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Rare find

Local exploration company banking on vertical integration to tap tightly controlled beryllium market that services aerospace and defence sectors

By Joel McKay

Most Vancouverites want nothing to do with Boston these days, but one local firm has bet on a highly secretive manufacturing facility on the outskirts of Beantown.

The 63,000-square-foot facility in Wilmington, Massachusetts, houses **IBC Advanced Alloys'** (TSX-V:IB) Engineered Materials division.

It specializes in beryllium-aluminum alloys called Beralcast.

In layman's terms, the alloys combine beryllium's lightweight stiffness with aluminum's processing characteristics to create parts for technology, aerospace and defence sectors.

But the fact that Beralcast technology has been used in U.S. missile systems, **NASA** thruster mounts and was approved for the aborted multi-billion-dollar Comanche stealth helicopter program isn't what makes the facility so secretive.

Rather, what's had competitors clambering to get a look at the inner workings of the facility (and forced IBC to guard its doors very closely) is the method the company uses to cast a beryllium alloy.

That's IBC's big secret, explained company president and CEO **Anthony Dutton**, because traditional parts made with beryllium alloys have to be machined.

Beralcast alloys can be cast into complex shapes that need little or no machining, said Dutton.

Now, all the junior company has to do is show the market it can deliver on its promises.

"What we have to explain to them is who we are as a company, why we're big enough to be able to deliver on their requirements," said Dutton.

Nuclear history

IBC's beginnings are not all that different from any of the other junior companies that spring up along Vancouver's Howe Street.

In 2007, Dutton and hedge fund manager **James Passin** were chatting at a mining conference when they agreed that beryllium was going to play a big role in the coming nuclear renaissance.

"We didn't have to go very far before we realized, bingo, it's beryllium," Dutton told *Business in Vancouver* in 2009.

That idea led Dutton and Passin, who manages New York-based hedge fund **Firebird Management LLC**, which owns 29.6% of IBC, to develop a vertically integrated mining-to-manufacturing business in Vancouver.

The idea was to supply beryllium, which is used in nuclear reactors, for

the nuclear renaissance.

That initiative is still part of the company, but IBC's revenue-generating arm has since taken precedence.

Since 2007, the company has secured the largest known block of beryllium mineralization properties on the planet, which are right next door to the only operating beryllium mine in the U.S. – **Materion's** (NYSE:MTRN) Spor Mountain mine.

The company also bought the U.S.A.'s largest specialized metals forging press operator and its second-largest beryllium melt shop.

Today, the Vancouver junior employs dozens of people at plants in Pennsylvania, Missouri, Indiana and Massachusetts.

IBC has also secured a long-term beryllium supply contract with **Kazatomprom**, which stockpiles and processes the rare metal.

Dutton said vertical integration is essential for IBC's business model because the beryllium industry is small.

"A complex story always creates problems"

– John Kaiser, analyst and author

"To be able to create long-term sustainable shareholder value you have to control the whole value chain," said Dutton.

"If you're a gold company you can run a very successful gold mine, you can have another company that's a gold processor and another that's a jeweller, and they can all exist independent of one another.

"But in the specialized metals business there are choke points ... so it's much more sensible to create this integrated value chain."

To get a sense of just how small the beryllium market is, one need not look far.

There are only two major beryllium alloy manufacturers in the world – Materion and Japan's **NGK Insulators**.

According to the **U.S. Geological Survey** (USGS), there was only 170 tonnes of beryllium produced in the U.S. in 2010.

More than half of the material imported into the U.S. came from one place – Kazatomprom's Ulba Metallurgical Plant in Kazakhstan. The metal has become so strategically important that in 2005 the **U.S. Department of Defense** coughed up millions of dollars to build a beryllium facility in Ohio with Materion.



For a junior company out of Vancouver with a \$42 million market cap, the beryllium market is a tough nut to crack.

But that market is growing as high-tech companies and defence contractors seek out stronger, lightweight alternatives to traditional materials.

And IBC has spent a lot of time acquiring expertise to tap those markets.

363rd time's the charm

Fifteen years ago, a customer of Massachusetts-based **Starmet** asked if a beryllium alloy could be cast into complex shapes.

The company wasn't sure, but then **Ray White** piped up.

"I said, 'Let's try it'" said White, president of **IBC Engineered Materials** in Wilmington. "Honestly, I don't think I knew any better. That's the kind of person I am: why can't it be done?"

The company got to work and after a considerable amount of time, and 363 different alloy mixtures, finally found the secret sauce.

Unfortunately, Starmet went bankrupt and was bought out by another company that did little to advance its prospects. White moved on but never forgot about the patent that had his name on it.

Last year, IBC bought Starmet's successor, **Beralcast**, in a cash and share deal valued at \$4.25 million.

The deal was struck on the condition that White come back and head up the company's newest division in a new plant (the previous facility was tainted with depleted uranium and other toxins from its unrelated munitions business).

"It's been my dream for 15 years," said White. "I could see this 15 years ago ... it's like Christmas every day."

Like a host of other employees at IBC, he's walking evidence of a business strategy that focused on acquir-



IBC CEO Anthony Dutton (left) and Ray White say the beryllium market is so tightly controlled the company keeps the names of its customers secret

ing the right people as well as the right equipment.

One of its executives spent a chunk of his career with Materion, while another handled sales for Ulba Metallurgical Plant.

In order to grease the wheels in Washington, D.C., IBC has hired **Command Strategies LLC** to weave through the U.S. defence network's complex procurement process.

It's also appointed a retired **U.S. Marine Corps** major general to its board of directors and hired a former vice-president of **Exelon Corp.** (NYSE:EXC), North America's largest nuclear power generator, to advance its nuclear fuels division.

But has any of it paid off?

In April, the company renewed research agreements for nuclear fuel development with **Purdue** and **Texas A&M** universities.

IBC has also signed an agreement with the U.S. military's **Army Research Laboratory** and **Naval Air Systems Command** to test beralcast alloys in unmanned aerial drones.

Despite the acquisitions, agreements and technologies, analysts aren't publishing ringing endorsements of the company.

Downgraded

Last month, Vancouver-based **Fundamental Research Corp.** downgraded its rating of the company from "buy" to "hold."

"We had to downgrade them mainly because of their liquidity problems, and we also need to see some improvement in their manufacturing division," commented analyst **Siddharth Rajeev**.

Although its revenue increased 30% in 2011's third quarter year-over-year, the company has yet to turn a profit.

Meantime, its stock has languished between \$0.10 and \$0.20

for much of the last year, though it briefly hit a 52-week high of \$0.32 in May.

Rajeev expects IBC to turn a profit in fiscal year 2013.

Still, success in the junior market can have as much to do with marketing as it does with results, and analysts have said IBC's story is too complex.

"A complex story always creates problems," said **John Kaiser**, an analyst and publisher of **Kaiser Bottom-Fish Online**. "Brokers have exactly 30 seconds to grasp the story, and if they can glimpse some hook that they can repeat the story in 30 seconds to their clients then you've got them."

Dutton would say otherwise.

"It's a company with quite a few moving parts, but it's essentially a very simple company," said Dutton.

Kaiser said one of the keys to the company's future success will be proving how much beryllium it has sitting in the ground in Utah, which would establish the possibility for an in-house supply.

"Otherwise you're always wondering when the flaky Kazakhs are going to cut you off," Kaiser said.

Rajeev, on the other hand, believes the company needs to build more strength in its manufacturing divisions.

"They need to get this cash flow or revenue-generating business to a profitable situation," said Rajeev. "If that's achieved, then I think this company has great potential."

Dutton, on the other hand, just wants to make sure he doesn't do what his competitors have done – get comfortable.

"They take their eyes off the ball," Dutton said, "so when we come along we're a breath of fresh air."

At press time, the company's shares were valued at \$0.17 ■
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