



Applied Geostatistics: Resource Estimation and Business Risk Implications

3 Day Professional Development Course

Course Leader: John Vann

Objectives of the Course

This course is an introductory or refresher resource estimation course for mining industry professionals. Although the framework of the course is to present the geostatistical approach, non-geostatistical methods are fully explained. This three-day course is sharply focused on concepts and (especially) the connection between characterisation and management of resource risk and improved business decision making, in the context of the value chain. Participants will discuss problems of interest and assess the relevance of alternate techniques to their situations. Time will be allowed for participant questions and group discussions.

Who Should Attend?

This program is suitable for geologists, mining engineers, and metallurgists either involved in resource and reserve evaluation or requiring a sound understanding in order to either manage such a process, use the outputs or provide data inputs.

Program

Day 1	Fundamentals <ul style="list-style-type: none">• Introduction & Framework• Overview of Resource Estimation• Crash Course on Sampling• Statistical Primer
Day 2	Spatial Variation <ul style="list-style-type: none">• Domaining and Stationarity• Building Geological Models• Variograms and Variography
Day 3	Block Size, Drill Spacing, Kriging <ul style="list-style-type: none">• Block Size, Support and Selectivity• Estimation Variance and Drill Spacing• Kriging• Beyond Kriging

A full set of PowerPoint slides will be provided to each participant. Additional reference materials will also be provided electronically.

Course Leader: John Vann



John Vann is a geologist and geostatistician with over 20 years experience most mineral commodities (including precious metals, copper, lead, zinc, iron, coal, manganese, bauxite, uranium, mineral sands, nickel and tin). John has an international reputation as a teacher of geostatistics and resource evaluation, having taught over 150 short courses and seminars on resource estimation, geostatistics, sampling and risk topics since 1993 in Australia, the USA, Canada, Chile, South Africa, UK, Indonesia, Zimbabwe, Laos and PNG. He is a Director of QG and holds degrees in geology from RMIT and the University of New England and geostatistics from the University of Leeds. John is Adjunct Professor of Geology at UWA, Adjunct Senior Lecturer in Geostatistics at the University of Adelaide and was a member of the JORC Committee for 11 years. Since 2006, John also has taught 10 advanced programs for senior Rio Tinto personnel in Australia, Africa and North America as invited faculty for Duke Corporate Education, NC, USA.

In addition to public courses in Australia, the UK, the USA and Canada in past years, John has run many in-house courses, some recent examples are listed below:

- December, 2008 – Applied Geostatistics for Porphyry Systems – Resource Estimation and Business Risk Implications – Rio Tinto Andes Exploration Group, Santiago, Chile
- August 2008 – Applied Geostatistics for Geologists and Engineers – Resolution Copper Company – Arizona, USA
- July 2008 – Applied Geostatistics for Mining and Exploration Geologists – Goldfields, St. Ives Gold — Kambalda, Western Australia
- June 2008 – Geometallurgical Modelling Workshop Course – BHP Billiton, Adelaide, South Australia
- May 2008 - Applied Geostatistics for Mining Geologists – BHP Billiton, Olympic Dam Mine, South Australia
- May 2008 – Sampling and Resource Evaluation – Oxiana Ltd. (now Oz Minerals) – Perth, Western Australia.
- March 2008 – Applied Geostatistics for Coal Geologists and Mining Engineers – Anglo Coal, Brisbane, Queensland
- February 2008 - Sampling and Resource Evaluation – Rio Tinto Iron Ore, Perth, Western Australia.

Participant Feedback

Participants are invited to provide feedback and rate the performance for every QG course. We use a 1 (poor) to 5 (excellent) rating system to evaluate the quality, relevance and clarity of our programs.

The Applied Geostatistics program received an overall rating of 4.8 in its last session. Some of the participant feedback includes:

“Course content was exactly what I was looking for and was presented clearly and concisely. John Vann was one of the best course presenters that I have ever seen”.

“Brilliant! It was good to go off on asides and discuss work-relevant issues freely. I was pleasantly surprised by this course as I wasn't sure what to expect. More mining engineers need to do this course!!”

“Good introduction and understandable for someone who hasn't had any statistics training before the course.”

“It was perfectly tailored to my needs, skills and interests. I could not improve on it”

“You have filled in the gaps and made me understand the ‘why’ of geostatistics! I will be using as much of the training as possible to help my operation have a better and more understanding grade control system.”

Further enquiries: info@qgroup.net.au and see also www.qgroup.net.au