

# Introduction to Hydrogeological Risk Assessment for Land Contamination

## Date and venue

This course will be held on **9<sup>th</sup> May** at our offices in **Nottingham**. This one-day course will run from approximately 9am to 5pm. **Delegates will need to bring their own laptops capable of running Excel with the Remedial Targets spreadsheet already loaded and ready to use.** Full joining instructions including details of where to download the spreadsheet will be sent to each delegate prior to the course.

## Does Hydrogeology Matter?

The Environment Agency's Remedial Targets Methodology and Worksheet provide a framework for assessing the risks to controlled waters from land contamination, and for deriving site-specific remedial targets for contaminated soils and groundwater where those risks are unacceptable.

## Course Content

The course will teach delegates

- The importance of the conceptual site model (CSM) for assessing risks to controlled waters from land contamination
- The tiered framework for assessing risks of pollution of controlled waters from land contamination
- Methodology for deriving remedial targets for soils and groundwater to protect water resources
- When to use the remedial targets worksheet – applicability of the models to the CSM
- Sources of information for worksheet parameters
- How to use the remedial targets worksheet

## How will you benefit from this course?

By the end of the course you should be:

- Familiar with the sources of information available to develop an initial CSM for assessing risks to controlled waters from land contamination
- Aware of the tiered framework for assessing risks to controlled waters from land contamination and deriving remedial targets
- Aware of the types of solute fate and transport models used in each tier of the remedial targets worksheet, along with their assumptions and limitations
- Aware of the input parameters required by the remedial targets worksheet

All delegates will be issued with a Certificate of Attendance – which should be retained and used to provide evidence of CPD activity when required by employers or professional bodies.

## Who should attend?

The courses will be of relevance to:

- Regulatory and local authority staff involved with contaminated land issues
- Consultants

- Problem holders and developers needing a more in-depth understanding of contaminated land issues
- Anyone producing contaminated land reports
- Anyone reviewing third party reports

## Tutors

Land Quality Management courses are renowned for their relevance and quality. This comes from our belief that training should be interesting, relevant and make a difference to the way our delegates go about their normal contaminated land related business. We always select top quality tutors with both the experience to communicate and the knowledge to share – as well as the enthusiasm to improve the way land contamination issues are tackled.

Course tutors include Paul Nathanail, Caroline McCaffrey, Judith Nathanail, Richard Ogden and Andy Gillett.

## Cost

**Private Sector rate:** £220 per day (excluding VAT)

**Public Sector Rate\*:** £132 per day (excluding VAT)

*VAT is chargeable at the prevailing rate.*

*\* Applies to Local Authority, Health Authority, Environment Agency and SEPA staff etc.*

**Discounts:** We offer a 5% discount for 3 delegates; 10% discount for 4 delegates and 15% discount for 5 or more delegates. Discounts apply only where full (private sector) rates are paid and when payment of delegate fees is undertaken in one transaction (e.g. one invoice issued).

**Please note:** Payment must be received before commencement of the course. Cancellations will only be accepted up to 14 days before the course runs and an administration charge of 25% of the course fees will apply. Cancellations received less than 14 days prior to the course will incur full costs. Personnel may be substituted at any time.

LQM reserve the right to cancel a course; at least 7 days notice will be given. LQM cannot accept any liability for costs incurred as a result of such cancellation (e.g. train tickets) although of course any fees already paid for the course would be returned in full.

All courses are undertaken in accordance with our terms and conditions. These can be viewed at [www.lqm.co.uk](http://www.lqm.co.uk)

## Booking

To book a place(s) on this course, please complete and return the booking form at the back of this brochure. Please note that our QA system requires all bookings on an official LQM booking form. Unfortunately, we cannot accept bookings by email or telephone.

## For more information:

More information about these and other courses run by LQM is available on our website at [www.lqm.co.uk/training](http://www.lqm.co.uk/training).

Alternatively, contact us at:

Land Quality Management Ltd, Sir Colin Campbell Building, University of Nottingham Innovation Park, Triumph Road Nottingham, NG7 2TU

**Tel:** 0115 7484080

**Fax:** 0115 7484083

**E-mail:** [administrator@lqm.co.uk](mailto:administrator@lqm.co.uk)



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# Publications available from LQM Press

## Contaminated Land Ready Reference

For all professionals working with contaminated sites who need to have up-to-date key data at their fingertips. The Ready Reference is designed to provide an easy to use source of key technical information about the investigation, characterization and remediation of contaminated land.

This book is presented in a concise, tabular format. Each table addresses a specific topic and provides decision support by means of checklists, flow charts and option screening grids. Each table is also supported by full references to key documents.

The book is in loose-leaf format and updates will be issued to take account of the latest developments in legislation, guidance and technology. Release 2 incorporating the first series of updates was published in July 2007.

**Usual Price: £129.00 (inc P&P); £29.00 for updates only (inc P&P)**

**Delegates on LQM courses can pre-purchase copies of the Ready Reference Guide at the reduced price of £100. The updates can be pre-purchased for £25.00. This reduced price applies only to pre-purchased copies collected during the course and does not apply to copies ordered after completion of the course when postage and packaging will be required. Copies can be reserved on the attached booking form. Payment must be received prior to the course.**

## LQM/CIEH GAC Publication (2<sup>nd</sup> Edition)

The 2<sup>nd</sup> Edition LQM/CIEH GAC publication, published in July 2009 presents generic assessment criteria (GAC) for over 80 substances.

Changes in UK technical guidance on human health risk assessment since the release of the 1<sup>st</sup> Edition in 2006 prompted the revision and expansion of the GAC publication. As with the widely accepted 1<sup>st</sup> Edition, this publication describes the outcome of a workshop, held in January 2009, which brought together a number of practitioners who sourced contaminant specific toxicological and physical chemical input data for over 80 substances.

The workshop resulted in the development of generic assessment criteria (GAC) for use in generic quantitative human health risk assessment.

The delegates were guided in their preparation and during the workshop by LQM staff, who have also subjected the workshop outputs to rigorous review and prepared them for publication.

The 2<sup>nd</sup> Edition LQM/CIEH GAC values were derived using the CLEA v1.04 risk assessment tool to be compliant with UK policy and guidance.

For further details on the publication please visit our website at [www.lqm.co.uk](http://www.lqm.co.uk).

**2<sup>nd</sup> Edition Usual Price: £195.00 (inc P&P)**

**Delegates on LQM courses can pre purchase copies of the LQM/CIEH GAC Publication 2<sup>nd</sup> Edition at the reduced price of £175 for collection during the course. This reduced price does not apply to copies ordered after completion of the course when postage and packaging will be required. Copies can be reserved on the attached booking form. Payment must be received prior to the course.**

## Chemical Analysis of Contaminated Land

This book is edited by K. Clive Thompson of Alcontrol Laboratories and Paul Nathanail of LQM and provides a one-stop reference for the analysis and delivery of contaminated land samples and subsequent presentation of the data. Problems of analysis and solutions are provided, along with a chapter on the new techniques of ecotoxicity measurement. This book is suitable for environmental consultants, analytical chemists, environmental chemists, laboratory managers, ecotoxicologists and environmental regulators.

**Usual Price: £92.25 (inc P&P)**

## KeyCSM – Software for Conceptual Site Modelling

A conceptual site model (CSM) describes and depicts the environmental features of a site and its surrounding area and identifies the pollutant linkages. The CSM underpins the planning of each stage of site investigation and will drive the risk assessment.

Land Quality Management Ltd (LQM) worked with Keynetix Ltd to develop software to facilitate the rapid creation and updating of conceptual site models. Amongst its many capabilities, KeyCSM can be used to create detailed plans, cross sections, network diagrams and matrix diagrams to represent the sources, pathways and receptors associated with a potentially contaminated site. More information on KeyCSM can be found at [www.keynetix.com/keycsm](http://www.keynetix.com/keycsm).

**Usual Price: Single User Licence (SUL) £ 495; can only be installed/used on a single PC/laptop. Concurrent User Licence (CUL) £745; can be installed/used on a number of PCs/laptops (via a network or dongle system) but only by a single user at any one time.**

**Delegates on LQM courses can pre-purchase the KeyCSM Software at the reduced price of £450 (Single User Licence) and £650 (Concurrent User Licence). To qualify for this discount, payment must have been received prior to the course. The software will be provided via internet download.**

## Ordering

Copies of these titles and several others can be ordered through LQM Press. Please see our website at <http://www.lqm.co.uk> for more details and ordering information.

**However, delegates on LQM courses can pre purchase copies of selected titles at reduced rates for collection during the course by completing the attached course booking form. (see above for details).**

## For more information:

For more information on these and other titles available through LQM Press, please visit our website at [www.lqm.co.uk](http://www.lqm.co.uk) or contact us at:

Land Quality Management Ltd, Sir Colin Campbell Building, University of Nottingham Innovation Park, Triumph Road Nottingham, NG7 2TU

Tel: 0115 7484080

Fax: 0115 7484083

E-mail: [administrator@lqm.co.uk](mailto:administrator@lqm.co.uk)



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Please book places on Introduction to Hydrogeological Risk Assessment for Land Contamination 9th May 2012

Course Date	Delegate Name	Company/Organisation	Delegate Email	Delegate Telephone	Cost £220 (£132 public sector)	VAT
I wish to pre-purchase the following publications for collection at the course (Please indicate the number of copies of each publication required):						VAT exempt
Ready Reference @ £100.00 per copy <input type="checkbox"/> / Ready Reference <b>Updates only</b> @ £25.00 per copy <input type="checkbox"/> / GAC publication (2 <sup>nd</sup> Edition) @ £175.00 per copy <input type="checkbox"/>						
Pre-purchase the KeyCSM software for collection at the course: <input type="checkbox"/> copies @ £450 (excl VAT) per SUL <b>or</b> <input type="checkbox"/> copies @ £650 (excl VAT) per CUL						
					<b>Total</b>	

<p>I will be paying by credit card / please invoice me / cheque enclosed (<i>Delete as appropriate</i>)  <i>Cheques should be payable to "Land Quality Management Ltd", Sir Colin Campbell Building, University of Nottingham Innovation Park, Triumph Road Nottingham, NG7 2TU</i></p>			
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**Please note:** 1. All courses are offered under LQM's Terms & Conditions (see [www.lqm.co.uk](http://www.lqm.co.uk)). 2. Payment must be received before commencement of the course. 3. Cancellations will be accepted up to 14 days before the course, an administration charge of 25% of the course fees will apply. Cancellations received less than 14 days prior to the course date will incur full costs. Personnel may be substituted at any time. 4. LQM reserve the right to cancel a course; at least 7 days notice will be given. LQM cannot accept any liability for costs incurred as a result of such cancellation although all course fees will be returned in full.

<b>For office use only</b>	Acknowledgment sent:	Draft invoice sent:	Paid:
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