

# GEDC MINING PRESENTATIONS



Mining sector presenters: John Korczak of Datamine Canada; Dr. Andy Fyon of Ontario Geological Survey; Katie Lucas of Premier Gold Mines; and Glenn Hart of GEDC Board of Directors.

By Edgar J. Lavoie

At the Annual General Meeting of Greenstone Economic Development Corporation on April 29th, presentations focused on the mining sector.

GEDC

Glenn Hart, Geologist, B.Sc. (Hon.), presented "Turning paper to gold" on behalf of GEDC's ongoing project, the Greenstone Mineral Development Initiative (GMDI). Hart is geologist for Roxmark Mines Limited as well as a director on GEDC's Board.

GEDC's goal is to compile and digitize mining exploration data into useable formats in order to create 3-dimensional computer models, and to develop those 3-D models into ever more useful instruments.

A complementary project, the Data Compilation and Digitization Project (DCDP), converts information into computer-friendly data, and feeds it into the GMDI. It also aims to train and employ local people who already have the basic skills for the project. And the DCDP will provide publicly accessible data, which the GMDI project will turn into 3-D models. GEDC has partnered with local junior mining companies, and the companies will provide datasets to the DCDP project, and in turn benefit from the results. The project will also access datasets in the public sector, i.e., in the Ministry of Northern Development and Mines (Ontario Geological Survey).

Historical mining data in the Greenstone region exists primarily in paper records, such as drill hole tables and maps and underground cross-sections. Such information must be converted into computer-friendly data, i.e., digitized. For example, the information that 241.11 metres down hole at a certain azimuth and angle starting at a particular collar on a specified GPS location on planet Earth, an intersection yielded 0.943 grams of gold per

tonne on assay over a true width of 14.27 metres – all this information must be converted so that a computer can (a) read it, and (b) plot it (c) in such a way that you and I can see it (visualize it, is the phrase now fashionable in the industry), and (d) so that the computer and you and I can relate it to the hundreds – more likely, thousands – of other bits of information in the same area to get a 3-D picture (model) of what's there underground, out of sight.

Even the electronic data that mining companies possess must be converted to a single format that promises to be stable and long-lived. The software (computer program) must lend itself to archiving the data (storing for a long period of time – forever would be the ideal) and to easily accessing the data.

One of the slides in Hart's presentation had the following excerpt from the Globe and Mail newspaper, dated April 24, 2007: "In 2000, as the CEO of Toronto-based Goldcorp Inc., Mr. McEwen ran a contest that laid out the geological data of the company's moribund Red Lake Mine in Northern Ontario and invited all takers to have a crack at finding its richest gold deposits. The process, made possible by the Internet and advanced computer software, was novel in scientific circles – not to mention unheard of in the tight-lipped mining industry – and it worked, producing what is today the world's richest gold mine."

That is the ultimate goal of the GMDI project – to disseminate, for free, not only the models but the data for all participating properties (companies) in the project so that interested parties – anywhere in the world – can see what we have here, and can manipulate the models and even the data to make projections about what mineral values will be discovered down the line.

Not only is the modeling a

state-of-the-art mining exploration tool locally and globally, it is an incredible marketing tool. It is saying to investors and to other juniors and to the majors, "Here is what we have, folks. Want to buy into it?"

GEDC's first mining exploration project utilized data from the old Leitch mine property, currently owned by Roxmark Mines, to produce a rudimentary 3-D model. It was, and still is, a great marketing tool. Now GEDC is utilizing data from the old Leitch and Northern Empire mines in Eva and Summers Townships, near Beardmore, and developing the models to allow for fuller geological interpretations, to allow interested parties to download the data, to correlate with Google Earth (landscape features), and to create virtual realities.

Imagine the features of current electronic game shows, where you interact with heroes and monsters in either a realistic or an imaginative landscape. These virtual reality features have come to mining exploration in Greenstone region, where you and the miners are the heroes, and the dark forces to be overcome are ignorance, ignorance of what's there, just below the surface, and deep in the bowels of the earth.

Standard 3-D modeling allows visualizations of ore bodies and underground workings, estimations of ore body tonnage and grade, 2-D cross-sections, and planning for short-term operations.

GEDC's advances in 3-D modeling will do all that, and more. They will integrate landscape features (using Google Earth), permit direct data retrieval from models, allow data conversion for more detailed interpretation, project virtual realities, facilitate the design of mine development, show regional geological trends, and create ore genesis models. The software employed by the project comes from Datamine Canada.

GEDC has signed agreements in place with Roxmark Mines, Premier Gold Mines, Alto Ventures, and Sage Gold, and is negotiating with other private sector players.

GEDC is currently sourcing funding for a geological structural study of the entire Beardmore-Geraldton gold belt.

The Ontario Geological Survey (MNDM) will also provide its data, and a geologist will be appointed to manage the study.

The DCDP project will expand the geological database of the Greenstone region, and the GMDI project will increase our understanding of the gold deposits, and will increase efficiencies in exploration targeting and, hopefully, identify mines.

After the presentation, Dina Quenneville, Executive Director, declared that this was an extremely exciting development in mining exploration and marketing, and GEDC was on the crest of the leading wave. "When we talk about a VR [Virtual Reality] Lab, we're talking about having a studio here in Greenstone, available to [mining] companies," she said. GEDC's ultimate goal, she emphasized, is to provide local employment opportunities.

**Datamine Canada**

Next, John Korczak, P.Geo., presented for Datamine Canada. For 25 years his company has supplied technical software for the mining industry. Datamine has offices around the world, and its services include training and mentoring related to its products. Korczak demonstrated how 3-D models can create virtual worlds with objects, such as photographs, depicting reality, or with designed objects, such as miniature vehicles and buildings. Some objects can simulate motion, such as traffic. The software can, for instance, drape an aerial photo on a model, or provide instant on-screen links to information such as reports, news articles, and map inserts.

Virtual reality makes technical data accessible to non-technical people in high-impact presentations that can also be Web-based. Examples can be found on the GEDC website at [www.gedc.ca](http://www.gedc.ca).

**Premier Gold Mines Limited**

"Hardrock Project" was the slide presentation by Katie Lucas, M.Sc., P.Geo., project manager for Premier Gold Mines Limited.

The Hardrock Project embraces the properties of the old Hardrock, McLeod-Cockshutt, and Mosher mines, where Premier Gold is now actively exploring. Exploration has been suspended on the Geraldton Project, embracing the properties of the old Little Long Lac, Magnet, and Bankfield mines. The Kailey Zone, on the old Little Long Lac property, proved very promising there.

The Hardrock Project exploration is concentrated in the EP Zone, the Oreo Zone, the Tenacity Zone, and the Open Pit Infill area. One can pic-

ture Porphyry Hill, the prominent landmark into which Shaft #2 of the old Hardrock mine was sunk, as the centre of operations. The Oreo Zone is located west of the Hill, the EP to the north, and the Tenacity slightly to the southeast. Porphyry Hill itself is included in the projected Open Pit, with the smaller East Pit and the slightly smaller West Pit on either side. All exploration is occurring south of Highway 11.

Historically, most of the ore for the three old mines came from the underground North Zone, which stretches east and west. The mines extracted 2.97 million (short) tons of ore from there, grading 0.22 ounces of gold per ton. Drills have been testing the EP Zone as a potential starter pit. The Oreo Zone is sandwiched between the North Zone and the zone further west, and deeper, called the F Zone, which has a quantity of proven ore that was never extracted. The Tenacity Zone is a new discovery.

An airborne geophysical survey has identified several new and untested geological structures. Drilling to date has produced very positive results. The establishment of a locally-based VR Lab would be a boon to understanding and to presenting geological concepts. Premier Gold anticipates having a NI 43-101 resource by the end of the year, i.e., a government-verified estimate of its mineral resource. Premier cannot at this point confirm that a mine will be established.

**Ontario Geological Survey**

The Director of the Ontario Geological Survey gave a wide-ranging presentation on the importance of mineral resources, the role of the OGS, and the OGS's current activities in Northwestern Ontario. Dr. Andy Fyon has his office in Sudbury,

Ontario.

The OGS's jurisdiction is a million square kilometres, an area almost 5 times the size of France. Much of its work consists of data collection, airborne geophysical surveys, and mapping – lots of mapping. OGS staff make estimates of mineral, energy, and groundwater resources.

They conduct analyses of the mineral sector and assist in policy formation. One of Dr. Fyon's statements that stood out is that Ontario's metal reserves are currently in decline, including gold, which helps explain the mining exploration boom.

To residents of Greenstone, the face of the OGS is often the staff in the regional office of MNDM in Thunder Bay. Dr. Fyon asked the three OGS geologists to stand and be recognized: John Mason, Regional Manager; Mark Smyk, Resident Regional Geologist; and Gerry White, District Geologist.

The fact that all four figures, including Dr. Fyon, Director of OGS, attended GEDC's AGM, suggests the importance of the Greenstone region in mining circles today.