

# Media release

## Lessons in groundwater and mining

10 May 2012

Dealing with groundwater at mine sites – from the conceptual phase of mine planning through to operations and closure – is the focus of a new course being run by the National Centre for Groundwater Research and Training, based at Flinders University.

The three-day course, to be held in Perth in July and Brisbane in August, will explore the various issues relating to mining and groundwater, from the early stages of extracting groundwater to build a mine, known as mine dewatering, to the management of waste rock and potential contamination.

Dr Lloyd Townley, Director of NTEC Environmental Technology and co-convenor of the course, said dewatering was often assumed to be the single most important groundwater-related issue for the mining industry, although there were many other aspects for engineers, groundwater scientists and other specialists to consider.

“Mine dewatering is certainly important for access and safety reasons but it’s also important to decide how to best use that water,” Dr Townley said.

“Sometimes it’s evaporated, sometimes it’s used in the process of extracting minerals from the rocks and sometimes it’s injected back into the ground so there are a lot of issues with how you manage the water that’s taken from the ground,” he said.

“It’s also essential to consider issues relating to contamination caused by waste rock – with mining you target particular rock types that contain minerals but in the process you need to bring other rock to the surface which is placed in waste rock dumps or in tailings storage facilities.

“When exposed to air and water, the sulphides in waste rock and tailings can produce sulphuric acid and lead to metals being transported off the mine site by rainwater or surface drainage, potentially contaminating nearby streams, rivers, lakes and groundwater resources.”

Dr Townley said the course will cover the full spectrum of mining activities, including iron ore, coal, gold and copper, and will explore issues at all stages of mine development – from the early conceptual stage to feasibility studies, construction, operation and finally rehabilitation and closure.

John Waterhouse, a Principal Hydrogeologist with Golder Associates and co-convenor of the course, said it was crucial for both mining personnel and groundwater specialists to be well-trained and to communicate across the various aspects of groundwater and mining.

“In the future, Australia and the world will have a number of ongoing challenges at some sites long after mining has finished,” Mr Waterhouse said.

“For mining companies and the community, mining presents benefits and challenges.”

“It’s also an opportunity for people in the workforce to forge careers in the management of groundwater at mine sites from early investigation phases and, at some sites, long after they’ve closed.”

Groundwater in Mining will be held in Perth from 25-27 July and in Brisbane from 1-3 August. For more information or to book call (08) 8201 5632 or email [industrytraining@groundwater.com.au](mailto:industrytraining@groundwater.com.au)

---

*The National Centre for Groundwater Research and Training is an Australian Government initiative, supported by the Australian Research Council and the National Water Commission.*

NATIONAL CENTRE FOR  
GROUNDWATER RESEARCH & TRAINING  
GPO Box 2100 | Adelaide SA 5001 | Australia  
p: +61 8 8201 2193 | f: +61 8 8201 7906  
[enquiries@groundwater.com.au](mailto:enquiries@groundwater.com.au)  
[www.groundwater.com.au](http://www.groundwater.com.au)

