



# Mira Geoscience

*...modelling the earth*

## eNewsletter Q1-2013

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### In this issue:

- » A closer look at our Vancouver consulting office
- » Looking back on Earth Modelling 2012
- » Tip of the month
- » What's new!
- » In the news and contributions
- » Geophysical inversion for geologists training course

### Don't miss out!

Here is a quick glance at our Upcoming Events Calendar:

- » **January 28-31** [Roundup 2013](#) in Vancouver, Canada
- » **March 3-6** [PDAC 2013](#) in Toronto, Canada
- » **April** [Open House](#) in our Vancouver office, Canada
- » **August 11-14** [ASEG](#) in Melbourne, Australia
- » **August 12-15** [SGA Biennial Meeting](#) in Uppsala, Sweden
- » **September 22-27** [SEG Annual Meeting](#) in Houston, USA
- » **September 24-27** [SEG Conference - Geoscience for Discovery](#) in Whistler, Canada
- » **October 21-24** [Earth Modelling 2013](#) in Vancouver, Canada
- » ...more details on page 3 or on our [Upcoming Events page](#)

### Welcome to the first edition of our eNewsletter.

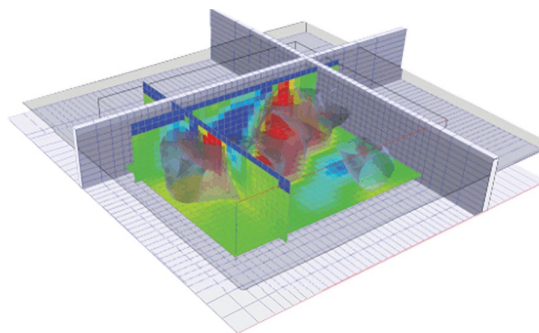
We wanted to keep you in the loop of what we've been up to. 2012 was a busy year! We developed new training courses; Fullagar Geophysics released a new version of VPmg while we were in the final development and testing phase of GOCAD Mining Suite 2009.4 release; we hired five new software developers; two geoscientists as well as three senior staff joined our consulting team.

Over the next few months our focus will be on software development and new geophysical inversion code releases.

### A closer look at our Vancouver consulting office

Our Vancouver consulting team has greatly expanded over the past year. Since opening in 2007, the group's original mandate of providing geologically constrained geophysical modelling, quantitative data integration, and interpretation services for the mining industry has evolved considerably. Led by Nigel Phillips, our team of experienced geophysicists and geologists offer a broad range of exploration business solutions, including advanced 3D geological modelling, geophysical inversion, and exploration targeting. In addition to providing advanced interpretation services, the Vancouver-based team provides access to new technologies through software development, sales, training, support and custom research, demonstrating that it can address the most complex exploration problems.

From experience with many deposit types and in many different geological settings, the group primarily works with the mining industry, but also provides 3D modelling capability for geothermal, oil and gas, engineering and environmental applications.



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Exploration projects now face challenges such as deep, under cover target identification. The industry works with a wide range of multi-disciplinary data that, if taken individually, cannot provide quality, low risk targets. The solutions come through a quantitative, integrated approach. We have the skills and technology to establish meaningful links between datasets that ultimately lead to better drillhole targets.

We provide industry-leading solutions, from a consulting service, where we generate the modelling, interpretation,

*continued on page 2*



## What's new!

- » This January our Perth-based office just changed location:

Suite 303 Level 3,  
267 St Georges Terrace  
Perth WA 6000 Australia  
Telephone +61 8 9211 6129  
Fax +61 8 9261 7700

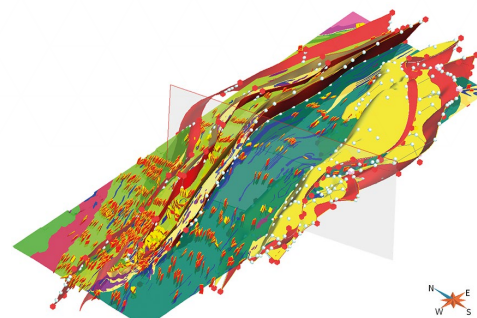
[Location map](#)

- » In January **Xiaochun Luo** joined our Montreal-based team as a Scientific Programmer. He has an extensive background in geoscience programming, with in-depth expertise in predictive targeting systems and geostatistics. He has a PhD in applied mathematics in geoscience from McGill University and until recently was a research associate there.

- » In October **Scott Napier** joined our Vancouver-based team as a Senior Geophysicist. He brings general expertise in geophysical inversion, along with extensive borehole, ground and airborne EM interpretation and processing experience. He has worked in Canada and internationally on uranium and base metal exploration teams, with a track record of proven discovery. Scott has an MSc in geophysics from UBC.

- » In November **James Reid** joined our Perth-based team as a Principal Geophysicist. He has an extensive geophysical consulting background, with in-depth expertise in the planning and quantitative interpretation of electromagnetic and electrical methods, particularly in the application of airborne electromagnetics to mineral and groundwater exploration. He has an MSc in geophysics from the University of Sydney and a PhD in geophysics from Macquarie University.

and drillhole targeting for our clients, to a technology solution where we empower our customers with the best software and the skills to use them effectively. Through our diverse experience, and by building trusted relationships, we offer custom solutions suitable to each client's needs. Many of our customers progress from a consulting client to an independent practitioner of advanced 3D interpretation and targeting.



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The Vancouver team will host an open house this April. We will keep you up to date via our [Upcoming Events page](#).

## Looking back on Earth Modelling 2012

We are very pleased to say that the two 2012 events (Montreal and Perth) were a great success. Thank you to everyone who took part! We enjoyed spending time with you discussing your earth modelling experiences and practices, and learning more about your needs.

Our annual client meeting is recognized as a leading forum on earth modelling for the mining industry. The 2012 event extended the traditional meeting with a focused symposium on 3D data integration and multi-disciplinary interpretation. Participants shared experiences and best practices with

leading industry, academic, and technology-development practitioners. The full program included keynote speakers, case studies, technical presentations, short courses, software development updates, speed geeking, as well as social events and networking.

### Call for 2013 presentations:

If you are interested in presenting a case study on 3D geological modelling, send us your proposal now. We hope to see you next year in Vancouver, BC, Canada! October 21-24, 2013.

More details available [online](#).





## In the news:

### Purepoint Uranium Group Inc

Toronto, Canada - October 2

Results of this summer's geophysical survey at its 100% owned Turnor Lake Project in Saskatchewan's Athabasca Basin. "Drill targets have now been prioritized with the completion of the 3D Targeting Workflow Process by Mira Geoscience."

### Quebec Mines 2012

Québec City, Canada - October 28

Innovation in mineral exploration in Quebec - 50 years of history. Marc Boivin (MB Geosolutions) and Gerald Theriault (technician and prospector). A great talk about how Exploration Software evolved. Mira Geoscience was one of Quebec's pioneers in that field.

### Riverside Resources Inc

Vancouver, Canada - December 17

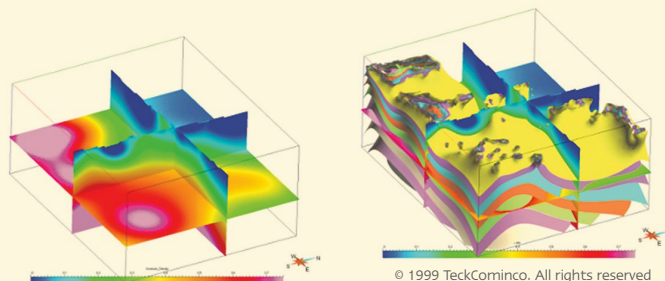
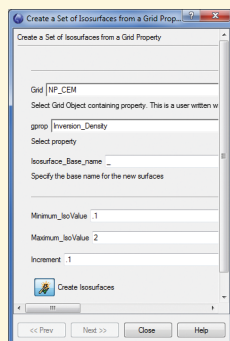
Riverside and its partner, Cliffs Natural Resources ("Cliffs"), have commenced drilling at the Naranjo project located in Jalisco, Mexico. "Detailed modeling (two pass inversions) of the airborne magnetic data by Mira Geoscience shows large, clear, and discrete anomalies that appear to correspond on surface to historic small-scale iron workings."

## GOCAD Mining Suite: January's tip of the month

### Multiple 3D Isosurfaces Wizard

The normally manual process of creating a series of multiple isosurfaces from a 3D Grid property has been incorporated into the following wizard:

**Surface > New > From Grid > Create a Set of Isosurfaces from a Grid Property**



To receive our tips or to view previous ones [visit our site](#).

#### Did you know...

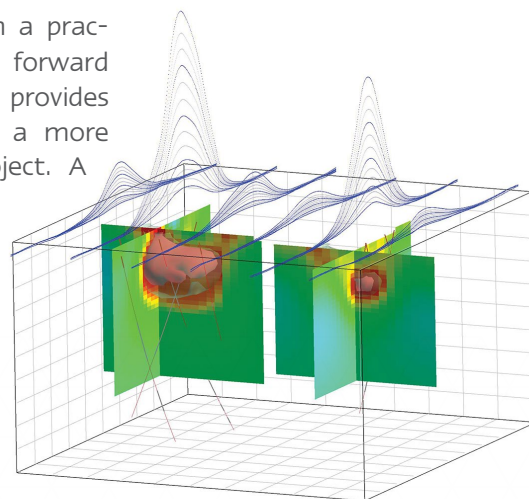
Wizards can be written by anyone and easily incorporated into GOCAD Mining Suite, manually or automatically.

## Geophysical inversion for geologists training course

In November, Scott Napier, a Vancouver-based Senior Geophysicist, gave this training as a short course at the Yukon Geoscience Forum.

Designed to provide geologists with a practical understanding of geophysical forward modelling and inversion, this course provides basic interpretation knowledge for a more integrated understanding of a project. A better comprehension of processes involved in inversion can lead to effective drillhole targeting.

Interested in finding out more about our training courses? [Visit our site](#).



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## Contributions:

### 2012 MassMin Conference

Sudbury, Canada – June 11-14

Proceedings: "The design and development of an integrated cave management system." Mathijs J. Mol, Andre van As, Royce Tosen and John McGaughey.

### Structural Geology and Resources – 2012

Kalgoorlie, Australia – September 26

Extended Abstract "3D Software Technology for Structural Interpretation and Modelling." Tim Chalke, John McGaughey and Gervais Perron

### GRC Annual Meeting

Reno, USA – October 1

Conference proceedings: "Integrated 3D Geophysical Inversion and Geological Modelling for Improved Geothermal Exploration and Drillhole Targeting." Jeff Witter and Nigel Phillips.

### SEG Annual Meeting

Las Vegas, USA – November 9

"A Working Guide to 3D Inversion Methods in Mining Geophysics" Workshop – 3D data integration with inversion. Nigel Phillips, Peter Fullagar, Peter Kowalczyk, and Stanislaw Hickey.

### Divex – ioGlobal Geochemistry Short Course

Québec City, Canada – November 25

Live link demonstration between GOCAD Mining Suite and ioGAS "Extracting Value from Geochemical Data – ioGlobal / Divex." Gervais Perron

## More details on our upcoming events

### Roundup2013 – January 28-31, Vancouver, Canada.

If, like us, you plan on attending the Mineral Exploration Roundup2013, come and visit us at booth B28 (Monday-Tuesday) and L1 (Wednesday-Thursday). Many of our specialists will be there to answer your questions. We are preparing a booth-style version of Speed Geeking showcasing the hottest technology available in 3D geomodelling, geophysics, geochemistry, exploration targeting and much more. We are in the program:

#### » **Technical Program:**

Dianne Mitchinson

*Linking Physical Rock Properties to Porphyry Alteration and Mineralization: Examples from the QUEST and QUEST-West Project Areas*

#### » **Poster Session:**

Nigel Phillips et al

*Constrained 3D Earth Modelling Using Potential Fields in the Nechako Basin*

### PDAC2013 – March 3-6, Toronto, Canada.

PDAC2013 is right around the corner, and we are looking forward to it. We will be at booth # 814, like last year, so come and visit us. Our geomodelling experts will be there to answer your questions. We'll be there to show you on demand the hottest technology available in 3D geological modelling for exploration.



For additional info or to schedule a meeting, visit our [Upcoming Events](#) page.