

SPECIALIZED TRAINING COURSES BY SIDMIN

SIDMIN holds advanced training courses for professional geoscientists, designed to bring their job performance abreast of the latest international mineral industry protocols. These courses are specially recommended for professionals who desire to work in accordance with International Standards but live and work in countries like Pakistan which are still striving to adopt standards of their own. Graduate degree, preferably in geosciences, is the prerequisite for participation in these courses.

Courses are available in both individual and group formats.

COURSE NO.1:

EXPLORATION BEST PRACTICES GUIDELINES (EBPG)

This one day course is based on the EBPG developed by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM). This set of broad guidelines on “best practices” has been drawn up as a convenient “check list” to ensure work is done comprehensively and to a consistently high standard to maintain public confidence.

COURSE NO.2

MINERAL EXPLORATION DATA AND INFORMATION DISCLOSURE PROTOCOLS

This one day course is designed to assist senior professional geoscientists in charge of exploration programs. The course is based primarily on the Canadian National Instrument 43-101 format but includes comparison with reporting systems based in other major mining jurisdictions of the world. Participants are given a standard 27 point questionnaire about a hypothetical mineral prospect and guided to answer these questions in a way that meets technical and ethical excellence criteria.

COURSE NO.3

MINERAL RESOURCES AND RESERVES DEFINITIONS

This one day course supplements course no. 2 and is based on CIM standards on Mineral Resources and Reserves definitions first approved by CIM Council on August 20, 2000. Reports (Including “Technical” as defined in NI 43-101) dealing with estimates of Mineral Resources and Mineral Reserves must use only the names and definitions contained herein.

Individuals and groups taking both courses no.2 and no.3 together will be entitled to a 20% discount.

COURSE NO.4

Principles of Computer Geology and Geostatistics

This three (3) day course is designed for computer savvy geoscientists and mining engineers who wish to learn how to facilitate and expedite their exploration data handling, processing and computations leading to feasibility study of mining operations.

Participants will learn the following:

- (i) How to collect store, validate and digitally display exploration information including drilling data.
- (ii) Basic approach to use of typical geological softwares to integrate various types of data and to determine the shape, volume/tonnage of ore bodies in 3D.
- (iii) Principles of geostatistics for analysis of the characteristics of the ore body by variography, and
- (iv) Estimation of resources, reserves and variation of characteristics, such as grade, by application of "Kriging".

Note: While there are many methods of mineral resource assessment "Kriging" is the only method that provides an estimate of the error of estimation. The latter is invaluable in risk analysis.

COURSE NO 5.

MICROCHEMICAL IDENTIFICATION OF ORE MINERAL GRAINS

This three (3) days course is unique as it introduces to participants the lost art and science of qualitative microchemical identification of mineral grains. The tests can be carried out from the comfort of your home or on-site in the field. Participants will learn the following:

- (i) How to identify the ore minerals in a specimen in almost 10 minutes whereas an ordinary qualitative analysis may consume hours.
- (ii) How to conduct the test on material less than a pin head using simple reagents on a glass slide and observing characteristic result of reactions under a student type binocular microscope.
- (iii) The presence or absence of over 22 common value metals and sulphur can be detected as a guide to mineral grain identification

COURSE NO. 6

PROCESS MINERALOGY TECHNIQUES

This two (2) day course is designed to assist mineralogists, metallurgical engineers and managers of mineral processing operations. The course is based on extensive case histories of application of mineralogical techniques, supported by the course Instructor's own 25 years of experience of investigating operational problems and resolving major plant shutdown problems in one of the largest mining/mineral processing conglomerates in the world.

Most mineral processing operations are controlled by chemical analysis which is considered faster than mineralogical analysis of plant samples. However, a method (self developed by the Instructor) of expediting mineralogical analysis will be introduced. The combination of chemical and mineralogical analysis reveals facts about plant performance that could not be revealed by assays alone.

Mineralogical examination of process samples is a powerful tool for monitoring and improving the efficiency of mineral processing operations. Participants are encouraged to bring their own process samples for analysis during the course.