

**51-102F3**  
**MATERIAL CHANGE REPORT**

**Item 1 Name and Address of Company**

Collective Metals Inc. (the “**Company**”)  
22 Leader Lane, Suite 409  
Toronto, ON, M5E 0B2

**Item 2 Date of Material Change**

May 21, 2024

**Item 3 News Release**

The news release dated May 21, 2024, was disseminated through GlobeNewswire.

**Item 4 Summary of Material Change**

The Company provided a review of exploration and deposit models pertinent to its flagship Princeton Project (the “**Project**”), in south-central British Columbia. The Project hosts several alkalic Cu-Au porphyry targets associated with Triassic diorite intrusions analogous to those associated with the currently producing Copper Mountain Mine, which lies approximately 10 km to the east.

Two porphyry belts have been identified in British Columbia - one hosted within the Quesnellia terrane (QN) and a second within the Stikinia terrane (ST). Calc-alkaline Cu-Mo porphyry deposits (i.e. Highland Valley) tend to occur predominantly in the Stikinia terrane.

**Item 5 Full Description of Material Change**

*5.1 Full Description of Material Change*

See Item 4 above and the attached news release for a full description of the material change.

*5.2 Disclosure for Restructuring Transactions*

N/A

**Item 6 Reliance on subsection 7.1(2) or (3) of National Instrument 51-102**

N/A

**Item 7 Omitted Information**

None.

**Item 8      Executive Officer**

Christopher Huggins, Chief Executive Officer, 604-968-4844

**Item 9      Date of Report**

May 22, 2024

## Collective Metals Provides Review of Exploration and Deposit Models Pertinent to its Princeton Property in B.C.

- The Princeton Project features characteristics of alkalic porphyries, including, but not limited to:
  - A large cluster (property-wide), or multiple small clusters (i.e., Whipsaw Creek, Fourteen Mile Creek – Lamont Ridge) of small diorite to gabbro porphyry intrusive bodies;
  - Areal small intrusive exposures;
  - Broadly coeval Nicola Group host rocks;
  - Associated structural complexity;
  - Accompanying selective to pervasive porphyry-style (although low temperature) alteration; and
  - Cu-Au ± Ag, with limited accompanying Mo mineralization.
- Work in the Ridgeway – Cadia area, together with comparisons to alkalic deposits in BC has reinforced the interpreted significance of the iron carbonate – silica alteration recognized in Fourteen and Fifteen Mile creeks.
- The close spatial association of elevated to highly anomalous Cu - Au - Ag - Ca - K with the high intensity Condor Chargeability anomaly may indicate proximity to underlying, potentially high-grade copper mineralized porphyry intrusion.

**May 21, 2024**

**VANCOUVER, B.C. – COLLECTIVE METALS INC. (CSE: [COMT](#) | OTC: [CLLMF](#) | FSE: [TO1](#))** (the “Company” or “Collective”) is pleased to provide a review of exploration and deposit models pertinent to its flagship Princeton Project (the “Project”), in south-central British Columbia. The Property hosts several alkalic Cu-Au porphyry targets associated with Triassic diorite intrusions analogous to those associated with the currently producing Copper Mountain Mine, which lies approximately 10 km to the east.

Two porphyry belts have been identified in British Columbia - one hosted within the Quesnellia terrane (QN) and a second within the Stikinia terrane (ST). Calc-alkaline Cu-Mo porphyry deposits (i.e. Highland Valley) tend to occur predominantly in the Stikinia terrane. In contrast, a comparatively large number of alkalic porphyry deposits are documented within Quesnellia, comprising both Silica Saturated and Silica Undersaturated.

Chris Huggins, Chief Executive Officer of Collective, commented, “Further work on the wealth of data available for the Project, together with comparison to British Columbia and international alkalic porphyry analogues, continues to indicate significant potential for discovery. We anticipate significant results from several initiatives to advance exploration on several secondary targets, such as the Fourteen Mile and Lamont Ridge areas from proposed 3D Induced Polarization surveys in 2024, as well as potential drilling of the primary Trojan-Condor target area.”

### Highlights

There are several significant interpretations arising from this technical summary of characteristic features of alkalic porphyry deposits in Australia, the analogues in British Columbia and the interpreted alkalic epithermal environment (Wilson 2021), as follows:

- Work in the Ridgeway – Cadia area, together with comparisons to alkalic deposits in British Columbia has reinforced the interpreted significance of the iron carbonate – silica alteration recognized in Fourteen and Fifteen Mile creeks



(Note: iron carbonates include dolomite and ankerite). The spatial association of this alteration with a small exposure of diorite is interpreted to indicate the diorite is the causative source of the alteration and may be indicative of alkalic epithermal-style alteration in British Columbia.

- By comparison with Ridgeway, a large envelope of low-grade pyrite mineralization may be another indication of alkalic epithermal-style alteration, despite there being little or no accompanying copper mineralization.
- “Reddening”, or hematite (i.e., iron) alteration, in the Inner Propylitic Alteration Zone, **may** indicate proximity (i.e., within 200 meters vertically) to underlying, potentially ore grade copper mineralization.
- Zones of pervasive albite - chlorite - pyrite (i.e., sodic) alteration **may** indicate proximity (i.e., within 500 meters vertically and/or laterally) to potentially ore grade copper mineralization.
- Rare to minor, narrow copper-bearing veinlets might escape the core, and extend for several hundred meters beyond, the mineralized porphyry.

To further evaluate several interpreted porphyry occurrences, the Company has submitted a Notice of Work permit application necessary to conduct multiple IP surveys, comprising up to 30 line km, on targets located in the Lamont Ridge – Fourteen Mile Creek area. The most advanced target on the Property, the Trojan-Condor Corridor, is defined by a large (approximately 1.5 x 3.3 km), strong (>20 mV/V) chargeability anomaly along the corridor (please see News Release dated August 10, 2023). Kodiak Copper has used 3D IP to generate successful drill targets at their MPD Property 20 km to the northeast of the Princeton Property<sup>4</sup>.



## Geological Description

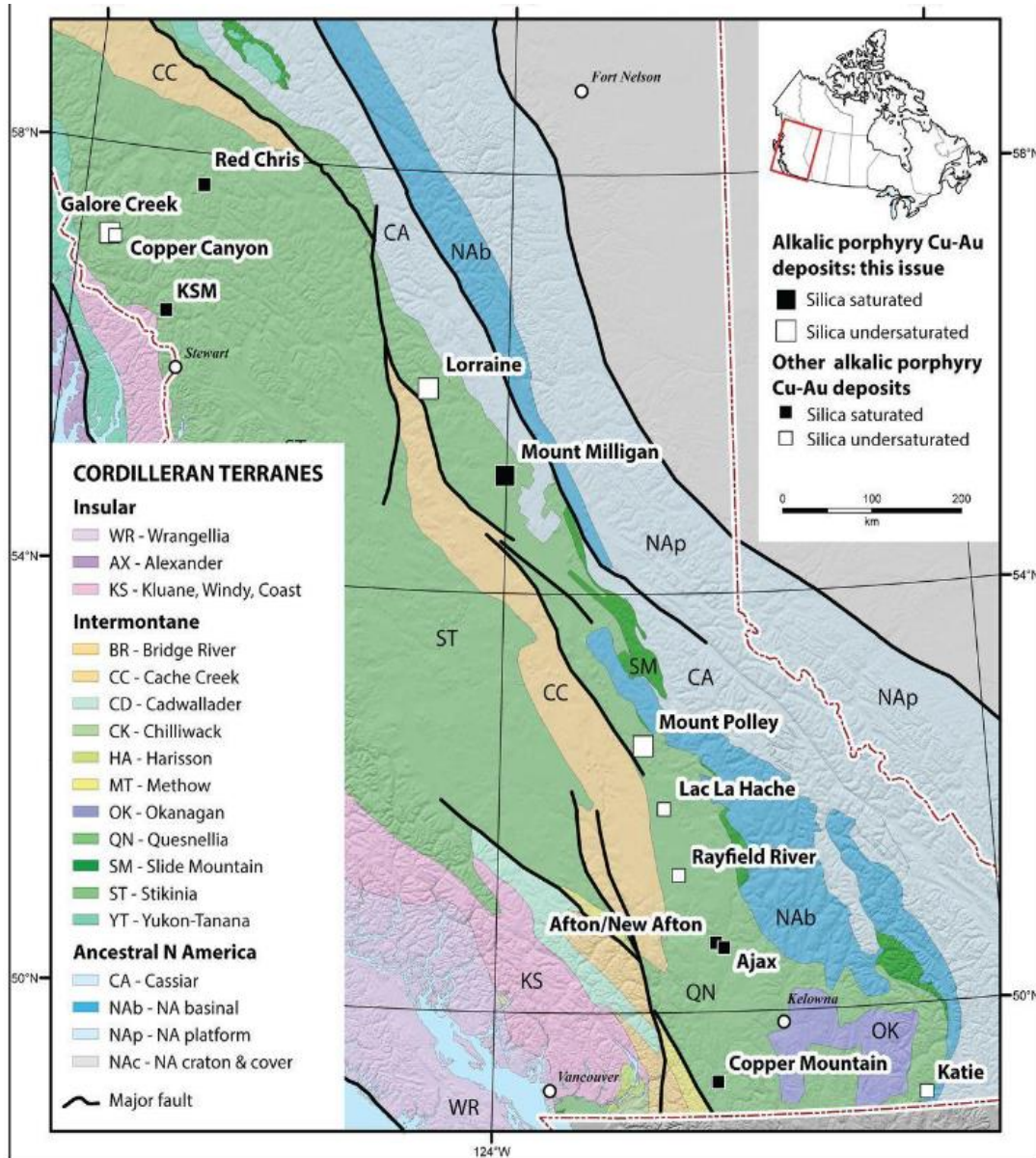


Figure 1 – Map showing two porphyry belts identified in British Columbia; one hosted within the Quesnellia terrane (QN) and a second within the Stikinia terrane (ST). From Bissig and Cooke 2014).

The following has been modified slightly from Lang et al. (1995)<sup>1</sup>:

The alkaline (or alkalic) suite of porphyry deposits is represented by a comparatively small subgroup (of porphyry deposits) temporally restricted to the Early Mesozoic Quesnel and Stikine terranes in British Columbia, distinguished by:



- An association with alkalic igneous rocks;
- A metal assemblage of Cu-Au-Ag with no significant Mo; and
- Distinctive alteration, including assemblages characterized by Na- and Ca- bearing minerals, accompanied by magnetite-rich potassic alteration and typical propylitic alteration, with a near-absence of sericitic, argillic and advanced argillic assemblages.

The Copper Mountain/Ingerbelle mining camp has been identified as a silica saturated, magmatic – hydrothermal complex, characterized by:

- Alkalic igneous rocks that typically either lack, or have very minor, normative quartz or feldspathoid, and only rarely contain very minor modal quartz (usually restricted to late-stage intrusions);
- Diorite/gabbro to monzonite compositions only rarely accompanied by minor pyroxenite and syenite;
- Equigranular to porphyritic igneous textures; and
- Associated volcanic rocks of the ... Nicola Groups that are augite-phyric and mafic to intermediate in composition.

The Project features characteristic of alkalic porphyries, including, but not limited to:

- A large cluster (property-wide), or multiple small clusters (i.e., Whipsaw Creek, Fourteen Mile Creek – Lamont Ridge) of small diorite to gabbro porphyry intrusive bodies;
- Areal small intrusive exposures;
- Broadly coeval Nicola Group host rocks;
- Associated structural complexity;
- Accompanying selective to pervasive porphyry-style (although low temperature) alteration; and
- Cu-Au ± Ag, with limited accompanying Mo mineralization.

Arguably, the most pertinent difference between the Project (and other alkalic-type exploration projects) with respect to alkalic deposits identified in British Columbia (i.e., Hudbay Minerals' Copper Mountain, the Iron Mask Batholith, Mount Milligan, Mount Polley, etc.) is the weak development, or apparent lack, of potassic to calc-potassic alteration so prevalent in alkalic porphyry deposits. In New South Wales, the Cadia and Cadia East deposit are buried under a thin veneer of cover (please see

Figure 2), while the top of sulphide mineralization at the Ridgeway deposit to the west is located approximately 350 m below surface and is, therefore, a “blind” intrusion.

Recent work completed on alkalic deposits identified in British Columbia, as well as Australia (Cadia / Ridgeway), serves as a guide to exploration for analogues in British Columbia, including the Project. The following is summarized from Wilson (2021)<sup>3</sup>:

The epithermal zone associated with the Ridgeway deposit is characterized by a relatively large envelope of pyrite as the only sulphide, between 1-3% and, locally, higher (Wilson 2021). In addition to the general absence of copper mineralization, there is no **strong** development accompanying phyllic or quartz – sericite – pyrite alteration (characteristic of calc-alkaline porphyry systems).

The propylitic alteration system outboard of the potassic core of the porphyry system has been sub-divided into Inner and Outer Propylitic zones, as follows:

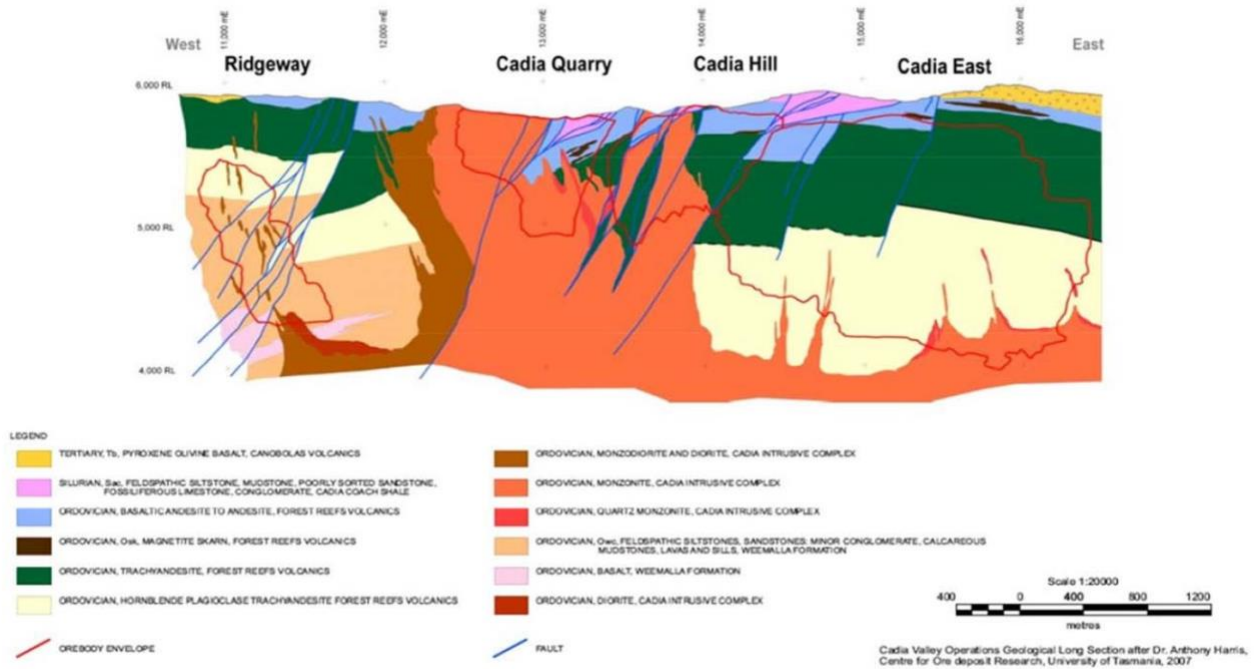
- **Inner Propylitic** - (chlorite – hematite ± magnetite – actinolite)
  - hematite with minor preserved magnetite, distinct reddening



- **Outer Propylitic** - (chlorite – epidote – calcite -albite ± pyrite)



Figure 7-3: Cadia Valley Geological Cross Section (long-section looking north 22500N)



Note: Figure prepared by Newcrest, 2011.

Figure 2 - West – East Geological Cross Section (looking North) of Ridgeway – Cadia deposit area. Note: the entire section is underlain by the igneous complex (Gleeson et al 2020).

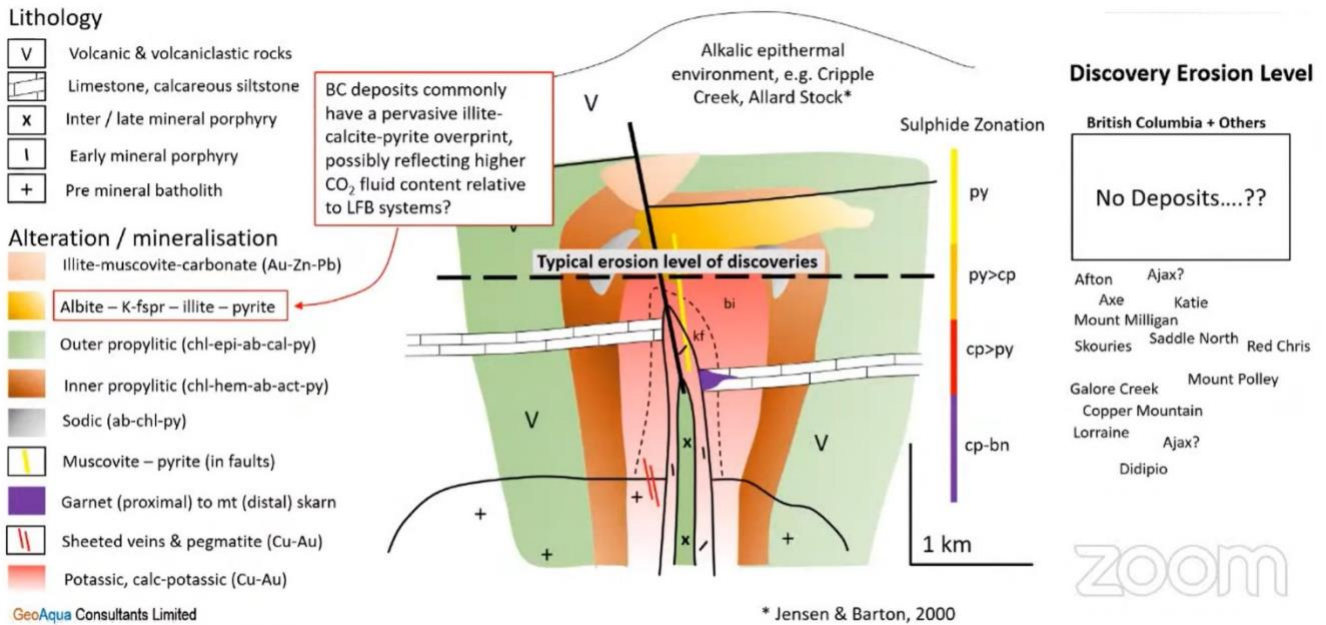


Figure 3 – Hypothetical cross section through an alkalic porphyry to the overlying epithermal zone. Interpreted average level of erosion in identified British Columbia alkalic deposits indicated by thick dashed line. (From Wilson 2021)





Another feature pertinent to the Project (and alkalic exploration projects in general) is that phyllic alteration (sericite – illite) is present, however it is structurally controlled (as veins and veinlets) rather than present as a huge blanket of alteration. To put this in context for the Project:

- at surface at the Kodiak Property, the AXE MINFILE occurrence has “... a cap of propylitic alteration with minor sericite approximately 150 m above porphyry apices”<sup>1</sup>.
- At the Katie Property, in the upper zones and in shallow drilling, there is massive albite - pyrite alteration with minor amounts of sericite above the apex of the causative intrusion, associated with albite, minor sericite and shallow potassic alteration<sup>1</sup>.
- At Mount Milligan, a dolomite – ankerite – sericite – alkali feldspar – albite alteration cap is partially preserved in the 66 Zone, interpreted as a remnant of a “carbonate – phyllic” overprint<sup>1</sup>.

Note: carbonate is much more common in British Columbia systems than in Australian systems.

One interpretation forwarded to explain this missing feature in British Columbia is the observation that “BC deposits commonly have a pervasive illite-calcite-pyrite overprint, possibly reflecting higher CO<sub>2</sub> fluid content relative to LFB (Lochlan Fold Belt) systems” and the interpretation that “Alkalic epithermal systems, having illite and carbonate – adularia-type alteration, are rooted in the inner propylitic alteration zone, however, other alkalic porphyry examples in BC have been eroded to the level of the causative porphyry intrusion (please see Figure 3)”.

In addition, the close spatial association of elevated to highly anomalous Cu – Au - Ag - Ca (as potential secondary carbonate) and K with the high intensity Condor Chargeability anomaly may indicate proximity to underlying, potentially high-grade copper mineralization associated with a subsurface (i.e., “blind”) porphyry intrusion.

### Qualified Person

This news release has been reviewed and approved by Rick Walker, P. Geo., who is acting as the Company’s Qualified Person for the Project, in accordance with regulations under NI 43-101 – *Standards of Disclosure for Mineral Projects*.

The information disclosed is not necessarily indicative of mineralization on the Project.

### References

- 1 - Lang, J. Stanley, C, Thompson, J. and Dunne, K.P.E. 1995. Na-K-Ca magmatic-hydrothermal alteration in alkalic porphyry Cu Au deposits, British Columbia. Mineralogical Association of Canada Short Course # 23, pp.339-366.
- 2 - Gleeson, K., Newcombe, G, Griffin, P and Stephenson, P. 2020. Cadia Operations, New South Wales, Australia - NI 43-101 Technical Report, prepared for Newcrest Mining Limited, Dated June 30, 2020, 289 p
- 3 - Wilson, A. 2021. Tops of alkalic Au-Cu porphyry systems: Exploration challenge & opportunity – Alan Wilson – Ore Deposits Hub 057, YouTube, October 21, 2021, <https://www.youtube.com/watch?v=NPefg5Ruk6w>
- 4 - Saleken, L.W., 2013. Compilation Assessment Report on the Tulameen Project Mineral Property, Similkameen Mining Division, BC Geological Survey Assessment Report 33626a.



## About Collective Metals:

Collective Metals Inc. (CSE: [COMT](#) | OTC: [CLLMF](#) | FSE: [TO1](#)) is a resource exploration company specializing in precious metals exploration in North America. The Company's flagship property is the Princeton Project, located in south-central British Columbia, Canada, approximately 10 km west of the currently producing Copper Mountain Mine. The Princeton Project consists of 29 mineral tenures totaling approximately 28,560 ha (70,570 acres) in a well-documented and prolific copper-gold porphyry belt and is easily accessible by road, located immediately west of Highway 3.

The Company's Landings Lake Lithium Project is located in northwestern Ontario where numerous lithium deposits have been delineated to host significant reserves of Li<sub>2</sub>O. The Landings Lake Lithium Project is located 53 km east of Ear Falls, Ontario and covers 3,146 hectares. The Whitemud Project, with several identified pegmatite outcrops, neighbours the Landings Lake Project and consists of 381 single cell mining claims totaling 7,775 hectares.

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## ON BEHALF OF COLLECTIVE METALS INC.

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## Forward Looking Information

*Certain statements in this news release are forward-looking statements, including with respect to future plans, and other matters. Forward-looking statements consist of statements that are not purely historical, including any statements regarding beliefs, plans, expectations or intentions regarding the future. Such information can generally be identified by the use of forwarding-looking wording such as "may", "expect", "estimate", "anticipate", "intend", "believe" and "continue" or the negative thereof or similar variations. The reader is cautioned that assumptions used in the preparation of any forward-looking information may prove to be incorrect. Events or circumstances may cause actual results to differ materially from those predicted, as a result of numerous known and unknown risks, uncertainties, and other factors, many of which are beyond the control of the Company, including but not limited to, business, economic and capital market conditions, the ability to manage operating expenses, and dependence on key personnel. Forward looking statements in this news release include, but are not limited to, statements respecting: statements with respect to the Project and its mineralization potential; the Company's objectives, goals, or future plans with respect to the Project; further exploration work on the Project in the future. Such statements and information are based on numerous assumptions regarding present and future business strategies and the environment in which the Company will operate in the future, anticipated costs, and the ability to achieve goals. Factors that could cause the actual results to differ materially from those in forward-looking statements include, the continued availability of capital and financing, litigation, failure of counterparties to perform their contractual obligations, loss of key employees and consultants, and general economic, market or business conditions. Forward-looking statements contained in this news release are expressly qualified by this cautionary statement. The reader is cautioned not to place undue reliance on any forward-looking information.*

*The forward-looking statements contained in this news release are made as of the date of this news release. Except as required by law, the Company disclaims any intention and assumes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.*



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*The Canadian Securities Exchange has not reviewed this press release and does not accept responsibility for the adequacy or accuracy of this news release.*

