Geochemistry in Mineral Resource Development

Date: May 12, 2006
Instructors: Graham Closs, Colorado School of Mines
davelose@mines.edu
Dave Kelley, Newmont
dave.kelley@newmont.com
Fees: By March 1, 2006.
$295 Member, $395 Nonmember, $150 Student

Outline:
This one-day workshop provides an overview of the role of geochemistry within each stage of the mineral resource development process, with emphasis on the contribution of geochemistry to decision-making at each stage. The morning session tracks the contributions of geochemistry through the various stages in the development process: early stage exploration, target definition and testing, QA/QC considerations, input to mine planning, operations, monitoring and remediation, and regulatory requirements. The afternoon session addresses traditional and evolving scientific and technical developments that are increasing the contribution of geochemistry, including the understanding of metal dispersion, analytical capabilities, selective extraction analysis, in-situ geochemical analysis, and data presentation and interpretation. The course will be useful to individuals responsible for the overall mineral resource development process, as well as those wishing to gain an appreciation of how geochemistry can contribute to their technical area of responsibility within this process.

Quality Control of Exploration Projects and Ore Control

Date: May 13, 2006
Instructor: Scott Long, AMEC E&C Mining Consultants
scott.long@amec.com
Fees: By March 1, 2006.
$295 Member, $395 Nonmember, $150 Student

Outline:
This one-day workshop will provide a “nuts and bolts” overview aimed at establishing and maintaining quality control systems that prevent and detect failures.

Topics include:
• Determining an initial sampling and sample preparation strategy
• Monitoring turn-around, sample load, and assay data management
• Using blanks to check for cross-contamination
• Evaluating the adequacy of sampling, sample preparation, and assaying protocols
• Understanding duplicates and evaluating duplicate results
• Creating or selecting Standard Reference Materials and their use in a project
• Establishing a check assay program and evaluating the results
• Drilling recovery
• Methods for checking down-hole contamination in reverse circulation drilling
• Evaluating assay laboratory performance, initially and over the life of a project
• Remediation issues
A course manual and several EXCEL templates on CD will be included. This course is for anyone who has responsibility for quality control aspects of exploration projects or ore control operations.

Resource and Reserve Estimation

Date: May 13, 2005
Instructors: Bruce Davis, Norwest Corp.
bdavis@norwestcorp.com
Larry Allen, Newmont
larry.allen@newmont.com
Bill Rose, WLR Consulting Inc.
wlrconsulting@comcast.net
Fees: By March 1, 2006.
$295 Member, $395 Nonmember, $150 Student

Outline:
This one-day workshop concentrates on the steps involved in developing a resource estimate and then converting the resource into a reserve, paying particular attention to reporting aspects of the resources and reserves.

Topics include:
• Database compilation and integrity
• Assay quality control and assurance
• Exploratory data analysis
• Estimation plans and development
• Resource classification
• Derivation of a reserve from a resource

Geophysics; Creating Wealth and Reducing Risk through the Mineral Cycle

Date: May 17, 2006
Instructors: Ken Witherly (co-chair), Condor Consulting, Inc.
ken@condorconsult.com
John Gingerich (co-chair), Geotechnical Business Solutions, john.gingerich@rogers.com
Jim Gouveia, Rose & Assoc.
Grigore Simon, Newmont
Charles Pretorius, Anglo American
Al King, Inco
Peter Kowalczyk, Placer Dome
Tom Whiting, BHP Billiton
John McGaughey, Mira Geoscience
Rob Gordon, Quantec

Fees: By March 1, 2006.
$295 Member, $395 Nonmember, $150 Student

Outline:
This one-day workshop will examine how the application of geophysical technology can be managed to aid in the generation of wealth and the reduction of risk through the entire cycle of the minerals exploitation business. Traditionally, managers thought that geophysical technology generated value at the front-end of the exploration process, identifying anomalies to be pursued, usually in greenfields settings. In the last 20 years, a number of groups have come to regard geophysical technology as a means to add value and reduce risk at all stages of the minerals cycle: exploration, mining, and subsequent site remediation and monitoring. The workshop will feature presentations by leaders in the industry who will outline how geophysical technology is being used to:
• Facilitate discovery in the most challenging exploration environments
• Create opportunities for commercial partnering (Falcon or NewTEM models)
• Integrate geophysical results with new developments in modeling and visualization
• Renew and expand wealth generation in mature camps (Sudbury, WA nickel models)
• Contribute to clearer and better decision-making as part of a risk-based opportunity portfolio (borrowed from the oil and gas industry)
What Constitutes a Definitive Feasibility Study?

Date: May 17-18, 2006
Instructors: Larry Smith (chair), AMEC Manager of Mining & Metals Consulting
Ted Eggleston, Consulting Geologist
Bill Tilley, AMEC Senior Mining Engineer
Ron Pearce, AMEC Chief Estimator
Lynnton Gormely, AMEC Principal Process Engineer

Fees: $395 Member, $495 Nonmember, $200 Student

Outline:
This two-day workshop will provide an overview of the technical requirements of a definitive feasibility study. Referred to in some circles as a “bankable” feasibility study, this work is executed to a level of confidence suitable to support final internal or external project financing. The workshop will examine the requirements of exploration data quality, resource and reserve estimates, mine designs, metallurgical studies, geotechnical and hydrological studies, process and infrastructure system designs, capital and operating cost estimates, environmental and socio-economic studies, financial analyses, and project management. Discussions will include the level of documentation expected by various stakeholders. Additional guest speakers will provide perspectives on the level of work required by banking institutions (external financings) and the boards of integrated companies (internal financings). The workshop will be valuable to a wide audience, including junior companies seeking financing of advanced projects, company project teams who must meet appropriate internal standards of work, regulators who need to understand industry standard practices, and finance experts who need to understand technical reports.

Managing Exploration Risk

Date: May 17 - 18, 2006
Instructors: Michael Doggett, Queens University
Larry Smith (chair), AMEC Manager of Mining & Metals Consulting
Ted Eggleston, Consulting Geologist
Bill Tilley, AMEC Senior Mining Engineer
Ron Pearce, AMEC Chief Estimator
Lynnton Gormely, AMEC Principal Process Engineer

Fees: By March 1, 2006.
$395 Member, $495 Nonmember, $200 Student

Outline:
Most comprehensive studies of the performance of greenfields exploration over the last 15-20 years indicate that the value created by discoveries is, at best, approximately equal to exploration expenditure. In other words, greenfields exploration adds no value, and may even be mildly value destructive. In this workshop we begin by reviewing the data and analysis around this conclusion, followed by discussion of the impact of continued performance at this level on the future of the mining industry. In particular, we will address with participants the key question – “Is break even good enough?” This will be followed by a session on the fundamentals of risk assessment and management in mineral exploration, and their implications for decision-making. We argue that any assumption that we make consistently rational decisions is unjustified, and that certain biases are an expected outcome of operating in a high-risk, high-uncertainty business. The final session will examine some strategic and tactical outcomes and solutions, and will help participants to focus on exploration as a business, and on the perspective and needs of the investors in our business.

Sustainable Development and the Social License to Operate

Date: May 17-18, 2005
Instructors: Ian Thomson, On Common Ground Consultants, Inc.
Susan Joyce, On Common Ground Consultants, Inc.

Fees: $395 Member, $495 Nonmember, $200 Student

Outline:
This two-day workshop will provide an overview of the changing national and international pressures that affect mineral exploration and mining. Case histories and a working exercise will illustrate the social dynamics that operate around exploration and mining projects. Practical advice on how to create and sustain good community relations that form the basis for a “Social License to Operate” will be outlined. The two workshop leaders have extensive experience in the particular challenges to community relations that occur during mineral exploration. Their approach is to become knowledgeable, start early, and work to preempt the risks that can lead to problems. Topics to be covered during the workshop include the changing social environment in which mining operates, the role of the culture of mineral exploration, stakeholder engagement in theory and practice, the role of non-governmental organizations, guidelines and tools for positive community relations, and how mineral exploration can contribute to the goals of sustainable development.

Social Functions

SEG Presidential Address and Mentoring Dinner
Saturday, May 13, 2006
John Dow, 2006 SEG President
John Dow will deliver his Presidential Address. Included with the dinner program is an opportunity for students and professionals to interact.

SEG Awards Dinner
Sunday, May 14, 2006
Donald Coxe, Global Portfolio Strategist, BMO Financial Group
“Hard Rock Rocks”

SEG Exploration Outlook Dinner
Monday, May 15, 2006
Randall Oliphant, Chief Executive, Silver Bear Resources
“Exploration: Is the Discovery Really Worth the Finding?”
Tickets for these dinners may be purchased online at www.seg2006.org or use the registration form on page 15.