

## Emmerson dives into Tennant Creek undercurrents

Kate Haycock, [2 June 2011](#)



Emmerson Resources backer Ivanhoe Australia is adopting the Tennant Creek-trialed HeliTEM geophysical survey method at Cloncurry in Qld.

TENNANT Creek gold and copper explorer Emmerson Resources expects to begin drilling targets generated from an innovative geophysics program in the next few weeks and the company's joint venture partner Ivanhoe Australia liked the concept enough to take it to Cloncurry in Queensland. The question remains, however, will it produce a significant new discovery in the Northern Territory?

Emmerson has started receiving initial results from the very first use of Fugro's HeliTEM helicopter-borne geophysical survey and expects to get drill rigs on the anomalies generated by the program by July. The company's managing director Rob Bills said he was excited about the survey results.

ASX-listed Emmerson, secure in its funding arrangement with Ivanhoe Australia, according to Bills, has seen its share price languishing in recent months, with the most recent trades between A12-15c.

Bills said the HeliTEM had been a success but the proof for the company would now be in "making a discovery and showing this technology actually works", proving via drilling that there was a lot more gold and copper in the field.

"We know all these HeliTEM anomalies won't be gold and copper deposits, so we need to start a systematic program of testing them," he said.

The company has already proved to its own satisfaction – and also, clearly, to the liking of Ivanhoe Australia – the technology has the capacity to help unlock Tennant Creek's tightly-held secrets. Ivanhoe has now contracted Fugro to provide the same surveys across its Cloncurry tenements.

Bills said the work the company did over the last wet season and the past few months had proven the concept worked.

The HeliTEM technology is said to be 10 times more powerful than any other helicopter-borne geophysics method and uses two generators to generate 2 million amps of power in the loop, which Bills joking called a "bunny frying" amount of power.

And the gold and copper mineralisation typical of previously identified Tennant Creek orebodies, which is hosted in ironstone formations, is highly conductive. Emmerson measured the conductivity of drill core from the best known deposits in the region such as the White Devil and Gecko mines. In the case of the Gecko deposit, for instance, the mineralisation was some 80 times more conductive than the surrounding rock.

Emmerson said the results of the work also indicated that the HeliTEM survey lived up to Fugro's claims of deeper penetration into the ground as well.

"We have found we can see quite deep," Bills said.

"The big difference in Tennant Creek to other areas is that there is no conductive overburden so there's nothing to soak the current up and it goes straight into the ground. So there's nothing in the stratigraphy that we think is conductive - except the mineralisation."

The proof of concept was to fly the survey over known mines at Gecko and Orlando and Bills said in both cases the HeliTEM showed up the mineralisation "really well".

The information is then processed and modelled by Fugro in Canada and it takes about four weeks to get data on any anomalies. Bills said the company had received the first data back from the geophysics group.

Drill rigs will be targeting anomalies this month and the market will be waiting to see if the technology does provide further clues to the Tennant Creek geology and, more hopefully, actual discoveries.

Emmerson and Ivanhoe Australia are spending \$A7 million on exploration at Tennant Creek this current financial year. **HG**

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