

DEVELOPING GROUNDWATER

ABOUT THE COURSE

Are you a development or humanitarian water engineer who needs to know more about hydrogeology? Have you come back from the field, wishing you knew more about how to manage well siting, drilling rigs and drilling programmes? Is hydrogeology part of your job but you would like more of a practical understanding?

This 4-day course aims to develop knowledge of groundwater, water well siting, well design and drilling supervision. The course is generously supported by a number of companies providing equipment and demonstrations including Cranfield University (Percussion drilling and course facilities), the Practica Foundation (Manual drilling), Warren Ecological (Rotary – PAT - drilling), Geomatrix (electrical geophysical equipment), In-Situ Europe (field monitoring, sampling equipment and data loggers), Del Agua (Microbiological and chemical test kits) and Boode (Well screen and drilling supplies).

This is an intensive and highly practical course providing hands-on experience. The course is mainly intended for water engineers and managers.

COURSE STRUCTURE

The course will be run in the field over 4 days including 2.5 days of practical hands on experience of well siting, drilling supervision, pumping tests and water quality sampling, and 1.5 workshop days covering groundwater theory, well siting, borehole design and pumping test data analysis to put this practical experience into context.

RedR UK and Cranfield University have developed this course in collaboration. The presenters and facilitators are experienced hydrogeologists and humanitarians with field experience.

DAY 1: PRE-DRILLING PLANNING AND PREPARATION FOR SITE WORK

Practical sessions including:

- Introduction to Hydrogeology and the Task for the Course
- Group Desk Study / Assessment of Drilling Site
- Geological and Hydrogeological Appraisal in the Field
- Electrical Geophysical Surveying Methods
- Drilling Supervision Briefing for Day 2

DAYS 2 AND 3: SUPERVISION AND CONSTRUCTION OF WATER WELLS

- Drilling Supervision (using Manual Jetting, Percussion and Rotary Methods)
- Materials, methods, sampling and record keeping (logging drill cuttings, well consumables, well development)
- Well installation and development
- Pumping test – using other boreholes on site
- On-Site water quality testing (physio-chemical / microbiological)

DAY 4: THE BIGGER PICTURE

- Siting boreholes – a case study from the African Basement complex (workshop)
- Designing boreholes – principles & practice (guided case study)
- Test Pumping theory and interpretation (workshop)
- Borehole rehabilitation

HOW TO BOOK

Please email training@redr.org.uk if you would like to register your interest in attending this course.

FEES

Band A	Band B	Band C	Band D
£550	£690	£845	£1095



RedR UK is a global humanitarian capacity-building NGO.

We provide training, consultancy services and expertise to national and international NGOs working in disaster-prone countries.

We work around the world, delivering capacity building programmes that are practical, up-to-date and delivered by experienced humanitarians.

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