

## **EDUCATION**

M.E.P.C. The Pennsylvania State University. 1983. Masters of Environmental Pollution Control

B.S. The Pennsylvania State University. 1981. Earth Science with a concentration in Geology

Master's Paper: "The Relationship of Slope and Aspect to Soil Hydrology." Soil forming and soil hydrology factors were studied and documented in terms of their relationship to slope and aspect.

Senior Thesis: "A Groundwater Contamination Study." A literature review was completed covering topics of ground-water contamination sources, effects, and remediation options.

### Continuing Education:

- National Ground Water Association. November 29-30, 1988. "Underground Storage Tank Management, A Comprehensive Short Course." Tucson, Arizona.
- National Water Well Association. September 17-19, 1990. "Introduction to Ground Water Geochemistry." Toronto, Ontario.
- National Ground Water Association. May 13-16, 1991. "The Fifth National Outdoor Action Conference." Las Vegas, Nevada.
- National Ground Water Association. July 29-31, 1991. "1991 Environmental Site Assessments, Case Studies and Strategies: The Conference." Columbus, Ohio.
- Pennsylvania Council of Professional Geologists. October 5, 1995. "Pennsylvania Acts 2, 3, and 4 of 1995 Pennsylvania's Land Recycling Program, A Professional Seminar to Understand the Legal and Environmental Impacts." Harrisburg, Pennsylvania.
- Pennsylvania Council of Professional Geologists. October 15, 1996. "Pennsylvania's Land Recycling Program: Proposed Rulemaking for Risk-Based Corrective Action (RBCA) and the Implementation of Act 2." Harrisburg, Pennsylvania.
- Pennsylvania Department of Environmental Protection. 1997, 1998, 2002. "Pennsylvania's Land Recycling Program Presents A Client Workshop." Harrisburg, Pennsylvania.

- Pennsylvania Department of Environmental Protection. January 28, 2004. Vapor Intrusion Guidance Training. Harrisburg, Pennsylvania.
- American Society for Testing and Materials (ASTM). May 3-5, 2005. Training on Phase I and Phase II Environmental Site Assessments for Commercial Real Estate. Pittsburgh, Pennsylvania.

Certification:

- CH2M Hill/Ecology And Environment, Inc. "Hazardous Waste Site Investigation Training." Zone II REM/FIT Program (40 hours). 1984. Denver, Colorado.
- Characterization of Groundwater Flow Conditions in Fractured Bedrock. July 30, 1999. Pennsylvania Council of Professional Geologists, State College, PA.
- Waste Site Worker Supervisory Training in Accordance with 29CFR 1910.120(e)(4). September 10-11, 1987 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, plus annual Miner Refresher Course.
- American Safety and Health Institute Approved Basic First Aid and Adult CPR Certification, plus annual re-certification.
- Permit-Required Confined Space Training, Including Entrant, Attendant and Supervisor Non-Entry Rescue. August 2, 2004.

**EXPERIENCE**

July 1987 to present: *Project Hydrogeologist, Meiser & Earl, Inc., State College, Pennsylvania.*  
Completed projects including:

- conducting Phase I and Phase II Environmental Site Assessments on behalf of banks, buyers, and sellers;
- evaluating the nature and extent of petroleum hydrocarbon contamination of soil, ground water, surface water and bedrock, and determining appropriate remedial actions;
- conducting underground storage tank investigations following PADEP Act 2 Land Recycling Program Corrective Action requirements including development and implementation of Site Characterization Plans and Remedial Action Plans;

- writing necessary documents (Work Plan, Health and Safety Plan, QA/QC Plan and Remedial Investigation Site Operations Plan), managing activities and conducting field sampling activities for a Remedial Investigation and Feasibility Study (RI/FS) at a Superfund site in Pennsylvania;
- evaluating another consulting firm's hydrogeologic investigation of a contaminated water supply to determine if it was comprehensive, scientifically accurate, and conclusive;
- sampling ground-water wells at landfills and industrial sites and evaluating the resultant analytical data;
- assisting clients which were undergoing a USEPA Site Inspection (SI) for purposes of NPL Hazard Ranking system (HRS) scoring, split-sampling with USEPA representatives during the SI and conducting a mock HRS scoring;
- evaluating ground-water flow directions and contaminant movement for an industrial plant and relating the findings to the surrounding hydrogeology to develop a RCRA closure ground-water monitoring program;
- conducting residential water-supply inventory surveys and quarterly sampling of homeowners in the vicinity of proposed landfills, proposed quarry expansions, and as part of salt and sulfate contamination investigations;
- evaluating a contaminant abatement plan/work plan to be conducted for an existing landfill;
- writing and implementing a Remedial Action Plan for a USEPA-directed investigation of petroleum contamination; and
- determining the nature and extent of petroleum contamination, then overseeing the implementation of a pumping and treatment system followed by monitoring.

April 1986 to July 1987: Geologist, Baker/TSA, Inc. (Baker Engineers), Coraopolis, Pennsylvania. Oversaw, documented and evaluated sampling techniques and decontamination procedures as part of a USEPA Superfund Site Inspection. Conducted background investigations, and reevaluated then rescored a proposed USEPA National Priorities List (NPL) site on behalf of the site owner. Wrote proposals, Site Operations Plans (SOPs), Health and Safety Plans (HASPs), Field Sampling Plans and Quality Assurance/Quality Control Plans (QA/QC Plans) for Superfund Sites. Acted as Field Sampling Leader at a Superfund Site in northeast Pennsylvania. Wrote a proposal to design and implement a ground-water recovery and granular activated carbon (GAC) treatment system for a fuel terminal complex. Conducted an environmental site assessment of a previously industrialized track of land for purposes of resale of the property. Conducted a background investigation and subsequent ground-water investigation of a steel mill to determine if existing waste management units were contaminating ground water.

March 1984 to April 1986: *Geologist, Ecology and Environment, Inc., Chicago, Illinois and Harrisburg, Pennsylvania*. Worked on the FIT Program. Completed Preliminary Assessments (PA), Site Inspections (SI), Site Safety Plans (SSP) and Hazard Ranking Scoring (HRS) for potential National Priority List (NPL) Superfund sites. Participated in the National Dioxin Study as Team Leader/Minnesota State Coordinator responsible for implementing sampling programs for potential dioxin sites. Managed projects and budget for Pennsylvania State Lead Superfund NPL sites. Wrote Remedial Action Master Plans/Work Plans (RAMP/WP) for State Lead sites as part of the Multi-Site Cooperative Agreement. Conducted PADER, USEPA and other file searches. Developed Remedial Investigation/Feasibility Study (RI/FS) Work Plans including the detailed Scope of Work, Costing and Scheduling. Implemented Public Relations activities for State Lead sites, including participation in public meetings. Sampled oil storage tanks and PCB oil contaminated lagoon in Level B protection and acted as Site Safety Coordinator (SSC) at a Superfund Site.

March 1982 to September 1983: *Hydrogeologist, Meiser & Earl/hydrogeologists, State College, Pennsylvania*. Performed hazardous waste delisting procedure according to Pennsylvania State Regulations for Effluent from an electroplating plant, including effluent analysis and final report formulation. Conducted computer assisted statistical analysis of water quality data from watersheds affected by several episodes of mining on multiple coal seams. Computer analysis involved linear regression curve fitting, time trend plots of key parameters and tests for statistical significance. Developed computer storage format for water quality data from an on-going investigation of coal, deep mine complex. Investigated environmental suitability and economic feasibility of using several municipal sewage sludges for reclamation of strip mines.

#### **PROFESSIONAL AFFILIATIONS**

- National Ground Water Association, Association of Ground Water Scientists and Engineers

#### **PROFESSIONAL REGISTRATION**

Commonwealth of Pennsylvania Registered Professional Geologist, No. PG-001649-G.