



## Formation Capital: An Emerging Strategic Super Alloy Cobalt Producer

By Marc Davis, Managing Editor  
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### Corporate Overview

Formation Capital Corp. (TSX -FCO) is an advanced-stage junior mining and refining company that is poised to realize its long-held strategic vision of becoming the Western Hemisphere's only primary producer of cobalt – an essential metal for the high-tech and defense industries. As of recently, cobalt has also become crucial to the development of a burgeoning multitude of environmental technologies, such as hybrid automobiles.

As evidence of how close Formation is to the “goal line,” the two most important value drivers for Formation's share price at this time are:

- a) a milestone bankable feasibility study (an independently formulated blueprint for a mine) is expected to be published in a matter of weeks
- b) the Company's flagship 100%-owned Idaho Cobalt Project is within a few months of the final completion of a pivotal mine permitting process

Indeed, these two champagne-popping events should pave the way to Formation ([www.formcap.com](http://www.formcap.com)) becoming a world-class producer of high-purity, critical application cobalt as early as November or December, 2008.

However, this is no overnight success story in-the-making. It is the culmination of a dozen years of shrewd geological sleuthing and painstaking developmental work. Similarly, it has also involved the careful nurturing of an excellent rapport with all the government agencies and area residents who have a say in the future of the mine.

That said, Formation is already gearing up for a running start. In this regard, the Company has strategically developed a vertically integrated business model by way of its outright ownership of a northern Idaho-based hydrometallurgical complex for producing high-grade cobalt metal. This “hydromet” facility is key to the projected robust economics of the deposit.

Benefiting from a multi-metals refining capacity, this operation is also capable of processing the significant copper ore resources that will be mined as a by-product of the cobalt. Likewise for the Company's modest gold inventory.

However, the biggest payoff will be in the form of an initial projected annual production capacity of 1,600 tonnes of high-purity cobalt. This translates into just over 3.5 million pounds of cobalt. Add to this figure up to 8 million pounds of copper and about 3,000 ounces of gold and the economics of the project become increasingly robust.

These numbers may be regarded as a base case scenario in that the Idaho Cobalt Project's overall mineral inventory – which may yet expand as much as ten-fold – is still



largely undefined. In fact, the significant reserves and resources that are the basis of Formation's bankable feasibility study constitute only one of 20 known mineralized zones (16 of which have yet to see any systematic exploration).

Specifically, this extensively-drilled mineralized system is known as the Ram deposit. Additional reserves and resource were outlined for the Sunshine Deposit, which have not been included in the feasibility study. Meanwhile, both deposits remain "open" (continuous) at depth and along "strike" in at least one direction (the direction of the mineralization's axis).

Most significantly, Formation is on-track to firmly establish this world-class discovery as the planet's sole, high-grade, in-situ primary cobalt deposit, capable of producing specialty metal high purity cobalt. As if that's not encouraging enough, the mine also promises to be one of the lowest cost cobalt producers. Logistically, the project not only benefits from excellent infrastructure but it is also situated at the heart of the world's second most prolific marketplace for this rare metal, with the U.S. outdone only by China's voracious demand for the metal.

### **Cobalt: Fueling the Furnace of North America's 21<sup>st</sup> Century Industries**

The importance of such extremely compelling dynamics cannot be overstated. Especially as the U.S. accounts for about 22% of the world's annual consumption of cobalt. And more importantly for Formation Capital, the U.S. consumes 60% of the high purity, super alloy grade variety in an era in which demand is clearly beginning to outstrip supply. And this emerging trend shows no signs for abating for at least the next few years, particularly due to its designation as an "environmental metal."

This precarious situation is exacerbated by the fact that the U.S. is almost entirely dependent on foreign cobalt imports from nations that are typically fraught with potential geopolitical risks. Given cobalt's designation by the U.S. government as a strategic metal, the need to ensure an uninterrupted long-term supply is of paramount importance for the U.S. economy and defense needs, alike.

Notably, the cobalt metal at this deposit is of such high purity material that it is particularly suitable for critical application super alloy grade applications like the moving parts and blades of jet turbine engines.

Such metals have very tight specification requirements. It is not so much how much cobalt is in the metal (>99.9%), but rather what is in the remaining 0.1 to 0.2% as impurities that is important. Formation's mine is therefore metallurgically-favourable for the production of the high purity cobalt metal that is ideally suitable for this strategically valuable niche market.

Most market analysts are therefore in accord with the viewpoint that an ever-increasing high-tech-derived demand for cobalt will keep prices trending upwards for the foreseeable future.

### **Compelling Project Logistics**

Located in east central Idaho near the rural town of Salmon, Formation's in-development mine has already been extensively modeled with a view to establishing a comfortable threshold for profitability. To date, the existing resource base consists of 46.5 million



pounds of cobalt, 50.7 million pounds of copper, and 60,500 ounces of gold, with excellent potential for expansion. In other words, annual cash flow could easily surpass U.S. \$50 million.

Total measured and indicates resources outlined to date are 2,654,400 tons of 0.628% cobalt, 0.619% copper, and 0.016% gold. This includes 1,840,700 tons of measured resources – these resources include reserves that are not as yet broken out. The broken out reserves - the most reliable and detailed classification of a mineral inventory - will be made available in the Company's soon-to-be-published National Instrument (NI) 43-101 compliant bankable feasibility study.

Furthermore, an additional 1,121,600 tons of inferred resources at relatively comparable grades may yet add at least another four years to a projected minimum mine life of 10 years – once these resources are better defined by way of more extensive drilling.

This latest NI 43-101 compliant resource estimate was independently assessed in the fall of 2006 by Mine Development Associates of Reno, Nevada. This calculation has expanded upon a previous 2005 resource estimate by a further 20% as a result of additional 2005-06 drilling at the Ram deposit. (Again, both the Ram and Sunshine deposits are still amenable to further expansion).

Mining-savvy readers will be impressed to learn that the Idaho Cobalt Project's Ram and Sunshine deposits have to date be the focus of approximately 123,212 feet of drilling, spanning no less than 184 holes.

### **The “Big Picture”**

It cannot be overemphasized that the potential to dramatically increase the project's known reserves and resources is considered excellent with a district potential to host up to 50 million tons of high-grade ore.

Short of a very unlikely collapse in cobalt prices, the economic outlook for this project is therefore excellent. The initial annual production forecast of 1,600 tonnes of cobalt is expected to represent at least 4% of world cobalt production and would satisfy about 15% of North America's current demand.

Furthermore, production could be ramped-up over the course of several years, to accommodate additional deposits that may be brought into production. Accordingly, a low production cost of U.S. \$7-8 per pound is likely to continue to drop as a factor of economies of scale.

SmallCapMedia is therefore confident that an independently evaluated U.S. \$218 million Net Project Value (8% discounted, using a conservative \$19.40/lb average cobalt price at a time when cobalt is trading in the \$30/lb range) for the Idaho Cobalt Project is a very credible, if not conservative, estimate.

In turn, this represents an impressive Internal Rate of Return of 108% i.e. a projected payback on capital expenditures of less than 12 months. This is an almost unprecedented situation in an industry where mines typically take years to provide a payback on start-up costs.



These economics are from an independent engineering report conducted in 2001 when the project was in the “pre-feasibility stage”, before the requirements for reporting mineral reserves and economics were defined in National Instrument 43-101. The Company has since added additional resources and has fine-tuned the metallurgy, resulting in better recoveries. The long awaited updated NI 43-101 compliant reserve, resource base and project economics will be included in the bankable feasibility study, which is due before the end of June 2007.

It is also worth noting that Formation’s mineral-rich property surrounds the past-producing Blackbird Mine (which produced 1.74 million tons grading 0.63% cobalt and 1.65% copper). This historical footnote also attests to the largely-untapped potential of the Blackbird Cobalt District for other important finds.

### **Mitigating Political/Environmental Risks**

It is no surprise that this much-anticipated mine has strong support at all levels of the U.S. government. This includes the enthusiastic backing of Idaho’s Governor, Butch Otter.

Even the federal Forest Service, the lead agency in the permitting process, has recently gone on record stating that: “The proposed action is to approve a Plan of Operations for the Idaho Cobalt Project that would allow the development of two underground mines, a waste disposal site and associated facilities on National Forest System land west of Salmon, Idaho.”

The other key government agencies involved in the permitting process, the Environmental Protection Agency and the Idaho State Department of Environmental Quality, are also on-side now that Formation is nearing the completion of a U.S. \$15 million environmental impact study – one that clearly attests to the small environmental footprint of the proposed mine.

Meaningful evidence of Formation’s firm commitment to conscientious environmental stewardship include a commitment to the mine’s use of dry stacked (inert) tailings, instead of a tailings pond, and up to 50% of tailings will be backfilled underground. Moreover, water treatment will include a reverse osmosis system that will discharge clean, drinkable treated water back into area streams. In essence, such a scenario essentially would make this one of the cleanest operating mines in the world.

This environmentally-friendly mine is also expected to offer considerable economic stimulus in an underdeveloped rural economy. This reality has been well-received by area residents. In fact, local support for the project is so strong in this small ranching and farming community that over 84% of the local population voted in favour of the mine in a recent poll.

These are very key developments as Formation’s share price has been largely restrained during the last several years by some uncertainty as to whether the mine’s environmental impact would satisfy the stringent approval process of government regulators. However, it is now obvious that Formation has enthusiastically embraced this challenge and is about to pass with flying colours.



Indeed, now that the Company's Draft Environmental Impact Statement has been completed and the routine public input process was completed on May 24 with the Forest Service now reviewing all the public comments. It's no wonder that the Company's share price is certainly perking up in advance of this momentously positive benchmark development.

### **A Brief Background: Paving the Way to Financial Success**

Formation's arrival at this critical juncture has not come without a few bumps in the road. The Company weathered a prolonged five-year slump in the mining industry that only ended in late 2003. But its luck has certainly taken a sharp turn towards the upside since then. For instance, Formation orchestrated a key strategic coup in 2002 that further underscores the project's bright economic prospects. It concerns a very important acquisition.

Specifically, we're talking about the Big Creek Hydrometallurgical Complex. Located along a major interstate highway about 200 miles to the north of its Idaho Cobalt Project, it was purchased for U.S. \$1.275 million from liquidators after its owner, Sunshine Precious Metals, ran into serious financial difficulties. Its replacement cost is estimated to be between U.S. \$50-70 million, thereby providing Formation with tremendous capital cost savings towards the development of its vertically integrated cobalt mining business.

Moreover, Formation recently announced that it had sold a wet tailings facility associated with the complex for U.S. \$4.5 to one of its neighbours which is developing a silver mine in the area. In essence, the Company netted U.S. \$3.3 million in the acquisition of this multimillion dollar facility – a smart move by management and a great deal for its shareholders.

This environmentally-sound zero-discharge complex even includes a stand-alone gold and silver refinery that is capable of annually producing 10 million ounces of silver, 350,000 ounces of gold and 8 million pounds of copper. Formation has to date spent approximately U.S. \$6 million to retrofit the facility.

Another important consideration is the fact that key previous Sunshine Precious Metals Refinery operating personnel have been re-hired, as well as an experienced core operating crew from among the former Sunshine employees, making this a turnkey operation once the retrofit has been completed for accepting cobalt concentrate.

Further attesting to Formation's shrewd business acumen, this refining complex is already beginning to generate a fast payback on the Company's investment. As of June, 2004, the plant's silver refinery was reactivated to process third-party silver materials into high purity silver bars. Now the plant is already generating nearly U.S. \$1 million a year in operating profits from this strategic hard asset.

Plans to expand the complex by up to 50% would allow as much as 15 million ounces of silver to be processed each year, translating into close to U.S. \$2 million a year in operating profits. And further meaningful increases in through-put capacity would obviously ramp-up earnings by even higher multiples, particularly in a rising tide market for precious metals prices.

The Company is also exploring the real possibility of producing a wide range of value-added cobalt products in addition to 99.9% grade "A" cobalt metal – all of which will be processed at Big Creek. Such products include oxides and hydroxides of cobalt used in the lucrative re-chargeable battery sector that is growing at a rapid and accelerating rate.

### Why Cobalt?

Now might be a good juncture to discuss cobalt's increasing importance for 21<sup>st</sup> century industrial and high-tech needs. Ironically, it's a metal that many people have never heard of even though the quality of modern-day life relies heavily on it. For instance, it is a vital component in cellular phones, laptop computer batteries, hard disk drives, memory chips and even satellites – the list goes on. Indeed, life itself is even dependent on cobalt as it comprises a central component in vitamin B-12.

It is also increasingly earning a reputation as an "environmental metal" as it is used in fuel cells, solar panels and hybrid automobiles (which require 3-5 pound of cobalt for each battery). Notably, cobalt usage in rechargeable batteries, alone, has shot up nearly 300% in just the last three years. Indeed, cobalt is fast earning a reputation for being the primary source metal for the economic and efficient production of non-polluting "green" energy.

Cobalt also plays a key role in the de-sulfurization of oil in refineries and in GTL (gas to liquid) technologies that produce ultra-clean-burning synthetic diesel fuels. Other "green" industrial uses are increasingly coming on-stream.

In the defense industry, cobalt is also an indispensable component due to its use in high-strength, high-temperature-resistant alloys for fighter jet engines and rocket propulsion systems, among other uses. It is also used in the world of medicine for cancer treatment and prosthetics.

### More Idaho Cobalt: The Black Pine Project

Like most well-managed junior mining companies, Formation understands the value of strength through diversification. Accordingly, Formation's share price is also underpinned by a strong portfolio of secondary projects.

They include the exploration stage Black Pine Project, which is also in the same mining camp as the Idaho Cobalt Project. To date, a total of 200 drill holes spanning over 60,000 feet have delineated a preliminary sulphide resource of 224,673 tons grading a very impressive 4.17% copper, as well 0.013% cobalt and 0.037 oz/ton gold in two zones, alone – namely the Swift East and Trench zones.

A number of other highly prospective zones have also been identified and subjected to preliminary drill testing. Highlights from one zone include a cobalt-rich horizon which assayed 1.133% cobalt, 0.02% copper and 0.056 oz/ton gold over 17.5 feet. Such zones could be considered for future feed for the Idaho Cobalt Project mill. Similarly, another copper-rich mineralized prospect returned values as high as 4.90% copper, 0.164% cobalt and 0.013 oz/ton gold over 9.2 feet.

Extensive drilling has also defined an additional acid soluble copper oxide (nearer surface) resource in the Swift East, Swift West and Trench zones. It contains 1,565,464 tons grading 0.40% copper and 0.017% cobalt.



Likewise, a preliminary resource of 169,214 tons of oxide copper grading 0.98% copper has been calculated for the Jacob zone. These copper oxide resources are amenable to low-cost, solvent extraction-electro-winning (SX-EW) recovery techniques. Preliminary indications suggest a resource as small as two million tons grading 1% copper may be economic given the proximity of the property to infrastructure at the Idaho Cobalt Project.

### **Mexican Gold Opportunities**

The Company also has leveraged exposure to buoyant gold bullion and silver prices. Perhaps the most interesting (to date) of several precious metals projects involving Formation is the 100%-owned El Milagro Project in Tamaulipas State in Mexico. Located 60 kilometres northwest of the city of Tampico, the property hosts several different types of mineralization.

The primary target involves a vein system that boasts bonanza silver grades with a lead-zinc-rich polymetallic assemblage. To date, a 450-metre strike length has been traced, which remains open along strike.

Silver values vary from 0.8 to 3.8 kilograms/tonne over four metres with accompanying base metal values ranging from 10.3% to 12.3% lead and 2.8% to 6.8% zinc. The Company is confident of the prospect of unearthing other bulk tonnage vein and stockworks (veinlet) systems on the property.

### **Tapping Into the Global Uranium Boom**

Finally, Formation is involved in two uranium exploration projects in Canada's Athabasca Basin – home to several of the world's largest and highest-grade deposits. They include the 30,500-hectare Virgin River Project in the province of Saskatchewan where Formation indirectly owns a 2% interest (with the first right of offer to acquire up to a 10% stake) in a joint venture partnership with the uranium mining powerhouse, UEM Inc., owned equally by Cameco Corporation and Areva Resources Canada Inc.

The operator, Cameco, is hunting for a McArthur River-style deposit. The McArthur River deposit is the world's largest, high grade uranium deposit with an in-situ value, based on a December 2004 reserve base, of over \$U.S. 52 billion.

Exploration highlights to date include the discovery of the Centennial Zone, where a number of high-grade uranium intersections have been encountered, such as 5.58% uranium over 6.2 metres, 6.49% uranium over 5.9 metres and 14.29% uranium over 2.5 metres.

These very positive drill results are the most significant ever encountered in this region in more than 25 years of exploration. Formation is also "carried on" (exempt from contributing to) the first \$10 million of exploration costs. A total of 7,000 metres of drilling will be spent on the project this year to test the overall grades and expand the parameters of the Coronation discovery area.

Though Formation has exposure to only a small percentage of this project, this still represents a lucrative opportunity as major uranium deposits are highly prized by the nuclear energy industry. For instance, the gross metal values of the several major uranium deposits in this part of northern Saskatchewan exceeds U.S. \$6 billion.



### **Strong Management is the Key to Success**

On a corporate note, the Company's officers, directors and other members of its management team offer shareholders close to 300 years of combined experience in all areas of the mining business.

They include Chairman and CEO Mari-Ann Green B.A., B.Ed. who is a co-founder of the Company and who benefits from more than two decades of experience in the natural resources industry in the areas of finance, management and corporate development. Among her credits, she has proved very adept as a financier, directly raising approximately Cdn. \$50 million for the Company. This includes a \$20 million financing that closed in May of this year which is related to mine start-up costs.

She is joined by fellow co-founder and Company President Scott Bending, P. Geo., B.Sc. who has over 20 years of experience in mineral exploration and development in Canada, Mexico and the United States. In particular, he has a proven track record for the evaluation and acquisition of top-tier mineral projects and is considered an expert in his understanding of the cobalt market.

### **Investment Summary**

From a technical perspective, the Company has approximately 200 million shares outstanding (about 225 million fully diluted) as of June 01, 2007. Importantly, approximately 60% of the Company's equity is held by major financial institutions. Cash and metals inventory are currently worth about U.S. \$23.39 million, while the Company has no long-term debt.

Meanwhile, Formation just completed a \$20 million equity financing in May, providing the Company with a major financial shot in the arm and a resounding endorsement from Canada's resource-oriented investment community.

In closing, Formation is in the process of taking a quantum leap from being a junior mineral exploration company to becoming the Western world's pre-eminent high-grade cobalt mining and refining company. This scenario promises to offer patient investors a very handsome pay-day, especially since Formation's share price is still considerably undervalued. Of course, this will not remain the case for much longer.

In fact, the Company's share price is surely due for a major boost with the imminent completion of its bankable feasibility study, as well as the issuance of its mining permit. Following hard on the heels of these landmark events, the Company's stock is also poised for a strong rally during the imminent mine construction and start-up phases.

For the balance of this year, SmallCapMedia is therefore confident that Formation's share price will continue to chart a sustained upwards trajectory. One that will surely gather considerable momentum during what will undoubtedly be a banner year in 2008 – a phenomenon that promises to repeat itself for many years to come.