
William F. Daniels

Curriculum Vitae

Areas of Expertise

Geologic and Hydrogeologic Investigations
Environmental Data Visualization
Numerical Analysis and Graphical Presentation of Environmental Data
Aquifer-Test Data Reduction and Analysis
Ground Water Flow Modeling
Mass Flux Calculations
Stream Volatilization Modeling
Soil/Water Partitioning Analysis
Monitoring Well Design and Installation
Multi-Media Sampling
Soil Gas Data Collection and Reduction
Vapor Intrusion Studies
General Risk Appraisals for Site Closure Permits
Litigation Support
Database Management
Project Management

Professional Experience

Services Environmental, Inc., Phoenixville, Pennsylvania, 2003 to Present.

- Senior Hydrogeologist

Environmental Resources Management, Inc., Exton, Pennsylvania, 1993 to 2003.

- Hydrogeologist

Department of Geology, University of Delaware, Newark, Delaware, 1991 to 1993.

- Research Assistant

Applied GeoSystems, Inc., Culver City, California, 1991.

- Hydrogeologist

Artesian Water Company, Inc., Christiana, Delaware, 1989 to 1991.

- Engineering Assistant

Department of Geology, University of Delaware, Newark, Delaware, 1987 to 1989.

- Research Assistant

E. I. DuPont DeNemours & Co. Inc., Wilmington, Delaware, 1986 to 1987.

- Hydrogeologist

Education

University of Pennsylvania, M. Arch. in Architecture, 2003

University of Delaware, M.S. in Geology, 1993

University of Delaware, B.S. in Geology, 1984

Professional Affiliation

Registered Professional Geologist - Pennsylvania

Registered Professional Geologist - Delaware

Registered Professional Geologist – North Carolina

Relevant Experience

- Completed a vapor intrusion study including onsite industrial sampling and offsite residential sampling for a Superfund Site in Pennsylvania.
- Developed a methodology to sample porewater in a marsh area for a site in Delaware.
- Used a nearby basin and stream discharge to evaluate precipitation recharge rates for a highly disturbed basin in the southwestern US.
- Performed multivariant modeling to assess the simultaneous influence of more than four different variables on concentration trends.
- Developed very high resolution cross-sections with the use of Cone Penetrometer testing (CPT) for an evaluation of DNAPL flow.
- Performed a method to perform very discrete mass-flux calculations for the evaluation of barrier wall performance for a RCRA Site in Delaware.
- Developed a methodology to use ion concentrations in groundwater to demonstrate the performance of a groundwater extraction system for a superfund site in Niagara Falls, NY.
- Used historic aerial photo overlays to develop likely source areas in West Virginia.
- Provided annual review of ground water recovery system performance for a Superfund site in South Carolina and provided documentation of compliance to the USEPA. This review has been completed annually for the past 15 years.
- Used Environmental Visualization System (EVS) to model the relationship between volatile organic compound (VOC) concentrations in soil and ground water and LNAPL thickness in soil for a site closure in New Jersey.
- Used EVS to evaluate distribution of VOC concentrations in soil for a Superfund site in Georgia. State cleanup standards were used to evaluate soil volumes requiring remediation.
- Modeled ground water flow at two sites in Gary, Indiana, to demonstrate ground water recovery system performance. The analytical element TWODAN was used to

model the regional aquifer and to simulate ground water flow in the direct vicinity of the site.

- Modeled ground water flow in the vicinity of a landfill in Maryland to evaluate off-site migration of site-related compounds.
- Managed the collection of environmental data for a site in Mexico City, Mexico.
- Managed an aquifer test in São Paulo, Brazil.
- Designed and developed a model to evaluate the volatilization of VOCs from a shallow flowing stream for a Superfund site in Maryland.
- Managed the support (5 years) for AOC documentation of the performance of a ground water recovery system in New Jersey.
- Managed the annual evaluation (18 years) of a ground water extraction system for a Superfund site in Pennsylvania.
- Evaluated the potential impact of a DNAPL spill on an adjacent property for a site in New York.
- Evaluated Delaware River tidal influences on ground water gradients for a facility in New Jersey.
- Conducted a mass flux calculation for a site in South Carolina to evaluate VOC concentrations in a local creek.
- Performed a Phase II site investigation of an abandoned industrial facility in Marseille, France.
- Performed an aquifer test in Soest, Netherlands to develop hydraulic parameters for remedial design.
- Conducted an aquifer test at a site in New Jersey to provide data to optimize a ground water recovery system.
- Provided technical support for several PRPs in settlement negotiations with the USEPA, state agencies, and the Department of Justice for a Superfund site in Massachusetts. Prepared an O&M Plan for the maintenance of a landfill cap.
- Provided design support and troubleshooting for a 41-well computer controlled ground water recovery system in New Jersey. Prepared an O&M plan for the operation of the system.
- Developed a methodology to evaluate ground water pH and the associated mass of various acids for a landfill site in New Jersey.
- Evaluated packer test data for a military base in Maryland to determine hydraulic parameters for discrete fracture zones within a bedrock aquifer.
- Conducted a soil gas survey at a vegetable processing facility in central California to evaluate the contribution of a former tenant's site activities to chlorinated solvent concentrations in ground water.

- Developed software used to evaluate the flocculation of colloidal particles in the Hudson River Estuary through computer particle counting of digitized photographs of water samples. This research was used to evaluate the transport of heavy metals in the estuary.
- Provided litigation support for the post-ROD review of an incineration remedy at a Superfund site in Pennsylvania.
- Performed an analysis of ground water flow and potential mass flux of VOCs from the subsurface to the Schuylkill River for a Superfund site in Pennsylvania.
- Completed ground water flow and containment modeling of injected waste water using a VAX system and CRAY supercomputer. Worked with the development of the computer models used as well as the application of these models to several sites in the Mississippi, Louisiana, and Texas Gulf coast.
- Conducted a numerical analysis to demonstrate containment of a VOC plume for a chemical packaging facility in New Jersey.
- Performed an analysis of well and well field performance for several well fields operated by a water supply company to optimize utilization.
- Designed and constructed innovative coring equipment to allow the development of very high resolution subsurface stratigraphy.