

Aquifer Testing For Improved Hydrogeologic Site Characterization

Featuring **AQTESOLV™** and the **In-Situ Level TROLL®**

Dates:

October 5 & 6, 2011

Location:

**In-Situ, Inc. Headquarters
Fort Collins, Colorado**

Instructors:

Jim Butler, PhD, PG
Kansas Geological Survey and
2007 NGWA Darcy Lecturer

Glenn Duffield

HydroSOLVE, Inc., Author of AQTESOLV

Jim Butler is author of "The Design, Performance, and Analysis of Slug Tests" (Lewis Pub., 1998) and the 2007 National Ground Water Association Distinguished Darcy Lecturer with more than 60 lectures on four continents. For the last 20 years, he has worked as a research scientist at the Kansas Geological Survey. He holds a B.S. in Geology from the College of William and Mary, and a M.S. and Ph.D. in Applied Hydrogeology from Stanford University. Jim also serves as a consulting hydrogeologist to federal agencies and private industry, and is currently an associate editor of both Ground Water and the Hydrogeology Journal.

Glenn Duffield is a hydrogeologist and the president of HydroSOLVE, Inc., with over 25 years of consulting experience in groundwater flow and transport modeling, software development and aquifer test analysis. He is currently an associate editor of Ground Water and the author of AQTESOLV, which for over 17 years has been the world's leading software for the analysis of aquifer tests

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Conducting aquifer tests in complex hydrogeologic settings such as heterogeneous or fractured media is a key element to site characterization, water resources assessment and remediation system design. However poorly planned aquifer testing programs often lead to suspect data or unanswered questions after the field work is complete. Even when you are confident of the geologic conditions, you may have difficulty designing effective aquifer tests, running field equipment or selecting the best available model to analyze the test data. Where can you turn to improve your approach and skills for aquifer testing?

Midwest GeoSciences Group can help! We have designed a powerful two-day training course on aquifer testing design, field methods and data analysis techniques featuring AQTESOLV and the In-Situ Level TROLL. This course will provide you with the knowledge to master aquifer testing from beginning to end - using world class field equipment and aquifer test software.

This course will teach you state-of-the-art methods and procedures for designing, conducting, and analyzing aquifer tests. You will gain the following benefits from the course:

Master State-of-the-Art Field and Analysis Procedures

- Learn to design the most effective aquifer test programs for a wide range of geologic conditions (including low permeability confining units and fractured bedrock)
- Gain an advantage during your next aquifer test by mastering new field and data analysis procedures
- Find out how to differentiate laterally extensive sands from isolated sand bodies
- Discover new techniques for anticipating and resolving problems that may arise in aquifer tests
- Obtain step-by-step instruction for field screening using AQTESOLV computerized analysis

Learn Up-To-Date Slug Testing Procedures

- Learn to select and apply appropriate slug test models for different hydrogeologic settings and well configurations
- Maximize results from tests conducted in wells screened across the water table
- Find out how to recognize and account for the effects of noninstantaneous (noisy) test initiation and wellbore skin
- Discover the latest strategies for designing, conducting and analyzing tests in high-K media including oscillatory responses
- Gain knowledge of new approaches for decreasing test duration in low-K media
- Master all aspects of data collection with the In-Situ Level TROLL
- Obtain hands-on experience with AQTESOLV analyzing data from a wide range of geologic settings

Discover Recent Advances in Pumping Test Methods

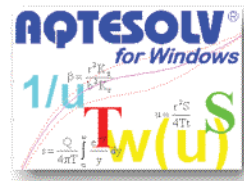
- Learn to design, conduct and analyze pumping tests in confined, leaky, unconfined and fractured aquifers
- Master strategies for dealing with variable pumping rates, wellbore storage, partial penetration, well losses, wellbore skin and other common issues
- Discover powerful diagnostic methods including derivative analysis that help you select appropriate pumping test models
- Gain an advantage by applying Agarwal's method for analysis of recovery data
- Find out the best procedures for monitoring a pumping test with the Level TROLL
- Master tips and tricks for using AQTESOLV to analyze constant-rate, step-drawdown and recovery tests

BRING YOUR COMPUTER

Analyze data from a variety of hydrogeologic conditions and well configurations using AQTESOLV. Participants are welcomed to bring their own project data for analysis for QA/QC by the instructors.



**16 Contact Hours
1.6 CEUs**



www.aqtesolv.com

Advanced registration is necessary for participation in this limited-enrollment short course. Pre-registration is required to reserve space and receive course materials. A confirmation letter and map will be sent within 10 days following your course registration.

REGISTRATION

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Last Name: _____ First Name: _____
Position: _____
Company: _____
Address: _____
City, State, Zip: _____
Phone: _____
Email: _____

*For early registration, payment must be received before 09/27/2011. Cancellations may be made up to Sept 15, however 25% of the fee will be charged. No refunds. Questions? Call Customer Service at 763.607.0092 or email info@midwestgeo.com.

Course Fee:

Register Now..... \$750

After Sept 27..... \$999

☐ Check Enclosed

☐ VISA ☐ MasterCard ☐ AMEX

VISA / MC / AMEX NUMBER _____ EXP _____

CARDHOLDER NAME _____

☐ Purchase Order _____

Mail completed form
with payment to:

In-Situ, Inc. (Attn: Jeff Leatherman)
221 East Lincoln Avenue
Ft. Collins, Colorado 80524

Or Register On-Line:

www.midwestgeo.com