47	0	0	47	890
2018	1,008	11	0	53	0	0	54	1,126
Total	6,085	94	8	329	70	7	314	6,807

1. QC codes are listed in Table 12-4, except type "DC" for half core duplicate.
DD† Amarc Due Diligence.

An illustration of the flow of samples and data from the project site and the analytical laboratory for the 2018 program that utilized MX Deposit software is in Figure 11-3. The 2014 through 2017 programs employed a site-specific Microsoft Access data entry module to compile and validate project data. Use of these programs was in the Project core shack to compile project data and as part of an error trapping and data verification process. They standardize and document the data entry, restrict data which can be entered and processed, and enable corrections to be made at an early stage. They also prompt direct users to select from pick-lists where appropriate. Other entries are restricted to reasonable ranges of input. In other instances, data entry and completion of certain information is necessary prior to advancing to the next step. Review and validation of the logs by the logger occurs after data entry is completed.

The 2018 site drill data was synchronized and uploaded to the MX Deposit IKE Project master database on a daily basis and downloaded by an automated extract, transform, load (ETL) process to the company SQL server on a nightly base. Validation of the compiled data from the header, survey, assay, geology and geotechnical tables is for missing, overlapping or duplicated intervals or sample numbers, and for matching drill hole lengths in each table. Review of drill hole collars and traces in data reports, plan view and in cross-section by a geologist as a visual check on the validity of the location information.

Upon receipt of analytical data from the laboratory, merging with the sample logs, printing of the Cu, Mo and Ag values of the regular and QAQC samples takes place. Particular attention paid to standards that have failed QAQC, high blanks and duplicates that do not match, ensures targeting for immediate review. Re-runs are requested from the analytical laboratory if necessary.

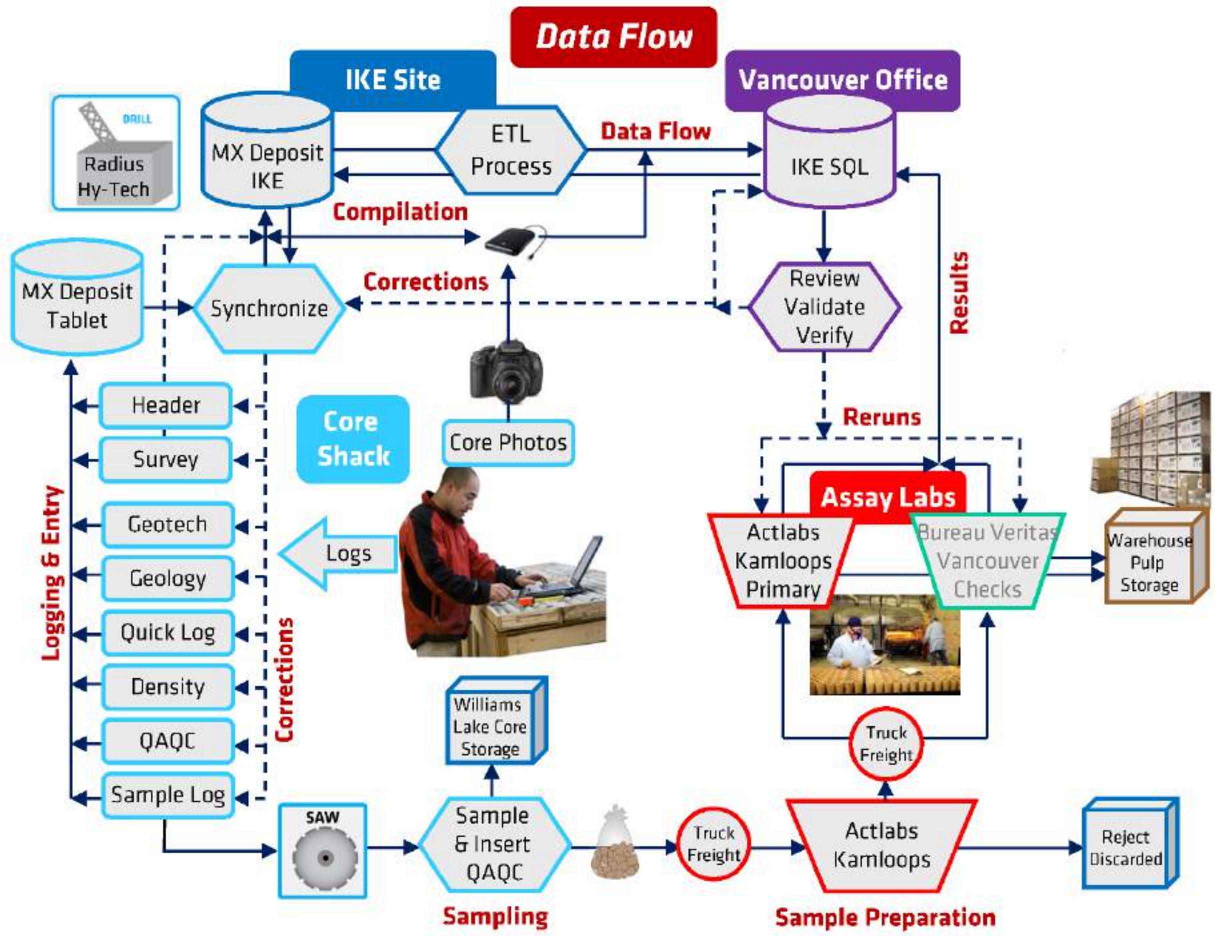

Figure 11-3: IKE Project Sample and Data Flow 2018.

Immediate processing of project data allows for rapid assessment with respect to ongoing requirements for timely disclosure of material information by company management. In this regard, compiled drill data and assay results are available to management, the technical team and project consultants advancing the project, immediately after completion of the initial error trapping and analytical QAQC appraisal process, provided there are no significant concerns. More extensive, long-term validation, verification, QAQC, and error correction processes on these data follows.

Standards (Certified Reference Materials)

Table 11-16 lists the standards used in the 2013 due diligence core re-sampling and 2014 - 2018 exploration drilling programs. The values given for Cu and Mo are by four acid digestion and Ag by AR digestion. Control on the assay results for Cu and Mo is determined based on the limits for the inserted standards from round-robin analysis as follows: Mean ± 3 Standard Deviations (3SD) define the Control Limits.

A deemed standard failure occurs when a result falls outside the control limits for the element of interest. Notification to the laboratory follows and the affected range of the samples re-run for that element until the included standard passes (falls within the control limits). Replacement of the data from the affected is by the data that has passed QC.

Insertion of standards was by geologists at the logging facility at a rate of 1 in 20 regular samples by the use of pre-numbered sample tags. Selection of standards for insertion bases on the anticipated grade range of the surrounding regular samples and their identities are anonymous to the analytical laboratory.

Table 11-16: Standards Used on All Drill Programs – Certified and Mean Values of Results Received.

Standard	Times Used	Cu % (4 Acid)	Mo ppm (4 Acid)	Ag ppm (AR)	As ppm (AR)	Re ppm (AR)	S % (LECO)
CDN-CGS-16	35	0.112	15	1.1	45	0.018	1.4 ǂ
CDN-CM-23	1	0.472	250	0.7	6	0.14	0.6 ǂ
CDN-CM-25	9	0.194 AR	190	0.85	17	0.085	0.367
CDN-CM-31	71	0.084	*90*	0.4	14	0.093	3.81
CDN-CM-32	57	0.234	230	*1.4*	31	0.235	2.22
CDN-CM-35	18	0.243	290	*2.7*	27	0.24	2.19
CDN-CM-37	11	0.212	266	1.28	44	0.13	2.2
CDN-MOS-1	4	0.012	650	0.12	2.5	0.025	0.3 ǂ
OREAS-151b	27	0.182	54	0.156	30.8	0.17	0.724
OREAS-52Pb	15	0.334	2	1.12	1.4	-	0.34 ǂ
OREAS-PLP-1	24	0.297	154	1.74	106	0.27	2.4 ǂ
OREAS-PLP-2	48	0.016	3.3	0.11	12	0.006	0.13 ǂ
OREAS-PLP-8	7	0.403	415	1.34	22.1	0.63	1.7 ǂ

1. Certified concentrations are in regular text. .
2. Concentrations in lighter text (grey) are not certified. Italicized concentrations are provisional and underlined concentrations are overall mean of results from analysis at Actlabs or Acme.

Copper and Molybdenum

The performance of Cu and Mo standards inserted by Amarc personnel and analyzed by Actlabs method TD-ICP are illustrated in Figure 11-4 through Figure 11-9. The charts show the analytical results after completion of QC re-runs. The QC performance is generally quite good and lends confidence to the veracity of the Cu and Mo analytical results of the regular mainstream samples.

Standard CDN-CM-25 was added in the 2015 drill program. The performance of this standard with respect to Cu is poor compared to the 3SD limits by four acid digestion. One batch surrounding sample 745380 in drill hole IK15012 was rerun and the standard failed a second time. It was noted that the certified control limits for Cu by four acid digestion are very tight and the recommended value is low compared to the results received. A much better fit was obtained using the AR digestion control for Cu, so those limits were used going forward. The failed batch mentioned above was rerun with a freshly inserted standard and it subsequently passed QC based on the revised criteria. Further use of this standard was subsequently discontinued.

Two lower grade standards, CDN-CGS-16 and OREAS-PLP-2, were used. CGS-16 is a 10 year old standard which failed low in one instance in a sequence of very low grade rock. Based on the age of the standard, the marginal nature of the failure at analytical increments below the failure line and the very low grades of the sample in which it was inserted, it was not rerun. The other standard, PLP-2 is a very low grade standard characterized by a wide range of round-robin results. This standard failed marginally high in two instances. Based on the wide range of results received in round-robin analysis, the marginal nature of the failure within two analytical increments of the upper control line, and the low tenor of material in the surrounding samples, these failures were also not rerun.

Silver

For Ag, the lower detection limit ("LDL") by the TD-ICP method at 3 ppm is too high for the typical IKE porphyry-style Ag mineralization, which is in the 0.5 to 2.0 ppm range. Although the AR-MS method for Ag has a much lower LDL at 0.002 ppm, and the standards used are in a suitable range, the AR-MS method is not optimized for Ag. Therefore, AR-MS Ag values may only be semi-quantitative indications of the concentration. The analytical performance of Ag in standard results overall is generally not satisfactory. However, considering the lack of analytical method optimization, relatively low Ag grades, lesser overall importance of Ag, possibly nuggety nature of this element and the early stage of the project, no laboratory re-runs were requested. To provide more precise determinations of Ag in this grade range, an additional Ag-specific, single element digestion and analysis would be required at considerable additional cost.

Gold

For the 2014 - 2016 drill programs and 97% of the samples from the 2017 drill program, analysis for Au was by AR digestion ICP-MS finish, using Actlabs multi-element method AR-MS. The 0.5 g aliquot size of this method is too small to achieve reliable Au results. This was confirmed by the inadequate to very poor analytical performance of this method for Au with respect to the certified Au-bearing standards inserted by Amarc. The intra-laboratory and inter-laboratory duplicate results exhibited similarly inadequate to very poor Au reproducibility. The 2014 through 2017 Au results by AR-MS are therefore deemed semi-quantitative at best.

The median Au result from the 1,061 analyses by the FA-ICP assay method from the 2018 drilling on the IKE deposit is 4 ppb. Only two samples yielded FA-ICP results > 100 ppb Au. The maximum Au concentration in these samples by the AR-MS method is 26 ppb Au. The average for Au of the 26 samples that make up the 2018 significant intervals in Table 10-4 are 17 ppb by FA-ICP and 2.9 ppb by AR-MS. Overall, the tenor of Au grades of fire-assayed drill core at IKE is low.

The BV inter-laboratory duplicate results for the 2015 and 2016 drill programs employed the larger 15 g analytical aliquot. The average value of the 62 drill core samples of these large aliquot methods is 11.3 ppb Au. In comparison, the average of the 1,817 Actlabs drill core sample results by the 0.5 g aliquot method at this same cut-off is only slightly less at 10.4 ppb. Therefore, it seems reasonable to assume that the major difference is in the accuracy and precision of the Au concentrations of the individual samples themselves. Typically the results by the smaller aliquot method tend to be lower in Au than reported by the larger aliquot method and they also appear to be more scattered. An Au concentration of 20 ppb in terms of percent copper equivalent according to the CuEQ formula in Table 10-4 is 0.01%.

In the 2018 drill program and in 30 regular samples in drill hole RB17001, samples were analyzed 30 g lead collection FA fusion followed by instrumental finish and much more reliable Au results were obtained.

Rhenium

Rhenium (Re) is likely associated with molybdenite (MoS_2) mineralization at the IKE deposit where the Re concentrations average about 1/4,000 that of Mo. As Re can be a valuable by-product metal in mines that produce molybdenite concentrates, the quality of the Re analyses of the IKE deposit drill core samples was investigated.

Actlabs laboratory in Kamloops reported 5,076 Re analyses of IKE deposit drill core as part of their AR digestion ICP-MS multi-element package. These results average 0.047 ppm and have a maximum value of 3.13 ppm. Confidence in Re analyses is less assured than Cu and Mo due to the lack of certified Re assay standards. Although most of the assay standards used on the Project are Re-bearing, none are certified for this element. In an effort to understand the validity of the Re analyses they were assessed by reviewing the regular Re results for the Re-bearing standard samples.

Assay standards PLP-1 and PLP-8 contain significant quantities of Re in addition to Cu, Au, Mo and Ag but are not certified for Re. They were regularly inserted in the IKE 2014 – 2018 drill programs and have been analyzed numerous times for Re at two other porphyry-style exploration projects. Figure 11-10 and Table 11-17 compare the IKE project Re results with those obtained at the other two projects, one using a similar four acid digestion ICP-MS method (ALS method ME-MS61) and the other the same AR-MS method used by Amarc at Actlabs Kamloops.

The Re results of the standards used by Amarc at IKE compare reasonably well with those completed on the other two projects. This comparison adds confidence to the veracity of these IKE Project Re results.

Other Elements

The standard performance of other elements was reviewed. In Actlabs work order A16-07177, it was observed that the results of the inserted standards were consistently quite low for the major elements: Al, Ba, Ca, Fe, K, Mg, Mn and Na. However, the Cu and Mo values for these standards passed QC. Actlabs confirmed that the failure to add HF in the analysis of this batch was the probable reason for the deficiencies in the major elements. They also confirmed this did not affect the performance for Cu and Mo.

On Actlabs work order A16-07181 from drill hole IK16019 the TD-ICP results for aluminum in the original work order appeared to be too low for the typical rocks encountered at IKE. The results were also less than the corresponding results by the AR-MS method. The samples were rerun by Actlabs in 2018 and the error was corrected.

On Actlabs work order A18-10671 from drill hole IK18022 an analytical increment error for Na, K and other elements by method AR-MS was noted for several samples. The samples were rerun by Actlabs and the error was corrected.

Analytical accuracy, precision and reproducibility of elements other than Cu and Mo by the AR-MS and TD-ICP methods were not investigated in any detail. Determination of the accuracy and precision of these other elements may be achievable. However, as with Ag and Au, it would likely warrant further instrumental analysis, the significant additional costs of which is unwarranted for individual drill core samples.

If this information is required, it may be appropriate to perform more accurate methods of analysis for Ag, Au and other important elements on a more limited number of metallurgical composite samples. This would provide more reliable determinations of typical concentration levels and would facilitate comparison with the existing, more semi-quantitative results.

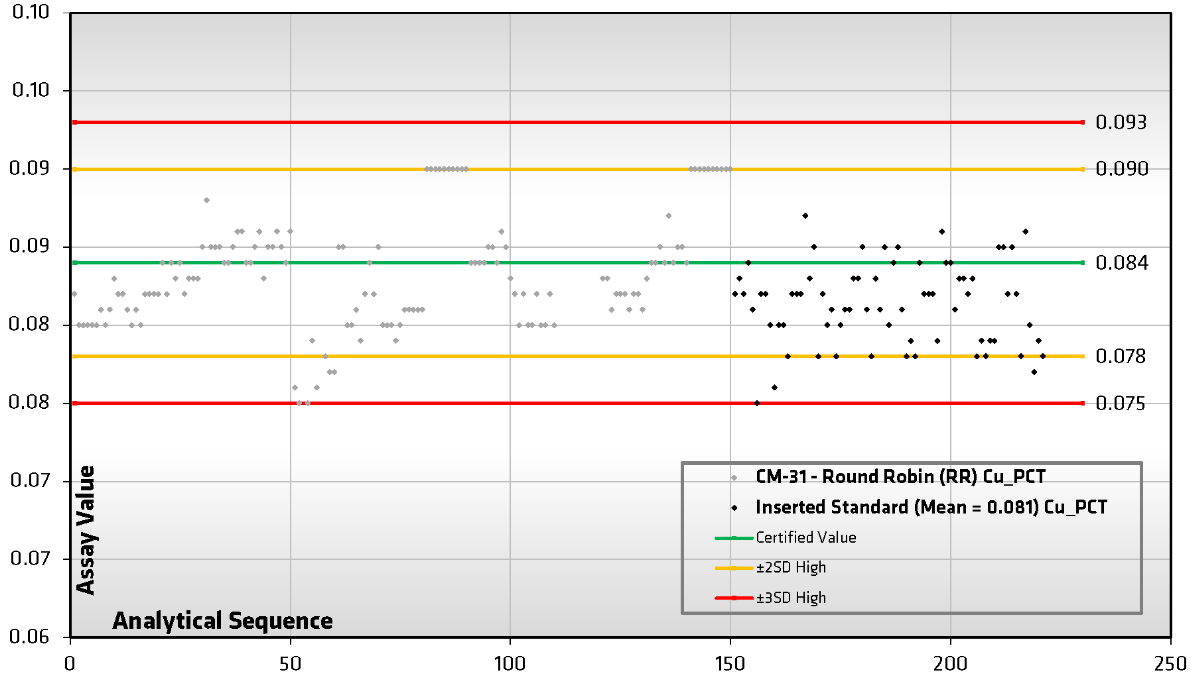

Figure 11-4: Copper Results - Standard CDN-CM-31.

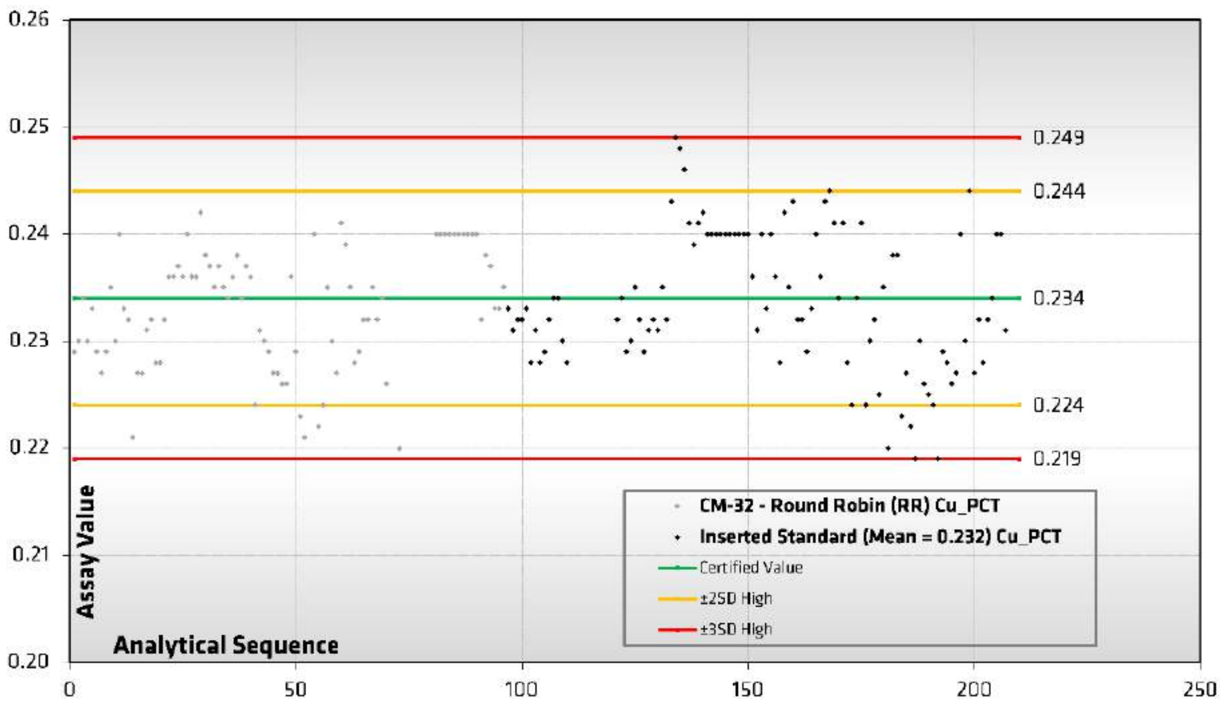

Figure 11-5: Copper Results - Standard CDN-CM-32.

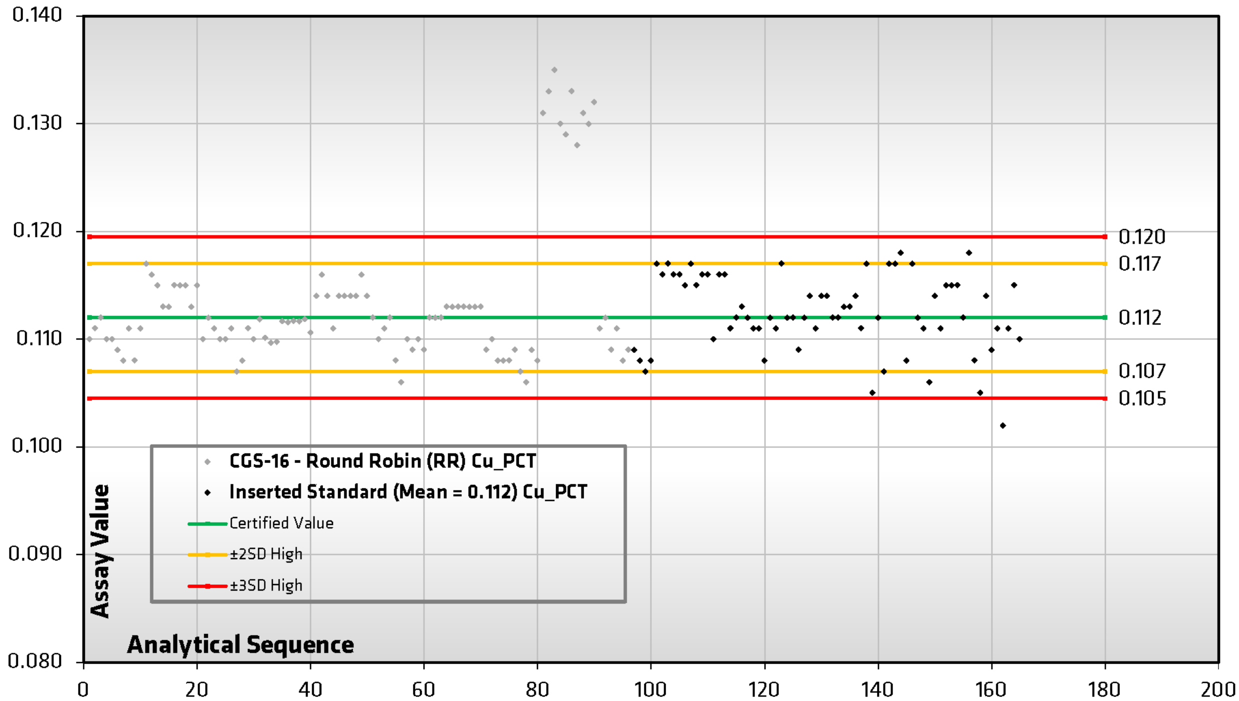

Figure 11-6: Copper Results - Standard CDN-CGS-16.

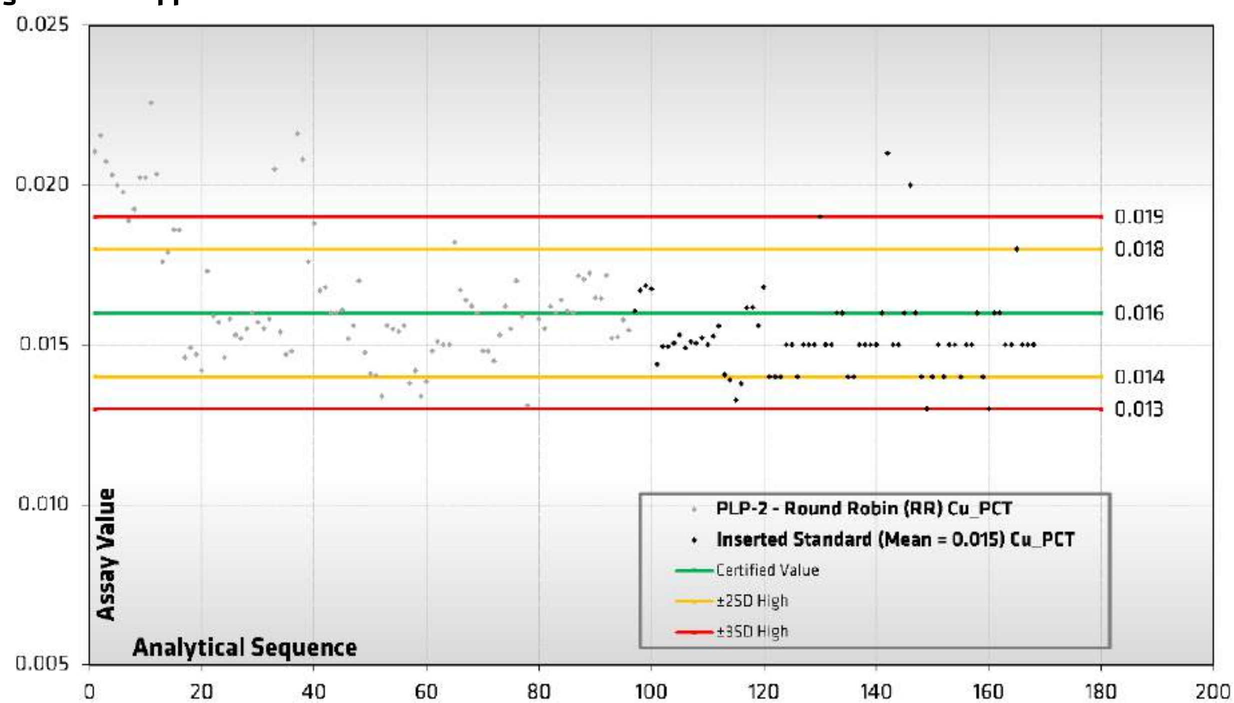

Figure 11-7: Copper Results – Low Grade Standard PLP-2.

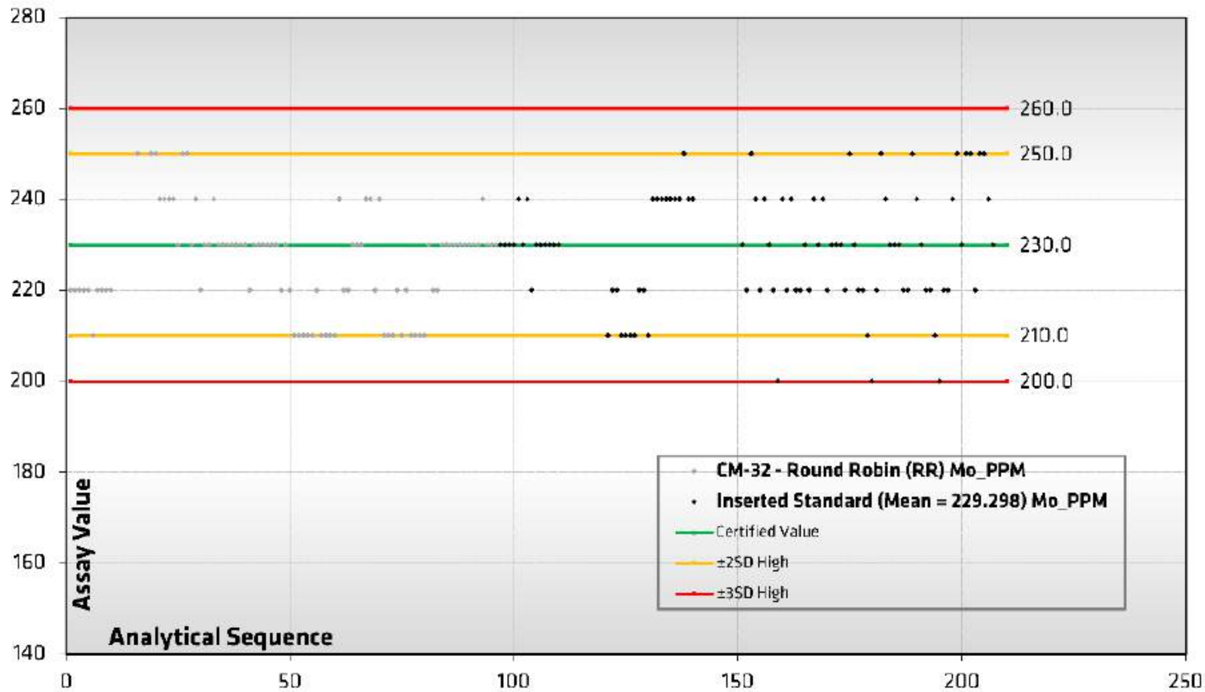

Figure 11-8: Molybdenum Results - Standard CDN-CM-32.

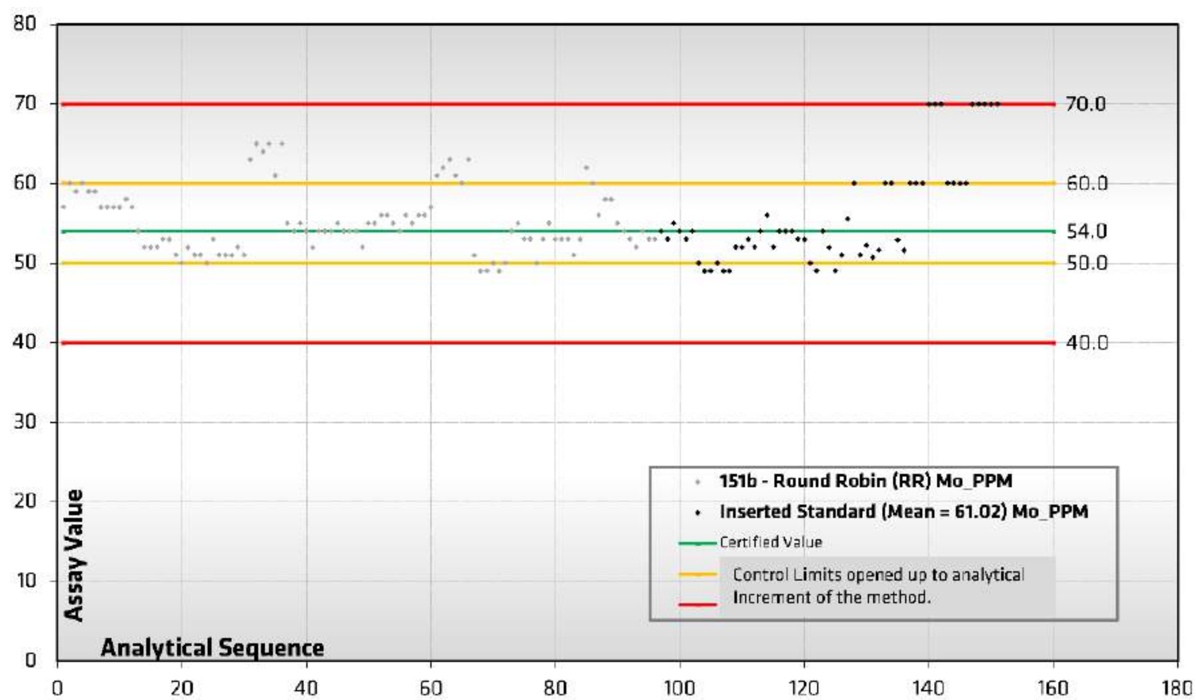

Figure 11-9: Molybdenum Results - Standard 151b

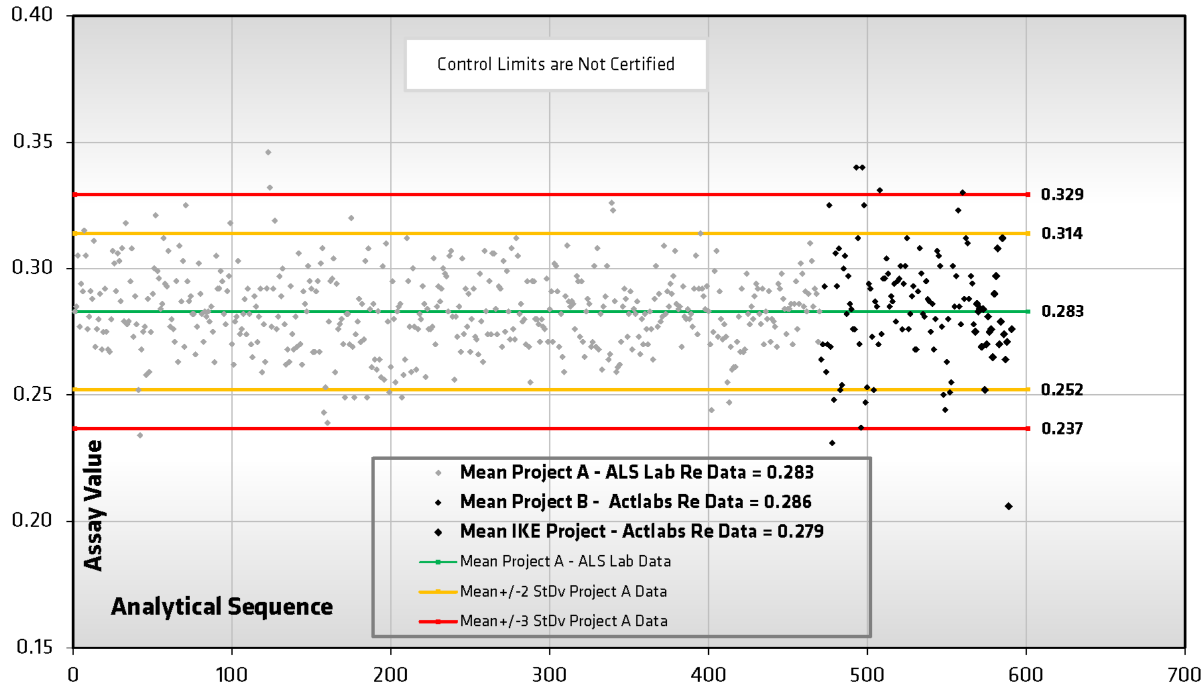

Figure 11-10: Rhenium Performance Standard PLP-1.

Table 11-17: Rhenium Analysis of Project A Standards.

Standard	Times Used at Project A†	Mean (ppm) at Project A	Times Used at Project B*	Mean (ppm) at Project B	Times Used at IKE*	Mean (ppm) at IKE
PLP-1	470	0.283	97	0.286	24	0.279
PLP-8	19	0.632	32	0.640	7	0.626

† Analysis by ALS Vancouver method ME-MS61. * Analysis by Actlabs method AR-MS.

Blanks

Blanks were used to test for sample sequencing errors and contamination during sampling, sample preparation and analysis. Based on the results received from the blank samples inserted during this program, there is no evidence that any significant contamination or cross-contamination has taken place in these materials. None of the pulp blanks or coarse granitic material inserted in this program returned any appreciable Cu or Mo.

Pulverized (pulp) and coarse field blanks were inserted at the Project core logging facility at a rate of one per every 67 regular samples. Pulp blanks CDN-BL-7, CDN-BL-9 and CDN-BL-10 are certified for low levels of Au, Pt and Pd, and although not certified for Cu, Mo or Ag contain only low levels of these elements. The coarse gravel-size (1 to 2 cm) field blank described as “Granite2” is a pink granitic material derived from bulk commercial aggregate. It is visually barren of sulphide minerals, relatively homogeneous and has been assayed numerous times at three analytical laboratories. These blanks are consistently low in the key elements, particularly: Cu, Mo, As, Re and S. They were deemed suitable for use in the analytical process to test for possible contamination or cross-contamination. Results for both of these types of blank average and sometimes exceed 0.2 ppm Ag, which approaches a level of significance for this metal. Analysis of these blanks on other projects and at other laboratories indicates that Ag values are typically in this range for these materials. The blanks used are deemed not suitable for use in testing for possible silver contamination or cross-contamination.

Table 11-18 lists the mean values obtained for the nominal blanks used. The analytical performance of coarse blank sample Granite for Cu, Mo, Au and Ag are in Figure 11-11 through Figure 11-14.

Table 11-18: Mean Values from Actlabs of Nominal Blanks[1, 2] Inserted.

Blank	Times Used	Cu % (4 Acid)[3]	Cu % (AR)	Mo ppm (4 Acid)[3]	Mo ppm (AR)	Ag ppm (AR)	As ppm (AR)	Re ppm (AR)	S % (4 Acid)[3]
Blank(2011)	21	0.001	0.0005	<10	0.6	0.05	0.3	-	<0.1
CDN-BL-7	12	0.002	0.0023	<10	3.0	0.23	3.8	0.002	<0.1
CDN-BL-9	4	0.002	0.0023	<10	2.9	0.53	3.1	0.003	<0.1
CDN-BL-10	25	0.002	0.0023	<10	3.0	0.21	4.4	0.002	<0.1
Granite2	39	0.001	0.0007	<10	3.8	0.38	0.5	0.002	<0.1

1. The nominal blanks are not certified for any of the elements listed.
2. Underlined values (grey shaded) are the mean values of data as received from the analytical lab with outliers removed.
3. Lower detection limits (LDL) for Cu, Mo and S by the four acid digestion method used are 0.001%, 10 ppm and 0.1% respectively.

Reruns

Sections of 10 of the 71 original primary analytical work orders analyzed in the Amarc 2014 - 2018 drill programs were rerun for QC failures as requested by Amarc. They are listed in Table 11-19. A total of 439 of the original 6,848 original samples were rerun, or 6% of the total number of samples. The QP considers this rate QC reruns to be acceptable.

Table 11-19: Table of Analytical QAQC Reruns.

Drill Hole	Certificate Number	No. Samps.	Date Received	Date Certified	Comment
IK14001	A14-05118	41	28-Jul-14	8-Aug-14	QC Rerun reported A14-05118R. TD-ICP 715151–715189 high Cu PLP-2.
IK14001	A14-05118R	41	28-Jul-14	9-Sep-14	QC Rerun of A14-05118, TD-ICP 715151-715189 high Cu on PLP-2 now passes QC.
IK14006	A14-05491	39	11-Aug-14	28-Aug-14	QC Rerun reported on A14-05491R2, TD-ICP 716891-716929 high Cu on CM-35 passes QC.
IK14006	A14-05491R	39	11-Aug-14	9-Sep-14	QC Rerun of A14-05491, TD-ICP 716891-716929 fails high again Cu on CM-35.
IK14006	A14-05491R2	39	11-Aug-14	23-Sep-14	QC Rerun (2nd) of A14-05491R, TD-ICP 716891-716929 high Cu on CM-35 now passes QC.
IK15012	A15-08438	22	4-Oct-15	20-Oct-15	QC Rerun reported on A15-08438R1, TD-ICP 745370-745390D high Cu on CM-25 passes QC.
IK15012	A15-08438R1	22	4-Oct-15	24-Oct-15	QC Rerun of A15-08438R, TD-ICP 745370-745390D fails again Cu on CM-25.
IK15012	A15-08438R2	22	4-Oct-15	27-Oct-15	QC Rerun (2nd) of A15-08438R, TD-ICP 745370-745390D high Cu on CM-25 now passes QC.
IK16019	A16-07181	73	22-Jul-16	5-Aug-16	QC Rerun reported on A16-07181R in 2018. TD-ICP results for aluminum in the original work order appeared to be too low (< AR-MS values).
IK16020	A16-07177	21	22-Jul-16	5-Aug-16	QC Rerun reported on A16-07177R, TD-ICP 740694-740713 low Cu on CGS-16 passes QC.
IK16020	A16-07177R	21	4-Aug-16	12-Aug-16	QC Rerun of A16-07177, TD-ICP 740694-740713 low Cu on CGS-16 now passes QC.
MM17002	A17-08666	14	14-Aug-17	6-Sep-17	QC rerun reported on A17-0666R. Original TD-ICP 747820-747832 PLP-2 Cu failed high.
MM17002	A17-09075	30	23-Aug-17	16-Sep-17	QC rerun reported on A17-09075R. Original TD-ICP 747833-747860D CGS-16 Cu failed high.
MM17002	A17-09075R	30	21-Sep-17	28-Sep-17	QC Rerun of A16-09075, TD-ICP 747833-747860D high Cu on CGS-16 & 747840/747840D mismatch for S% now passes QC.
MM17002	A17-08666R	14	21-Sep-17	5-Oct-17	QC Rerun of A16-08666, TD-ICP 747820-747832 high Cu on PLP-2 now passes QC.
IK18022	A18-10671	92	8-Aug-18	4-Sep-18	QC Rerun reported on A18-10671R. AR-MS analytical increment error Na, K & other elements.
IK18022	A18-10671R	92	8-Aug-18	15-Nov-18	QC Rerun of A18-10671, AR-MS analytical increment error in Na, P & other elements. Now passes QC.
IK18025	A18-12159	21	30-Aug-18	18-Sep-18	QC Rerun reported on A18-12159R. FA-ICP 600701-600721 high Au CM-32 & BL-10.
IK18025	A18-12159R	21	30-Aug-18	26-Sep-18	QC Rerun of A18-12159, FA-ICP 600701-600721 high Au CM-32, BL-10 now passes QC.
IK18026	A18-12245	169	4-Sep-18	25-Sep-18	QC Rerun reported on A18-12245R. TD-ICP 600921-600942 high Cu 151b. Sample contaminated with grease: 600905.
IK18026	A18-12245R	23	4-Sep-18	6-Oct-18	QC Rerun of A18-12245. TD-ICP 600921-600942 high Cu 151b now passes QC.
IK16019	A16-07181R	73	22-Oct-18	2-Nov-18	QC Rerun of A16-07181R. 40 TD-ICP results, samples 740613-740631 and 740649-740667, in the original work order were too low.

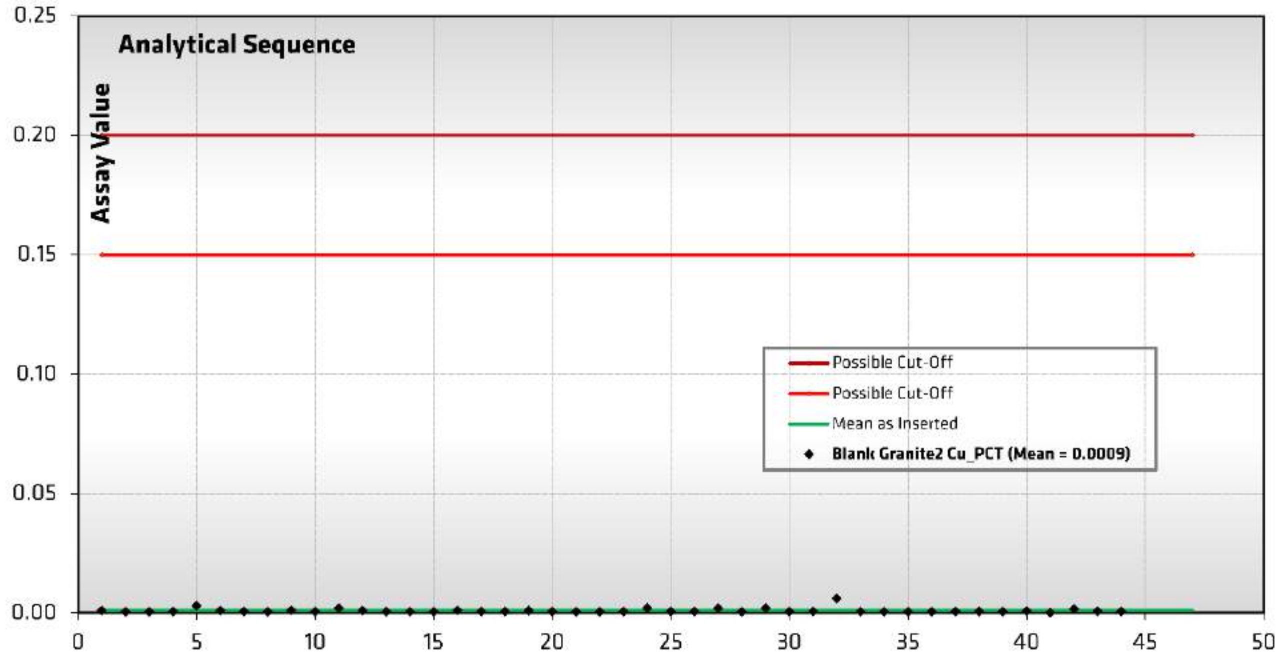

Figure 11-11: Copper Results – Coarse Blank – Granite2.

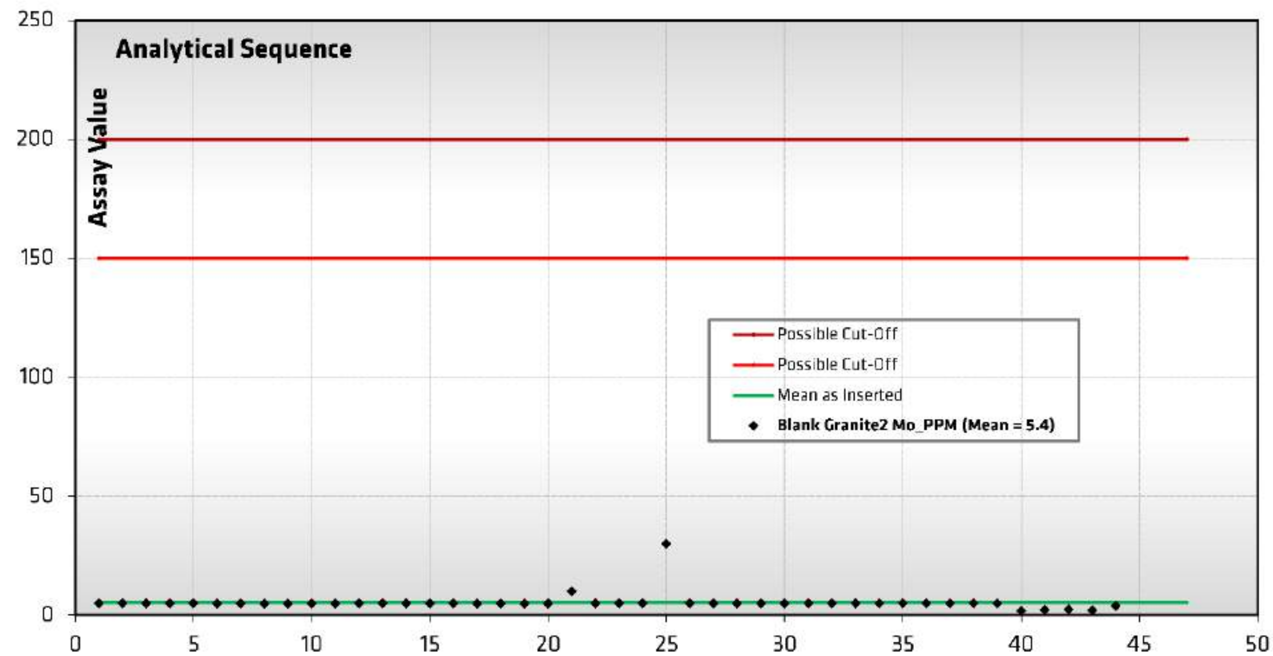

Figure 11-12: Molybdenum Results – Coarse Blank – Granite2.

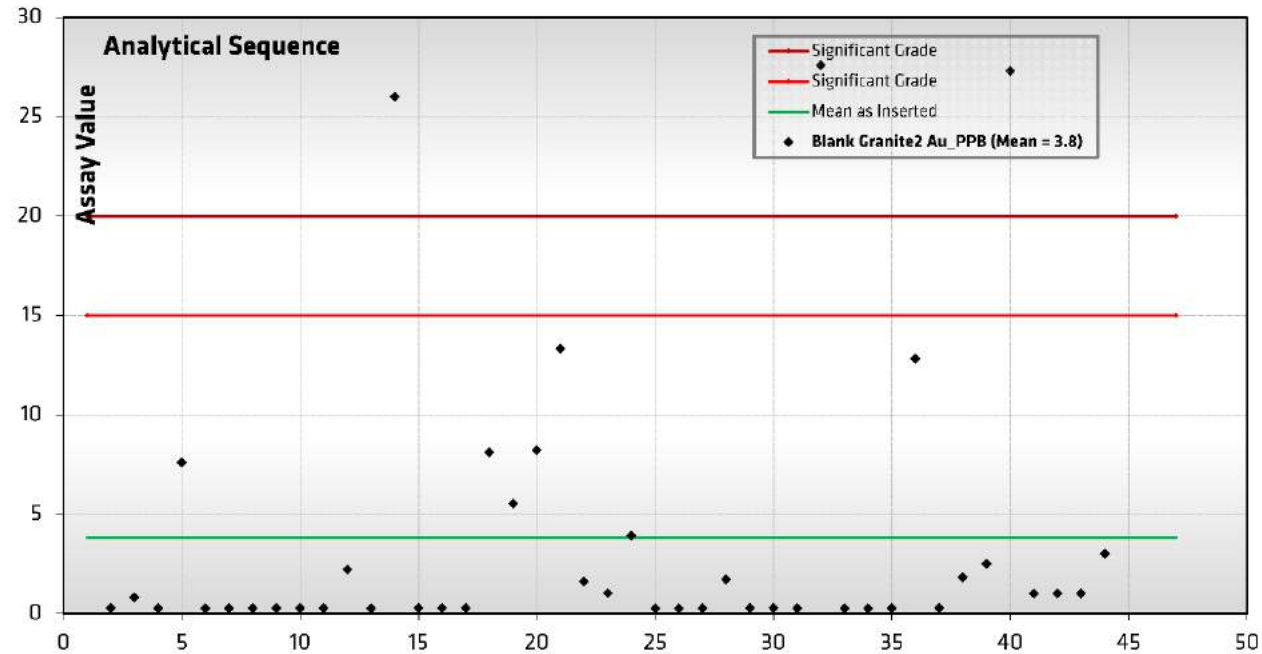

Figure 11-13: Gold Results - Coarse Blank – Granite2.

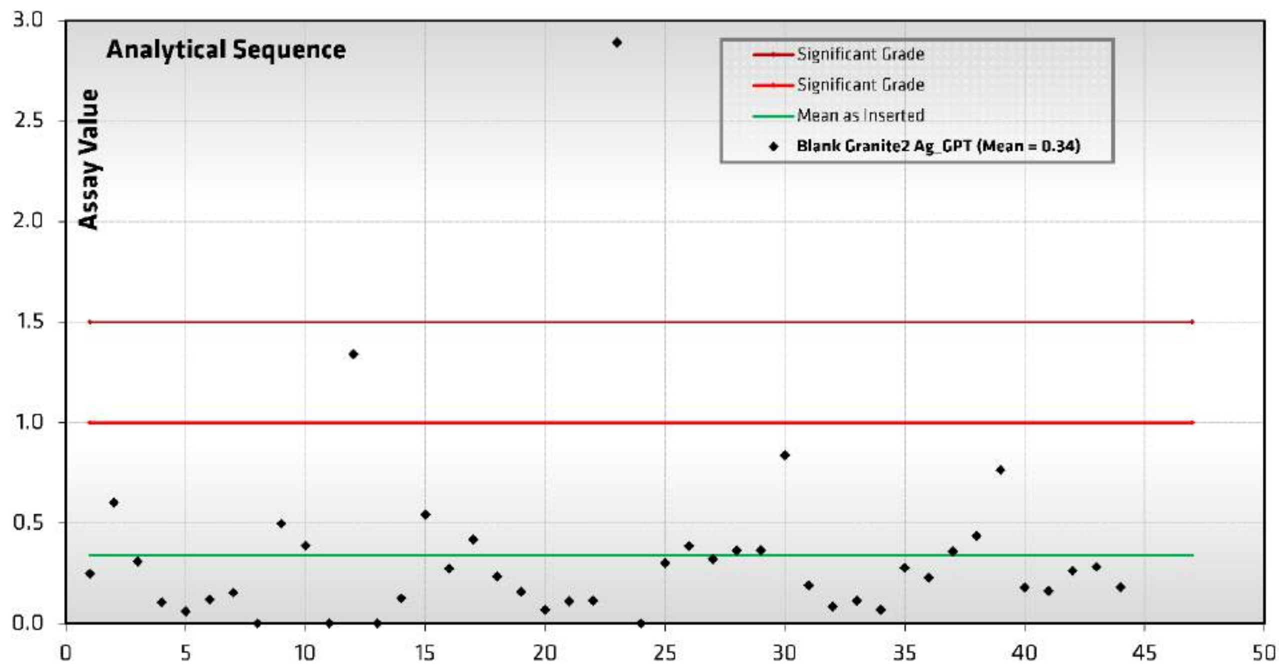

Figure 11-14: Silver Results - Coarse Blank – Granite2.

Duplicates

Four types of duplicate samples were analyzed in the 2013 due diligence, and 2014 - 2018 drill programs at the IKE Project to monitor precision:

1. Method Duplicates - All samples submitted in 2014 - 2018 were analyzed by two separate Actlabs analytical methods; four acid digestion ICP-AES (TD-ICP) and AR digest ICP-MS (AR-MS).
2. Random In-Line, Intra-Laboratory Reject "DX" Duplicates - Samples marked and tagged in the field at a rate of 1 in 20 regular samples by the use of pre-marked sample tags.
3. Half Core Duplicates – 2013 due diligence from the other half of drill core analyzed by Acme.
4. Inter-laboratory Duplicates – all original sample master pulps corresponding to the DX duplicates above, from drill holes: IK15010, IK15012, IK15013, IK16020 and IK16021.

Figure 11-15 is a flow chart of the regular mainstream and duplicate sample processing sequence for typical random duplicates and corresponding mainstream samples.

Random duplicate samples designated by Amarc staff were prepared and assayed by Actlabs, Kamloops at the same time and in the same sequence as the regular samples. These in-line, intra-laboratory series of duplicates are labeled type "DX" in the QC coding scheme. They are prepared from a second 250 g split riffled from the coarse reject, pulverized and analysed within the regular sample stream and reported on the same assay certificate at the primary laboratory.

The analytical method duplicates are plotted in a series of scatterplots in Figures 11-16 through 11-19. Actlabs Cu, Mo and Ag four acid digestion ICP-AES (TD-ICP) values are plotted on the x-axis and AR digestion ICP-MS (AR-MS) results are plotted on the y-axis. The method duplicates for the 31 samples analyzed for Au by fire assay (FA-ICP) are compared with the AR-MS results in Figure 11-19 is a series of mean percent (%) difference charts for these elements by the two methods. For Cu and Mo, the results by the two methods match reasonably closely. The results for Ag by the two methods are more scattered and include artefacts reflecting the proximity of the LDL for TD-ICP. For Cu and Mo, the four acid ICP-AES method (TD-ICP) represents a more consistent and reproducible analysis, and these values are recommended for use in future resource work. For Ag, AR ICP-MS (AR-MS) values are tentatively recommended for use in resource studies up to 30 ppm, at which threshold use of four acid values should be considered. This threshold is 10 times the detection limit of the four acid digestion method of 3 ppm.

Type "DP" coded inter-laboratory duplicate samples correspond with the same sample interval as type DX duplicates above, however the original assay pulps are used. Inter-laboratory pulp duplicate samples were selected and prepared for 62 samples and three standard pulps from drill holes: IK15010, IK15012, IK15013, IK16020, IK16021, and analyzed at BV laboratory in Vancouver. The results of these duplicates are presented in Figure 11-20. Figure 11-21 is a series of mean percent difference charts for these elements by the two laboratories.

The intra-laboratory, in-line reject duplicates are plotted as a series of scatterplots for Cu, Mo and Ag in Figure 11-22. Mean percent difference charts of these data are presented in Figure 11-23. The results are favorable, and the correlation between the two data sets is very good for reject duplicate pairs.

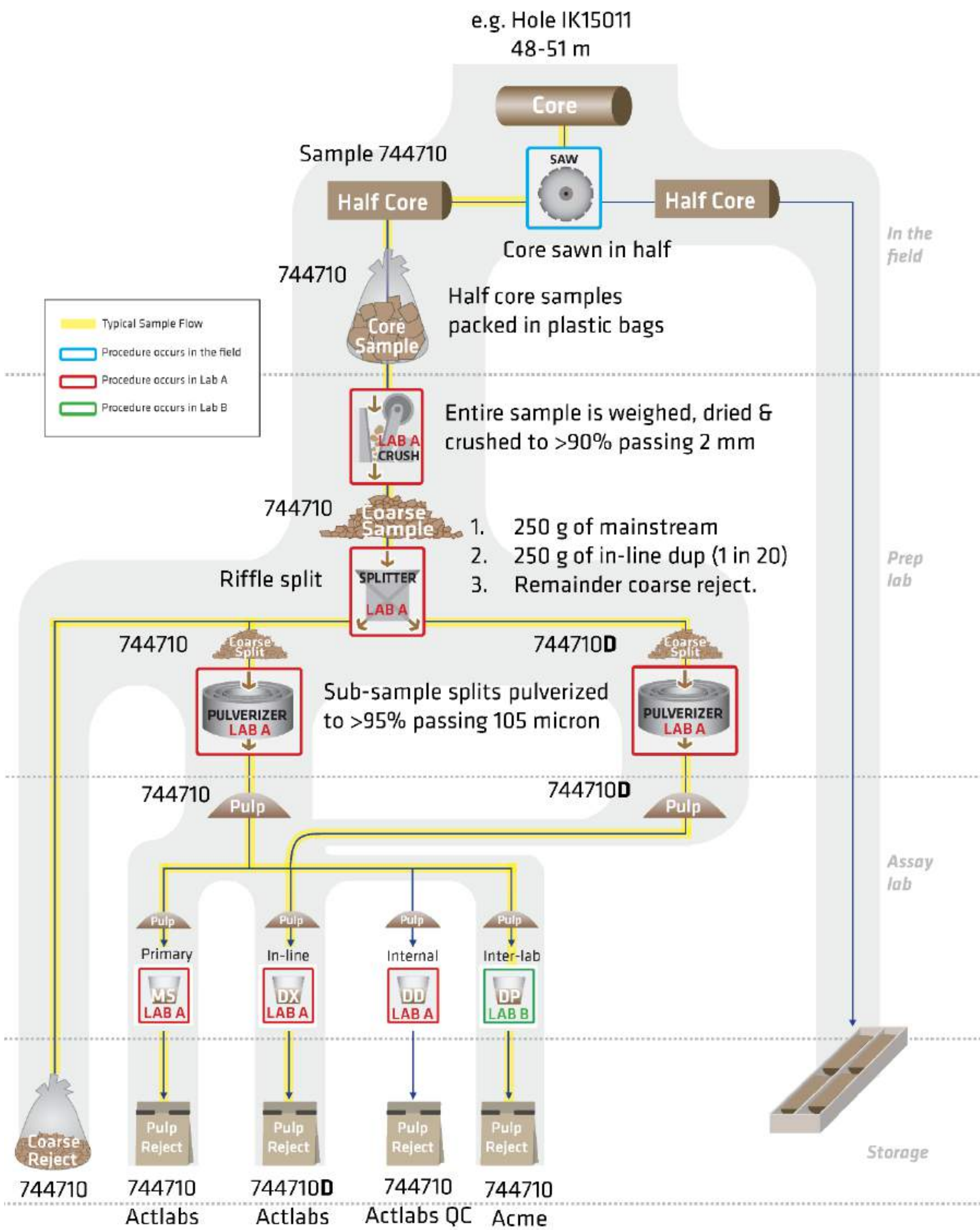

Figure 11-15: Duplicate Sample Processing Flow Chart for Drill Core Samples.

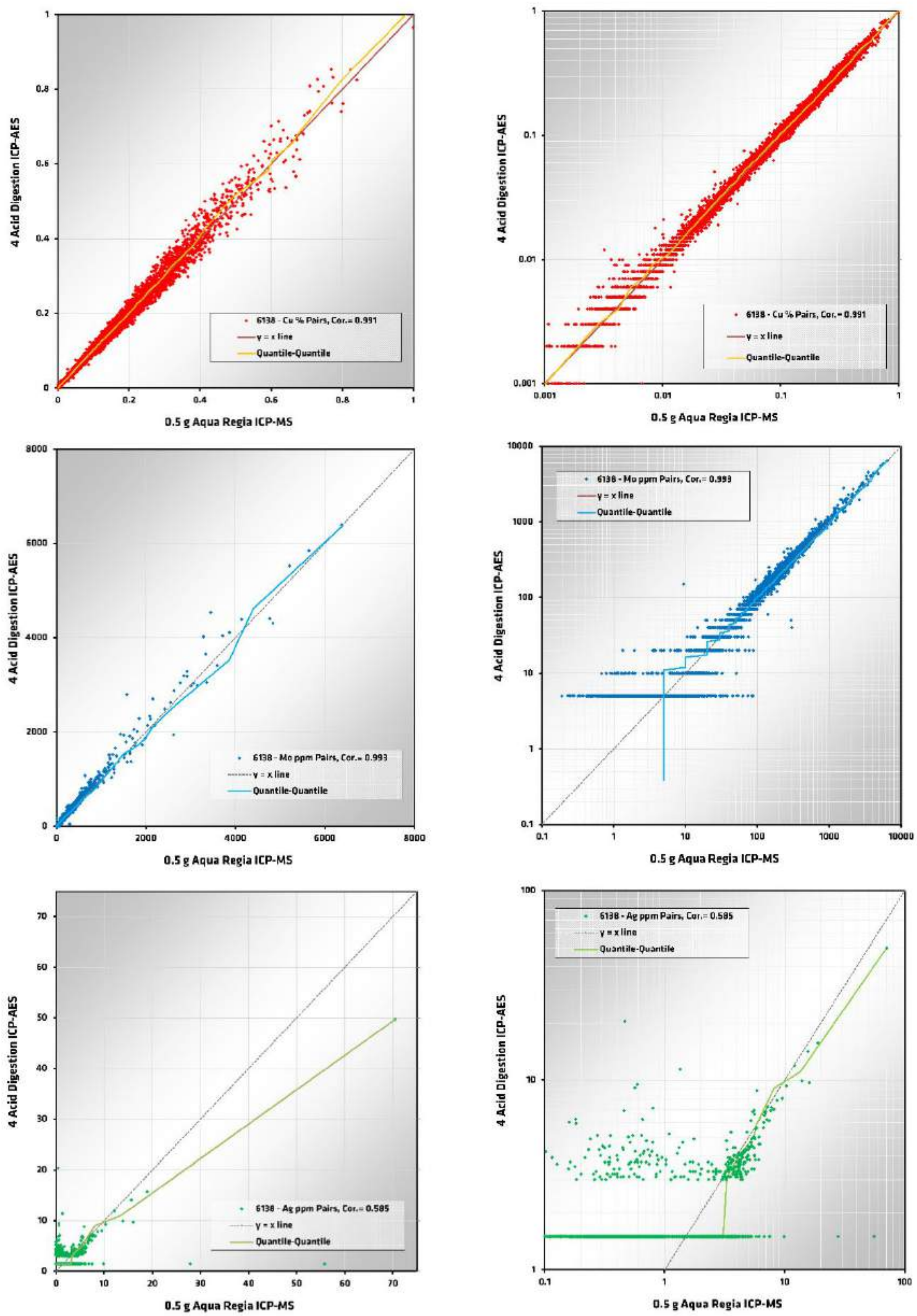

Figure 11-16: Analytical Method Duplicates Actlabs AR-MS vs TD-ICP- Cu (top), Mo (middle) and Ag (bottom) - Normal (left) and Log Space (right)

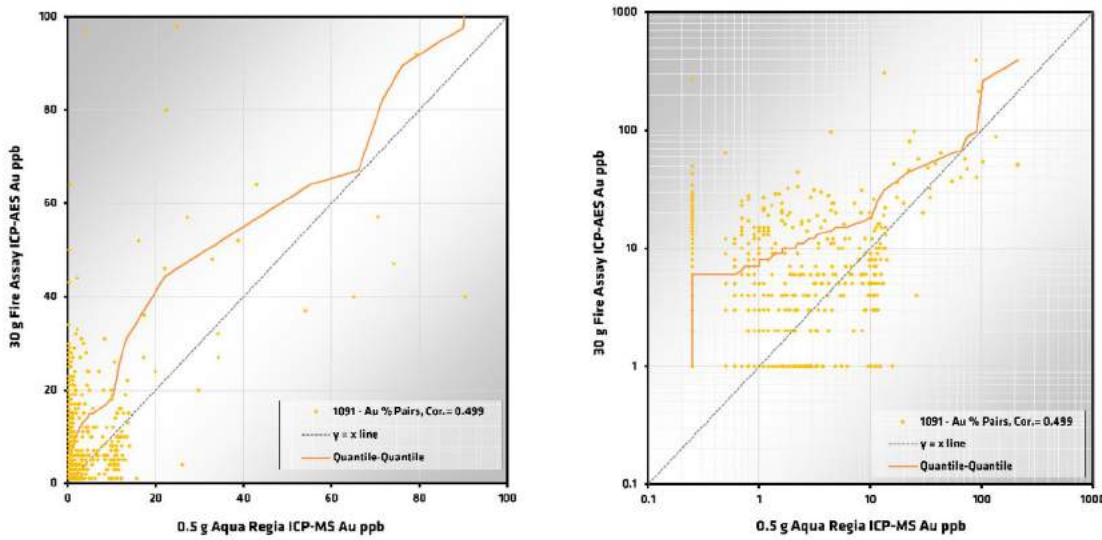

Figure 11-17: Analytical Method Duplicates Actlabs AR-MS vs FA- Au - Normal (left) and Log Space (right)

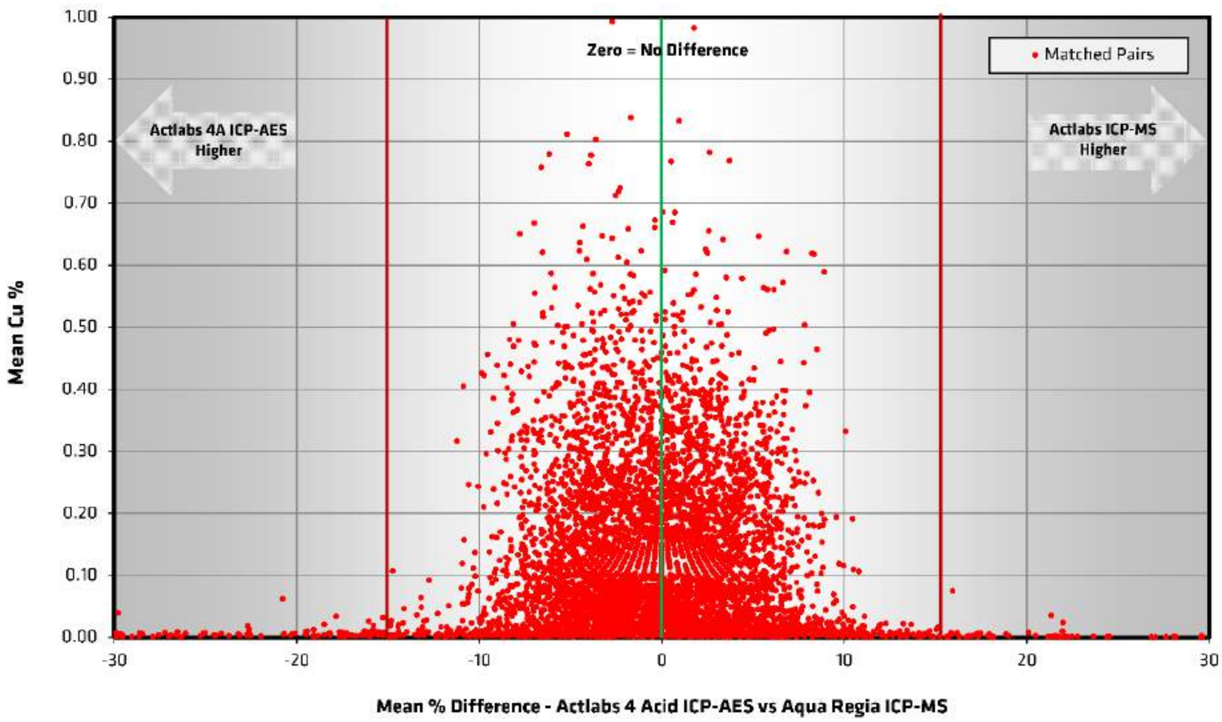

Figure 11-18: Analytical Method Duplicates –Cu - Mean % Difference from 0% (identical) for 4-Acid vs AR Analysis.

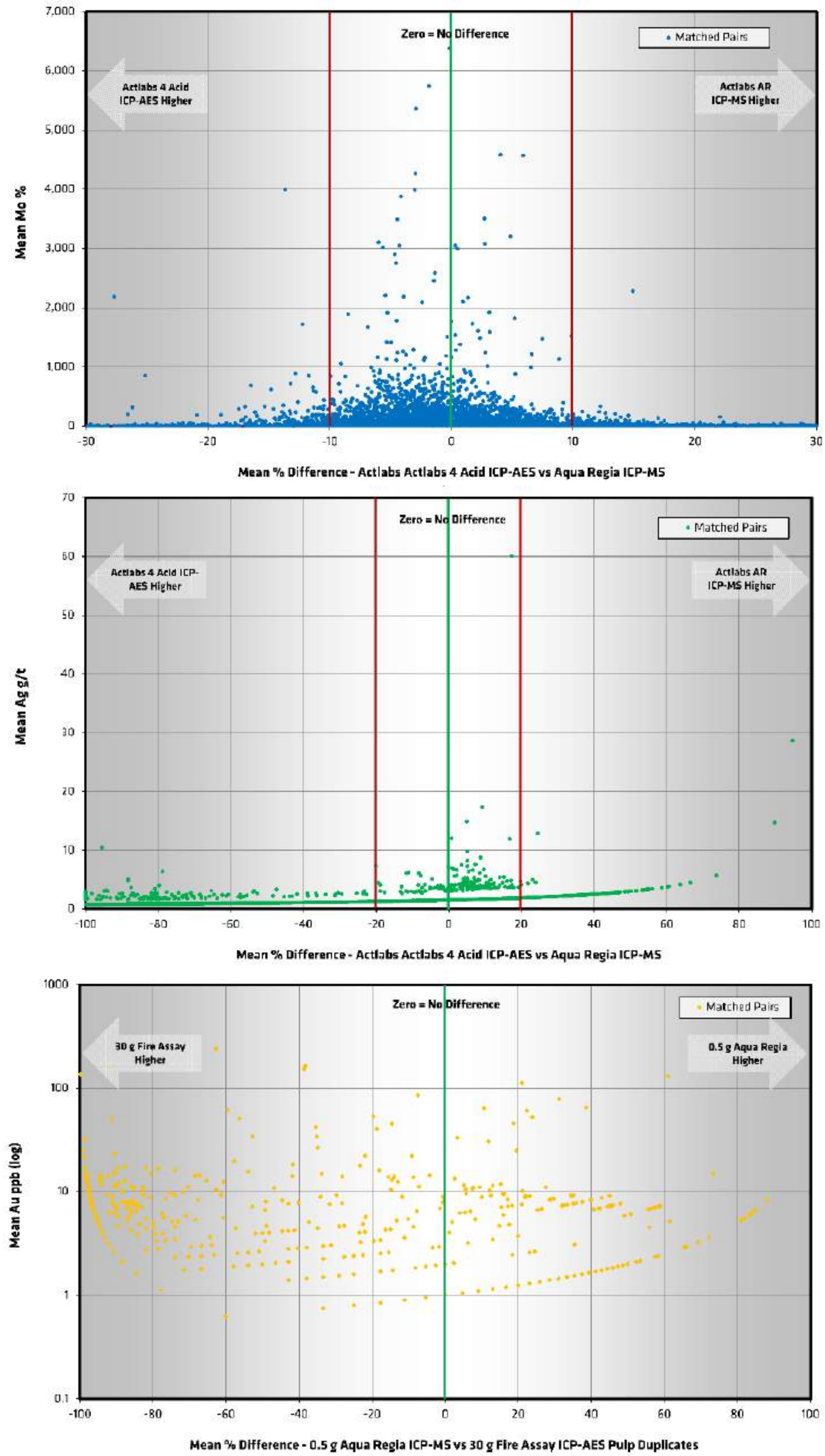

Figure 11-19: Analytical Method Duplicates – Mo (top), Ag (middle) and Au (bottom) - Mean % Difference from 0% (identical) for 4-Acid vs AR Analysis.

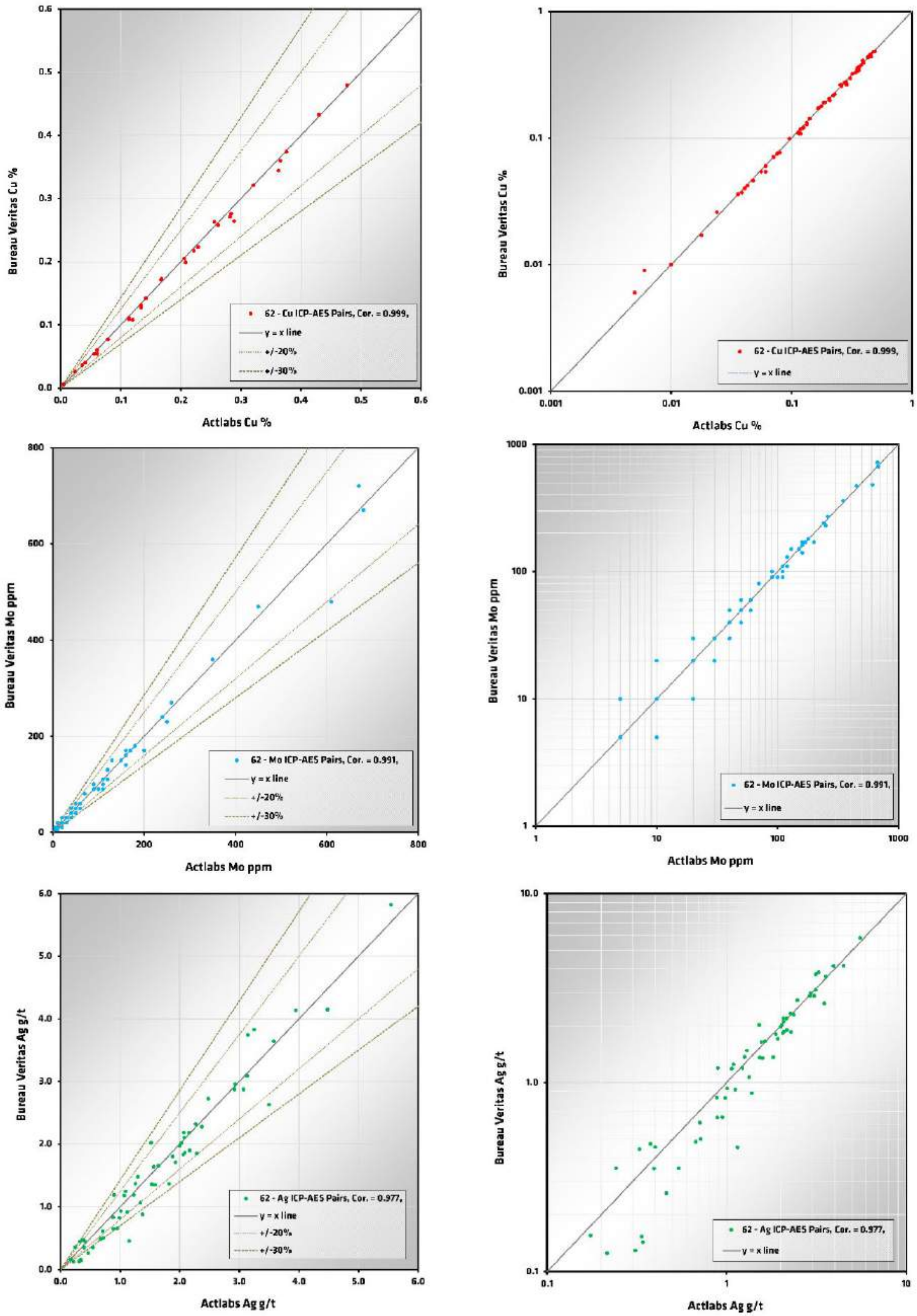

Figure 11-20: Inter-Laboratory Pulp Duplicates Actlabs vs BV - Cu (top), Mo (middle) and Ag (bottom) - Normal (left) and Log Space (right)

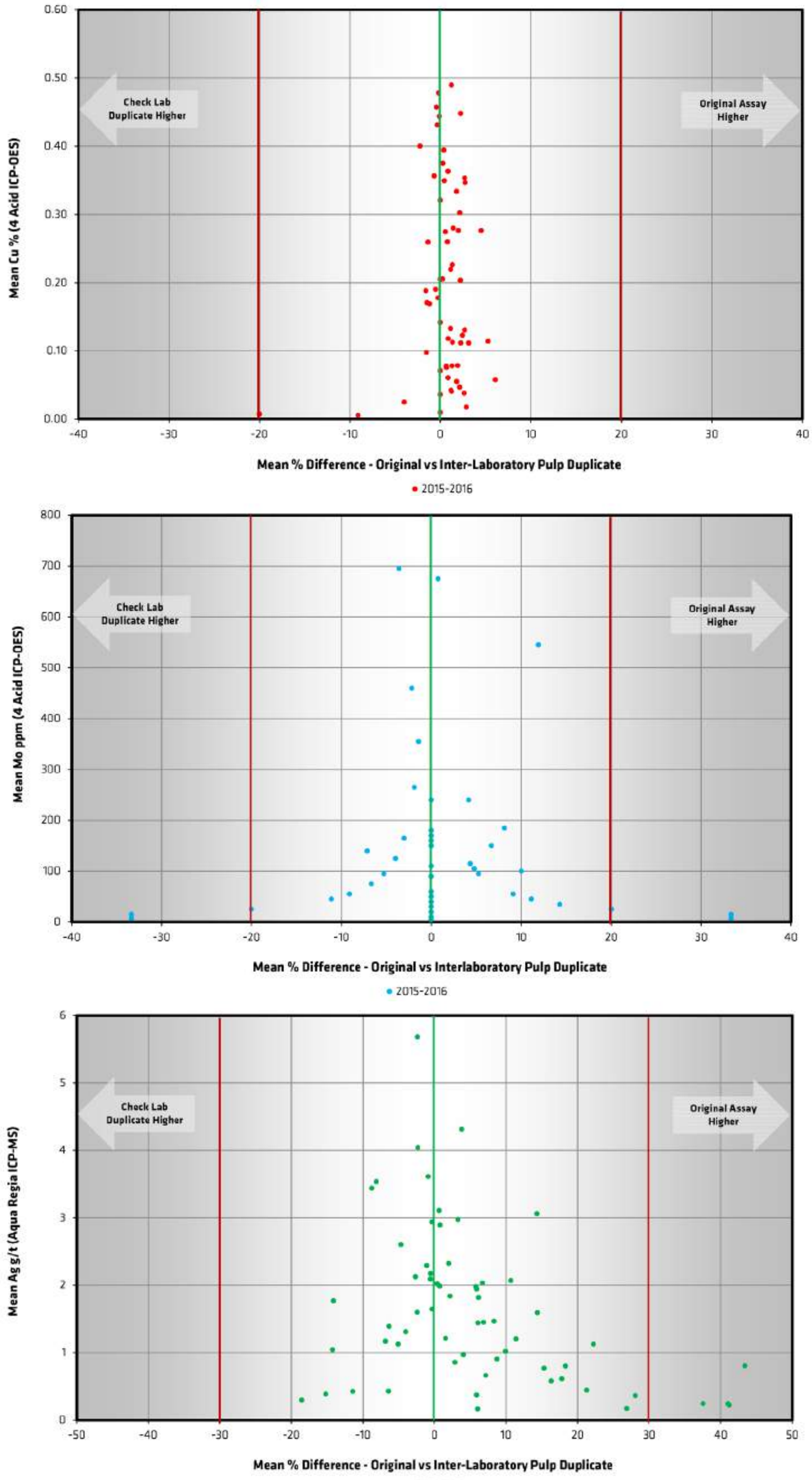

Figure 11-21: Inter-Laboratory Pulp Duplicates - Cu (top), Mo (middle) and Ag (bottom) - Mean % Difference from 0% (identical) for Actlabs vs BV.

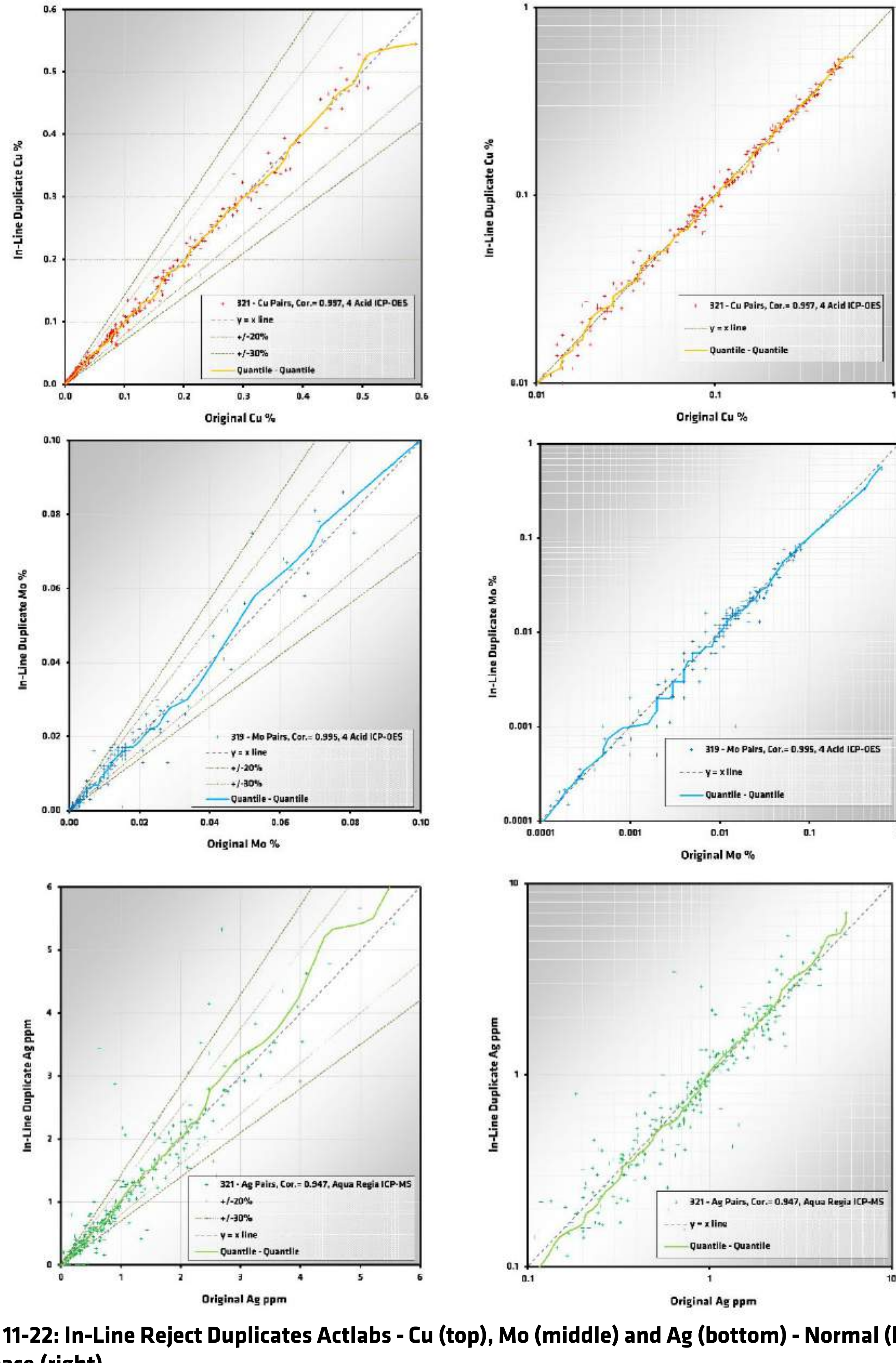

Figure 11-22: In-Line Reject Duplicates Actlabs - Cu (top), Mo (middle) and Ag (bottom) - Normal (left) and Log Space (right).

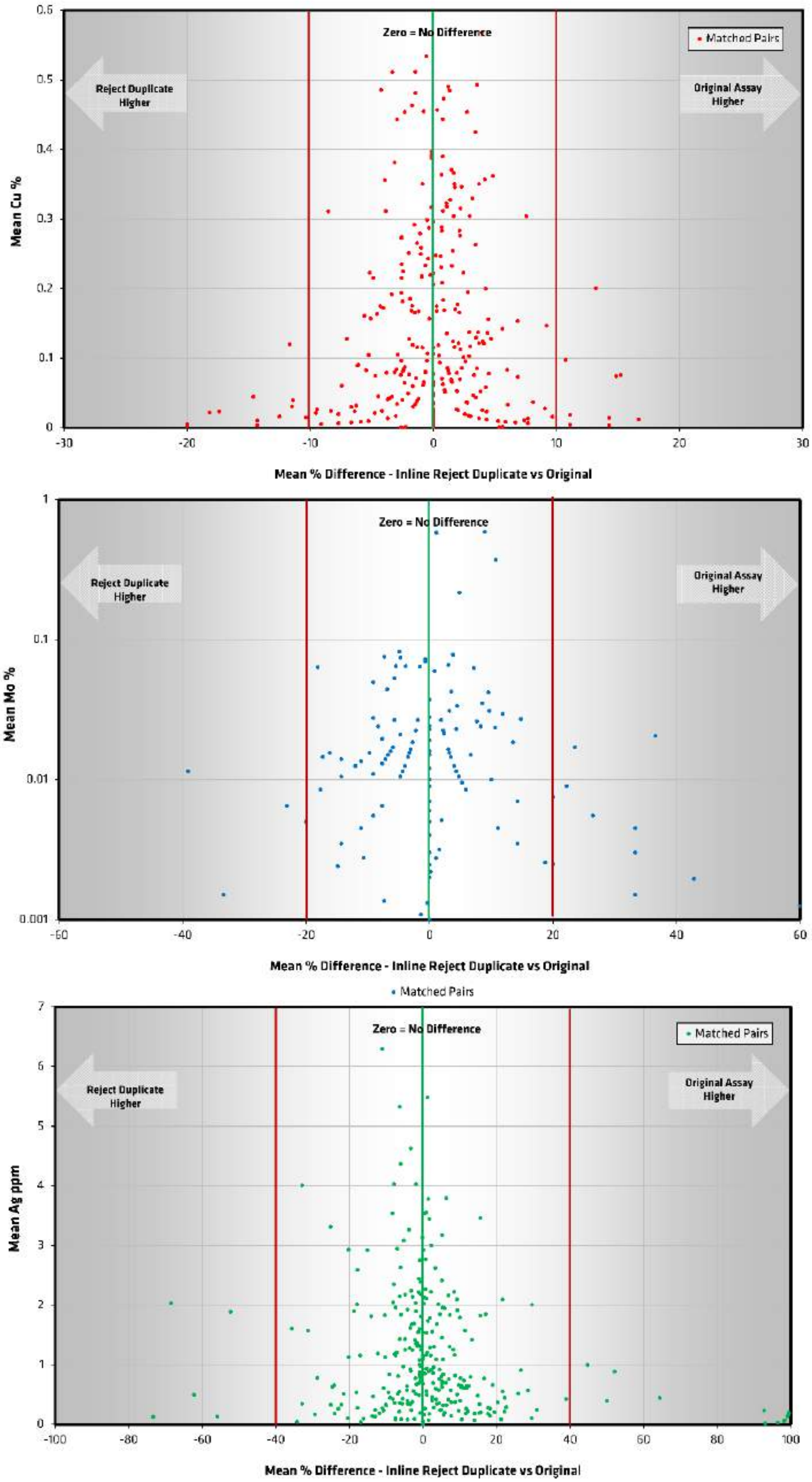

Figure 11-23: In-Line Reject Duplicates Actlabs - Cu (top), Mo (middle) and Ag (bottom) - Mean % Difference from 0% (identical).

Density Validation

A solid, core-sized, aluminum cylinder known as company density standard Al-10 was measured in air and water 60 times in the 2014 - 2016 drill programs as part of the quality control procedure for the core density measurements. The density of the standard calculated from the control measurements was compared with the expected value of 2.70 on a regular basis as a check on the procedure. Density standard performance is illustrated in Figure 11-24.

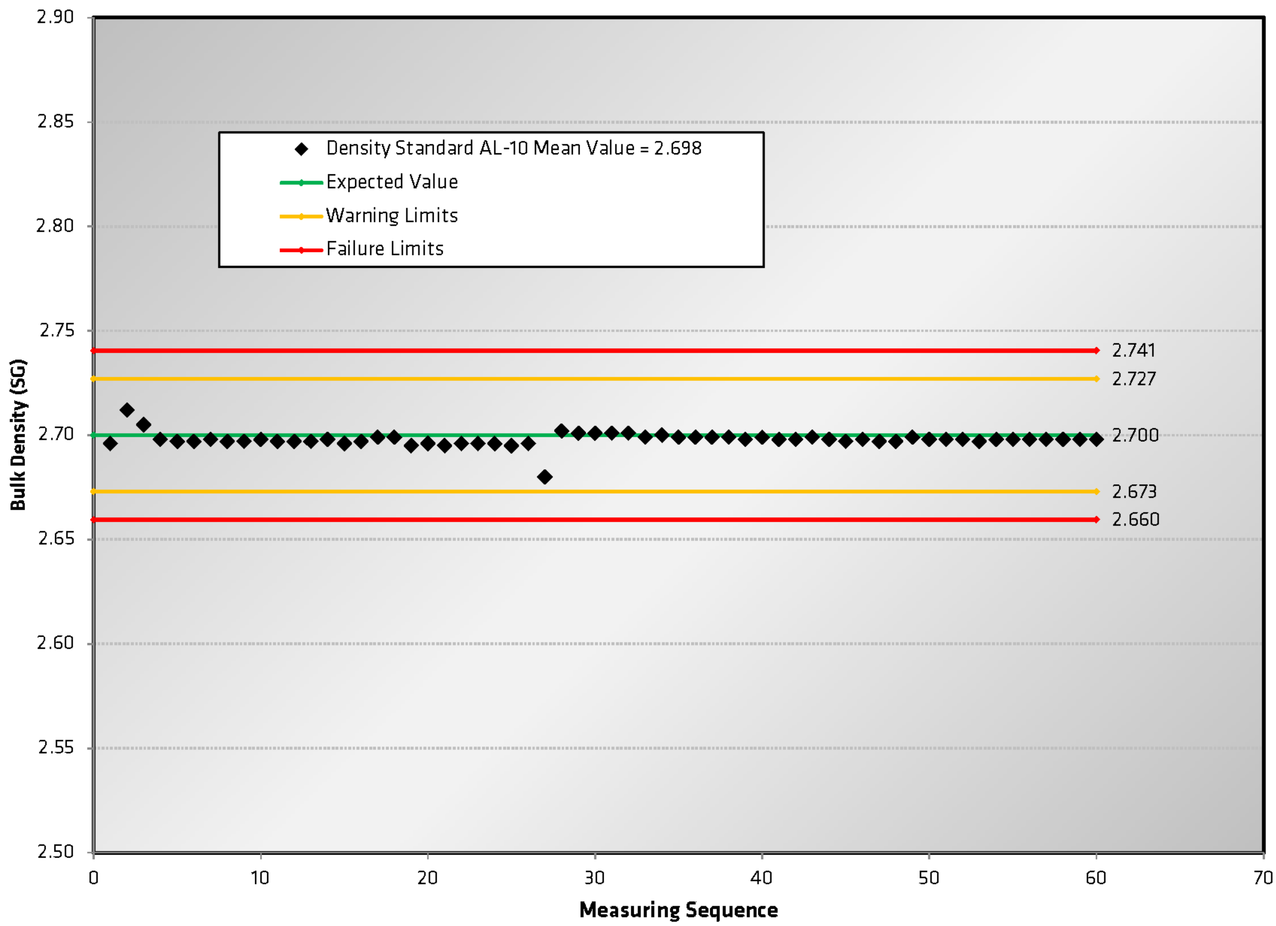

Figure 11-24: Density Standard Performance.

As part of the validation process, Project geological staff reviewed the highest and lowest density values recorded in the 2014 – 2016 drill programs. Data entry and geologic information, corresponding with six possibly errant values listed in Table 11-20 was examined in detail. These values were ultimately determined to be incorrect, so these inadvertent measurements, representing less than 0.4% of the overall total, were relegated in the database.

Table 11-20: Density Validation Table.

HOLE-ID	Depth	Type	SG
IK14001	158.00	Low	1.662
IK14001	161.00	Low	1.712
IK14002	256.70	Low	1.826
IK14008	158.13	Low	2.332
IK14001	365.60	High	6.763
IK14001	685.60	High	9.694

11.2.8.3. Drill Hole QAQC by Amarc

The following due diligence, verification and validation work was completed by Amarc on the historical data for the IKE deposit and the Amarc drill data:

- Completed a site visit, core re-logging and due diligence re-assaying and comparison of the original and re-assay results (2013) on two historical core holes;
- Reviewed all available historical hard copy and digitally scanned documents (2013, 2014);
- Scanned and digitized the IKE deposit historical Cu, Mo and Ag assay results (2013, 2014);
- Established a drill hole database in SQL with appropriate access, tracking and permissions (2014);
- Printed and reviewed the historical keypunched assay results in report format (2014);
- Printed and reviewed the new digital assay results in report format (2014 - 2018); and
- Generated downhole charts with geological and selected assay element columns, for visual comparison and identification of possible errors (2014 - 2018).

11.2.8.4. Surficial Sampling QAQC 2014 – 2018

As part the Amarc analytical QAQC program, 78 QC samples were analyzed during the surficial sampling programs along with the 3,024 regular samples. The QC samples include: 6 coarse blanks, 25 pulp blanks and 22 standards. In addition to the standards and blanks, 26 duplicate samples were split from the coarse sample at Actlabs and analyzed in-line with the regular samples. No QC failures were noted in this program. Figure 11-25 is a scatterplot of the analytical method duplicates of the 2017 surficial geochemical samples. Actlabs Cu and Mo by AR digestion ICP-MS (AR-MS) results are plotted on the y-axis and four acid digestion ICP-AES (TD-ICP) values are plotted on the x-axis.

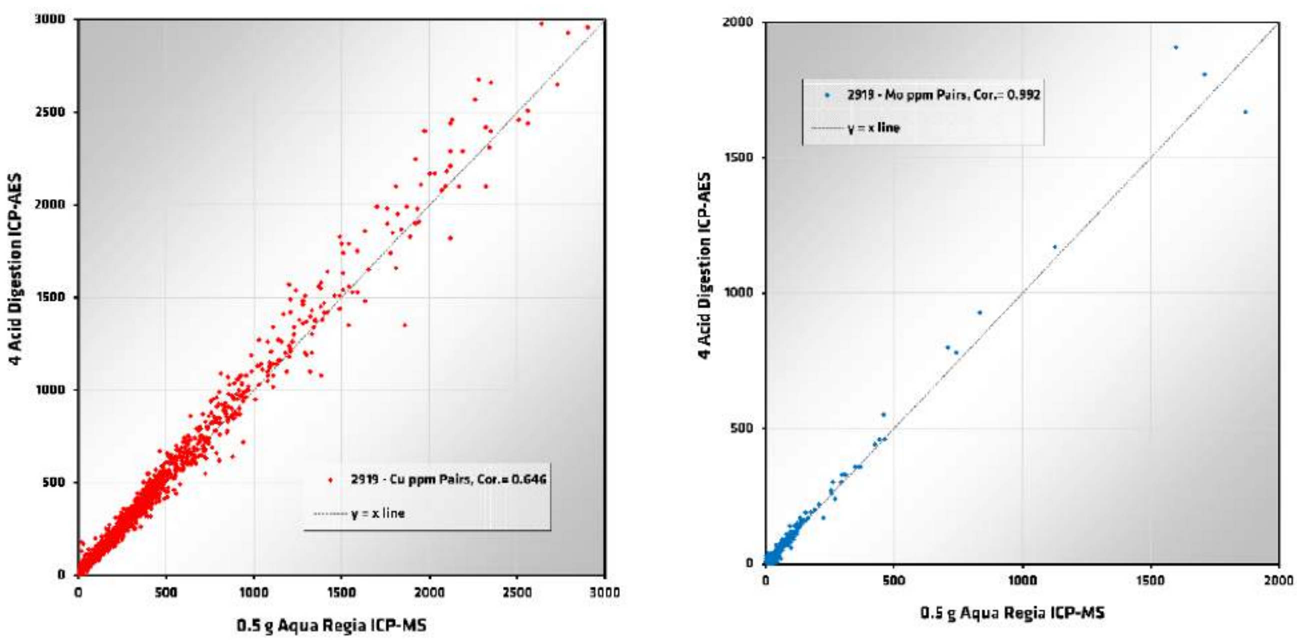

Figure 11-25: Analytical Method Duplicates Actlabs Cu (left) and Mo (right) for 2014-2017 Surficial Samples.

11.3. Summary

Work on the 35 core holes completed in the 2014 through 2018 IKE, Rowbottom and Mad Major drill programs by Amarc includes: collar and down hole surveys, geology and geotechnical logs, density measurements, core photography, sampling and analytical QAQC work, particularly for Cu, Mo, Ag and Au – the key elements of interest.

A few inadvertencies in the historical drill hole and surficial sample records, such as sample interval errors and sample number misidentification, were identified and corrected by Amarc. Comparisons of drill hole collar and surficial sample locations of data in the current Amarc compilation were made against drill hole and surficial sampling documents in the pre-2014 historical records, lending credence to the veracity of key location and drill hole orientation data within the Amarc database. Amarc has not undertaken an exhaustive verification effort, particularly of in terms of crosschecking the historical analytical data against original source documents and analytical certificates particularly for areas outside the IKE deposit. A recommendation is for the completion of this exercise, and a thorough review of the available analytical and QAQC work of the historical sampling programs, prior to use in advanced studies or resource estimation. The QP considers the historical surficial geochemical, drilling, sampling and analytical information compiled in the Amarc database adequate for use in exploration targeting.

The sample preparation, security and analytical procedures performed on Amarc drill core and surficial geochemical samples are in accordance with good industry standard practices. The QP considers the sample preparation, sample security and analytical procedures for the Amarc drill core on the IKE Project adequate to support technical reporting, exploration targeting and more advanced studies.

12. Data Verification

Prior to acquiring the initial Project interest in October 2013, Amarc performed a due diligence program on drilling that had been done on the IKE porphyry prospect, now called the IKE Deposit. QP Mark Rebagliati carried out the 2013 due diligence core sampling on behalf of the company.

Amarc also systematically validated and verified results from its own exploration programs on the IKE Project as these progressed between July 2014 and October 2018. Amarc's work has included drilling on the IKE deposit, and the Rowbottom and Mad Major/OMG deposit targets. In addition, the company has completed a comprehensive compilation and assessment of the historical IKE deposit data. Compilation of the work of historical operators by Amarc in the GECAP and IKE District areas is still in progress. Although the collection of drill hole and surficial exploration data is largely complete for GECAP and the IKE district, it has been subject to significantly less validation and verification, particularly with respect to the drill hole data. QP Eric Titley was directly involved in these programs on behalf of Amarc and has extensive knowledge of this work.

Drilling and other site programs were underway at the IKE deposit when QP Mark Rebagliati visited the site in August 14 to 15, 2018. Mr. Rebagliati a reviewed of all operations at the IKE deposit that were ongoing, including safety, drilling procedures, QAQC and data management. He also reviewed the geology and the veracity of geological observations being recorded in drill hole logs, sample lay out, diamond saw core cutting and sampling, storage and shipping by the Amarc field-crews. All aspects of the program were deemed to be of a suitable standard.

In addition, the following procedures were applied by the QPs to verify the information for this report:

For the IKE deposit, GECAP and IKE district historical drill programs:

- Reviewed available hard copy and digitally scanned technical documents including;
    - Assessment reports;
    - Unpublished company reports and assay cross-sections;
    - Survey information;

  - Geological logs;
  - Sampling and assay reports; and
  - Laboratory assay certificates.
- Reviewed the keypunched historical assay results.
- Reviewed the georeferenced drill hole collar locations.

For the IKE deposit historical drill programs:

- Verified a subset of the keypunched sampling, resampling and analytical data in the compiled database against the original source documents.

For the Amarc 2014 – 2018 IKE deposit, Rowbottom and Mad Major-OMG drill programs:

- Reviewed sampling, security and analytical protocols;
- Reviewed geological, sampling, core photographs and density information from the field programs;
- Reviewed digital assay data and assay certificates received directly from the analytical laboratory;
- Verified a subset of the imported assay data against the assay certificates;
- Reviewed merged sampling and assay results and analytical QAQC;
- Checked for failed standards, high blanks and mis-matching duplicates in the QAQC data;
- Checked for mismatching, overlapping and underlapping intervals in the geological and geotechnical data tables; and
- Checked for errant or improbable density and geotechnical measurements and geological records.

For the compiled IKE deposit, GECAP and IKE district historical and Amarc drill program information:

- Printed and reviewed the assay results reported directly from the database;
- Checked for mismatching, overlapping and underlapping intervals and errant or improbable entries in the assay tables;
- Checked for errant or improbable collar and downhole survey records;
- Reviewed drill data in plan, cross-section and 3D view from the compiled database and compared all with historical figures; and
- Prepared a table of significant assay intervals.

12.1 Data Verification Conclusions

Two deposits, seven deposit targets and five exploration targets, in three broadly defined areas have been drill-tested on the IKE Project by Amarc and historical operators, including the:

1. IKE deposit – comprising the IKE porphyry;
2. GECAP – comprising Empress deposit with the Empress East, Empress Gap, Empress West, Granite, and Buzzer deposit targets and the Spokane, Syndicate and Taylor Windfall exploration targets; and
3. IKE district – including the Rowbottom and Mad Major-OMG deposit targets and the Battlement and Hub exploration targets.

Amarc completed an exhaustive compilation and did verification of drilling information on the IKE deposit. Compilation of drilling information on the GECAP and IKE district areas is largely complete in terms of key component data, but some multi-element analytical data has not been compiled and regular checks on a sub-set of sampling and assay records against original source documents and assay certificates is pending. The GECAP and IKE district areas compilations also require more complete field-validation of drill hole collar locations and orientations, and compilation of available geological and geotechnical information. QP Eric Titley concludes the following with respect to the Amarc and historical drilling programs:

IKE deposit

- The work performed on the 26 Amarc (2014 – 2016, 2018) and 2 Oxford (2011) drill holes provides a high degree of confidence that the derived datasets are of very good quality:
  - This drilling comprises 96% of the total length analyzed on this target.
- Information from the pre-2011 drill programs at the IKE deposit is poorer and more varied in quality. It is a mix of core and percussion drilling and composite sample information with limited, to very limited, support documentation particularly for assays:
  - This drilling comprises 4% of the total length analyzed on this target.

GECAP area

- The 22 Great Quest (2007 – 2008) and 5 Galore Resources (2007) core drill holes are well documented, and being fairly recent, should readily lend themselves to validation and verification procedures:
  - This drilling comprises 24% of the total length analyzed on the targets in this area.
- The 70 Westpine and Westpine/ASARCO (1988 – 1991, 1993) core drill holes are reasonably well documented and could lend themselves to validation and verification procedures.
  - This drilling comprises 50% of the total length analyzed on the targets in this area;
- The work performed on 137 drill holes by various other historical operators prior to 2007 (other than those mentioned above) is poorer and more varied in quality. It is a mix of 41 core and 96 percussion drilling and composite sample information with limited to very limited support documentation, particularly for assays:
  - This drilling comprises 26% of the total length analyzed on the targets in this area.

IKE district

- The work performed in 9 Amarc (2017) drill holes provides a high degree of confidence that the derived datasets are of very good quality:
  - This drilling comprises 34% of the total length analyzed on the district targets.
- The 15 Galore Resource (2007 – 2008) and 6 Great Quest (2011) core drill holes are well documented, and being fairly recent, should readily lend themselves to validation and verification procedures:
  - This drilling comprises 45% of the total length analyzed for the district targets.
- The 1 Westmin (1987), and 2 Esso (1986) core drill holes are reasonably well documented and could lend themselves to validation and verification procedures:
  - This drilling comprises 9% of the total length analyzed for the district targets.
- The 16 drill holes by various other historical operators (1968 and 1970) is poorer and more varied in quality. It is a mix of 5 core and 11 percussion drill holes and composite sample information with limited to very limited support documentation, particularly for assays:
  - This drilling comprises 12% of the total length analyzed in for the district targets.

The IKE Project hosts two deposits and a significant number of deposit targets and exploration targets drilled by a number of different operators over a long history. The quality of data verification ranges from very good in areas of most recent interest, to poor, largely as a reflection of the age and availability of source documentation. This broadly subdivides by year of drilling in general terms as 2007 – 2018 is of good quality, 1984 – 1993 is of moderate quality, and 1956 to 1981 is of poorer quality. All of these holes serve as useful guides to ongoing exploration, but the earliest historical data must be further assessed before it is used for more advanced studies.

In summary, the QPs applied several verification procedures to the IKE Project drill data to assess the appropriateness and accuracy of this information for use in public disclosure and establishing targets for further exploration. The QPs have thoroughly assessed the data compiled by Amarc on the IKE Project and have determined it is appropriate for use in exploration stage programs.

13. Mineral Processing and Metallurgical Testing

No mineral processing or metallurgical testing has been carried out by Amarc on samples from the IKE Project.

14. Mineral Resource Estimates

No current mineral resources estimates have been done on the IKE Project.

15. Adjacent Properties

There are only early stage exploration properties adjacent to the IKE Project. The QP is not aware of any relevant information from these properties.

16. Other Relevant Data and Information

The QP is unaware of any further information and data relevant to the IKE Project.

17. Interpretations and Conclusions

Hydrothermal alteration and mineralization, which is prospective for the discovery of porphyry Cu±Au±Mo±Ag and related deposit types occurs throughout the 462 km^2 IKE Project. The Project occupies a highly fertile block of crust where magmatic-hydrothermal-structural characteristics are favorable for the formation of intrusion-related Cu±Au±Mo±Ag deposits with good grade (Tables 6-21, 6-24 and 10-4). These characteristics are common to most porphyry districts around the globe that host major, and commonly multiple, Cu±Au±Mo±Ag deposits.

A high discovery potential for deposits of substantial size and grade on the IKE Project is supported by:

> ***Multiple Centres of Mineralization*:** There are many centres of porphyry and epithermal related magmatic-hydrothermal activity. The highest concentration of these zones covers an area of more than 150 km^2. The substantial IKE porphyry Cu-Mo-Ag deposit and the Empress Cu-Au-Ag deposit also demonstrate that large deposits are present.
>
> ***Multiple Centres of Magmatic-Hydrothermal Mineralization*:** Isotopic dating by Amarc has identified episodes of mineralization that range from ~90 Ma to ~46 Ma. Intrusions of comparable isotopic ages are present and, in many cases, are proximal to mineralization of similar age. Two major centres of magmatic-hydrothermal activity formed the large Eocene IKE porphyry Cu-Mo-Ag deposit and the Cretaceous Empress Cu-Au-Ag±Mo deposit. Mineralization of intermediate age has been identified, for example, at the Mad Major-OMG target areas.
>
> ***Strong and Widespread Alteration with Abundant Sulphide*:** Drilling, surface exposures, geochemistry and IP surveys at the IKE porphyry and across the GECAP, as well as other target areas, confirm that intense to moderate, sulphide-rich hydrothermal alteration is consistently present over significant areas. This sulphide mineralization occurs in a variety of alteration types commonly found in major porphyry centres.

***A Variety of Deposit Types and Paleodepths*:** Styles of mineralization on and near the IKE Project include porphyry Cu±Au±Mo±Ag, high-temperature Cu-Au-Ag replacements, high-sulphidation epithermal and possibly intermediate to low sulphidation epithermal. The variations in style, along with other data such as fluid inclusion analysis (e.g., Blevings, 2008), indicate that mineralization is likely exposed over a range of paleodepths across the area, which increases the range of target types and the probability of preservation of deposits.

Multiple Phases of Felsic to Intermediate Intrusions: Multiple stages and compositions of intrusive activity are present across the Project area. Large porphyry deposits and deposit clusters are almost invariably related to similar, long-lived, magmatically-active geological environments. The presence of multiple centres of mineralization in the area is consistent with this varied intrusive activity.

A Structurally-Active Setting During Mineralization: The crustal-scale Tchaikazan Fault was active from at least the mid-Cretaceous through the Eocene, which coincides temporally with the range in ages of intrusions and mineralization in the area, and it likely exerted direct or indirect structural control on both. Mineralized centres plausibly are related to north-northwest and/or northeast-trending splays off the main structure. A similar control is found in many/most belts that host major porphyry deposits such as the central Andes and southwest Alaska.

***Many Large Porphyry Deposits Formed in the Region*:** The IKE Project is located in a fertile region that hosts other large porphyry Cu±Au±Mo deposits (Lang, 2020), with similar geological settings having produced large Cu-Au porphyry deposits (e.g. Poison Mountain, New Prosperity).

17.1 IKE Porphyry Cu-Mo-Ag Deposit

The potential of the IKE porphyry deposit was recognized by Amarc during a review of porphyry occurrences located in underexplored mineral belts in BC. Limited historical drilling indicated the presence of a mineral system with characteristics favorable for a viable porphyry Cu-Mo-Ag deposit, underlying a significant area of gossanous material. Three historical drill holes in the Northwest Cirque, located over approximately 220 m, had intersected long continuous intercepts of chalcopyrite and molybdenite mineralization with encouraging grades. There was no follow up exploration until Amarc initiated exploration in 2014.

The calc-alkaline IKE porphyry system is hosted by early to late Cretaceous EGDI of the CPC and a series of Eocene intra-to late mineralization porphyritic granodiorite to quartz-monzonite dykes. Potassic alteration dominated by biotite ± K-feldspar is associated with the Cu-Mo-Ag mineralization, which predominantly comprises hypogene chalcopyrite and molybdenite. The deposit contains classic quartz-sulphide veins and as well as chalcopyrite–rich early halo veins, although the majority of the mineralization is in a disseminated form.

Largely co-incident magnetic, IP chargeability, geochemical talus fines anomalies and geological alteration mapping have defined a 9 km^2 hydrothermal system, into which Amarc has completed approximately 15,455 m of core drilling, in 26 widely-spaced holes. This drilling has confirmed the presence of a substantial body of porphyry Cu-Mo-Ag mineralization with encouraging grades, over an area 1,200 m east-west by 1,000 m north-south, and over a vertical extent of 875 m depth, that remains open to expansion. A phased drill program is warranted to delineate the IKE deposit for a mineral resource estimate.

17.2 GECAP – Au-Rich Porphyry Cu and Replacement—Style Deposit Potential

Having recognized the potential of the IKE porphyry Cu-Mo-Ag deposit, Amarc worked to consolidate the IKE Project tenure. This included an important 35 km^2 sub-area of the Project that straddles the CPC contact for approximately 15 km. This area known as the GECAP had seen exploration completed by several operators since the 1920's. Amarc compiled and integrated useful historical information from geochemical and geophysical surveys and drilling, which permitted a rapid advancement in the understanding of the potential hosted in the area and the recognition of significant porphyry Cu±Au±Mo-Ag and Cu-Au-Ag replacement deposit targets. Potential also exits for auriferous, polymetallic/mesothermal-epithermal deposits although these to date have not been the focus of Amarc's exploration.

Immediate GECAP deposit targets for focused field-based exploration include the:

- ***Empress Cu-Au-Ag Replacement Deposit***: The Empress Cu-Au-Ag replacement-style deposit is a significant body of good grade mineralization that is characterized by both common high-grade intersections, and relatively good grade continuity. Significant potential exits for a core drilling program to upgrade and expand the mineralization which remains open.
- ***Empress East Cu-Au±Ag Target*:** Located approximately 1 km east of the Empress deposit, limited historical drilling at Empress East intercepted mineralization similar to that at the Empress deposit. This drilling and together with favorable IP chargeability and magnetic features suggest significant potential exists with further drilling to enlarge the body of mineralization and increase the grade at Empress East.
- ***Empress Gap Cu-Au±Ag Target*:** Limited historical shallow percussion and core drilling in the 1 km gap between the Empress deposit and the Empress East, with historical IP chargeability data, suggest a clear opportunity to discover additional Cu-Au mineralization in proximity to the volcanic-CPC contact. Drill testing of this underexplored prospective target is required.
- ***Granite Porphyry Cu±Au±Mo-Ag Target*:** Porphyry-style mineralization intersected in limited and tightly collared drill holes suggests that Granite could be the source of the mineralizing fluids for the Empress deposit. This target has not been adequately tested and mineralization remains open to expansion. Step-out drilling from the know mineralization, including the testing of proximal magnetic and IP chargeability high features is required.
- ***Empress West Cu-Au±Ag Target*:** This large target, which extends more than 2 km to the west of the Empress deposit along the favorable CPC-volcanic contact, has only been tested by widely-spaced and shallow percussion holes, and a few core holes. It exhibits the same geological setting to the Empress area, and potential to discover additional Cu-Au mineralization is indicated by the results of the historical drilling when combined with magnetic and IP survey data, and also elevated Cu±Au±Mo concentrations in soils. Modern IP and drilling is required to test a series of targets.
- ***Norwest Cu-Au Target*:** Located westward along the CPC contact from the Empress West target area, Norwest is characterized by locally elevated geochemical results and the occurrence of propylitic, sericitic and localized potassic alteration, as well as widespread quartz±carbonate±sulphide veins. This target warrants geological mapping, rock sampling and an IP survey to inform drill target selection.
- ***Buzzer Cu-Au-Ag±Mo Porphyry Target*:** The depth of erosion below volcanic-CPC contact of the Buzzer zone is projected to be in the range of only a few hundred metres. Historically, the apparent small diameter of Buzzer has deterred past explorers from considering the possibility that Buzzer, as it is currently known, is the upper-most manifestation of a large underlying auriferous porphyry Cu deposit. Consideration to explore this possibility to depth with a > 500 m hole is warranted.
- ***Taylor-Windfall West IP Target*:** To the north of the Tchaikazan Fault this strong IP chargeability anomaly located to the west of the historical Taylor-Windfall epithermal Au mine could represent a lithocap to an underlying or adjacent porphyry Cu±Au-Ag±Mo deposit. The target warrants additional IP and drill testing.

The GECAP has excellent potential for expansion of the Empress deposit and for discovery of new Cu-Au resources in the project area. An exploration proposal to test this potential is presented in Section 18-2.

17.3 IKE District Porphyry and Epithermal Targets

Several known centres of porphyry Cu mineralization (Rowbottom, Mad Major-OMG) and epithermal mineralization (Battlement, Mewtwo) exist outside of, but in proximity to and between, the IKE deposit and GECAP areas. Limited exploration by historical operators and/or Amarc indicate that further survey work followed by drilling is warranted at these targets.

At Rowbottom, Cretaceous porphyry-style Cu-Mo-Au mineralization and alteration is intermittently exposed along 550 m of Rowbottom creek, and spatially associated with an extensive chargeability anomaly. Limited historical shallow percussion drilling returned good Cu and Mo grades (Au and Ag were not analysed for), and a single core hole completed by Amarc confirmed the presence of Au and Ag. An historical soils grid and both the historical and Amarc IP chargeability anomalies suggest that a larger system could be present, warranting further drilling.

The Mad Major-OMG is a Late Cretaceous to Paleocene porphyry Cu-Mo-Ag±Au target area. It extends over approximately 23 km^2 area of highly anomalous stream sediment geochemistry and gossanous ridges, overlapping with the edge of the CPC-volcanic contact. Amarc's exploration, and that of historical operators, has defined several large IP chargeability and magnetic geophysical, talus fines and soils geochemical, and geological alteration mapping anomalies that remain to be adequately drill tested. Amarc has completed only eight very wide-spaced core holes into the target, and the source of the IP and geochemical anomalies is yet to be determined. Additional survey work and drilling is warranted.

Although not the focus of Amarc's exploration, epithermal potential exits on the IKE Project. For example, at both Battement and Mewtwo reconnaissance stage exploration suggests a geological environment that is permissive for either, or both, a porphyry or epithermal-type deposits. Further exploration is warranted at both targets.

Collectively the IKE deposit, GECAP and IKE district target areas as described warrant substantial exploration programs.

17.4 IKE Project Compilation

Amarc has carefully and appropriately compiled and integrated a significant quantity of historical information from geological, geochemical and geophysical surveys, and also from drilling completed by previous workers on the IKE Project. Historical data was validated and verified to the extent possible or required at the current time, with particular emphasis on geochemical surface survey and drill sample assay information in respect to key elements such as Cu, Au, Mo and Ag. This work permitted the delineation of several potential targets for follow up survey work by Amarc, and has continued to contribute significantly to the on-going and evolving targeting process.

The extensive validation and verification work completed in respect to Amarc's and Oxford's recent programs provides a good degree of confidence in the information, and especially that the geochemical data utilized is of appropriate quality. Notably, the historical drill assay data, although regarded as acceptable for use in the current exploration and drill targeting programs requires further verification before it could be utilized to support resource estimation or other more advanced studies.

Information was lacking for many of the pre-2007 historical drill holes, including some or all of the following; original assay certificates, certified reference material, laboratory QAQC, client quality control samples, sample splitting methods, sample crushing and pulverization particle size, detection limits, sample chain of custody protocols, analytical digestion method, one or more of Cu, Au, Ag or Mo analyses and density measurements. In addition, percussion drilling is generally not as robust a method of obtaining representative samples for assay as core drilling methods. For these reasons, a recommendation is for a careful assessment of the analytical data from the historical percussion holes (where available) prior to use in any future use in advanced studies. There has been no such assessment to date. See Sections 11 and 12 for further details.

The QPs have the following observations and comments regarding the Amarc compilation:

- Re-logging the historical Empress deposit drill core would provide a better geological framework to put the historical work into context, enable 3D modelling of the deposit, and facilitate a better planned drill delineation program to move the deposit to more advanced stages.
- Confirmation by site investigation and re-surveying where possible, would validate the locations of critical historical drill holes, where possible. Most of the locations currently in use in the GECAP and IKE district are georeferenced from maps in historical reports.
- Verification of key historical analytical data by comparison of the Amarc database to original source documents wherever assay certificates and sampling logs where available would provide further confirmation as to the veracity of the data. Much of the historical sampling and analytical data derives from compilations in assessment reports and other company documents.
- Appropriate resolution of a number of discrepancies, errors and omissions noted in these data sets took place during various stages of the Amarc compilation work, but further due diligence needs to be undertaken with respect to verification of the historical sampling and analytical data to assess its veracity. The historical drill hole sampling and analytical certificate data that exists in ARIS assessment reports in scanned format should be broken out of these reports and filed separately by year and drill hole for easier access and comparison with the digital database.
- Core from historical drilling at the IKE and Empress deposits should be rehabilitated and inventoried and stored in such a way that it can be assessed for the purposes of geologic re-logging, re-sampling and re-analysis of representative sections.
- There are a number of scanned historical geological and geotechnical drill logs in assessment reports that could be assessed for use and, if appropriate to do so, imported to the Amarc database.
- The results of the analytical QAQC programs on drill core done by previous operators, particularly Galore Resources and Great Quest, and also some earlier operators exists in and should be put in a format to make it more readily available for further review.
- Determination of the density of representative rock types from regular intervals of historical drill core would add to the knowledge base, particularly for the Empress deposit which is lacking density measurements.
- Inputting the complete set of analytical data for all drill holes would provide a more complete and robust data set. For a number of historical drill holes, the only analytical records exist as scanned copies and not all analytical data has yet been input by Amarc. Most of the unrecorded information is in what has been deemed to be lower priority target areas, or for elements of lesser interest; however, entry and compilation of all of these data into the master drill hole database is desirable for completeness.
- A complete set of analytical data is not yet entered into the Amarc database for a number of historical surface samples where the only records that exist are scanned copies. Most of unrecorded information is in what has been deemed to be lower priority target areas, or for elements of lesser interest; however, entry and compilation of all of these data into the master surface database is desirable.
- Completion of the inter-laboratory duplicate check assays on the mineralized sections of the 2014, 2017 or 2018 IKE deposit drill holes of Amarc prior would be desirable, prior to use advanced studies.
- Most of the pre-2018 Au determinations on the IKE deposit are by a small sample size AR digestion analytical method that is not particularly reliable. Although gold concentrations in the IKE deposit are generally quite low (typically < 20 ppb), more accurate analyses are desirable for ongoing evaluation purposes. Determination of Au by large sample size methods such as FA should continue to be done for all target areas of the Project in future.
- The accuracy and precision of Actlabs multi-element geochemical method AR-MS for Ag in the IKE deposit 2014 – 2018 drill core samples is low in the grade-range of Ag encountered at the IKE deposit.

Re-analysis of a random set of representative samples by assay-level methods for Ag would enable a better assessment on the validity of the Ag results.

18. Recommendations

18.1 Recommended IKE Deposit Drill Program

Amarc has completed 15,455.34 m of core drilling, in 26 widely-spaced and long core holes at the IKE porphyry Cu-Mo-Ag deposit discovery. This drilling has confirmed the presence of a substantial body of porphyry Cu-Mo-Ag mineralization over an area 1,200 m east-west by 1,000 m north-south, over a vertical extent of 875 m, that remains open to expansion; and which is located within a 9 km^2 hydrothermal system that remains to be fully explored.

A two-phase, success contingent, drill program is recommended with the goal of delineating a mineral resource, to provide the basis for initial economic studies to be undertaken in the future (Figure 18-1).

18.1.1 IKE Deposit Phase 1 Drilling

Phase 1 core drilling will include 21 holes, for a total of 17,500 m of drilling (Figure 18-1, red holes) comprising:

Nine core holes (approximately 7,000 m) collared to define the grade and geometry of two known higher-grade areas of mineralization located in the Northwest and Southwest Cirques; and

A further 12 core holes (approximately 10,500 m) primarily to infill drill between the higher-grade centres in Northwest and Southwest Cirques, and also to test the eastwards shallower extension to the known mineralization at depth. The area between the two known higher-grade areas of mineralization in the Northwest and Southwest Cirques is under-drilled, and also has the potential to host higher-grade Cu-Mo-Ag mineralization.

The estimated budget for the Phase 1 drill program includes:

Phase 1, ~17,500 m of Helicopter Supported Core Drilling	
o Site Operations and Technical Support Costs	$7.5 M
o Reporting, Data Processing and Related Costs	$0.6 M
Total Estimated Cost	**$8.1 M**

18.1.2 IKE Deposit Phase 2 Success Contingent Drilling

Twenty Phase 2 core holes for a total of approximately 15,200 m are proposed, however they are dependent on a successful Phase 1 infill drilling program. These drill holes are planned to delineate the expansion potential of the known mineralization surrounding the drilled resource area (Figure 18-1, green holes).

The estimated budget for the Phase 2 drill program includes:

Phase 2, ~15,200 m of Helicopter Supported Core Drilling	
o Site Operations and Technical Support Costs	$6.8 M
o Reporting, Data Processing and Related Costs	$0.5 M
Total Estimated Cost	**$7.6 M**

The required drill permit is in hand to complete both the Phase 1 and the Phase 2 drilling programs.

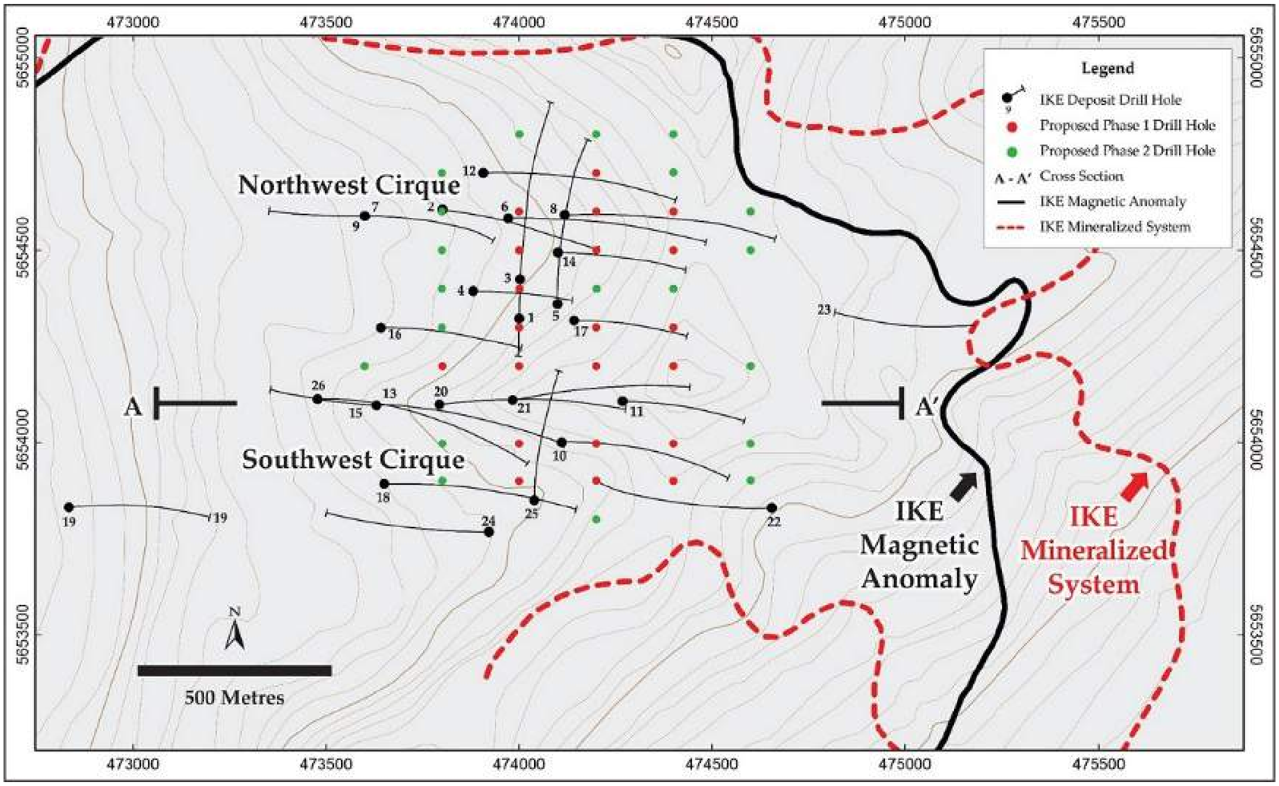

Figure 18-1: Proposed IKE Deposit Success Contingent Two-Phase Infill and Delineation Core Drill Program, modified from Rebagliati and Gaunt (2018).

18.2 Recommended GECAP Exploration Program

Significant hydrothermal alteration and mineralization are present at numerous locations throughout the 15 km east-west elongated by 1 to 2 km wide area that forms the GECAP. Amarc's compilation of historical survey and drill data has defined significant potential in terms for:

(1) high-grade replacement Cu-Au-Ag deposits at, for example, the Empress deposit and the Empress West and Empress Gap deposit targets;

(2) porphyry Cu-Au-Ag±Mo deposits at, for example, the Buzzer and Granite deposit targets; and

(3) epithermal-style Au-Ag mineralization such as in the vicinity of Taylor Windfall.

The recommended two-phase exploration program has been designed to test the economic potential of the GECAP, and so that drilling can begin immediately on high potential targets while survey work progresses on other promising targets where historical works did not adequately characterize the target for drill testing. Hence the Phase 2 work is only partly contingent on the results of the Phase 1 exploration. The necessary permits are in hand for the proposed work.

18.2.1 Phase 1 Drilling and Survey Program

The recommended GECAP Phase 1 program includes:

Core drilling of some 17 holes for approximately 3,800 m (Figure 18-2) in order to:

- Commence delineating the grade and volume at the Empress Cu-Au deposit and Empress East Cu-Au deposit target;
- Step out from and test the expansion potential, of the known Granite porphyry Cu-Au-Ag-Mo mineralization; and
- Test priority targets within the Empress West and Empress Gap target areas that are characterized by coincident magnetic, IP chargeability and Cu and/or Au soil geochemical

anomalies, with proximal core or percussion drill holes showing anomalous to strong mineralization.

Relogging of select historical drill core from the Empress Cu-Au replacement deposit, and the Buzzer and Granite porphyry Cu-Au-Ag±Mo deposit targets, to establish vectoring criteria within the greater Empress hydrothermal system.

Detailed geology and alteration mapping (accompanied by surface geochemical sampling as warranted), over areas where previous works indicate encouraging results but where the hydrothermal features of the targets are not well-understood, for example, at the Norwest, Spokane –Syndicate and west of the Taylor-Windfall mine targets.

Approximately 50 line-km of IP survey over the (Figure 18-3):

- Empress, Empress East (to west of Taylor Windfall), Empress Gap and Empress West zones to compliment the shallow-penetrating historical surveys, and better define the architecture of the sulphide system and so refine drill targets; and
- Norwest area where the proposed geological and alteration mapping will be used to design the maiden survey to test the scale and strength of the sulphide system.

The estimated budget for the Phase 1 program includes:

~3,880 m of Helicopter Supported Core Drilling	
o Site Operations and Technical Support Costs	$1.7 M
o Reporting, Data Processing and Related Costs	$0.2 M
Relogging of Historical Core and Exploration Surveys	
o Relogging of Historical Drill Core & Analyses	$0.1 M
o Mapping Surveys and Geochemical Analyses	$0.1 M
o ~ 50 Line-km of Helicopter Supported IP Survey	$0.5 M
o Reporting, Data Processing and Related Costs	$0.1 M
Total Estimated Cost	**$2.7 M**

18.2.2 Phase 2 Drilling Program

The recommended Phase 2 program will focus on the core drilling of 38 holes (Figure 18-2), for approximately 9,700 m, to:

Continue to delineate the grade and geometry of the Empress deposit and Empress East deposit target;

Test high potential identified targets that were not drill tested during Phase 1; and

Follow up of Phase 1 program positive results.

The Phase 2 drilling program is in part contingent on the success of the Phase 1 program as not all deposit targets, both current and emerging, will have been fully drill tested or have received initial drill testing, respectively, during the Phase 1 drilling.

The estimated budget for the Phase 1 drilling program includes:

~9,700 m of Helicopter Supported Core Drilling	
o Site Operations and Technical Support Costs	$4.4 M
o Reporting, Data Processing and Related Costs	$0.3 M
Total Estimated Cost	**$4.7 M**

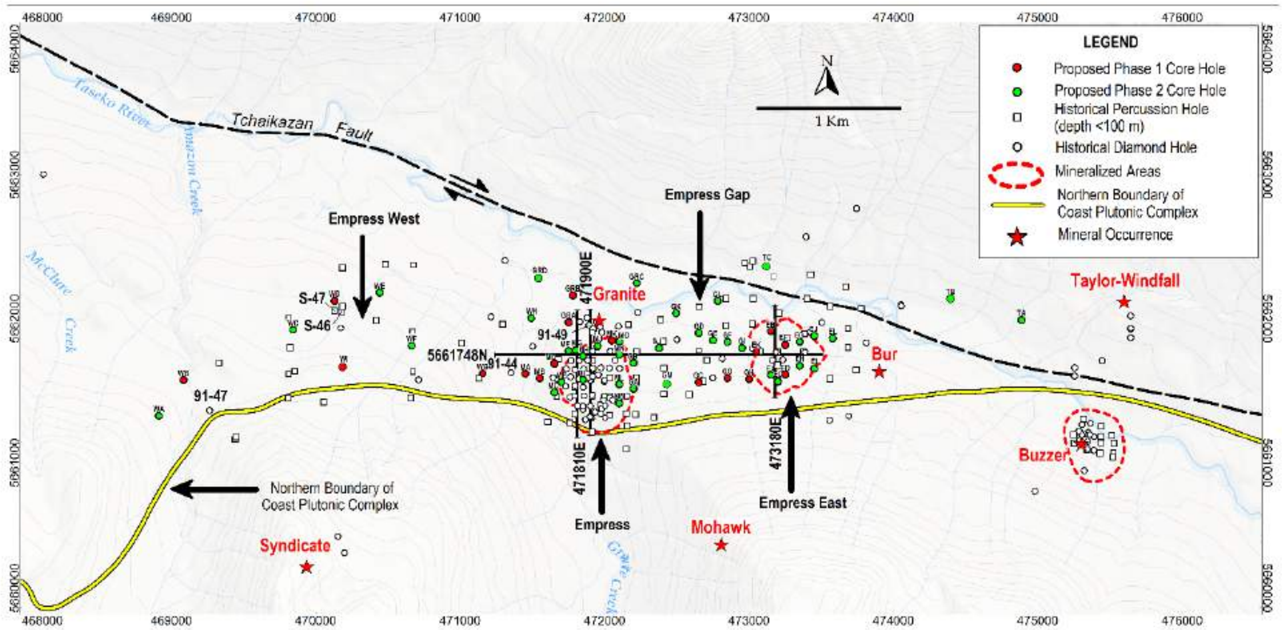

Figure 18-2: Recommended GECAP Area Phase 1 Core Drilling (red holes), and Success Contingent Phase 2 Core Drilling (green holes).

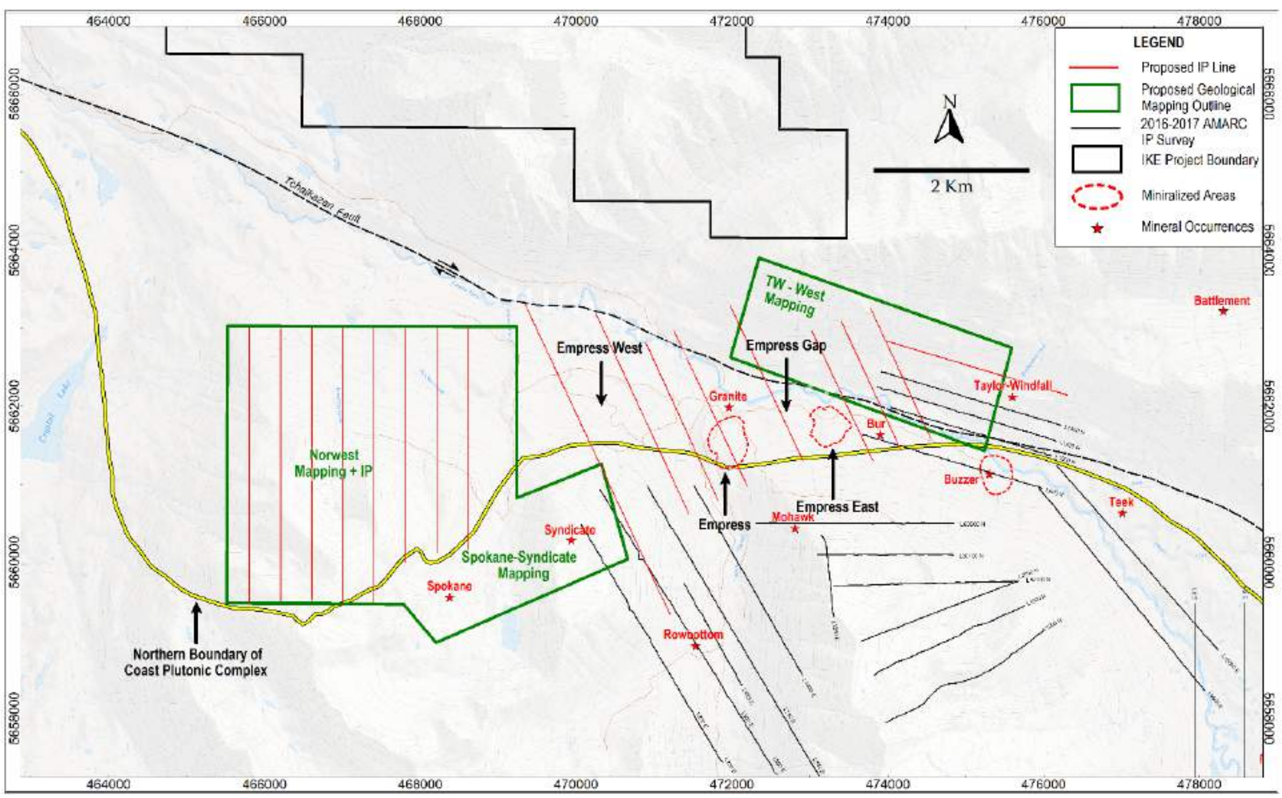

Figure 18-3: Recommended GECAP Area IP and Soil Geochemical Survey Lines, and Areas for Geological and Alteration Mapping.

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20. Certificate of Qualified Persons

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I, C. Mark Rebagliati, P. Eng., am a Professional Engineer of 1500-1040 West Georgia Street in the City of Vancouver, in the Province of British Columbia.

1. I am co-author of this report entitled "Technical Report Summarizing Exploration Work on the IKE Cu-Mo-Au-Ag Project, British Columbia, Canada", effective date of May 29, 2020. I am responsible for Sections 2, 3, 4, 5, 7, 8, 13, 14, 15, and 16, and jointly responsible sections 1, 6, 9, 10, 12, 17, 18, and 19 of this report.
2. I have been involved with the Project since 2014. I have not authored a previous technical report.
3. I am a member in good standing of: Engineers and Geoscientists BC, registration No. 8352, The Society of Economic Geologists, Canada and the Association for Mineral Exploration British Columbia.
4. I am a graduate of the Provincial Institute of Mining, Haileybury, Ontario (Mining Technology, 1966).
5. I am a graduate of the Michigan Technological University, Houghton, Michigan USA (B.Sc., Geological Engineering, 1969).
6. I have practiced my profession continuously since graduation and have been involved in mineral exploration for precious and base metal deposits in Canada, USA, Mexico, El Salvador, Chile, Panama, Peru, Bolivia, Brazil, Albania, Armenia, Argentina, Australia, Fiji, New Zealand, Solomon Islands, Papua New Guinea, Ireland, Spain, Portugal, Romania, Albania, Hungary, Poland, Germany, Russia, Kazakhstan, Afghanistan, India, China, Ghana, Laos, Viet Nam, Turkey, Saudi Arabia, Morocco, Philippines and South Africa. I have extensive experience with porphyry-type copper prospects and deposits, notably the Copper Mountain, Red Chris, Gibraltar, Whiting Creek, Mt. Milligan, Southern Star, Lorraine, Kemess South, Kemess North, Pine, Casino, Prosperity, Xietongmen, Newtongmen and Pebble deposits.
7. As a result of my qualifications and experience I am a Qualified Person as defined in National Instrument 43–101.
8. I am not independent of the issuer, Amarc Resources Ltd.
9. I have visited the IKE Project several times, most recently on August 14-15, 2018, and have supervised the exploration and drilling programs from 2014 to 2018. I am very familiar with the geology, topography, physical features, access and local infrastructure.
10. I have read National Instrument 43-101, Form 43-101FI and this report has been prepared in compliance with NI 43-101 and Form 43-101FI.
11. I am not aware or any material fact or material change with respect to the subject matter of this technical report, which is not reflected in the report, the omission of which to disclose would make this report misleading.
12. I consent to the filing of the subject Technical Report with any stock exchange and any other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the subject Technical report.

Dated in Vancouver on this 11th day of June, 2020.

C. Mark Rebagliati

C. Mark Rebagliati, P. Eng.

I, ***Eric Titley***, P. Geo. do hereby certify that:

I am Senior Manager | Resource Geology for Hunter Dickinson Services Inc., at the address below.

This certificate applies to the technical report titled "Technical Report Summarizing Exploration Work on the IKE Cu-Mo-Au-Ag Project, British Columbia, Canada" that has an effective date of 29th May, 2020 (the "technical report").

I am a Professional Geoscientist registered with Engineers and Geoscientists British Columbia (EGBC) in the province of British Columbia, Canada. I graduated from the University of Waterloo, Waterloo, Ontario, Canada with a Bachelor of Science degree in Earth Sciences (geography minor) in 1980.

I have practiced my profession continuously since 1980 on projects in North America, Africa, Asia, South America, Europe and Australia. I have been directly involved in providing geological and technical assistance to mineral exploration, mineral development and mining projects, and in the development of resource models and in resource estimation on mineral projects.

I am a Qualified Person as defined in National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101) because of my experience and qualifications.

I am a co-author of the report entitled "Technical Report Summarizing Exploration Work on the IKE Cu-Mo-Au-Ag Project, British Columbia, Canada".

I am responsible for Section 11 and jointly responsible for Sections 1, 6, 9, 10, 12, 17, 18, and 19 of the Technical Report.

The Technical Report is based on my knowledge of the Project area and drilling database included in the Technical Report, and on review of published and unpublished information on the property and surrounding areas. I have not conducted a site visit.

I am not independent of Amarc and affiliated companies applying the tests in section 1.5 of National Instrument 43-101.

I have had prior involvement with the Project in the compilation of historical work and the Amarc drilling database.

I have read National Instrument 43-101. The sections of the Technical Report that I am responsible for have been prepared in compliance with that Instrument.

I consent to the filing of the Technical Report with any Canadian stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their website accessible by the public, of the Technical Report.

As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the technical report that I am responsible for preparing contain all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated this 11th day of June, 2020.

Eric Titley
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