

Publication Listing
David G. Angle, P.G., CGWP

Angle, D.G., Pisani, M.E., Upthegrove, D.C., Swartz, K.H., 1998. Variability in the Routine Laboratory Measurement of Total Lead in Soils and Potential Remedial Implications, *The Professional Geologist*, April 1998, pp. 9-11.

Angle, D.G., 1994. A horizontal well recovery system to capture LNAPL and Affected Ground Water, Abstract in NGWA 46th Annual Convention Program, October 9-12, 1994.

Showers, W.J. and Angle, D.G., 1987. Stable isotopic characterization of organic carbon accumulation on the Amazon continental margin., In: *Sedimentary Processes on the Amazon Continental Shelf*, C.A. Nittrouer and D.J. DeMaster, editors, Pergamon Press, New York, pp. 227-244.

Showers, W.J., Angle, D.G., Nittrouer, C.A. and DeMaster, D.J., 1985. Carbon isotopic composition of Amazon shelf sediments. AAPG Abstract, presented at AAPG 1985 Annual Meeting.

Angle, D.G., 1985. Organic carbon in Amazon continental margin sediments; A detailed isotopic analysis, Masters Thesis, North Carolina State University.

**2012-2019 List of Cases in Which
David G. Angle, P.G., CGWP has Testified**

<u>Case</u>	<u>Year</u>	<u>Description</u>	<u>Expertise</u>
Kenneth Paul Lyons, et al. vs. Axiall Corporation, et al. (c)	2019	Soil, Groundwater, Surface Water Investigation	Site Investigation, soil, groundwater and surface water investigation, soil & groundwater remediation
VPSB v Louisiana Land, et al. (f)	2019	Soil and Groundwater Investigation and Soil, Sediment and Groundwater Remediation	Hydrogeology, site investigation, groundwater classification, & remediation
New 90, LLC and Louisiana Wetlands, LLC, v. Grigsby Petroleum, Inc. and Chevron U.S.A., et al. (c)	2018	Soil, Groundwater, Surface Water Investigation	Site Investigation, soil, groundwater and surface water investigation, soil remediation and groundwater monitoring
Dianne Sanchez, et al. v. Texas Brine Co., LLC, et al. (c)	2018	Groundwater and Surface Water Investigation	Site investigation, groundwater & surface water, & remediation
Gustave J. Labarre Jr., et al. v. Texas Brine Company, LLC, et al. (c)	2016-2017	Insurance Cost Recovery	Hydrogeology, site investigation and soil and groundwater remediation
Crosstex Energy Services, LP, et al. vs. Texas Brine Company, LLC, et al., Florida Gas Transmission Company vs. Texas Brine Company, LLC, et al., and Pontchartrain Natural Gas System, et al. vs. Texas Brine Company, LLC, et al. (c)	2017	Groundwater, Brine, & Formation Water Investigation	Hydrogeology and groundwater fate and transport evaluation
Lee Hollingsworth and Scott Hollingsworth v. Hercules, Inc, et al. (c)	2016	Soil, Sediment, Attic Dust & Groundwater Investigation	Hydrogeology, site investigation
State of Louisiana and IPSB v. BP America Production Company, et al.(c)	2016	Soil and Groundwater Investigation and Soil Remediation	Hydrogeology, site investigation, and, soil remediation
City of Hattiesburg v. Hercules Inc.(c)	2016	Forensic investigation, Attic Dust, Soil, Sediment, Surface water, & Groundwater Investigation	Hydrogeology & site investigation
Martha Zoe Moore, et al v. Denbury Onshore, LLC (c)(e)	2015	Soil Investigation and Soil & Groundwater Remediation	Hydrogeology, site investigation, soil and groundwater remediation
VPSB v Louisiana Land, et al. (b)(c)(e)	2010-2018	Soil and Groundwater Investigation and Groundwater Remediation	Hydrogeology, site investigation, groundwater classification, groundwater remediation
Tucker, et al. v. Shell, et al. (c)	2014	Soil & Groundwater Investigation & Remediation	Geology, site investigation and soil remediation
Mary Frances Blackard, et al. vs. Hercules, Inc. and Ashland, Inc. (c)	2014	Soil and Groundwater Investigation & Remediation	Site investigation, hydrogeology, groundwater remediation
Texaco Exploration and Production, Inc. vs. Hilcorp Energy Company (c)	2012	Soil and Groundwater Investigation & Remediation	Site investigation, hydrogeology, groundwater classification, groundwater remediation
Ruby Mhire, et al. vs. Total Petrochemicals USA, Inc., et al.(c)	2012	Soil and Groundwater Investigation & Remediation	Site investigation, hydrogeology, groundwater classification, groundwater remediation

Notes

- (a) Descriptive name; may not be actual case name.
- (b) Testified at trial.
- (c) Deposition.
- (d) Testimony at arbitration/mediation only.
- (e) LDNR hearing
- (f) Testified at judge hearing

David G. Angle, PG, CGWP

Registrations

Certified Professional Geologist (No. 09874)
Certified Ground Water Professional (No. 113646)
Louisiana Licensed Professional Geoscientist (No. 69)
Texas Licensed Professional Geoscientist (No. 513)
Mississippi Registered Professional Geologist (No. 808)

Fields of Competence

Superfund RI/FS Program
RCRA RFI Program
Site Investigation/Remediation
Project Management
Hydrogeology
Geochemistry
Litigation Support/Expert Testimony

Experience Summary

Over 32 years of environmental consulting experience. Serves as a Principal-in-Charge in the Houston, Texas office of Michael Pisani & Associates, Inc, an ERM Group company. Has served in various consulting positions including principal-in-charge, project manager, and hydrogeologist. Have been involved in over 15 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Remedial Investigation/Feasibility Study (RI/FS) projects. Completed over 100 Resource Conservation and Recovery Act (RCRA) projects and other hazardous waste and oilfield site investigations and remedial actions. Has extensive experience conducting multi-media and multi-contaminant investigations, developing cost-effective remedial or risk-based closures, dealing with numerous regulatory agencies, and conducting projects in excess of \$1 million.

Served as expert for sites in Alabama, Arkansas, Georgia, Louisiana, Pennsylvania, and Texas. Provided technical support for sites in Alabama, Arkansas, California, Florida, Georgia, Illinois, Louisiana, Maryland, Mississippi, Montana, New Jersey, New York, Oklahoma, Pennsylvania, South Carolina, and Texas.

Credentials

B.S. Geology, University of Delaware, 1982
M.S. Geology, North Carolina State University, 1985
Continuing Graduate Studies, Wright State University, 1990, 1993

Professional Affiliations

National Ground Water Association
American Institute of Professional Geologists
American Geophysical Union

Key Projects

Project manager, and/or hydrogeologist for RI/FSs on over 15 CERCLA sites. Managed, performed, or have been involved with over 50 subsurface and ground water assessments at RCRA and other non-regulated facilities. Have conducted investigations of a multitude of different contaminants including, petroleum and chlorinated compounds, NAPL, DNAPL, heavy metals, brine and others.

Served as technical representative to PRP group in mediation with EPA over \$135 million EPA-implemented remedial action at the Sikes Disposal Pits Superfund site in Texas. The ground water portion of the 1986 ROD included a Natural Attenuation (NA) component for chlorinated and other hydrocarbon compounds. Site contaminants included EDC, benzene and PAHs. Conducted detailed review of voluminous TNRCC file and developed technical presentation that demonstrated the inconsistency of the RI/FS with the National Contingency Plan (NCP).

Performed RI of heavy metals, NAPL, subsurface oily waste and affected ground water, soil, and air at a proposed Superfund site (former refinery site) in northwestern Louisiana. Responsibilities included work plan preparation, cost tracking, subcontracting, subcontractor supervision, monitor well design and installation, soil, ground water, surface water, and air monitoring and/or sampling, soil gas surveying, aquifer testing, biodegradation studies, soil vapor extraction testing, agency interaction, and report preparation. Continue to serve as senior technical representative in agency interactions.

Performed extensive soil and groundwater investigations of numerous oil and gas field sites in Louisiana involving produced water, oil, NORM, etc. Served as site assessment, geology, hydrogeology and remediation expert in related litigation.

Key Projects (continued)

Project manager of massive groundwater and surface investigation of large sinkhole in Louisiana. Project involved installation of numerous monitoring wells to depths over 500 feet, aquifer testing, groundwater modeling, collection and analysis of thousands of samples, preparation and submittal of numerous reports to the Louisiana Department of Natural Resources (LDNR), extensive correspondence/ interaction with LDNR, litigation support and expert testimony.

Provided technical support and expert testimony on cost allocation involving past and current owner of an operating chlorinated chemical plant in Louisiana. Reviewed over 1,000,000 pages of documents to identify the key issues, including chlorinated compounds release history, DNAPL, and migration rates associated with an offsite plume of affected ground water. Assisted attorneys with depositions of other experts, developed exhibits including a 3-D computer animation, and provided deposition testimony.

Manage Voluntary Cleanup Program (VCP) ground water and soil investigation activities for chlorinated solvents and other chemicals at an operating manufacturing facility in Houston, Texas. Prepared detailed Affected Property Assessment Report (APAR) and Response Action Plan (RAP) for the facility. TCEQ had no comments on the APAR. Design and install groundwater recovery wells, prepare groundwater sampling reports and assist with recovery system.

Provided litigation support and expert testimony involving investigation/remediation of former industrial manufacturing facility and surrounding properties in Hattiesburg, Mississippi involving chlorinated solvents, hydrocarbons, pesticides, etc.

Conducted ArcGIS mapping of distribution of PCBs at a refinery site in New Jersey.

Conducted investigation of TCE and other chemicals in soils and groundwater at former dump site on rural farm property in George County, Mississippi

Managed investigation and successful remediation of Houston, Texas state superfund site including the collection and analysis of soil, water and waste samples, removal of waste, demolition of above-ground tanks, excavation and offsite disposal of affected soils and preparation of reports.

Conducted assessment of former refinery property in Indiana and developed presentation for client on potential for redevelopment of property through Brownfields program. Also evaluated potential for implementing phytoremediation and developed options for future usage of the property.

Project manager for risk-based closure of former underground storage tank (UST) site on a public school property. Successful in negotiating with the TNRCC on a no-further action remedy through the use of the Texas Risk Reduction Standards. Saved the client over \$100,000 by not implementing the excavation and disposal option recommended by the previous consultant.

Managed litigation support activities for numerous sites. Sites contained E&P wastes, heavy metals, refined petroleum products, wood treating wastes, MTBE, NAPL, DNAPL radionuclides and mixed wastes. Helped win court approval of zero contribution allocation for client adjacent to Superfund site. Provided successful expert testimony and litigation support for crude oil and salt-water releases.

Managed preliminary field activities in 32 square mile former lead/zinc mining district (Jasper County, Missouri Superfund Site). Prepared a detailed RI/FS budget, work plan, and sampling and analysis plan. Responsibilities also included cost tracking and client and agency interactions.

Conducted a detailed Hazard Ranking System (HRS) Evaluation of the Los Alamos National Laboratory technical areas in accordance with EPA's HRS guidance to determine if any of the areas might be ranked as Superfund sites.

Investigated and remediated releases from aboveground storage tanks at a Louisiana chemical plant. Included work plan preparation, spill delineation with soil gas surveying, monitoring well design and installation, soil, ground water, surface water, and air monitoring and/or sampling, aquifer testing, recovery system design and installation, and report preparation.

Served as in-house technical expert for a major oil company during the development of a database for more than 100 discontinued operation properties.

Supervised lithologic logging of cores and installation of piezometers and monitor wells for a remedial investigation at the Hardage Superfund site near Criner, Oklahoma. Involved in the installation of telescoping protective casing using pressure-grouting methods, drilling with hollow stem augers and air rotary techniques and supervision of drilling crews. Supervised the hydrological study, which included piezometer installation, stream flow, ground and surface water monitoring, slug and seepage meter testing, and data reduction and analysis. Interfaced with the U.S. Geological Survey and Oklahoma State Water Resources Board on a stream flow-monitoring program.

Project geologist responsible for evaluating heavy metals fixation in a major Texas refinery landfarm. Documented metals fixation to the Texas Water Commission (TWC) with site data and detailed literature review. TWC concurred with findings of evaluation.

Project manager for surface water and sediment sampling and removal action planning for the Vertac Superfund Site in Jacksonville, Arkansas. Developed removal plan approved by EPA and U.S. Army Corps of Engineers on an expedited basis.