

# Core Assets Petrographic Analysis Indicates Large Multi-Stage Zn-Pb-Ag-Cu-Bi Carbonate Replacement System at the Blue Property; Atlin, BC

Vancouver, December 21<sup>st</sup>, 2021 – Core Assets Corp., ("Core Assets" or the "Company") (CSE:CC) (Frankfurt: 5RJ WKN:A2QCCU) (OTCQB:CCOOF) is pleased to announce the findings and interpretations of petrographic examinations completed on 17 samples collected within the **6.6 x 1.8 kilometer mineralized trend at the Blue Property** during the 2021 Phase 2 exploration program. The Company has also begun drill tendering for the 2022 exploration season at the Blue Property (the "Property") located in the Atlin Mining District of British Columbia.

# Highlights

- Core Assets geological approach continues to check boxes that indicate the presence of a large, multi-stage, world class Carbonate Replacement System at the Blue Property.
- Massive sulphide composition, intergrowths, and replacement textures observed through petrography at the Grizzly, Amp, Jackie, and Sulphide City targets show a zonation pattern characteristic of significant world class Zn-Pb-Ag-Cu-Bi Carbonate Replacement Deposits (CRD's). This will aid significantly in vectoring toward the Porphyry source.
- Reflected light and scanning electron microscopy has confirmed the mineralogy of the system as being hosted in the following sulphide assemblages; Sphalerite (Zn), Chalcopyrite (Cu), Galena (Pb), Pyrrhotite, and Pyrite (Fe-Sulphides), crosscut by a later Galena-dominated assemblage associated with Hessite (Ag-Telluride) and Native Bismuth (Bi).
- The presence of Fe-rich Sphalerite and local fugitive calcite observed in samples bordering the "Porphyry Hub" also indicate a close proximity to the Porphyry source.
- The company has begun drill tendering for the upcoming 2022 exploration season.

Core Assets' President and CEO Nick Rodway comments, "The recent petrography results further confirm our field observations and the fact that this system is unique for British Columbia's Stikine Terrane. The presence of a wide compositional range of volcanic and plutonic rocks spanning from Devonian to Eocene in age, and vast amount of favourable limestone beds observed on the Property, suggest the potential for the discovery of an extensive CRD that could produce many millions of tonnes of mineralized material. We eagerly await the final geophysical and channel sampling assay results which should be released in early 2022."

# 2021 Petrographic Analysis

In 2021, 17 rock samples consisting of massive sulphide, various intrusive and porphyritic igneous rocks, and calc-silicate gneiss were submitted for petrographic analysis (Table 1). The samples were submitted in order to investigate the sulphide composition and textures associated with mineral occurrences at the Blue Property, and to interpret these observations with respect to the textural characteristics of significant Carbonate Replacement Deposits (CRD's). As outlined in Megaw (2020): The largest and most



economical CRD's are formed over the course of multiple intrusive and hydrothermal stages that resulted in repeated reactions between the products of the individual fluid phases.

The area associated with the Blue Property has been subject to a long and protracted tectonomagmatic history spanning from the Devonian to Eocene (Figure 1). Three distinct crustal fragments converge along the Llewellyn Fault, which extends from the Tulsequah area (located south of the Blue Property, where it crosses into Alaska, USA) to the Tally-Ho Shear Zone in the Yukon. To-date, more than 50 spatially related mineral occurrences including epithermal, mesothermal, porphyry Cu-Mo and associated skarn and polymetallic vein-type deposits and showings have been identified along the extent of the Llewellyn Fault (Ootes, et al., 2017 and references therein).

Table 1: 2021 Petrographic Sample Data									
Petrgraphy Sample ID	Reference Assayed Sample ID	Easting (m)	Northing (m)	Description	Ag g/t	Cu %	Pb %	Zn %	Bi ppm
BTS21-01	152199	538809	6557222	Massive Sulphide (Jackie)	328	0.53	17.2	5.6	141
BTS21-02	152176	537015	6558644	Massive Sulphide (Grizzly)	481	0.34	0.81	8.58	1330
BTS21-03	152133	536790	6558075	Massive Sulphide (Grizzly)	890	0.05	>20	13.05	1
BTS21-04	152225	536671	6558610	Sulphide-Bearing Intermediate Intrusive (Sulphide City)	1.8	0	0	0.2	10
BTS21-05	152231	533074	6560598	Garnet-Calcite-Bearing Massive Sulphide	38.2	0.31	0.09	30	3
BTS21-06	152173	538616	6557410	Massive Sulphide in Felsic Intrusive (Jackie)	143	0.38	6.17	5.08	156
BTS21-07	152253	537489	6560668	Massive Sulphide in Altered Felsic Intrusive (Amp - North)	163	2.82	0.02	0.16	1
BTS21-08	N/A	536584	6558804	Feldspar-Quartz-Biotite (Cpx) Porphyry (Sulphide City)					
BTS21-09	N/A	536607	6558829	Feldspar-Hornblend-Biotite-Quartz- Porphyry (Sulphide City)					
BTS21-10	N/A	536605	6558825	Sulphide-Bearing Calc-Silicate Gneiss (Sulphide City)					
BTS21-11	N/A	536469	6559067	Feldspar-Quartz-Biotite Porphyry (Sulphide City)					
BTS21-12	N/A	536975	6560472	Feldspar-Biotite-Quartz Porphyry (Amp - North)					
BTS21-13	N/A	536844	6560404	Feldspar-Biotite-Hornblende-Quartz- Porphyry (Amp - North)					
BTS21-14	N/A	537488	6560668	Feldspar-Biotite-Hornblende-Quartz- Porphyry (Amp - North)					
BTS21-15	N/A	537290	6560231	Feldspar-Quartz Porphyry Dyke (Amp · North)	-				
BTS21-16	N/A	537304	6560244	Quartz-Feldspar Porphyry Dyke (Amp · North)					
BTS21-17	N/A	537252	6560595	Biotite-Bearing Quartzo-Feldspathic Gneiss					

In large CRD systems, overprinting complexity, repeated depositions of certain sulphide species, intergrowths, recrystallization/pseudomorph textures, the silver content of galena, opaqueness of



sphalerite, pyrite replacement of pyrrhotite, and the presence of "fugitive calcite" (Mn-bearing) to name a few, all diminish away from the proximal zone of ore fluid pathways – therefore, textural complexity alone is and should be used as a first-order exploration vector (Megaw, 2020).



**Figure 1**: Core Assets Corporation's Blue Property Tenure location with widespread intrusive and volcanic lithologies highlighted, as well as mineral occurrences along and proximal to the Llewellyn Fault; Atlin Mining District, NW BC.



At the Blue Property, massive sulphide samples (BTS21-01 through BTS21-06; Figure 2) contain an early sphalerite-chalcopyrite assemblage overlapped with a first phase of galena and/or Fe-sulphides (pyrite, pyrrhotite), that are in turn locally crosscut by a later, galena-dominant phase associated with hessite (Ag telluride) and Native Bi (Figure 3a). Ag-enrichment of this late galena phase is reflected in the assay values obtained in 2021 which returned 481g/t Ag and is speculated by the lack of well-formed cleavage textures. All massive sulphide samples that were collected in closer proximity to the potential "porphyry hub" contain opaque sphalerite with deep-red reflections, apart from sample BTS21-07 which is located approximately 4-kilometers north of the potential "Hub" and is dominated by Fe-sulphide species (see Figure 2). This observation, in addition to chalcopyrite replacement ("disease") that affects sphalerite grains in all samples, is indicative of a high iron content. Multiple generations of pyrite are present in five out of six massive sulphide samples analyzed. In four of these samples, pyrrhotite is intensely-tomoderately replaced by pyrite-marcasite along internal fractures, as well as colloform pyrite-marcasite. The observed intensity of this replacement reaction in massive sulphide samples (early-stage internal facture-controlled veinlets vs. late-stage colloform-textured), as well as the complexity and range of sulphide species present, decreases with increasing distance from the inferred "Porphyry Hub" (Figure 3b-d). This characteristic is most notably observed in sample BTS21-07 which contains the colloform replacement texture only. Two samples of massive sulphide BTS21-01 and BTS21-06, collected from the Jackie Target exhibit orange-red fluorescence when exposed to ultraviolet (UV) light, indicating the presence of locally moderate amounts of "fugitive calcite" associated with massive sulphide mineralization (see Figure 3c).





**Figure 2:** 2021 Petrography sample locations in reference to associated mineralized samples collected at the Grizzly, Jackie, Amp & Sulphide City Targets at the Blue Property. Samples are plotted on Llewellyn Residual Magnetic Intensity (GSC, 2017) and select assay values for reference samples (if applicable) are presented.





**Figure 3:** Reflected light photomicrographs showing replacement textures in massive sulphide samples collected from the Jackie & Grizzly Targets in 2021; a) Moderate replacement of pyrrhotite (Po) by early stage, fracture-controlled veinlets and later colloform texture pyrite (Py)-marcasite (Mcs), intergrown with opaque sphalerite (Sph). Po-Sph assemblage cross-cut by later galena (Gn)-hessite (Ag)-native Bi vein (BTS21-02); b) Intense replacement of pyrrhotite (Po) by pyrite (Py)-marcasite (Mcs) (BTS21-01) along internal fractures; c) Multiple generations of pyrite (Py) with pyrrhotite (Po) replacement by colloform texture pyrite (Py)-marcasite (Mcs) (BTS21-01); d) Replacement of pitted and fractured pyrrhotite (Po) grains by colloform textured pyrite (Py)-marcasite (Mcs) only (BTS21-07).

Abundant carbonate replacement style mineralization has affected numerous lithologies within the boundaries of the Blue Property. Favourable limestone beds host the majority of massive sulphide on the property; however, a wide range of intermediate-to-felsic volcanic and plutonic rocks and gneissic country rocks are also affected by massive-to-disseminated base metal sulphide mineralization. Petrographic analysis of sulphide-bearing intrusive and porphyritic rocks submitted in 2021 indicate a wide range of compositions ranging from intermediate, amphibole or clinopyroxene-bearing lithologies to more felsic feldspar-quartz-biotite porphyries, determined by the visual abundances in modal mineralogy of primary igneous minerals (Figure 4a-c). The relationships between these prospective units are still largely unclear. Detailed geologic mapping, lithogeochemistry, and geochronological studies



planned for 2022 will help determine their significance with respect to the tectonomagmatic and mineralization history of the area.



## QA/QC and Sample Preparation

All petrography samples were collected in the field using a hammer and chisel. Locations were obtained using a GPS and samples were placed in pre-labelled sample bags. Metal tags with the sample numbers scribed into them and flagging tape were left at each sample location. Samples were stored in 5-gallon pails in a secure location until ready for shipment. All petrographic samples were shipped by air and ground to Process Mineralogical Consulting (PMC) Ltd. for examination.

Each sample was macroscopically examined, photographed in regular and UV light, and prepared as a thin or polished block section. The section off-cuts were then photographed as well. All prepared petrographic sections were examined with a petrographic microscope in transmitted and reflected light.

#### National Instrument 43-101 Disclosure



Nicholas Rodway, P.Geo, (Licence #46541) is President, CEO and Director of the Company, and qualified person as defined by National Instrument 43-101. Mr. Rodway supervised the preparation of the technical information in this news release.

## About Core Assets Corp.

Core Assets Corp. is a Canadian mineral exploration company focused on the acquisition and development of mineral projects in British Columbia., Canada. The company currently holds 100% title ownership in the Blue Property, which covers a land area of ~108,337 Ha (~1,083 km<sup>2</sup>). The project lies within the Atlin Mining District, a well-known gold mining camp. The Property hosts a major structural feature known as The Llewellyn Fault Zone ("LFZ"). This structure is approximately 140 km in length and runs from the Tally-Ho Shear Zone in the Yukon, south through the property to the Alaskan Panhandle Juneau Ice Sheet in the United States. Core Assets believes that the south Atlin Lake area and the LFZ has been neglected since the last major exploration campaigns in the 1980's. The LFZ plays an important role in mineralization of near surface metal occurrences across the property. The past 50 years have seen substantial advancements in the understanding of porphyry, skarn, and carbonate replacement type deposits both globally and in BC's Golden Triangle. The company has leveraged this information at the Blue Property to tailor an already proven exploration model and believes this could facilitate a major discovery. Core Assets is excited to become one of Atlin Mining District's premier explorers where its team believes there are substantial opportunities for new discoveries and development in the area.

On Behalf of the Board of Directors **CORE ASSETS CORP.** 

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#### FORWARD LOOKING STATEMENTS

Statements in this document which are not purely historical are forward-looking statements, including any statements regarding beliefs, plans, expectations, or intentions regarding the future. Forward looking statements in this news release include its goals and scope; that the limestone bodies in the area are favourable for allowing transportation of mineralized carbonate replacement fluids; that the Atlin property is prospective for Iron-Zinc-Lead-and Silver ; that we can become a district scale explorer; that Core Assets will drill in 2022; that the Blue Property has substantial opportunities for a discovery and development; that work on the Blue Property could potentially lead to a new porphyry/CRD style discovery; and that there may be a commercially viable gold or other mineral deposit on our claims. It is important to note that the Company's actual business outcomes and exploration results could differ materially from those in such forward-looking statements. Risks and uncertainties include that further permits may not be granted timely or at all; the mineral claims may prove to be unworthy of further expenditure; there may not be an economic mineral resource; methods we thought would be effective may not prove to be in practice or on our claims; economic, competitive, governmental, environmental and technological factors may affect the Company's operations, markets, products and prices; our specific plans and timing drilling, field work and other plans may



change; we may not have access to or be able to develop any minerals because of cost factors, type of terrain, or availability of equipment and technology; and we may also not raise sufficient funds to carry out our plans. Additional risk factors are discussed in the section entitled "Risk Factors" in the Company's Management Discussion and Analysis for its recently completed fiscal period, which is available under Company's SEDAR profile at <u>www.sedar.com</u>. Except as required by law, we will not update these forward looking statement risk factors.