The Directorate of Professional Programmes of the Geological Society of South Africa

PRESENTS

ADVANCED DIAMOND DRILLING METHODS AND TECHNIQUES IN EXPLORATION AND MINING

A PRACTICAL OVERVIEW OF ALL ASPECTS OF DIAMOND DRILLING FOR PRACTICING GEOLOGISTS AND RELATED PROFESSIONALS

A two-day course

Thursday 4\textsuperscript{th} & Friday 5\textsuperscript{th} October 2007

Glen Hove Conferencing, 52 Glenhove Road, Melrose, Johannesburg

COURSE LEADER

Colin Rice

After leaving university, Colin taught high school mathematics in Zimbabwe for 7 years before moving to South Africa. He has been active in the southern African drilling industry since 1984 and is a Past Vice President of the African Drilling Association.

Colin has always had a keen interest in training and was responsible for setting up the National Diploma, Drilling Practice Course at Technikon SA. Colin is currently heading the Atlas Copco ACademy Project.
WHO SHOULD ATTEND
The course is aimed at practicing professionals involved in all aspects of diamond drilling programmes in exploration as well as in surface and underground mining projects.

It would be an advantage if attendees have participated in previous drilling courses or alternatively have had some practical experience in the implementation of diamond drilling programmes and a general understanding of the method.

A detailed review of all aspects of diamond drilling will be presented including directional drilling techniques, special procedures and economic and contractual aspects of drilling.

Questions and answers will be encouraged throughout the course. Participants will receive printed course notes plus a CD and “The Diamond Drilling Handbook”.

ABOUT THE COURSE
A number of courses on drilling in exploration and mining have been presented by the society over the past several years and a need for a more in-depth course related specifically to diamond drilling has been identified. Diamond drilling is arguably the most important method in an exploration programme and for obtaining advance information in mining operations.

Methods and techniques are constantly evolving and diamond drilling is becoming more and more of an exact science with huge benefits for users.

With increases in commodity prices, exploration programmes and mine evaluation studies are escalating and diamond drilling is playing an increasingly important role in these endeavours.

The course aims to provide participants with deeper insights into diamond drilling practice, the selection and application of various types of equipment, including inhole and underground equipment.

Day 1 – Thursday 4th October 2007

CHARACTERISTICS OF A DIAMOND DRILLING OPERATION

08:00 -08:30  Registration Tea & Coffee
08:30 –10:00  General principles - Drill Rig functions
Selection of down hole equipment – Drillrod manufacture, Corebarrel & Drillbit manufacture & selection. Optimising drilling performance – calculation of weight on bit, rpm, circulation rates, Corebarrel design and maintenance
10:00 -10:30  Tea & Coffee Break
10:30 –12:00  “Drillers Mathematics” , Common drilling problems – prevention & troubleshooting Safety aspects of a core drilling operation
12:00 –12:45  Lunch Break

DRILLING TECHNIQUES

12:45 –14:30  Special drilling techniques, Air flush coring Special corebarrels and downhole tools Economic & contractual aspects of a contract drilling operation
14:30 –14:45  Tea & Coffee Break
14:45 – 16:00  Directional drilling, Wedging techniques – setting & surveying
Application of downhole motors
16:00  The bar will be open for a networking opportunity

Day 2 – Friday 5th October 2007

Site Visit – Diamond Drilling Project

08:30 – 15:00  A visit to a drill site will be arranged during which the theoretical aspects of the Course will be demonstrated in practice.

Refreshments and lunch will be served on site

THANK YOU TO THE FOLLOWING COMPANIES FOR SPONSORING THIS COURSE

CONSTON
www.corstor.co.za

MSA
www.msageoservices.com

Afri Core Exploration Suppliers
www.africore.co.za