Ivey Takes Innovation to a Global Client Base

By Lara Schroeder

GEORGE "BUD" IVEY is flying to Australia later in the day and he's interrupted several times as he responds to questions about his environmental remediation technology business, Ivey International Inc.

He puts off the interruptions, explaining to the callers that he's doing an interview for a magazine article, until there's a call he can't postpone.

A business contact in South America needs immediate instructions on applying Ivey-sol, Ivey's patented surfactant technology. The client is responding to a diesel spill at a port — an emergency — and the gentleman doesn't have all the information he needs with him.

"It's happening as we speak," Ivey says as he returns to his original telephone conversation.

This is an exciting time for Ivey, 46, whose "lean and mean" B.C. company — its workforce ranges from four to seven people — is going global as it secures approvals for its products' various uses, from mopping up offshore oil spills to industrial cleaning applications. Contaminants that Ivey-sol can desorb include petroleum hydrocarbon, chlorinated solvent and heavy metals. The company is also working on new treatment technologies, including a metal stabilization (ATOMISOL) technology that will allow it to more effectively treat heavy metals, and a new chemical treatment that combines chemical oxidation and chemical reduction (I-ROX).

Ivey International has won numerous awards, including the 2006 Globe Award for Environmental Innovation and Application and, shortly after that, the 2006 North American Frost & Sullivan Award for Technology Innovation.

Ivey casually mentions work in Europe and he's excited about having been part of the first remediation project in Andorra, a tiny country between Spain and France, in 2010. The company has also done work in Asia and South America, where Ivey has seen the "jaw-dropping" impacts of contamination resulting from oil exploration activities in the Amazon.

Ivey has been in the business for a long time by industry standards — he got his first job doing environmental assessments in 1988, when modern environmental regulations were just starting to be put into place in North America. "It was really Dick Tracy work," he says.

As an organic chemist, Ivey knew that the standard approach of pumping water into the ground to clean it wouldn't be very effective with contaminants like oil, which repels water.

"If you put oil and water in a jar, the oil floats to the top and the water stays at the bottom. So if the oil contamination would not dissolve, I knew it had to be sorbing to the soils, which limited its availability for remediation."

His chemistry background told him that something that would attract oil was needed for an effective clean-up process, but the people he worked with didn't understand his approach.

"I was using terms like contaminant sorbtion and people were looking at me like I was crazy," he says. "So I just shut up, as they did not understand."

He launched his own company in 1993 and immediately started doing field applications, experimenting with different compounds that could speed up the decontamination process and make it more effective. He applied for his first of many patents in 1998. Ivey-sol, the product Ivey developed, doesn't simply wash contaminants out of the ground — it attracts them.

"It can grab the oil and desorb it," Ivey says of the compounds in Ivey-sol, which is biodegradable. Oil and other contaminants seep into soil, sediments, and rock, Ivey explains. Ivey-sol desorbs the contamination from the soil, making it more physically available for in-situ pump and treatment or ex-situ soil washing; more bio-available for in-situ and ex-situ bioremediation; and more chemically available for chemical oxidation or reduction type treatments.

Where it used to take seven to 10 years to clean a contaminated site, Ivey's technologies can often clean an area in seven to 10 months. The result is huge cost savings for clients.

Now Ivey wants to take his products to a wider client base. He's particularly interested in Third World countries, where they're trying to move from no regulations to North American and European standards in a comparatively short timeframe.

"They need to get there faster, as their problems have gone unchecked for many years," Ivey says.

And he wants to help. "I've always had a vision that I wanted to work globally," he says. "The environmental problems we have here are a global concern."

For more information visit www.iveyinternational.com.

Ivey-sol is applied.

Rocks are considerably cleaner after Ivey-sol is applied.