

Curriculum Vitae

Theodore O. Meiggs, Ph.D.

EXPERTISE:

- Planning, managing and providing state-of-the-art laboratory support for complex field and compliance investigations under all Federal Environmental Laws including,
 - Clean Water Act (CWA)
 - Clean Air Act (CAA)
 - Resource Conservation and Recovery Act (RCRA)
 - Community Emergency Response and Liability Act (CERCLA)
 - Federal Insecticide, Fungicide, and Rodenticide Act (FIRFA)
 - Toxic Substances Control Act (TSCA)
 - Inspecting and evaluating commercial and industrial environmental and waste testing laboratories and facilities
 - Evaluating environmental and waste testing regulations for consistency and enforceability
 - Inspecting and evaluating industrial wastewater treatment systems and testing capabilities
 - Designing and field demonstration of innovative technologies and procedures for cleaning up contaminated soils and groundwater
 - Planning and conducting investigations to determine the fate and transport of chemical contaminants in the environment
 - Working in multi-disciplinary teams to plan and conduct environmental compliance investigations
 - Providing expert consultation and expert witness reports and testimony for legal proceedings
 - Locating expert witnesses in a wide variety of technical fields for attorneys and industrial clients
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EDUCATION:

Illinois Institute of Technology, Ph.D. – Chemistry
San Jose State College, B.S. – Chemistry

PROFESSIONAL ASSOCIATIONS:

American Chemical Society, Environmental Chemistry Division,
Association of Official Analytical Chemists (AOAC), General Referee for Water 1976 – 1980,
Member of the U.S. Technical Advisory Group to Technical Committee 147 on Water Quality,
1975 to 1980,
Chairman of ISO Work Group on Chlorinated Hydrocarbons and Pesticides, 1976 to 1980,
Member of ASTM Committees D-19 on water, D-34 on Hazardous Wastes, and E-50 on
Environmental Assessments,
Colorado Hazardous Waste Management Society,
Past President of the Chemical Consultants of Colorado

WORK EXPERIENCE:

Burnside Environmental Group, LLC Littleton, Colorado

Associate of Burnside Environmental Group which works on behalf of clients throughout the United States to provide specialized litigation support services and develop legal strategies to avoid or defend against, civil or criminal environmental enforcement actions.

Meiggs Environmental Consultants Inc. Golden, Colorado

President & Senior Consultant Dr. Meiggs provides technical consultation, research, investigations and expert witness services to attorneys and industrial clients on a wide range of environmental matters including environmental compliance and regulations, toxic and hazardous materials and wastes, fate and transport of environmental contaminants, testing and sampling of environmental materials, clean up and remediation of environmental contaminants, environmental and hazardous waste regulations, EPA enforcement practices, environmental and analytical chemistry, hazardous waste characterization, and QA/QC policies and procedures. He serves as a Senior Scientific Investigator and gathers a wide range of information to support legal actions. He conducts laboratory evaluations and data audits to assure that testing meets program needs as well as quality assurance and integrity criteria.

Dr. Meiggs has served as an expert technical consultant and expert witness for a number of environmental cases. He has given courtroom testimony and been deposed numerous times. He has provided expert opinions on a wide range of environmental topics for both plaintiff and defense counsels.

Foremost Solutions Inc. Lakewood, Colorado

Vice President for R & D Dr. Meiggs managed the development, demonstration, sales and marketing of innovative in situ treatment technologies for the removal of organic and inorganic chemical contaminants from soil and groundwater at contaminated Superfund sites, hazardous waste sites, leaking underground storage tank sites, mining waste sites, etc.

Dr. Meiggs and his colleagues developed and demonstrated a number of innovative technologies for the in-situ and ex-situ treatment of organic and inorganic contaminants in soil and groundwater. These technologies include the design and construction of permeable reactive barriers for the chemical or biochemical treatment of chlorinated solvents and petroleum hydrocarbons in low-permeability soils and groundwater, denitrification of waters and wastes, and metals removal from industrial metal plating operations and mine drainage waste waters. He was inventor or co-inventor of processes including the BioWall and the use of hydraulic fracturing and jetting techniques for installing permeable reactive treatment systems in the subsurface. He and his team were awarded

two patents for innovative in situ treatment technologies.

Dr. Meiggs served as Project Manager for field demonstrations of innovative remediation technologies at military and industrial sites. He worked directly with clients to design projects, put together teams of professionals from different private companies to conduct field work, developed quality programs, provided direct oversight of the field teams and gave status briefings to clients and regulatory personnel, conducted field sampling and reviewed analytical results, prepared project reports, and interpreted project results for clients and State and Federal regulatory personnel. Dr. Meiggs designed and managed the installation of remediation technologies at an industrial chromium plating site. He managed the operation of the remediation systems and received closure of the site from the state environmental regulators in less than two years.

**Hager Laboratories Inc.
Arvada, Colorado**

Vice President Dr. Meiggs managed all technical aspects this commercial testing laboratory that provided environmental, industrial hygiene, radiochemistry and asbestos testing services to a variety of government and industrial clients nationwide.

**U. S. EPA National Enforcement Investigation Center (NEIC)
Denver, Colorado**

Assistant Director of the NEIC & Director of the Laboratory Services Division As an Assistant Director of the U.S. Environmental Protection Agency's National Enforcement Investigations Center, Dr. Meiggs managed for many years, the gathering of evidence for literally hundreds of investigations of industrial compliance with all the federal pollution control laws. As Director of the only national laboratory responsible for enforcing the environmental regulations, Dr. Meiggs developed facilities and an expert staff that utilized the full range of modern analytical techniques to test complex environmental and waste materials for chemical and microbial pollutants. He was instrumental in helping to develop the Chain of Custody and other operating procedures used by the NEIC for evidence handling and reporting for both civil and criminal case investigations. In addition, Dr. Meiggs was routinely tasked with evaluating the integrity, reliability and legal defensibility of environmental testing data and the capability of laboratories to produce such data. Dr. Meiggs has an international reputation for producing high quality environmental testing data that is both technically reliable and legally defensible. His evidence and testimony have always been accepted as authoritative in court.

As one of the top scientists in the EPA's Enforcement Program, Dr. Meiggs advised the Agency during the development of a number of the environmental regulations. He is considered an expert in the testing requirements of the federal environmental regulations and the Agency's practices in enforcing these regulations. He was the first Operations Manager for EPA's Contract Laboratory Program (CLP) and was instrumental in developing a number of hazardous waste testing procedures and CLP protocols. Dr. Meiggs developed and presented training courses for EPA and State regulators and investigators.

He also established and directed an inspection program of commercial laboratories and manufacturing facilities throughout the U.S. to determine compliance with the GLP and toxic chemical reporting requirements of the FIFRA and TSCA regulations.

**U.S. Federal Water Quality Administration
Missouri River Basin Region
Kansas City, MO**

Regional Laboratory Director Planned and managed the laboratory support for water quality investigations and wastewater testing from industrial and municipal sources through the Missouri River Basin Region. Supervised the water and wastewater testing in the Central Laboratory and in mobile laboratories during field studies. Collected and tested water and sediment samples. Prepared reports of findings for various Regional Programs.

**U.S. Federal Water Pollution Control Administration
Great Lakes and Illinois River Basin Project
Chicago, Illinois**

Organic Laboratory Supervisor Developed a laboratory capability for testing water, wastewaters, and aquatic biological materials for various organic chemical contaminants including chlorinated pesticides and industrial chemicals. Supported multiple investigations throughout the Great Lakes watersheds.

**U.S. Public Health Service
Great Lakes and Illinois River Basin Project
Chicago, Illinois**

Assistant Health Service Officer Served as a Chemist and Officer in Charge while participating in the first water quality survey of the Great Lakes. Participated in deep water sampling cruises on Lake Michigan. Tested water and sediment samples for a variety of water quality parameters on board ship and in the central laboratory. Prepared reports of findings.

JOB-RELATED AWARDS:

United States Environmental Protection Agency - Bronze Medal