

# Tesla's decision to source cobalt from Glencore raises concerns in the investment community about all electric vehicles

As we move towards electrification of the global transport fleet one of the biggest concerns is the sourcing of cobalt. That is because approximately 70% of the world's cobalt production comes from the Democratic Republic of Congo (DRC) – A country rampant with issues such as corruption, child labor and exploitation.

The recent Tesla's decision to source cobalt from Glencore, along with others (BMW, Samsung SDI, SK Innovation, GEM Co, and Umicore) is very concerning. It means that all these companies are totally reliant on the DRC (excluding BMW who has secured Glencore's Australian cobalt from Murrin Murrin) for cobalt. Furthermore it means that Glencore has locked in sales of about 82% of its current cobalt production, leaving very little available cobalt supply in the market.

The bigger question is: **'When will car and battery manufacturers and western governments start to support western cobalt miners?'** Until they do that the electrification of the transport sector will be heavily reliant on the DRC and China, which represents a huge risk to the supply chain.

There are several good quality cobalt options without resorting to the DRC and China. Yes they will need financing and support, but in the long run **some investment now is better than total disruption later.** For investors it would also be wise to support the non-DRC cobalt miners. Firstly they are

generally very cheap right now, and secondly if they can make it to production they will have multiple battery and car manufacturers lining up to secure a safe supply of cobalt. They may even pay a premium for safe cobalt supply.

The following cobalt miners do NOT source cobalt from the DRC and are worth serious investor consideration.

### ***Producers (and country source of cobalt)***

- Sumitomo Metal Mining Co. (TYO: 5713 | OTC: SMMYY) – Sources from Philippines and Madagascar.
- MMC Norilsk Nickel PJSC (LSX: MNOD | OTC: NILSY) – Sources from Russia.
- Vale SA (NYSE: VALE) – Sources from Canada.
- Sherritt International Corporation (TSX: S | OTC: SHERF) – Sources from Cuba and Madagascar.
- Conic Metals Corp. (TSXV: NKL) – Sources from Papua New Guinea.
- Korea Resources Corporation – Sources from Madagascar.

### ***Juniors and potentially the next cobalt producers***

- Aeon Metals Limited (ASX: AML)
- Ardea Resources Limited (ASX: ARL | OTC: ARRRF)
- Australian Mines Limited (ASX: AUZ | OTCQB: AMSLF)
- Bankers Cobalt Corp. (TSXV: BANC | OTCQB: NDENF)
- Blackstone Minerals Limited (ASX: BSX | OTC: BLSTF)
- BlueBird Battery Metals Inc. (TSXV: BATT | OTC: BBBMF)
- Brixton Metals Corporation (TSXV: BBB | OTCQB: BBBXF)
- Canada Nickel Company Inc. (TSXV: CNC)
- Canada Silver Cobalt Works Inc. (TSXV: CCW | OTCQB: CCWOF)
- Cassini Resources Limited (ASX: CZI) – To be acquired by OZ Minerals Ltd. (ASX: OZL | OTC: OZMLF)
- CBLT Inc. (TSXV: CBLT)
- Clean TeQ Holdings Limited (ASX: CLQ | TSX: CLQ | OTCQX: CTEQF)

- Cobalt Blue Holdings Limited (ASX: COB | OTC: CBBHF)
- First Cobalt Corp. (TSXV: FCC | OTCQB: FTSSF)
- Fortune Minerals Limited (TSX: FT | OTCQB: FTMDF)
- Fuse Cobalt Inc. (TSXV: FUSE | OTCQB: FUSEF)
- GME Resources Limited (ASX: GME)
- Havilah Resources Limited (ASX: HAV)
- Jervois Mining Limited (ASX: JRV | TSXV: JRV | OTCQB: JRVMF)
- Leading Edge Materials Corp. (TSXV: LEM | OTCQB: LEMIF)
- Power Group Projects Corp. (TSXV: PGP)
- Talon Metals Corp. (TSX: TL0) – Located in the USA

All of the above junior cobalt miners are located either in the safe jurisdictions of Canada or Australia and are featured on the InvestorChannel watchlist.

If the world wants to see a safe cobalt supply, free from the corrupt DRC issues, then the above junior cobalt miners will need to be supported. Together they can solve the problem of +70% reliance on DRC cobalt. The support that is needed is start up project funding (start up CapEx). USA, Europe, and other western governments can step in and offer low rate long term debt funding, just as what Japan did to support the start up of rare earths miner Lynas Corporation. Until this happens we will continue to be at the mercy of the DRC and Chinese supply chain.

**“Cobalt is a key critical material needed in lithium-ion batteries used to make electric vehicles (EVs) – The Tesla Model 3 is by far the world’s best selling electric car”**

### **Closing remarks**

Demand for cobalt is set increase about fourfold over the 2020s decade based on my model forecast (assumes EV market share reaches 36% by 2030). This will most likely lead to severe cobalt deficits. New cobalt supply is extremely hard to bring on quickly, especially given most cobalt is produced as

a by-product of copper and nickel production.

Cobalt is on the US list of critical materials for a good reason. It is needed in aerospace, jet engines (and military applications), and is a key component in lithium-ion batteries (essential for EVs and consumer electronics). Yes the EV related battery industry is reducing the cobalt per battery; however the better quality NMC, NCA, and NMCA batteries all require cobalt to keep the battery safe. Not enough cobalt and you get thermal runaway (aka fire).

Just as what happened with uranium this year, and is likely to happen soon with rare earths; the US and Europe need to act now to develop a safe cobalt supply chain. If they don't act soon then the West will be totally at the mercy of the DRC/China supply chain, which makes the West very vulnerable should trade war issues, cobalt shortages, or other supply chain issues continue as I would expect will be the case. The latest concern is that Glencore is now facing a Swiss corruption investigation related to its DRC activities. What would happen to cobalt supply if Glencore was halted in dealings with the DRC?

The world's leading Li-ion battery supply chain expert Simon Moores (Benchmark Mineral Intelligence) appeared before the US Senate again last week warning that the US domestic supply chain build out is far too slow and that the US risks being left behind.

Let's hope that the West finally wakes up before it is too late.

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# Offering proof of a definite conflict free cobalt supply chain

Given an end to the US-China trade war appears imminent, and China is considering introducing stimulus measures to boost conventional and electric car sales, cobalt is looking likely to have a good year in 2019. Any further announcements that help the electric vehicle (EV) boom will be a positive for cobalt stocks.

## Cobalt demand vs supply

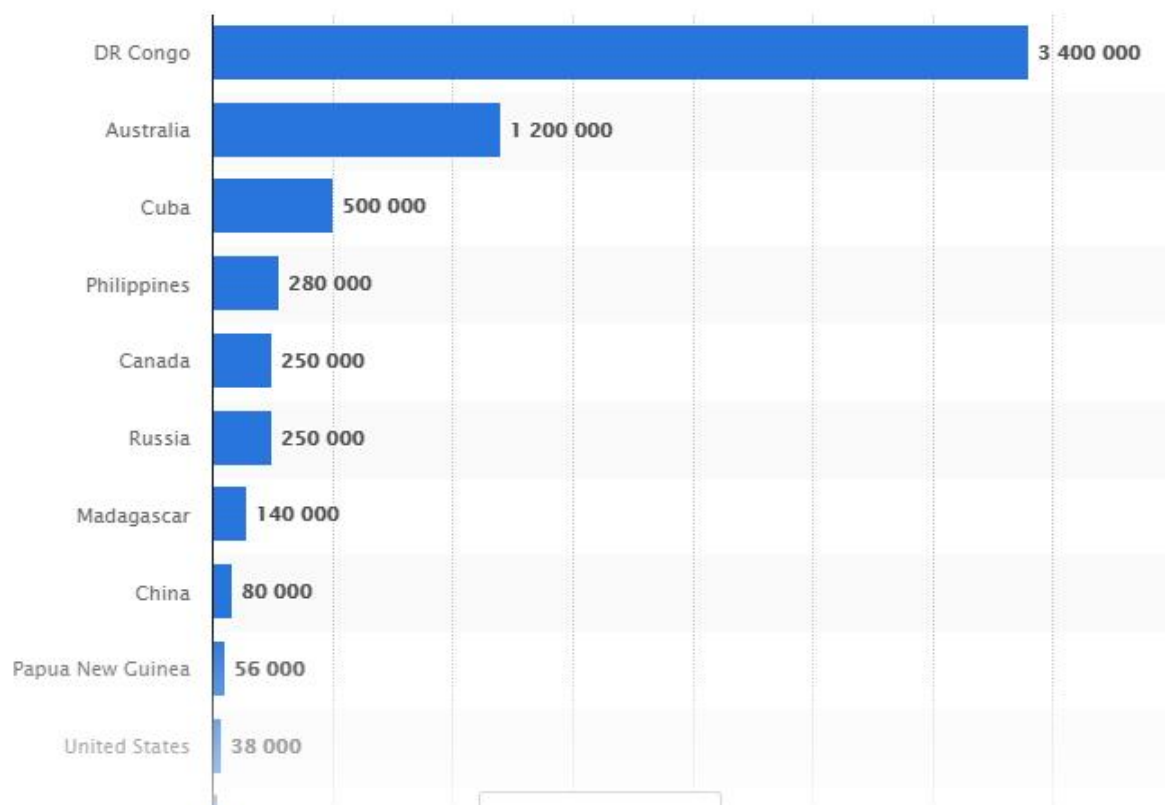
The EV boom continues to grow in strength leading to rapid increase in cobalt demand from a small base. Any device that has a lithium-ion battery in it for rapid charge and discharge needs cobalt. Actually there is more cobalt than lithium in your cell phone battery.

Cobalt supply remains heavily dependent on the Democratic Republic of Congo (DRC). Some DRC cobalt supply has recently been withdrawn by miners such as Glencore, Katanga Mining, and ERG. This shows how vulnerable cobalt is to DRC supply disruptions and lower prices causing supply to be withdrawn. The combination of strong demand and reduced supply should support cobalt prices to rise from their March 2019 lows.

The DRC holds the world's largest reserves of cobalt. It's also the world's top cobalt producer, providing more than 65% of global supply. The DRC is a challenging place for miners to do business and mining in the country has been linked to human rights abuses, including child labor. In 2014, UNICEF estimated that around 40,000 children were involved in artisanal mining in the DRC putting pressure on multinationals to trace the cobalt they use.

Big companies like Apple are indicating that they will only buy cobalt from ethical sources. This puts a lot of pressure on the unethically sourced cobalt supply chain.

### Global cobalt reserves (tonnes)



Cobalt reserves worldwide as of 2018 in metric tons

### Blockchain can be used to trace the source of cobalt

Many companies are now looking to blockchain technology to trace supplies of cobalt from the DRC. Blockchain is the technology behind the cryptocurrency bitcoin. It provides a shared record of data across a network of individual computers rather than a single data base or individual party.

Cobalt Blockchain Inc. (TSXV: COBC | OTCQB: COBCF) is a Canadian resource company with an exploration and development business including cobalt assets in the DRC. The Company is addressing the need to pursue conflict free cobalt mining by working with partners to develop a blockchain based system that will provide certainty and further assurance that all

minerals they procured have been ethically sourced. Cobalt Blockchain will use this technology where supply chain may be mandated by clients. The Company also has a license and traceability system in place for tin, tantalum, and tungsten.

There already are examples of the use of blockchain in the mining industry such as for diamond and gemstone producers that are tracing the entire chain, from mine to buyer.

### **Cobalt Blockchain also has cobalt trading potential from shared concessions in the DRC**

Cobalt Blockchain has a definitive supply agreement for the provision of 40,000 tonnes per annum of cobalt concentrate and has begun initial arrangements to set up its cobalt trading facility in the DRC. The facility's 1,000 square metre depot will include storage, assay lab, clinic and office capabilities. The depot site will also incorporate perimeter fencing and security equipment.

Cobalt Blockchain has entered into two definitive joint venture agreements for cobalt/copper concessions, totaling over 48 square kms. The company owns a 70% interest in Alpha Cobalt SAS, a joint venture between Cobalt Blockchain and a private local partner, and also owns an 80% interest in Cobalt Blockchain SAS, a joint venture between Cobalt Blockchain and also a private local partner in the DRC.





Cobalt Blockchain Inc. (TSXV: COBC) (COBC) has 12 years of on-the-ground experience in the DRC. The Company is pursuing a conflict free cobalt mining and trading business in the DRC with local artisanal miners, while implementing a blockchain based platform to ensure traceability of conflict free minerals. COBC along with its partners have a proprietary blockchain based certification protocol called Mintrax™.

Mintrax (Mining tracker) will be piloted on COBC's own cobalt operations within the DRC and will also explore the possibility of using Mintrax for other operations, for example, diamonds and gold that requires conflict free assurance. COBC has supply and off-take agreements for 40,000 tonnes per annum of cobalt concentrate, and is commissioning a cobalt hydroxide plant in the DRC.

## **A two front attack**

COBC is focused on two fronts, to expand its metals trading business in the DRC and building a portfolio of the same conflict-free mineral properties. The expansion in the DRC is to address the growing global need for conflict free cobalt.

## **What is Blockchain?**

Blockchain technology enables distributed public ledgers that hold immutable data in a secure and encrypted way to ensure that transactions can never be altered. You can write onto a block, but never delete data that exists on that block. While Bitcoin and other Cryptocurrencies are the most popular examples of blockchain usage, blockchain is finding a broad range of uses. Data storage, financial transactions, real estate, asset management, and many more uses including tracking minerals source of origin.

## **Benchmarking using automated trust**

The company's aim is for the Mintrax™ blockchain platform to

be the benchmark in “automated trust”. This will assure security and transparency of the certified record for ethically sourced minerals. The vision is to kick start not just a digital transformation of the mineral supply chain but an ethical transformation as well, all centered around the companies concept of automated trust based on their blockchain platform technology.

## **Cobalt will remain a key battery ingredient for decades**

Cobalt has been shown to be a key metal for efficient energy storage, stability, and safety in batteries. Various research studies are in place to try and reduce the amount of cobalt needed, but no solution to reduce cobalt at its current usage will be in position for widespread use for at least a decade or longer. In the very near future Britain, France, India and Norway all want to exclude gas and diesel in favor of clean vehicle technology, and many other countries have electric car sales targets in place. For example, both France (2030) and Britain (2040) have introduced aggressive timelines to achieve this.

COBC’s plan is to supply future demand for cobalt from ethically sourced materials, all documented and certified under blockchain technology. As more and more companies seek to use ethically sourced cobalt and other conflict metals, the demand for COBC’s products will also increase.

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## **CBLT’s Clausi on selling**

# assets for a profit.

“As we all know it is a difficult mining market out there. There are many companies whose values are not reflected in their share price. You can either sit around and whine about it or you can do something about it. My board told me to do something about it. We bought non-core assets, packaged them, went to Australia, met with anybody who would meet with us and was able to sell these assets to create a profit for CBLT back in Canada. In essence we did a hard \$1 million dollar financing without any fees on top.” States Peter Clausi, President, CEO and Director of CBLT Inc. (TSXV: CBLT), in an interview with InvestorIntel Corp. CEO Tracy Weslosky.

**Tracy Weslosky:** How does it feel to be a junior that is actually making money? Can you tell your shareholders and investors out there a little bit about what you are doing right now?

**Peter Clausi:** Sure. As we all know it is a difficult mining market out there. There are many companies whose values are not reflected in their share price. You can either sit around and whine about it or you can do something about it. My board told me to do something about it. We bought non-core assets, packaged them, went to Australia, met with anybody who would meet with us and was able to sell these assets to create a profit for CBLT back in Canada. In essence we did a hard \$1 million dollar financing without any fees on top.

**Tracy Weslosky:** While you were in Australia we had a couple of investors in town last week they are telling me that Australia is experiencing a gold rush and they are redirecting their attention towards the resource sector. Is this correct? Is this consistent with your own conclusions having just gotten back from Australia?

**Peter Clausi:** Australia does not have the same kind of risk capital market that Canada or the United States has. They do not have a cannabis market. They do not have a crypto market. The risk capital has stayed in junior high-tech, junior mining, junior oil and gas. It has not fragmented so there is more capital available. Yes, there have been a couple of recent discoveries in the gold sector that have juiced the market generally. Plus the rebirth of rare earths and lithium, we will call it 2.5 because we are not quite at lithium 3.0 yet, has also helped to excite the market. George and his buddies at Northern have done a real good job of bringing that project to market. They were a big hit when they were traveling in New York and it has helped to re-excite the rare earths market.

**Tracy Weslosky:** Peter I have to tell you, I do not know if you have seen how Neo's stock has moved. There is a lot of interest in electric cars as you know. We do not have the cobalt that we need. I do not understand why people are not lined up around the block to have your conflict-free mineral source of cobalt here in Canada. What is going on there? What is the disconnect between the cobalt demand, as we know there is a real shortage, and the interest in CBLT for instance?

**Peter Clausi:** There are a lot of reasons for it. It is a market that still lacks credibility. There is a group in Australia that reports in "cobalt equivalent" by taking a little bit of copper and a little bit of gold and a little bit of silver and doing some magic and increasing their cobalt number. Things like that hurt all of us. I wish they would stop doing it. The other problem we have is, cobalt is a bizarre metal. It is only found in a few places around the globe in mineable quantities. 60% of it comes from the Congo so anything that happens in the Congo affects cobalt globally...to access the complete interview, click here

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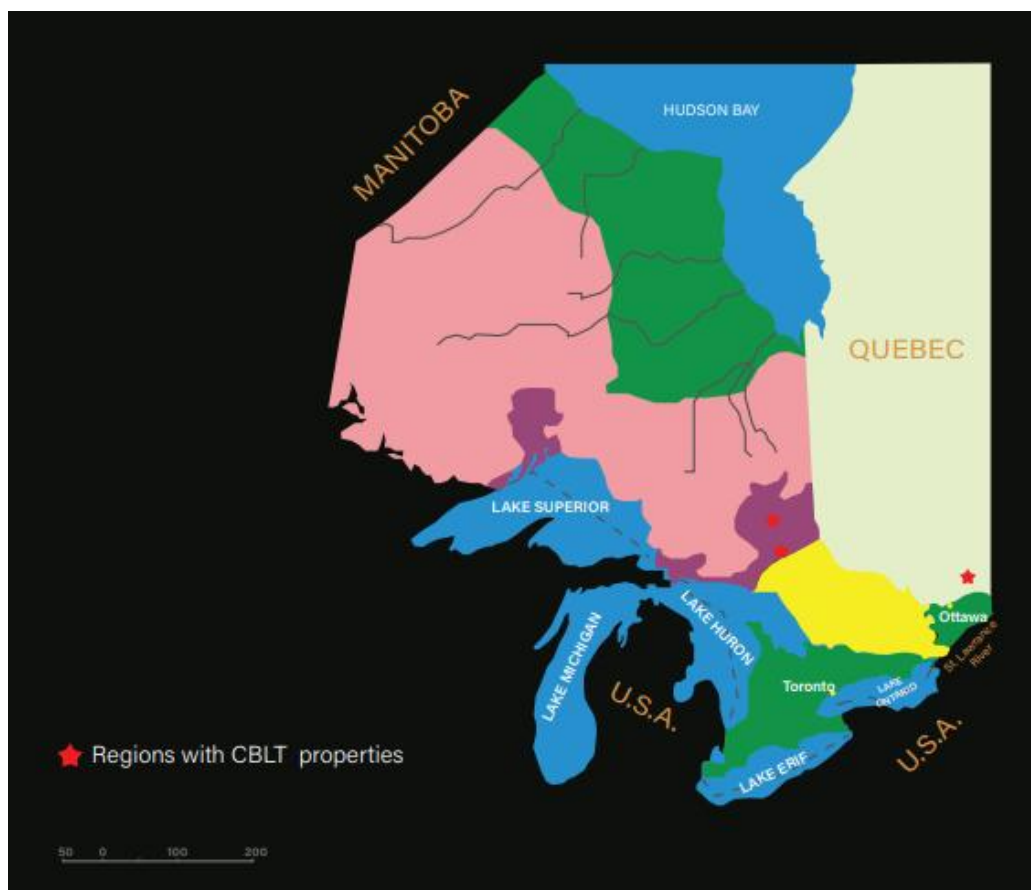
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# **CBLT performs well with cobalt exploration partner Winmar**

Much of the world's cobalt is produced as a by-product of copper and nickel mining. To make matters worse over half the world's cobalt comes from the Democratic Republic of Congo (DRC). There have been serious ethical concerns associated with cobalt. Apple has done its best efforts to track the exact source of their cobalt and if it comes from mines that used child labor. Amnesty International are advocating for the imposition of an ethical supply chain on cobalt coming from the DRC which could restrict supply by a further 10%. These potential supply cuts come at a time of increased demand. Cobalt is critical for the manufacturing of high performance rechargeable batteries that are used in portable electronic devices, electric vehicles (EV), and other power storage applications. Since 2015 rechargeable batteries have accounted for 49% of cobalt demand.

CBLT Inc. (TSXV: CBLT) is a Canadian mineral exploration company. Earlier in 2018, CBLT sold the Bloom Lake Property to Winmar Resources Ltd. ("Winmar") in a deal that saw CBLT retain a ten per cent management fee. Reports on exploration work at the Bloom Lake Property ("Bloom Lake") in Ontario include assay results which confirmed high-grade copper-cobalt mineralization with anomalous gold and nickel. Thirty-three samples were collected from bedrock and from loose material proximal to historical trenches, audits, and shafts. The most notable was Sample 853028, taken south of the No. 1 audit, which assayed 6.84% cobalt, 0.422 g/t gold, 0.58% copper and 1.56% nickel. Winmar and CBLT are currently planning Phase 2

of the Bloom Lake exploration program, intending to further map and sample historical workings ahead of a maiden diamond drilling program. Peter M. Clausi CEO of CBLT stated: “Our choice of Winmar as a cobalt exploration dance partner in Gowganda is being well rewarded.”



## CBLT Inc. mine projects

CBLT’s mining assets include Calcite Lake and United Reef in the historic cobalt/silver camp in Gowganda, Ontario. CBLT optioned those two assets to Winmar in 2017. With the recent success of Bloom Lake, Winmar and CBLT are in discussions to accelerate the outstanding option agreements on Calcite Lake and United Reef. Details will be disclosed if mutually acceptable terms are reached.

CBLT Inc. is a Canada based natural resource issuer that targets cobalt in traceable mining jurisdictions. It is primarily engaged in the business of acquiring, exploring and dealing in mineral properties. Their flagship, the Copper

Prince Project is located within Falconbridge Township, in the Sudbury Mining District in Ontario, Canada. The Property is comprised of sixteen contiguous patented mining claims totaling 256 ha, and has returned assays (historical) of up to 1.1 oz/ton Au over 5.0 ft, and 4.8% Cu and 0.07 oz/ton Au over 5.0 ft.

CBLT Inc. is based in Burlington, Ontario and has a market cap of C\$ 1.72 m.

CBLT continues to be a project generator and an efficient steward of its shareholder's capital. Promising assay results and its ability to choose good project ("dance") partners, will see CBLT grow with confidence in the fast developing cobalt related battery storage industry, and proudly doing all this in a reliable ethical mining jurisdiction.

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## **Cobalt Blockchain on changing the way the world sources conflict minerals**

July 4, 2018 – "Today minerals are traced in the Congo. You have got tin, tantalum, tungsten, cobalt, which are considered conflict metals. The early incumbent system is all paper-based log books. We think that blockchain is a significant way to improve mineral provenance and certify where it has come from, how it is produced and essentially it is a distributed ledger and it is really facilitating and automating trust between counterparties in the supply chain. We are the intermediary between artisanal miners and our offtake partner." states Lance Hooper, President & COO and Director of Cobalt Blockchain Inc. (TSXV: COBC), in an interview with

InvestorIntel Corp. CEO Tracy Weslosky.

**Tracy Weslosky:** Lance I think you are basically going to be the first ethical supplier of DRC cobalt. Is that correct?

**Lance Hooper:** Yeah, that is our plan Tracy in the next quarter. We have put a number of the building blocks in place; initial supply agreement. Right now we are building out depot infrastructure and implementing the mineral traceability system that we have developed in the last 3 months.

**Tracy Weslosky:** InvestorIntel audience, here is what we have. We have cobalt, which is in demand around the world and, of course, we have technology with blockchain. Can you explain to us a little bit more about how you are utilizing blockchain technology to change the cobalt industry?

**Lance Hooper:** Sure. Today minerals are traced in the Congo. You have got tin, tantalum, tungsten, cobalt, which are considered conflict metals. The early incumbent system is all paper-based log books. We think that blockchain is a significant way to improve mineral provenance and certify where it has come from, how it is produced and essentially it is a distributed ledger and it is really facilitating and automating trust between counterparties in the supply chain. We are the intermediary between artisanal miners and our offtake partner...to access the complete interview, [click here](#)

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# Providing conflict-free cobalt to address the demand for advanced batteries

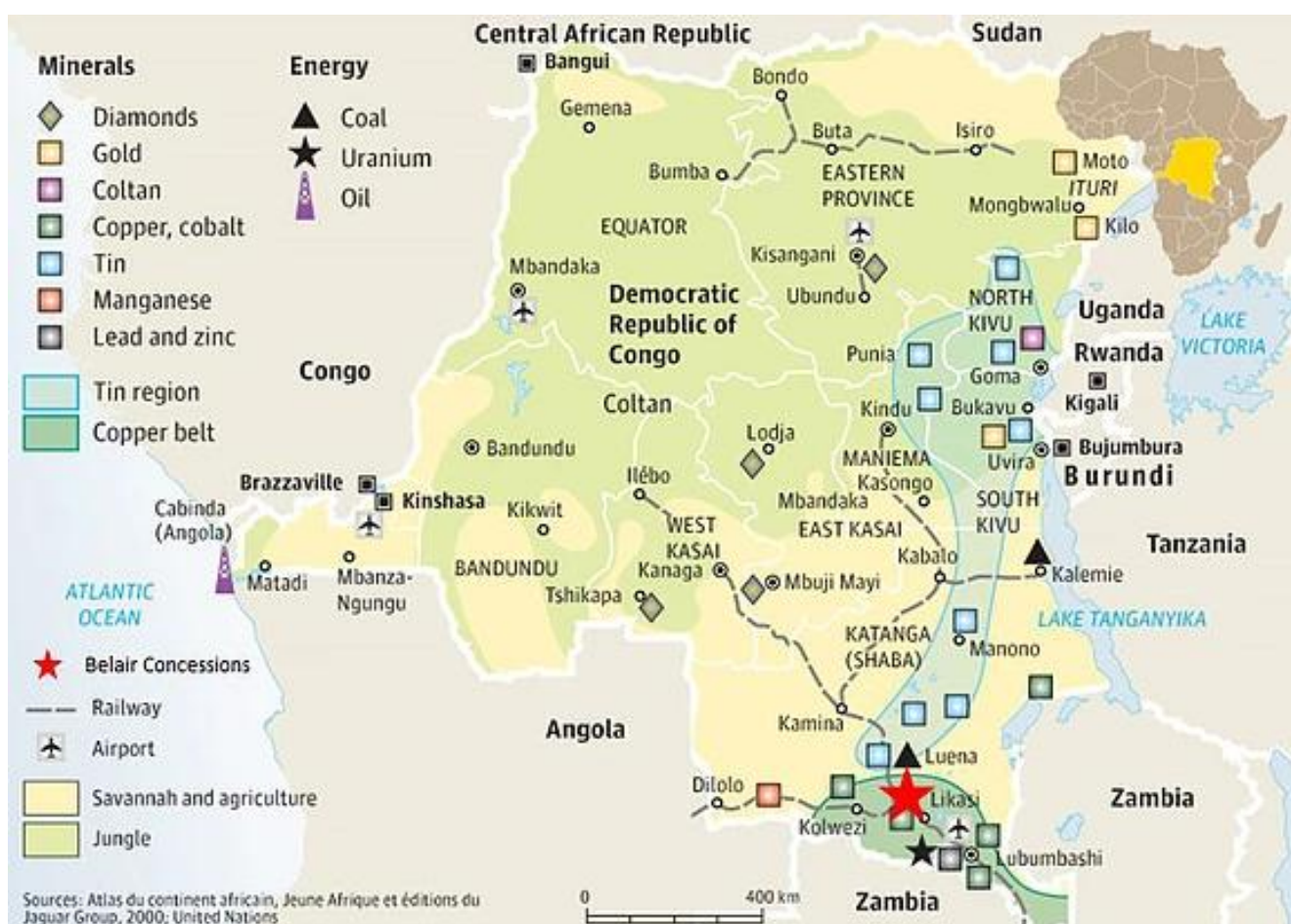
Cobalt Blockchain Inc. (TSXV: COBC) (“COBC”) is a Toronto, Ontario based resource company, expanding its exploration and development business to include cobalt assets in the Democratic Republic of the Congo (DRC). The Company owns 100% interest in an existing metals trading business specializing in sourcing conflict-free minerals from artisanal and small-scale mines in the DRC. The Company is developing a distributed ledger-based certification platform to provide manufacturers and end-users greater certainty of provenance and further assurance that all minerals procured are ethically-sourced.

The OECD Due Diligence Guidance provides detailed recommendations to help companies respect human rights and avoid contributing to conflict through their mineral purchasing decisions and practices. This Guidance is for use by any company potentially sourcing minerals or metals from conflict-affected and high-risk areas. COBC is the first mining and mineral trading company set up specifically to procure cobalt in compliance with the OECD due diligence framework.

Cobalt Blockchain’s business is to provide conflict-free cobalt to address the demand for advanced batteries in smartphones and electric vehicles, tracked via a blockchain based platform, providing transparency and immutability of the certification record. COBC has 12 years of on-the-ground experience, and holds licenses for 3T (tin, tungsten, tantalum) conflict-free metals, in the DRC.

The company has a definitive supply agreement with one of the

largest local mining cooperatives in the Lualaba province (DRC) for the provision of 40,000 tonnes per annum of cobalt concentrate (minimum 1% cobalt, average 3-4% cobalt) commencing in June 2018. Lance Hooper, COBC President & Chief Operating Officer noted: "This is a significant milestone in our strategy to generate near-term cash flow, supply agreements with established mining cooperatives to complement our plans for larger-scale, mechanised production activities on mineral concessions in our property portfolio." In support of this supply agreement, COBC has begun initial arrangements to set up its cobalt trading facilities in the DRC. These facilities will include a 1,000 square metre depot with storage, assay lab, clinic and office capabilities. The depot site will also incorporate perimeter fencing and security equipment.



Democratic Republic of the Congo

In March 2018, the Company also announced that it has entered

into two definitive joint venture agreements for cobalt/copper concessions in the Democratic Republic of the Congo totaling over 48 square kilometers. The Company has also submitted an application to the DRC Ministry of Mines for a cobalt/copper trading and export license, with results expected soon.

A Letter of Intent was signed in April 2018 to establish a joint venture between the Company and DLT Labs Inc. ("DLT") to provide secure, traceable and transparent methods for tracking and certifying the provenance of metals and minerals, through the entire supply chain from source to end-user.

Cobalt Blockchain Inc. is targeting early Q3 2018 for both their initial shipment of certified, ethically sourced cobalt; and the pilot project to perform an end-to-end transaction to demonstrate the blockchain proof of concept.

Cobalt Blockchain Inc. has a market cap of C\$39m.

In conclusion, Cobalt Blockchain Inc. is addressing a need for cobalt by pursuing conflict free cobalt mining, and at the same time they are pioneering a blockchain based certification platform to provide certainty of provenance that all minerals procured are ethically sourced. The granting of the cobalt/copper trading and export license which is expected soon, should be a significant catalyst for Cobalt Blockchain Inc.