Advanced Environmental Solutions L.L.C.

Professional Profile

Donald J. Varner, P.G.

13 Amherst Way, Princeton Junction, New Jersey 08550 ♦ Phone 609-799-0014

Mr. Varner has 28 years of professional experience as a hydrogeologist engaged in site investigations, site cleanups, and ground water evaluations. His expertise includes contamination delineation and remediation, characterizing ground-water hydrology to support groundwater supply development, and negotiating compliance requirements with environmental regulatory agencies. Most of remedial investigations and cleanups were conducted at active or inactive industrial facilities, many of which have become Brownfield properties.

Mr. Varner founded Advanced Environmental Solutions (AES) in 1997. At AES, Mr. Varner actively conducts hydrogeological technical work, negotiates regulatory approvals, and works closely with other technical specialists and engineers to efficiently meet client needs. Prior to founding AES, Mr. Varner was employed by BCM Engineers from 1981 to 1997 with technical and personnel management responsibilities. He also worked as a geologist in 1981 for the New Jersey Department of Environmental Protection, Trenton, New Jersey.

Mr. Varner conducts preliminary assessments, site investigations, and remedial investigations in varied and complex site settings. Mr. Varner has played a substantial technical role in hydrogeological investigation of over 100 sites, including industrial and municipal landfills. Through the use of background information reviews, field screening technologies, and targeting of site-specific investigation strategies, he successfully completes conclusive site investigations. Mr. Varner has investigated sites with complex hydrogeological features including tidal and pumping effects.

Mr. Varner applies experience gained on approximately 100 site remediation projects to identify and implement the most appropriate, cost-effective remedial alternative. He identifies the most appropriate and cost-effective remedial approach. He has evaluated and/or applied remedial technologies, including excavation and off site disposal of contaminated materials, in-situ stabilization, in-situ oxidation, soil vacuum extraction, pump and treat, bioremediation, and natural attenuation.

Mr. Varner effectively negotiates compliance requirements with state regulatory agencies and the U.S. EPA. He has completed hydrogeological investigations in numerous locales across the continental United States and in Puerto Rico. He is knowledgeable in identifying favorable regulatory compliance strategies. Based in New Jersey, he is especially familiar with New Jersey's environmental regulatory and technical requirements.

Representative Career Clients

- Aluminum Shapes
  New Jersey
- American Electronics
  Pennsylvania
- Aqualon Inc.
  New Jersey
- BASF
  North Carolina
- Bristol-Myers Products
  New Jersey
- CBS Corp.
  New Jersey
- DuPont
  Connecticut
- General Electric
  New Jersey, Pennsylvania, & Puerto Rico
- Johnson & Johnson
  New Jersey
- NCR
  Delaware
- Pfizer Inc
  New Jersey
- Rohm & Haas
  Pennsylvania
- Site Remediation Management
  New Jersey & New York
- URS Corp
  New Jersey
- United Technologies
  New Jersey
- U.S. Army & Navy
  New Jersey & Virginia
- Whittaker Corporation
  California, Ohio, & Washington

Employment Summary

- 1997 - Present - Advanced Environmental Solutions L.L.C.
- 1981 to 1997 - BCM Engineers Inc.
- 1981 - New Jersey Department of Environmental Protection

Certifications

- USGBC LEED AP
- IGSHPA Closed Loop Installer
- NJDEP Subsurface Evaluator 0012884
- Pennsylvania Professional Geologist 861G
- Manager of AES' Laboratory, NJDEP Cert. #11019

Education

- M. S. Engineering Geology, Drexel University
- B.S. Environmental Resource Mgmt. Pennsylvania State University
- OSHA 40-hour, supervisors, & 8-hour health & safety training

13 Amherst Way, Princeton Junction, New Jersey 08550 ♦ Phone 609-799-0014

Case Studies

Brownfields Site, Newark, New Jersey

Mr. Varner led Advanced Environmental Solutions' (AES) remedial investigation and cleanup of chlorinated solvents at 4.5-acre Brownfields site in Newark, New Jersey. The site was used for various manufacturing activities from the 1880s until the mid-1980s and is now inactive. Deteriorated and vacant nineteenth century four story manufacturing buildings occupied 80% of the property. AES' work focused on the accessible 20% of the property.

Starting in late 2003, AES used a Gore sorber vapor survey to screen for volatile organics. AES then proceeded with a soil sampling and monitoring well installation program. AES detected and delineated buried fill areas, metals, PAHs, and chlorinated volatile organic compounds (VOCs) in the soil.

From 2003 to 2005, AES delineated chlorinated VOCs (primarily TCE) onsite in the groundwater in glacial sediments and the underlying sandstone. AES also initiated offsite down-gradient groundwater delineation.

During 2005, AES completed interim remedial actions. AES cleaned TCE-saturated storm catch basin sediments, identified as the major source of groundwater contamination.

Vacant industrial building at Newark project site.

AES then conducted a two-phased vacuum extraction program (TPVE) to remove TCE from soil and shallow groundwater. For six months, AES operated a leased trailer-mounted vacuum extraction unit with activated carbon vapor treatment. After achieving maximum benefit, AES demobilized the vacuum extraction system. By comparing pre-TPVE and post-TPVE soil TCE concentrations, the vacuum extraction removed an estimated 90% of the TCE in soil. The 2005 catch basin cleanout and two phase vacuum extraction lowered the groundwater TCE approximately 86% in the source area monitoring well.

TPVE system in operation during summer 2005.

To extend groundwater cleanup in the down-gradient direction and beneath the building footprints, in 2006 and 2007 AES utilized injection of iron and base catalyzed sodium persulfate to promote in site chemical oxidation (ISCO) of the residual groundwater VOCs. The ISCO initially provided little improvement in groundwater quality. After adjustment to the ISCO formulation and injection program, additional reduction in groundwater TCE concentrations was observed in the targeted injection areas.

During and following the remedial actions, AES conducted low-flow groundwater monitoring to track groundwater quality trends. Following the final ISCO injections in early 2007, the groundwater TCE in the source area monitoring well was further reduced, declining 98% from pre-remedial action concentrations.

13 Amherst Way, Princeton Junction, New Jersey 08550 ♦ Phone 609-799-0014

Consumer Products Manufacturing Plant, Morris County, New Jersey

Mr. Varner is leading AES' remedial investigation and cleanup of a 35-acre active manufacturing plant in Morris County, New Jersey. The site was constructed on former farmland in 1959 and operated continuously to the present. The remedial investigation was initiated in 2003 to facilitate a change in the site CERCLIS listing. Since November 2005, the remedial investigation has also been in compliance of New Jersey's Industrial Site Recovery Act.

AES started with preparation of a Preliminary Assessment Report. Former chemical storage areas, older electrical transformers, and several inactive historical onsite septic systems were identified as areas of potential concern. The site investigation was conducted in 2005 and consisted of a surface geophysical survey, followed by test excavations at anomalies, soil borings and monitoring wells.

The remedial investigation was completed during 2006 and 2007, and focused on delineating soil impacts from buried historical septic system components, localized PCB soil contamination, and extensive contamination of surface soil by a historic pesticide. The remedial investigation also included groundwater quality monitoring and investigation of the hydraulic influence of active onsite high capacity production wells drawing from the underlying buried valley glacial aquifer. The remedial investigation included a baseline ecological evaluation and ecological remedial investigation. Storm water runoff sampling was performed to support the ecological remedial investigation.

Following cleanup of PCB-contaminated soils, a trench box is lowered to facilitate removal of buried relic industrial wastewater septic tanks.

During 2007, AES prepared a Self-Implementing PCB Cleanup Plan for USEPA review and approval in accordance with the Toxic Substances Control Act. AES also prepared township soil moving and tree removal permit applications.

From 2006 to 2008, AES conducted low-flow groundwater monitoring to investigate and track concentrations of arsenic, pesticides, and volatile organic compounds.

During 2008, AES participated in a series of remedial actions, including removal of the PCB contaminated soils and deactivated transformers, excavation of relic industrial septic tanks and leach field. AES conducted post-excavation soil sampling and contributed to preparation of an extensive document that contained a Remedial Investigation Report, Remedial Action Report, Remedial Investigation Work Plan, and Remedial Action Work Plan.

Digital Media Manufacturing Plant, Gloucester County, New Jersey

Mr. Varner is leading AES' post-remediation monitoring at a 76-acre active manufacturing plant in Gloucester County, New Jersey. Mr. Varner participated in the site investigation and remediation conducted in the 1990s, primarily delineation and removal of surface soil and sediment contaminated by nickel plating wastewater. Since 2000 Mr. Varner has been conducting annual surface water and groundwater monitoring and reporting. He also prepares biennial certifications of Classification Exception Areas established at two areas on the site.

During 2005 and 2006, Mr. Varner provided technical support to negotiating and settling a Natural Resources Injury Assessment made by New Jersey. AES prepared the requisite Baseline Data Report and Preliminary Assessment Report. AES also worked with the property owner to select a 12 acre onsite parcel for establishment of a conservation easement area to help satisfy the injury claim. AES guided NJDEP personnel to the proposed easement area to facilitate its approval. AES contracted a land surveyor to

13 Amherst Way, Princeton Junction, New Jersey 08550 ♦ Phone 609-799-0014

survey the easement and prepare a map and legal description. Most recently in 2006, AES negotiated NJDEP approval to reduce the annual monitoring requirement to a lesser frequency and is awaiting NJDEP approval of a once per four year frequency.

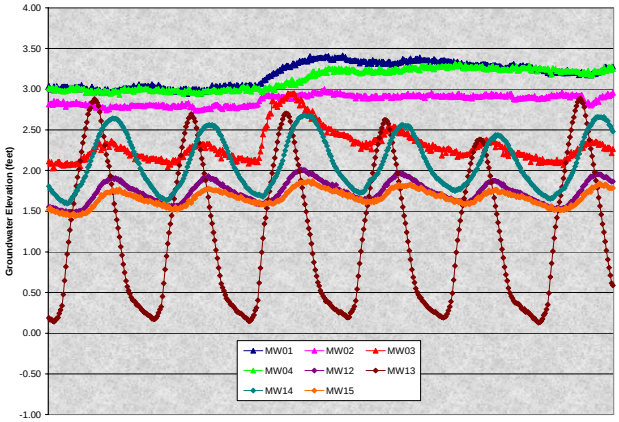
In 2006 and 2008, AES prepared biennial CEA certification reports. The next scheduled monitoring event is in 2009.

Water Level Monitoring & Hydraulic Testing, Multiple Sites, NJ & NY

Between 2001 and 2004, under subcontract to Site Remediation Management, AES conducted water level monitoring and hydraulic testing at eight different locales for a New Jersey-based petroleum refiner. The sites were gas stations, oil terminals, or refineries located in New Jersey and New York within the greater New York City region. Most were at water front locations fronting major estuaries.

The goal of the water level monitoring was to measure the degree of tidal influence on groundwater gradients. Most projects also included slug testing to measure the hydraulic conductivity at tested monitoring wells. Mr. Varner used AES pressure transducers and data loggers to collect the hydraulic data and specialized software to reduce the data.

One New Jersey study site, estuary in foreground.



Plot of groundwater elevation data showing tidal fluctuations.