

# First Cobalt Commences Drilling at Keeley-Frontier

TORONTO, ON — (August 9, 2017) — First Cobalt Corp. (TSX-V: FCC, OTC: FTSSF) (the "Company") is pleased to announce it has commenced drilling at the former producing Keeley-Frontier Mine, near Cobalt, Ontario. A total of 7,000 metres are planned at Keeley-Frontier as well as some nearby targets on the adjoining exploration claims.

# **Highlights**

- Initial drill program of 7,000m based on a 3D geological model compiled from historic information and detailed field mapping conducted over the past three months
- Drill targets over a two kilometre strike length, including the Haileybury and the Bellellen systems, testing known cobalt-rich areas of the Keeley-Frontier vein system that were not historically mined
- Drillholes range from 30 to 300 metre depths to establish variable vein orientations and determine the Co-Ni-Ag grades in the host rocks to the calcite veins
- Multi-element geochemical analyses including Co-Ag-Ni-Bi-Cu will be done, adding to the existing data to determine rock alteration trends which may point to new prospective areas
- Borehole geophysics will be conducted on select drillholes to identify potential extensions to any mineralizations intersected.

Trent Mell, President & Chief Executive Officer, commented:

"I am delighted by the hard work and dedication of the exploration team to reach this point. After extensive data compilation and analysis, we have commenced drilling at our flagship property. Through our acquisitions over the past few months, we now find ourselves with a target-rich environment, evidenced in the number of historic silver mining operations in the Cobalt Ontario camp that have never been assessed for their cobalt potential. Our proposed mergers with Cobalt One Limited and CobalTech Mining are progressing well and on completion First Cobalt will be the largest cobalt exploration company in the world. Controlling over 10,000 hectares of property and covering almost half of the prospective land in the camp, we look forward to announcing additional exploration targets once this consolidation is completed."

### **Keeley-Frontier Mine**

First Cobalt's vision for the Cobalt Camp is to revisit historic mines and cobalt-rich mineral occurrences, some of which have not seen meaningful exploration activity in more than 75 years, and evaluate the opportunity to use modern geoscience and bulk mining techniques to revive this historic world-class silver camp by targeting its cobalt potential.

The Keeley and Frontier Mines were originally developed and operated as separate mines and eventually integrated in 1961. From 1908 to 1965, the Keeley-Frontier Mine produced a total of over 3.3 million pounds of cobalt at a recovered grade of 0.5% and 19.1 million ounces of silver at a recovered grade of 58 ounces per tonne using these reported production numbers. Most of the production occurred between 1922 and 1931. The Company acquired a 100% option over the property in March of 2017.

Consolidation of the property has recently included the historic Bellellen Mine, adjacent to Keeley-Frontier, which is particularly enriched in cobalt and nickel. Silver was extracted in the first year of mining, then largely exploited for cobalt and nickel. Grades and tonnage were not reported, but in 1943, it was reported that over 12 tons of ore were shipped with an average grade of 9.25% cobalt and 11.55% nickel. Combined, these mineralizing systems represent over two kilometres of strike length of near surface size potential for open pit mining.

The neighbouring towns of Silver Centre and Cobalt, Ontario, together called the Cobalt Camp, were historically the most prolific cobalt jurisdictions in Canada and the largest silver producers worldwide. It is estimated that from 1904 to 1985 this mining camp produced 50 million pounds of cobalt and 600 million ounces of silver from 70 different mines.

## **Keeley-Frontier Drill Program**

The drilling program has been designed to test several areas known to be cobalt-rich over the two kilometre strike length of the Keeley-Frontier vein system, including Haileybury and Bellellen (Figure 1). Over 30 drill holes have been planned that range from 30 to 300m depths to establish variable vein orientations and to determine the Co-Ni-Ag grades in the host rocks to the known Ag-Co calcite veins. Aside from some surface grab samples for validation, very few cobalt grades are known from these areas. To account for this, drill spacing at each area will typically be 25 meters. Based on results, continuity and strike extent of the Co-rich vein systems will be followed up later in this drill program.

Drilling began on August 8 at the Haileybury Vein with a sequence of eight diamond drill holes testing various vein sets mapped in outcrop. The Frontier#1 and the Keeley #1 and #2 Veins are also Co-rich and will be tested subsequently. Holes of 250m length will test the Keeley 820 area where underground Co-Ni assays mark an undeveloped vein system. The area around the Woods and Watson Veins will also be tested with shallow holes, typically less than 50m, to determine if cobalt mineralization occurs as a halo to these Ag-rich systems. Deeper targets as part of the Keeley-Frontier Extension to the north and along the Beaver Creek Fault to the west will be tested after this first stage of drilling.

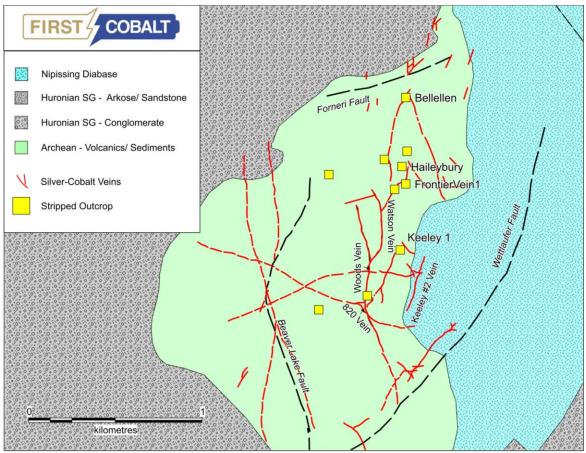


Figure 1. Bedrock geology of the Keeley-Frontier area. Silver-cobalt veins are compiled from historic maps, therefore locations should not be considered exact.

Sampling will be done on all drillholes for multi-element geochemical analyses including all metals of interest: cobalt, silver, nickel, bismuth, copper, gold, and zinc. Select drillholes will be surveyed for magnetic susceptibility, conductivity and resistivity to identify potential extensions of mineralization that may have been intersected in the hole.

# **Geologic Setting**

The Cobalt Camp occurs within the Cobalt Embayment consisting of Proterozoic sedimentary rocks unconformably overlain on Archean metavolcanic and metasedimentary rocks that have been intruded by the Nipissing diabase sills, dated at approximately 2.22 billion years. The Proterozoic sedimentary rocks are largely sequences of sandstone, arkose and conglomerate with minor dolomitic units collectively known as the Huronian Supergroup. The overall setting of the Cobalt Embayment is that of a continental rift system.

Mineralization occurs as Ag-Co-Ni-Bi-arsenides predominantly hosted in veins and stockworks known as Five-Element Vein Type deposits. Veins and stockworks are concentrated within and near the contacts of Nipissing Diabase dykes with Huronian Supergroup metasedimentary rocks as well as Archean metavolcanic rocks. Zoning of the metals within the individual deposits have not been documented.

The genesis of mineralization is contentious, but the proximity of veining to the intrusive contact between the Nipissing Diabase sills and either the sedimentary or the volcanic rocks may suggest structural contrast between the rock types is a major factor to the distribution of veining. It seems unlikely the sills provided a heat source to drive hydrothermal fluid flow

as many vein systems have developed within the sills showing brittle deformation textures. The unconformity between the volcanic rocks and the younger sedimentary rocks may have been an important conduit for metals in the silver-rich vein systems. The genetic relationships between cobalt-rich and silver-rich veins systems is currently unknown.

### **2017 Exploration Program**

The 2017 program is intended to provide a better understanding of the distribution and extent of cobalt mineralization within the historic Keeley-Frontier Mine as well as define and explore other silver-cobalt prospects on the property.

Work completed to date includes property-scale structural mapping over a 36 square kilometre area around the Keeley-Frontier vein system. Several new areas have been exposed by stripping and washing to augment the ongoing detailed mapping around Keeley-Frontier (Figure 1). Sampling of the exposed areas is ongoing and preliminary multi-element geochemical data are being interpreted. Results from the downhole televiewer surveys on 2012 drillholes are being assessed to compare to structures mapped at surface.

Airborne magnetic data have been acquired from the property and are being processed to map the volcanic rocks at surface and below the Huronian sedimentary rocks and Nipissing Diabase sill. Magnetic susceptibility data collected from the 2012 drillholes are being utilized to constrain magnetic response to rock types and alteration styles. This will help identify new prospective areas for Co-Ag mineralization for further exploration. All of these data are being incorporated within the 3D geological model that is based on about 50 years of data on the Silver Centre area of the Camp.

First Cobalt has assembled a very large property package to facilitate an exploration program around the Keeley-Frontier Mine designed to leverage this historic knowledge through the reevaluation of the silver-cobalt mineralized system. The Silver Centre mining camp was targeted for three main criteria:

- (1) Keeley-Frontier had the best cobalt-to-silver ratio of all the major historic mines in the camp. Most significantly, silver was the primary economic metal for mine development, yet in 1931 the Frontier Mine is reported to have produced more than a half million pounds of cobalt. This suggests there may be other cobalt-rich areas that were not targeted or exploited during mining;
- (2) First Cobalt has assembled a much larger land package than previously possible in the Cobalt Camp. The Keeley-Frontier Mine and First Cobalt's South Lorrain land package together consist of 2,100 hectares (21 square kilometres) of contiguous land, which will then increase significantly upon completion of the mergers with Cobalt One and CobalTech. This will facilitate regional exploration for new cobalt discoveries near the Keeley-Frontier asset; and
- (3) The Cobalt Camp area had been largely forgotten for more than half a century despite its storied past, with only limited exploration since the 1980s. The opportunity to return to the area with the lens of new mining techniques and geoscience is thus particularly appealing.

## **Qualified Person**

Dr. Frank Santaguida, P.Geo., Vice President, Exploration for First Cobalt is the Qualified Person as defined by National Instrument 43-101 who has reviewed and approved the contents of this news release.

### **About First Cobalt**

First Cobalt is focused on building a diversified global portfolio of assets that are highly leveraged to the cobalt market. The Company's current assets include almost 3,000 hectares of the Cobalt camp in Ontario, Canada, including an option for the former producing Keeley-Frontier mine, a high-grade mine that produced over 3.3 million pounds of cobalt and 19.1 million ounces of silver from 301,000 tonnes of ore, as well as a joint venture on a fully permitted cobalt refinery in Cobalt, Ontario. The Company also has interests in prospective copper-cobalt properties in the Democratic Republic of the Congo with known surface mineralization.

On behalf of First Cobalt Corp.

Trent Mell
President & Chief Executive Officer

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