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Education

- Stanford University, Hydrogeology, M.S., 1992.
- Stanford University, Civil Engineering, B.S. With Honors, 1985.

Professional Experience

- **1992 - present:** Research Hydrologist, U.S. Geological Survey, National Research Program, Menlo Park, CA. Research focuses on (1) characterizing and modeling ground-water flow and transport in fractured rock and (2) methods for model calibration and uncertainty evaluation.
- **1985 - 1988:** U.S. Environmental Protection Agency, San Francisco, CA

Technical Training Provided

- **1993 - present:** Instruct short courses on Ground-Water Model Calibration and Uncertainty. The courses have been sponsored by USGS; University of Minnesota; Delft Technology University, Delft, the Netherlands; Charles University, Prague, the Czech Republic; University of the Western Cape, Cape Town, South Africa

Editorial Positions

- **1999-present:** Associate Editor, Ground Water

Membership in Professional Societies

- American Geophysical Union
- National Ground Water Association
- Geological Society of America

Awards

- **2006:** Department of Interior Superior Service Award
- **1995-2005:** 5 USGS Special Achievement awards.
- National Science Foundation Graduate Fellowship, 1989-1992

Selected Publications

Tiedeman, C. and Gorelick, S.M., 1993, Analysis of uncertainty in optimal ground water contaminant capture design, *Water Resources Research*, v. 29, no. 7, p. 2139-2153.

Tiedeman, C.R., Hsieh, P.A., and Christian, S.B., 1995, Characterization of a high-transmissivity zone by well test analysis: Steady-state case, *Water Resources Research*, v. 31, no. 1, p. 27-37.

Tiedeman, C.R., Goode, D.J., and Hsieh, P.A., 1997, Numerical simulation of ground-water flow through glacial deposits and crystalline bedrock in the Mirror Lake area, Grafton County, New Hampshire, U.S.G.S. Professional Paper 1572, 50 p.

Tiedeman, C.R., Kernodle, J.M., and McAda, D.P., 1998, Application of nonlinear-regression methods to a ground-water flow model of the Albuquerque Basin, New Mexico: U.S.G.S. Water-Resources Investigations Report 98-4172, 90 p.

Tiedeman, C.R. Goode, D.J, and Hsieh, P.A., 1998, Characterizing a ground-water basin in a New England mountain-and-valley terrain: *Ground Water*, v. 36, no. 4, p. 611-620.

- Tiedeman, C.R. and Hsieh, P.A., 2001, Assessing an open-well aquifer test in fractured crystalline rock: *Ground Water*, v. 39, no. 1, p. 68-78.
- Hill, M.C. and Tiedeman, C.R., 2003, Weighting observations in the context of calibrating ground-water models, in Kovar, K. and Hrkal, Z., eds., *Calibration and Reliability in Groundwater Modeling: A Few Steps Closer to Reality (ModelCARE 2002)*, IAHS Publication 277, p. 196-203.
- Tiedeman, C. R., Hill, M. C., D'Agnese, F.A., Faunt, C.C., 2003, Methods for using groundwater model predictions to guide hydrogeologic data collection, with application to the Death Valley regional groundwater flow system, *Water Resour. Res.* 39 (1), p. 5-1 to 5-17, doi:10.1029/2001WR001255
- Tiedeman, C.R., and M.C. Hill, 2004, Using sensitivity analysis in model calibration efforts, *Proceedings of the International Workshop in Uncertainty, Sensitivity, and Parameter Estimation for Multimedia Environmental Modeling*, August 19-21 2003, U.S. NRC Publication NUREG/CP-0187, p. 53-56.
- Tiedeman, C. R. and P. A. Hsieh, 2004, Evaluation of longitudinal dispersivity estimates from simulated forced- and natural-gradient tracer tests in heterogeneous aquifers, *Water Resour. Res.*, 40, W01512, doi:10.1029/2003WR002401.
- Tiedeman, C. R., D. M. Ely, M. C. Hill, and G. M. O'Brien, 2004, A method for evaluating the importance of system state observations to model predictions, with application to the Death Valley regional groundwater flow system, *Water Resour. Res.*, 40, W12411, doi:10.1029/2004WR003313
- Tiedeman, C.R., and M.C. Hill, 2006, Model calibration and issues related to validation, sensitivity analysis, post-audit, uncertainty evaluation and assessment of prediction data needs, Chapter 9 of *Groundwater: Resource Evaluation, Augmentation, Contamination, Restoration, Modeling and Management*, edited by M.Thangarajan, Capital Publishing, New Delhi, p. 235-282.
- Hill, M.C. and Tiedeman, C.R., 2007, *Effective groundwater model calibration, with analysis of data, sensitivities, predictions, and uncertainty*: Wiley and Sons, New York, New York, 455 p.
- Goode, D.J., Tiedeman, C.R., Lacombe, P.J., Imbrigiotta, T.E., Shapiro, A.M., and Chapelle, F.H., 2007, *Contamination in Fractured-Rock Aquifers - Research at the former Naval Air Warfare Center*, West Trenton, New Jersey, USGS Fact Sheet 2007-3074.
- Tiedeman, C.R., D.J. Goode, P.J. Lacombe, P.M. Bradley, W.C. Burton, F.H. Chapelle, G.P. Curtis, M.F. De Flaun, K.J. Ellefsen, P.A. Hsieh, T.E. Imbrigiotta, C.D. Johnson, K.M. Revesz, A.M. Shapiro, J.H. Williams, 2007, *Workshop on Fate, Transport, and Remediation of Chlorinated Solvents in Fractured Sedimentary Rocks at the former Naval Air Warfare Center: NGWA/EPA Fractured Rock Conference: State of the Science and Measuring Success in Remediation*, September 2007
- Tonkin, M.J., Tiedeman, C.R., Ely, D.M., and Hill, M.C., 2007, OPR-PPR, A computer program for assessing data importance to model predictions using linear statistics, *USGS Techniques and Methods Report TM-6E2*, 115 p.
- Chapelle, F.H., Bradley, P.M., Goode, D.J., Tiedeman, C.R., Lacombe, P.J., Kaiser, K., and Benner, R., 2009, Biochemical Indicators for the Bioavailability of Organic Carbon in Ground Water: *Ground Water*, v. 47, no. 1, p. 108-121.
- Murdoch, L.C., Hisz, D., Ebenhack, J., Fowler, D., Tiedeman, C.R., Germanovich, L., Preliminary Analysis of Hydromechanical Well Tests in Fractured Sedimentary Rock at the NAWC Site, New Jersey, *Proceedings of the 43rd US Rock Mechanics Symposium and 4th U.S.-Canada Rock Mechanics Symposium*, Asheville, NC June 28th – July 1, 2009.
- Tiedeman, C.R., Lacombe, P.J., Goode, D.J., 2009, Multiple well-shutdown tests and site-scale flow simulation in fractured rocks, on-line early, *Ground Water*.