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TECHNICAL REPORT ON THE UPDATED MINERAL RESOURCE ESTIMATE FOR THE NEWTON PROJECT, CENTRAL BRITISH COLUMBIA, CANADA

NI 43-101 REPORT

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CONTENTS OF THE TECHNICAL REPORT

Title Page

Date and Signature Page

Table of Contents

List of Tables

List of Figures

TABLE OF CONTENTS

List of Tables

List of Figures

1. SUMMARY

Executive Summary

INTRODUCTION

RockRidge Partnership & Associates (“RockRidge”) was retained by Carlyle Commodities Corp. (“Carlyle” or the “Company”), the issuer, to prepare an independent technical report on the Newton Project (this “Technical Report”), located in south-central British Columbia, Canada (the “Newton Project”, “Newton”, the “Newton Property”, the “Project” or the “Property”).

Pursuant to the terms of a mineral property purchase agreement dated October 17, 2020, between Isaac Mining Corp. (“IMC”) and Amarc Resources Ltd. (“Amarc”), IMC agreed to purchase and the Amarc agreed to sell a 100% interest in the mineral claims which comprise the Newton Project in consideration for aggregate cash payment of $300,000 and 5,500,000 units (each, an “IMC Unit”) of IMC having a deemed value of $0.25 per IMC Unit. Each IMC Unit was comprised of one common share (each, an “IMC Share”) in the capital of IMC having a deemed value of $0.24999 per IMC Share and one non-transferable IMC Share purchase warrant (each, an “IMC Warrant”) having a deemed value of $0.00001 per IMC Warrant. In addition, Amarc was granted a 2% Net Smelter royalty (“NSR”) on the Property (the “Amarc NSR”).

Subsequent the initial acquisition of the Property by IMC, IMC entered into an amalgamation agreement dated December 16, 2020 (the “Amalgamation Agreement”) with Carlyle, and 1269597 B.C. Ltd. (“NewCo”), a wholly-owned subsidiary of Carlyle, pursuant to which Carlyle acquired on the same date thereof all of the issued and outstanding securities of IMC by way of “three-cornered” amalgamation (the “Amalgamation”). Following the acquisition of IMC by Carlyle, IMC and NewCo amalgamated to form a new corporation, which continued under the name “Isaac Newton Mining Corp.” (“INMC”). An aggregate of 20,562,100 common shares (each, a “Carlyle Share”) in the capital of Carlyle were issued to the former IMC shareholders in exchange for their respective IMC Shares and each of the 9,531,000 IMC Warrants issued and outstanding immediately prior to the effective time of the Amalgamation was cancelled and its holder received, in exchange therefor, one warrant to purchase one Share (each, a “Carlyle Warrant”) on the same terms and conditions as the cancelled IMC Warrant.

In connection with the transaction, Carlyle entered into a termination agreement (the "Termination Agreement") with Amarc and AgraFlora Organics International Inc. (formerly Newton Gold Corp.) ("AgraFlora") pursuant to which Carlyle agreed to purchase for cancellation a residual 5% net profit interest royalty (the "NPI Royalty") on the Newton Project held by AgraFlora. In consideration for the acquisition and termination of the NPI Royalty, Carlyle agreed to issue AgraFlora non-transferrable Carlyle Warrant to purchase 200,000 Carlyle Shares at an exercise price of $0.50 per Carlyle Share for a period of 3 years from the date of issuance, subject to the terms and conditions contained in the certificate representing the Carlyle Warrants.

The Newton Property consists of 62 claims comprising an area of approximately 23,003 ha. Carlyle, indirectly through INMC, holds a 100% interest of the mineral rights of the Project, subject to the Amarc NSR and an additional 2.0% NSR on certain mineral claims at the Newton Project in favour of two underlying owners, which can be purchased at any time for $2,000,000. Carlyle does not directly or indirectly hold any surface rights.

This Technical Report conforms to National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("NI 43-101"). Mr. Michael O'Brien, P.Geo., a consulting geologist with RockRidge, visited the property on June 24, 2021. During the field visit to the Property, Mr. O'Brien traversed the central portion of the deposit on foot and examined float material from rehabilitated trenches, drill collars and reviewed drill cores at Amarc's warehouse facility located at Williams Lake.

The gold-silver mineralization at Newton is associated with disseminated pyrite that is hosted primarily by a sequence of pyroclastic flows of felsic composition that have been intruded by younger dikes of intermediate composition. Prior to Carlyle acquiring the Project, Amarc conducted numerous exploration programs from 2009 to 2012 at the Newton Project to test for the presence of gold-silver mineralization in the northern extents of its large property holdings. These exploration programs include geophysical and geochemical surveying, mineralogical studies, re-logging of drill core generated from previous exploration programs, and diamond drilling. Amarc's exploration culminated in a maiden resource estimate by Roscoe, Postle and Associates ("RPA") in 2012. No further exploration work has been completed since 2012.

INTERPRETATION AND CONCLUSIONS

RockRidge believes exploration on the Newton Property to date has successfully identified a mineralized system that exhibits characteristics typical of bulk-tonnage, strata-bound, low to intermediate sulphidation epithermal gold-silver deposits. The mineralisation (disseminated gold and associated base metals) is primarily hosted by thick sequences of late Cretaceous-aged permeable felsic volcaniclastics and flows and contemporaneous felsic intrusions, emplaced into a structurally active graben environment. The host rocks show strong, widespread sericite- quartz alteration with variable siderite and several percent pyrite and/or marcasite. Additional mineralization is hosted to a lesser degree by intrusive rocks of intermediate and felsic composition. Initial studies suggest that the gold occurs predominantly as high fineness electrum and is preferentially associated with marcasite-bearing alteration.

The drilling completed to date has outlined a significant, gold-silver deposit over an area of approximately 800 m by 800 m and to a depth of approximately 560 m from surface. The deposit is coincident with a NW trending magnetic low and occupies a restricted area within an extensive, plus seven square kilometre hydrothermal system (as indicated by the outline of the 8 MV/V contour of the induced polarization (IP) chargeability anomaly) that exhibits widespread metal enrichment, and which remains to be fully explored. Drill results to date not only indicate that there is potential to expand the current bulk-tonnage gold resource but also suggest that there are possibilities to discover structurally controlled zones of higher grade gold mineralization and copper-gold porphyry-style mineralization in proximity to, or possibly genetically related to the Newton mineralized system.

RockRidge has reviewed the quality assurance/quality control (“QA/QC”) programs employed by Amarc during the most recent drilling campaigns and assaying programs and found them to meet current industry best practices. Assays from the last four drill holes completed in 2012 were not in included in the 2012 RPA estimate but have been included in the current estimate detailed in this Technical Report. A separate review of the QA/QC data from these four holes was conducted by RockRidge in additional to the review of the historical QA/QC data.

During the site visit, discrepancies were noted between collar locations in the drill hole database and the current topographic data. Although these discrepancies were not deemed to have a material impact on the mineral resource estimate, any further drilling and interpretation would benefit from a new high resolution topographic data set.

RockRidge has applied grade caps to the estimation domains that were used to prepare this Mineral Resource estimate. Review of the distribution of gold and silver grades suggested that capping is warranted.

Examination of contour plots of gold grades for selected sections and benches through the deposit reveal that a weak but discernable mineralization trend appears to be present in the data examined. A grade-block model was prepared using the modeled domains to ensure proper coding of the model. “Hard” domain boundaries were used along the contacts of the mineralized domain model. Only data contained within the respective domain models were allowed to be used to estimate the grades of the blocks within the domain in question, and only those blocks within the domain limits were allowed to receive grade estimates. Only the capped, composited grades of the drill hole intersections were used to derive an estimate of a block’s grade.

A series of domain wireframe solids were created in three dimensional modeling software that outlined those portions of the deposit that demonstrate continuity of mineralization. These three-dimensional solids were used as one of the constraints in the preparation of the Mineral Resource estimate.

A conceptual pit shell was generated using a Lerchs-Grossmann optimizer as an additional constraint in the preparation of this Mineral Resource estimate. A 50° overall pit wall slope angle was applied.

The Mineral Resources in this Technical Report were estimated in accordance with the definitions contained in the CIM Definition Standards on Mineral Resources and Mineral Reserves (CIM definitions) that were prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council on May 10, 2014.

The mineralized material for each domain was classified by RockRidge into the Inferred Mineral Resource category on the basis of the search ellipse ranges obtained from the variography study, the application of an open pit shell along with a constraining volume, and its experience with these deposit types in the past.

The Mineral Resources are presented in Table 1-1. At a cut-off grade of 0.25 g/t Au, a total of 42,396,600 tonnes are estimated to be present at an average Au equivalent grade of 0.68 g/t (861,000 contained oz Au) and (4,678,000 contained oz Ag).

Table 1-1- SUMMARY OF MINERAL RESOURCES

Resource in Optimized Pit (Inferred)		Grade			Metal Content	
Cut Off Au	**Mass t**	**Au (g/t)**	**Ag (g/t)**	**AuEQ³ (g/t)**	**Au (t. Oz)**	**Ag (t. Oz)**
0.25	42,396,600	0.63	3.43	0.68	861,400	4,678,000

Notes

1. Differences may occur in totals due to rounding.
2. CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) and CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (November 2019) were used for mineral resource estimation.
3. Metal price used are US$1900/Oz for Gold and US$25/Oz for Silver.
4. Recovery factors used are 92% for Au and 45% for Ag.
5. Prices are in US$ per Troy ounce.
6. Effective date for the Mineral Resource Update 13 June 2022.

There are no Mineral Reserves estimated for the Newton Project.

EXPLORATION POTENTIAL

Much of the large Newton sulphide-bearing alteration zone, as defined by Amarc’s 2010 IP survey, has not been thoroughly explored. For example as described in Chapter 9, the Newton gold deposit lies within a northwest trending total field magnetic low that extends approximately 500 m to the northwest beyond the deposit as defined by the densest drilling, to an area where the few exploration holes returned geologically important intersections of greater than 100 ppb (0.1 g/t) Au, such as hole 92-03 that returned 54 m grading 0.50 g/t Au including 30 m grading 0.70 g/t Au, and hole 23 that returned 39 m at 1.21 Au, indicating potential to host additional resources. In addition, to the north, mineralization in hole 12076 (see Table 10-7) has not been fully explored and in the south, the mineralized intervals in hole 12086 are indicative of resource potential in this vicinity.

There is a clear relationship between the felsic volcanoclastic units and disseminated gold mineralization at the Newton Project. Felsic volcaniclastic units mapped on surface and modeled in 3D based on historic drilling indicate that these felsic units persist at depth but have only received a limited amount of drilling. Of the widely spaced drilling completed NW of the most intensely drilled portion of the Newton Deposit 9 of the 10 drill holes completed in 1972 by Cyprus Exploration Corp. (Cyprus), intersected intervals of felsic volcaniclastic rocks. Of these 9 holes, 5 were not analyzed for gold and/or silver, and 4 were partially sampled and analyzed for gold only. At that time, Cyprus was primarily interested in the copper potential at Newton, and they did not conduct any gold analyses. Of the partially sampled holes, drill hole 72-06 contains two higher grade intersections (79.2m to 82.2m and 222.5m to 225.6m). Of particular note is drill hole 72-03 which intersected a 211m interval of felsic volcaniclastic rock and although there are indications this interval was sampled, likely for copper, gold analyses were not conducted. In 1987, Rea Gold Corp. ("Rea Gold") resampled the 1972 drill core, but details and results of this sampling could not be found.

The main part of the Newton orebody is coincident with a NW trending magnetic low that extends from the eastern side of the resource model, approximately 1km to the northwest (Figure 25-1). The Newton deposit and felsic volcaniclastic units immediately NW of the most intensely drilled portion of the Newton Deposit are coincident with this NW trending magnetic low. RockRidge recommends that further drilling should focus on this area and consideration should be given to twinning hole 72-03 in an effort to confirm the lithology previously logged by Cyprus. The magnetic low as defined by the existing magnetic survey coverage combined with RockRidge's recent geological modeling can be used to target favourable areas for drill testing.

RECOMMENDATIONS

RockRidge recommends a two phased approach to add additional diamond drilling proximal to the Newton resource aimed at:

- Increasing the currently delineated gold-silver resource by improving the grade definition and upgrading the resource classification by utilizing infill drilling.
- Exploring for additional targets within the known plus seven square kilometre hydrothermal system.

Prior to commencing the recommended Phase 1 drilling, the following actions are recommended.

- A full audit of the database is recommended in the next stage of the project.
- The boxes of core surviving from the previous campaigns should be marked clearly while the existing markings are still legible, decayed boxes and lids should be replaced and the storage and security of the cores should be improved (e.g., consolidate the cores at one site).
- Acquisition of a detailed current digital terrain model to better define the topography is recommended.
- Other mapped felsic volcanic occurrences surrounding the focus area should be fully evaluated either on surface or by drilling, particularly NW of the footprint of the current

resource model where felsic units have been mapped on surface and coincident with the NW trending magnetic low. Much of the area NW of the Newton Deposit has yet to receive an equivalent level of drilling as the main resource area.

- The claim map covers a large area and potential early-stage target opportunities elsewhere on the property is probable. Geological features similar to those modeled and interpreted in the focus area might suggest more of the same depositional environments may exist. A property scale compilation of all available geological, geophysical and geochemical data would facilitate the identification other potential target areas within the Property boundary and outside of the Newton Deposit footprint.

A Phase 1 delineation and exploration diamond drill program comprising an approximately 4,000 m drill program is recommended to test:

- The high-contrast magnetic low that extends to the northwest of the currently delineated deposit in the vicinity
- The area south and southwest of drill hole 12086. This target is located south and west of both the current resource and the South Graben fault; this area has potential for repetition of the favourable, felsic volcanic strata which host gold mineralization immediately to the north.
- RockRidge recommends the QA/QC protocols previously recommended by RPA in 2012 for the Newton Project in relation to future drilling so that sampling programs include certified reference materials for silver and, in accordance with established protocols, the results be monitored for departures from the recommended values with respect to the silver standards.

A budget of $1,200,000 is estimated for the Phase 1 program and is presented in Table 1-2 below.

Table 1-2 – PROPOSED PHASE 1 BUDGET

Item	C$
4000 metres core drilling ($250/m all-In site and analytical costs)	$1,000,000.00
Detailed Topography	$40,000.00
Drill core recovery and rehabilitation	$15,000.00
Database audit, compilation and target generation	$10,000.00
Permitting/Community Relations/Environmental Studies	$35,000.00
General and Administration	$100,000.00
TOTAL	**$1,200,000.00**

A follow-up Phase 2 program is suggested, which is contingent on the success of the Phase 1 program. A Phase 2 budget of up to $2,400,000 is recommended and the associated program would consist of:

- Infill diamond drilling to further delineate potentially economic mineralization identified in the Phase 1 program.
- Drill testing areas within or immediately adjacent to the significant plus seven square kilometre hydrothermal system as outlined by the 8MV/V contour of the IP chargeability anomaly where felsic volcanic units are projected, or have the potential, to occur.
- Additional detailed structural modelling completed within and proximal to the currently defined resource to assess the potential presence, and projected location, of zones of high-density veins and/or mineralized fractures. Such zones have the potential to host higher-grade, structurally controlled mineralization that would increase the tenor of the resource. As part of this exercise, detailed three-dimensional modelling of vein and fracture density is recommended to develop possible vectors toward prospective structural settings. Resulting targets should then be tested by diamond drill holes oriented appropriately to the projected plane of the controlling structures.
- Preliminary metallurgical test work carried out to provide initial information regarding the hardness of the mineralized samples, and an initial evaluation of recovery methods.

Technical Summary

PROPERTY DESCRIPTION AND LOCATION

The Newton Property is located approximately 108 km west-southwest of Williams Lake, British Columbia and is road accessible via paved Highway 20 and all- weather forest service roads. Total driving time from Williams Lake to the Newton Property is approximately 2.5 hours.

The Property consists of 62 claims comprising an area of approximately 23,003 ha. Carlyle indirectly holds a 100% interest in the mineral rights of the Project through its wholly-owned subsidiary INMC and does not hold any surface rights. The entire Project is subject to the Amarc NSR and certain claims are subject to an additional 2.0% NSR in favour of two underlying owners. British Columbia mining law allows for access and use of the surface for exploration through notification of surface rights holders. The Project is situated within the asserted traditional territory of the Tsilhqot'in National Government.

LAND TENURE

In October 2020, IMC, a predecessor to INMC, acquired a 100% interest in the mineral claims which comprise the Newton Project pursuant to the terms of a mineral property purchase agreement dated October 17, 2020, between IMC and Amarc in consideration for aggregate cash payment of $300,000 and 5,500,000 IMC Units having a deemed value of $0.25 per IMC Unit. Each IMC Unit was comprised of one IMC Share having a deemed value of $0.24999 per IMC Share and one non-transferable IMC Warrant having a deemed value of $0.00001 per IMC Warrant. In addition, Amarc was granted the Amarc NSR. There is also an additional 2.0% NSR on certain mineral claims at the Newton Project in favour of two underlying owners, which can be purchased at any time for $2,000,000.

Subsequent the initial acquisition of the Newton Project by IMC, IMC entered into the Amalgamation Agreement with Carlyle and NewCo, pursuant to which Carlyle acquired on the same date thereof all of the issued and outstanding securities of IMC by way of "three-cornered" amalgamation. Following the acquisition of IMC by Carlyle, IMC and NewCo amalgamated to form INMC. An aggregate of 20,562,100 Carlyle Shares at a deemed price of $0.25 per Carlyle Share were issued to the former IMC shareholders in exchange for their respective IMC Shares and each of the 9,531,000 IMC Warrants issued and outstanding immediately prior to the effective time of the Amalgamation was cancelled and its holder received, in exchange therefor, one Carlyle Warrant on the same terms and conditions as the cancelled IMC Warrant.

In connection with the transaction, Carlyle entered into the Termination Agreement with Amarc and AgraFlora pursuant to which Carlyle agreed to purchase for cancellation the NPI Royalty held by AgraFlora. In consideration for the acquisition and termination of the NPI Royalty, Carlyle agreed to issue AgraFlora 200,000 non-transferrable Carlyle Warrants each exercisable into one Carlyle Share at an exercise price of $0.50 per Carlyle Share for a period of 3 years from the date of issuance.

HISTORY

The earliest known work on the Property occurred in 1916 when Mr. Newton produced a quantity of gold from a small shaft and some open cuts. The first documented work at Newton Hill was by Cyprus, which executed an exploration program in 1972, followed by a number of additional exploration programs by various operators from 1981 to 1997. No further exploration work was reported until High Ridge Resources Inc. (“High Ridge”) acquired the Property in 2004. From 2004 to 2006, High Ridge conducted a re-assessment of the 1972 IP geophysical data, a ground geological investigation, a total field ground magnetic survey and completed 12 diamond drill holes totaling 2,019.5 m in 2006.

In 2009, Amarc acquired the Newton Project and completed several exploration campaigns between 2009 and 2012. Exploration work completed by Amarc included airborne and ground-based geophysical surveys, soil sampling mineralogical analysis, and hyperspectral logging. In addition, Amarc re-logged core from 12 drill holes completed in 2006. During their tenure on the Project, Amarc completed 27,944 metres of core drilling in 89 holes which culminated in a maiden mineral resource estimate completed on Amarc’s behalf by RPA in 2012.

GEOLOGY

The most recent British Columbia Geological Survey regional geology compilation shows that rocks on the Newton Property include Mesozoic-aged intrusive, volcanic, and sedimentary rocks of the Spences Bridge Group overlain by Cenozoic volcanic rocks and unconsolidated glacial till. More recently, it has been suggested that Mid- to Late Cretaceous calc-alkaline volcanism characterized by felsic pyroclastic units of the Kasalka Group and mafic to felsic flows and welded and non-welded ignimbrites of the Spences Bridge and Kingsvale Groups are contemporaneous and represent a chain of stratovolcanoes associated with subsiding, fault-bounded basins.

Stratified rocks at Newton Hill have been assigned provisionally to the Cretaceous Spences Bridge Group and consist of mafic volcanic rocks, sedimentary rocks derived from mafic to intermediate volcanic protoliths, rhyolite flows, and felsic volcaniclastic rocks. These rock types are believed to have been deposited in a graben. The sequence is dominated by felsic volcanic and volcano-sedimentary rocks that unconformably overlie epiclastic sedimentary rocks.

The volcano-sedimentary sequence at Newton Hill is cut by several types of intrusions. The oldest are sub-volcanic felsic quartz-feldspar porphyries that have a quartz monzonite composition and are interpreted to be directly related to the felsic volcanic rocks in the Spences Bridge Group. Minor mafic dykes present in the area are considered to be related to mafic volcanic rocks in the Spences Bridge Group. The early intrusions are cut by a complex of Cretaceous monzonite intrusions. These monzonites are intruded in turn by porphyritic plagioclase-hornblende diorites. The youngest intrusions observed are minor plagioclase- and biotite-phyric dykes which are believed to have formed after hydrothermal activity had ceased.

The Newton deposit is believed to have been formed within a structurally active volcanic environment. Felsic and mafic volcanic rocks were deposited in a rifted volcanic graben which was segmented along steeply dipping extensional faults. Two major structures have been recognized in the resource area. The South Graben fault ("SGF") and the Newton Hill fault ("NHF") can be correlated across much of the area of drilling within the Newton deposit.

Although gold and base metal mineralization have been encountered in all rock types within the Newton deposit, felsic volcaniclastic and flow rocks are the primary host rocks to the mineralization. Quartz-feldspar porphyry and monzonite porphyry intrusions are also commonly, although not as consistently, well-mineralized. Mineralization in other rock types is more erratic. The felsic plagioclase and biotite porphyritic dykes are very late- or post- hydrothermal and do not contain significant concentrations of gold or base metals.

MINERALIZATION

Gold-silver ± base metal mineralization is associated with both disseminated and veinlet- hosted styles of mineralization. Veinlet-hosted mineralization, although widespread, is volumetrically minor compared to disseminated mineralization.

Most mineralization formed during two sub-stages of quartz-sericite alteration. These are (1) earliest quartz-sericite-(siderite)-pyrite alteration associated with gold but with low concentrations of base metals; and (2) later quartz-sericite alteration associated with gold and relatively higher concentrations of base metals, during which early pyrite was replaced by marcasite.

Mineralization also occurs in late polymetallic veinlets which contain abundant pyrite, chalcopyrite, sphalerite, galena, arsenopyrite, and, locally, molybdenite.

There is evidence to suggest that there is a large gold-bearing hydrothermal system present at Newton. Geochemically significant gold concentrations, exceeding 50 ppb (0.05 g/t) values occur over an area of at least 1,300 m by 1,800 m. Geologically important gold concentrations of more than 100 ppb (0.1 g/t) have been returned from drill intersections throughout an area which measures approximately 1,300 by 900 meters. Short intersections of more than 100 ppb have also been encountered outside of this area. The resource area is defined by variably spaced drilling over an area measuring 1,000 m by 900 m, which extends to a maximum depth of 685 m.

DEPOSIT TYPES

Newton is viewed as a bulk-tonnage disseminated epithermal gold deposit with elevated base metal concentration. It shares many similarities with a group of deposits that have been recently recognized in central British Columbia. Key similarities include: (1) a spatial and genetic relationship with Late Cretaceous (~72 Ma) felsic pyroclastic rocks and high-level intrusions which formed in a structurally active environment; (2) a primary gold-silver signature; (3) elevated concentrations of copper, zinc, lead, and molybdenum; (4) an association of mineralization with extensive, pervasive quartz-sericite alteration, which contains disseminated and vein-hosted pyrite, marcasite, chalcopyrite, sphalerite, galena, arsenopyrite, and sulphosalts; and (5) late stages of polymetallic vein formation.

EXPLORATION

Carlyle has not conducted any exploration work on the Newton Property since acquisition of the project in December of 2020.

DRILLING

Carlyle has not conducted any drilling on the Newton Property since acquisition in December of 2020 and no drilling has been completed on the property since 2012.

A number of historic drill campaigns have taken place on the Newton Property since the first hole was completed in 1972 to the last drilling program completed by Amarc in 2012. Assays from the final three drill holes (12086-12088) and the bottom portion of a fourth drill hole (120885) were received after the cut off date for the 2012 mineral resource estimate and were therefore not including in the 2012 RPA estimate. In total, 33,707 m of core drilling has been completed in 128 holes up to hole 12088. This work includes 27,944 metres in 89 holes completed during the four years Amarc was the project operator from 2009 to 2012. All drill core from the historical programs were originally stored at the Newton Project site. In early 2011, Amarc salvaged what remained of this historical core and moved it to a secure location at Gibraltar Mine, near McLeese Lake, British Columbia. Currently all of the historic drill core resides at a partially fenced industrial facility controlled by Mueller Electrical in Williams Lake.

SAMPLE PREPARATION, ANALYSES, AND SECURITY

Carlyle has not conducted any sampling since acquisition of the Newton Property in December of 2020. Although no drilling has been completed on the Newton Property since the maiden resource estimate completed in 2012, complete assays from the last four holes completed in 2012 were received after the data cut off date and a decision was made by Amarc to proceed with the estimate without including these assays. The updated mineral resource estimate presented in this technical report includes the assays that were excluded from the 2012 RPA estimate.

Prior to acquisition of the Newton Property by Carlyle, previous operators utilized a number of analytical laboratories to carry out analytical work on samples from the property. During their time as the most recent operator, Amarc utilized Acme Analytical facilities in Vancouver as the primary laboratory and ALS Chemex for check analyses.

The half-core samples were crushed at Acme (Vancouver or Smithers) to greater than 80% passing 10 mesh (2 mm), then a 500 g sub-sample was split and pulverized to >85% passing 200 mesh (75 µm). Prior to hole 11045, a 250 g sub-sample was split and pulverized to >85% passing 200 mesh. The coarse rejects and pulps from the assay samples are retained at the secure, long-term storage facility of Hunter Dickinson Services Inc. (“HDSI”) at Port Kells, British Columbia. The gold content was determined by 30 g fire assay fusion with Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP-AES) finish (Acme method code: 3B01). The concentrations of copper, silver, and 32 additional elements were analyzed using a 1.0 g sample aqua regia digestion with ICP-AES or Inductively Coupled Plasma - Mass Spectroscopy finish (Acme method code: 7AX).

Amarc implemented and maintained an effective external QA/QC system consistent with industry best practice from 2009 to 2012. This program is in addition to the QA/QC procedures used internally by the analytical laboratories. Standards (Certified Reference Materials) were randomly inserted into the sample stream at a frequency of 1 in 20. Duplicate samples were created by taking an additional split from the remaining pulp reject, coarse reject quarter-core or half-core remainder at a frequency of 1 in 20 on a random basis. Blank samples were inserted into the sample stream at a frequency of 1%.

A total of 1,494 bulk density (or specific gravity, SG) measurements have been taken by site personnel using the water immersion method since 2010. Drill hole logs are entered into notebook computers running the Amarc Access data entry module for the Newton Project at the core logging area on site. The core logging computers are synchronized on a daily basis with the master site entry database at the site geology office. Core photographs are also transferred to the site geology office computer on a daily basis. In the geology office, the logs are printed, reviewed, and validated and initial corrections made.

DATA VERIFICATION

RockRidge conducted a thorough review of the documented historic data collection procedures. In particular, RockRidge's review focused on data verification and validation procedures described in the 2012 RPA report that were implemented during the most recent drilling completed from 2009 to 2012 on behalf of Amarc by Hunter Dickinson Inc. ("HDI") exploration staff. Based on this review, RockRidge found the QA/QC programs employed by Amarc and HDI exploration staff during the drilling and assaying programs meet current industry best practices.

During its site visit, RockRidge's associate consultant Mike O'Brien, examined the existing site access, infrastructure and visited a number of drill hole collar sites. RockRidge believes that the logging and sampling procedures used by Amarc and HDI have been carried out to industry standards adequate for the estimation of mineral resources. The lithologies, structure, alteration, and mineralization encountered by in selected drill holes were examined and compared with the descriptions presented in the drill hole logs. No material discrepancies were noted.

A program of check assaying was carried out by RockRidge where two complete drillholes (Hole 11045 and 11052) were check assayed during the site visit undertaken by the QP in June 2021. While a small number of check samples cannot be considered as adequate to confirm the accuracy of all of the assays contained with the Newton Project drill hole database, RockRidge is satisfied that it has independently confirmed the presence of gold in approximately similar quantities as have been reported by Amarc in the selected samples.

RockRidge carried out a program of validating the digital drill hole database by means of spot checking a selection of drill holes that intersected the mineralized material. Approximately 10% of the drill hole database was selected for validation. RockRidge discovered no material discrepancies as a result of its spot-checking of the drill hole database. As a result of its data verification activities, RockRidge believes that the drill hole database assembled by Amarc and provided by Carlyle is suitable for use in the preparation of a Mineral Resource estimate.

Mineral Resource Estimate

DESCRIPTION OF THE DATABASE

A digital database was provided to RockRidge by Carlyle in which drill hole information such as collar location, downhole survey, lithology, and assays was stored in comma delimited format. The last information entered into the drill hole database occurred on June 14, 2012. In total, the database contains information for 130 drill holes and 10,819 gold and 10,165 silver assay records.

GEOLOGICAL DOMAIN INTERPRETATION

The deposit has been reinterpreted utilising the lithological logs in the drillhole database, a surface geological map, improved software tools for 3D modeling and verified against vertical section interpretations. Although based mainly on the drilling used in the previous estimate, the new model represents a significantly improved interpretation of the distribution and controls for mineralization at Newton.

Implicit modeling using Leapfrog Geo modeling software was used to model the initial structural model. Modeling of the structure provided fault-bounded blocks which were used to compartmentalise the lithology model. Structure modeling generated eight separate fault blocks. Only three of the fault blocks (FB1, FB2 and FB6) contained significant gold grades within three large blocks of felsic volcanic rocks displaced by the west-dipping Newton Hill fault as well as some lateral displacement on the Ruby fault.

Lithological solids were then modelled in Leapfrog by flagging the drill hole information with a code used to isolate the portion of each drill hole with its distinct identifier. Time was spent refining and updating the wireframe solids to honour interpreted lithological and tectonic boundaries. A topography wireframe constructed from five metre contours was supplied and an overburden surface was modeled from drill logs. The felsic units contain almost all the significant gold and silver mineralization. Several syn- to post- mineralization dikes are present which cross-cut the three blocks of felsic volcanic material. Three domains were created in of the felsic lithological units using a grade shell (or numeric interpolant) approach with a trend parallel to the observed trend of mineralization with a nominal gold mineralization cut-off grade of 0.4 g/t. Three more domains were constructed outside of the 0.4g/t grade domains regardless of lithology.

Inspection of the geometry of lithological and mineralized units supports three dimensional palinspastic reconstructions of the Newton Hill and Ruby fault displacements. Geo-statistical examination as well as block model Interpolation was carried out in the pre-deformed positions. Interpolated blocks were transformed back to the current faulted positions. This approach assumes that deformation occurred after mineralization. Variography modelling in pre-deformed space is more likely to reflect the pre-deformed spatial uncertainty.

Using the pre-deformed model, the three fault block domains inside the 0.4g/t Au grade shells align to form a single coherent volume assumed to represent the position of the mineralization prior to faulting. The other three poorly mineralized domains located outside of the 0.4g/t Au grade shells inside fault blocks 1,2 and 6 also formed a single coherent volume after reconstruction. For estimation purposes, the two domains were coded “IN” and “OUT”. The result is two final domains that exist in un-faulted space in which gold and silver estimates could be completed before translating back to the current spatial configuration

More lithological units were modeled compared to the previous model and the volumes of the modeled lithology solids is a significant improvement on the 2012 model. The palinspastic reconstruction approach has improved the estimation process.

GRADE CAPPING

A combination of cumulative coefficient of variation plots and log probability plots were used to determine appropriate gold and silver capping values for each of the four domains. A capping value of 5.4 g/t Au was selected for the Au_IN domain, 4.5 g/t Au for the Au_OUT domain. Capping values of 55g/t and 15g/t were chosen for the Ag_IN and Ag_OUT domains respectively.

COMPOSITING METHODS

The drill hole database was coded per interpreted domain such that only data falling within the domain boundaries was composited to homogenize sample support. An analysis of the distribution of the sample lengths for the gold samples indicated that a nominal three metre core length was most appropriate in calculating the composites. This was the predominant sample length and allowed the original features of the deposit as it relates to data resolution to be incorporated into the estimate.

Target composite length of 3m was employed which permitted composite lengths to change on a hole by hole basis to ensure all data within a mineralized domain was made available to the estimate and that very short composites were eliminated without discarding data.

BULK DENSITY

A total of 1,233 density measurements were available in the Newton database. Values that were obviously erroneous were deleted from the data set. Specific gravities were estimated using an inverse distance squared estimator with an anisotropic search in a horizontal orientation. The search was sufficient to ensure a value could be estimated into each block of the project area.

TREND ANALYSIS

An analysis of the general continuity of mineralization trends in three- dimensions was carried out before experimental variograms were modeled. Radial basis function (RBF) interpolation was used to generate volumetric fields the irregularly spaced metal grade data. The RBF interpolant was created in Leapfrog software using gold grades without applying any trends. A 3 dimensional contour of gold grades at fixed grade intervals with 0.2 g/t intervals.

Slices were taken through the RBF interpolant in east-west and north-south orientations as well as horizontally. Overall, the gold values are distributed as relatively large zones bordered by faults with grades of less than 1 g/t Au that enclose areas of slightly elevated gold grades. Although poorly-defined, a major trend could be observed in all three planes with a general orientation that is roughly parallel to the Newton-Hill fault dipping at about 25º with a long axis at a strike of roughly NNW-SSE.

VARIOGRAPHY

Experimental semi-variograms were calculated and modeled for gold and silver in each reconstructed domain. One or two structure spherical models were fitted. All domains had a sufficient number of samples to create stable experimental semi-variograms. Mild anisotropy was observed for the most part and therefore directional variogram models were considered applicable for this study. The nugget values were established from downhole variograms.

BLOCK MODEL CONSTRUCTION

An orthogonal block model was constructed within each domain wireframe to cover the extents of the Newton mineralization. The block model was not rotated but a sub-blocking scheme was applied to represent the volume of each domain optimally. Selected block size was 15mX x 15mY x 3mZ to best represent the data density, deposit shape, composite length as well as to minimize blocks unsupported by data.

The metal grade estimation work involved a multi-step approach. The first step considered a search ellipsoid which was equal to the variogram range. This was doubled in size for the second step. A minimum of six composites from three different drill holes were required to estimate a block in the first step. In the second step the requirement was four composites from two drill holes.

The selection of the search radii was guided by modelled ranges from variography and was used to estimate a large portion of the blocks within the modelled area with limited extrapolation. The parameters were established by conducting repeated test resource estimates and reviewing the results as a series of plan views and sections.

“Hard” domain boundaries were used along the contacts of the un-faulted mineralized domains. Only data contained within the respective domain was allowed to be used to estimate the grades of the blocks within the domain in question, and only those blocks within the domain limits were allowed to receive grade estimates.

BLOCK MODEL VALIDATION

The resource block model was validated by completing a series of visual inspections of the interpolated block model grades versus the drill hole composite grades and by comparing block grades with composites contained within those blocks, as well as swath plots.

On average, the estimated blocks correlate well to the assay data. An acceptable degree of conditional bias is evident from the validation. Generally, at lower composite grades, the estimates are slightly higher, whereas at higher composite grades, the estimates are marginally lower, which is to be expected from an ordinary kriged estimate for this deposit type.

CUT-OFF GRADE

Given the early stage of Newton Project, no recent studies have been undertaken that have contemplated potential operating scenarios. For the purposes of this assignment, a conceptual operating scenario was developed in which mineralized material would be excavated using a conventional truck and shovel open pit mine and the material then being processed using either a conventional flotation-leach or whole ore leach circuit. This conceptual scenario will likely change as more information becomes available for this deposit. RockRidge believes that a gold price of US$1,900/oz and a silver price of US$25/oz, and a gold recovery of 92% and a silver recovery of 45%, is appropriate for use in the estimation of a cut-off grade for this project. A review of similar bulk tonnage gold deposits in the region suggests that a 0.25 g/t Au is an appropriate threshold for use in preparation of a Mineral Resource estimate.

2. INTRODUCTION

RockRidge was retained by Carlyle, the issuer, to prepare this independent Technical Report on the Newton Project, located in south-central British Columbia, Canada. The purpose of this Technical Report is to disclose the results of an updated Mineral Resource estimate for the gold-silver mineralization outlined by all drilling completed to date on the Newton Property. Gold-silver mineralization at Newton is associated with disseminated pyrite that is hosted primarily by a felsic volcanic sequence has been intruded by younger dikes of intermediate composition.

The mineral resource estimate update includes assays from the last four drill holes completed as part of Amarc's 2012 drill campaign. These assays were not received in time to be included in the last mineral resource estimate completed by RPA on behalf of Amarc in 2012.

This Technical Report conforms to NI 43-101. Mr. Michael O'Brien, P.Geo., Principal Geologist with RPA, visited the property on June 24, 2021. During the site visit, Mr. O'Brien reviewed mineralized intersections in drill core, carried out a personal inspection of selected trenches and drill hole collars, and took a small number of samples of drill core for check assaying.

Qualified persons ("QPs") for this Technical Report as defined in NI 43-101 and in compliance with Form 43-101F1 are:

- Douglas Turnbull, P.Geo., President of Lakehead Geological Services Inc.
- Michael F. O'Brien, P.Geo., principal consultant with RockRidge Partnership & Associates and an independent consultant and director of Red Pennant Communications Corp.

The source of information used by RockRidge in preparation of this Technical Report include data provided to it by Carlyle including the current drill hole data base, the 2012 resource model and previous technical reports completed by Amarc and their consultants as well as public domain information listed in detail Section 27. All measurement units used in this Technical Report are metric, and currency is expressed in Canadian dollars unless stated otherwise.

LIST OF ABBREVIATIONS

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

3. RELIANCE ON OTHER EXPERTS

This Technical Report has been prepared by RockRidge for the issuer, Carlyle. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to RockRidge at the time of preparation of this Technical Report,
- Assumptions, conditions, and qualifications as set forth in this Technical Report, and
- Data, reports, and other information supplied by Carlyle, Amarc and other third party sources, as applicable.

Descriptions of the geological setting, mineralization and exploration history of the Newton Project have been covered in detail in the technical report titled; **Technical Report on the Initial Mineral Resource Estimate for the Newton project, Central British Columbia, R. Pressacco, November 2012** ("RPA Report"). The authors have reviewed the RPA Report and references in detail and certain sections of the RPA Report have been summarized or modified herein.

For the purpose of this Technical Report, RockRidge relied on ownership information provided by Carlyle. Other than the information retrieved from the Mineral Titles on Line online database for British Columbia and summarized in Table 4-1, RockRidge has not independently researched property title or mineral rights for the Newton Project and expresses no opinion as to the ownership status of the Property.

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

4. PROPERTY DESCRIPTION AND LOCATION

Location

The Newton Property is located in west central British Columbia, in the Clinton Mining Division, on NTS map sheet 92O/13, and BCGS maps 092O.072, 073, 082 and 083. The Property is located approximately 108 km west-southwest of Williams Lake, British Columbia, at 51º 47.85’ N Latitude and 123º 37.26’ W Longitude: or UTM Zone 10 (NAD 83) at 5,738,700 m N and 457,175 m E, as shown in Figure 4-1 and Figure 4-2.

The Property is road accessible via paved Highway 20 and all-weather forest service roads. Total driving time from Williams Lake to the Newton Property is approximately 2.5 hours. Access to the Newton Property is gained from the 7000 Road, west of Alexis Creek, British Columbia.

Land Tenure

The Newton Property consists of 62 claims comprising an area of approximately 23,003 ha (Figure 4-2). As of the acquisition date of the property by Carlyle from Amarc (December 2020), all claims are now 100% indirectly held by Carlyle through its wholly-owned subsidiary INMC. The core claim, NEWTON I, was staked in 1987. The surrounding eight claims were staked in 2004 and 2005. The “NEWT”, “NEWS”, “BIG”, and “KNEW” claims were staked in 2009 and 2010. Subsequent to the last technical report completed in 2012, a significant number of the claims previously held by Amarc, southeast of the current claims, were relinquished and the total property size reduced from 128,996 ha to its current area of 23,003 ha. A complete list of the project claims, the expiration dates, and the area of each claim is contained in Table 4-1.

Table 4-1 - LIST OF CLAIMS

Tenure No.	Claim Name	Date Recorded	Expiry Date	Area (ha)
208327	NEWTON I	1987/Sep/14	2023/May/29	500.00
414743	NWT 5	2004/Oct/07	2023/May/29	375.00
507905		2005/Feb/25	2023/May/29	699.86
507914		2005/Feb/25	2023/May/29	399.65
511965	NWT 7	2005/May/02	2023/May/29	399.61
511967	NWT 8	2005/May/02	2023/May/29	299.94
514976		2005/Jun/22	2023/May/29	559.68
514979		2005/Jun/22	2023/May/29	499.92

Tenure No.	Claim Name	Date Recorded	Expiry Date	Area (ha)
514981		2005/Jun/22	2023/May/29	379.78
606674	NEWT 19	2009/Jun/26	2023/May/29	499.90
606675	NEWT 04	2009/Jun/26	2023/May/29	500.13
606676	NEWT 20	2009/Jun/26	2023/May/29	499.90
606677	NEWT 31	2009/Jun/26	2023/May/29	499.30
606678	NEWT 05	2009/Jun/26	2023/May/29	500.13
606679	NEWT 21	2009/Jun/26	2023/May/29	299.94
606680	NEWT 06	2009/Jun/26	2023/May/29	500.12
606681	NEWT 32	2009/Jun/26	2023/May/29	499.35
606682	NEWT 07	2009/Jun/26	2023/May/29	500.37
606683	NEWT 33	2009/Jun/26	2023/May/29	499.35
606684	NEWT 22	2009/Jun/26	2023/May/29	199.89
606685	NEWT 36	2009/Jun/26	2023/May/29	499.12
606686	NEWT 23	2009/Jun/26	2023/May/29	499.67
606687	NEWT 08	2009/Jun/26	2023/May/29	500.37
606688	NEWT 37	2009/Jun/26	2023/May/29	499.12
606689	NEWT 09	2009/Jun/26	2023/May/29	500.37
606690	NEWT 24	2009/Jun/26	2023/May/29	299.80
606691	NEWT 38	2009/Jun/26	2023/May/29	499.07
606692	NEWT 25	2009/Jun/26	2023/May/29	439.48
606693	NEWT 18	2009/Jun/26	2023/May/29	480.53
606694	NEWT 17	2009/Jun/26	2023/May/29	480.53
606695	NEWT 34	2009/Jun/26	2023/May/29	459.56
606696	NEWT 26	2009/Jun/26	2023/May/29	499.32
606697	NEWT 03	2009/Jun/26	2023/May/29	500.13
606698	NEWT 35	2009/Jun/26	2023/May/29	479.26
606699	NEWT 02	2009/Jun/26	2023/May/29	500.13
606700	NEWT 43	2009/Jun/26	2023/May/29	299.33
606701	NEWT 10	2009/Jun/26	2023/May/29	500.37
606702	NEWT 27	2009/Jun/26	2023/May/29	479.39
606703	NEWT 11	2009/Jun/26	2023/May/29	500.37
606704	NEWT 44	2009/Jun/26	2023/May/29	399.13
606705	NEWT 16	2009/Jun/26	2023/May/29	480.54
606706	NEWT 45	2009/Jun/26	2023/May/29	399.13
606707	NEWT 28	2009/Jun/26	2023/May/29	419.30
606708	NEWT 15	2009/Jun/26	2023/May/29	240.27
606709	NEWT 46	2009/Jun/26	2023/May/29	479.00
606710	NEWT 29	2009/Jun/26	2023/May/29	419.18
606711	NEWT 14	2009/Jun/26	2023/May/29	300.34
606712	NEWT 30	2009/Jun/26	2023/May/29	179.68
606713	NEWT 13	2009/Jun/26	2023/May/29	400.32

Tenure No.	Claim Name	Date Recorded	Expiry Date	Area (ha)
606714	NEWT 31	2009/Jun/26	2023/May/29	379.17
606715	NEWT 12	2009/Jun/26	2023/May/29	120.06
606716	NEWT 32	2009/Jun/26	2023/May/29	219.49
606717	NEWT 01	2009/Jun/26	2023/May/29	240.05
615743	NEWT47	2009/Aug/07	2023/May/29	59.94
615803	NEWT 48	2009/Aug/07	2023/May/29	20.00
615843	NEWT 49	2009/Aug/07	2023/May/29	19.99
615863	NEWT 50	2009/Aug/07	2023/May/29	39.96
616023	NEWT 51	2009/Aug/07	2023/May/29	79.92
840950	NEWS 450	2010/Dec/16	2023/May/29	19.98
840951	NEWS 451	2010/Dec/16	2023/May/29	19.99
840952	NEWS 452	2010/Dec/16	2023/May/29	19.97
840953	NEWS 453	2010/Dec/16	2023/May/29	19.95

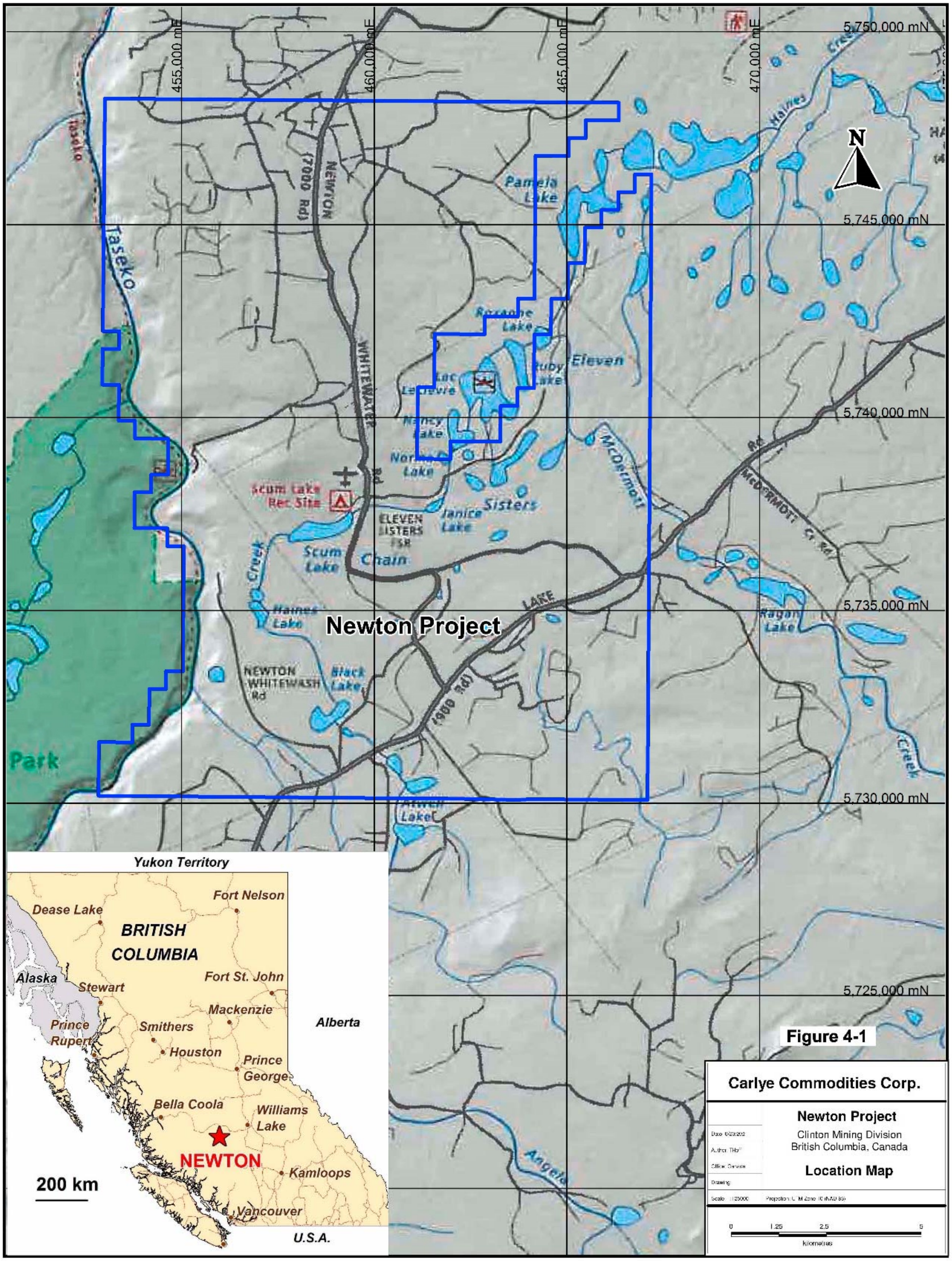


Figure 4-1 - LOCATION MAP

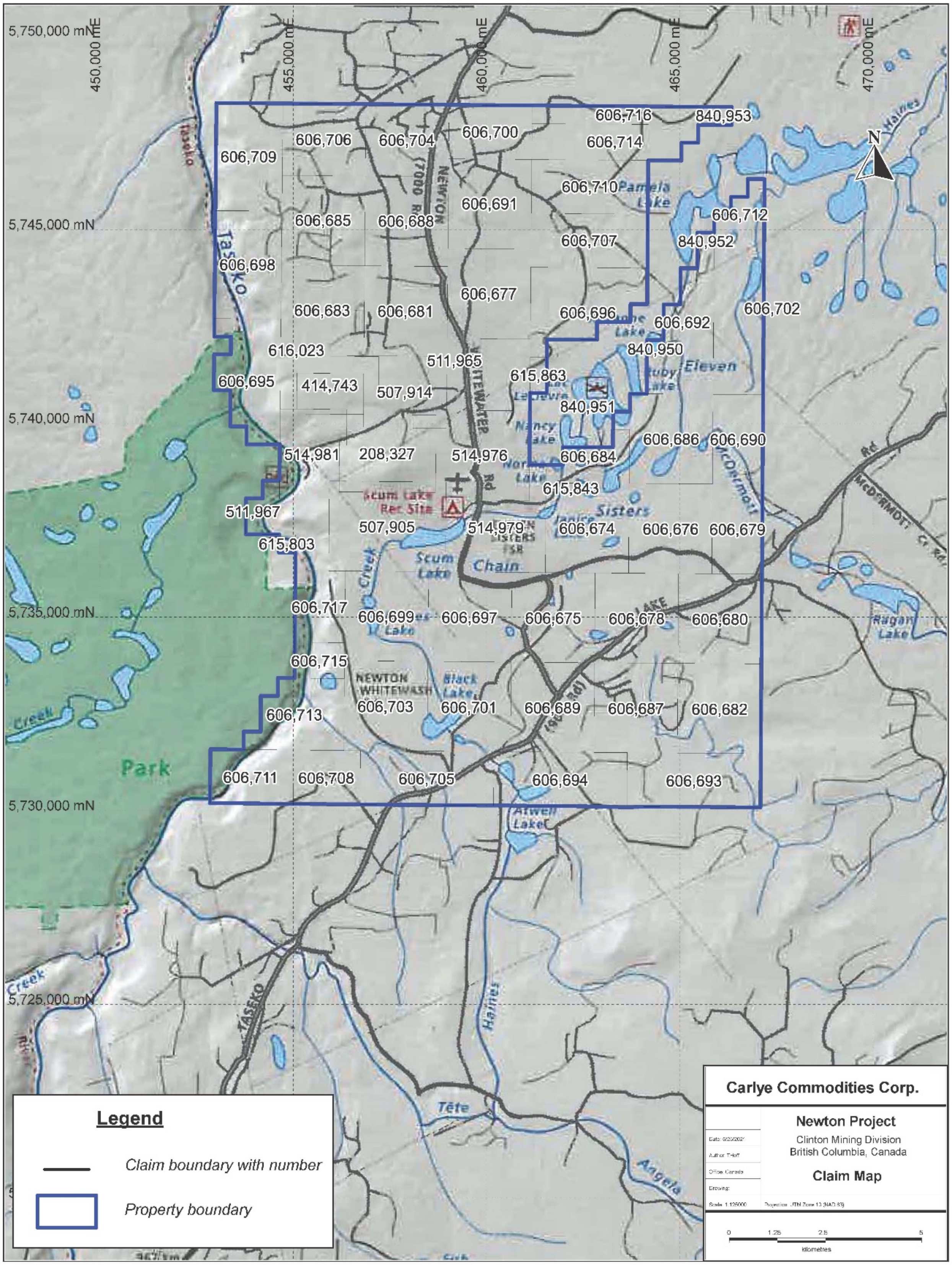


Figure 4-2 - CLAIM MAP

Nature and Extent of Issuer's Title

Carlyle holds a 100% interest of the mineral rights of the tenures listed above. To keep these claims in good standing in accordance with the *Mineral Tenure Act* (British Columbia), a minimum value of work or cash-in-lieu is required annually. These values are currently set at $5 per hectare in the first two years of holding the tenure, $10 per hectare in the third and fourth years, $15 per hectare for the fifth and sixth years, and $20 per hectare for subsequent years. Cash-in-lieu values are double the work values. The Newton claims are beyond the 6th year of their tenure and in good standing until May 29, 2023.

Carlyle does not, directly or indirectly, hold any surface rights. British Columbia mining law allows for access and use of the surface for exploration through notification of surface rights holders. There are several lots of private land on some of the claims, as shown in Figure 4-3. None of the claims are covered by placer mining claims.

The Project is situated within the asserted traditional territory of the Tsilhqot'in National Government.

Property Agreements

On December 17, 2020, Carlyle announced that it had entered into the Amalgamation Agreement dated December 16, 2020, with IMC, an arm's length private British Columbia corporation and 100% owner of the Newton Project, and NewCo, a wholly-owned subsidiary of Carlyle (see Carlyle's News Release, December 17, 2020 filed on SEDAR). Prior to this transaction, IMC acquired a 100% interest in the mineral claims which comprise the Newton Project pursuant to the terms of a mineral property purchase agreement dated October 17, 2020, between IMC and Amarc in consideration for aggregate cash payment of $300,000 and 5,500,000 IMC Units having a deemed value of $0.25 per IMC Unit. Each IMC Unit was comprised of one IMC Share having a deemed value of $0.24999 per IMC Share and one non-transferable IMC Warrant having a deemed value of $0.00001 per IMC Warrant. In addition, Amarc was granted the Amarc NSR. There is also an additional 2.0% NSR on certain mineral claims at the Newton Project in favour of two underlying owners, which can be purchased at any time for $2,000,000 (see Amarc's News Release, December 9, 2021 filed on SEDAR)

Subsequent the initial acquisition of the Newton Project by IMC, IMC entered into the Amalgamation Agreement with Carlyle and NewCo, pursuant to which Carlyle acquired on the same date thereof all of the issued and outstanding securities of IMC by way of “three-cornered” amalgamation. Accordingly, each of the IMC Shares were cancelled and, in consideration for such IMC Shares, each IMC shareholder received one Carlyle Share at a deemed price of $0.25 per Share for every IMC Share held by such shareholder. An aggregate of 20,562,100 Carlyle Shares were issued to the former IMC shareholders in exchange for their respective IMC Shares and each of the 9,531,000 IMC Warrants issued and outstanding immediately prior to the effective time of the Amalgamation was cancelled and its holder received, in exchange therefor, one Carlyle Warrant on the same terms and conditions as the cancelled IMC Warrant. The transaction resulted in Carlyle indirectly owning through INMC a 100% interest in the Newton Property. The Newton Property remained subject to the Amarc NSR as well as to the additional 2.0% NSR on certain mineral claims at the Newton Property in favour of two underlying owners, which can be purchased at any time for $2,000,000 (see Carlyle’s News Release, December 17, 2020 filed on SEDAR). See (Figure 4-1)

In connection with the transaction, Carlyle entered into the Termination Agreement with Amarc and AgraFlora pursuant to which Carlyle agreed to purchase for cancellation the NPI Royalty held by AgraFlora. In consideration for the acquisition and termination of the NPI Royalty, Carlyle agreed to issue AgraFlora 200,000 non-transferrable Carlyle Warrants each exercisable into one Carlyle Share at an exercise price of $0.50 per Carlyle Share for a period of 3 years from the date of issuance (see Carlyle News Release, December 17, 2020 filed on SEDAR).

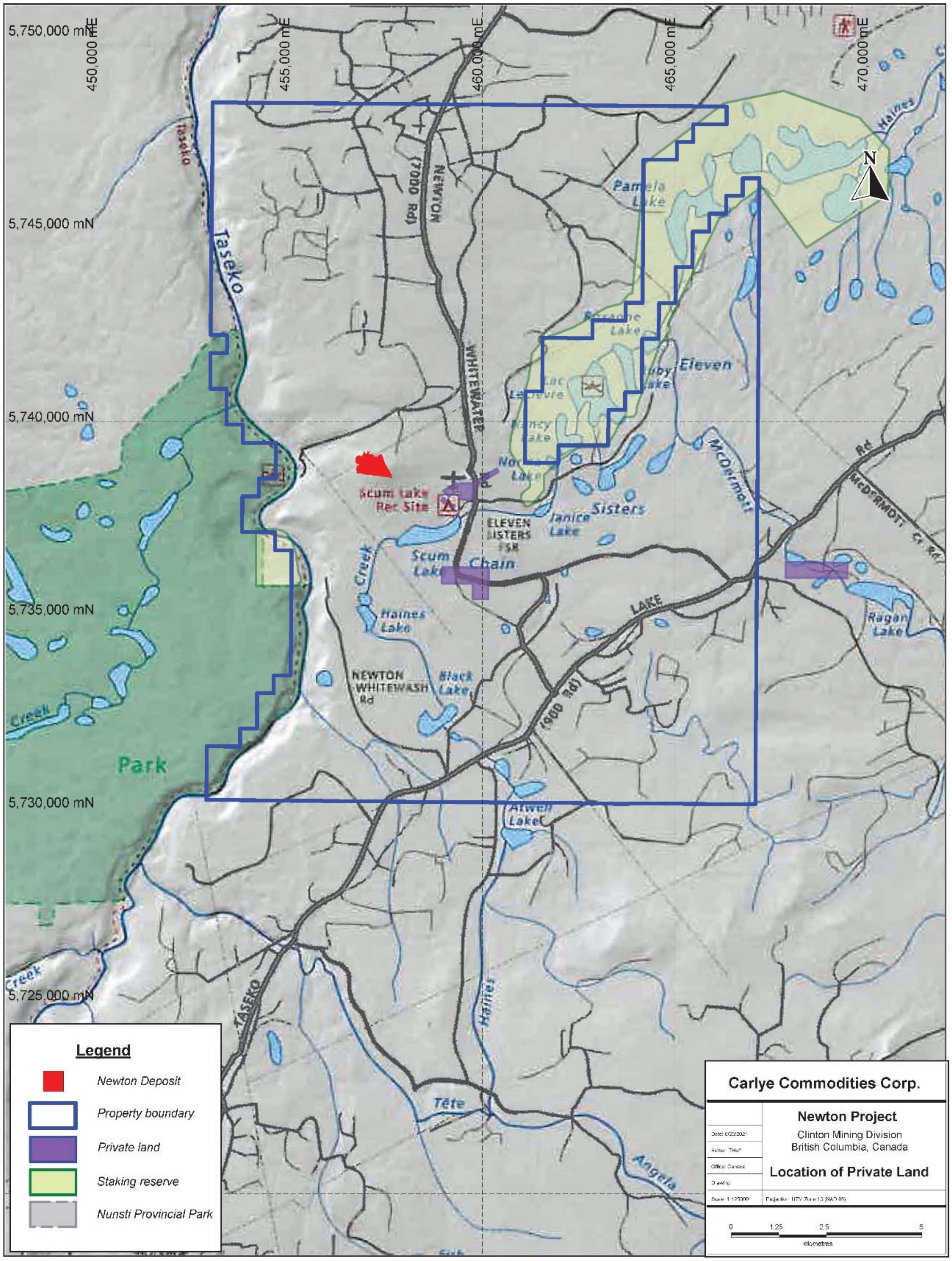


Figure 4-3 - LOCATION OF PRIVATE LAND

Permits and Environmental Liabilities

Most of the Newton mineral claims are located on Crown land (see Figure 4-3) for location of private land parcels), and the area is open to mineral exploration and development. None of the mineral claims are covered by placer mining claims. The Project is situated within the asserted traditional territory of the Tsilhqot’in National Government.

The project area is being actively logged and lies within an area of extensive beetle kill. The logging roads are extensive and in heavy use.

A permit under the *Mines Act* (British Columbia) (“Mines Act”) is required for exploration activities involving any work on a claim that disturbs the surface by any mechanical means including drilling, trenching, excavating, blasting, construction or demolishment of a camp or access, induced polarization surveys using exposed electrodes and site reclamation (e.g., drilling). The application and subsequent permit are called a “Notice of Work” (“NOW”).

A NOW for the Newton Mineral project was filed with the Chief Permitting Officer, submitted on Mar 16, 2021, and last updated on Nov 17, 2021. The application included a plan of the proposed work system (“Mine Plan”) and a program for the protection and reclamation of the surface of the land and watercourses (“Reclamation Program”), affected by the NOW.

The Mines Act, the Health, Safety and Reclamation Code for Mines in British Columbia, and this Mines Act Permit contain the requirements of the Chief Permitting Officer for the execution of the Mine Plan and Reclamation Program, including the deposit of reclamation securities. Nothing in this permit limits the authority of other government agencies to set additional requirements or to act independently under their respective authorizations and legislation.

On May 31, 2022, The British Columbia Ministry of Energy, Mines and Low Carbon Innovation issued Carlyle a Mines Act Permit (MX100000220) to carry out exploration on the Newton Property for a period of 5 years ending May 21, 2027.

The author is not aware of any environmental liabilities to which the Property is subject. There are no other significant factors or risks that the author is aware of that would affect access, title, or the ability to perform work on the Property.

To the extent of RockRidge’s knowledge, there are no environmental liabilities present on the property.

Other Factors

Carlyle has reviewed and will be adopting the previous internal protocols and continuing the ongoing work with respect to archeological studies implemented by Amarc. Amarc conducted desk-based Archeological Oversight Assessments and Preliminary Field Reviews in conjunction with local First Nations and identified restricted areas of high archeological potential around the Newton Hill area.

5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The following summary of Accessibility, Climate, Local Resources, Infrastructure and Physiography has been reviewed and modified from the RPA Report prepared by RPA in 2012.

Accessibility

The Newton Property is readily accessible by vehicle from Highway 20 and all-weather forest service roads (see Figure 4-1). Distance by road from the City of Williams Lake (population 11,000), the major business and service centre that is closest to the property, is 180 km.

Total driving time from Williams Lake to the Newton Property is approximately 2.5 hours. Access to the property is gained from the 7000 Road, west of Alexis Creek.

Local Resources Infrastructure

The district is well served by existing transportation and power infrastructure and a skilled workforce, which support a number of operating mines, as well as late-stage mineral development and exploration projects.

Physiography

The Newton Property is situated in the Chilcotin Forest District of the Southern Interior Forest Region. The region has been extensively logged and lies within an area of extensive beetle kill. The drilled area of the Newton Property is open forest populated primarily by Douglas fir with minor lodge pole pine and rare aspen.

Topography is generally flat to gentle, varying from 1,200 m at Scum Lake to 1,375 m at the top of Newton Hill. The Taseko River cuts through the western side of the claim area, along a deeply incised valley with a relief of 350 m at Newton Hill.

Climate

Temperatures in Williams Lake can average 18ºC to 22ºC in summer and -10ºC to +2ºC in winter, with maximums up to 35ºC in summer and minimums down to -30ºC in winter. Annual rainfall and snowfall in 2010 averaged 29.5 cm and 192 cm, respectively (The Weather Network Website http://www.theweathernetwork.com). The main exploration period is between mid-May and late October; however, year-round diamond drilling is possible, as water can be trucked from a local lake or river and a winterized camp can be established.

Sufficiency of Surface Rights for Mining

Carlyle does not currently hold any surface rights; however, the surface rights remain available should the project progress to more advanced stages. While the project is still at a very early stage of its history, the size and topography of the Newton Property in the vicinity of the mineralized zone is amenable to mine development.

6. HISTORY

Prior Ownership

The following summary of key ownership and history is modified from the RPA Report prepared by RPA in 2012.

The earliest known work on the Newton Property occurred in 1916 when Mr. Newton produced gold from a small shaft and some open cuts (Durfeld, 1994). No further work is reported until 1965. A detailed summary of the ownership changes since 2009 has been provided in Section 4 – *Property Agreements* of this Technical Report.

Exploration and Development History

The following summary of the exploration history of the Newton Property is taken from Assessment Report 29088 (Hantelmann, 2007). A summary of historical work is shown in Table 6-1.

Table 6-1 - EXPLORATION HISTORY

Year(s)	Owner/Operator	Work Done	Assessment Reports
1916	Mr. Newton	Shaft and open cuts	Unknown
1965	Southwest Potash (Amex)	Soils	Unknown
1971/72	Cyprus Exploration Corp.	Induced polarization, magnetometer, geology, 10 diamond drill holes (1,615 m)	Unknown
1981/82	Taseko Mines Limited	8 percussion drill holes (2,095 ft), 4 diamond drill holes (1,913 ft)	11001
1987/88	R. Durfeld, A. Schmidt	Resampled/assayed soils, rock, core	18081
1990/94	Rea Gold Corp.	Soils	20585
1989/91	Rea Gold Corp. and Verdstone Gold Corp	Geology, soils, rocks, trenching (4,048 ft), ground magnetometer, induced polarization, 5 diamond holes	22198, 23114, 23660
1996	Verdstone Gold Corp.	Minor trenching (90 m) and surveying	24724
1997	Verdstone Gold Corp.	Minor infill soils	25264
2004	High Ridge Resources Inc.	Revisited old, induced polarization data	27497
2005	High Ridge Resources Inc.	Geology, ground magnetometer, soils orientation	28011
2006	High Ridge Resources Inc.	12 diamond drill holes (2,019.5 m)	29088

Year(s)	Owner/Operator	Work Done	Assessment Reports
2009	Amarc Resources Ltd.	Re-logged all 2006 holes, 75 spectrometer analyses	31221
2009/10	Amarc Resources Ltd.	14 diamond drill holes (4,076.5m)	31636
2010/11	Amarc Resources Ltd.	29 diamond drill holes (7,646.6m)	32965
2011/12	Amarc Resources Ltd.	46 diamond drill holes (16,221.4m)	Unknown

In 1965, South-West Potash (Amex) and K. W. Livingstone reportedly performed soil surveys in the Newton area; results were not considered to be significant.

The first documented work at Newton Hill was by Cyprus which, in 1972, completed geological mapping, magnetometer, and IP geophysical surveys, followed by 1,615 m of BQ-sized diamond drilling. The IP survey delineated an elliptical chargeability anomaly encompassing a gossanous zone and identified an estimated 5% sulphide halo around Newton Hill. Results from the diamond drilling failed to identify ore grade copper mineralization. No analyses were made for gold.

Taseko Mines Limited ("Taseko") acquired what were the Ski claims in 1981. Eight percussion holes were drilled, totaling 638.6 m (2,095 ft), and another 583.1 m (1,913 ft) in four diamond drill holes were completed in 1982. Selected samples were analyzed for copper, gold, and silver; however, the results were not considered significant at that time.

R. M. Durfeld and A. J. Schmidt acquired the rights to the Newton Hill claims in 1987. A soil geochemical survey, consisting of 82 samples, and re-assaying of selected core samples from the 1972 drilling program were completed in 1988.

In 1989, in conjunction with Rea Gold, additional soil sampling was undertaken. A total of 218 soil samples were collected and analyzed for copper, gold, silver, and arsenic.

From 1990 through 1992, Rea Gold (formerly Verdstone Gold Corp.) ("Verdstone Gold") conducted geological mapping, soil sampling, trenching, and diamond drilling. In 1990, an 18.5 line-mile grid was constructed and a total of 1,153 soil samples were subsequently collected and analyzed for copper, gold, arsenic, mercury, and molybdenum. Twelve trenches, totaling 1,233.8 m (4,048 ft), were excavated and 606 rock samples were collected and analyzed.

In 1996, Verdstone Gold completed 90 m of trenching using Global Positioning System surveying. The trenches identified anomalous copper and gold values. In 1997, Verdstone Gold conducted minor soil sampling to infill gaps and to look for extensions to the previously identified copper geochemical anomalies.

High Ridge began working on the property in 2004. Part of their work involved re-assessing the 1972 IP geophysical data. In 2005, High Ridge conducted a geological investigation and a total field ground magnetic survey. In 2006, 12 diamond drill holes were completed for a total of 2,019.5 m.

Amarc acquired the Newton Property in 2009 and completed several exploration campaigns between 2009 and 2012. Exploration work completed by Amarc included airborne and ground-based geophysical surveys, soil sampling mineralogical analysis, and hyperspectral logging. Table 6-2 summarizes all of the exploration apart from drilling undertaken by Amarc at the Newton Project. The areas of the original Newton Property covered by the different types of exploration are shown in Figure 6-1.

Table 6-2 - WORK COMPLETED BY AMARC

Year	Work	Methods	Results
2010	ZTEM survey	7,114.3 line-km, with lines spaced 200 m apart. Flown by helicopter at a mean height of 155 m above the ground.	Several targets identified for IP surveys and soil sampling.
2010	Soil sampling	13,572 samples collected on 19 grids with sample spacing of 50 m.	Three copper- and molybdenum-in-soil anomalies identified for follow-up work.
2010	Induced polarization survey	248.9 line-km on 13 grids, with line spacing varying from 200 m to 700 m, depending on the grid.	Three chargeability anomalies coincident with the soil anomalies identified for follow-up drilling; including chargeability anomaly at Newton.
2011	QEMSCAN	Analysis of 19 samples to characterize mineral assemblages of two visually distinct alteration types and to establish characteristics of gold mineralization.	Discovered two mineralogically-distinct alteration types and sulphide assemblages associated with gold.
2011	Induced polarization survey	188.9 line-km on 5 grids, with line spacing varying from 500 m to 1,000 m, depending on the grid.	One chargeability anomaly identified for follow-up drilling.

Year	Work	Methods	Results
2011	Magnetic Survey	25 line-km at 50-m line spacing.	Total field magnetic low.
2012	Induced polarization survey	96.5 line-km completed on three grids.	Completed.
2012	Hyperspectral logging	Visible light spectral analysis of core.	Completed.

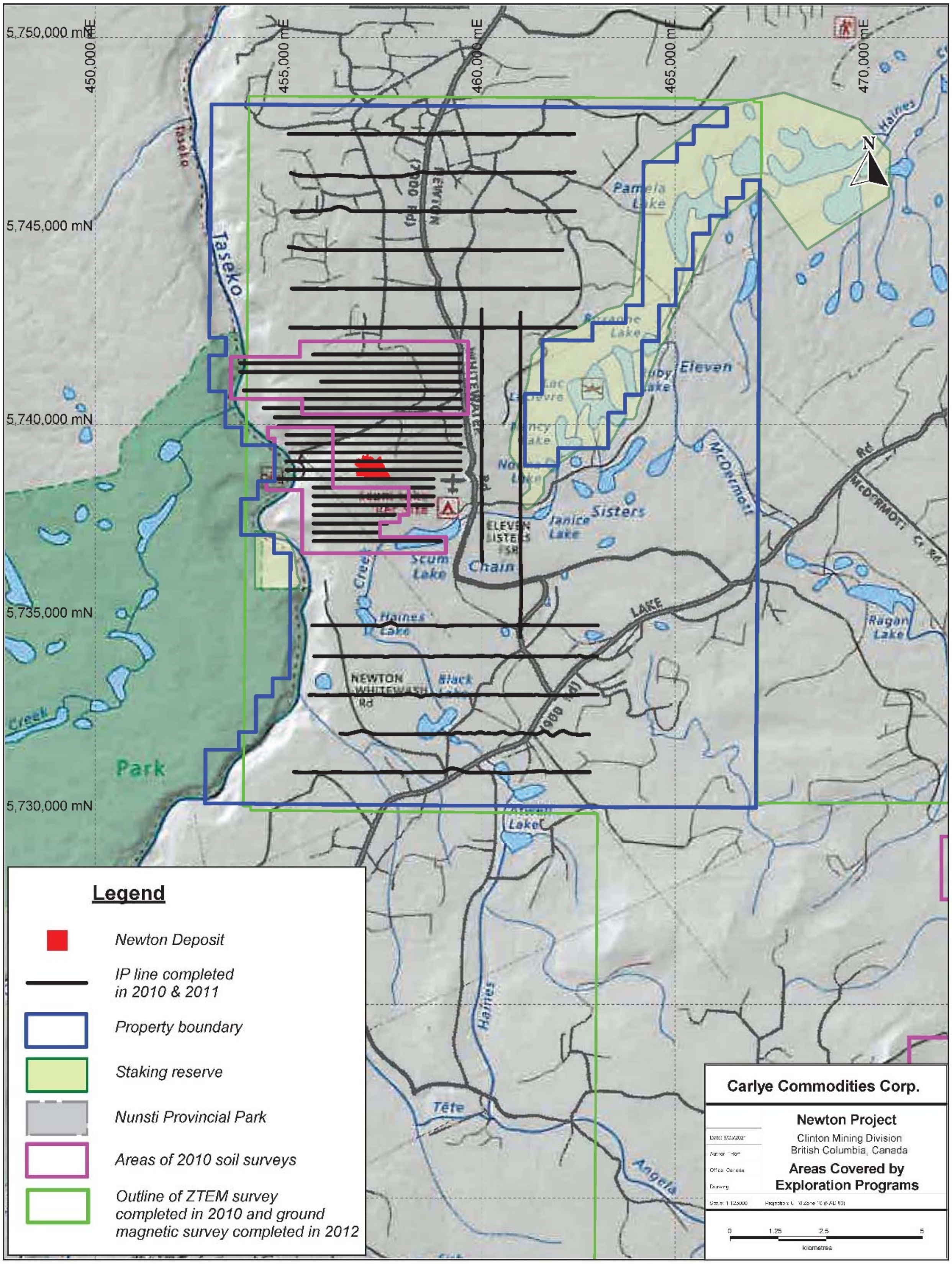


Figure 6-1 - EXPLORATION PROGRAMS

2010 INDUCED POLARIZATION SURVEY

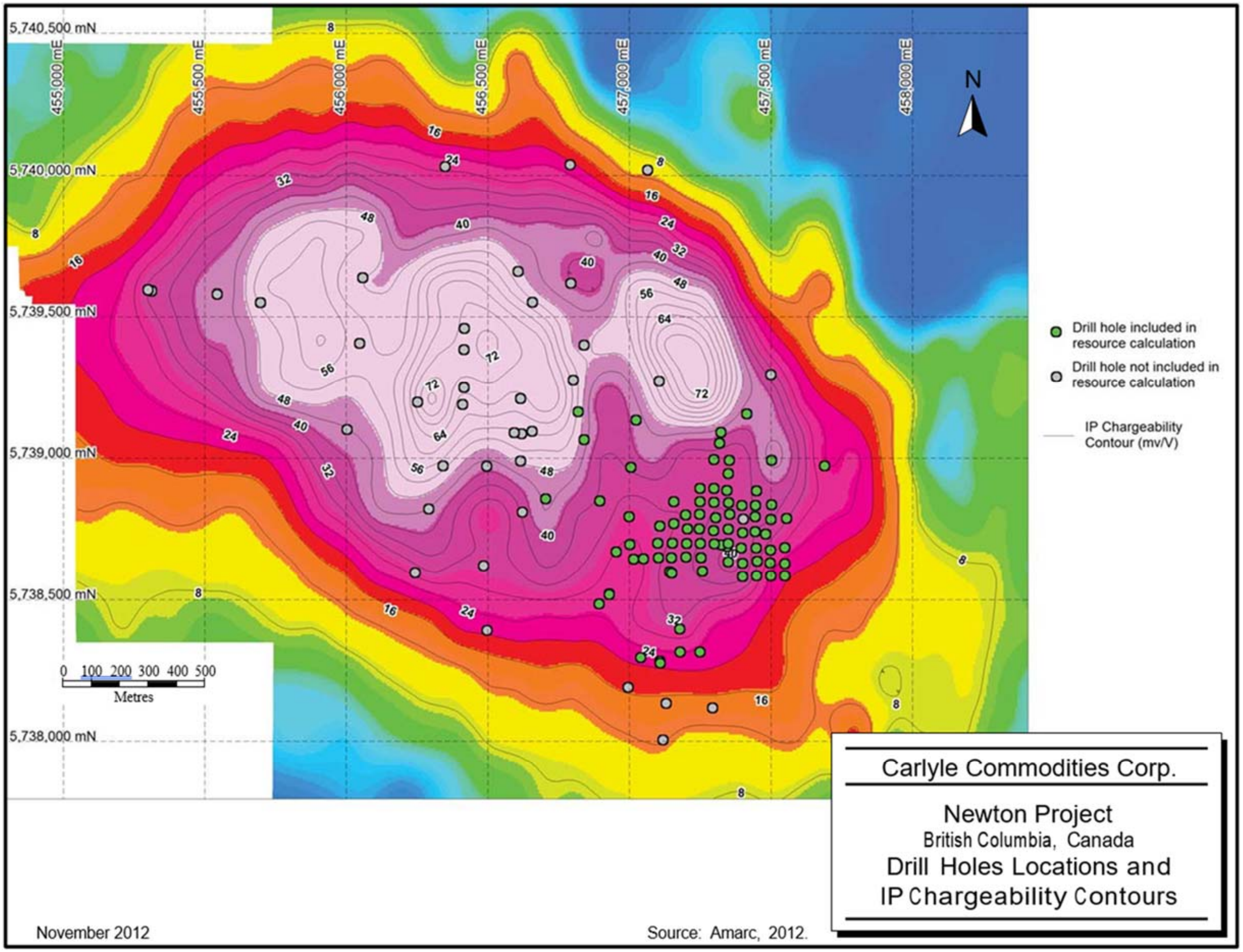
Figure 6-2 illustrates the plus seven square kilometre extent of the hydrothermal sulphide system at Newton as indicated by the 8 MV/V contour of the chargeability anomaly defined by the 2010 IP geophysical survey. The results of the survey indicate that the current Newton resource occupies only a small portion of the anomaly in the southeast sector of this significant hydrothermal system which remains to be fully explored.

The results were derived from an 85 line-km survey carried out by contractor Peter E. Walcott & Associates. Survey lines were spaced at 200 m intervals within the zone of hydrothermal alteration and peripheral lines at 400 m. The survey was conducted using a pulse type system, using the “pole-dipole” method. The principal components of the system were manufactured by Walcer Geophysics of Einskillen, Ontario, and Instrumentation GDD of St. Foy, Québec.

2012 MAGNETIC SURVEY

Figure 6-3 presents a map that shows the Total Field Magnetics and the location of drill hole collars in the Newton deposit-area. The results show that the Newton gold deposit lies within a northwest trending total field magnetic low that extends approximately 500 m to the northwest beyond the deposit, as defined by the higher density of drill holes, into an area that contains only a few, widely-spaced reconnaissance drill holes.

These results were derived from a detailed ground magnetic survey carried out in late spring of 2012 by contractor by Peter E. Walcott & Associates. The survey employed three GSM19W GPS enabled magnetometers manufactured by Gem Systems Inc. of Markham, Ontario – two rovers and one base station. The survey grid was established using real time differential GPS guidance using a series of predefined waypoints uploaded to the respective magnetometers. The survey maintained a nominal line spacing of some 50 m, using a one second sampling interval over 21 north-south orientated lines. A total of some 22 line - kilometres in the Newton deposit area were traversed. Data were subsequently downloaded daily from the respective units, base station corrected, and loaded into Oasis Montaj for subsequent processing, filtering, and final presentation.



Carlyle Commodities Corp.

Newton Project
British Columbia, Canada
Drill Holes Locations and
IP Chargeability Contours

November 2012

Source: Amarc, 2012.

Figure 6-2 - DRILL HOLE LOCATIONS AND IP CHARGEABILITY CONTOURS

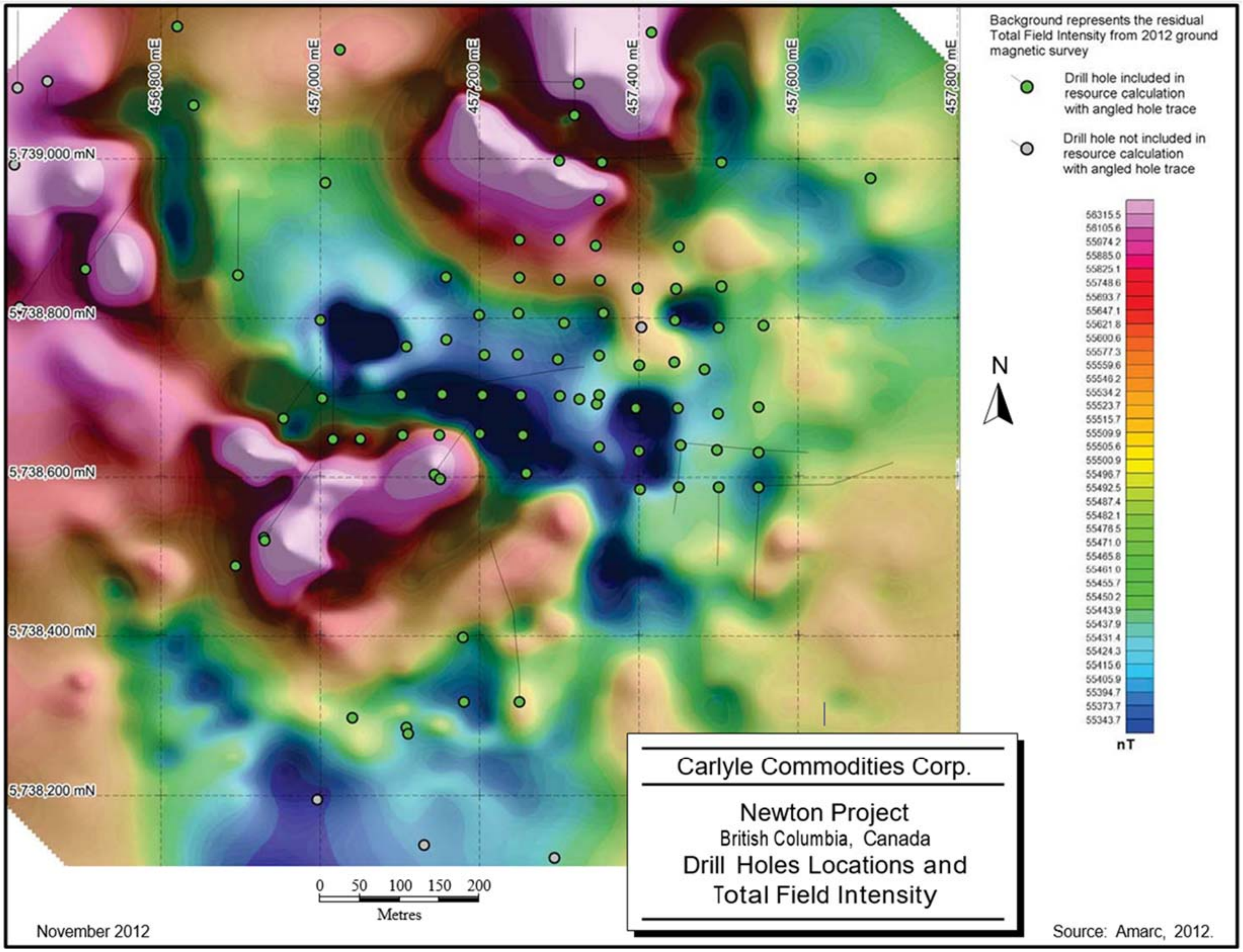


Figure 6-3 - DRILL HOLE LOCATIONS AND TOTAL FIELD INTENSITY

2009-2012 DRILLING AND CORE RE LOGGING

In 2009, Amarc re-logged core from 12 drill holes completed in 2006 by High Ridge. Seventy- five selected core samples were analyzed with shortwave infrared spectroscopy using a TerraSpec spectrometer.

Diamond drilling programs completed by Amarc included a 14-hole diamond drill program in 2009-2010 totaling 4,076.5 m of core to investigate the southeastern continuation of gold and copper mineralization encountered by drilling completed in 2006 by High Ridge; a wide-spaced, 29-hole diamond drill program in 2010-2011 totaling 7,646.6 m to investigate the extent of the gold-silver mineralization encountered by previous drilling programs across an area of seven square kilometres as well as to follow up a chargeability anomaly in the area of the Newton discovery; and a 46-hole delineation diamond drill program totaling 16,221.4 m completed in 2011-2012 to determine the grade and extent of the main gold-silver zone. At the end of the 2012 drill program, Amarc engaged RPA to complete a maiden mineral resource estimate and prepare a technical report. Although all holes completed during the 2012 drilling campaign were documented in the RPA technical report, assays from the last four holes completed did not make the data cut off date and were not included in the 2012 RPA mineral resource estimate. No further drilling has been completed on the Newton Property since Amarc's 2012 drill campaign.

Historical Mineral Resource Estimates

In 2012, RPA on behalf of Amarc completed a maiden mineral resource estimate of the Newton Deposit. At a cut-off grade of 0.25 g/t Au, RPA estimated a total of 111,460,000 tonnes at an average grade of 0.44 g/t Au and 2.1 g/t Ag (Pressacco, 2012).

Prior to the RPA mineral resource estimate, no historical mineral resource or mineral reserve estimates have been prepared for the Newton property.

Other than the historical small scale production for 1916, no further production has taken place on the Newton Property.

7. GEOLOGICAL SETTING AND MINERALIZATION

Regional Geology

The following summary of the geological setting and mineralization of the property is modified from the RPA Report prepared by RPA in 2012.

The Nechako-Chilcotin region is underlain by Mesozoic Island arc assemblages of the Stikina Terrane and is bordered to the west and east by the major Yalakom and Fraser faults, respectively. These bounding structures represent major regional tectonic events of the North American Cordillera. Post-accretionary (Stikina) Cretaceous to Early Eocene crustal-scale extension resulted in northwest-trending extensional faults with a dextral component, including the Yalakom fault and contemporaneous northeast-trending strike-slip faults. This crustal-scale extensional event was accompanied by Late Cretaceous and Eocene volcanism. To the east, the Nechako-Chilcotin region is bounded by the north- trending Fraser fault which has both normal and dextral movement components; displacement began during northwest-oriented extension in the Early Eocene to Early Oligocene (Figure 7-1).

A British Columbia Geological Survey regional geology compilation (Riddell, 2006; Figure 7-2) shows that rocks on the Newton Property include Mesozoic intrusive, volcanic, and sedimentary rocks of the Spences Bridge Group overlain by Cenozoic volcanic rocks and unconsolidated glacial till. More recently, Bordet et al. (2011) suggest that Mid- to Late-Cretaceous calc-alkaline volcanism characterized by felsic pyroclastic units of the Kasalka Group and mafic to felsic flows and welded and non-welded ignimbrites of the Spences Bridge and Kingsvale Groups are contemporaneous and represent a chain of stratovolcanoes associated with subsiding, fault-bounded basins.

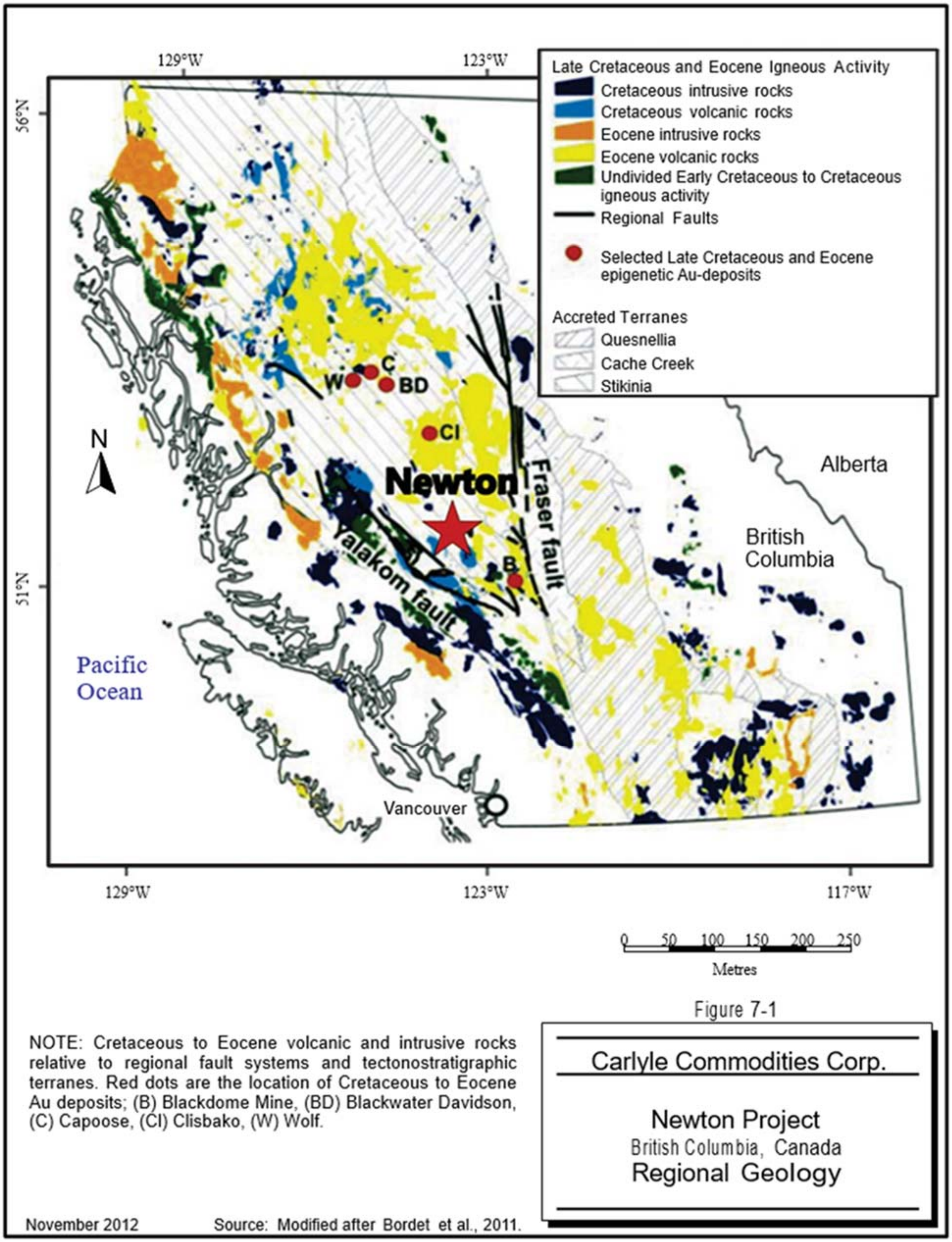


Figure 7-1

Carlyle Commodities Corp.

Newton Project
British Columbia, Canada
Regional Geology

NOTE: Cretaceous to Eocene volcanic and intrusive rocks relative to regional fault systems and tectonostratigraphic terranes. Red dots are the location of Cretaceous to Eocene Au deposits; (B) Blackdome Mine, (BD) Blackwater Davidson, (C) Capoose, (CI) Clisbako, (W) Wolf.

November 2012 Source: Modified after Bordet et al., 2011.

Figure 7-1 - REGIONAL GEOLOGY

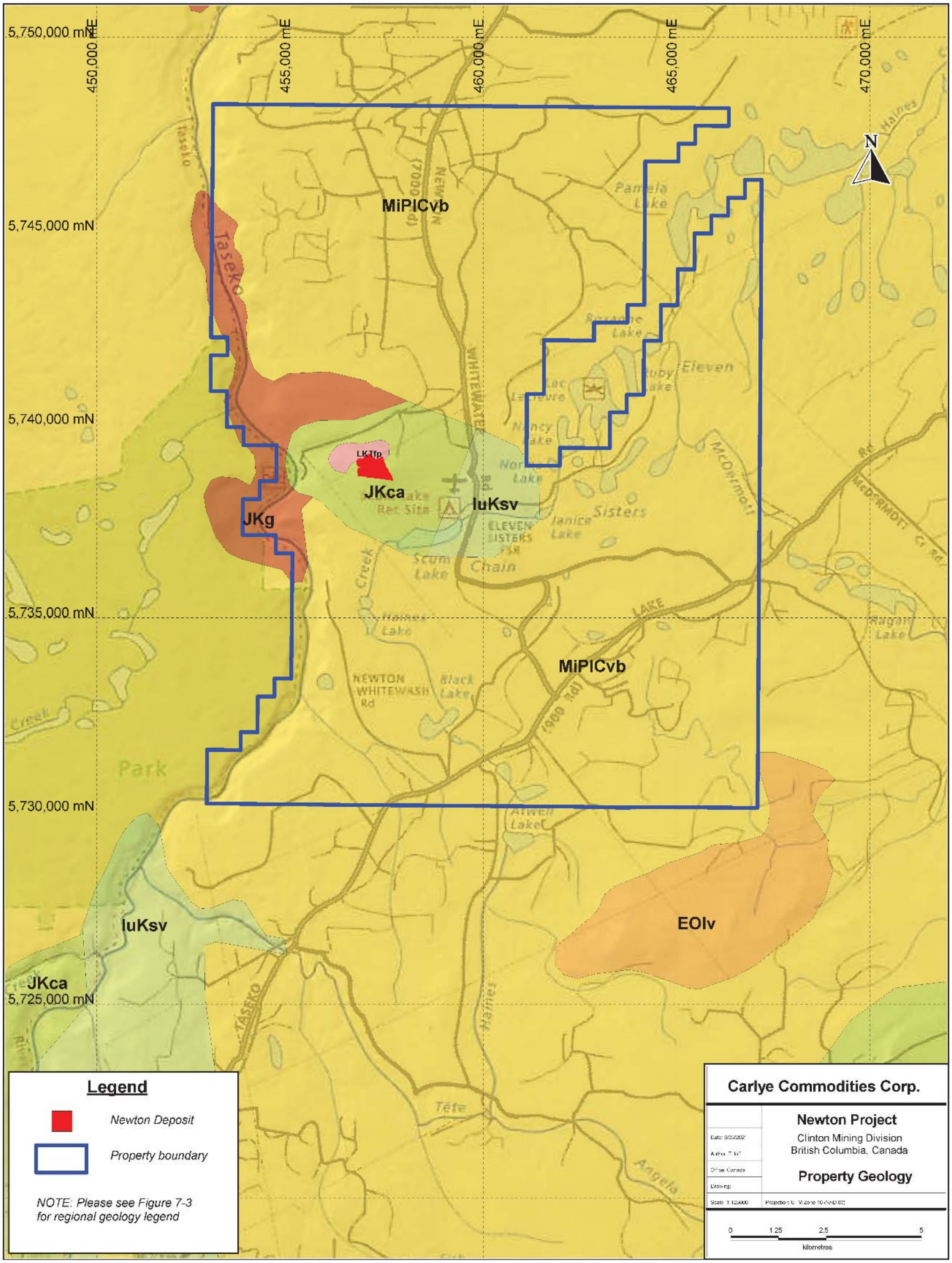
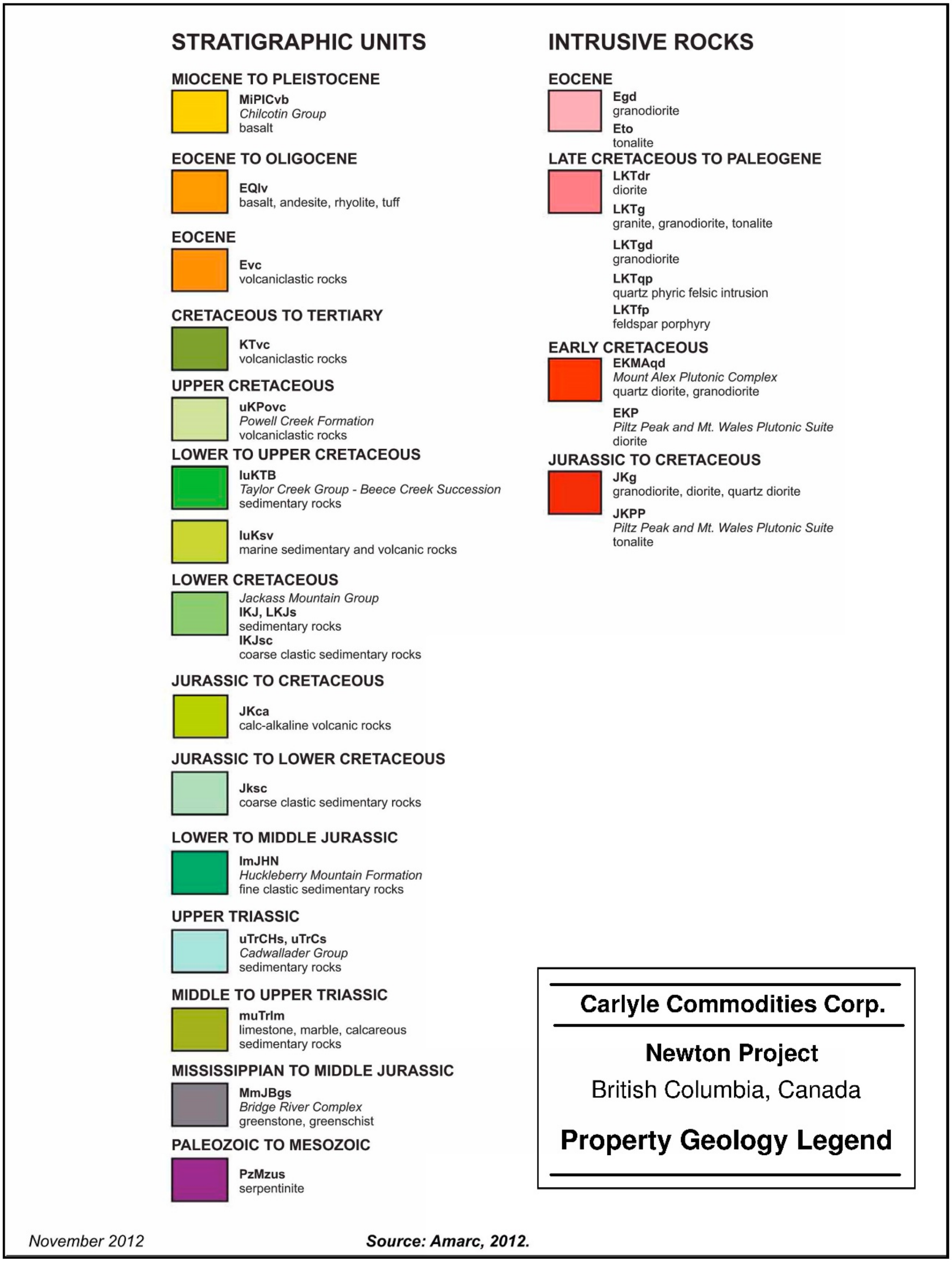


Figure 7-2 - PROPERTY GEOLOGY



STRATIGRAPHIC UNITS

MIOCENE TO PLEISTOCENE

🟨 **MiPlCvb**
Chilcotin Group
basalt

EOCENE TO OLIGOCENE

🟧 **EQlv**
basalt, andesite, rhyolite, tuff

EOCENE

🟧 **Evc**
volcaniclastic rocks

CRETACEOUS TO TERTIARY

🟩 **KTvc**
volcaniclastic rocks

UPPER CRETACEOUS

🟩 **uKPovc**
Powell Creek Formation
volcaniclastic rocks

LOWER TO UPPER CRETACEOUS

🟩 **luKTB**
Taylor Creek Group - Beece Creek Succession
sedimentary rocks

🟨 **luKsv**
marine sedimentary and volcanic rocks

LOWER CRETACEOUS

🟩 *Jackass Mountain Group*
lKJ, LKJs
sedimentary rocks
lKJsc
coarse clastic sedimentary rocks

JURASSIC TO CRETACEOUS

🟩 **JKca**
calc-alkaline volcanic rocks

JURASSIC TO LOWER CRETACEOUS

🟩 **Jksc**
coarse clastic sedimentary rocks

LOWER TO MIDDLE JURASSIC

🟩 **lmJHN**
Huckleberry Mountain Formation
fine clastic sedimentary rocks

UPPER TRIASSIC

🟦 **uTrCHs, uTrCs**
Cadwallader Group
sedimentary rocks

MIDDLE TO UPPER TRIASSIC

🟩 **muTrlm**
limestone, marble, calcareous
sedimentary rocks

MISSISSIPPIAN TO MIDDLE JURASSIC

⬛ **MmJBgs**
Bridge River Complex
greenstone, greenschist

PALEOZOIC TO MESOZOIC

🟪 **PzMzus**
serpentinite

INTRUSIVE ROCKS

EOCENE

🟥 **Egd**
granodiorite
Eto
tonalite

LATE CRETACEOUS TO PALEOGENE

🟥 **LKTdr**
diorite
LKTg
granite, granodiorite, tonalite
LKTgd
granodiorite
LKTqp
quartz phyric felsic intrusion
LKTfp
feldspar porphyry

EARLY CRETACEOUS

🟥 **EKMAqd**
Mount Alex Plutonic Complex
quartz diorite, granodiorite
EKP
Piltz Peak and Mt. Wales Plutonic Suite
diorite

JURASSIC TO CRETACEOUS

🟥 **JKg**
granodiorite, diorite, quartz diorite
JKPP
Piltz Peak and Mt. Wales Plutonic Suite
tonalite

Carlyle Commodities Corp.

Newton Project
British Columbia, Canada

Property Geology Legend

November 2012

Source: Amarc, 2012.

Figure 7-3 - GEOLOGY LEGEND

Cretaceous rock types in the region can be subdivided into three major groups (after Riddell, 2006):

1. Early to Late Cretaceous Spences Bridge Group. This group includes andesite and dacite flows, breccia, and tuff; volcano-sedimentary rocks, and minor basalts and rhyolites.
2. Jurassic-Cretaceous intrusions. These comprise granodiorite, diorite, quartz diorite, quartz monzonite, and tonalite intrusions.
3. Cretaceous feldspar porphyry. These rocks are dominated by feldspar ± biotite porphyry, felsite, and hornblende-biotite-feldspar porphyry intrusions.

Cenozoic rocks are primarily Miocene to Pleistocene basalts assigned to the Chilcotin Group. Quaternary cover consists of unconsolidated glacial till and glaciofluvial deposits.

Outcropping rock types at Newton Hill comprise volcanic and sedimentary rocks of the Early to Late Cretaceous Spences Bridge Group which may, in the vicinity of the Newton deposit, include rock types correlative with the Late Cretaceous Kasalka Group, and Late Cretaceous feldspar porphyry intrusions. Intrusions of the Jurassic to Cretaceous suite are well-exposed along the Taseko River valley to the west and northwest of Newton Hill.

Local Geology

DEPOSIT GEOLOGY

Stratified rocks at Newton Hill (Figure 7-4, Figure 7-5 and Figure 7-6) have been assigned provisionally to the Cretaceous Spences Bridge Group, bearing in mind the uncertainties in regional correlation noted above, and consist of mafic volcanic rocks, sedimentary rocks derived from mafic to intermediate volcanic protoliths, rhyolite flows, and felsic volcaniclastic rocks. These rock types are believed to have been deposited in a graben. The sequence is dominated by felsic volcanic and volcano-sedimentary rocks that unconformably overlie epiclastic sedimentary rocks (Figure 7-5 and Figure 7-6). The epiclastic rocks consist of pebble conglomerates that are interbedded with sandstone and siltstone, similar to Cretaceous Churn Creek conglomerates that have been correlated with both the Silverquick-Powell Creek Formation (Riesterer et al.,2001) and the Spences Bridge Group (Riddell, 2006).

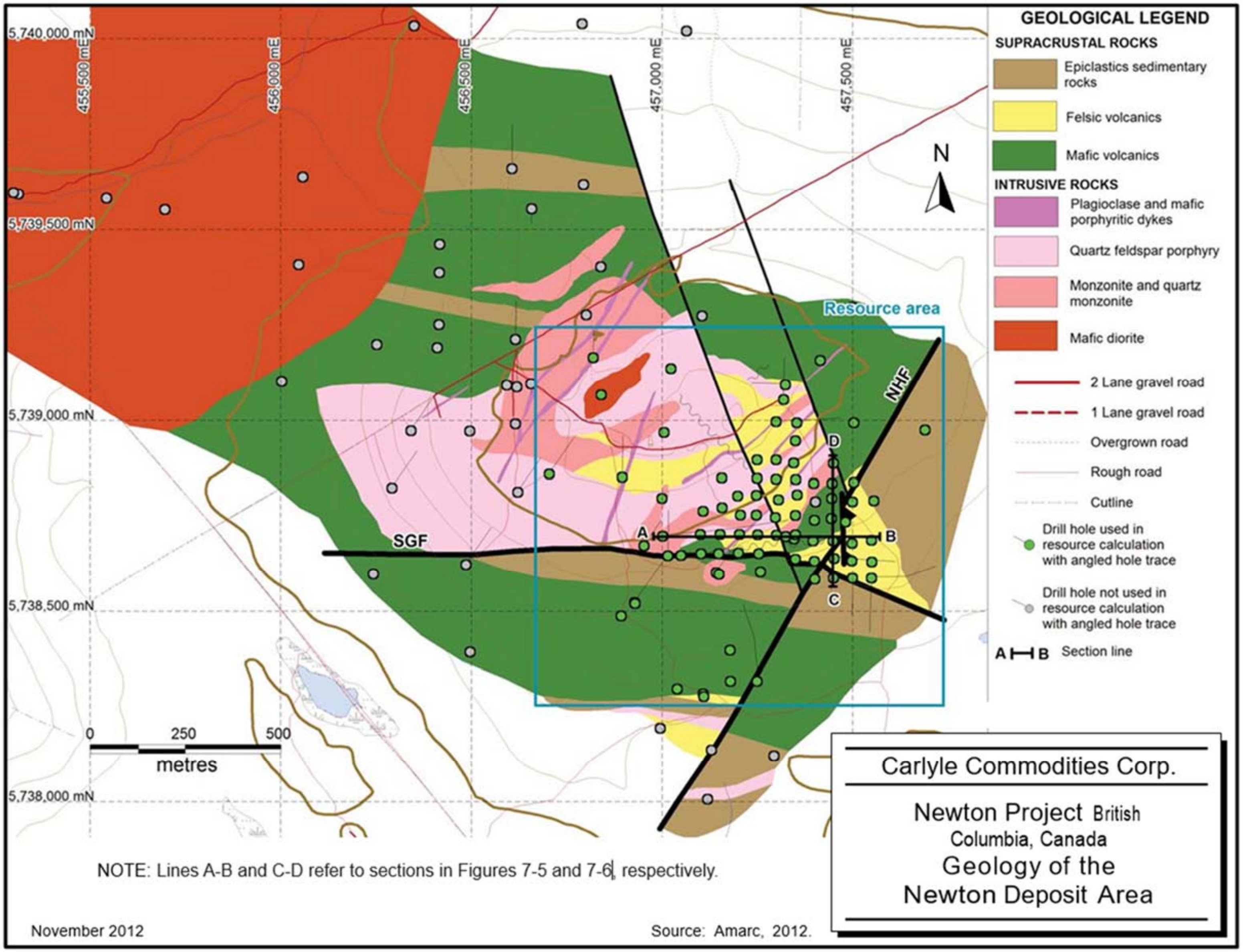
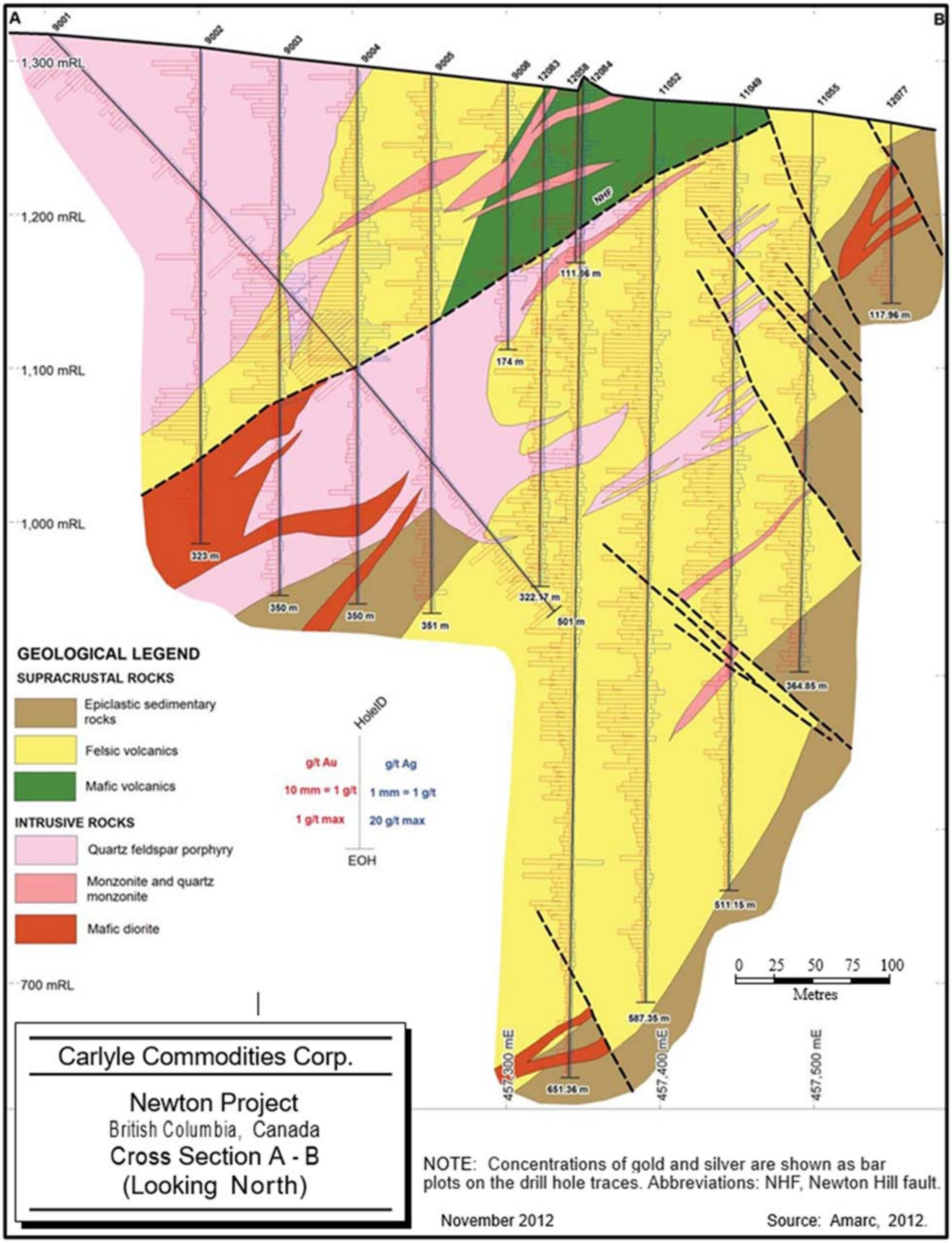


Figure 7-4 - SURFACE GEOLOGY

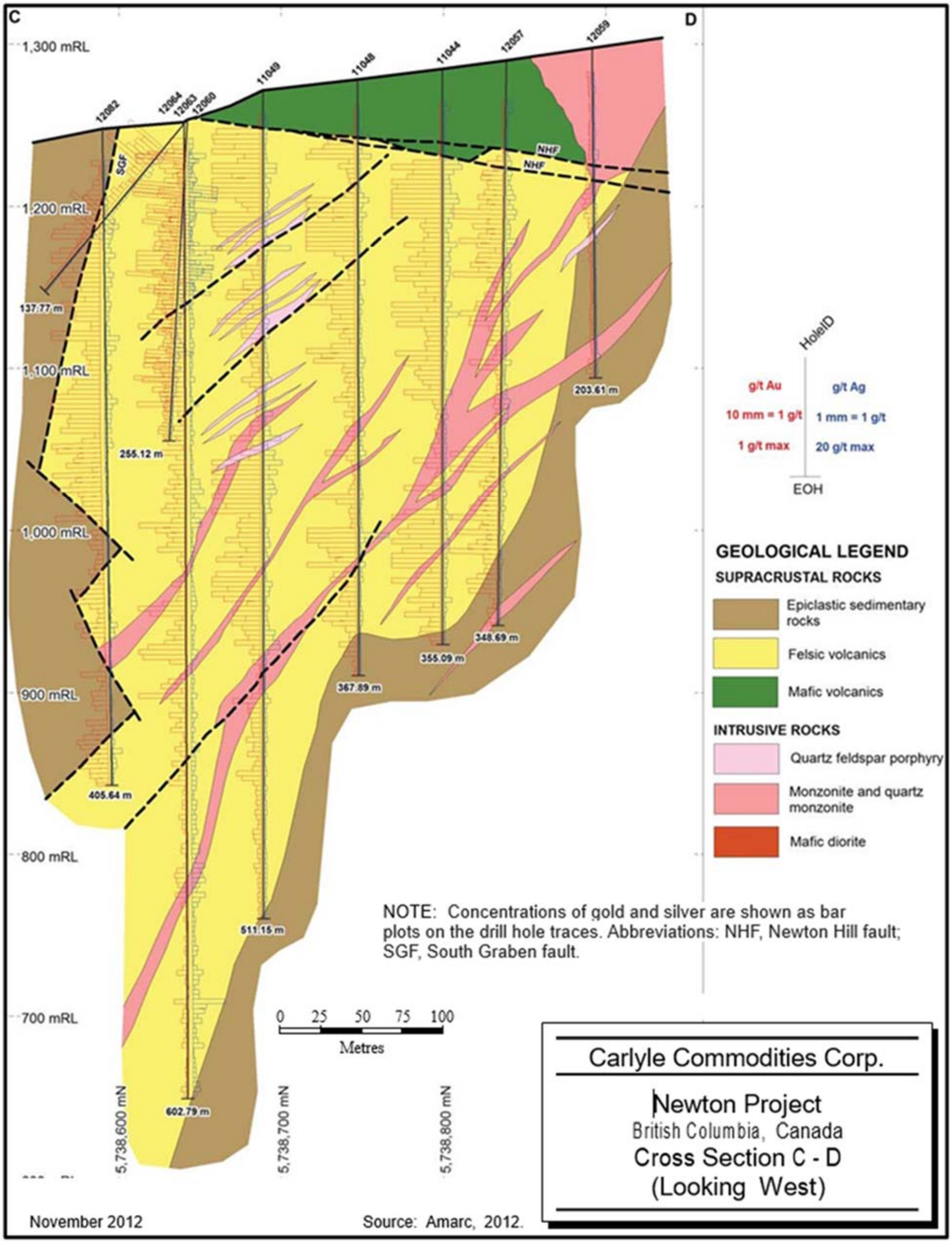


NOTE: Concentrations of gold and silver are shown as bar plots on the drill hole traces. Abbreviations: NHF, Newton Hill fault.

November 2012

Source: Amarc, 2012.

Figure 7-5 - CROSS SECTION A - B



NOTE: Concentrations of gold and silver are shown as bar plots on the drill hole traces. Abbreviations: NHF, Newton Hill fault; SGF, South Graben fault.

Carlyle Commodities Corp.

Newton Project
British Columbia, Canada
Cross Section C - D
(Looking West)

November 2012

Source: Amarc, 2012.

Figure 7-6 - SECTION C - D

The volcano-sedimentary sequence at Newton Hill is cut by several types of intrusions (Figure 7-4). The oldest are sub-volcanic felsic quartz-feldspar porphyries that have a quartz monzonite composition and are interpreted to be directly related to the felsic volcanic rocks in the Spences Bridge Group. Minor mafic dykes present in the area are considered to be related to mafic volcanic rocks in the Spences Bridge Group. The early intrusions are cut by a complex of Cretaceous monzonite intrusions which broadly strike about azimuth 030° and dip steeply to the northwest. These monzonites are intruded in turn by porphyritic plagioclase-hornblende diorites. The youngest intrusions observed are minor plagioclase- and biotite-phyric dykes which are believed to have formed after hydrothermal activity had ceased.

SPENCES BRIDGE GROUP

Within the Newton deposit, the Spences Bridge Group comprises epiclastic wackes, felsic tuffs and flows, and mafic flows.

Epiclastic Rocks

This is stratigraphically the oldest rock type and occurs mostly to the northeast, east, and south of Newton Hill (Figure 7-3) and at depth on the east side of the deposit (Figure 7-4). It is unconformably overlain by the felsic and mafic volcanic rock sequences (Figure 7-5 and Figure 7-6); fragments of epiclastic rocks are locally found at the base of the felsic volcanic section near its contact with the underlying epiclastic rock package. The epiclastic rocks range from green to beige in colour and comprise interbedded pebble conglomerate, sandstone, and siltstone. The conglomerate beds are poorly sorted and immature, with 5% to 60% sub- angular to rounded clasts (Figure 7-7 a) supported in a matrix of fine-grained sand. The fragments comprise mafic volcanic and sedimentary rocks, felsic volcanic rocks and intrusions and chert, all of which are from an undetermined provenance. The sandstone and siltstone interbeds are less abundant and commonly display normal-facing, upward-fining graded bedding.

Felsic Volcanic Rocks

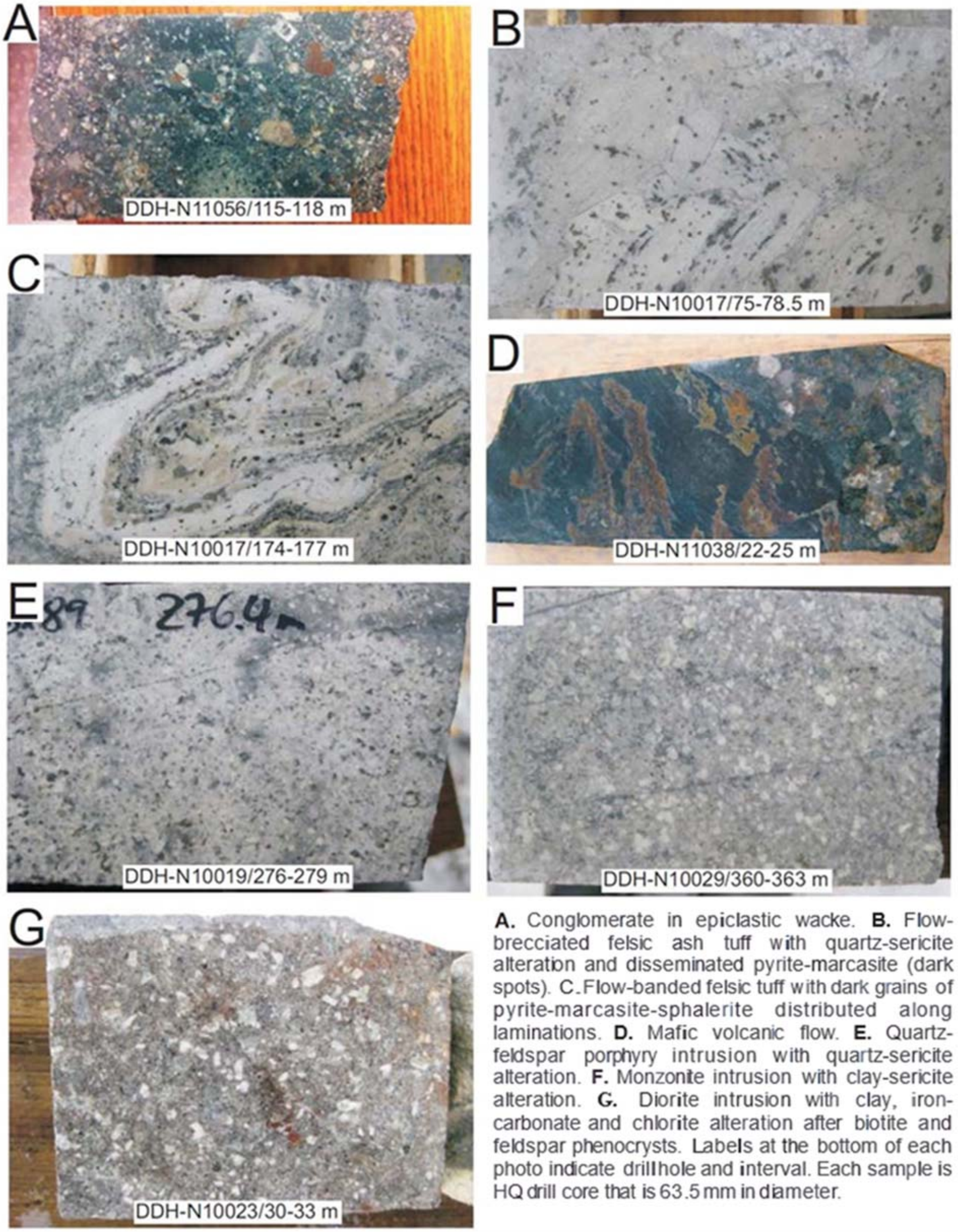
The felsic volcanic rocks found at the Newton Project are mostly pyroclastic deposits which range from ash tuffs to tuff breccias (Figure 7-7 b & c). These units form several thick beds (Figure 7-5 and Figure 7-6) that represent multiple depositional cycles of ash fall and poorly welded ignimbrite deposits. Felsic volcanic rocks have been found to occur both above and below the Newton Hill fault (Figure 7-5; see descriptions below); those below the fault strike approximately 300° to 320°

and dip 65º to 70º to the southwest. These units have been dated at 72.09 ± 0.63 Ma (Cretaceous) by U-Pb methods on zircon (Oliver, 2010).

The felsic tuffs are light grey, aphanitic to very fine grained and consist predominantly of devitrified glass shards and feldspar microliths. The ash tuffs locally contain up to 3% rounded quartz crystals. Although some ash tuffs are massive, most are characterized by convoluted laminations and flow-bands (Figure 7-7 c) and are commonly auto-brecciated (Figure 7-7 c). Overall, the tuffs are poorly welded, although limited intervals exhibit stronger welding textures.

Interbedded units within the tuffs contain centimetre-scale angular and sub-angular lithic fragments which consist mostly of felsic intrusive rocks and hematitic fragments of uncertain provenance in a tuff matrix. Minor, immature, clast-supported conglomerate interbeds are interpreted to be locally derived from the thicker beds of felsic tuff.

Felsic flows also occur within the felsic volcaniclastic sequence. The flows are rhyolite to rhyodacite in composition, grey to white in colour, commonly glassy, flow-banded, auto-brecciated, and competent. The flows are locally porphyritic with up to 10% combined quartz and plagioclase grains one millimetre to three millimetres in size. The grey to white colour variation is likely a consequence of small differences in composition, degree of devitrification and later alteration. Felsic flows typically contain orbicular, millimetre- to centimetre-scale, pale cream-coloured devitrification features such as spherulites and lithophysae.



A. Conglomerate in epiclastic wacke. **B.** Flow-brecciated felsic ash tuff with quartz-sericite alteration and disseminated pyrite-marcasite (dark spots). C. Flow-banded felsic tuff with dark grains of pyrite-marcasite-sphalerite distributed along laminations. **D.** Mafic volcanic flow. **E.** Quartz-feldspar porphyry intrusion with quartz-sericite alteration. **F.** Monzonite intrusion with clay-sericite alteration. **G.** Diorite intrusion with clay, iron-carbonate and chlorite alteration after biotite and feldspar phenocrysts. Labels at the bottom of each photo indicate drillhole and interval. Each sample is HQ drill core that is 63.5 mm in diameter.

Figure 7-7 - EXAMPLES OF ROCKS FOUND IN THE NEWTON DEPOSIT

Mafic Flows, Volcaniclastic Sediments, and Mafic Volcanic Derived Sediments

Mafic flows are basaltic or andesitic in composition, dark green and massive in texture (Figure 7-7 d). They are predominantly aphanitic in grain size but, locally, may contain 2% to 3% (chloritized) pyroxene phenocrysts from two millimetres to four millimetres in size and up to 10% plagioclase phenocrysts between one millimetre to three millimetres in size. Flow fabrics and autobrecciation textures are rare. The mafic flows are mostly found in the hanging wall to the Newton Hill fault (Figure 7-5 and Figure 7-6).

Sedimentary strata derived from a mafic source commonly form narrow interbeds within mafic flow sequences. They are most commonly encountered to the north and northeast of Newton Hill. The sedimentary rocks are green to black, very thinly bedded, non-graded and range from mudstone to sandstone; in rare cases, they contain black, lapilli-sized fragments of mafic volcanic rock. These sedimentary intervals are characterized by alternating beds of non-magnetic, green siltstone/sandstone and magnetic black mudstone.

Other rock types with a mafic composition include hematitic andesite tuffs, coarse mafic volcaniclastic rocks, and mafic epiclastic sedimentary rocks that contain millimetre- to centimetre-scale fragments of mafic volcanic rocks in a fine-grained chloritic matrix. These rock types are volumetrically very minor in the Newton Hill area.

CRETACEOUS INTRUSIONS

Quartz-Feldspar Porphyry

These intrusions are quartz monzonite in composition. They contain 5% to 10% rounded, commonly myrmekitic quartz phenocrysts one millimetre to three millimetres in size set in a white to cream coloured aphanitic and quenched groundmass (Figure 7-7 e). Feldspar phenocrysts that are less than one millimetre to two millimetres in size form under 5% to 15% of the intrusions. Locally, up to 3% biotite phenocrysts approximately one millimetre in size is preserved. Oliver (2010) reports that both the quartz-feldspar porphyry intrusions and the felsic volcanic rocks have high-K, calc-alkaline, rhyolite to rhyodacite compositions and lie within the field of volcanic arc granites on tectonic discrimination plots. As such, the volcanic and intrusive rocks are interpreted to be broadly cogenetic on a regional scale. This is consistent with a single U-Pb date of 70.91 ± 0.49 Ma on zircon from a quartz-feldspar porphyry intrusion (Oliver, 2010) which overlaps, within error, the date reported above for the felsic volcanic sequence.

Mafic Dykes

Volumetrically very minor, mafic dykes of basaltic to andesitic composition locally intrude other rock types at Newton Hill. The dykes are fine-grained and mostly equi-granular, although a few examples contain 5% to 25% plagioclase phenocrysts, ranging from two millimetres to four millimetres in size and up to 10% hornblende and biotite phenocrysts between one millimetre and three millimetres in size. The mafic dykes are interpreted to be related to the mafic volcanic component of the Spences Bridge Group.

Monzonite Porphyry

The most common intrusive rock type at Newton is green to grey, fine- to medium-grained monzonite porphyry dyke (Figure 7-7 f). These intrusions are characterized by 10% to 30% plagioclase phenocrysts of between one millimetre and eight millimetres in size, accompanied locally by up to 5% biotite ± hornblende phenocrysts that are up to three millimetres in size. The groundmass is fine-grained, felted, and composed of tightly interlocking feldspar (± mafic) grains. These intrusions typically lack free quartz, although in a few cases up to 2% quartz phenocrysts from one millimetre to three millimetres in size are present. In a few cases, these intrusions contain abundant xenoliths of adjacent host rocks.

Diorite

Diorite intrusions (Figure 7-7 g) are medium-grained, magnetic, and commonly exhibit flow foliation. They are variably altered and their colour ranges from brown, where biotite-altered, to pale green, where altered to chlorite. This rock type contains 20% to 30% plagioclase phenocrysts from one millimetre to four millimetres in size, up to 20% mafic (hornblende >> biotite > pyroxene) phenocrysts and trace magnetite phenocrysts from one millimetre to two millimetres in size. Locally, the host rocks to the diorite intrusions may be converted to hornfels.

Felsic Plagioclase and Biotite Porphyritic Dykes

Plagioclase and/or biotite phyric dykes cut the felsic volcano-sedimentary sequence, the quartz-feldspar porphyry intrusions, and the monzonite porphyry intrusions. These dykes mainly strike to the southwest and have steep dips (Figure 7-4). They are characterized by 25% to 35% plagioclase phenocrysts from one millimetre to two millimetres in size, up to 8% biotite phenocrysts between one millimetre to two millimetres in size, and up to 2% millimetre-scale quartz phenocrysts in an aphanitic groundmass. They are volumetrically minor and were emplaced very late to post hydrothermal activity.

STRUCTURE

The Newton deposit is believed to have been formed within a structurally active volcanic environment. Felsic and mafic volcanic rocks were deposited in a rifted volcanic graben which was segmented along steeply dipping extensional faults. The SGF and the NHF can be correlated across much of the area of drilling within the Newton deposit (Figure 7-5 and Figure 7-6).

The SGF is located to the south of Newton Hill. It has an easterly strike and is approximately vertical with dips between 85º to the south and 85º to the north. It is locally segmented and cut by younger faults. Displacement across the SGF is north-side-down and believed to be a minimum of 600 m. An unconstrained component of dextral strike-slip movement may also be present (Oliver, 2012).

The NHF is a gently west-dipping normal fault which may have listric attributes. Near the surface, this fault strikes approximately 027º and dips 31º to 35º to the northwest, whereas at depth the fault rotates to a strike of approximately 060º and the dip decreases to about 24º. The NHF is between five metres and 30 m in width; it comprises an intensely sheared core, marked by massive clay gouge and black, pyritic seams, flanked by a brecciated rock mass that less commonly exhibits shear fabrics. Absolute normal displacement is estimated to be 300 m to 350 m with no strike-slip component. Cross-cutting relationships indicate that the NHF is younger than the SGF. The low angle of dip on the NHF has been attributed to post- fault rotation (Oliver, 2012).

Narrow fault zones are common, particularly in the hanging wall to the NHF in the central part of Newton Hill (Figure 7-4). These faults generally strike north-northwest and dip 60º to 85º to the west-southwest. They are characterized by one centimetre to tens of centimetres thickness of clay gouge and/or fault breccia and are also commonly associated with quartz- carbonate ± gypsum extension veins. Individual fault planes cannot be confidently correlated between drill holes.

ALTERATION

Quartz-Sericite Alteration

Quartz-sericite alteration (Figure 7-8 a) occurs predominantly in the felsic volcaniclastic and pyroclastic units located in both the hanging and footwall of the NHF. The alteration comprises pervasive quartz and sericite. It may be weakly to intensely developed and is characterized by a white to light green colour. Quartz-sericite alteration is more weakly developed in quartz-feldspar porphyry and monzonite porphyry intrusions. Quartz-sericite alteration is associated with the presence of most of the gold and base metals in the Newton deposit.

Quartz-sericite alteration comprises two pervasive alteration assemblages and occurs in association with late polymetallic base metal veinlets:

- the oldest sub-stage of quartz-sericite alteration comprises a pervasive assemblage of quartz, sericite, minor siderite, and several percent pyrite. This alteration is seen to be associated with a significant amount of the gold and, to a lesser degree, base metal mineralization to a much lesser degree. In addition, pervasive alteration quartz- sericite-pyrite alteration envelopes are noted in association with quartz-sericite-pyrite ± molybdenite veinlets; however, these veinlets and associated alteration envelopes typically form less than 1% of the affected rock mass.
- In the subsequent sub-stage of quartz-sericite ± siderite alteration, the early pyrite is partially to completely replaced by marcasite. Inclusions of both early pyrite and trace early chalcopyrite are commonly seen to be enclosed within the younger marcasite. This alteration also appears to be associated, at least spatially, with precipitation of gold but is distinguished by a markedly higher concentration of base metals, which include elevated concentrations of zinc and copper above and below the Newton Hill fault, respectively. It is not clear whether additional quartz veinlets with associated alteration envelopes formed during this stage of alteration or if this alteration phase is entirely typified by pervasive alteration.

Textural evidence suggests that late polymetallic veinlets (Figure 7-8 c) cut the early pyrite- and marcasite-dominated sub-types of quartz-sericite alteration. These veinlets are typically less than one centimetre in width and contain various combinations of pyrite, chalcopyrite, sphalerite, galena, arsenopyrite and, locally, molybdenite. The extent to which these veins may be associated with the introduction of gold to the deposit is not known.

Argillic Alteration

Argillic alteration, which replaces quartz-sericite alteration, is most commonly encountered in the monzonite porphyry and quartz-feldspar porphyry intrusions. Argillic alteration comprises kaolinite, sericite, calcite and/or iron-bearing carbonates, minor chlorite and up to approximately 5% pyrite. Kaolinite is commonly more abundant than sericite. This alteration is characterized by strong selective to pervasive alteration of feldspar phenocrysts by kaolinite-sericite, chlorite alteration of hornblende and biotite phenocrysts, and a less intense replacement of the igneous groundmass. Monzonite porphyry and quartz-feldspar porphyry intrusions affected by argillic alteration locally have a spotted appearance defined by orbicular aggregates of green to blue clays belonging to the kaolinite ± smectite group (Figure 7-8 d; McClenaghan, 2010). Similar green and blue clay alteration is rare in the felsic volcanic sequence. The clay aggregates are interpreted to be altered mafic phenocrysts or mafic fragments.

Propylitic Alteration

Propylitic alteration mainly affects the mafic flows and mafic sedimentary rocks and is approximately contemporaneous with early quartz-sericite alteration. This alteration assemblage consists of pervasive green chlorite variably accompanied by patchy epidote, albite, calcite ± ankerite and minor quartz. The quartz and carbonate minerals most commonly occur in veinlets. Locally, magnetite grains one millimetre to two millimetres in size are intergrown with or replace epidote, particularly in the alteration envelopes to veinlets filled predominantly by quartz-iron-carbonate minerals.

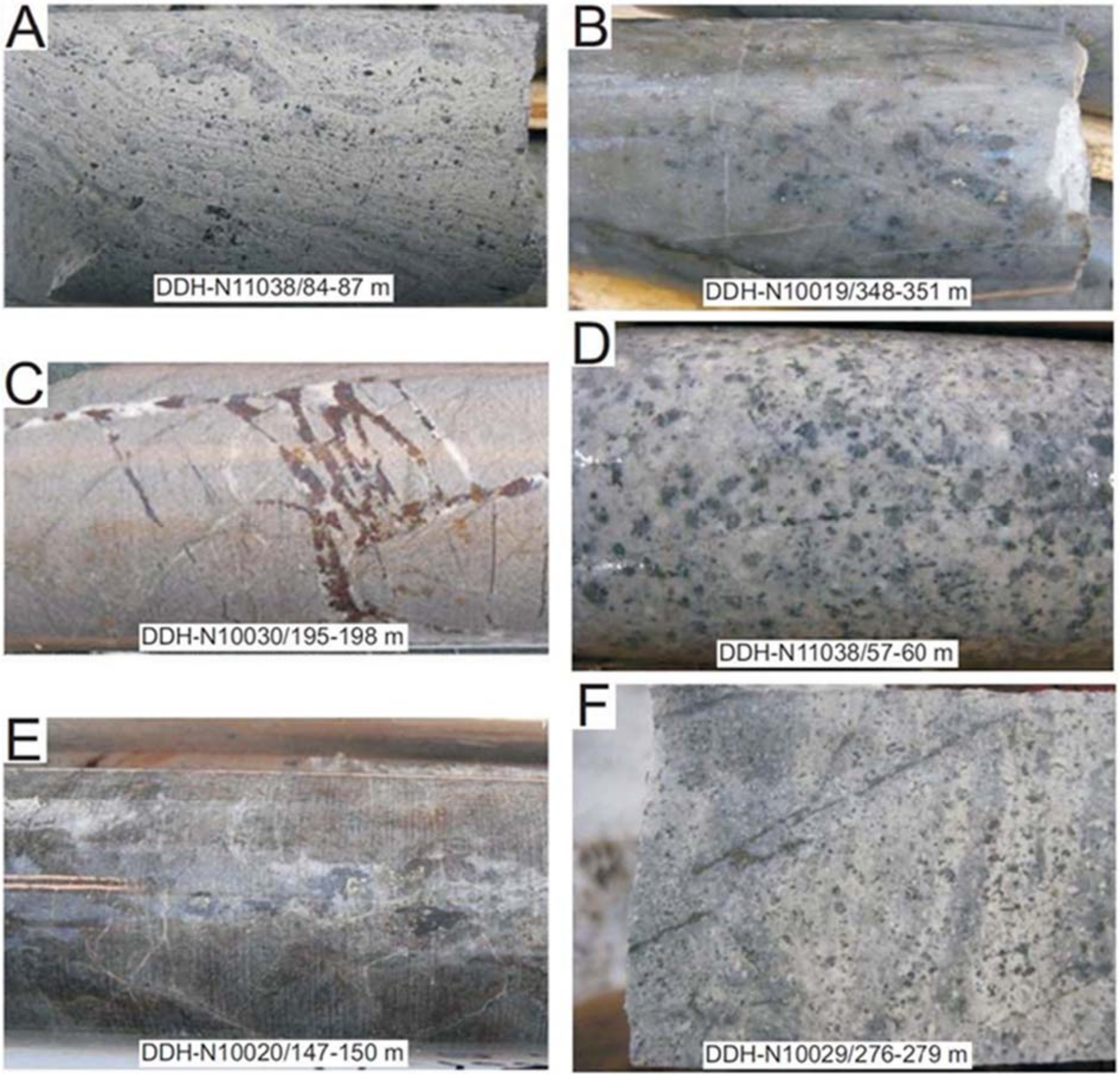
Potassium-silicate alteration

Potassium-silicate alteration is the least common assemblage observed at Newton and replaces other alteration types. It is characterized by fine-grained, brown hydrothermal biotite ± magnetite (Figure 7-8 e). It occurs mostly within the chilled margins of monzonite porphyry and diorite intrusions in contact with quartz feldspar porphyry intrusions, mafic flows, and/or mafic sedimentary rocks. It is also locally observed as alteration envelopes to some quartz- veinlets which cut mafic rock types in proximity to intrusive contacts. The distribution and timing of the potassium-silicate alteration may indicate that it represents a biotite hornfels related to late-hydrothermal diorite intrusions.

Other Alteration Types

Silicification and albite alteration have been noted in some drill holes. These alteration types are spatially associated and are interpreted to comprise a single quartz, albite, chlorite, and minor iron-carbonate assemblage. The silica-albite alteration is most commonly observed in quartz-feldspar porphyry bodies that have been intruded by monzonite porphyry. An early stage of strong silicification locally replaces an even earlier stage of moderate albite alteration and produces unusual textures that include grey and white colour banding and laminae (Figure 7-8 f). In a single drill hole, texturally destructive silicification (Figure 7-8 e & f) was observed to have overprinted mineralized felsic tuffs in the footwall of the NHF. Silica- albite alteration is locally present in mafic volcanic rocks, epiclastic wacke and diorite intrusions, where it commonly overprints propylitic alteration.

The youngest alteration type thus far identified is characterized by extensional, one millimetre to 20 mm wide, carbonate veinlets. These late veinlets are found in all rock types on Newton Hill.



A. Quartz-sericite alteration with pyrite-marcasite in felsic ash tuff. **B.** More strongly siliceous example of quartz-sericite alteration with disseminated pyrite-marcasite in a felsic ash tuff. C. Sphalerite-rich polymetallic veinlets cutting a mafic volcanic flow affected by pervasive silica-albite alteration. **D.** Argillic alteration characterized by orbicular zones of clay alteration in a monzonite intrusion. **E.** K-silicate alteration, comprising biotite, quartz and minor magnetite, in a mafic volcanic flow. **F.** Silicification and albitization in a quartz feldspar porphyry intrusion. Labels at the bottom of each photo indicate drill hole and interval. Each sample is HQ drill core that is 63.5 mm in diameter.

Figure 7-8 - EXAMPLES OF ALTERATION TYPES FOUND IN THE NEWTON DEPOSIT

Mineralization

Although gold and base metal mineralization have been encountered in all rock types within the Newton deposit, felsic volcaniclastic and flow rocks are the primary host rocks to the mineralization (Figure 7-4, Figure 7-7). The close spatial relationship between mineralization and the felsic volcanic rocks may reflect a higher relative primary permeability to fluid flow in felsic volcanic rocks compared to other rock types. A typical grade in the felsic volcanic rocks is in the order of 0.4 to 1.5 g/t Au. Quartz-feldspar porphyry and monzonite porphyry intrusions are also commonly, although not as consistently, well-mineralized.

Mineralization in other rock types is less consistent; however strong mineralization has been observed at least locally in mafic epiclastic sedimentary rocks (e.g., 24 m grading 0.83 g/t Au and 0.09% Cu in drill hole 10030), mafic volcanic rocks (e.g., three metres grading 2.31 g/t Au and 33 m grading 0.34 g/t Au in drill hole 10027 and 29.9 m grading 0.48 g/t Au and 0.22% Zn in drill hole 10020), and diorite (e.g., 15 m grading 0.35 g/t Au in drill hole 10023). Propylitic alteration (chlorite-epidote-pyrite-calcite-albite magnetite) has been noted in mafic rocks, but no significant gold mineralization is associated with this assemblage (McLenaghan 2013). The gold grade in diorite is typically less than 0.20 g/t Au, whereas in epiclastic and mafic rocks it is typically less than 0.10 g/t Au. The felsic plagioclase and biotite porphyritic dykes are very late- or post-hydrothermal and do not contain significant concentrations of gold or base metals.

Gold-silver ± base metal mineralization is associated with both disseminated and veinlet- hosted styles of mineralization (Figure 7-9). Veinlet-hosted mineralization, although widespread, is volumetrically minor compared to disseminated mineralization; overall, the total concentration of veinlets in altered and mineralized rock is estimated at less than one percent by volume. In felsic volcanic rocks and in quartz-feldspar porphyry intrusions proximal to the felsic volcanic sequence, mineralization is predominately disseminated in style (Figure 7-9 a, b, c) and veinlets are rare. Mineralization in the monzonite porphyry and quartz-feldspar porphyry intrusions is also characterized by disseminated sulphide minerals; however, quartz ± sulphide veinlets with strong quartz-sericite-pyrite alteration envelopes are estimated to be comparatively more common than in other rock types (Figure 7-9 d). Mineralization also locally occurs as a sulphide matrix to brecciated rocks (Figure 7-9 e).

Most mineralization formed during the two sub-stages of quartz-sericite alteration. These are (1) earliest quartz-sericite-(siderite)-pyrite alteration associated with gold but with low concentrations of base metals; and (2) later quartz-sericite alteration associated with gold and relatively higher concentrations of base metals, during which early pyrite was replaced by marcasite. Mineralization also occurs in late polymetallic veinlets which contain abundant pyrite, chalcopyrite, sphalerite, galena, arsenopyrite, and, locally, molybdenite, but it is not known how much of the gold is associated with these late polymetallic veinlets.

The total concentration of sulphide minerals is estimated to range from 0.5% to 15% in felsic volcanic rocks. Gold mineralization of similar tenor occurs across intervals with both high and low concentrations of sulphide minerals. There is, however, a general spatial coincidence of gold and base metal mineralization, although close elemental correlations have not been recognized at sample-scale.

No visible gold has been observed in drill core. Preliminary optical petrography and scanning electron microscopy studies by Gregory (2011) have identified the following relationships with respect to gold:

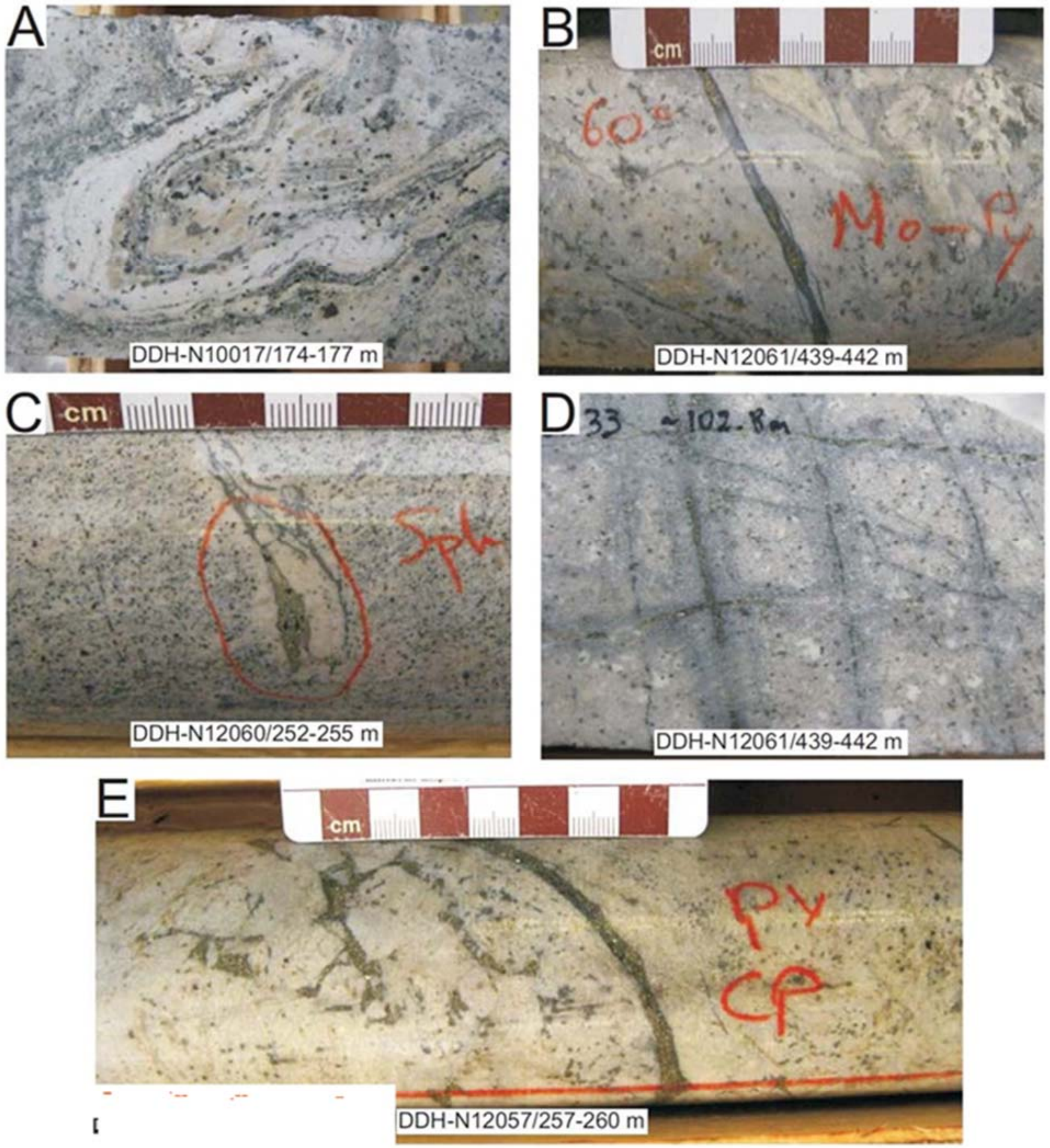
- Electrum inclusions occur within siderite, chalcopyrite, and pyrite in felsic ash tuff samples affected by the later quartz-sericite-marcasite alteration.
- Petzite (Ag3AuTe2), undifferentiated Au-Bi-Te minerals, and minor electrum inclusions occur in pyrite in felsic ash tuff samples altered by the early quartz-sericite-pyrite assemblage.
- Electrum inclusions hosted by pyrite in felsic ash tuff and epiclastic sedimentary rock samples altered by the early quartz-sericite-pyrite assemblage.
- Volumetrically, electrum associated with the marcasite-bearing alteration may make the largest contribution to the overall gold budget in the Newton deposit.

Partial oxidation occurs along fractures in the upper 10 m to 30 m of the Newton deposit. Minor chalcocite has been identified within the zone of partial oxidization, but no other significant effects have been noted. Mineralization below this level is wholly hypogene in character.

A rhenium-osmium date of 72.1 ± 0.3 Ma was obtained on molybdenite from a quartz vein hosted by quartz-feldspar porphyry (McClenaghan, 2012). This date establishes near contemporaneity among quartz feldspar porphyry intrusions, felsic volcanic rocks, and the hydrothermal system which precipitated gold mineralization at Newton. In addition, the date indicates that the mineralization at Newton is nearly identical in age to the mineralization at the Capoose and Blackwater deposits.

There is evidence to suggest that there is a large gold-bearing hydrothermal system present at Newton. Geochemically significant gold concentrations, exceeding 50 ppb (0.05 g/t) values occur over an area of at least 1,300 m by 1,800 m. Geologically important gold concentrations of more than 100 ppb (0.1 g/t) have been returned from drill intersections throughout an area which measures approximately 1,300 m by 900 m. Short intersections of more than 100 ppb have also been encountered outside of this area.

The resource area is defined by variably spaced drilling over an area measuring 1,000 m by 900 m, which extends to a maximum depth of 685 m.



A. Disseminated pyrite-marcasite with minor sphalerite in a flow-laminated felsic ash tuff. **B.** A felsic volcanic flow with disseminated pyrite, cut by a quartz-pyrite-molybdenite veinlet. C. Disseminated marcasite accompanied by minor chalcopyrite in an auto-brecciated felsic tuff, cut by pyrite-sphalerite veinlets. **D.** A stockwork of pyrite veins with strong quartz-sericite alteration envelopes in a monzonite intrusion. **E.** Early disseminated pyrite-marcasite mineralization in a felsic tuff, subsequently brecciated with pyrite-chalcopyrite cement. Labels at the bottom of each photo indicate drill hole and interval. Each sample is HQ drill core that is 63.5 mm in diameter.

Figure 7-9 - EXAMPLES OF MINERALIZATION TYPES

8. DEPOSIT TYPES

The following summary of the relevant deposit types is modified from the RPA Report prepared by RPA in 2012.

Newton is considered to be a bulk-tonnage, disseminated, strata-bound, epithermal gold-silver deposit with elevated concentrations of base metals. It shares many similarities with a group of deposits that have been recently recognized in central British Columbia, including the Blackwater Gold Deposit owned by Artemis Gold Inc. and the Capoose deposit owned by New Gold Inc., both located some 175 km northwest of Newton. Key similarities among these deposits include: (1) a spatial and genetic relationship with Late Cretaceous (~72 Ma) felsic pyroclastic rocks and high-level intrusions which formed in a structurally active environment; (2) a primary gold-silver signature; (3) elevated concentrations of copper, zinc, lead, and molybdenum; (4) an association of mineralization with extensive, pervasive quartz-sericite alteration, which contains disseminated and vein-hosted pyrite, marcasite, chalcopyrite, sphalerite, galena, arsenopyrite, and sulphosalts; and (5) late stages of polymetallic vein formation.

The Newton hydrothermal system shares many hydrodynamic features consistent with the epithermal model recently presented by Rowland and Simmons (2012) for the Taupo Volcanic Zone, New Zealand. These features include magmatically induced, convective hydrothermal circulation, permeable host rocks receptive to hydrothermal fluid flow (e.g., a high primary porosity in felsic pyroclastic flows) and fault-fracture permeability created by volcanism and tectonism (e.g., basin and graben structures).

Although the Newton deposit appears to be similar to low-sulphidation epithermal systems under the classification system of Sillitoe and Hedenquist (2003), it also has characteristics compatible with intermediate sulphidation epithermal gold-silver deposits (McLenaghan, 2013), that may display a close spatial association with porphyry base and precious metal deposits that formed in extensional basins or rifted grabens. Other low-sulphidation epithermal systems that have a close spatial and genetic association to Cu-Au porphyry deposits are present in the Iskut region of northern British Columbia, and include the Snowfields (Armstrong et al., 2011) and Sulphurets (Ghaffari et al., 2011) deposits.

9. EXPLORATION

Since the acquisition of the Project in December of 2020, Carlyle has not conducted any exploration on the Newton Property.

10. DRILLING

Since the acquisition of the Project in December of 2020, Carlyle has not conducted any drilling on the Newton Property.

The following summary of drilling completed prior to Carlyle's acquisition of the Property is modified from the RPA Report prepared by RPA in 2012.

Previous to the acquisition, a number of drill campaigns have taken place on the Newton Property since the first hole was completed in 1972. To date, a total of 33,707 m has been completed in 128 holes up to hole 12088. This includes 27,944 m in 89 holes completed when Amarc was the project operator from 2009 to 2012. A summary of the various drilling programs that have been completed on the project over the years is provided in Table 10-1 and a plan of drill hole locations is illustrated in Figure 10-1.

Table 10-1 - DRILLING SUMMARY

Operator	Year	Drill hole ID	No of Holes	Size	Meters
Cyprus	1972	72-01 to 72-10	10	BQ	1634.3
Taseko	1982	82-01 to 82-04	4	Core	553.8
		P82-01 to P82-08	8	Percussion	559.3
Rea Gold	1992	92-01 to 92-05	5	NQ	970.3
High Ridge	2006	06-01 to 06-12	12	HQ/NQ	2044.5
Amarc	2009	9001 to 9014	14	HQ	4076.5
Amarc	2010	10015 to 10031	17	HQ	5260.1
Amarc	2011	11032 to 11056*	26	HQ	7349.9
Amarc	2012	12057 to 12088	32	HQ	11258.0
TOTAL			**128**		**33706.7**

*** Includes 11051A (abandoned at 18.79m)**

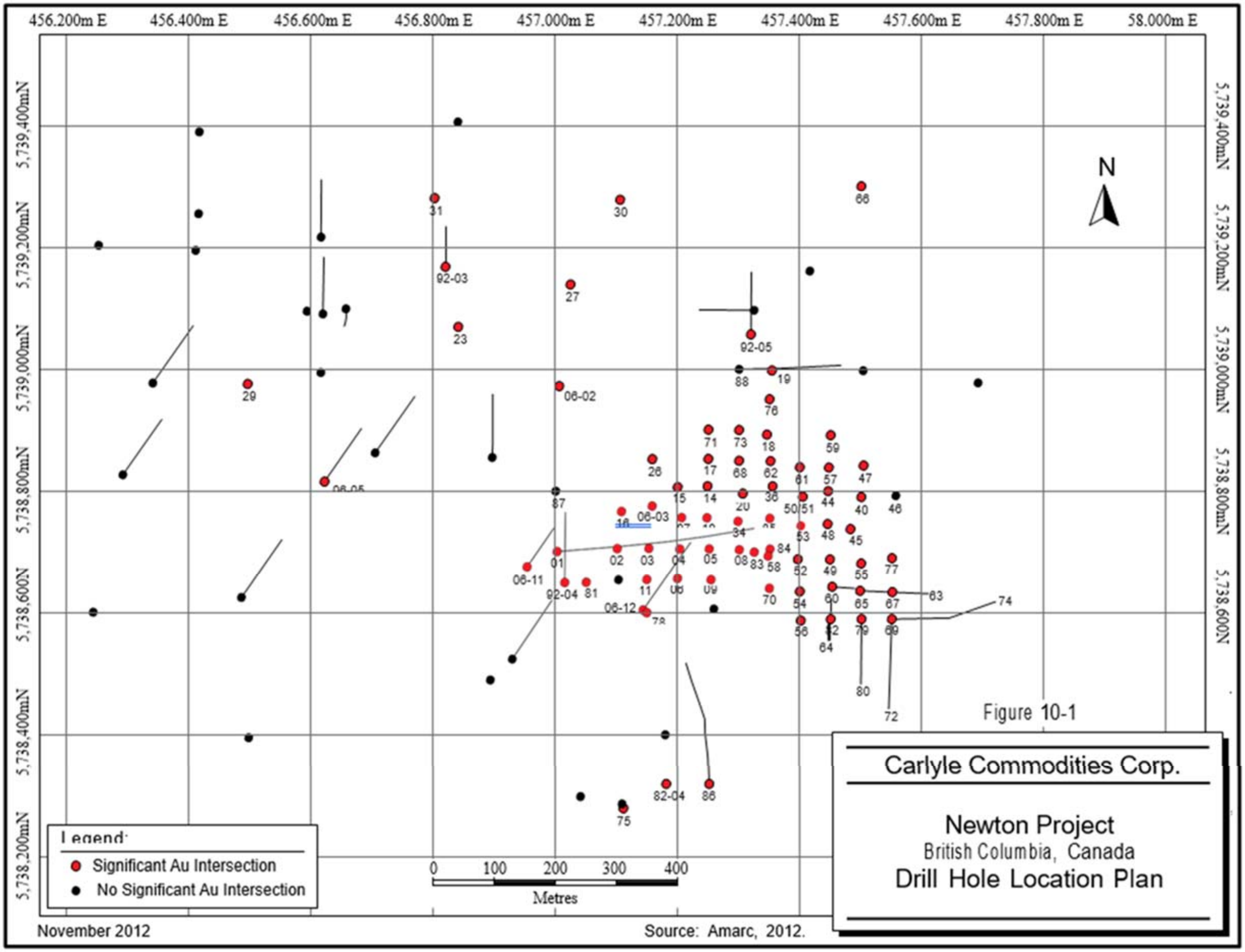


Figure 10-1 – DRILL HOLE LOCATION PLAN

CYPRUS DRILLING – 1972

Cyprus acquired the property in 1972 and completed 1,634 m of BQ diamond drilling in 10 holes as a follow-up to other exploration work on the property. Diamond drilling failed to encounter significant supergene enrichment and low copper grades were intercepted, so the company did not pursue the project any further. As copper was the primary target at the time, no systematic gold analyses were performed. The 1972 drill core was subsequently re-sampled and re-assayed in 1987 by Rea Gold.

TASEKO DRILLING – 1982

In 1981, Taseko acquired the property. They completed four diamond drill holes (554 m) in 1982 and eight percussion holes (559 m) on the outer parts of the large IP anomaly that was outlined by a survey in 1972. Note that the position of the 1982 drill holes is uncertain. Amarc drilled in the same apparent area but encountered different rock types.

REA GOLD DRILLING – 1992

As a follow up to previous work on the property, in 1992 Rea Gold Corp. (Rea) completed five diamond drill holes with a total length of 970 m.

HIGH RIDGE DRILLING – 2006

High Ridge completed 12 drill holes numbered 06-01 through 06-12 on the property in 2006 for a total length of 2,045 m. Drilling was conducted by Hy-Tech Drilling Ltd. (Hy-Tech) using a portable drill and a helicopter for drill moves. Most holes were initiated with HQ (63.5 mm diameter) core then reduced to NQ (47.6 mm diameter). The predominant drill hole orientation was at an azimuth of 35° (measured clockwise from due north) and an inclination (dip) of -50°, with the following exceptions: 06-02 was drilled vertically, 06-03 at -87° dip, 0° azimuth, and 06-10 at -50° dip, 0° azimuth (Table 10-2). Reflex downhole directional surveys were taken at the bottom of two of the 2006 drill holes.

In the 2006 drill program by High Ridge, drill core was boxed at the drill rig and transported by drill truck to the logging facility on site. The remaining core after sampling was stored on site near the top of Newton Hill.

In 2009, Amarc photographed, re-logged, and took representative quarter core samples of the material from this program.

All drill cores from the historical programs were originally stored at the Newton Project site. In early 2011, Amarc salvaged what remained of this historical core and moved it to the Gibraltar Mine site, near McLeese Lake, British Columbia. All data from the historical drilling, such as the drill hole locations, drill logs, and analytical results, is derived from the Durfeld and Rea compilations, assessment reports, and information provided by High Ridge.

Table 10-2 - DRILL HOLE DETAILS -HIGH RIDGE

Hole ID	Length (m)	Azimuth (°)	Dip (°)
06-01*	25.0	35	-50
06-02	212.5	0	-90
06-03	210.0	0	-87
06-04	204.0	35	-50
06-05	167.0	35	-50
06-06	180.0	35	-50
06-07	180.0	35	-50
06-08	177.0	35	-50
06-09	183.0	35	-50
06-10	175.0	0	-50
06-11	121.0	35	-50
06-12	210.0	35	-50

*Drill hole 06-01 was abandoned at a depth of 25 m

AMARC DRILLING - 2009

In 2009, Amarc completed 14 drill holes (holes 9001 through 9014) for a total of 4,076.5 m. The drilling contractor, Hy-Tech, used a LS-5 drill to recover HQ core. Most holes were drilled vertically with the exception of hole 9001, which was drilled at -45° dip, 90° azimuth (Table 10-3).

A Magellan ProMark3 differential GPS incorporating a Base Station and Rover was used to take the 2009 drill collar surveys. All surveys by Amarc were recorded in UTM NAD 83, Zone 10 coordinates. Downhole orientation surveys were performed at 60 m to 175 m intervals by Hy-Tech using a Reflex E-Z shot tool. Drill core was geologically logged and photographed prior to sampling. No geotechnical logs or core density measurements were made during the 2009 drilling program.

Table 10-3 - AMARC 2009 DRILLING PROGRAM

Hole ID	East-X (m)	North-Y (m)	Elev-Z (m)	Length (m)	Azimuth (°)	Dip (°)
9001	457002.3	5738700.9	1317.3	501.0	90	-45
9002	457101.2	5738705.7	1308.9	323.0	0	-90
9003	457152.7	5738705.8	1302.3	350.0	0	-90
9004	457203.3	5738705.1	1296.9	350.0	0	-90
9005	457251.4	5738704.6	1291.7	351.0	0	-90
9006	457200.4	5738656.4	1287.9	306.5	0	-90
9007	457206.1	5738756.1	1306.6	252.0	0	-90
9008	457300.9	5738703.7	1286.0	174.0	0	-90
9009	457254.1	5738654.5	1282.4	186.0	0	-90
9010	457247.5	5738756.3	1300.2	233.0	0	-90
9011	457149.1	5738654.4	1290.5	252.0	0	-90
9012	457258.6	5738606.7	1272.4	228.0	0	-90
9013	457103.2	5738654.4	1294.7	288.0	0	-90
9014	457248.4	5738808.2	1310.7	282.0	0	-90

AMARC DRILLING - LATE 2010 AND EARLY 2011

From October 2010 to January 2011, Amarc completed 29 diamond drill holes numbered 10015 through 11043, for a total of 7,691 m. The drilling contractor, Black Hawk Drilling Ltd. (Black Hawk), recovered HQ diameter core from the holes which were all drilled vertically or near vertically (Table 10-4). Drill hole collar coordinates were surveyed using a differential GPS as in 2009. Downhole surveys were performed at 75 m to 125 m intervals using a Reflex E-Z shot tool.

Geological and geotechnical logging, as well as bulk density measurements and core photography, was performed prior to sampling. The related logging data was entered into a Microsoft Access entry database on site and then transferred to an SQL database in the Vancouver office of Amarc. In the drilling program, a total of 2,458 drill run measurements were taken and an overall average core recovery of 92.6% was calculated. Among them, 770 measurements have 100% recovery.

Table 10-4 – AMARC 2010 – 2011 DRILLING PROGRAM

Hole ID	East-X (m)	North-Y (m)	Elev-Z (m)	Length (m)	Azimuth (°)	Dip (°)
10015	457199.3	5738806.2	1319.0	306.9	295.8	-88.6
10016	457108.1	5738766.4	1321.4	346.6	190.6	-89.8
10017	457249.7	5738852.7	1319.0	352.7	0	-90
10018	457345.7	5738892.6	1310.6	169.8	210.4	-89.1
10019	457353.6	5738997.7	1322.9	415.4	278	-88.7
10020	457306.1	5738796.1	1301.6	300.8	0	-90
10021	457179.0	5738400.8	1246.8	240.7	0	-90
10022	456996.1	5738197.0	1229.4	220.1	0	-90
10023	456840.8	5739069.8	1331.1	310.0	0	-90
10024	457415.6	5739160.6	1317.3	145.4	252.8	-89.4
10025	457690.6	5738977.9	1277.5	242.9	275.4	-89.7
10026	457157.6	5738853.0	1329.7	329.8	51.8	-89.4
10027	457024.4	5739138.7	1343.0	370.9	0	-90
10028	456615.9	5738994.6	1312.4	337.4	144.2	-89.6
10029	456496.5	5738975.7	1303.4	416.7	0	-90
10030	457105.6	5739277.3	1329.0	337.4	169.7	-89.6
10031	456802.2	5739280.2	1304.2	416.7	0	-90
11032	456794.2	5739621.9	1260.3	300.8	0	-90
11033	456058.5	5739641.7	1169.1	262.1	0	-90
11034	457298.2	5738750.2	1293.1	178.9	0	-90
11035	455697.1	5739556.3	1127.9	43.9	0	-90
11036	457355.0	5738808.6	1296.7	185.0	0	-90
11037	455697.1	5739556.3	1127.9	181.4	0	-90
11038	457503.5	5738997.6	1302.5	178.0	0	-90
11039	456497.7	5738396.0	1239.5	188.1	0	-90
11040	457500.1	5738790.5	1277.5	295.4	0	-90
11041	456252.2	5739202.7	1248.3	216.1	0	-90
11042	456003.2	5739105.1	1216.9	228.4	0	-90
11043	456243.4	5738601.5	1226.7	172.8	0	-90

AMARC DRILLING - LATE 2011

Amarc completed 14 HQ size core holes between September and December 2011. A total of 4,919 m of drilling was completed by contractor Black Hawk. These holes numbered 11044 through 11056 (including 11051A), were all drilled vertically (Table 10-5). Collar coordinates were surveyed by differential GPS, as described in the 2009 and 2010 programs. Downhole surveys were performed using Reflex E-Z shot equipment on all holes except for 11044, 11050, and 11051A. The downhole survey measurement interval ranged between 75 m and 100 m.

A total of 1,545 drill runs were measured and an overall average core recovery of 94.6% was calculated. Among the intervals measured, 396 have 100% recovery.

Table 10-5 – AMARC LATE 2011 DRILLING PROGRAM

Hole ID	East-X (m)	North-Y (m)	Elev-Z (m)	Length (m)	Azimuth (°)	Dip (°)
11044	457450.0	5738790.0	1275.0	355.1	0	-90
11045	457500.0	5738740.0	1262.0	290.8	0	-90
11046	457550.0	5738790.0	1265.0	154.5	0	-90
11047	457500.0	5738840.0	1275.0	121.9	0	-90
11048	457450.0	5738740.0	1270.0	367.9	0	-90
11049	457450.0	5738690.0	1264.0	511.2	0	-90
11050	457400.0	5738790.0	1282.0	63.1	0	-90
11051	457400.0	5738790.0	1282.0	572.1	0	-90
11051A	457400.0	5738790.0	1282.0	18.8	0	-90
11052	457400.0	5738690.0	1265.0	587.4	0	-90
11053	457400.0	5738740.0	1275.0	577.6	0	-90
11054	457400.0	5738640.0	1260.0	614.8	0	-90
11055	457500.0	5738690.0	1255.0	364.9	0	-90
11056	457400.0	5738590.0	1250.0	319.1	0	-90

AMARC DRILLING - 2012

Up to June 2012, Amarc completed 32 HQ size core holes with a total length of 10,258.0 m. These holes, numbered 12057 through 12088, were drilled by the drilling contractor Black Hawk. Most of the holes were drilled vertically except for holes 12063, 12064, 12072, 12074,12080, 12086, and 12088, which were drilled at a dip of -50° with azimuths of 90°, 180°, or 360°. Table 10-6 lists the collar coordinates and orientations.

Collar coordinates were surveyed by differential GPS as described in the 2009 and 2010 programs. Downhole surveys were performed using Reflex E-Z shot equipment on all holes. The measuring interval for the downhole surveys ranged from 50 m to 100 m.

Geological and geotechnical logging, as well as bulk density measurements and core photography, was performed at site prior to sampling. The related logging data were entered into a Microsoft Access entry database on site and then transferred to an SQL database in Amarc's Vancouver office.

In the 2012 drilling, a total of 3,568 drill runs were measured and an overall average core recovery of 95.1% was calculated. Among the intervals measured, 847 have 100% recovery.

Table 10-6 - AMARC 2012 DRILLING PROGRAM

Hole ID	East-X (m)	North-Y (m)	Elev-Z (m)	Length (m)	Azimuth (°)	Dip (°)
12057	457446.8	5738838.7	1290.0	348.7	0	-90
12058	457346.8	5738693.6	1280.5	111.9	0	-90
12059	457449.9	5738891.4	1297.8	203.6	0	-90
12060	457452.2	5738642.2	1253.5	602.8	0	-90
12061	457398.2	5738839.2	1283.4	526.7	0	-90
12062	457351.0	5738849.0	1290.7	557.4	0	-90
12063	457452.2	5738642.2	1253.5	255.1	90	-50
12064	457452.2	5738642.2	1253.5	137.8	180	-50
12065	457497.8	5738636.0	1261.7	511.2	0	-90
12066	457500.0	5739300.0	1290.0	306.9	0	-90
12067	457550.4	5738632.9	1258.0	322.2	0	-90
12068	457300.0	5738850.0	1300.0	386.2	0	-90
12069	457550.0	5738590.0	1245.0	383.1	0	-90
12070	457350.0	5738640.0	1268.0	452.6	0	-90
12071	457250.0	5738900.0	1324.0	364.9	0	-90
12072	457550.0	5738590.0	1245.0	267.3	90	-50
12073	457300.0	5738900.0	1316.0	247.3	0	-90
12074	457550.0	5738590.0	1245.0	227.7	180	-50
12075	457110.0	5738280.0	1230.0	151.5	0	-90
12076	457350.0	5738950.0	1310.0	687.9	0	-90
12077	457550.0	5738690.0	1260.0	118.0	0	-90
12078	457150.0	5738600.0	1270.0	267.3	0	-90
12079	457500.0	5738590.0	1242.0	331.3	0	-90
12080	457500.0	5738590.0	1250.0	154.5	180	-50
12081	457050.0	5738650.0	1285.0	224.6	0	-90
12082	457450.0	5738590.0	1248.0	405.6	0	-90
12083	457325.0	5738700.0	1280.0	322.2	0	-90
12084	457350.0	5738705.0	1290.0	651.4	0	-90
12085	457350.0	5738755.0	1295.0	644.4	0	-90
12086	457250.0	5738320.0	1228.0	343.5	360	-50
12087	457000.0	5738800.0	1315.0	471.5	0	-90
12088	457300.0	5739000.0	1310.0	271.0	90	-50

SUMMARY OF RESULTS

A summary of the significant intervals of mineralization from the drill holes used in the preparation of the mineral resource estimate is shown in Table 10-7. It is to be noted that the lengths of the mineralized intersections presented below represent core lengths and thus do not necessarily reflect the true width of the mineralization.

Table 10-7 - SUMMARY OF SIGNIFICANT DRILL RESULTS

Hole ID[2]	Incl	From (m)	To (m)	Int.[3] (m)	Au (g/t)	Ag (g/t)	AuEQ[1] (g/t)
Historical Drill holes							
82-03		28.0	142.7	114.6	0.17		0.17
82-04		22.0	150.0	128.0	0.25		0.25
82-04	incl.	116.4	134.7	18.3	0.51		0.51
P82-1		3.0	86.9	83.8	0.34	2.4	0.37
92-03		36.0	90.0	54.0	0.5		0.50
92-03	incl	36.0	66.0	30.0	0.7		0.70
92-04		10.0	130.0	120.0	0.42		0.42
92-04	incl.	14.0	74.0	60.0	0.69		0.69
92-04	and	14.0	40.0	26.0	0.9		0.90
92-05		190.0	214.6	24.6	0.57		0.57
92-05	incl.	196.0	200.0	4.0	2.76		2.76
06-02		175.0	212.5	37.5	0.33	2.1	0.36
06-03		115.0	210.0	95.0	0.52	4.2	0.58
06-03	incl.	159.0	210.0	51.0	0.6	5.7	0.68
06-04		183.0	187.0	4.0	0.39	2.4	0.42
06-06		151.0	159.0	8.0	0.5	0.9	0.51
06-11		3.0	49.0	46.0	0.54	0.5	0.55
06-12		105.0	210.0	105.0	1.15	11.8	1.31
06-12	incl.	169.0	210.0	41.0	2.49	20	2.75
Drill Holes Completed by Amarc							
9001		3.0	39.0	36.0	0.6	0.9	0.61
9001		228.0	297.0	69.0	1.41	10.9	1.55
9001	incl.	233.1	234.0	0.9	11.19	22.2	11.48
9001	incl.	252.8	297.0	44.2	1.74	15.9	1.95
9001		441.0	477.0	36.0	0.34	0.6	0.35
9002		222.0	255.2	33.2	0.96	2.8	1.00
9002	incl.	234.0	252.0	18.0	1.1	3.3	1.14
9003		3.0	224.5	221.5	0.6	5.6	0.67
9003	incl.	18.0	39.0	21.0	0.71	2.3	0.74
9003	incl.	96.0	224.5	128.5	0.84	8.9	0.96

Hole ID[2]	Incl	From (m)	To (m)	Int.[3] (m)	Au (g/t)	Ag (g/t)	AuEQ[1] (g/t)
9003	and	156.0	198.0	42.0	1.25	16.8	1.47
9004		6.0	195.0	189.0	1.56	7.9	1.66
9004	incl.	54.0	195.0	141.0	2.01	10	2.14
9004	and	96.0	195.0	99.0	2.76	12.2	2.92
9004	and	126.0	195.0	69.0	3.79	9.1	3.91
9004	and	129.0	132.0	3.0	13.47	14.4	13.66
9004	and	168.9	195.0	26.1	5.54	12.5	5.70
9005		12.0	27.0	15.0	0.32	1.4	0.34
9005		41.0	54.0	13.0	0.44	4.4	0.50
9005		76.0	163.2	87.2	0.5	7.1	0.59
9005	incl.	88.0	89.0	1.0	16.56	221.6	19.48
9005		279.0	303.0	24.0	0.34	0.8	0.35
9006		9.0	306.5	297.5	0.26	2.3	0.29
9006	incl.	78.0	192.2	114.2	0.32	3.7	0.37
9006	incl.	264.0	306.5	42.5	0.43	0.6	0.44
9007		48.0	252.0	204.0	0.33	4.5	0.39
9007	incl.	48.0	66.0	18.0	0.49	1.9	0.52
9007	incl.	135.0	216.0	81.0	0.46	8	0.57
9007	and	183.0	216.0	33.0	0.62	13.4	0.80
9008		18.0	42.0	24.0	0.44	6.4	0.52
9008		123.7	129.0	5.3	0.44	8	0.55
9009		15.0	147.9	132.9	0.25	5.9	0.33
9009	incl.	66.0	114.0	48.0	0.36	6.3	0.44
9010		35.4	189.0	153.6	0.29	3	0.33
9010	incl.	35.4	69.0	33.6	0.52	3.2	0.56
9011		83.4	207.0	123.6	0.44	2.3	0.47
9011	incl.	149.0	207.0	58.0	0.6	2.4	0.63
9011	and	186.0	207.0	21.0	1.13	2.9	1.17
9014		72.0	210.0	138.0	0.74	4.2	0.80
9014	incl.	147.0	210.0	63.0	1.17	6.8	1.26
9014	and	168.0	207.0	39.0	1.45	6.5	1.54
9014	and	204.0	207.0	3.0	11.7	50.8	12.37
10015		95.0	134.0	39.0	0.35	3.1	0.39
10015		194.0	230.0	36.0	0.43	4.7	0.49
10016		141.0	249.0	108.0	0.37	1.5	0.39
10016	incl.	231.0	249.0	18.0	0.57	1.8	0.59
10017		75.0	215.0	140.0	0.35	2.3	0.38
10017	incl.	138.0	168.0	30.0	0.52	3.4	0.56
10017		307.3	311.5	4.3	1.13	4.6	1.19
10018		54.0	60.0	6.0	0.47	0.8	0.48
10018		141.0	150.0	9.0	0.45	2.6	0.48

Hole ID[2]	Incl	From (m)	To (m)	Int.[3] (m)	Au (g/t)	Ag (g/t)	AuEQ[1] (g/t)
10019		33.0	42.0	9.0	0.21	4.7	0.27
10019		321.2	393.0	71.8	0.48	1.9	0.51
10020		18.0	156.0	138.0	0.46	4.1	0.51
10020	incl.	63.0	98.7	35.7	0.58	2.3	0.61
10020	incl.	116.8	156.0	39.3	0.79	10.5	0.93
10020	and	116.8	132.0	15.3	1.55	5.9	1.63
10020		294.0	297.0	3.0	6.58	1	6.59
10023		30.0	39.0	9.0	0.46	2	0.49
10023		249.0	288.0	39.0	1.21	2	1.24
10023	incl.	249.0	273.0	24.0	1.81	1.6	1.83
10023	and	267.0	273.0	6.0	5.15	2.6	5.18
10026		185.0	221.0	36.0	0.41	2.7	0.45
10027		75.0	78.0	3.0	2.31	0.2	2.31
10027		102.0	135.0	33.0	0.34	6.2	0.42
11034		9.1	33.0	23.9	0.34	3	0.38
11036		10.0	31.0	21.0	0.25	1.3	0.27
11040		15.4	171.0	155.6	0.58	2.9	0.62
11040	incl.	15.4	42.0	26.6	1.12	4.2	1.18
11040	incl.	69.0	108.0	39.0	0.71	3.6	0.76
11044		56.4	350.0	293.6	0.61	2.3	0.64
11044	incl.	56.4	204.0	147.6	0.73	3.1	0.77
11044	and	56.4	92.0	35.6	1.43	6	1.51
11044	incl.	272.0	338.0	66.0	0.84	1.8	0.86
11044	and	272.0	317.0	45.0	1.02	2	1.05
11045		16.3	178.0	161.7	1.05	3.6	1.10
11045	incl.	52.0	178.0	126.0	1.24	4.1	1.29
11045	and	79.0	157.0	78.0	1.71	5.1	1.78
11045	and	79.0	115.0	36.0	2.51	8.7	2.62
11045	and	85.0	88.0	3.0	12.5	18.5	12.74
11046		68.0	83.0	15.0	0.23	1.7	0.25
11047		17.0	50.0	33.1	0.54	3.1	0.58
11048		34.0	175.0	141.0	0.65	1.7	0.67
11048	incl.	34.0	49.0	15.0	0.8	4.1	0.85
11048	incl.	73.0	109.0	36.0	1.23	2.2	1.26
11048		277.0	337.0	60.0	0.6	2.1	0.63
11049		23.5	144.0	120.5	0.86	2.2	0.89
11049	incl.	23.5	84.0	60.5	1.21	2.3	1.24
11049		213.0	342.0	129.0	0.71	3.4	0.75
11049	incl.	228.0	261.0	33.0	1	5.2	1.07
11049	incl.	297.0	315.0	18.0	1.4	2.3	1.43
11051		81.0	129.0	48.0	0.77	3.7	0.82

Hole ID[2]	Incl	From (m)	To (m)	Int.[3] (m)	Au (g/t)	Ag (g/t)	AuEQ[1] (g/t)
11051	incl.	81.0	102.0	21.0	0.96	5.5	1.03
11051		315.0	408.0	93.0	0.76	1.8	0.78
11051	incl.	366.0	408.0	42.0	1.21	0.8	1.22
11052		48.0	456.0	408.0	0.6	2.6	0.63
11052	incl.	48.0	207.0	159.0	0.84	3.1	0.88
11052	and	99.0	207.0	108.0	1	3.6	1.05
11052	and	138.0	207.0	69.0	1.23	4.7	1.29
11052	and	168.0	171.0	3.0	7.7	3.6	7.75
11052	incl.	318.0	456.0	138.0	0.6	2.8	0.64
11052	and	378.0	456.0	78.0	0.73	2.8	0.77
11052	and	378.0	426.0	48.0	0.93	3.8	0.98
11053		79.0	94.0	15.0	0.47	1.9	0.50
11053		166.0	187.0	21.0	0.65	1.4	0.67
11053		235.0	271.0	36.0	0.87	1.5	0.89
11053	incl.	235.0	238.0	3.0	3.58	1.4	3.60
11053	and	256.0	259.0	3.0	4.89	3.5	4.94
11053		445.0	475.0	30.0	0.64	1	0.65
11054		43.0	442.0	399.0	0.5	2.4	0.53
11055		30.1	151.0	120.9	0.7	2.4	0.73
11055	incl.	78.0	151.0	73.0	0.86	2	0.89
11055		238.0	286.0	48.0	0.57	2.8	0.61
12057		68.0	134.0	66.0	0.6	3.3	0.64
12057	incl.	89.0	134.0	45.0	0.7	3.5	0.75
12057		149.0	164.0	15.0	0.63	2	0.66
12057		239.0	254.0	15.0	1.3	2.7	1.34
12057		269.0	305.0	36.0	0.54	0.9	0.55
12058		36.0	42.0	6.0	0.47	7.8	0.57
12060		11.6	332.9	321.3	0.55	3	0.59
12060	incl.	11.6	179.9	168.3	0.71	3.8	0.76
12060	and	21.0	99.0	78.0	0.93	6.2	1.01
12060	and	75.0	99.0	24.0	1.84	12.4	2.00
12060	and	147.0	177.0	30.0	0.69	1.5	0.71
12061		82.0	154.0	72.0	0.31	1.6	0.33
12061		334.0	343.0	9.0	0.48	2.3	0.51
12062		354.0	372.0	18.0	0.49	1.2	0.51
12062		390.0	435.0	45.0	0.41	1.5	0.43
12063		28.0	34.0	6.0	1.13	4.6	1.19
12063		52.0	208.0	156.0	0.4	12.7	0.57
12063	incl.	52.0	139.0	87.0	0.49	19.9	0.75
12063	and	52.0	76.0	24.0	0.71	24.1	1.03
12064		22.4	43.0	20.6	0.65	2.7	0.69

Hole ID[2]	Incl	From (m)	To (m)	Int.[3] (m)	Au (g/t)	Ag (g/t)	AuEQ[1] (g/t)
12064		76.0	91.0	15.0	0.55	6.1	0.63
12065		19.2	28.0	8.8	0.39	5.5	0.46
12065		43.0	388.0	345.0	0.43	3.6	0.48
12065	incl.	46.0	67.0	21.0	0.49	7.7	0.59
12065	incl.	97.0	112.0	15.0	0.37	17.5	0.60
12065	incl.	205.0	388.0	183.0	0.55	2	0.58
12065	and	244.0	328.0	84.0	0.72	2	0.75
12065	and	244.0	259.0	15.0	1.09	2.3	1.12
12065	and	292.0	328.0	36.0	0.82	2.5	0.85
12067		19.5	100.0	80.5	0.32	7.3	0.42
12067	incl.	19.5	55.0	35.5	0.44	6.6	0.53
12067		160.0	250.0	90.0	0.3	2.7	0.34
12068		33.0	39.0	6.0	0.47	1.8	0.49
12068		66.0	162.0	96.0	0.46	2.8	0.50
12068	incl.	126.0	162.0	36.0	0.69	4	0.74
12068	and	147.0	162.0	15.0	1.02	5.9	1.10
12068		246.0	252.0	6.0	0.92	2	0.95
12069		28.0	102.0	74.0	0.4	3.9	0.45
12069	incl.	63.0	72.0	9.0	0.76	3.8	0.81
12069	incl.	90.0	102.0	12.0	0.56	4.8	0.62
12069		279.0	306.0	27.0	0.49	2.8	0.53
12070		74.0	104.0	30.0	0.38	3	0.42
12070		203.0	221.0	18.0	0.35	0.8	0.36
12070		266.0	293.0	27.0	0.8	3.1	0.84
12070	incl.	278.0	293.0	15.0	1.12	4.9	1.18
12071		104.0	113.0	9.0	0.33	0.3	0.33
12071		203.0	218.0	15.0	0.4	1.9	0.43
12073		115.0	124.0	9.0	0.37	0.8	0.38
12074		37.0	46.0	9.0	0.4	2	0.43
12076		288.0	459.0	171.0	0.69	2.1	0.72
12076	incl.	321.0	447.0	126.0	0.82	2.2	0.85
12076	and	321.0	342.0	21.0	0.96	4.6	1.02
12076	and	384.0	447.0	63.0	1.07	1.5	1.09
12077		94.0	106.0	12.0	0.33	0.8	0.34
12079		20.2	173.0	152.8	0.7	4.7	0.76
12079	incl.	23.0	53.0	30.0	1.08	9.8	1.21
12079	incl.	116.0	173.0	57.0	0.78	3.8	0.83
12081		130.0	139.0	9.0	0.53	1.2	0.55
12082		38.0	242.0	204.0	0.71	3.1	0.75
12082	incl.	56.0	98.0	42.0	0.84	4.7	0.90
12082	incl.	125.0	131.0	6.0	3.4	6	3.48

Hole ID²	Incl	From (m)	To (m)	Int.³ (m)	Au (g/t)	Ag (g/t)	AuEQ¹ (g/t)
12082	incl.	158.0	188.0	30.0	0.85	4.2	0.91
12082	incl.	194.0	224.0	30.0	0.82	1.5	0.84
12082		305.0	314.0	9.0	0.52	3.9	0.57
12082		365.0	401.0	36.0	0.42	1.9	0.45
12083		106.0	118.0	12.0	0.66	3.6	0.71
12083		136.0	145.0	9.0	0.36	0.9	0.37
12083		160.0	205.0	45.0	0.57	2.1	0.60
12083	incl.	160.0	184.0	24.0	0.79	1.7	0.81
12083		259.0	289.0	30.0	0.57	4.5	0.63
12084		69.0	72.0	3.0	4.71	1.3	4.73
12084		90.0	99.0	9.0	1.01	8	1.12
12084		153.0	195.0	42.0	0.56	3.7	0.61
12084	incl.	156.0	180.0	24.0	0.7	5	0.77
12084		243.0	279.0	36.0	2.63	2.4	2.66
12084	incl.	249.0	252.0	3.0	21.1	1.2	21.12
12084		291.0	549.0	258.0	0.44	1.4	0.46
12084	incl.	360.0	432.0	72.0	0.58	1.1	0.59
12084	incl.	507.0	546.0	39.0	0.76	2.2	0.79
12086		14.6	23.0	8.4	0.32	1	0.33
12086		173.0	179.0	6.0	1.8	5.2	1.87
12086		260.0	290.0	30.0	0.38	1	0.39

Notes:

1. Gold equivalent calculations used metal prices of Au US$1,200/oz and Ag US$20/oz.
2. Metallurgical recoveries and net smelter returns are assumed to be 100%.
3. All holes are vertical, except for holes 92-03, 92-04, 92-05, 06-04, 06-06, 06-11, 06-12, 9001, 12063, 12064, 12072, 12074, and 12080
4. Widths reported are drill widths, such that true thicknesses are unknown.
5. All assay intervals represent length weighted averages.
6. Hole lost at 112 m when entering favoured host rock.
7. No significant intersection in holes 9012, 9013, 10021, 10024, 10025, 11038, 11056, 12059, 12066, 12072, 12075, 12078, 12080, 12085, 12087 and 12088.
8. No assays recorded for holes 72-1, 72-3, 72-10, and 06-01

11. SAMPLE PREPARATION, ANALYSIS AND SECURITY

The following summary of the sample preparation, analyses and security is modified from the RPA Report prepared by RPA in 2012.

A summary of the various preparation and analytical laboratories that carried out analytical work on samples from the Newton Property is summarized by year in Table 11-1.

Table 11-1 - ANALYTICAL LABORATORIES USED - NEWTON PROJECT

Year	Sample Preparation Laboratory	Primary Assay Laboratory	Check Assay Laboratory
1972	Unknown	Unknown	
1982	Kamloops Research Assay Lab (KRAL)	KRAL, Kamloops	
1988	Min-En North Vancouver	Min-En North Vancouver	
1989	Min-En North Vancouver	Min-En North Vancouver	
1990	ACME, Vancouver	ACME, Vancouver	
1991	Vangeochem, Vancouver	Vangeochem, Vancouver	
1992	Unknown	Unknown	
1994	Min-En North Vancouver	Min-En North Vancouver	
1996	Min-En North Vancouver	Min-En North Vancouver	
1997	Min-En North Vancouver	Min-En North Vancouver	
2005	ACME, Vancouver	ACME, Vancouver	
2006	ACME, Vancouver	ACME, Vancouver	ACME(1), Vancouver
2009	ACME, Smithers, or Vancouver	ACME, Vancouver	ALS Chemex, North Vancouver
2010-2012	ACME, Vancouver	ACME, Vancouver	ACME(2), Vancouver and ALS Minerals(3), North Vancouver

Historical Samples (Pre-2006)

Descriptions of the sample preparation or analytical protocols used by Cyprus in 1972, and in a few of the later year programs, are not mentioned in the available reports. Site security measures are also not mentioned in any of the available reports prior to the arrival of Amarc in 2009. It is assumed that sample preparation, analytical, and site security protocols consistent with industry standards of the day were in place during these programs.

For the 1982 Taseko drilling, Kamloops Research & Assay Laboratory Limited ("KRAL") performed the sample preparation and analytical work (Assessment Report-11001, 1982). Gold, silver, copper, and zinc were determined for drill holes 82-03 and 82-04; however, the procedures used by KRAL to perform the sample preparation and analysis work are not mentioned.

In 1988, 129 drill core samples (from 1972 Cyprus drill core) and 82 soil samples were collected and sent to Min-En Labs in North Vancouver (Assessment Report-18081, 1988). The core samples were crushed with a jaw crusher and pulverized by ceramic plated pulverizer or ring mill pulverizer. The soil samples were dried at 95°C and screened through an 80-mesh sieve to obtain the minus 80 mesh fraction for analysis. The gold content was determined by Min-En Labs using a special multi-acid digestion with Atomic Absorption Spectroscopy ("AAS") finish. Silver, copper, lead, zinc, antimony, and arsenic were determined by Min-En Labs using aqua regia plus HClO4 digestion with Inductively Coupled Plasma – Atomic Emission Spectroscopy (ICP-AES) finish.

In 1992, 462 core samples were collected from five drill holes (hole 92-01 through 92-05) and assayed for gold and copper. The assay laboratory and the procedures are not mentioned in the available reports.

The core from the pre-2006 programs was likely split or sawn in half lengthwise, with one half sent for assay and the other half retained in the core box for archival purposes. Most historical samples are two metre in length. Table 11-1 lists the laboratories mentioned in the historical reports. In many cases, the laboratories and methods used are not described definitively and the original assay certificates are generally not available for review. Gold analysis on the drill core samples was likely by the fire assay fusion method on a one assay ton (30 g) sample followed by an AAS or gravimetric finish. Methods and laboratories used for analysis of drill core samples for other elements are also not fully documented. It seems that a variety of analytical methods, digestions, and finishes were used.

High Ridge Samples – 2006

In 2006, the drill core was logged, cut with a diamond saw, and stored on site near the top of Newton Hill. The core was cut in half lengthwise using a gas-powered core saw. Most mineralized core was sampled in two metre intervals with a few exceptions to accommodate structural and lithological changes.

High Ridge used Acme Analytical Laboratories Ltd. ("Acme") of Vancouver, British Columbia, to prepare and assay all core samples collected on the Newton Project. A total of 936 samples were assayed for multiple elements including gold, copper, and silver by Acme, which used an aqua regia digestion of a 0.5 g sample followed by an Inductively Coupled Plasma – Mass Spectroscopy (ICP-MS) finish (Acme method code: Group 1DX). In addition, 81 pulp samples were re-assayed by Acme using the same method. It should be noted that gold was not assayed by fire assay (except for two re-assay pulp samples numbered 925 and 927). For the 2006 High Ridge samples, gold was determined by the multi-element assay method described above.

The coarse reject and pulp samples from this program were discarded shortly after the assays were received by High Ridge.

Amarc Samples – 2009 Through 2012

The Amarc drill programs of 2009, 2010, 2011, and 2012 used the same sampling, sample preparation, analytical, site security, and sample storage protocols. Shipment security was expanded in the 2011 and 2012 programs.

The core was boxed at the rig and transported by truck to the logging facility on site where it was logged and sampled. The core was cut in half lengthwise using a diamond saw. One half was collected as an assay sample and the other half was retained in the core box. Most core samples are three metres in length with some exceptions made to accommodate structural and lithological changes. Core samples were placed in plastic sample bags, checked for sample sequence integrity, and then shipped along with external quality control ("QC") samples (standards, blanks and duplicates) by commercial carrier to the laboratory. In the last two drill programs, samples and external QC samples were collected in white sacks and placed into a sealed wooden tote for shipment. The half core remaining after sampling was transported to a secure facility at Gibraltar Mine (to hole 59) and at Mueller Electric in Williams Lake (holes 60-88) for long term storage.

Samples were shipped to the Acme laboratory facility located in Vancouver, British Columbia, for sample preparation with the exception of 2009 holes 9003 through 9014 which were processed at the Acme facility located in Smithers, British Columbia. Acme was the primary analytical laboratory used, and ALS Minerals, North Vancouver, British Columbia, was the check laboratory. Both the Acme and ALS Minerals facilities are independent of Amarc.

The following information regarding laboratory certification is published on the web site maintained by Acme:

> *Foreseeing the need for a globally recognized mark of quality in 1994, Acme began adapting its Quality Management System to an ISO 9000 model. Acme implemented a quality system compliant with the International Standards Organization (ISO) 9001 Model for Quality Assurance and ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories. On November 13, 1996, Acme became the first commercial geochemical analysis and assaying lab in North America to be registered under ISO 9001. The laboratory has maintained its registration in good standing since then. Vancouver expanded the scope of its registration to include the Smithers preparation facility in June of 2009, Yellowknife in April 2010, and Whitehorse in May 2010.*
>
> *October 2011 the Vancouver laboratory received formal approval of its ISO/IEC 17025:2005 accreditation from Standards Council of Canada for the tests listed in the approved scope of accreditation (see link below). The lab will continue to add methods to this scope. The Santiago hub laboratory is also working toward ISO 17025:2005 accreditation and is expected to complete the accreditation process within the next year.*

The following information regarding laboratory certification is published on the web site maintained by ALS Minerals:

> *ALS Minerals has developed and implemented at each of its locations a Quality Management System (QMS) designed to ensure the production of consistently reliable data. The system covers all laboratory activities and takes into consideration the requirements of ISO standards.*
>
> *The QMS operates under global and regional Quality Control (QC) teams responsible for the execution and monitoring of the Quality Assurance (QA) and Quality Control programs in each department, on a regular basis. Audited both internally and by outside parties, these programs include, but are not limited to, proficiency testing of a variety of parameters, ensuring that all key methods have standard operating procedures (SOPs) that are in place and being followed properly, and ensuring that quality control standards are producing consistent results.*

> ***Accreditation***
>
> *Perhaps the most important aspect of the QMS is the process of external auditing by recognized organizations and the maintaining of ISO registrations and accreditations. ISO registration and accreditation provides independent verification for our clients that a QMS is in operation at the location in question. Most ALS Minerals laboratories are registered or are pending registration to ISO 9001:2008, and a number of analytical facilities have received ISO 17025 accreditations for specific laboratory procedures.*

The half-core samples were crushed at Acme (Vancouver or Smithers) to greater than 80% passing 10 mesh (2 mm), then a 500 g sub-sample was split and pulverized to >85% passing 200 mesh (75 µm). Prior to hole 11045, a 250 g sub-sample was split and pulverized to >85% passing 200 mesh. The coarse rejects and pulps from the assay samples are retained at the secure, long-term storage facility of HDSI at Port Kells, British Columbia.

The gold content was determined by 30 g fire assay fusion with ICP-AES finish (Acme method code: 3B01). The concentrations of copper, silver and 32 additional elements were analyzed using a 1.0 g sample aqua regia digestion with ICP-AES or ICP-MS finish (Acme method code: 7AX). For hole 9001, the first 39 samples were also analyzed for multiple elements using 1.0 g sample digested in aqua regia with ICP-AES finish (Acme method code: 7AR). For hole 9007, the samples were also analyzed for multiple elements using a 1.0 g sample and four acid digestion with ICP-AES or ICP-MS finish (Acme method code:7TX).

Duplicate samples were assayed by ALS Minerals using similar methods to those employed by Acme. The gold content was determined using a 30 g fire assay with ICP finish (ALS method code: Au-ICP21). The concentrations of copper, silver and 49 other elements were analyzed with a 0.5 g sample aqua regia digestion with ICP-AES/ICP-MS finish (ALS method code: ME-MS41).

Core sampling by Amarc included: 1,443 samples in 2009, 2,474 samples in the late 2010 to early 2011 program, 1,557 samples in the late 2011 program, and 3,613 samples in 2012. In addition, 145 pairs of in-line quarter core field duplicates were taken in the late 2010 and early 2011 program, 95 in-line duplicates (quarter core for hole 11044 and coarse rejects for remaining holes) in the late 2011 program, and 211 in-line reject duplicates in 2012. The quarter core duplicates (performed on all drill holes of late 2010 and early 2011 and hole 11044 of late 2011) and reject duplicates (hole 11045 onwards) were prepared and assayed by Acme using the same methods.

In addition, a total of 25 samples were selected from late 2011 Newton drill core rejects for determination of the gold content by the screen-metallics fire assay method (Acme method G602). A minimum 500 g of the coarse reject split was pulverized, weighed to the nearest gram and then sieved at 150 mesh (0.1 mm). The coarse fraction was weighed to the nearest 0.01 g, fire assayed in its entirety and the gold content weighed to the nearest 0.005 mg. A one assay ton aliquot of the fine fraction was subject to fire assay fusion with an ICP- AES finish, or a gravimetric finish if in excess of 30 ppm Au. The total gold in the coarse fraction, the fine-fraction gold concentration, and a weighted average gold concentration for the entire sample are reported in the results.

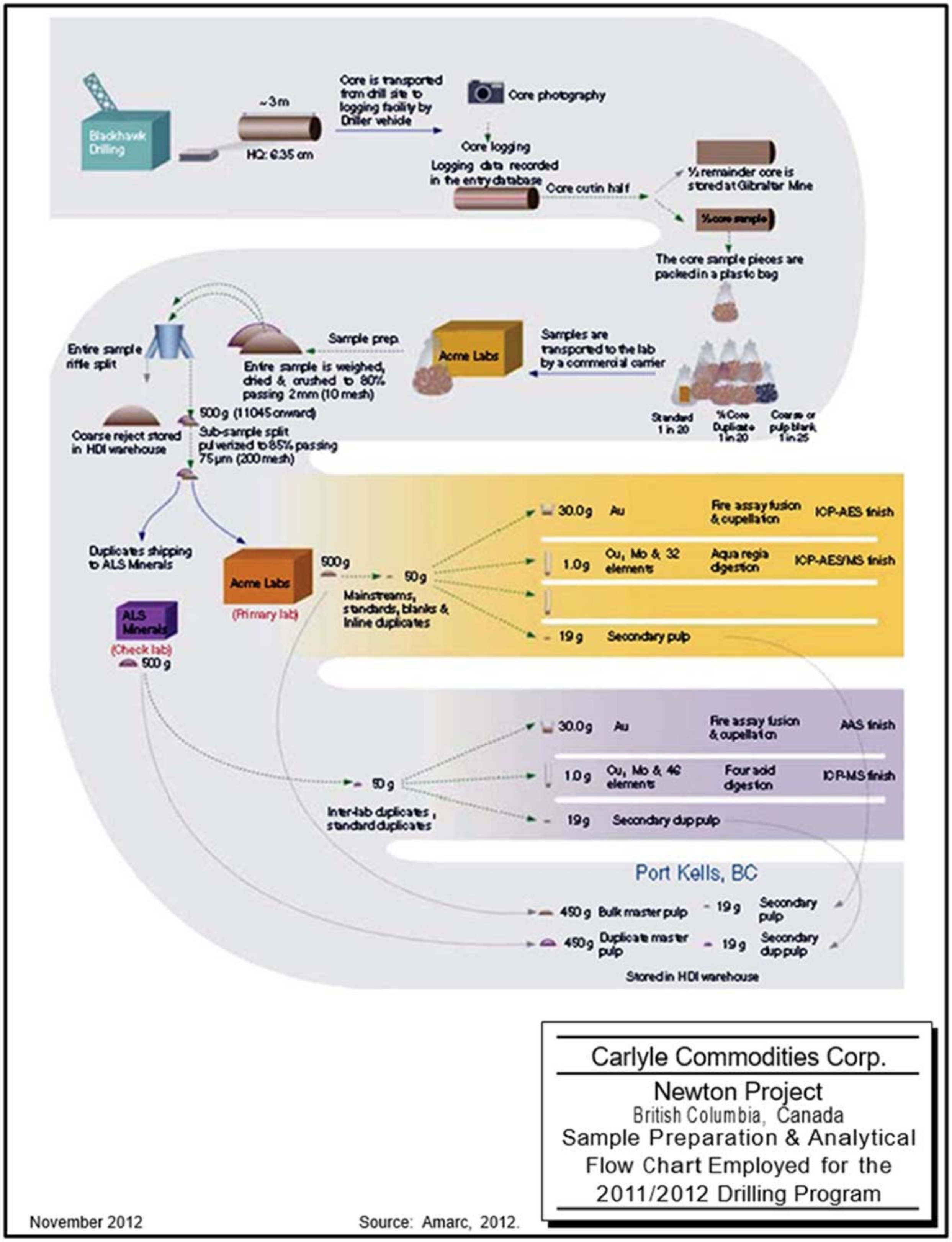
The sample preparation and analytical flow chart for the 2009 through 2012 drill programs is shown in Figure 11-1.

Figure 11-1 – SAMPLE PREPARATION AND ANALYTICAL FLOW CHART

SUMMARY OF QUALITY ASSURANCE/QUALITY CONTROL MEASURES

Quality assurance (“QA”) is a set of systems and measures whose purpose is to assure that the results meet the standards of quality. QC is the use of processes and tools to check and ensure that the desired level of quality is achieved in the results. Since quality assurance and quality control are closely related, they are often referred as QA/QC.

Amarc implemented and maintained an effective external QA/QC system consistent with industry best practice from 2009 to 2012. This program is in addition to the QA/QC procedures used internally by the analytical laboratories. Table 11-2 describes the types of external QA/QC sample types used in this program.



Carlyle Commodities Corp.

Newton Project

British Columbia, Canada

Sample Preparation & Analytical Flow Chart Employed for the 2011/2012 Drilling Program

November 2012

Source: Amarc, 2012.

Table 11-2 - SUMMARY OF EXTERNAL QA/QC SAMPLE TYPES USED

QC Code	Sample Type	Description	Percent of Total
MS	Regular Mainstream	Regular samples submitted for preparation and analysis at the primary laboratory.	90%
ST	Standard (Certified Reference Material or CRM)	Mineralized material in pulverized form with a known concentration and distribution of element(s) of interest. Randomly inserted using pre-numbered sample tags.	5% or 1 in 20
DQ/DX	Duplicate or Replicate	An additional split taken from the remaining pulp reject (DP), coarse reject (DX), ¼ core (DQ) or ½ core remainder. Random selection using pre-numbered sample tags.	5% or 1 in 20
SD	Standard Duplicate	Standard reference sample submitted with duplicates and replicates to the check laboratory.	<1%
BL	Blank	Basically, a standard with no appreciable grade used to test for contamination.	1%

Table 11-3 is a summary of the external QA/QC samples used by year.

HISTORICAL QA/QC (PRE-2006)

There is no mention of external QA/QC samples inserted along with core samples for the historical drilling prior to 2006 in the available reports.

HIGH RIDGE 2006 DRILL PROGRAM QA/QC

For the 2006 drill program, High Ridge re-assayed 81 pulp samples (pulp duplicates) for external quality control purposes. No external standards or blanks were inserted to control the assay results. In addition, gold was not assayed by the fire assay method (with the exception of two re-assay pulp samples - 925 and 927). Instead, gold was determined by digestion of a 0.5 g sample in Aqua Regia followed by an ICP-AES finish.

Table 11-3 - EXTERNAL QA/QC SUMMARY BY YEAR

Year	MS	DP	DQ/DX	SD	ST	BL	ST%
Pre-2006	672	-	-	-	-	-	-
2006	934	81	236*	-	-	-	-
2009	1,443	75		5	77	23	5
Late 2010 - Early 2011	2,474	145	145*	11	144	108	5
Late 2011	1,557	95	95	7	93	73	6
2012	3,613	203	211	15	216	170	6
ALL	**10,693**	**599**	**687**	**38**	**530**	**374**	**4**

* Quarter core samples taken by Amarc for gold fire assay and multi-element analysis.

AMARC 2009 DRILL PROGRAM QA/QC

For the 2009 drill program, Amarc implemented a rigorous QA/QC program. Mr. C. Mark Rebagliati, P. Eng., a Qualified Person as defined under NI 43-101, supervised the drilling, quality assurance and quality control program. This program was in addition to the QA/QC procedures used internally by the analytical laboratories.

During this period, a total of 77 standards, 80 check duplicates, including 75 coarse reject duplicates (DX) and five standard duplicates (SD), and 23 coarse granitic blanks (BL) were included with the regular assay samples for external QC purposes (Table 11-3). In 2009, Amarc took 236 quarter core duplicate samples from some of the half core remaining from the 2006 High Ridge sampling program for re-analysis by a gold fire assay fusion method at Acme.

AMARC LATE 2010 AND EARLY 2011 DRILL PROGRAM QA/QC

For the late 2010 and early 2011 drill program, Amarc continued with a similar QA/QC program to 2009. The major difference was that a field duplicate was taken from a quarter core sample instead of the coarse reject. During the period, a total of 144 standards, 145 duplicates and 108 blanks were included with the regular assay samples for external QC purposes. The blanks consisted of 61 certified pulp blanks and 47 coarse granitic blanks.

AMARC LATE 2011 DRILL PROGRAM QA/QC

For the late 2011 drill program, Amarc continued with a similar QA/QC program. During this phase, a total of 93 standards (ST), 95 in-line quarter core duplicates (DQ) and coarse reject duplicates (DX), 95 inter-laboratory pulp duplicates (DP), and 73 blanks (BL) were included with the regular assay samples for external quality control purposes. The blanks consisted of 35 certified pulp blanks and 38 coarse granitic blanks.

In addition, 25 samples were selected from late 2011 Newton drill core rejects for gold fire assay screen analysis at 150 mesh (0.1 mm) to provide an indication of the “metallic” gold component. Eleven samples from drill hole 11055 were selected because they had higher than anticipated variability in the original in-line duplicate results. The remaining 14 samples were randomly selected. A scatter plot of the results of the gold metallics assays and the original gold assays is shown in Figure 11-2. The plus 150 mesh gold component of the total gold assay for the 25 samples is shown in red in Figure 11-3. The metallic gold component ranges from 0.4% to 23.9% with a median value of 5.4% for the samples in this study.

A scatter plot of the results of the gold metallics assays and the original gold assays is shown in Figure 11-2. The metallic gold component of the total gold assay for 25 samples is shown in red in Figure 11-3.

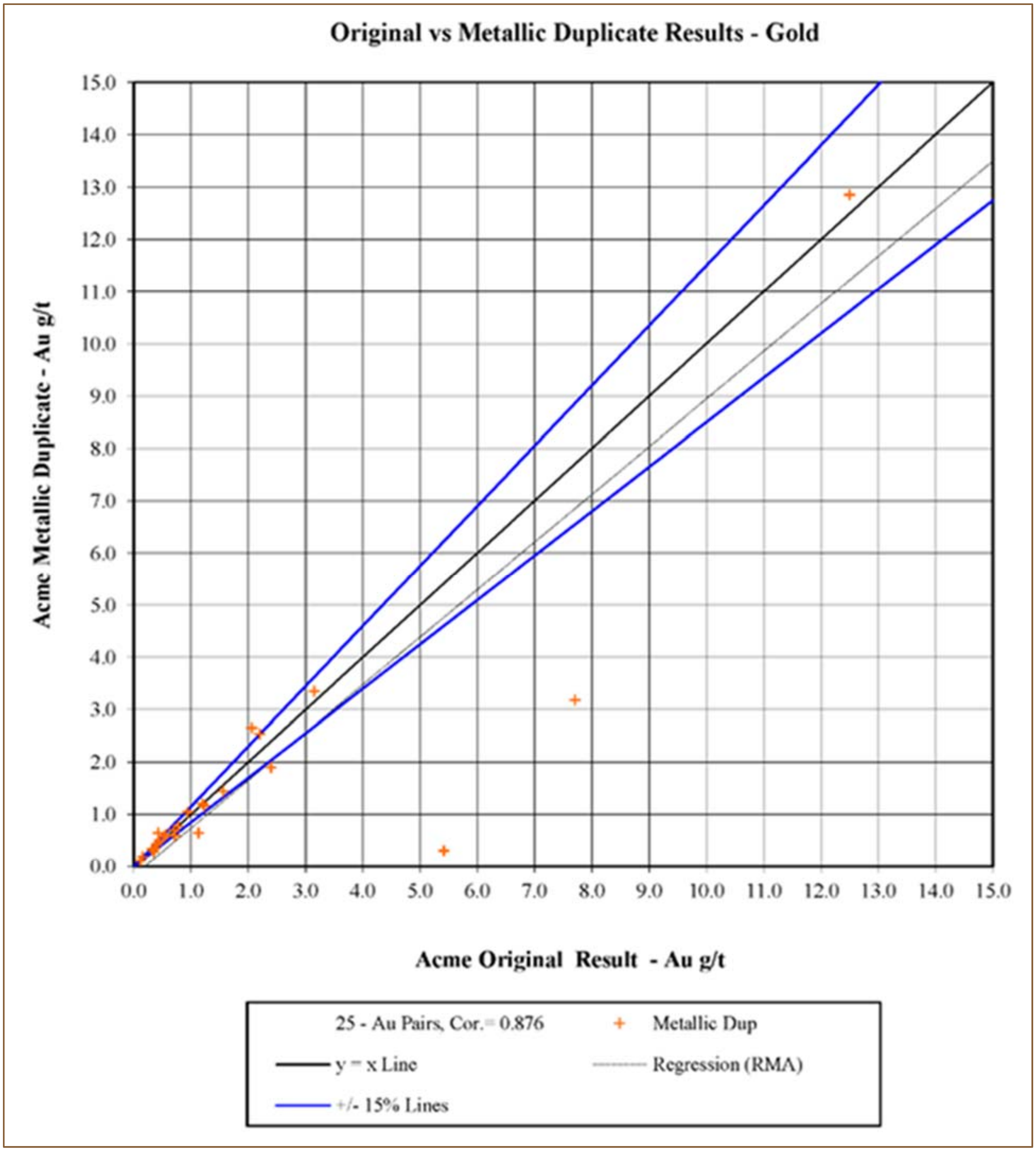


Figure 11-2 - SCATTER PLOT OF METALLIC Au VS. ORIGINAL Au ASSAY

As shown in Figure 11-2, two notable outliers occurred: 7.7 vs. 3.2 and 5.4 vs. 0.3 are from 11052-950731 and 11045-950182, respectively. They may indicate small gold “nuggets” were found in the original assay pulp, but not in the 500-gram metallic assay pulp. The reverse situation did not occur, presumably because the test population is quite limited. Most pairs, including the highest value pair in the test group (12.5 vs. 12.9) from 11045-950163, match quite closely. Ongoing in-line duplicate gold results should be monitored to determine if any further metallic gold analyses are needed.

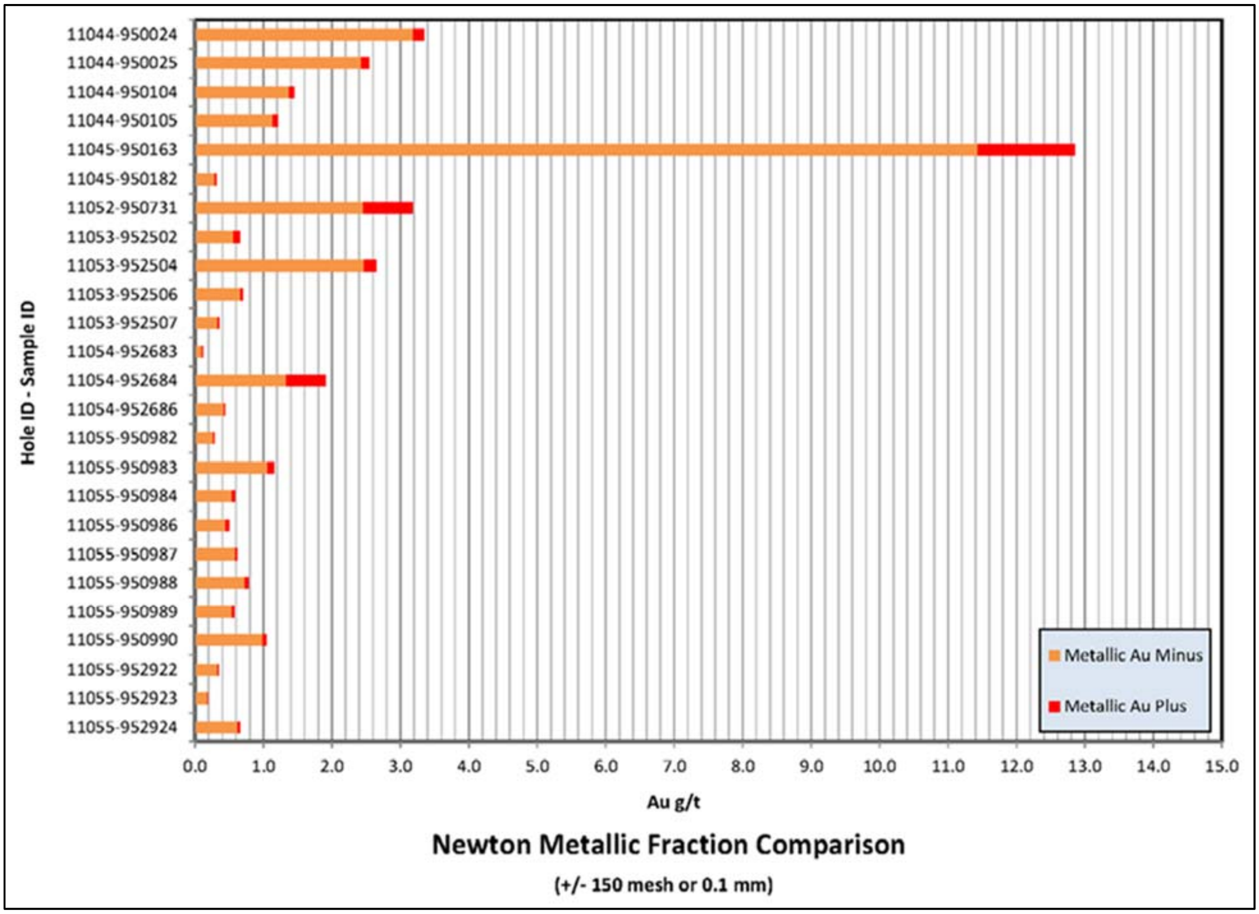


Figure 11-3 - METALLIC GOLD COMPONENT (RED)

AMARC 2012 DRILL PROGRAM QA/QC

In the 2012 drilling program, a total of 216 standards (ST), 211 in-line coarse reject duplicates (DX), and 170 blanks (BL) were inserted and assayed along with the regular assay samples for external quality control purposes. The blanks consisted of 103 certified pulp blanks and 67 coarse granitic blanks.

STANDARDS

Table 11-4 provides a list of the standards that were used in the 2012 exploration program. Monitoring of the results from the regular assay results for gold was controlled based on a statistical analysis determined from the round-robin analysis of the standards at a number of independent laboratories as follows:

Mean ± 3 Standard Deviations

During the course of the regular assaying of the drill core samples, a standard is deemed to have failed when the gold result falls outside the control limits for the element of interest. The laboratory is notified, and the affected range of the samples is re-run for that element until the included standard passes (falls within the control limits). The silver analyses were not subjected to the same level of scrutiny as were the gold values, consequently the range of these values will be larger.

In respect of silver, only one of the selected standards shown in Table 11-4 had a certified recommended value for silver. Consequently, a recommended value was determined using the assay data received from the Acme laboratory. The mean silver value was determined after first removing significant outlier results. The upper and lower control limits were set at ± 12% of the mean silver value.

In summary, RPA concluded that the QA/QC methods used by Amarc met the current industry best practices. RPA recommended that the QA/QC protocols for the Newton Project be updated in future drilling and that sampling programs include certified reference materials for silver and monitor the results for departures from the recommended values.

Table 11-4 - STANDARDS USED IN THE 2012 DRILL PROGRAM

Standard	Times Used	Au (g/t)	Ag (g/t)
CM-7	30	0.427	2.42*
CM-8	10	0.91	3.60*
CM-11A	46	1.014	1.89*
CM-12	54	0.686	4.04*
CM-13	8	0.74	3.38*
CM-17	6	1.37	14.90
CGS-29	62	0.228	1.96*

Note: * A certified recommended value for silver is not available for this standard.

Figure 11-4 and Figure 11-5 show the standard control charts after re-runs.

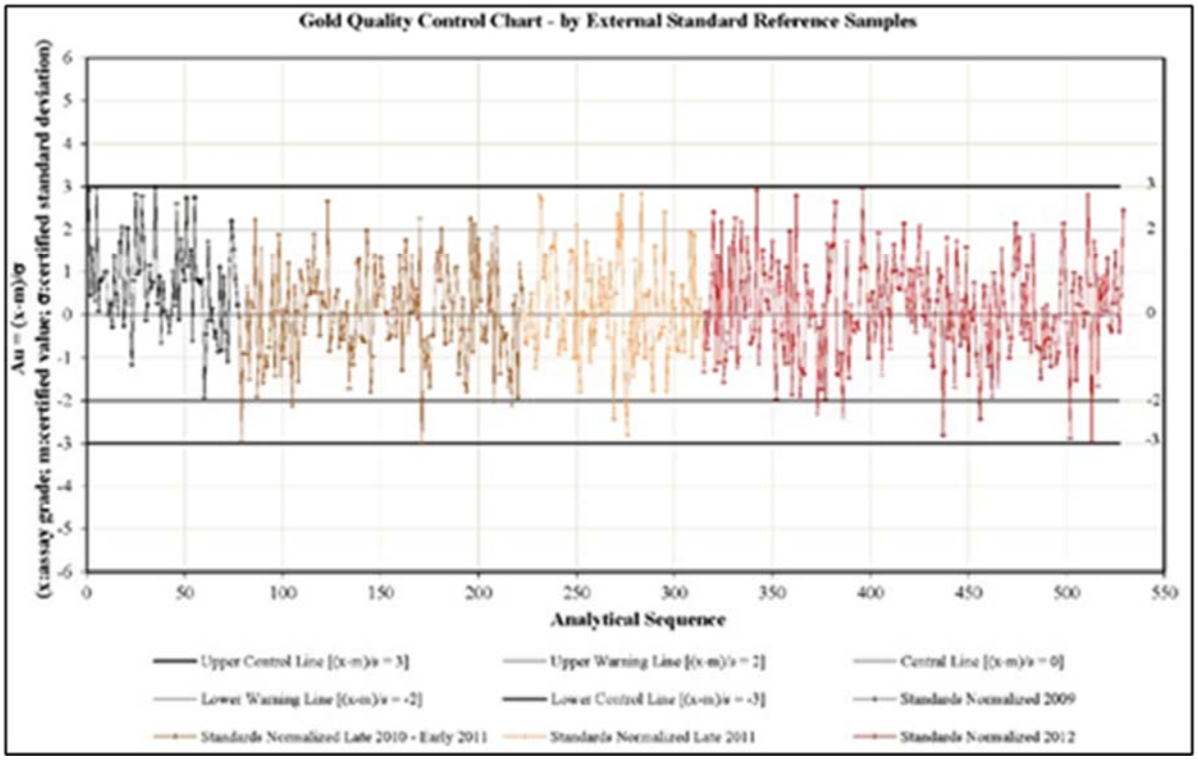


Figure 11-4 - GOLD QUALITY CONTROL CHART (AMARC 2009-2012)

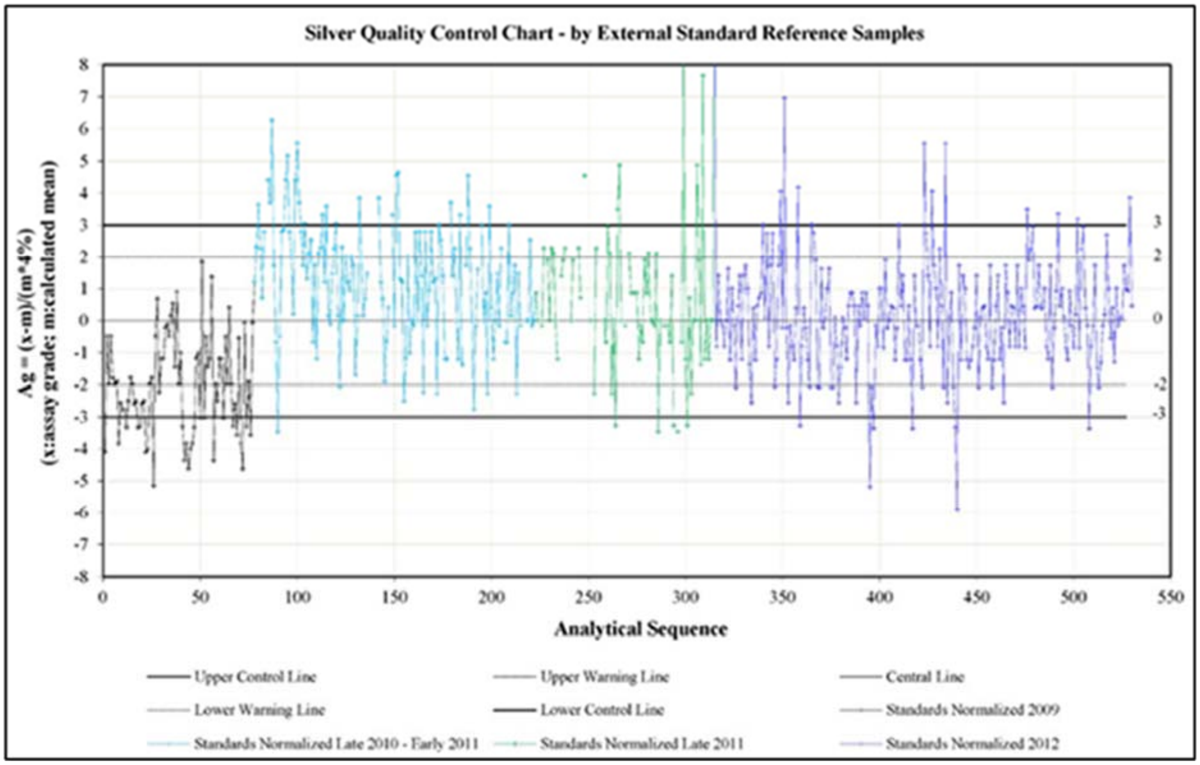


Figure 11-5 - SILVER QUALITY CONTROL CHART (AMARC 2009-2012)

BLANKS

During the 2012 drilling program, a total of 170 external blanks, including 67 barren rock blanks (coarsely crushed granodiorite), and 103 commercial pulp blanks (BL-7 and BL-9), were inserted with the regular assay samples to monitor potential contamination. The assay results (Figure 11-6 and Figure 11-7) indicate that no significant cross-contamination occurred during sample preparation and assay.

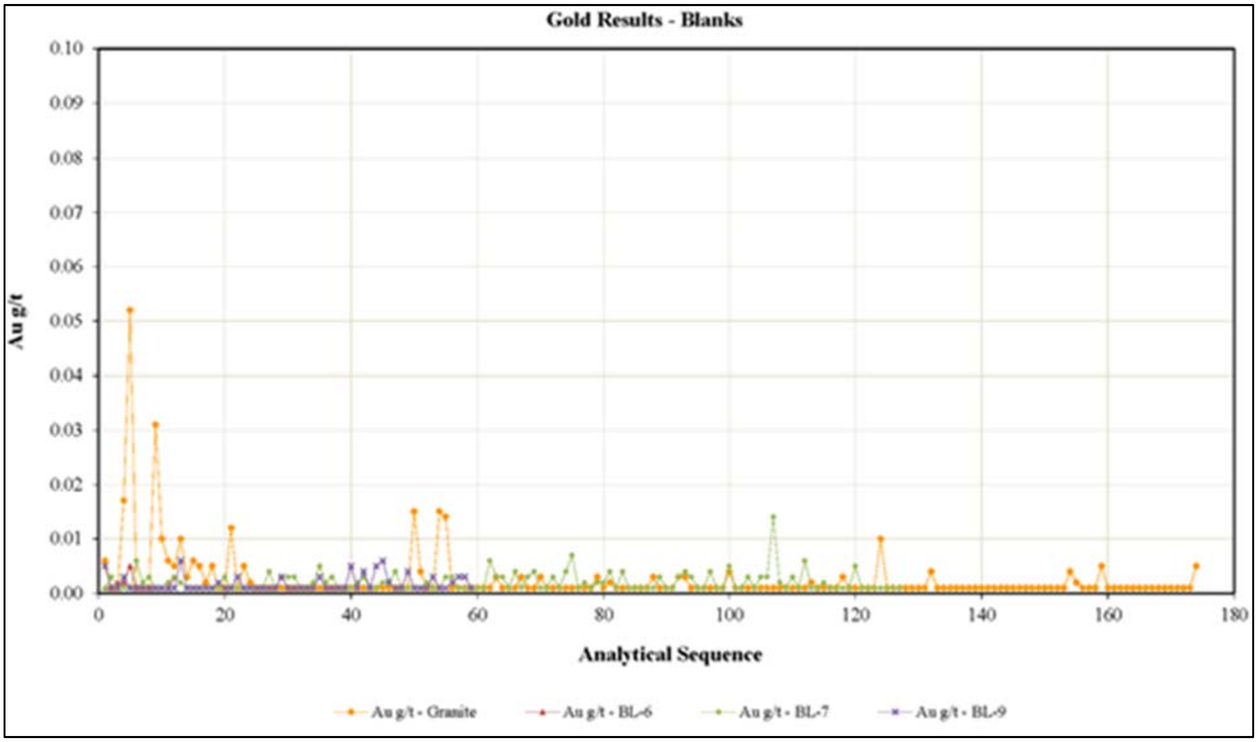


Figure 11-6 - GOLD MONITORING CHART OF BLANKS (AMARC 2009-2012)

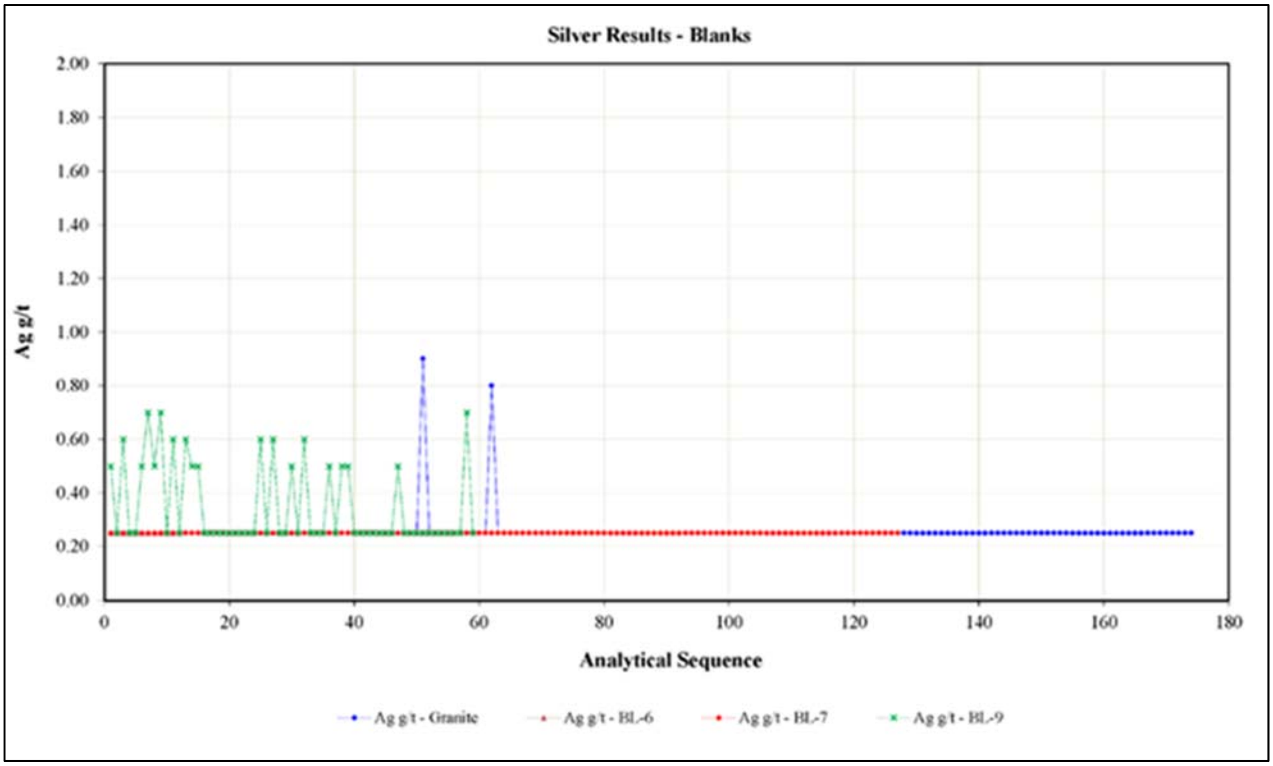


Figure 11-7 - SILVER MONITORING CHART OF BLANKS (AMARC 2009-2012)

DUPLICATES

During 2012, 211 in-line reject duplicates (DX) were inserted and assayed along with the regular assay samples to monitor the repeatability (precision) of the primary assay laboratory. The results are shown in Figure 11-8 and Figure 11-9. Analyses of the inter-laboratory duplicate samples were performed for gold and 51 additional elements on original pulps by ALS Minerals in Vancouver using similar analytical methods to Acme.

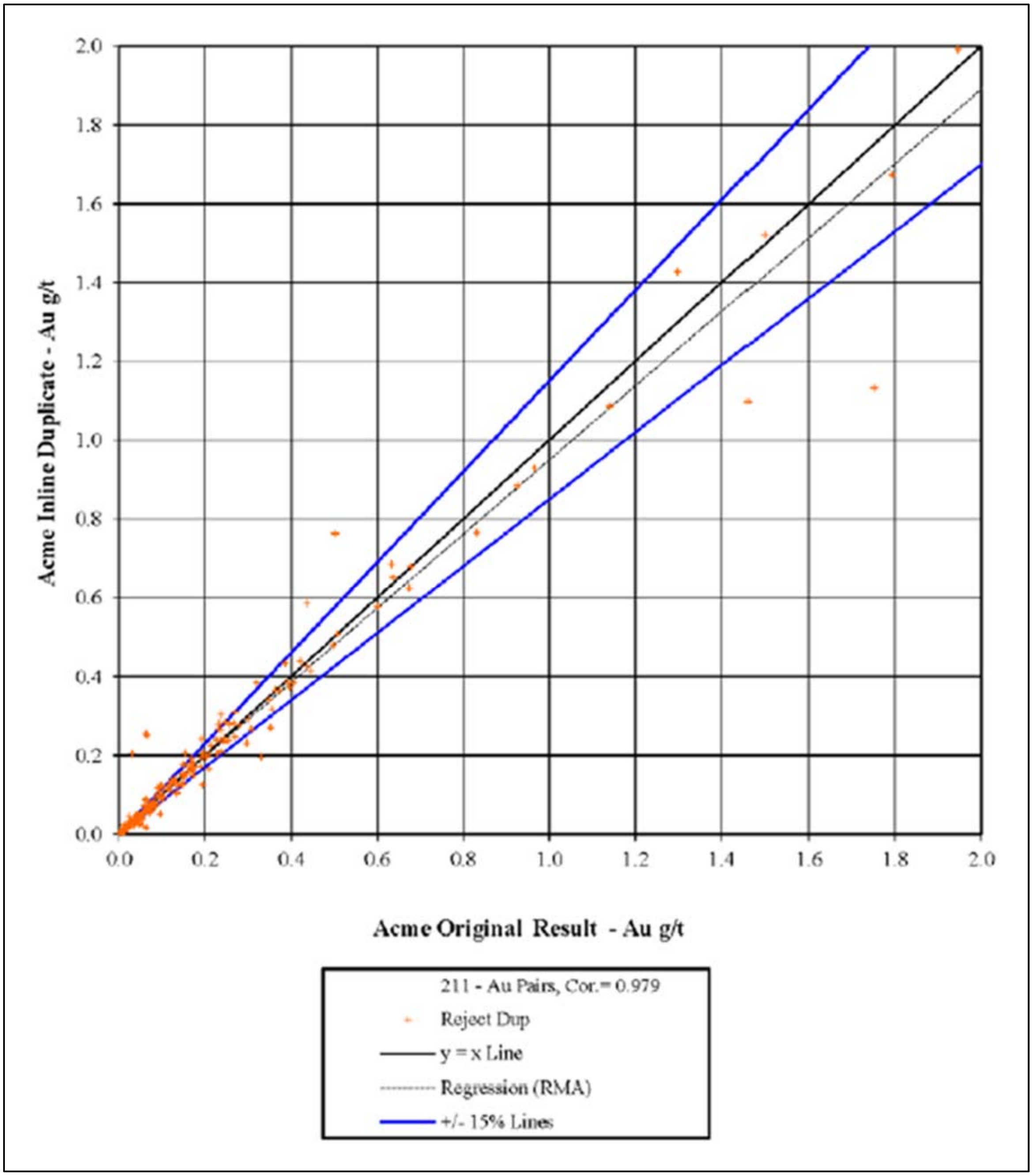


Figure 11-8 - SCATTER PLOT OF GOLD IN-LINE DUPLICATE SAMPLES (AMARC 2012)

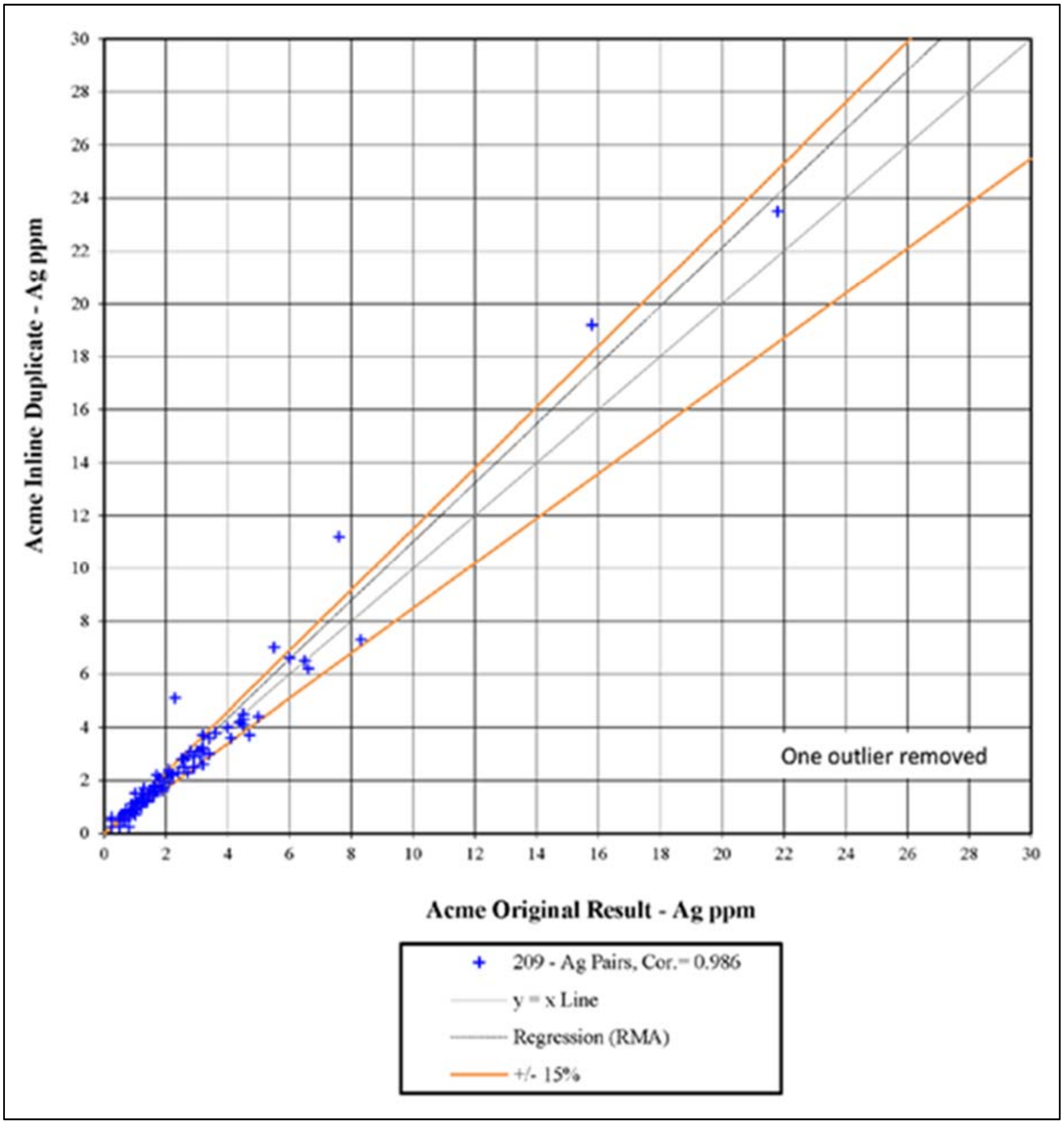


Figure 11-9 - SCATTER PLOT OF SILVER IN-LINE DUPLICATE SAMPLES (AMARC 2012)

DENSITY DATA

A total of 1,494 bulk density (or specific gravity, SG) measurements have been taken by site personnel using the water immersion method since 2010.

The procedures of the water immersion method are as follows:

- Dry, whole core samples, typical of the surrounding rock selected
- Weigh sample in air (Ma)
- Weight sample suspended in water (Mw)
- Read Mw quickly after balance stabilizes to minimize water incursion into rock pores
- Calculation of the specific gravity as per the formula: SG = Ma/(Ma – Mw)

A summary of the original density results is shown in Table 11-5.

Table 11-5 - SUMMARY OF DENSITY READINGS

Year	Number of Samples	SG Median
Pre-2010	-	-
2010	384	2.69
2011	425	2.7
2012	685	2.68
Overall	**1,494**	**2.69**

DATA ENVIRONMENT

All drill logs and surface exploration samples collected on the project site are compiled in an SQL database with tables that are compatible with Microsoft Access.

Drill hole logs are entered into notebook computers running the Amarc Access data entry module for the Newton Project at the core logging area on site. The core logging computers are synchronized on a daily basis with the master site entry database at the site geology office. Core photographs are also transferred to the site geology office computer on a daily basis. In the geology office, the logs are printed, reviewed, and validated and initial corrections made.

Drill hole data from the project site is transmitted to the Vancouver office on a weekly basis. There, the logging data are imported into the master SQL drill hole database and merged with digital assay results provided by the analytical laboratories. A further printing, validation and verification step follows after import.

Edits to the drill logs are submitted to the site office for correction. Analytical re-runs are submitted to the analytical laboratories and corrections to analytical results within the database are made in the Vancouver office. Compiled data are exported to the site entry database, to resource modelling and other users.

DATA PROCESSING

Project data are processed so that they can be rapidly assessed with respect to the requirements of ongoing exploration and timely disclosure of material information by Amarc management. In this regard, compiled drill data and assay results are made available to Amarc management, the technical team, and project consultants advancing the project immediately after the initial error trapping and analytical QA/QC appraisal processes are completed. The data are then subjected to more extensive, through-going validation, verification, QA/QC, and error correction processes. The findings of these longer-term reviews are assessed as to their impact on previously released data and the necessity for further disclosure if there is a material change.

It is the opinion of the QP that is responsible for this section that the sample preparation, security, analytical procedures, and quality control practices of Carlyle meet or exceed industry standards and that the data from the Carlyle drill holes are therefore acceptable for the estimation of mineral resources. Furthermore, the data collected by the previous owner, Amarc, also has the reliability needed for use in resource estimates.

12. DATA VERIFICATION

Introduction

There has been no drilling and sampling since 2012 and the previous verifications carried out in 2012 remain relevant to determine if the data is of sufficient quality to support this Technical Report.

Additional verification was carried out in 2021.

Michael F O'Brien P.Geo. is the QP for this section.

Data Verification 2012 – Amarc

For the 2009 through 2012 drill programs, the following data verification and validation steps were completed by HDI staff during the preparation of the drill hole database:

Print and review the merged sampling, analytical and QA/QC information as assay results are returned from the laboratory.

- Generate downhole charts with lithologic and selected assay element columns, for visual comparison and identification of possible errors.
- Generate external QA/QC charts to monitor standard performance, identify failures and request re-runs.
- Generate blank monitoring charts to identify possible contamination.
- Generate duplicate monitoring charts to monitor assay reproducibility.
- Correct mis-labelled and mis-entered data entries, keypunching errors, typos and any other errors found; and
- Verify SG data from the 2010 and 2011 drill programs against downhole plots and core photos and identify outliers.

Data Verification 2012 – RPA

DRILLING, LOGGING AND SAMPLING PROCEDURES

During 2012, while the most recent drilling campaign was still underway, Mr. Reno Pressacco, Principal Consulting Geologist with RPA, carried out a site visit on June 19 and 20, 2012, accompanied by Ms. Elena Guszowaty and Mr. Fraser Adams. During the site visit, Mr. Pressacco examined existing site infrastructure and access. He visited the location of several surface drill hole collars and discussed diamond drilling procedures with the project geologist. RPA reported that the drilling at the Newton Project has been carried out to the highest industry standards employed at that time.

A small program of check assaying was carried out by RPA where a total of 10 samples of fresh half core from drill holes 12083 and 12072 were selected.

RPA carried out a program of validating the digital drill hole database by means of spot checking a selection of drill holes that intersected the mineralized material. Approximately 10% of the drill hole database was selected for validation. RPA discovered no material discrepancies in the drill hole database.

Data Verification 2021 – RockRidge

A site inspection was conducted by the QP, Michael F O’Brien, MSc., P. Geo on June 24, 2021. During the field visit to the Property, traversed the central portion of the deposit on foot and examined float material from rehabilitated trenches and drill collars. The QP reviewed drill cores at the warehouse facility located at Williams Lake.

The locations of some drill collars were verified in the field, drill core reviewed from selected core intervals and assay intervals identified and related to the drill logs.

Site Inspection and Drillhole Collar Verification

The QP, Michael F O’Brien, Jeremy Hanson (of Hardline Exploration) and Andrew Strain (Professional Photographer) were transported by helicopter from Williams Lake Airport to the site. The helicopter was able to land safely close to the summit of Newton Hill. The team traversed along access tracks and examined outcrops and old trench lines. The trenches have been rehabilitated, so outcrop is obscured but float provided evidence of various volcanic rock types, including tuffs, agglomerates and vesicular felsic volcanics with a bleached and altered appearance.

Figure 12-1 - VIEW NORTHWEST OF NEWTON HILL

Figure 12-2 - VIEW FROM NEWTON HILL TOWARDS SCUM LAKE (ROCKRIDGE, 2021)

Four drill hole collar positions (wooden posts with and without collar identity tags) were checked in the field during the visit using a Garmin GPS Map 66i.

Figure 12-3 – COLLAR OF DH12057 (ROCKRIDGE, 2021)

Table 12-1 compares the collar locations against the drillhole collar database. The average difference is less than 3 meters which is an acceptable level of precision for coordinates and elevations derived using handheld commercial-grade GPS units.

Table 12-1 – FIELD CHECKS – COLLAR LOCATIONS

BHID	xcollar	ycollar	zcollar	calibrated z	XCOLLAR	YCOLLAR	ZCOLLAR	dx	dy	dz
10019	457352	5738997	1308	1330.6	457353.6	5738997.7	1322.9	-1.6	-0.7	7.7
11036	457354	5738812	1280	1302.6	457355.0	5738808.6	1296.7	-1.0	3.4	5.9
11044	457446	5738801	1270	1292.6	457445.2	5738799.5	1284.8	0.8	1.5	7.8
12057	457447	5738840	1279	1301.6	457446.8	5738838.7	1290.0	0.2	1.3	11.6
							Average	**-0.4**	**1.4**	**8.2**

Core Verification

A core inspection was conducted by the QP, Mr. Michael F O'Brien, MSc., P. Geo on June 24, 2021, at the core storage facility (Mueller Electrical) at Williams Lake.

Figure 12-4 – SELECTED CORE INSPECTION (ROCKRIDGE, 2021)

Figure 12-5 – STACKED CORE ALONG BERM OF STORAGE YARD (ROCKRIDGE, 2021)

The cores are stacked inside a partially fenced industrial facility managed by Mueller Electrical. Despite being within a controlled perimeter which is locked at night, the cores at Williams Lake are not well secured as they are stacked outdoors (see Figure 12-5) in a general industrial area with several different activities are taking place and where they are at risk of disturbance by heavy industrial equipment and vehicles. The lids of most wooden core boxes have been removed, presumably during previous inspections and consequently the core has deteriorated due to weathering. Many boxes have rotted to the extent that they cannot be moved without a risk of disintegration and loss of material. The identifying markings on many boxes and sampling tags are no longer legible. Figure 12-6 shows a typical example of core box labeling.

An unknown number of cores are stored at Gibraltar Mine and were not seen by the QP in 2021.

Figure 12-6 – K-SILICATE ALTERATION IN MAFIC FLOW (HOLE 11052)

Figure 12-7 – ARGILLIC ALTERATION IN MONZONITE (HOLE 9004)

Figure 12-8 – BANDED TUFF WITH OXIDIZED SULPHIDES (HOLE 11052)

Selected runs of five drill holes (9004, 11048, 11052, 12068 and 12079), a total of 1,404 metres were laid out and reviewed in the storage facility (see Figure 12-6, Figure 12-7 and Figure 12-8, inclusive and Table 12-2).

Table 12-2 – REVIEW HOLE RUNS

Hole	From	To
9004	110	220.0
11048	0	350.0
11052	0	534.0
12068	0	210.0
12079	0	200.0

Core box labeling, distance markers, and assay tags were in poor condition. Some boxes had no legible identifying marks, and the core position was inferred from the adjacent boxes.

The geological data as logged was compared with the database record and visually inspected and in the QP's opinion, the identifiable cores and database are comparable.

Database Grade Verification

The QP reviewed the grade database against Acme Labs Assay Certificates. In 2021, a selection of 1114 sample numbers from the 2012 assay certificates were selected at random and these compared with the drilling database. This comparison represents a total of 1,094 samples, which equates to approximately 10% of the total assay data in the database. 33 gold assays in the data base showed discrepancies with the assay certificates. The most significant discrepancies are eight samples (956646 to 956654, inclusive excluding 956650) from drillhole 12084 from 309m to 330m depth.

Verification of 2012 Sampling

Two complete drillholes (Hole 11045 and 11052 - Figure 12-9) were check assayed during the site visit undertaken by the QP in June 2021.

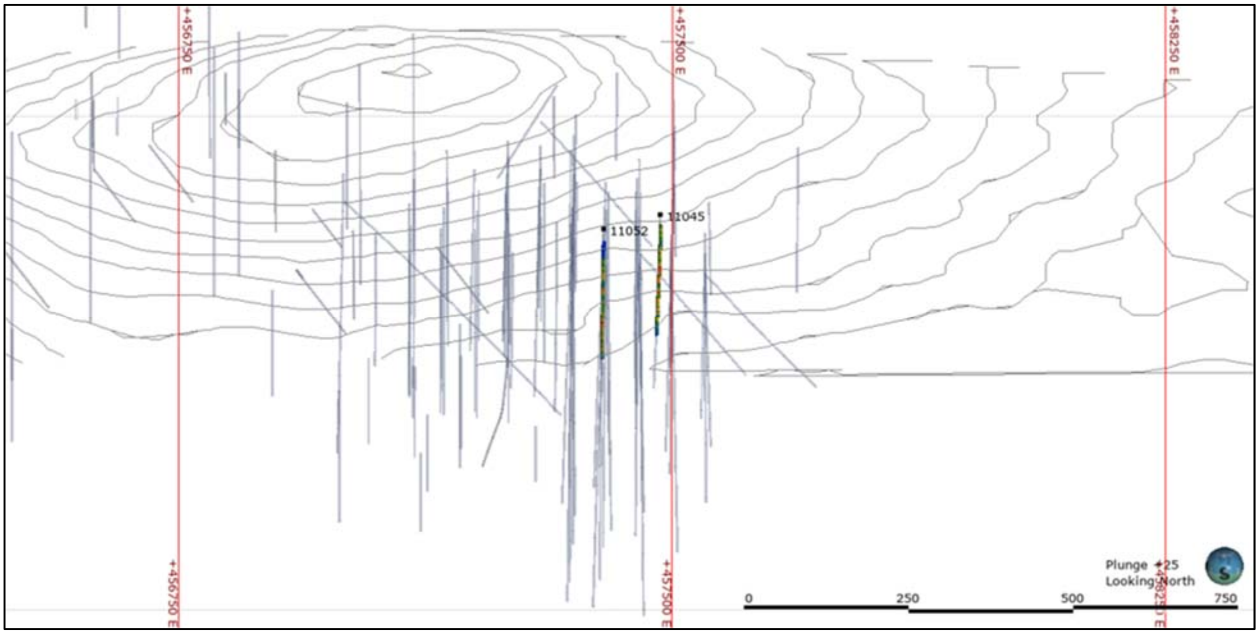


Figure 12-9 – LOCATION OF TWO HOLES USED IN CHECK ASSAYS

An analysis after merging the original assay table and the check assays shows that the check and original samples are reasonably correlated considering they are equivalent to coarse duplicates, and they do not show significant bias. A scatter plot showing gold is presented in Figure 12-10 and silver in Figure 12-11.

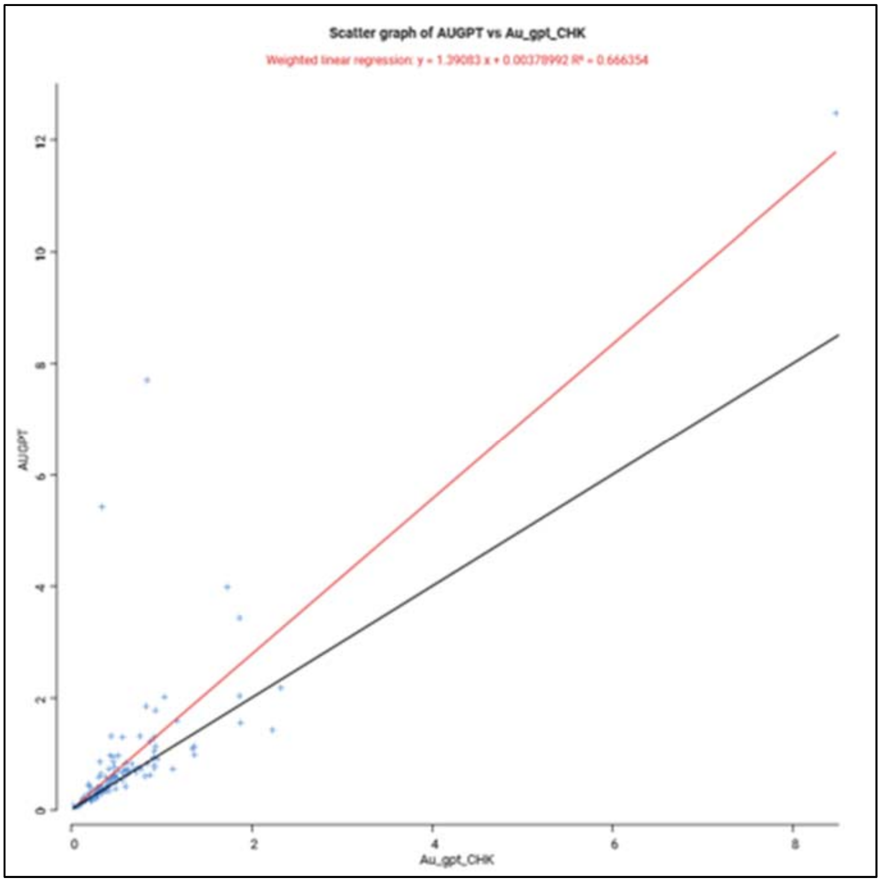


Figure 12-10 – SCATTERPLOT OF AU VALUES.

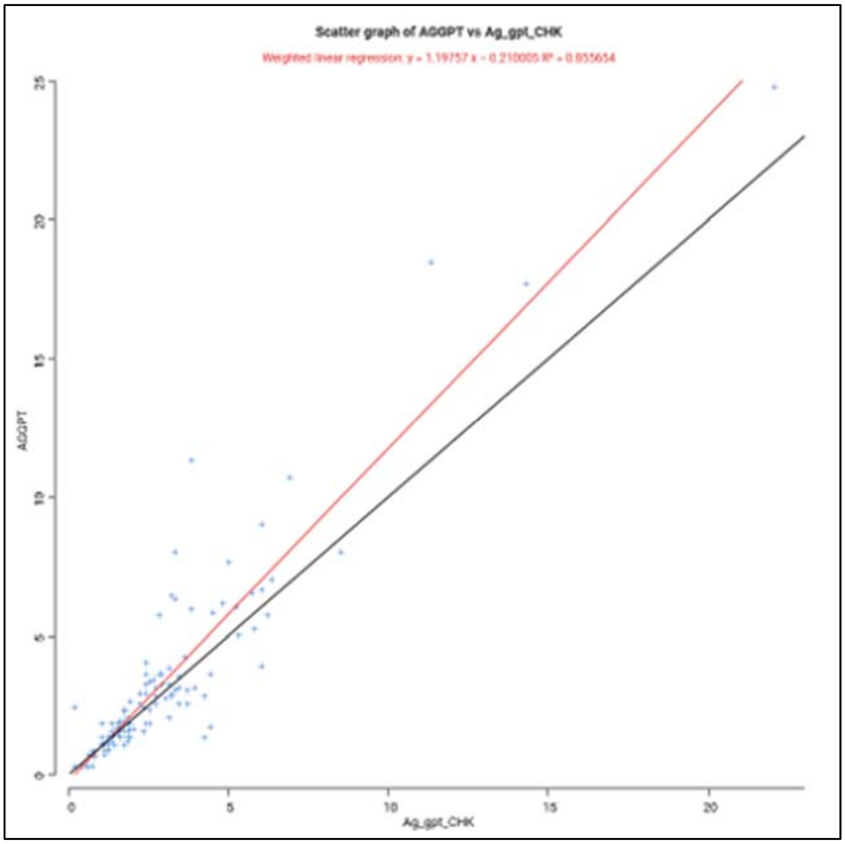


Figure 12-11 - SCATTERPLOT OF AG VALUES.

Grade profiles showing grade vs. check assay grade is presented below for hole 11045 (Figure 12-12) and hole 11052 (Figure 12-13).

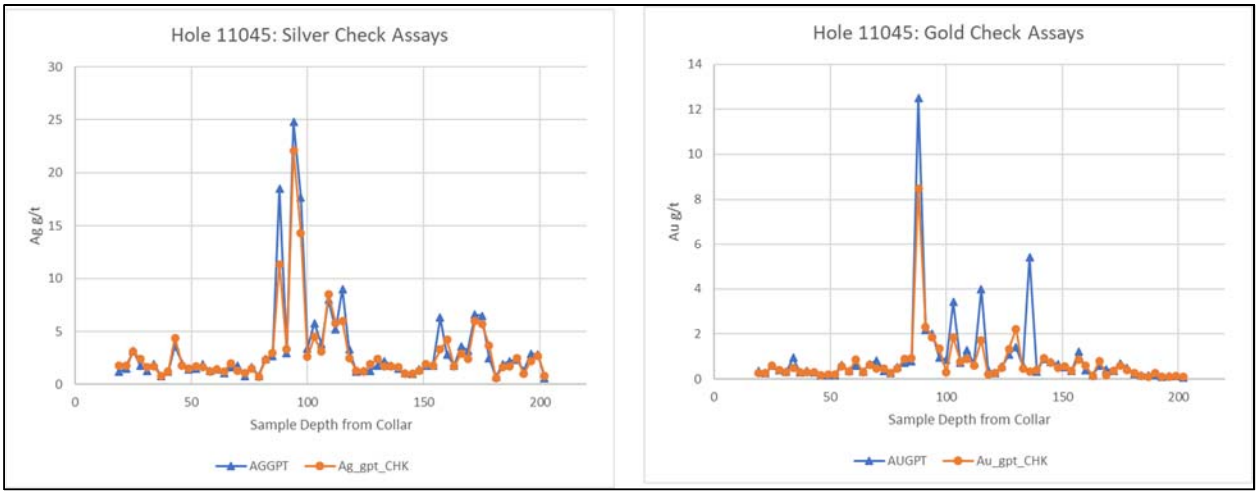


Figure 12-12 – DOWNHOLE ASSAY PROFILES FOR HOLE 11045

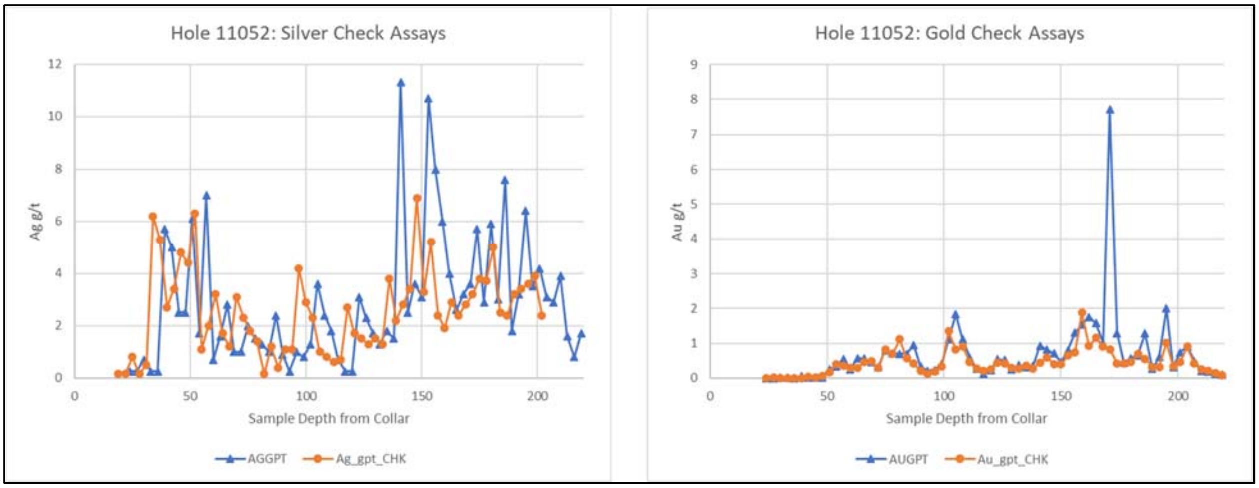


Figure 12-13 - DOWNHOLE ASSAY PROFILES FOR HOLE 11052

Topography Verification

Topography data publicly available for the drilled portion of the property and sourced from the Shuttle Radar Topography Mission ("SRTM") was downloaded. This topography was used to build a digital terrain model and 546 points were compared with the topography provided by the issuer that was used for geological modelling. A bias of +3.6 meters was noted with the SRTM appearing to be higher than the topography model used for geological modelling. The QP does not believe that a bias of 3.6 m is material at this stage of project development. A weathering surface modeled from downhole logs was used to terminate blocks in the model. This surface is located a significant distance below the topography surface and therefore the volumetric impact of the topography surface is nil.

Conclusions

Based on the data verification, the QP considers the geological logging, and assay data to be adequate for the purpose intended.

13. MINERAL PROCESSING AND METALURGICAL TESTING

There has been no metallurgical testing by Carlyle on samples from the Newton Project.

14. MINERAL RESOURCE ESTIMATES

Summary

The previous resource estimate was completed for Amarc in 2012 by RPA after completion of an exploration program by Amarc that ended in fall 2012. That mineral resource estimate can be considered a historical resource estimate.

The current mineral resource estimate is an updated estimate based largely on the historical database compiled in 2012 but supplemented with additional grade information from four holes assayed after the 2012 estimation.

Mineralized material was classified into the Inferred Mineral Resource category based on data density, ranges of the search ellipses observed from variography, constraints developed through lithological and structural modeling and familiarity with this deposit type. An optimized pit shell constrains the resource volume to fulfil the requirement for "reasonable prospects for eventual economic extraction". The mineral resource is summarized in Table 14-1 with a cut-off grade of 0.25 g/t Au highlighted.

Table 14-1 – SUMMARY OF MINERAL RESOURCES - NEWTON

Resource in Optimized Pit (Inferred)		Grade			Metal Content	
Cut Off Au	**Mass t**	**Au (g/t)**	**Ag (g/t)**	**AuEQ³ (g/t)**	**Au (t. oz)**	**Ag (t. oz)**
0.25	**42,396,600**	**0.63**	**3.43**	**0.68**	**861,400**	**4,678,000**

Notes

1. Differences may occur in totals due to rounding.
2. CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) and CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (November 2019) were used for mineral resource estimation.
3. Metal prices used are US$1900/Oz for Gold and US$25/Oz for Silver.
4. Recovery factors used are 92% for Au and 45% for Ag.
5. Prices are in US$ per Troy ounce.

Descriptions of the Database

The database was supplied by the issuer in the form of an Access database file. Records were checked to ensure each drill hole had assay, survey, and collar information. The database was audited to generate master data tables in .csv format. After exclusion of invalid data, the total dataset consists of a total of 10,819 Au assay records and 10,165 Ag records from 130 drill holes.

For statistical analysis and grade estimation, missing assays were assigned an absent value. Drill hole information in this database includes older historical data, gathered by operators of the project before the Amarc exploration campaign. Drilling data was provided in the UTM NAD83, Zone 10 grid coordinate system.

A plan view showing the drill hole locations in the resource boundary is presented in Figure 14-1

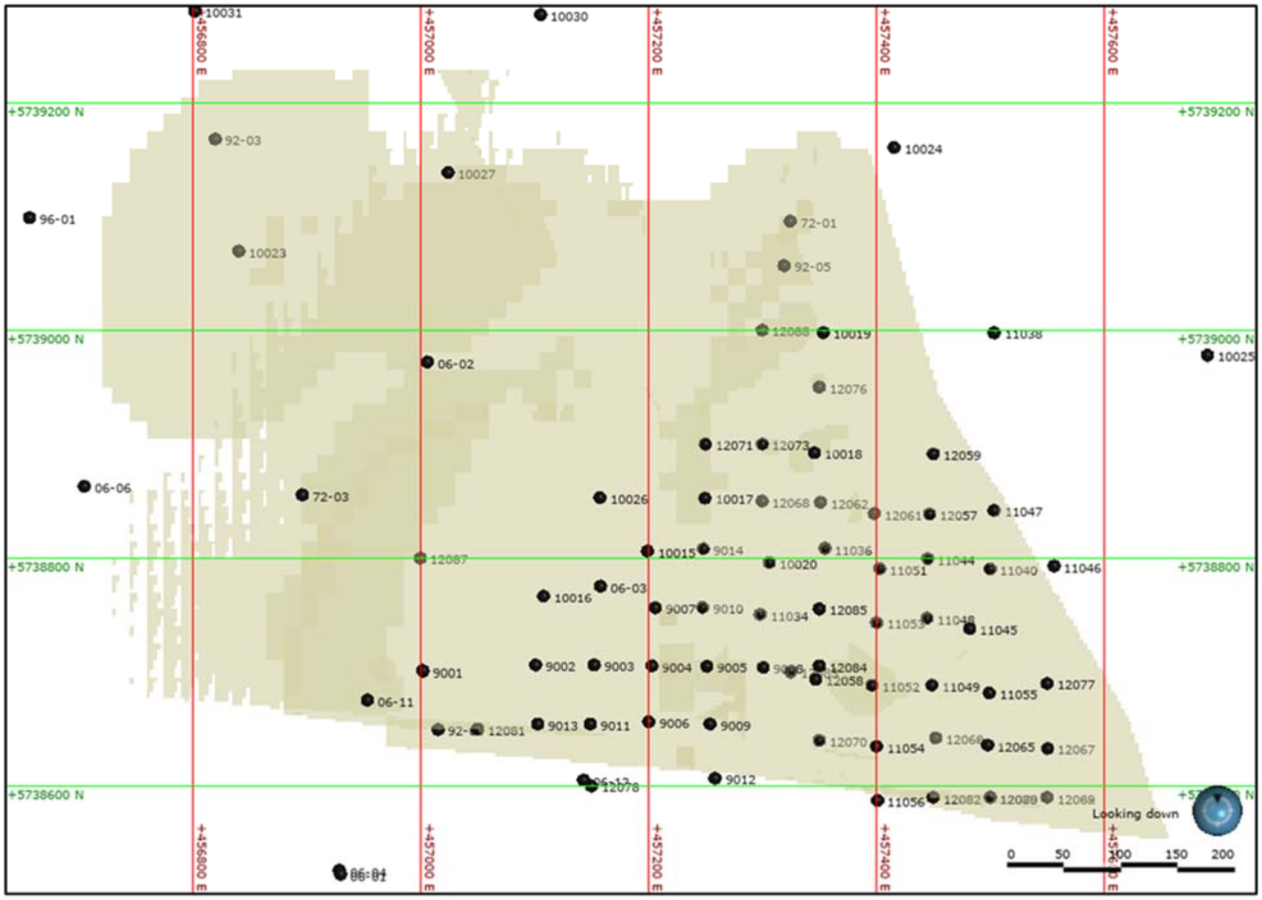


Figure 14-1 – DRILL HOLE LOCATIONS

Geological Domain Interpretation

The deposit has been reinterpreted utilising the lithological logs in the drillhole database, a surface geological map, improved software tools for 3D modeling and verified against vertical section interpretations. Although based mainly on the drilling used in the previous estimate, the new model represents a significantly improved interpretation of the distribution and controls for mineralization at Newton.

Implicit modeling using Leapfrog Geo modeling software was used to model the initial structural model. Lithological solids were then modelled in Leapfrog by flagging the drill hole information with a code used to isolate the portion of each drill hole with its distinct identifier. Time was then spent refining and updating the wireframe solids to honour interpreted lithological and tectonic boundaries. A topography wireframe constructed from five metre contours was supplied. More lithological units were modeled compared to the previous model and the volumes of the modeled lithology solids is a significant improvement on the 2012 model.

Key modeling elements in the deposit model are:

Structure (see Figure 14-2)

- **Newton Hill Fault**: a major fault with a ≈370m displacement downdip to the west.
- **South Graben Fault**: a major fault with a ≈600-650m north down displacement truncating mineralization to the south.
- **Ruby Fault**: a fault with a ≈170m sinistral displacement moving mineralized blocks to the northwest.
- **Roxanne Fault**: a major fault with a ≈450m displacement truncating mineralization to the east.

Lithology (see Figure 14-3)

- **Felsic wireframe solids -** consists of solids for the main felsic flows and tuffs, and minor felsic ignimbrites that coalesce and bifurcate.
- **Epiclastic solids** - consists of solids of the supracrustal epiclastic rocks, volcanic wackes, conglomerates and mafic epiclastics.
- **Mafic volcanic solids -** consists of solids of the supracrustal mafic volcanic package.
- **Intermediate dyke solids** - consists of solids of the plagioclase phyric porphyry intrusives, mostly monzonitic and quartz monzonite dykes.
- **Quartz Feldspar porphyry solids -** consists of solids of the intrusive quartz-feldspar porphyry units.

A wireframe surface of the overburden contact was also created from drill logs and was used to inform the block model.

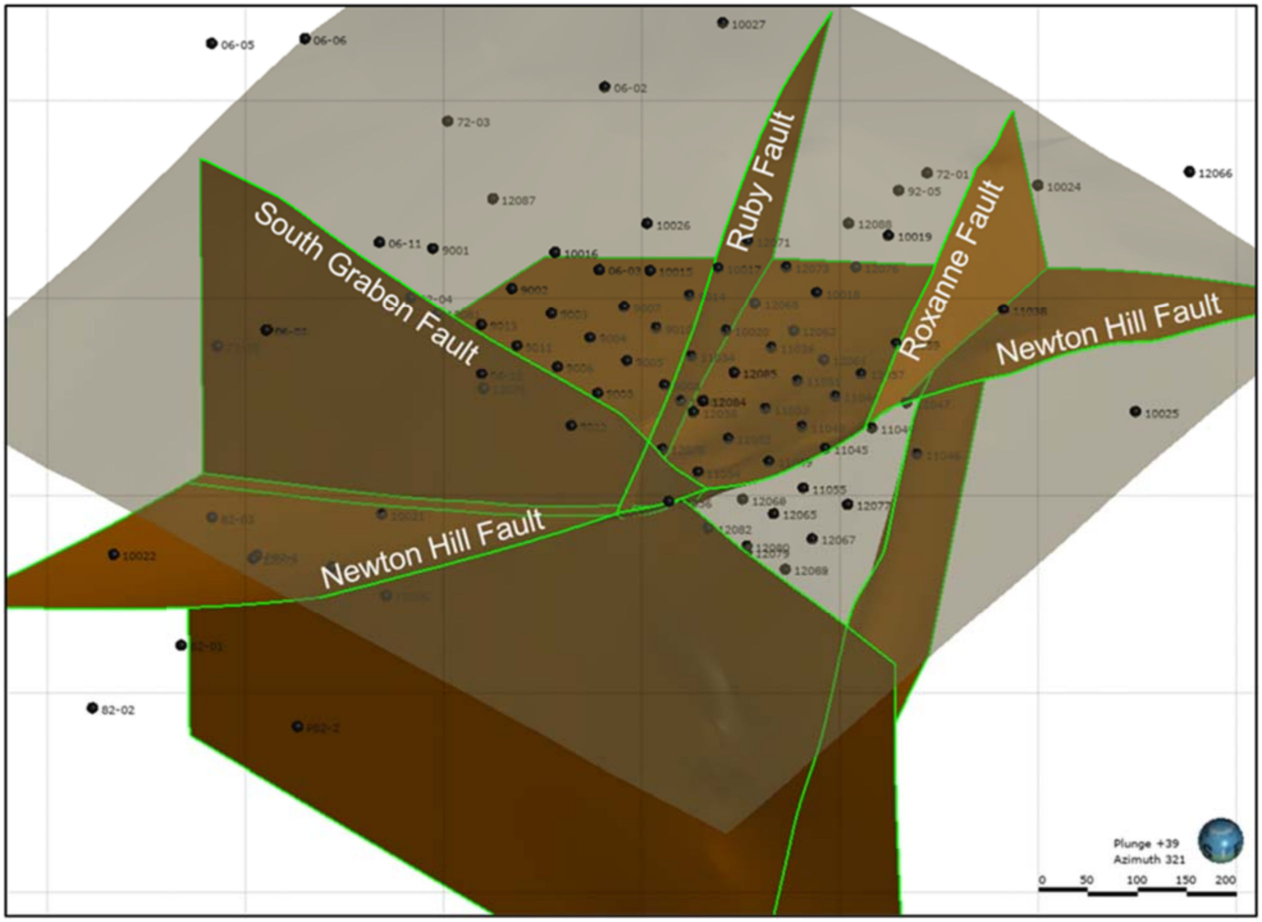


Figure 14-2 – NEWTON STRUCTURE MODEL

Modeling of the structure provided fault-bounded blocks which were used to compartmentalise the lithology model. Structure modeling generated eight separate fault blocks. Only three of the fault blocks (FB1, FB2 and FB6) contained significant gold grades within three large blocks of felsic volcanic rocks displaced by the west-dipping Newton Hill fault as well as some lateral displacement on the Ruby fault. The models honour the lithologic and tectonic information documented in the drill hole logs.

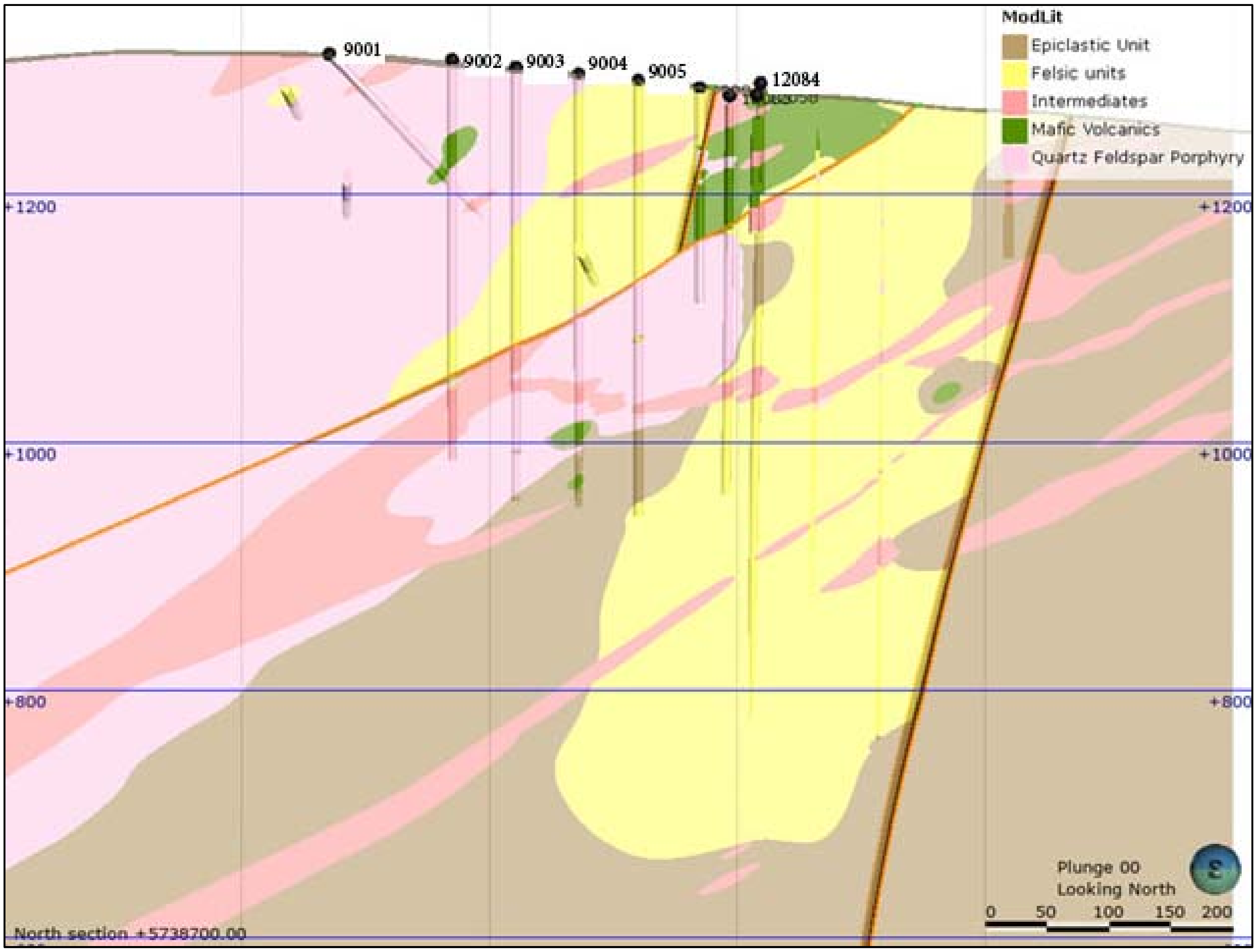


Figure 14-3 – SECTION N5738700 OF LITHOLOGY MODEL

The felsic units contain almost all the significant gold and silver mineralization. Figure 14-4 and Figure 14-5 illustrates the high grades in the felsic units by means of boxplots showing grades for gold and silver per lithologic unit.

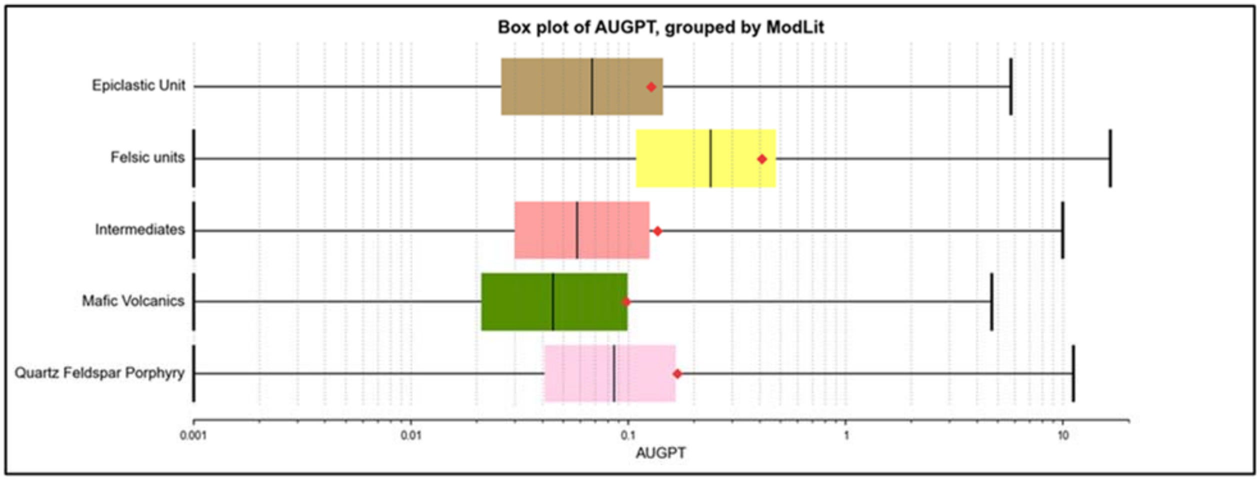


Figure 14-4 – BOXPLOT OF GOLD PER LITHOLOGIC UNIT

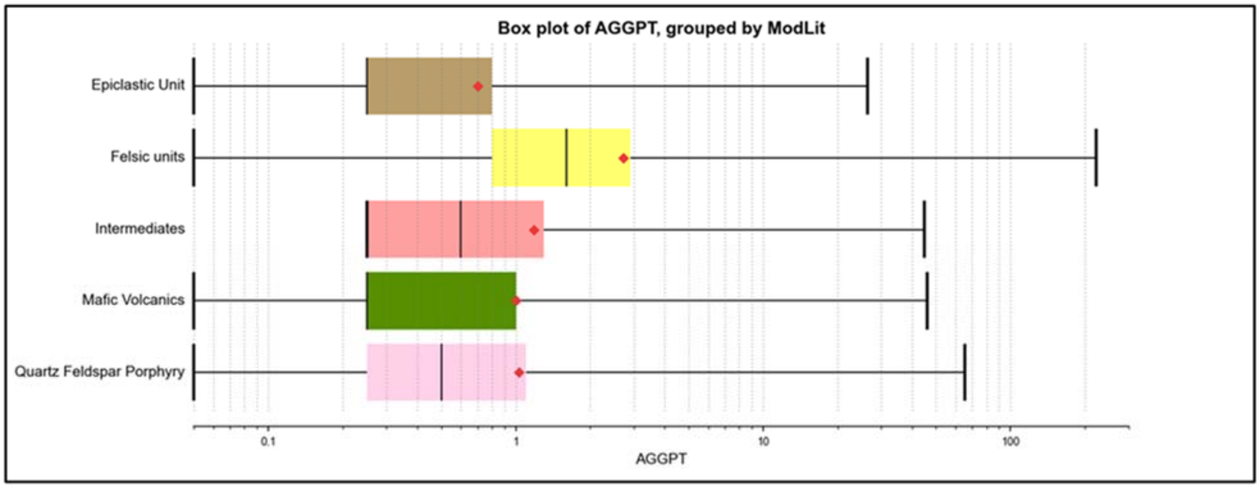


Figure 14-5 – BOXPLOT OF SILVER PER LITHOLOGIC UNIT

Several syn- to post- mineralization dikes are present which cross-cut the three blocks of felsic volcanic material. Three domains were created in of the felsic lithological units using a grade shell (or numeric interpolant) approach with a trend parallel to the observed trend of mineralization with a nominal gold mineralization cut-off grade of 0.4 g/t (Figure 14-6). Three more domains were constructed outside of the 0.4g/t grade domains regardless of lithology.

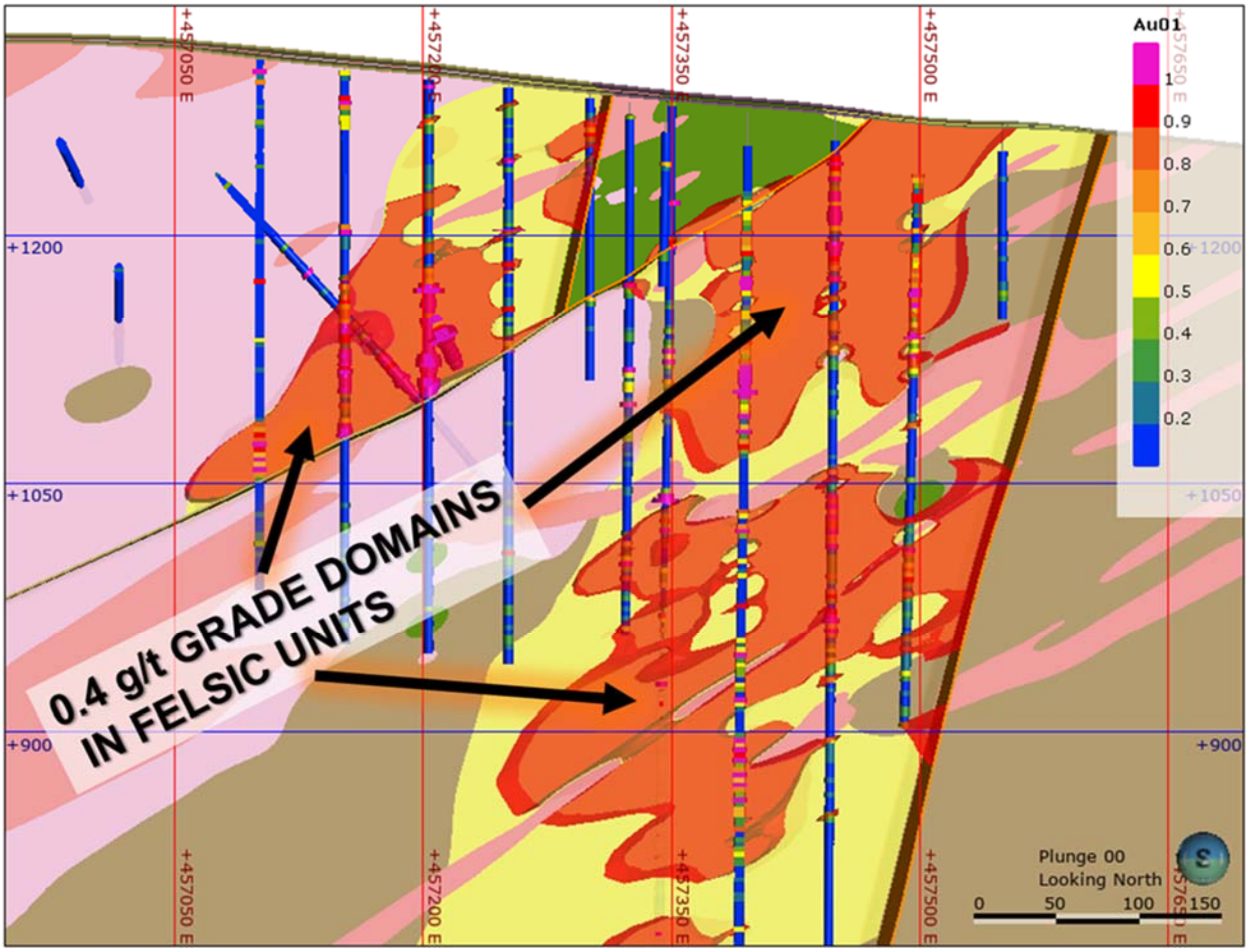


Figure 14-6 – GRADE DOMAINS IN FELSIC UNITS

Inspection of the geometry of lithological and mineralized units revealed compelling evidence to support three dimensional palinspastic reconstructions of the Newton Hill and Ruby fault displacements (Figure 14-7). Palinspastic reconstruction is an un-faulting technique that translates geological units along observed vectors back to pre-deformed (faulting or folding) position. The same translational vectors were used to project the drill hole composites to their pre-deformed positions.

Geo-statistical examination as well as block model Interpolation was carried out in the pre-deformed positions. Interpolated blocks were transformed back to the current faulted positions. This approach assumes that deformation occurred after mineralization. Variography modelling in pre-deformed space is more likely to reflect the pre-deformed spatial uncertainty.

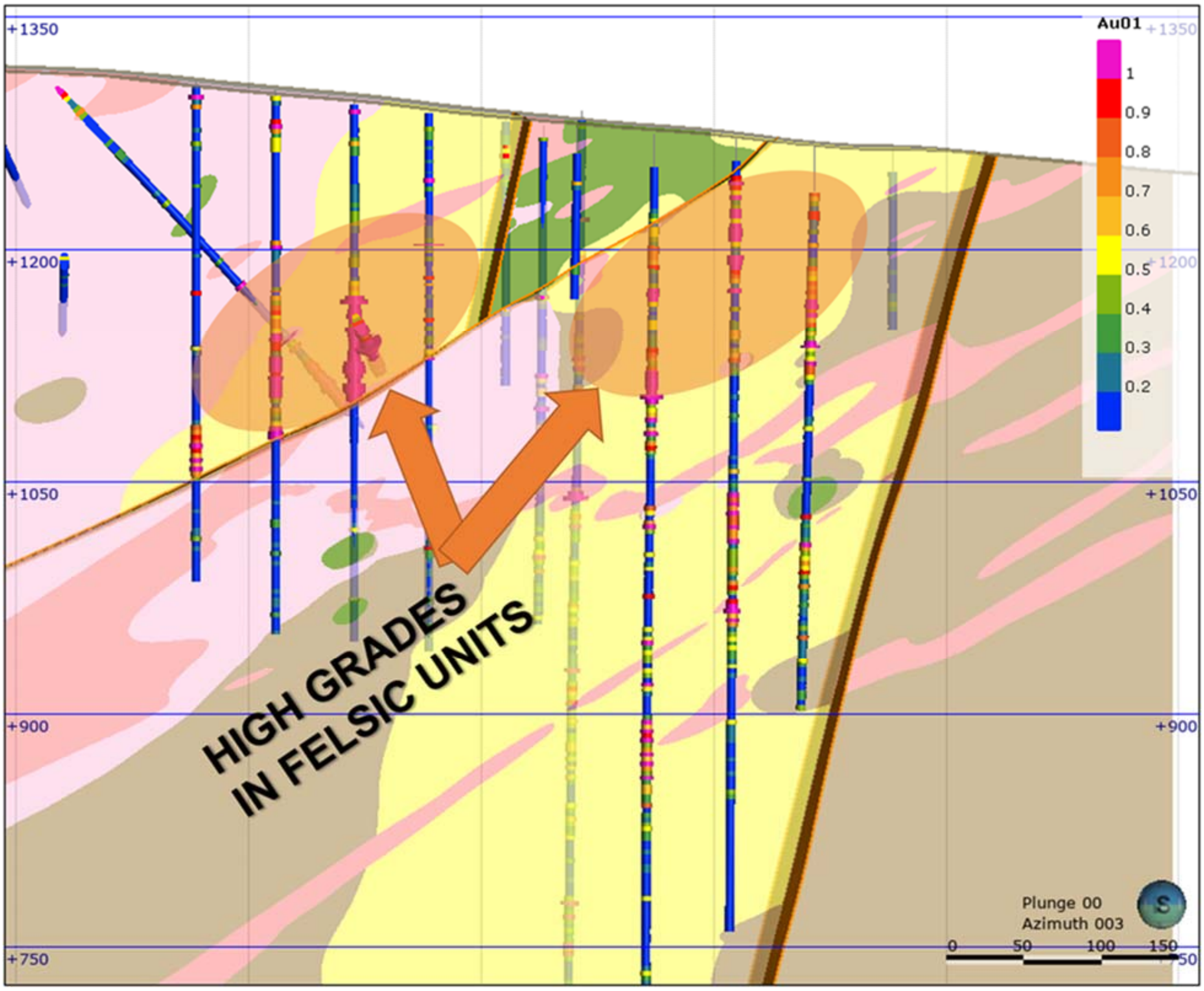


Figure 14-7 – SECTION SHOWING DISPLACED HIGH GRADE MINERALIZATION

Interpretation of the observed geometry indicates approximately 370m of normal displacement along the Newton Hill fault and 165m of sinistral strike slip movement along the Ruby fault, with corresponding vectors to locate domains and data into pre- and post-faulted space. (See Figure 14-8 and Figure 14-9).

Using the pre-deformed model, the 3 fault block domains (Dom1,2 and 6) inside the 0.4g/t Au grade shells align to form a single coherent volume assumed to represent the position of the mineralization prior to faulting. The other three poorly mineralized domains located outside of the 0.4g/t Au grade shells inside fault blocks 1,2 and 6 also formed a single coherent volume after reconstruction. For estimation purposes, the two domains were coded “IN” and “OUT”. The result is two final domains that exist in un-faulted space in which gold and silver estimates could be completed before translating back to the current spatial configuration (See Figure 14-10).

The QP believes that the palinspastic reconstruction approach has improved the estimation process and is appropriate for the deposit.

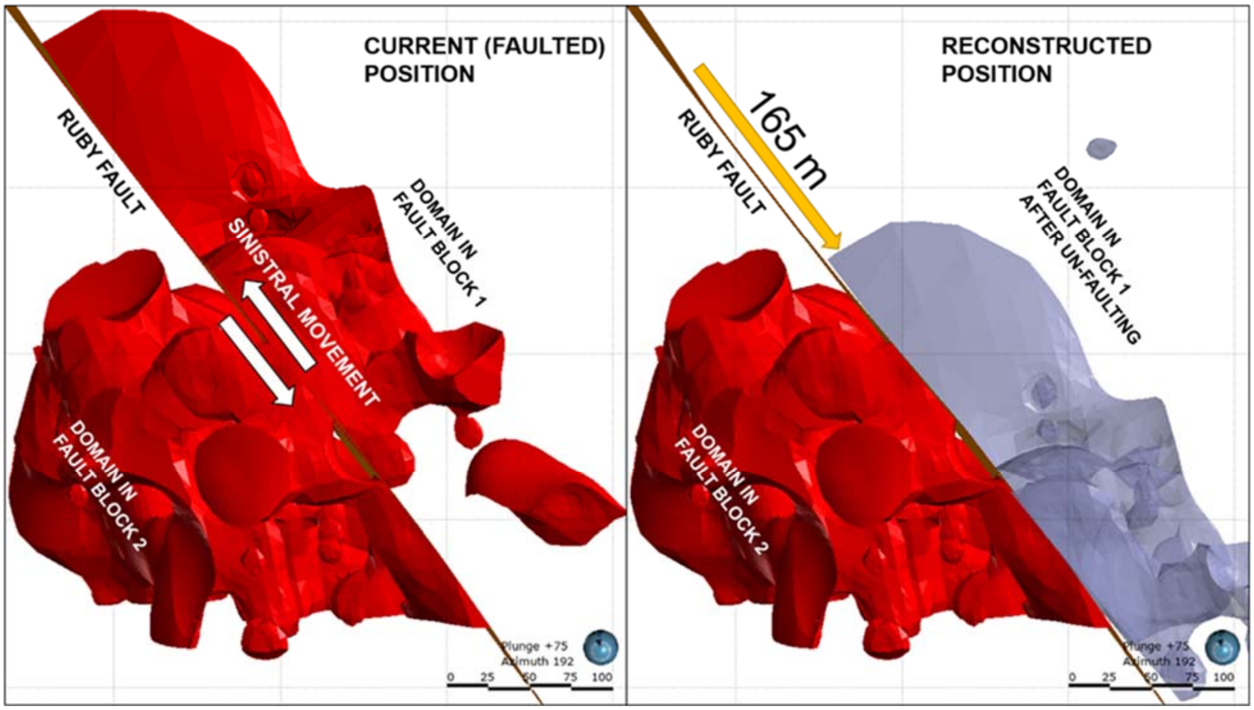


Figure 14-8 – UN-FAULTING OF DOMAIN IN FAULT BLOCK 1

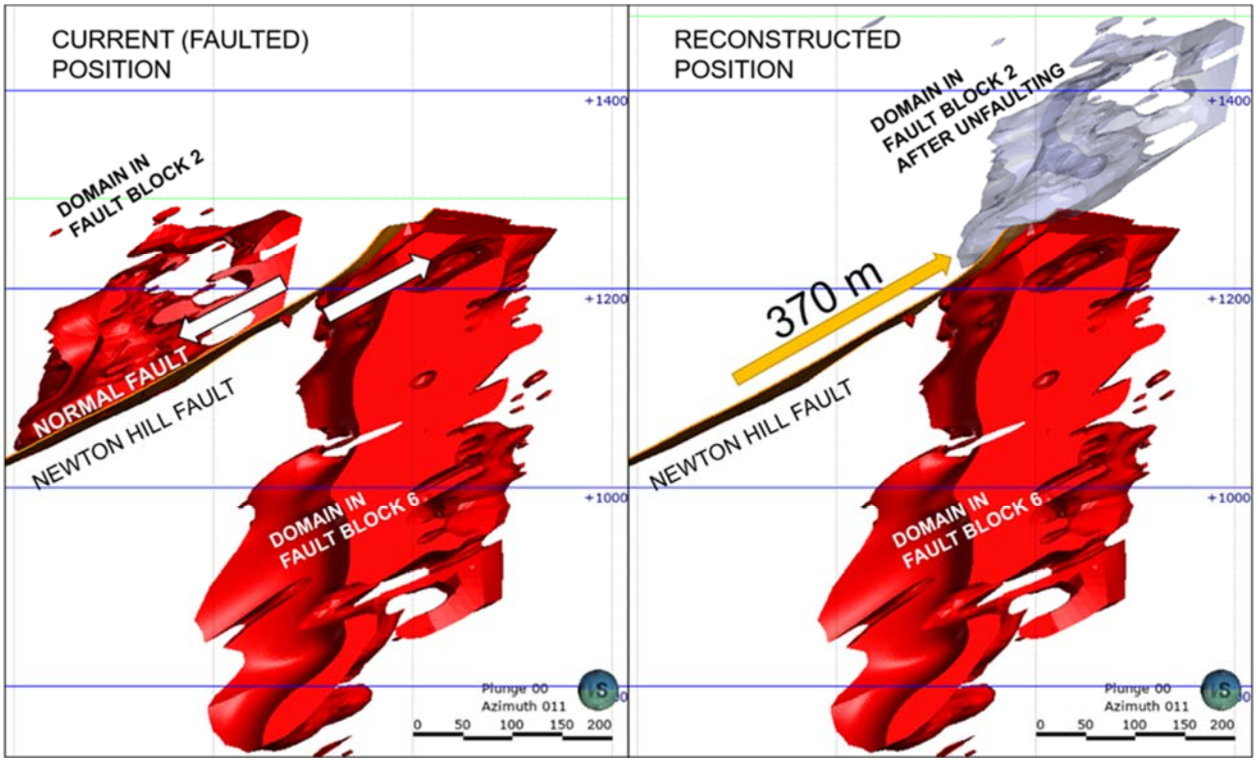


Figure 14-9 - UN-FAULTING OF DOMAIN IN FAULT BLOCK 2

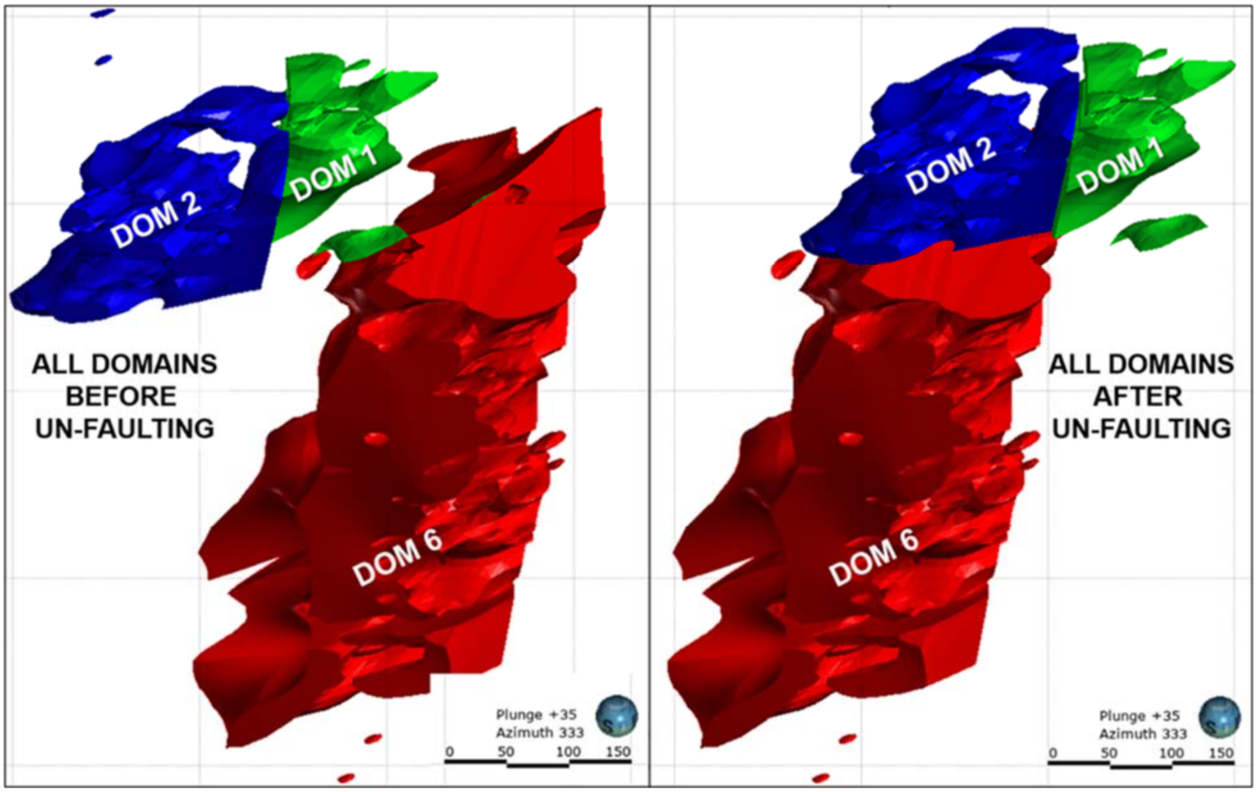


Figure 14-10 – RELATIVE POSITIONS AFTER PALINSPASTIC RECONSTRUCTION

Compositing Methodology

The drill hole database was coded per interpreted domain such that only data falling within the domain boundaries was composited to homogenize sample support. The method of equalizing sample length is not the only criteria for standardizing sample support.

An analysis of the distribution of the sample lengths for the gold samples (Figure 14-11) indicated that a nominal three metre core length was most appropriate in calculating the composites. This was the predominant sample length and allowed the original features of the deposit as it relates to data resolution to be incorporated into the estimate.

Target composite length of 3m was employed which permitted composite lengths to change on a hole by hole basis to ensure all data within a mineralized domain was made available to the estimate and that very short composites were eliminated without discarding data. Un-sampled intervals were not assigned a default value.

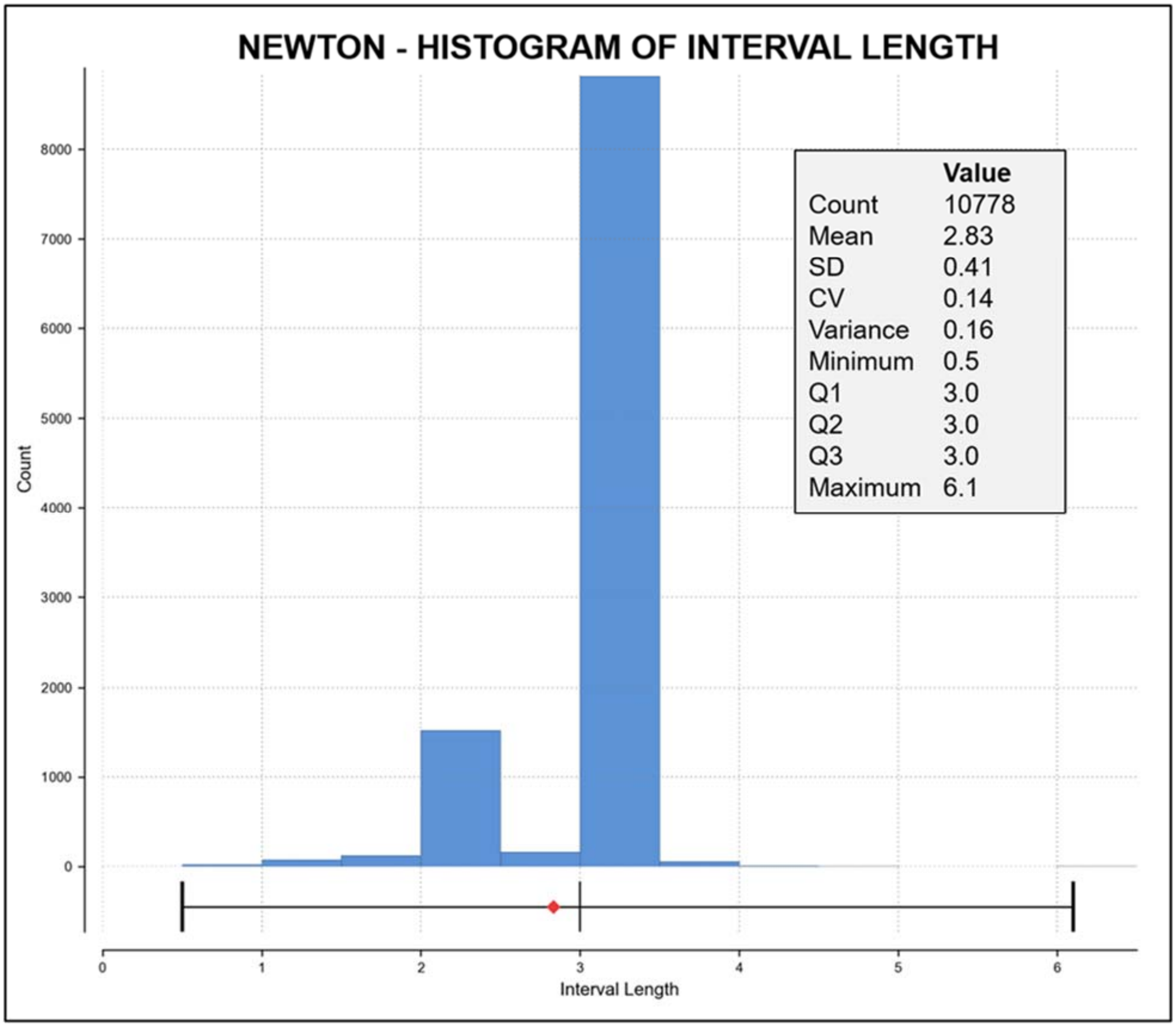


Figure 14-11 – HISTOGRAM OF SAMPLE LENGTH

Grade Capping

The influence of high grade assays must be assessed and adjusted to reduce the risk of overestimation due to the influence of high grade outlier values. The composite values were investigated for the potential impact of high grades, and these were adjusted by capping before estimation.

Restricting the influence of the extreme grades is more appropriate than entirely excluding the outliers from estimation, provided that these values are not erroneous sampling or assay artefacts and are a genuine component of the sample distribution.

A combination of cumulative coefficient of variation plots and log probability plots (Figure 14-12 and Figure 14-13) were used to determine appropriate gold and silver capping values for each of the four domains.

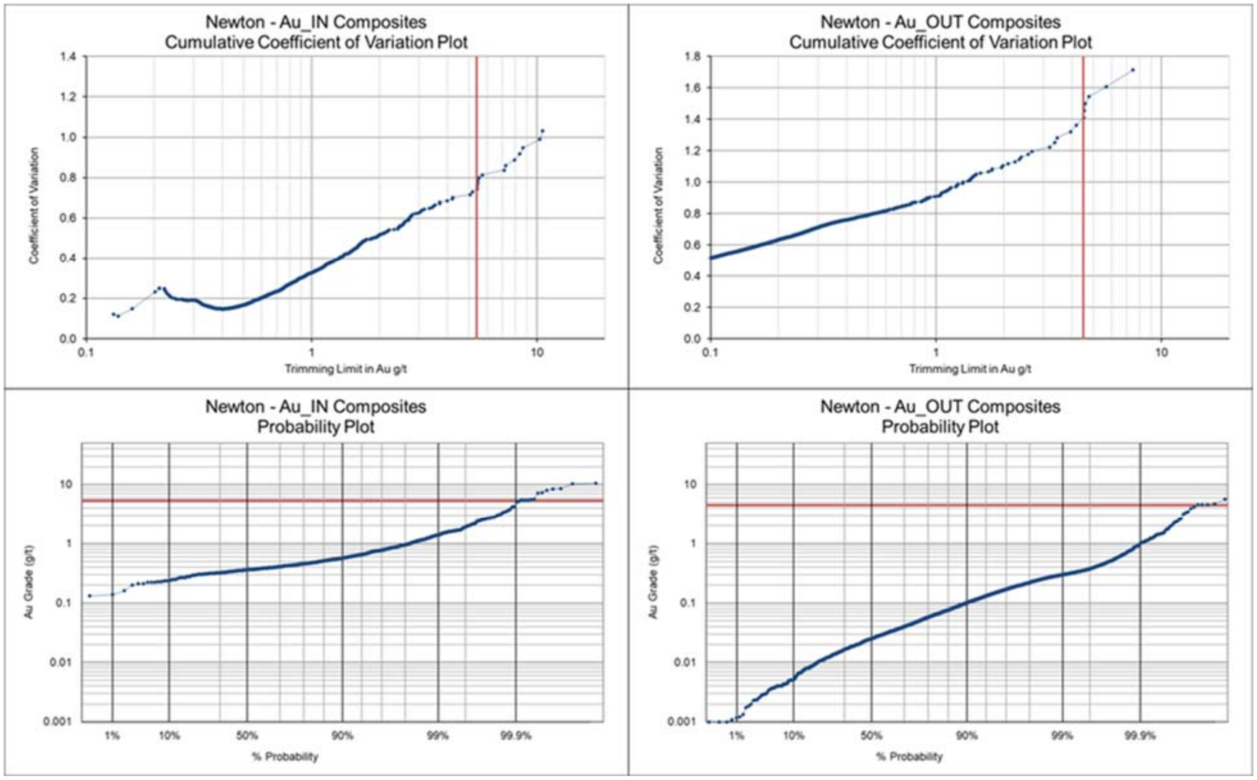


Figure 14-12 - CV AND LOG PROBABLILITY PLOTS FOR GOLD

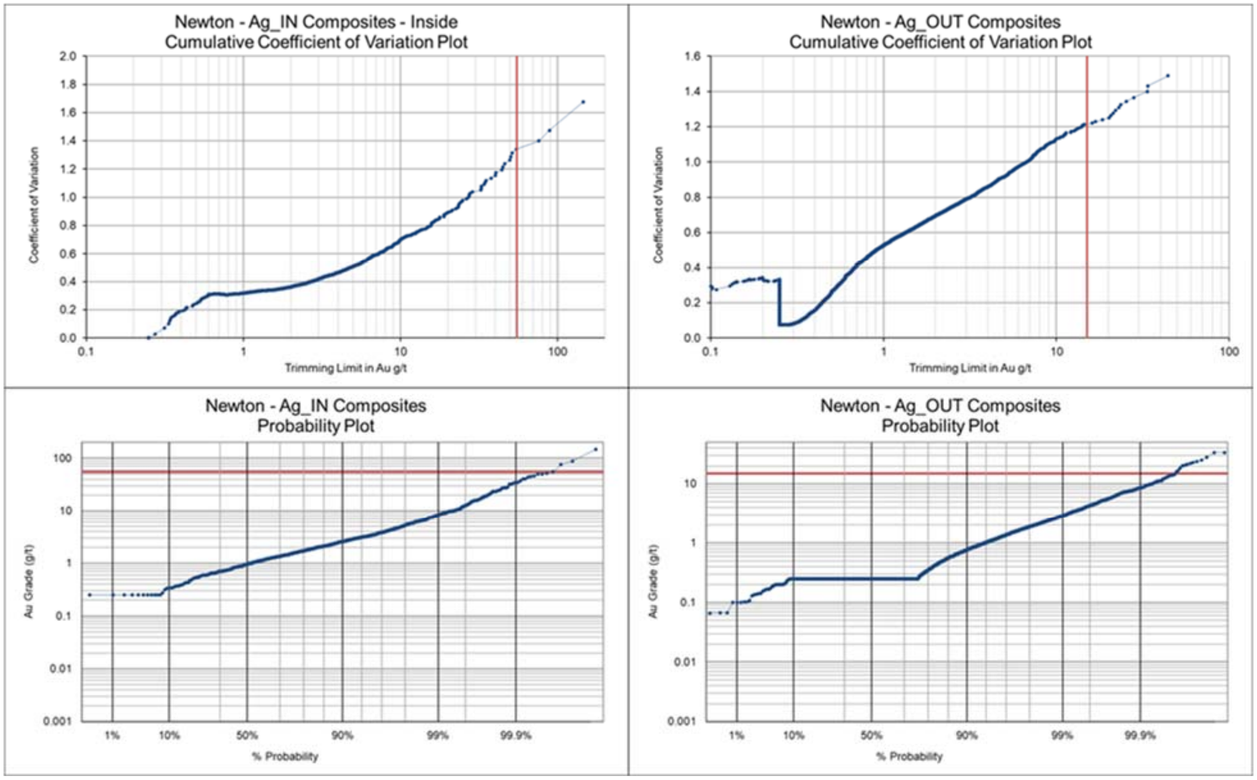


Figure 14-13 - CV AND LOG PROBABLILITY PLOTS FOR SILVER

A summary of the gold and silver capping grades is presented in Table 14-2. Table 14-3 and Table 14-4 details the impact that grade cutting had on the values of gold and silver for the two domains of the Newton Project.

The QP believes that appropriate capping limits has been applied.

Table 14-2 – SUMMARY OF CUTTING VALUES

Domain	Cutting Value (g/t)	No of Samples Cut	Percent Samples Cut
Au_IN	5.4	13	1%
Au_OUT	4.5	6	0.10%
Ag_IN	55	3	0.20%
Ag_OUT	15	14	0.30%

Table 14-3 – DESCRIPTIVE STATISTICS FOR GOLD

Gold (g/t)	Domain Au Inside			Domain Au Outside		
	Raw Data	Composite Data	Cut Composite	Raw Data	Composite Data	Cut Composite
Count	1306	1472	1472	6067	5616	5616
Mean	0.888	0.809	0.786	0.156	0.155	0.154
SD	1.058	0.832	0.695	0.307	0.267	0.249
CV`	1.192	1.028	0.884	1.965	1.722	1.612
Variance	1.12	0.693	0.483	0.094	0.071	0.062
Minimum	0.001	0.111	0.111	0.001	0.001	0.001
Q1	0.466	0.438	0.43	0.044	0.048	0.048
Q2	0.625	0.577	0.567	0.098	0.102	0.101
Q3	0.956	0.858	0.857	0.195	0.193	0.193
Maximum	16.56	10.598	5.4	11.19	7.486	4.5

Table 14-4 - DESCRIPTIVE STATISTICS FOR SILVER

Silver (g/t)	Domain Ag Inside			Domain Ag Outside		
	Raw Data	Composite Data	Cut Composite	Raw Data	Composite Data	Cut Composite
Count	1305	1471	1471	5797	5433	5433
Mean	4.644	4.352	4.226	1.353	1.332	1.311
SD	9.043	7.192	5.98	2.19	1.975	1.698
CV	1.947	1.653	1.415	1.618	1.482	1.295
Variance	81.771	51.732	35.761	4.797	3.9	2.884
Minimum	0.25	0.25	0.25	0.05	0.05	0.05
Q1	1.5	1.536	1.53	0.25	0.25	0.25
Q2	2.6	2.583	2.57	0.7	0.77	0.767
Q3	4.7	4.384	4.384	1.6	1.6	1.6
Maximum	221.6	146.083	55	65.4	44.244	15

Bulk Density

A total of 1,233 density measurements were available in the Newton database. Values that were unmistakably erroneous were deleted from the data set. Specific gravities were estimated using an inverse distance squared estimator with an anisotropic search in a horizontal orientation. The search was sufficient to ensure a value could be estimated into each block of the project area. A histogram of specific gravity (SG) values is presented in Figure 14 14.

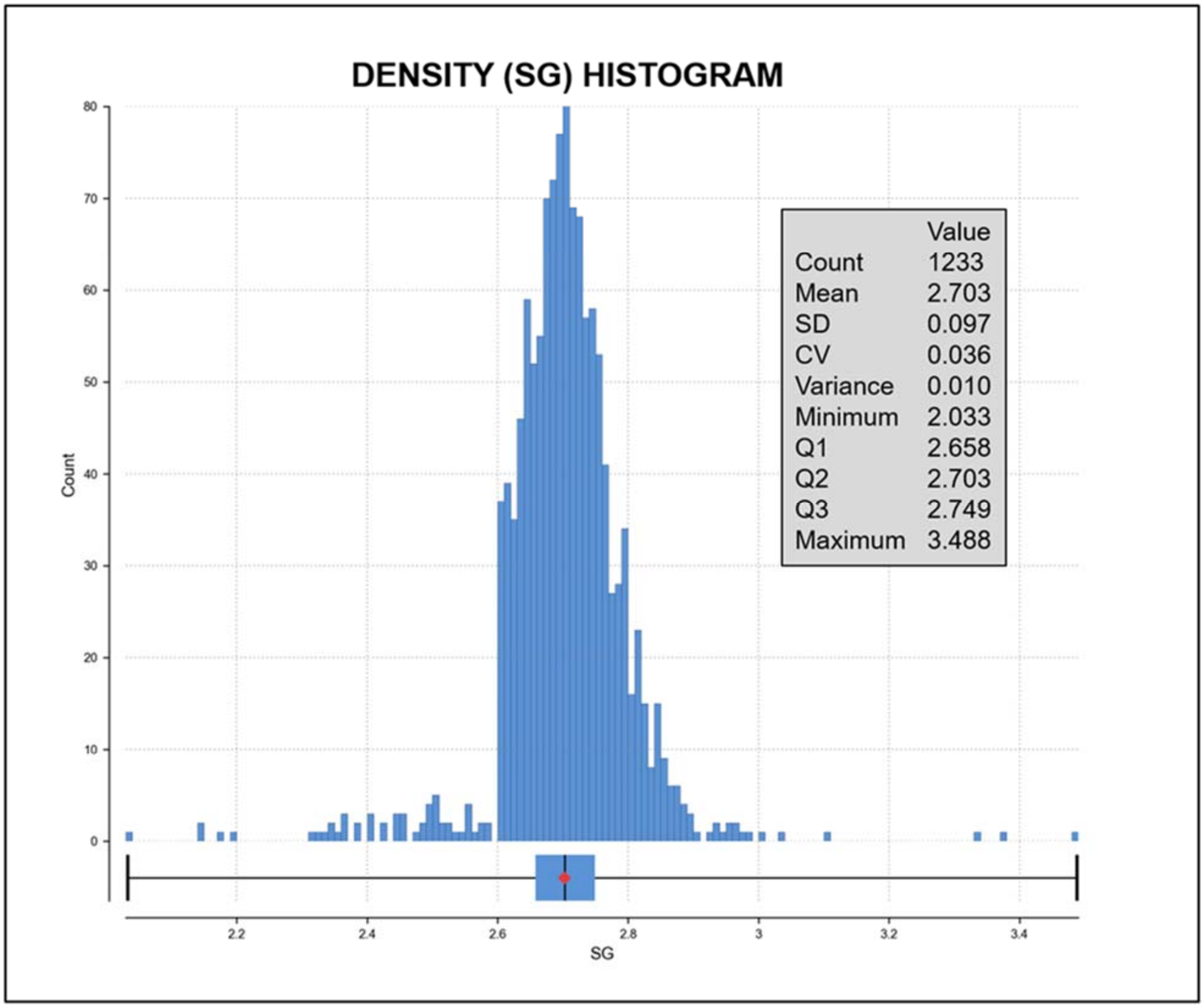


Figure 14-14 – HISTOGRAM OD DENSITY MEASUREMENTS

Trend Analysis

An analysis of the general continuity of mineralization trends in three- dimensions was carried out before experimental variograms were modeled. Radial basis function (RBF) interpolation was used to generate volumetric fields the irregularly spaced metal grade data. The RBF interpolant was created in Leapfrog software using gold grades without applying any trends. A 3 dimensional contour of gold grades at fixed grade intervals with 0.2 g/t intervals.

Slices were taken through the RBF interpolant in east-west and north-south orientations as well as horizontally. Example sections are presented in Figure 14-15, Figure 14-16, Figure 14-17 and Figure 14-18. Overall, the gold values are distributed as relatively large zones bordered by faults with grades of less than 1 g/t Au that enclose areas of slightly elevated gold grades. Although poorly-defined, a major trend could be observed in all three planes with a general orientation that is roughly parallel to the Newton-Hill fault dipping at about 25º with a long axis at a strike of roughly NNW-SSE.

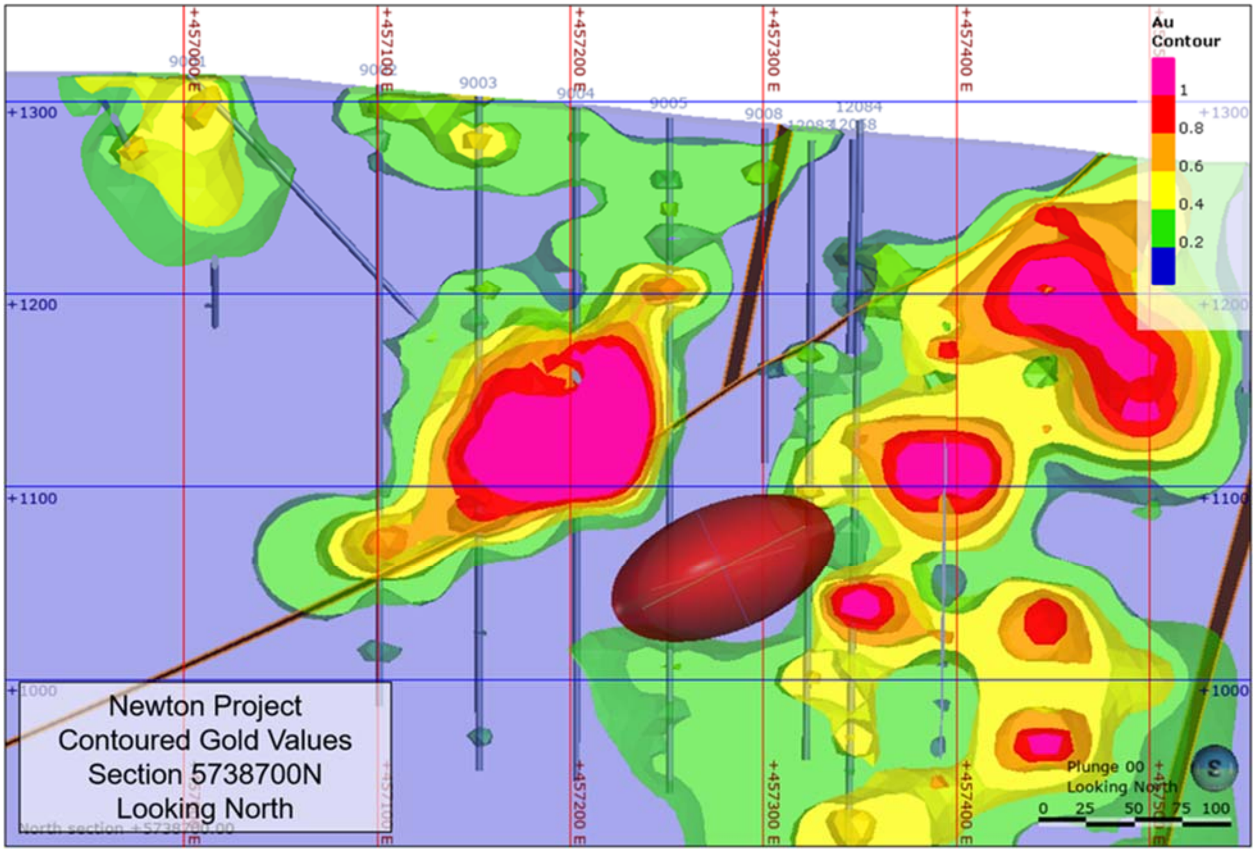


Figure 14-15- GOLD CONTOURS AT SECTION 5738700N

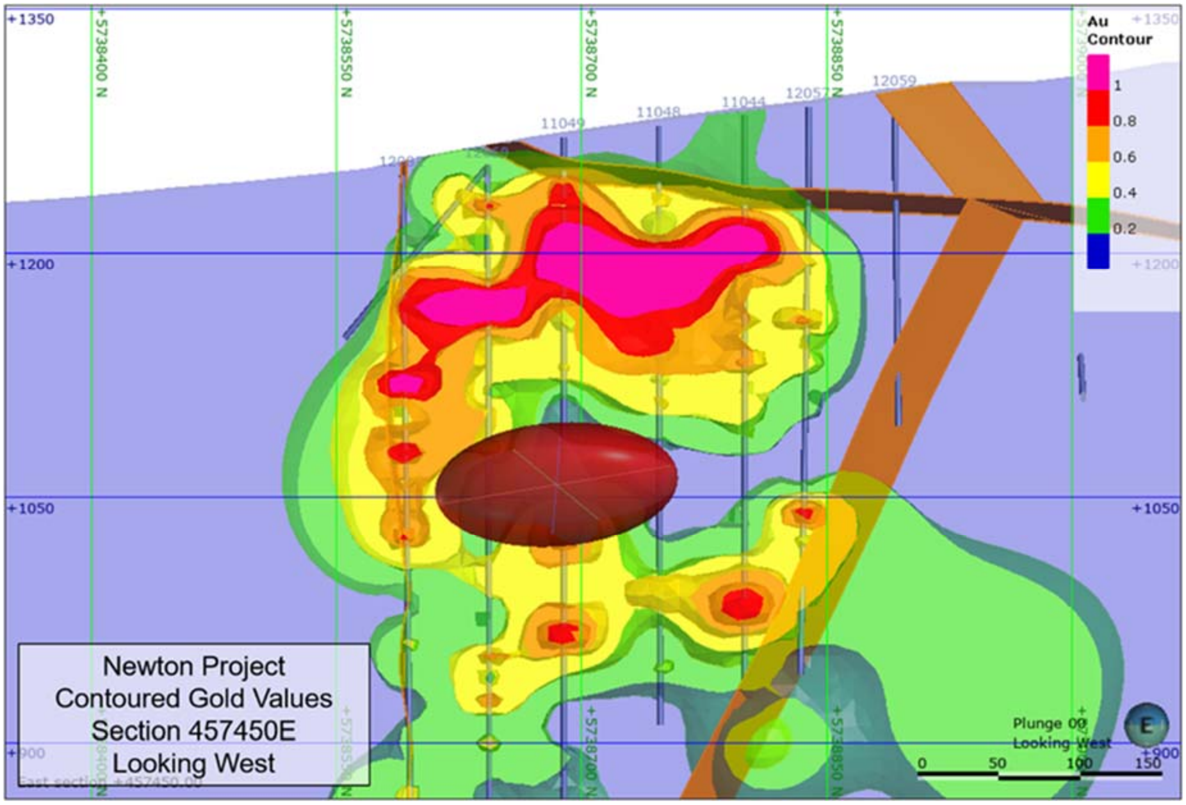


Figure 14-16 – GOLD CONTOURS AT SECTION 457450E

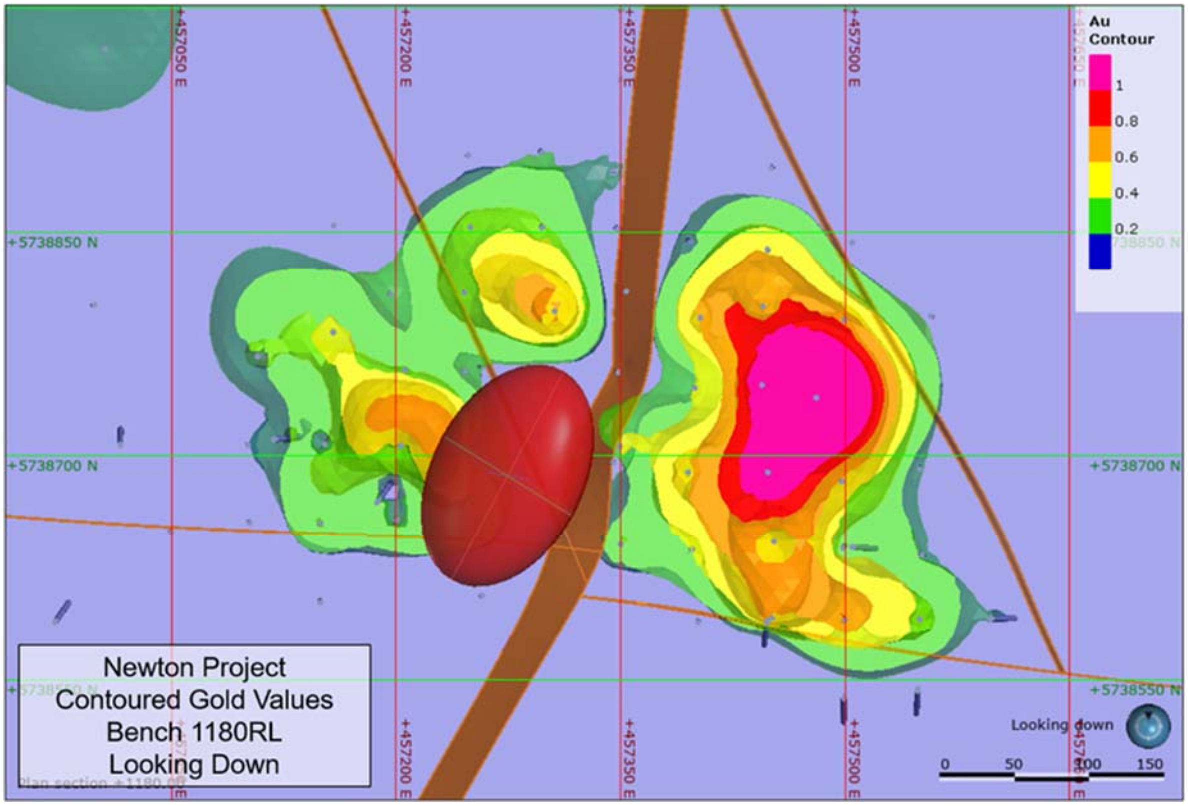


Figure 14-17 – GOLD CONTOURS AT BENCH 1180m

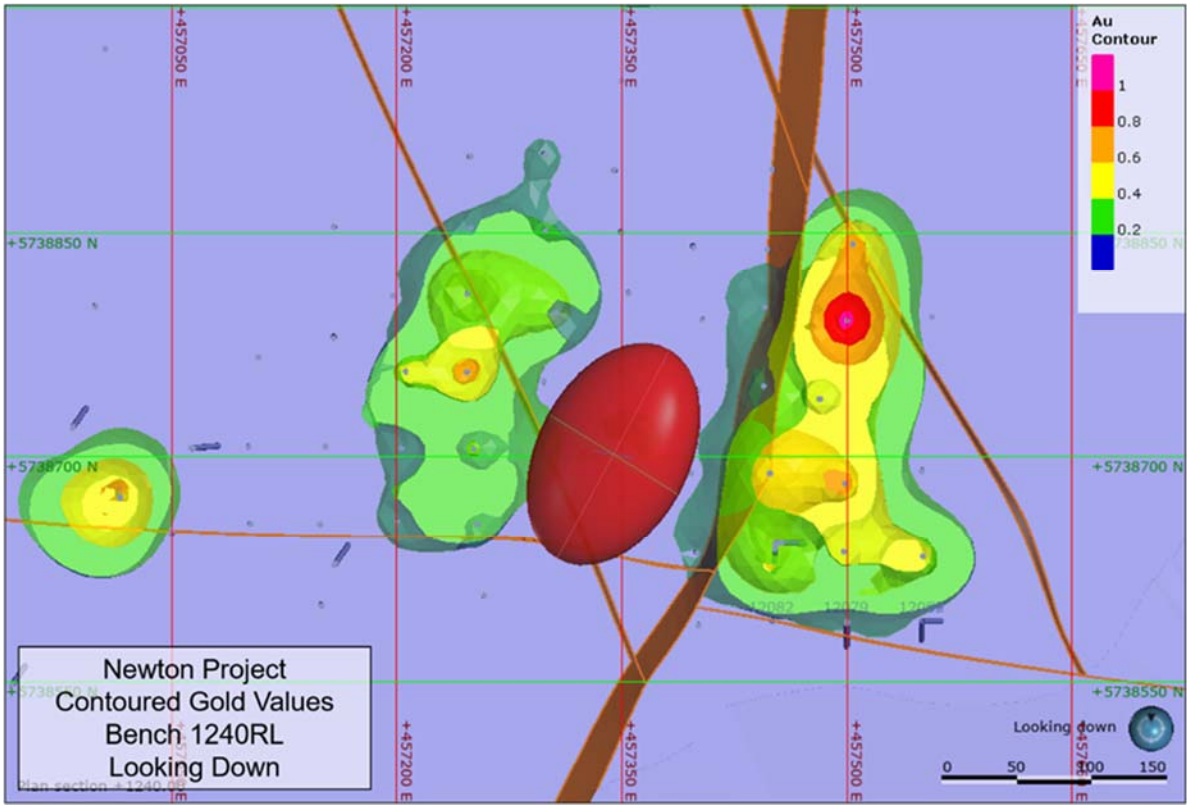


Figure 14-18 – GOLD CONTOURS AT BENCH 1240m

Variography

Experimental semi-variograms were calculated and modeled for gold and silver in each reconstructed domain. One or two structure spherical models were fitted. All domains had a sufficient number of samples to create stable experimental semi-variograms. Mild anisotropy was observed for the most part and therefore directional variogram models were considered applicable for this study.

The nugget values (i.e., the sample variability at very close distance) were established from downhole variograms. The determined nugget values average 37% of the total sill value for gold in the IN domain and 62% in the OUT domain. The silver nugget values were 15% for the IN domain and 45% for the OUT domain. Note that the sill represents the sample variability at a distance beyond which there is no significant correlation. The variogram continuity models created for gold and silver in both domains are presented in Figure 14-19, Figure 14-20, Figure 14-21 and Figure 14-22.

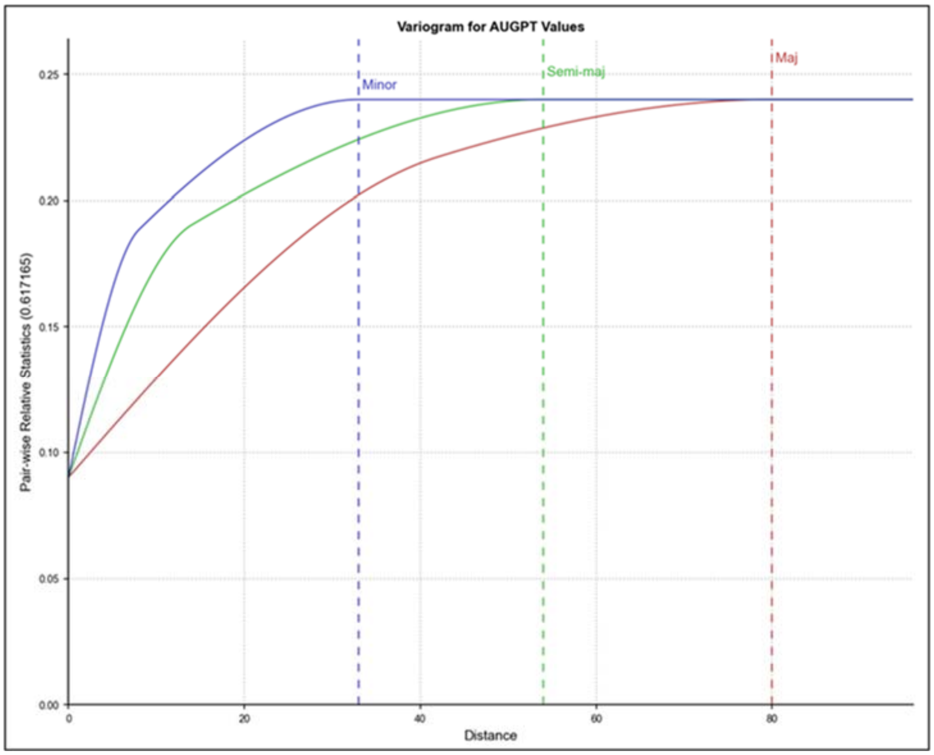


Figure 14-19 – VARIOGRAM MODELS FOR Au_IN DOMAIN

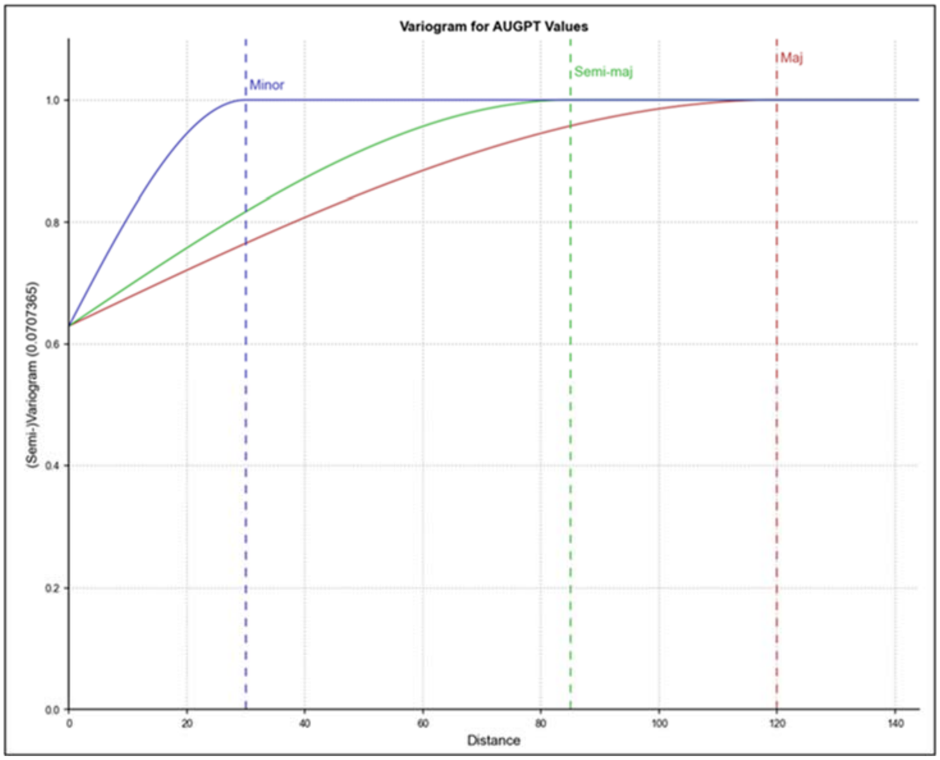


Figure 14-20 - VARIOGRAM MODELS FOR Au_OUT DOMAIN

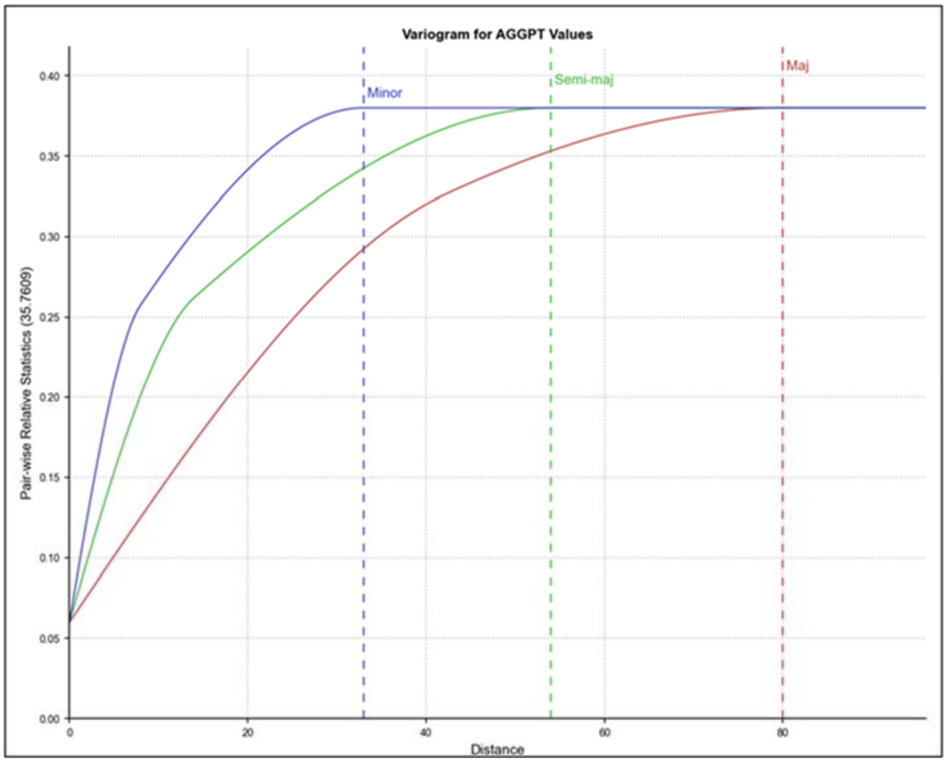


Figure 14-21 - VARIOGRAM MODELS FOR Ag_IN DOMAIN

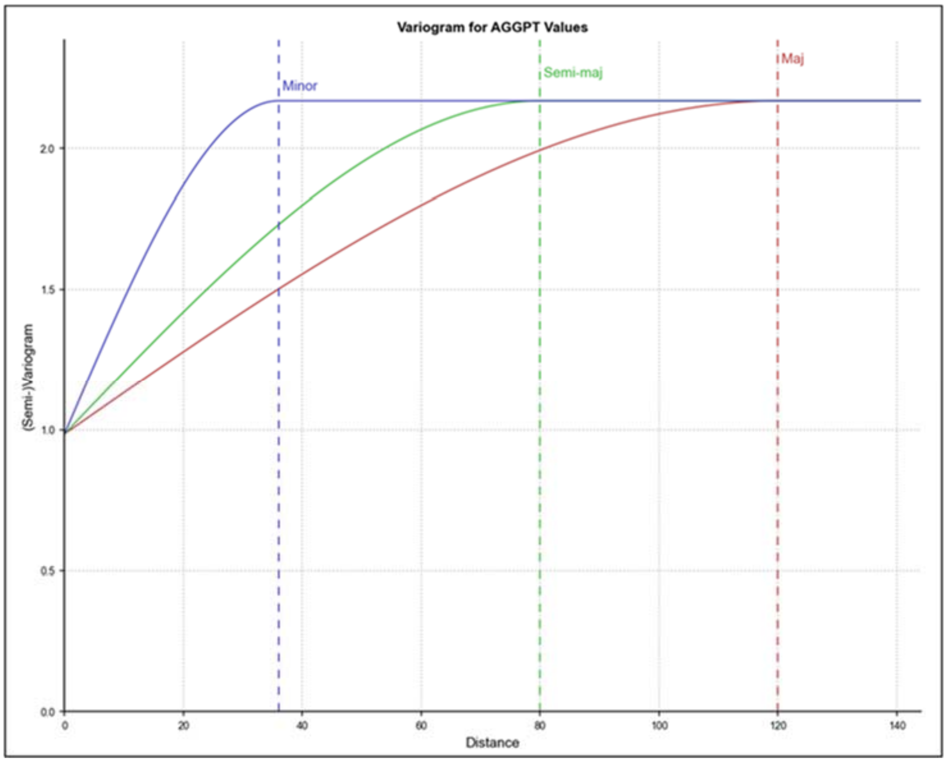


Figure 14-22 - VARIOGRAM MODELS FOR Ag_OUT DOMAIN

The variogram model parameters used for grade estimation of gold and silver are summarized below in Table 14-5.

Table 14-5 – VARIOGRAM MODEL PARAMETERS

Parameter		Gold Domain		Silver Domain	
		In	Out	In	Out
Rotations	**Major**	08 -> 208	08 -> 208	08 -> 208	08 -> 208
	Semi-major	23 -> 302	23 -> 302	23 -> 302	23 -> 302
	Minor	65 -> 100	65 -> 100	65 -> 100	65 -> 100
Nugget		0.056	0.045	2.15	0.99
Structure 1	**Range - Major (m)**	42	120	42	120
	Range - Semi-major (m)	14	85	14	80
	Range - Minor (m)	8	30	8	36
	C1	0.043	0.026	4.65	1.18
Structure 2	**Major**	80		80	
	Semi-major	54		54	
	Minor	33		33	
	C2	0.049		6.8	
Total Sill		0.148	0.071	13.59	2.17

The QP believes that the variography used for grade estimation is appropriate for this deposit.

Block Model Construction

An orthogonal block model was constructed within each domain wireframe to cover the extents of the Newton mineralization. The block model was not rotated but a sub-blocking scheme was applied to represent the volume of each domain optimally. Selected block size was 15mX x 15mY x 3mZ to best represent the data density, deposit shape, composite length as well as to minimize blocks unsupported by data.

As a rule of thumb, it is undesirable to have more than five unsupported blocks between data points, and this was largely achieved except along the extreme edges of the models where data densities were lower. The basic geometrical parameters of the block model are summarized in Table 14-6.

Table 14-6 – BLOCK MODEL PARAMETERS

Type	Easting (X)	Northing (Y)	Elevation (Z)
Minimum Coordinates	456700	5738500	460
Maximum Coordinates	457690	5739295	1390
Number of Blocks	66	53	310
Parent Block Size	15	15	3

Sub-blocks to a minimum size of 3m in X, and Y were applied to fill the domain wireframes. Parent blocks were estimated using ordinary kriging. Parent cells were discretised at 3X, 3Y and 1Z. Sub-block grades were assigned from parent blocks. Estimation into irregular volume sub-blocks was avoided to eliminate risk of variable change of support for the estimates.

The metal grade estimation work involved two successive steps for the “IN” domains and one for the “OUT” domains. The first step used with the “IN” domain considered a search ellipsoid which was equal to the variogram range. This was doubled in size for the second step. A minimum of six composites from three different drill holes were required to estimate a block in the first step. In the second step the requirement was four composites from two drill holes. The “OUT” domains were estimated with one step which used 1.5 times the variogram ranges. The search orientation ellipses were defined based on the orientation of the ellipsoids in the zones as modelled during the variogram modelling process. (See Table 14-7).

The selection of the search radii was guided by modelled ranges from variography and was established to estimate a large portion of the blocks within the modelled area with limited extrapolation. The parameters were established by conducting repeated test resource estimates and reviewing the results as a series of plan views and sections.

“Hard” domain boundaries were used along the contacts of the un-faulted mineralized domains. Only data contained within the respective domain was allowed to be used to estimate the grades of the blocks within the domain in question, and only those blocks within the domain limits were allowed to receive grade estimates. An example cross section is presented in Figure 14-23.

Table 14-7 – SEARCH PARAMETERS

Parameter	Domain	In		Out	
	Angle	**Dip**	**Dip Azi**	**Dip**	**Dip Azi**
Search Directions	**Major**	8	208	8	208
	Semi-major	23	302	23	302
	Minor	65	100	65	100
1st Pass search distance	**Range - Major (m)**	80		180	
	Range - Semi-major (m)	54		128	
	Range - Minor (m)	33		45	
1st Pass search distance	**Major**	160			
	Semi-major	108			
	Minor	66			
Number of Samples		**Min**	**Max**	**Min**	**Max**
	1st Pass	6	15	4	15
	2nd Pass	4	15		
Drillhole Limit	**Max Samples per Hole**	2	2	2	2

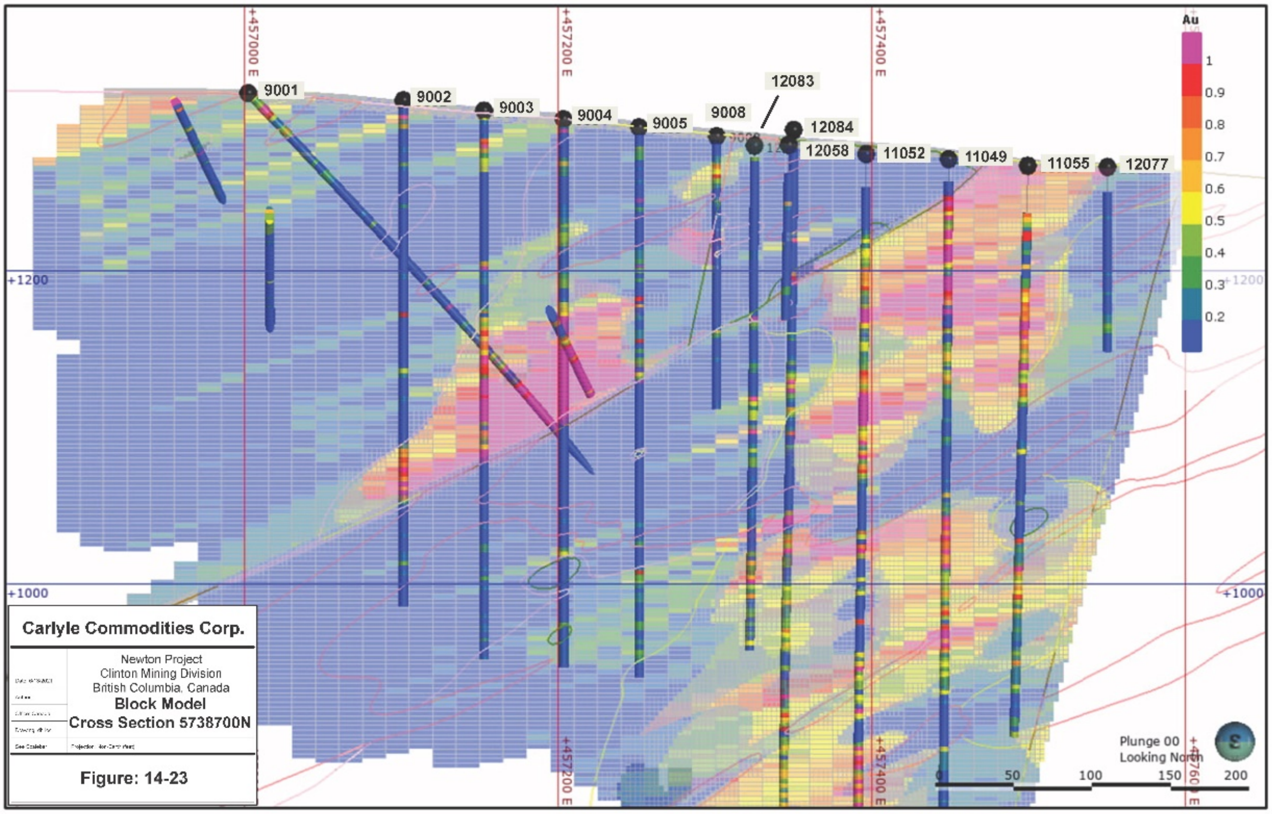


Figure 14-23 – SECTION 5738700N SHOWING BLOCK MODEL

Block Model Validation

The resource block model was validated by completing a series of visual inspections of the interpolated block model grades versus the drill hole composite grades and by:

- Comparison block grades with composites contained within those blocks; and
- Comparison of average assay grades with average block estimates along different directions – swath plots.

Figure 14-24 illustrates a comparison of gold block estimates vs. gold assay grades from the composites contained within those blocks for all mineralized domains combined. On average, the estimated blocks are very similar to the assay data, and there is remarkably good correlation between them for this deposit type with an R^2 value of 0.68. Note that the block estimated grades are smoother than the assay data. A degree of conditional bias is evident from the regression line in the scatterplot. Generally, at lower composite grades, the estimates are slightly higher, whereas at higher composite grades, the estimates are marginally lower, which is to be expected from an ordinary kriged estimate for this deposit type.

A second validation was conducted to compare the average drillhole assay grades with average block estimates along different directions across the block model. De-clustered average assay grades were calculated and then compared with the average block estimates along east-west, north-south, and horizontal swaths. The results are satisfactory. (See Figure 14-25, Figure 14-26 and Figure 14-27).

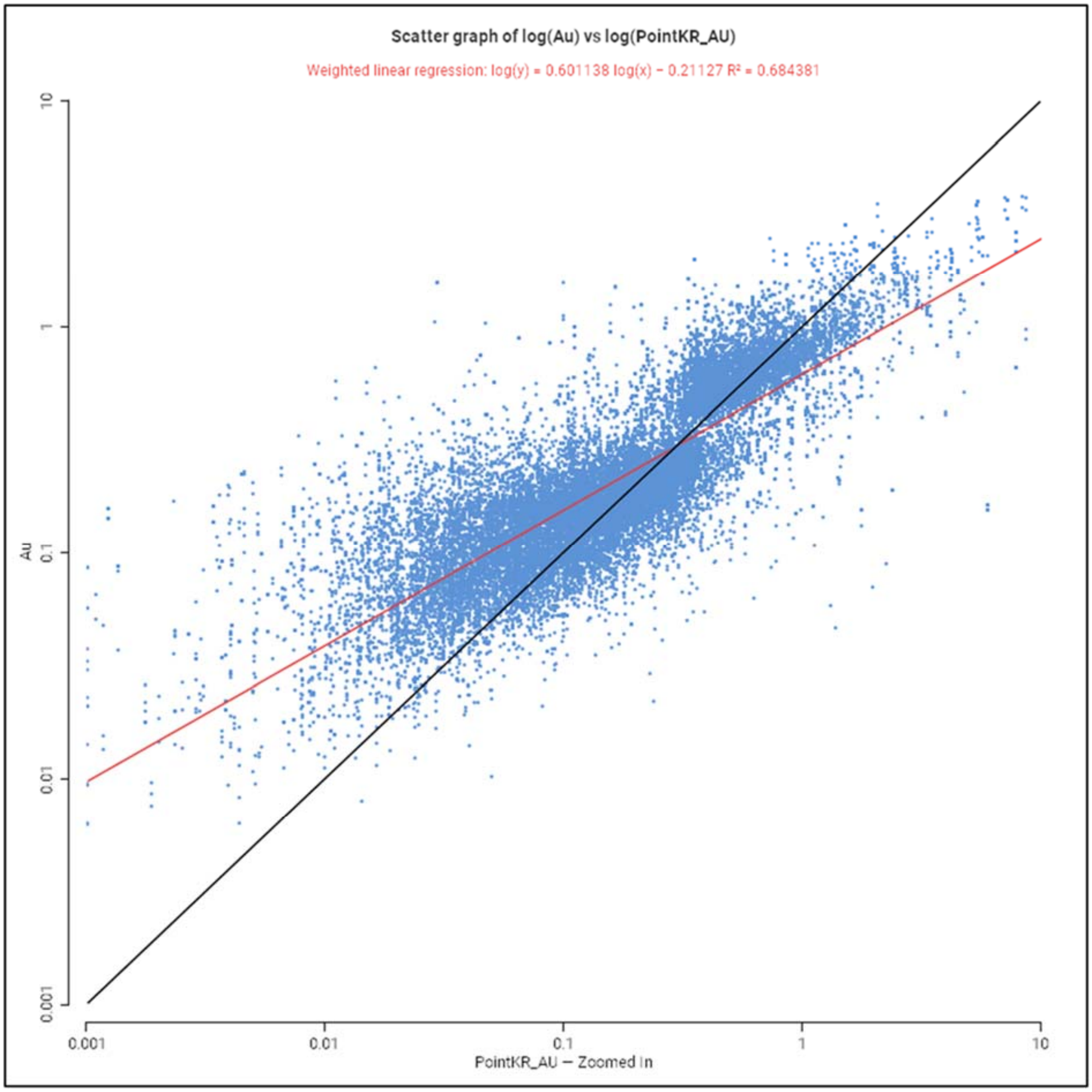


Figure 14-24 – SCATTERPLOT OF Au BLOCK ESTIMATES VS. COMPOSITES

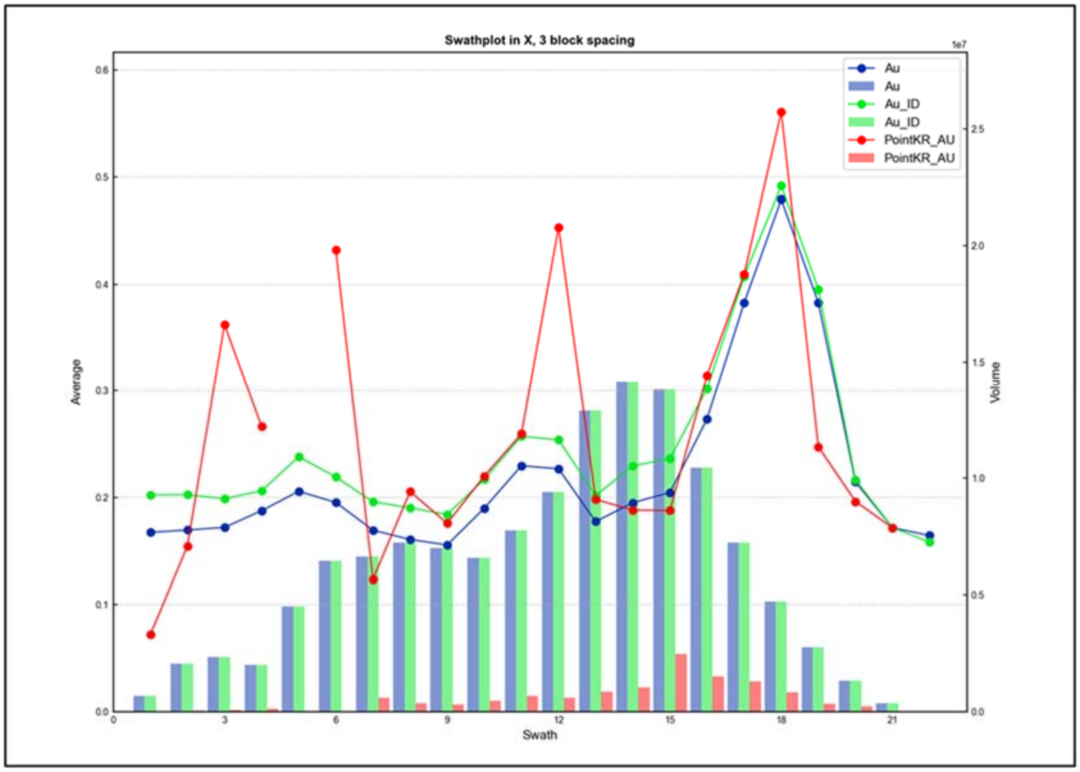


Figure 14-25 - SWATH PLOT OF Au IN X

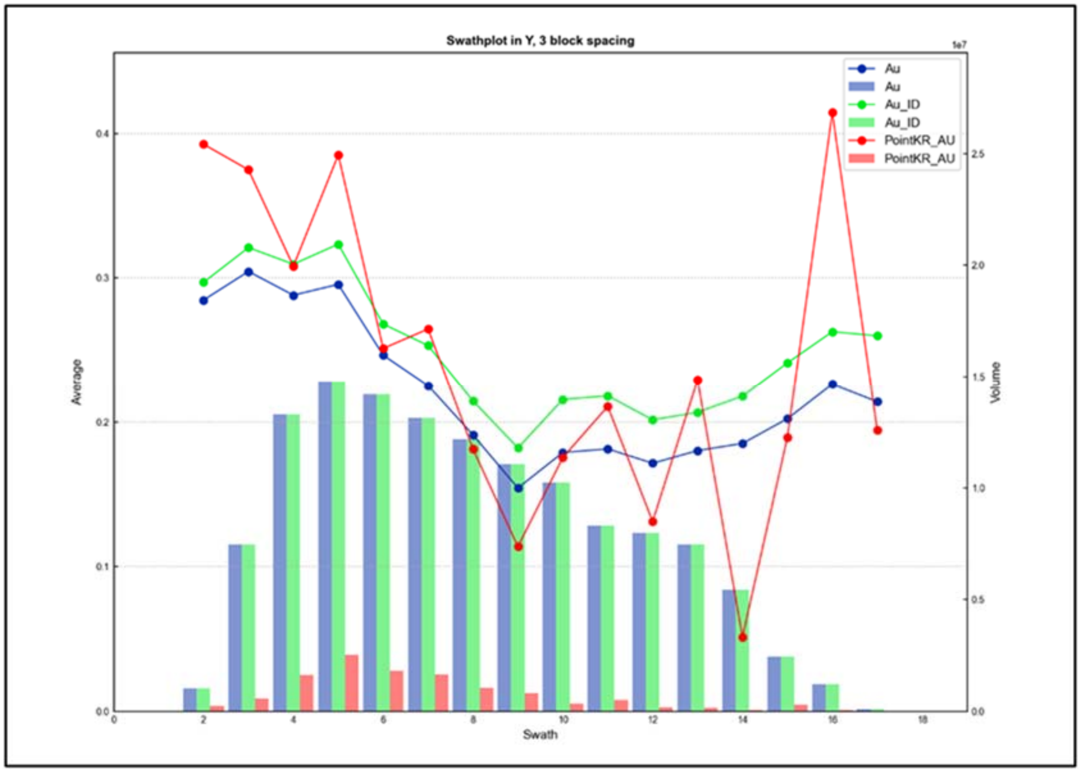


Figure 14-26 - SWATH PLOT OF Au IN Y

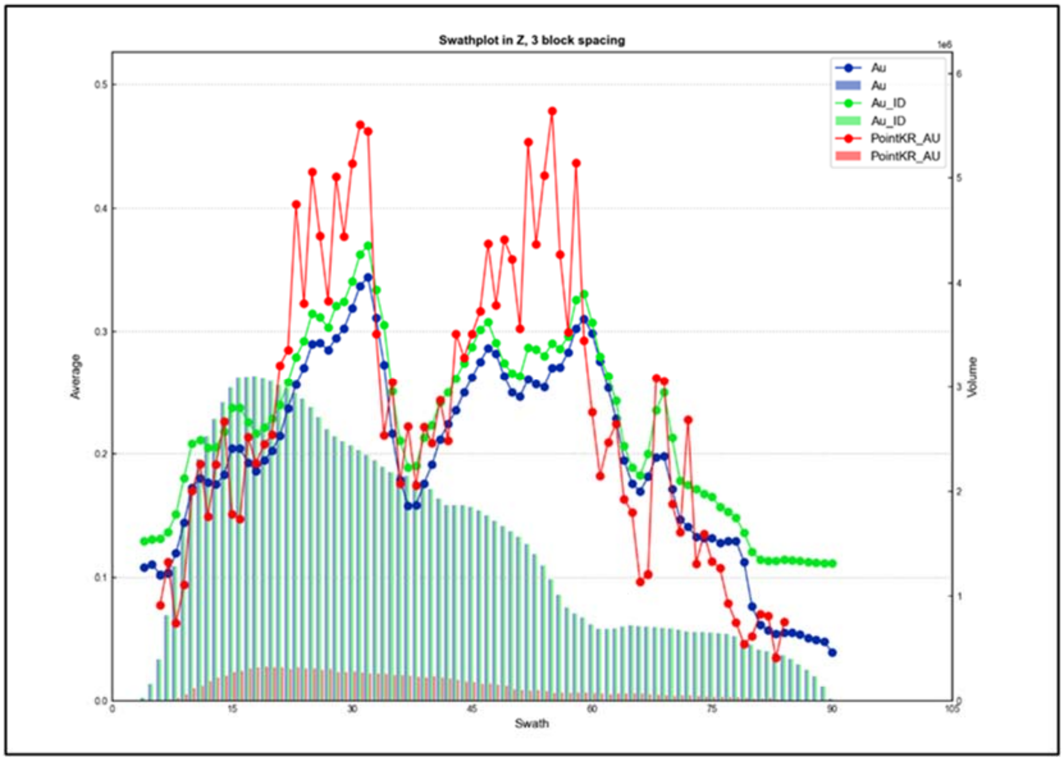


Figure 14-27 – SWATH PLOT OF Au IN Z

Mineral Resource Classification

The Newton mineral resources were classified according to the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014).

All mineralized material for each domain was classified as an Inferred Mineral Resource based on the data density, search ranges, grade continuity gleaned from variography as well as a conceptual Lerchs-Grossman pit shell constraining volume (Figure 14-28), and experience with similar deposits.

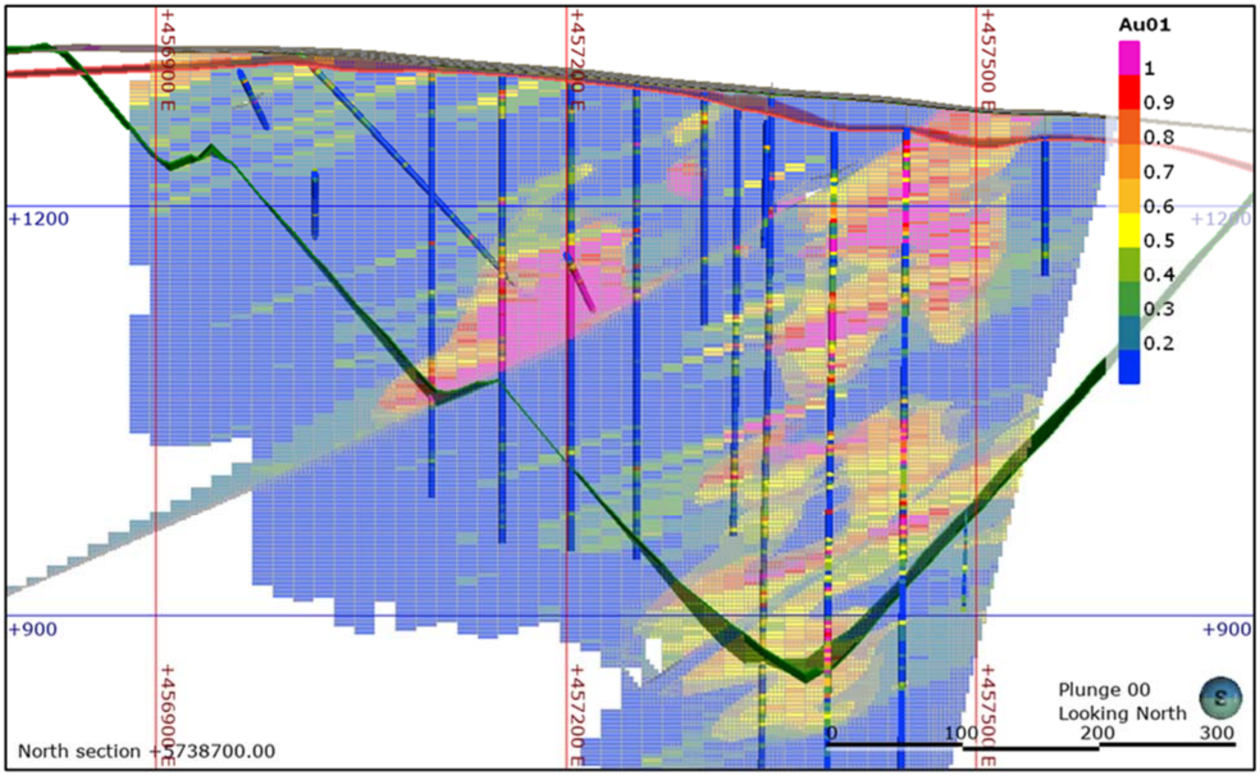


Figure 14-28 – SECTION OF BLOCK MODEL SHOWING PIT OUTLINE

RESPONSIBILITY FOR ESTIMATION

Mr. Michael F O'Brien, P. Geo is the QP for this section.

Mineral Resource Statement

CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) defines a mineral resource as:

> *"a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling".*

CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) defines an inferred mineral resource as:

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

The reader is cautioned that a portion of the resource estimates are in the Inferred category, which category may be considered geologically speculative. The known mineralization has not yet been determined to be economic ore and there is no guarantee that the resources will be upgraded to reserve status.

CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) defines an indicated mineral resource as:

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

All the Newton mineral resources is classified as inferred resources.

CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) defines a measured mineral resource as:

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

No resources were classified as measured or indicated.

The "reasonable prospects for economic extraction" requirement generally imply that the quantity and grade estimates meet certain economic thresholds and that the mineral resources are reported at an appropriate cut-off grade considering extraction scenarios and processing recoveries. The QP considers that the Newton mineralization is amenable to open pit extraction.

The mineral resources are reported at a cut-off grade considering the likely open pit mining extraction scenario that would be used to mine this mineralization. The pit optimization utilized is based on assumed offsite costs, metal recovery, and metal prices presented in Table 14-8.

Table 14-8 – PIT OPTIMIZATION INPUT PARAMETERS

PARAMETER	UNIT	VALUE
Gold Price	US$/ounce	$1,900.00
Silver Price	US$/ounce	$25.00
Pit slope	Degrees	50º
Gold Recovery	%	92
Silver Recovery	%	45
Ore mining cost	$/t	$2.20
Waste mining cost	$/t	$2.00
Overburden removal	$/t	$1.50
Processing plus G&A	$/t	$ 12.00

The classified mineral resource estimates for the Newton deposit are reported for a cut-off of 0.25 g/t and are presented in Table 14-9 The block estimates are presented at a range of cut-offs to demonstrate sensitivity.

Table 14-9 – GRADE AND TONNAGE SENSITIVITY

Sensitivity		Grade			Metal Content	
Cut Off Au	**Mass t**	**Au (g/t)**	**Ag (g/t)**	**AuEQ³ (g/t)**	**Au (t. Oz)**	**Ag (t. Oz)**
0.20	55,515,100	0.54	3.04	0.58	955,300	5,431,100
0.25	***42,396,600***	***0.63***	***3.43***	***0.68***	***861,300***	***4,678,000***
0.30	36,548,400	0.69	3.72	0.74	810,200	4,369,800
0.35	33,659,400	0.72	3.91	0.77	780,200	4,228,100
0.40	32,051,700	0.74	4.01	0.79	760,900	4,130,200
0.45	30,108,800	0.76	4.08	0.81	734,200	3,949,900
0.50	27,468,300	0.79	4.17	0.84	693,800	3,679,600

Notes
1. Differences may occur in totals due to rounding.
2. Metal price used are US$1900/Oz for Gold and US$25/Oz for Silver
3. Recovery factors used are 92% for Au and 45% for Ag
4. All prices are in US$ / troy. Oz.

The mineral resource for the Newton Deposit is summarized in Table 14-10

Table 14-10 – SUMMARY OF MINERAL RESOURCES - NEWTON

Resource in Optimized Pit (Inferred)		Grade			Metal Content	
Cut Off Au	**Mass t**	**Au (g/t)**	**Ag (g/t)**	**AuEQ³ (g/t)**	**Au (t. Oz)**	**Ag (t. Oz)**
0.25	**42,396,600**	**0.63**	**3.43**	**0.68**	**861,400**	**4,678,000**

Notes
1. Differences may occur in totals due to rounding.
2. CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) and CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (November 2019) were used for mineral resource estimation.
3. Metal price used are US$1900/Oz for Gold and US$25/Oz for Silver
4. Recovery factors used are 92% for Au and 45% for Ag
5. Prices are in US$ per Troy ounce.
6. Effective date for the Mineral Resource Update 13 June 2022

RockRidge has considered the Mineral Resource estimates in light of known environmental, permitting, legal, title, taxation, socio-economic, marketing, political, and other relevant issues and has no reason to believe at this time that the Mineral Resources will be materially affected by these items. Given the current stage of the Newton deposit's exploration and discovery history, no studies have yet been completed that examine whether the Mineral Resources may be materially affected by mining, infrastructure, or other relevant factors. No metallurgical testing has been completed on samples taken from the newly discovered mineralization, however, historical information regarding metal recoveries is available for comparable operations and projects in the area.

The QP believes that the mineral resource estimates for the Newton project have been generated using industry standard methods and are the results are reasonable and appropriate for this technical report.

15. MINERAL RESERVE ESTIMATES

There are no Mineral Reserves on the Newton Property.

16. MINING METHODS

This section is not applicable.

17. RECOVERY METHODS

This section is not applicable.

18. PROJECT INFRASTRUCTURE

This section is not applicable.

19. MARKET STUDIES AND CONTRACTS

This section is not applicable.

20. ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

This section is not applicable.

21. CAPITAL AND OPERATING COSTS

This section is not applicable.

22. ECONOMIC ANALYSIS

This section is not applicable.

23. ADJACENT PROPERTIES

The following summary of adjacent properties is modified from the RPA Report prepared by RPA in 2012.

Taseko's New Prosperity copper-gold project and Prosperity Deposit, located 40 km to the south of the Newton deposit but adjacent to Carlyle's property holdings. The Prosperity Deposit is a porphyry gold-copper deposit with Proven and Probable Mineral Reserves of 830 million tonnes grading 0.41 g/t Au and 0.23% Cu at a C$5.50 NSR/t cut-off, using metal prices of US$650/oz for gold and US$1.65/lb for copper as detailed in the Taseko, Technical Report on the 344 Million tonne Increase in Mineral Reserves at the Prosperity Gold-Copper Project, December 17, 2009 with an effective date of November 2, 2009 for the mineral resource estimate update (Jones, 2009).

RockRidge has been unable to independently verify the information on the New Prosperity property and the information is not necessarily indicative of the mineralization on the Newton Property.

24. OTHER RELEVANT DATA AND INFORMATION

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

25. INTERPRETATION AND CONCLUSIONS

It is the opinion of RockRidge that key elements of the interpretation and conclusions by RPA in the RPA Report in 2012 remain relevant (R. Pressacco, 2012) and have been modified and amended below.

RockRidge believes exploration on the Newton Property to date has successfully identified a mineralized system that exhibits characteristics typical of bulk-tonnage, strata-bound, low to intermediate sulphidation epithermal gold-silver deposits. The mineralisation (disseminated gold and associated base metals) is primarily hosted by thick sequences of late Cretaceous-aged permeable felsic volcaniclastics and flows and contemporaneous felsic intrusions, emplaced into a structurally active graben environment. The host rocks show strong, widespread sericite- quartz alteration with variable siderite and several percent pyrite and/or marcasite. Additional mineralization is hosted to a lesser degree by intrusive rocks of intermediate and felsic composition. Initial studies suggest that the gold occurs predominantly as high fineness electrum and is preferentially associated with marcasite-bearing alteration.

The drilling completed to date has outlined a significant, gold-silver deposit over an area of approximately 800 m by 800 m and to a depth of approximately 560 m from surface. The deposit is coincident with a NW trending magnetic low and occupies a restricted area within an extensive, plus seven square kilometre hydrothermal system (as indicated by the outline of the 8 MV/V contour of the IP chargeability anomaly) that exhibits widespread metal enrichment, and which remains to be fully explored. Drill results to date not only indicate that there is potential to expand the current bulk-tonnage gold resource but also suggest that there are possibilities to discover structurally controlled zones of higher grade gold mineralization and copper-gold porphyry-style mineralization in proximity to, and possibly genetically related to the Newton mineralized system.

Given the association of gold mineralization with felsic units, there are other mapped occurrences of felsic volcanic rock units to the northwest of the deposit and south of the NHF that have not received the same level of drilling as the main resource area. This association would prompt a recommendation for a thorough investigation of all interpreted or mapped felsic volcanic occurrences on the Property.

RockRidge has reviewed the QA/QC programs employed by Amarc during the most recent drilling campaigns and assaying programs and found them to meet current industry best practices.

Assays from the last four drill holes completed in 2012 were not in included in the 2012 RPA estimate but have been included in the current estimate detailed in this Technical Report. A separate review of the QA/QC data from these four holes was conducted by RockRidge in additional to the review of the historical QA/QC data.

During the site visit, discrepancies were noted between collar elevations in the drill hole database and the current topographic data. Although these discrepancies were not deemed to have a material impact on the mineral resource estimate, any further drilling and interpretation would benefit from a new high resolution topographic data set.

RockRidge has applied grade caps to the estimation domains that were used to prepare this Inferred Mineral Resource estimate. Review of the distribution of gold and silver grades suggested that capping is warranted.

Examination of contour plots of gold grades for selected sections and benches through the deposit reveal that a weak but discernable mineralization trend appears to be present in the data examined. A grade-block model was prepared using the modeled domains to ensure proper coding of the model. “Hard” domain boundaries were used along the contacts of the mineralized domain model. Only data contained within the respective domain models were allowed to be used to estimate the grades of the blocks within the domain in question, and only those blocks within the domain limits were allowed to receive grade estimates. Only the capped, composited grades of the drill hole intersections were used to derive an estimate of a block’s grade.

A series of domain wireframe solids were created in three dimensional modeling software that outlined those portions of the deposit that demonstrate continuity of mineralization. These three-dimensional solids were used as one of the constraints in the preparation of the Inferred Mineral Resource estimate.

A conceptual pit shell was generated using a Lerchs-Grossmann optimizer as an additional constraint in the preparation of this Inferred Mineral Resource estimate. A 50° overall pit wall slope angle was applied.

The Inferred Mineral Resources in this Technical Report were estimated in accordance with the definitions contained in the CIM Definition Standards on Mineral Resources and Mineral Reserves (CIM definitions) that were prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council on May 10, 2014.

The mineralized material for each domain was classified by RockRidge into the Inferred Mineral Resource category on the basis of the search ellipse ranges obtained from the variography study, the application of an open pit shell along with a constraining volume, and its experience with these deposit types in the past.

The Inferred Mineral Resources are presented in Table 25-1. At a cut-off grade of 0.25 g/t Au, a total of 42,396,600 tonnes are estimated to be present at an average Au equivalent grade of 0.68 g/t (861,000 contained oz Au) and (4,678,000 contained oz Ag).

Table 25-1 - SUMMARY OF MINERAL RESOURCES

Resource in Optimized Pit (Inferred)		Grade			Metal Content	
Cut Off Au	**Mass t**	**Au (g/t)**	**Ag (g/t)**	**AuEQ³ (g/t)**	**Au (t. Oz)**	**Ag (t. Oz)**
0.25	42,396,600	0.63	3.43	0.68	861,400	4,678,000

1. Differences may occur in totals due to rounding.
2. CIM definitions were followed for Mineral Resources.
3. Metal price used are US$1900/Oz for Gold and US$25/Oz for Silver
4. Recovery factors used are 92% for Au and 45% for Ag
5. Prices are in US$ per Troy ounce.
6. Effective date for the Mineral Resource Update 13 June 2022

EXPLORATION POTENTIAL

Much of the large Newton sulphide-bearing alteration zone, as defined by Amarc’s 2010 IP survey, has not been thoroughly explored. For example as described in Chapter 9, the Newton gold deposit lies within a northwest trending total field magnetic low that extends approximately 500 m to the northwest beyond the deposit as defined by the densest drilling, to an area where the few exploration holes returned geologically important intersections of greater than 100 ppb (0.1 g/t) Au, such as hole 92-03 that returned 54 m grading 0.50 g/t Au including 30 m grading 0.70 g/t Au, and hole 10023 that returned 39 m at 1.21 Au, indicating potential to host additional resources. In addition, to the north, mineralization in hole 12076 (see Table 10-7) has not been fully explored and in the south, the mineralized intervals in hole 12086 are indicative of resource potential in this vicinity.

There is a clear relationship between the felsic volcanoclastic units and disseminated gold mineralization at the Newton Gold Deposit. Felsic volcaniclastic units mapped on surface and modeled in 3D based on historic drilling indicate that these felsic units persist at depth but have only received a limited amount of drilling. Of the widely spaced drilling completed NW of the most intensely drilled portion of the Newton Deposit 9 of the 10 drill holes completed in 1972 by Cyprus, intersected intervals of felsic volcaniclastic rocks. Of these 9 holes, 5 were not analyzed for gold and/or silver, and 4 were partially sampled and analyzed for gold only. At that time, Cyprus was primarily interested in the copper potential at Newton, and they did not conduct any gold analyses. Of the partially sampled holes, drill hole 72-06 contains two high grade intersections. Of particular note is drill hole 72-03 which intersected a 211m interval of felsic volcaniclastic rock and although there are indications this interval was sampled, likely for copper, gold analyses were not conducted. In 1987, Rea Gold resampled the 1972 drill core, but details and results of this sampling could not be found.

The main part of the Newton orebody is coincident with a NW trending magnetic low that extends from the eastern side of the resource model, approximately 1km to the northwest (See

Significant risk factors to the mjneral resource project and available ameliorations are summarized in Table 25-2. Any or all of these items could cause the project to fail.

Table 25-2

Risk Factor	Potential Impact (high/moderate/low)	Management and Amelioration
Metal Prices	high	External factors, to be ameliorated by prudent development planning.
Tonnage and Grade	moderate	Current categorization of the mineral resource as inferred flags the level of uncertainty. Infill drilling and improved geology and evalution modelling should address the risk and opportunity.
Metal recovery	moderate	Metallurgical testwork and geometallurgical modelling
Environmental and Community	moderate	Prudent environmental monitoring and engagement with stakeholders

Figure 25-1). The Newton Deposit and felsic volcaniclastic units immediately NW of the most intensely drilled portion of the Newton Deposit are coincident with this NW trending magnetic low. RockRidge recommends that further drilling should focus on this area and consideration should be given to twinning hole 72-03 in an effort to confirm the lithology previously logged by Cyprus. The magnetic low as defined by the existing magnetic survey coverage combined with RockRidge's recent geological modeling can be used to target favourable areas for drill testing.

Significant risk factors to the mjneral resource project and available ameliorations are summarized in Table 25-2. Any or all of these items could cause the project to fail.

Table 25-2

Risk Factor	Potential Impact (high/moderate/low)	Management and Amelioration
Metal Prices	high	External factors, to be ameliorated by prudent development planning.
Tonnage and Grade	moderate	Current categorization of the mineral resource as inferred flags the level of uncertainty. Infill drilling and improved geology and evalution modelling should address the risk and opportunity.
Metal recovery	moderate	Metallurgical testwork and geometallurgical modelling
Environmental and Community	moderate	Prudent environmental monitoring and engagement with stakeholders

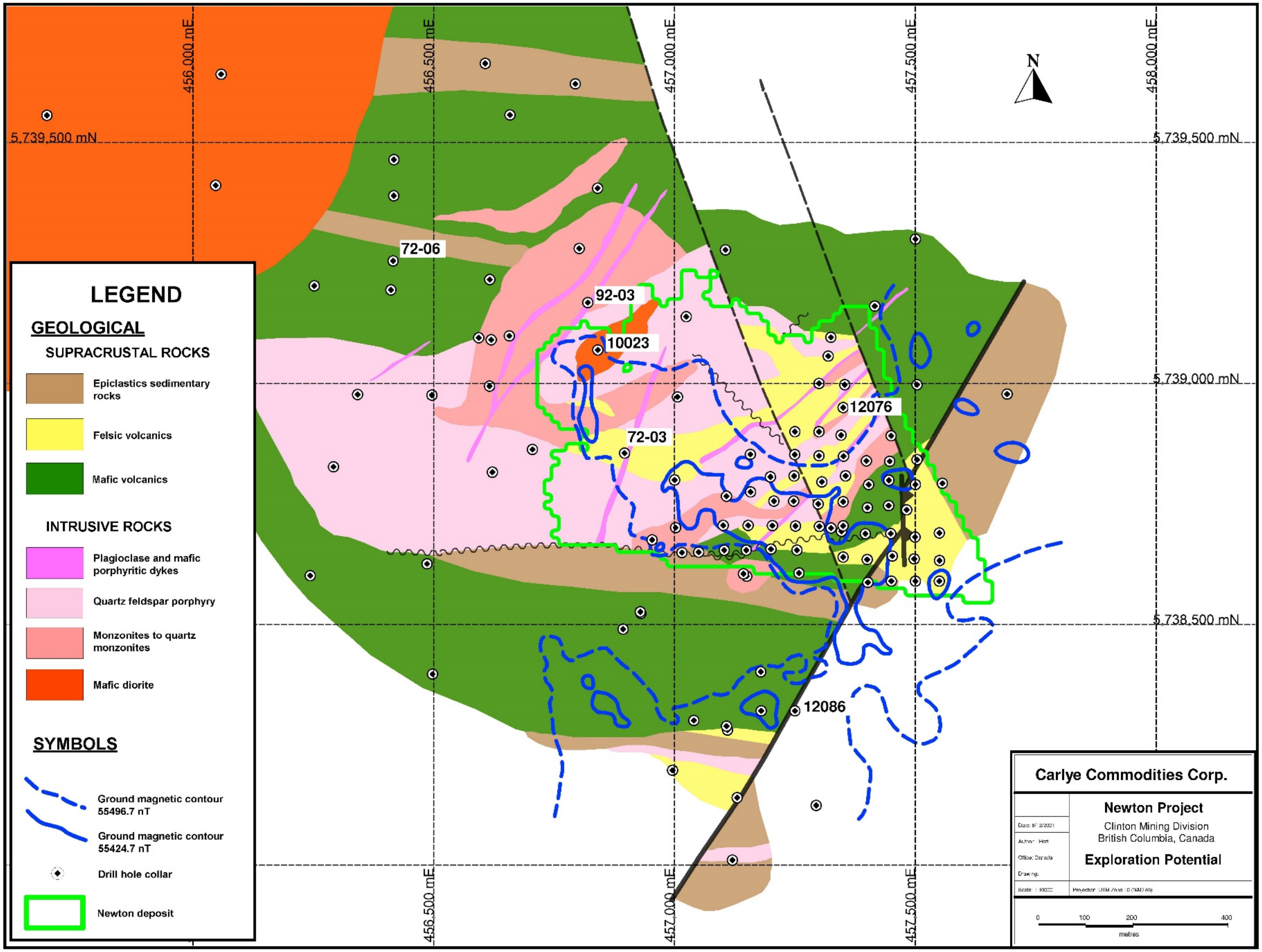


Figure 25-1 – EXPLORATION POTENTIAL

26. RECOMMENDATIONS

RockRidge recommends a two phased approach to add additional diamond drilling proximal to the Newton resource aimed at:

- Increasing the currently delineated gold-silver resource by improving the grade definition and upgrading the resource classification by utilizing infill drilling.
- Exploring for additional targets within the known plus seven square kilometre hydrothermal system.

Prior to commencing the recommended Phase 1 drilling, the following actions are recommended.

- A full audit of the database is recommended in the next stage of the project.
- The boxes of core surviving from the previous campaigns should be marked clearly while the existing markings are still legible, decayed boxes and lids should be replaced and the storage and security of the cores should be improved (e.g., consolidate the cores at one site).
- Acquisition of a detailed current digital terrain model to better define the topography is recommended.
- Other mapped felsic volcanic occurrences surrounding the focus area should be fully evaluated either on surface or by drilling, particularly NW of the footprint of the current resource model where felsic units have been mapped on surface and coincident with the NW trending magnetic low. Much of the area NW of the Newton Deposit has yet to receive an equivalent level of drilling as the main resource area.
- The Property covers a large area and potential early-stage target opportunities elsewhere on the property is probable. Geological features similar to those modeled and interpreted in the focus area might suggest more of the same depositional environments may exist. A property scale compilation of all available geological, geophysical and geochemical data would facilitate the identification other potential target areas within the Property boundary and outside of the Newton Deposit footprint.

A Phase 1 delineation and exploration diamond drill program comprising an approximately 4,000 m drill program is recommended to test:

- The high-contrast magnetic low that extends to the northwest of the currently delineated deposit in the vicinity
- The area south and southwest of drill hole 12086. This target is located south and west of both the current resource and the South Graben fault; this area has potential for repetition of the favourable, felsic volcanic strata which host gold mineralization immediately to the north.
- RockRidge recommends the QA/QC protocols previously recommended by RPA in 2012 for the Newton Project in relation to future drilling so that sampling programs include certified reference materials for silver and, in accordance with established protocols, the results be monitored for departures from the recommended values with respect to the silver standards.

A budget of $1,200,000 is estimated for the Phase 1 program and is presented in Table 1-2 below.

Table 26-1 – PROPOSED PHASE 1 BUDGET

Item	C$
4000 metres core drilling ($250/m all-In site and analytical costs)	$1,000,000.00
Detailed Topography	$40,000.00
Drill core recovery and rehabilitation	$15,000.00
Database audit, compilation and target generation	$10,000.00
Permitting/Community Relations/Environmental Studies	$35,000.00
General and Administration	$100,000.00
TOTAL	**$1,200,000.00**

A follow-up Phase 2 program is suggested, which is contingent on the success of the Phase 1 program. A Phase 2 budget of up to $2,400,000 is recommended and the associated program would consist of:

- Infill diamond drilling to further delineate potentially economic mineralization identified in the Phase 1 program.
- Drill testing areas within or immediately adjacent to the significant plus seven square kilometre hydrothermal system as outlined by the 8MV/V contour of the IP chargeability anomaly where felsic volcanic units are projected, or have the potential, to occur.

- Additional detailed structural modelling completed within and proximal to the currently defined resource to assess the potential presence, and projected location, of zones of high-density veins and/or mineralized fractures. Such zones have the potential to host higher-grade, structurally controlled mineralization that would increase the tenor of the resource. As part of this exercise, detailed three-dimensional modelling of vein and fracture density is recommended to develop possible vectors toward prospective structural settings. Resulting targets should then be tested by diamond drill holes oriented appropriately to the projected plane of the controlling structures.
- Preliminary metallurgical test work carried out to provide initial information regarding the hardness of the mineralized samples, and an initial evaluation of recovery methods.

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28. DATE AND SIGNATURE PAGE

This Technical Report titled “Technical Report on the Updated Mineral Resource Estimate for the Newton Project, Central British Columbia, Canada” and effective dated June 13, 2022, was prepared and signed by the following authors:

“*Michael O’Brien*”

(Signed & sealed)

Dated at Pit Meadows, B.C.

June 13, 2022, Michael O’Brien M.Sc., P.Geo.

Consulting Geologist

“*Douglas Turnbull*”

(Signed & sealed)

Dated at Coquitlam, B.C.

June 13, 2022, Douglas Turnbull, H.B.Sc., P.Geo.

Consulting Geologist

Michael O’Brien, P. Geo was the QP responsible for sections 11-14. Douglas Turnbull, P. Geo was the QP responsible for Section 1-10 and 15 to 27

29. CERTIFICATE OF QUALIFIED PERSON

I, Douglas Turnbull, P. Geo., do hereby certify that:

1. I am a consulting geologist and President of Lakehead Geological Services Inc. of 300-1055 West Hastings Street, Vancouver, B.C. V6E 2E1.
2. I graduated with an Honours Bachelor of Science degree in Geology from Lakehead University in Thunder Bay, Ontario in 1988.
3. I am and have been registered as a Professional Geologist with the Engineers and Geoscientists of British Columbia since 1992, License #19959.
4. I have worked as a geologist for more than 30 years since my graduation from university and have been involved in all aspects of exploration of precious and base metal deposits.
5. I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
6. I am responsible for sections 1-10 and 15 to 27 of the "NI 43-101 Technical Report on the Updated Mineral Resource Estimate for the Newton Project, Central British Columbia, Canada", with an effective date of June 13, 2022 (the "Technical Report").
7. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report, including those sections for which I am directly, responsible, contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
8. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
9. I am independent of Carlyle Commodities Corp., IMNC and the Property, as Independence is defined by Section 1.5 of NI 43-101.
10. I have not had any prior involvement with the Property that is the subject of the Technical Report.
11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files or their websites.

Signing date: June 13, 2022
Coquitlam, British Columbia, Canada

STAMP AND SIGNATURE

"*Douglas Turnbull*"
Douglas Turnbull, B.Sc., P. Geo.

I, Michael F. O’Brien, P.Geo., do hereby certify that:

- I am an associate principal consultant with RockRidge Partnership & Associates, with a business address at 13693 230A Street, Maple Ridge, BC, Canada, and an independent consultant and director of Red Pennant Communications Corp. (EGBC Permit 1001377) a British Columbia Corporation, with a business address at 81-1380 Pinetree Way, Coquitlam, BC, V3E 3S6.
- This certificate applies to the technical report entitled “TECHNICAL REPORT ON THE UPDATED MINERAL RESOURCE ESTIMATE FOR THE NEWTON PROJECT, CENTRAL BRITISH COLUMBIA, CANADA, NI 43-101 Technical Report”, with an effective date of June 13, 2022 (the “Technical Report”).
- I am a graduate of the University of Natal, (B.Sc. Hons. Geology, 1978) and the University of the Witwatersrand (M.Sc. Engineering, 2002).
- I am a member in good standing of Engineers and Geoscientists British Columbia (#41338).
- I am a member in good standing of the South African Council for Natural Scientific Professions (South Africa, 400295/87). My relevant experience is 40 years of experience in operations, mineral project assessment and I have the experience relevant to Mineral Resource estimation of metal deposits. I have estimated Mineral Resources for vein-associated epithermal gold, greenstone-hosted gold, diatreme complex epithermal gold deposits, porphyry copper-gold, volcanogenic massive sulphide deposits and shear zone-hosted gold and base metal deposits.
- I am a “Qualified Person” for the purposes of National Instrument 43-101 (“NI 43-101”).
- My recent personal inspection of the Property was on June 24, 2021, and I reviewed drill cores and the surface features of the deposit.
- I am responsible for Sections 1, 12.0, 14.0, 25, 26 and 27.0 of the Technical Report.
- I am independent of Carlyle Commodities Corp., IMNC and the Property, as Independence is defined by Section 1.5 of NI 43-101.
- I have had no previous involvement with the Property.
- I have read NI 43-101 and the sections of the Technical Report that I am responsible for have been prepared in compliance with NI 43-101.
- I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files or their websites.
- As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report, including those sections for which I am directly, responsible, contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed, sealed and dated this 13th day of June 2022

“*Michael F. O’Brien*”

Michael F. O’Brien, P.Geo.

Director and Principal Consultant

Red Pennant Geoscience Ltd.