

**PROFESSIONAL EXPERIENCE**

*Meiser & Earl, Inc., State College, PA* June 2012 - Present  
President and Principal Hydrogeologist

*AECOM, State College, PA* July 2011 - May 2012  
Program Manager; Senior Hydrogeologist

*Meiser & Earl, Inc., State College, PA* June 1994 - June 2011  
Vice President and Senior Hydrogeologist

*Nittany Geoscience, Inc., State College, PA* May 1992 - June 1994  
Project Manager

Promotional History

Project Manager 5/92 - 6/94

General Responsibilities

- Supervision of staff in the completion of project related tasks.
- Technical direction and project management of two to four active projects at any one time.
- Sales and marketing for company as a whole.
- Peer review of technical documents.

*R.E. Wright Associates, Inc., Middletown, PA* April 1986 - May 1992  
Project Manager/Hydrogeologist

Promotional History

Staff Geologist 4/86 - 10/87  
Project Geologist 10/87 - 3/90  
Project Manager 3/90 - 5/92

General Responsibilities

- Supervision of two project level and one staff level geologist which includes staff performance evaluations.
- Day to day technical direction and project management of an average of seven to ten active projects at any one time which may include scheduling, report review, direction of field activities, budget and invoice review and client interface.
- Sales and marketing program for water supply; residual waste/beneficial reuse and foundry related work as well as geographically designated sales efforts.
- Peer review of any documents which relate to pumping tests and well hydraulics and their associated interpretation.

- Provide input to the regulatory agencies independently or on a client's behalf regarding pending regulations.
- Provide testimony as an expert witness in a court of law or before various municipal bodies such as a planning commission and zoning hearing board.

NOTE: Please refer to the summary descriptions of representative projects on Pages 4 through 7.

*McCallum Testing Labs, Chesapeake, VA*  
Assistant Laboratory Manager

August 1984 - April 1986

Promotional History

Laboratory Technician                      8/84 - 8/85  
Assistant Laboratory Manager              8/85 - 4/86

Responsibilities

- Completion of all phases of soil testing.
- Compilation of data.
- Preparation of final reports.

*Kinloch Engineering, Virginia Beach, VA*  
Civil Engineering Technician Part Time

March 1986 - April 1986

Responsibilities

- Supervise pile driving.
- Conduct static pile load tests.

**PROFESSIONAL AFFILIATIONS**

Marcellus Shale Coalition  
Vice Chair - Water Sourcing Subcommittee

August - December 2011

**PROFESSIONAL REGISTRATION**

Licensed Professional Geologist in the State of Pennsylvania

**EDUCATIONAL BACKGROUND AND SPECIAL TRAINING**

The Pennsylvania State University, University Park, PA  
Bachelor of Science Degree - Earth and Mineral Sciences - 1983

Groundwater Hydrology Principals, Exploration and Measurement - given by Wright State University - March 1988 through March 1989

Practical Karst Hydrogeology, with emphasis on Groundwater Monitoring - course given by National Water Well Association - November 1989

Oil Spill Seminar - given by R.E. Wright Associates, Inc. - March 1990

Turning Technical People into Strong Project Managers - seminar by Professional Services Management Journal - March 1990

Hydrogeology, Ecology, Monitoring and Management of Groundwater in Karst Terrains - given by National Ground Water Association - December 1991

New Pennsylvania Residual Waste Regulations - conference given by Pennsylvania Chamber of Business and Industry - March 1992

Analysis and Design of Aquifer Tests - course given by National Ground Water Association - September 1992

OSHA - Health and Safety Training

- Phoenix Safety Associates, LTD. “Hazardous Waste Field Training” (40 hours). January 29, 1987.
- Waste Site Worker Supervisory Training in Accordance with 29CFR 1910.120(e)(4). March 13, 1992 and April 27, 2001.
- Hazardous Waste Site Worker Refresher Training (8 hours annually) in accordance with 29CFR 1910.120(e)(8), State College, PA.
- Mine Safety Training in Accordance with MSHA 30CFR Part 46, Training/Retraining of Miners. May 31, 2002.

## **MARCELLUS SHALE EXPERIENCE**

Extensive experience working with the regulations and staff of the Susquehanna River Basin Commission (SRBC), the Delaware River Basin Commission (DRBC), and the Pennsylvania Department of Environmental Protection (PADEP). This experience includes performing water-resource evaluations to support applications for surface-water withdrawals, ground-water withdrawals, and water-management plans for Marcellus Shale well drilling and development (hydraulic fracturing) efforts. Assisted large natural gas operators in assessing and securing regulatory approvals for both surface-water and ground-water withdrawals to support “fracking” operations in the Marcellus Shale in western, north-central, and northeastern Pennsylvania counties. These services include providing assistance with:

- Assessing the hydrologic conditions and regulations within the watershed of interest,
- Estimating the ground-water availability and “safe yield” of the system,
- Performing fracture-trace analyses in support of siting optimum locations for high-yield ground-water supply wells,
- Planning and performing constant-rate aquifer tests to support ground-water withdrawal applications,
- Assessing potential water-resource impacts,
- Preparing surface-water and ground-water withdrawal application documents, public notices, metering plans, and

- Interfacing with the regulatory agencies (SRBC, DRBC, PADEP) and staff.
- Assisting with stray gas migration investigations.
- Coordination of baseline water quality evaluations throughout PA, OH, and WV.

## **GROUND-WATER DEVELOPMENT AND REHABILITATION PROJECTS**

High Capacity Well Development: Project Geologist/Project Manager for numerous projects which dealt with the development of high capacity wells in both bedrock and unconsolidated deposits for Municipalities, Developments and Industry. The work scope for these projects generally involved completion of fracture-trace analysis and field staking, development of drilling and testing specifications, supervision of drilling operation and pumping test, coordination with subcontractors, data reduction, evaluation of test results and completion of report and/or permit application.

### Selected Clients

East Cocalico Twp., Lancaster Co., PA  
Maidencreek Twp., Berks Co., PA  
Washington Twp., Adams Co., PA  
Maxatawney Twp., Berks Co., PA  
Millersburg Authority, Millersburg, PA  
Princeton University, Princeton, NJ  
Mahwah, NJ  
Franklin Commons Development, Franklin, NJ  
Stillwater Tract Development, Franklin, NJ  
Kardon Tract Development, Robeson Twp., Berks Co., PA  
CanDo, Inc., Hazelton, PA - Humbolt Industrial Park and CanDo, Inc.  
Corporate Center  
Blue Mountain Lakes Development, East Stroudsburg, PA  
Tamiment Resort, Pike Co., PA  
State College Water Authority, Centre Co., PA  
Douglassville Water Company, Berks Co., PA  
Haines/Woodward Water Authority, Centre Co., PA  
Brodhead Creek Regional Authority, Monroe County, PA  
Smithfield Township, Huntingdon Co., PA  
Lycoming County Water and Sewer Authority, PA  
Pennsylvania American Water Co., Philipsburg, PA  
Mt. Rock Manor, Franklin Co., PA  
Muncy State Correctional Institution, Lycoming Co., PA

Well Rehabilitation: Project Manager for two projects which involved wells whose yields had diminished over time. Evaluated the laboratory analysis of the well water for chemical and biological parameters. Based on the results of the investigation, recommendations were made for mitigating the problem. Muncy Borough, PA; Twin Maples Mobile Home Park, Kutztown, PA, Haines-Woodward Water Authority, Woodward, PA.

Wellhead Protection: Project Manager for several projects involving the identification of wellhead protection areas.

State College Water Authority, Centre County, PA  
The Pennsylvania State University, Centre County, PA  
Gettysburg Water Authority, Adams County, PA  
Bainbridge Water Authority, Lancaster County, PA  
Maidencreek Township Water Authority, Berks County, PA

## **HAZARDOUS WASTE PROJECTS**

Site Investigations: Project Geologist for the entire RCRA site investigation of the IBM Plant in Greencastle, Indiana. Coordinated all technical field activities including well installation (approximately 200 wells), sampling and testing. Developed field protocols and acted as site Health and Safety Officer. Assisted in the design of and managed the geotechnical investigation for the ground-water cutoff trench installation and led the pilot study for the dewatering/soil gas extraction program.

Production/Extraction Wells: Project Manager for a project which included the design and supervision of two pumping tests on production/extraction wells in source areas of a RCRA facility. Report preparation included preparation of portions of a Delaware River Basin Commission permit modification.

## **INDUSTRIAL WASTE PROJECTS**

Site Screening: Project Manager of an intensive search for a residual waste landfill site that would fulfill the requirement imposed by Pennsylvania's proposed residual waste regulations. Lancaster Malleable Castings Company, Lancaster, PA.

Residual Waste Landfill Permitting: Project Geologist for the permitting phase of a residual waste landfill. Modules completed required site characterization including ground-water, geology, and soils, as well as waste characteristics and design. The Pfaltzgraff Company, Thomasville, PA.

Beneficial Use: Project Manager for two projects which involved investigating potential beneficial uses for foundry waste: Lancaster Malleable Castings, Lancaster, PA and Chambersburg Engineering, Chambersburg, PA. Project Manager for a project which involved permitted and unpermitted residual waste disposal facilities including an abandoned deep limestone mine. The project included development of a conceptual model for ground-water influx into the abandoned deep limestone mine.

**REGIONAL HYDROGEOLOGIC STUDIES**

Water Resource Management: Project Manager for detailed ground-water development and management plan within the Upper Spring Creek Basin, Centre County, PA. This report was requested by the Susquehanna River Basin Commission to provide them with an understanding of the state of the water resources in and around the State College area. The Pennsylvania State University, University Park, PA.

Environmental Zoning: Project Manager for a detailed fracture-trace analysis of the portion of Upper Saucon Township underlain by karst-Environmentally Sensitive Zone. The fracture trace analysis was completed to provide the township zoning officers with baseline features to avoid within the Environmentally Sensitive Zone. Upper Saucon Township, Lehigh County, PA.

**HYDROGEOLOGIC/ENVIRONMENTAL ASSESSMENT PROJECTS**

Waste Water Disposal Systems: Project Geologist/Project Manager for several projects involved with completing a hydrogeologic evaluation of a site with regard to on-site sewage disposal. Pocono Palace Resort, Monroe Co., PA; Wyndecrest Development, Monroe Co., PA; Brookmont Acres Development, Monroe Co., PA; \*Hammer Creek Country Club, Lancaster Co., PA; \*Pike County Jail, Pike Co., PA.

Environmental Impact Study: Project Geologist for an environmental impact study to satisfy a township zoning ordinance. The work completed was largely related to the demonstration that no karst features existed on the property and included auger borings and backhoe pits. Stephano Subdivision, Solebury Twp., Bucks Co., PA.

Pre-acquisition Study: Project Geologist for the completion of a pre-acquisition study of a property which once contained a burning dump. The work scope consisted of a site reconnaissance and examination of historical aerial photographs in order to site four monitoring wells. The wells were drilled and sampled to allow assessment of the water quality beneath the site.

Environmental Site Assessment: Project Manager for a detailed Environmental Site Assessment of a malleable iron foundry. A detailed site reconnaissance was completed which included: storm water sampling, process water sampling, a soil vapor survey, test pits, hand augering, soil sampling and residual waste sampling. Lancaster Malleable Castings Company, Lancaster, PA.

Underground Storage Tank (UST) Release Evaluations: Project Geologist/Project Manager for several site assessments involving the release of fuel into the subsurface through a leaking UST. These evaluations involved the proper removal of the leaking tank followed by the siting, installation and sampling of monitoring wells or sampling of nearby existing wells, installation and test pumping of recovery well(s), evaluation and reporting of results to the Pennsylvania Department of Environmental Resources.

Ground-Water Availability Study: Project Manager/Project Geologist for numerous ground-water availability studies completed using ground-water recharge values to provide developers with a reliable estimate of the amount of ground-water available to supply their respective developments.

Geologic Reconnaissance: Project Geologist for the specific task within several large projects which was to complete detailed geologic mapping of a particular site using field data collected during a site reconnaissance. Medford Road Relocation, Medford, MD; Conrail Underground Fire; Shillington, PA; Mellott Quarry Expansion Impact; Beaver Creek Fish Hatchery, Beaver Creek, MD.

Sinkhole Evaluation and Remediation: Project Geologist for an evaluation of sinkhole potential beneath the proposed residual waste landfill site. The evaluation included the installation of approximately 30 borings to confirm the absence of conditions which would be conducive to the formation of sinkholes. The Pfaltzgraff Company, Thomasville, PA. Project Geologist for two sinkhole remediations in Hershey, PA and Mount Joy, PA, Maiden Creek Township, Berks Co., PA, Bressler Property, Centre Hall, PA.

\* Provided testimony at township Zoning and/or Planning Commission hearings.