

CURRICULUM VITAE

Timothy L. Douthit, PG
In Aqua Veritas, LLC
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EDUCATION

State University of New York at Stony Brook *Stony Brook, New York*
Master of Science degree, Geochemistry, 1990
Thesis: "A Geochemical Analysis of the Irish Waulsortian
Limestone: Implications for the Strontium Isotopic
Composition of Lower Carboniferous Seawater".

University of Michigan *Ann Arbor, Michigan*
Bachelor of Science degree, Geology, 1984

EMPLOYMENT HISTORY

In Aqua Veritas, LLC, Ann Arbor, Michigan *Sep. 2001 – Present*
Director of Technical Services

Handex of Michigan, Wixom, Michigan *Sep. 2000 – Jul. 2002*
Handex of New York, Farmingdale, New York *Sep. 1998 – Sep. 2000*
Director of Applied Sciences;
Corporate Regional and Marketing Technical Support

Land Tech Remedial, Inc., Farmingdale, New York *Dec. 1993 – Sep. 1998*
Regional Manager;
Technical Oversight and Advisory Division (chair);
Vice President

Groundwater Technology, Inc., Holbrook, New York *Nov. 1991 – Dec. 1993*
Hydrogeologist;
Remediation Specialist

RELEVANT EXPERIENCE

As manager of Land Tech Remedial, Inc.'s Farmingdale, New York office since December, 1993, and as Director of Applied Sciences with Handex since their acquisition of Land Tech Remedial, Inc. in September, 1998, Mr. Douthit has been directly involved in all aspects of petrochemical release management, including assessment, remediation system feasibility testing and

implementation, regulatory negotiation and closure. For In Aqua Veritas, LLC, Mr. Douthit is primarily responsible for management and implementation of the technical aspects of the company's environmental fate and transport modeling, risk-based corrective action and natural attenuation services. To that end, recent projects include the regulatory advocacy and application of risk-based corrective action (RBCA) in several states, refinement of air sparging techniques, risk assessment utilizing computer-based dissolved-phase contaminant fate, transport and 3-D visualization modeling, co-producing guidance documents on field analytical methods for the American Petroleum Institute (API), and protocol development for field documentation of in-situ, intrinsic bioremediation at petrochemical release sites for a major oil company. Additional activities include the development, calibration and implementation of proprietary computer software for the application of Domenico (1987), Baetsle (1969) and Johnson and Ettinger (1991) contaminant fate-and-transport equations. A primary focus of these applications is the better understanding and quantification of indoor air exposure scenarios. Mr. Douthit has been a member of the New York State Department of Environmental Conservation (NYSDEC) Risk-Based Corrective Action Advisory Group, the American Society for Testing and Materials (ASTM) Task Group on Remediation by Natural Attenuation (RNA), and was a co-author of the ASTM Standard Guide for Remediation by Natural Attenuation at Petroleum Release Sites (E-1943).

EXPERT WITNESS EXPERIENCE

2003 Prepared expert report on behalf of the New York State Department of Environmental Conservation for Oxygenated Fuels Association v Pataki & Spitzer (Civil Case No. 00-CV-1073). The report included opinion on:

- The introduction of MTBE into subsurface soils and groundwater
- The fate and transport of dissolved-phase MTBE
- Methods and technologies applicable to the remediation of MTBE

These topics were presented with discussion comparing MTBE to other gasoline constituents, including ethanol, and how the interchange of these constituents may affect the environmental management of gasoline releases.

2006 Prepared data analysis and opinion on behalf of the New York State Department of Environmental Conservation for State v Gorur (cost recovery litigation – Index No. 00205-96). The analysis centered on estimating approximate petroleum release dates at a Long Island, New York service station to help determine the division of responsibility between a number of potentially responsible parties.

2004 - 2006 Prepared expert report, several affidavits and provided trial testimony on behalf of Turnbull et al. for Turnbull v MTA New York City Transit (Index No. 26485-99). This testimony included opinion on:

- The general nature and extent of the liquid-phase and dissolved-phase fuel hydrocarbon plume resulting from a release or releases of fuel hydrocarbons at New York City Transit Authority's Flatbush Depot.

- The potential success and current progress of the existing remediation system installed to recover liquid-phase fuel hydrocarbons.
- The potential success and applicability of additionally proposed remedial alternatives for the site.
- The fate, environmental persistence and mobility of the fuel hydrocarbon plume at the site.

2009 - 2011 Prepared expert report and several affidavits on behalf of the Phelps-Clifton Springs Central School District in State of New York v Jeffery Fuels, Inc., Griffith Energy, Inc., Phelps-Clifton Springs Central School District, and SAW Environmental Services, Inc. (Index No. 103837). This work included opinion on:

- The general nature and extent of the dissolved-phase fuel hydrocarbon plume resulting from a release or releases of fuel hydrocarbons the Jeffery Fuels Site, in Phelps, New York.
- Probable percentage contributions of the various PRPs associated with the release(s) to existing soil and groundwater impacts.
- Potential associations between on-site release(s) and downgradient drinking water impacts.

2015 Prepared expert report, affidavits and gave deposition on behalf of Decker Manufacturing Corporation in Decker Manufacturing Corporation v The Travelers Indemnity Company (Case No. 1:13-cv-00820-RHB). This work included opinion on:

- Nature and characteristics of arsenic contamination in groundwater resulting from landfill operations in Albion, Michigan.
- Relative contributions of arsenic-containing landfill wastes and naturally-occurring arsenic within the aquifer to groundwater arsenic concentrations.
- Timing of groundwater arsenic impacts relative to landfill operations.

COMPUTER MODELING EXPERIENCE

Visual Modflow/MT3D/RT3D	3-D Numerical flow and transport model
WinFlow/WinTrans	2-D Analytical flow with numerical transport model
BioPlume II	2-D Numerical fate and transport model with oxygen-limited biodegradation simulation
BioScreenAT	EPA endorsed treatment of Domenico's (1987) equation for transport evaluations
API DSS	Linked soil leaching model(s) to 3-D analytical transport model and air exposure model(s)
RBCA Toolkit	Domenico (1987) based exposure assessment model
Fate5	Domenico (1987) based natural attenuation calibration model
Visual Groundwater	3-D data visualization model (w/Modflow/MT3D interface)
Surfer	Pseudo 3-D data visualization tool

PUBLICATIONS

- Douthit, T.L., Kramer, W.H. and Marr, T.J. (2002) The Importance of Acid Hydrolysis of MTBE to TBA in Properly Handled Groundwater Samples. Proceedings, NGWA Conference, Petroleum Hydrocarbons and Organic Chemicals in Groundwater: Prevention, Assessment and Remediation, Atlanta, Georgia, Nov. 6 – Nov. 8, 2002.
- Douthit, T.L., Novick, N.J., Payne, R.E., Malander, M.W. and Taylor, M.B. (1996) Evaluation of Intrinsic Bioremediation in Support of Risk-Based Corrective Action: Data from a New York Remediation by Natural Attenuation Demonstration Site. Proceedings, NGWA Conference, Petroleum Hydrocarbons and Organic Chemicals in Groundwater: Prevention, Detection and Restoration, Houston, Texas, Nov. 13 – Nov. 15, 1996.
- Douthit, T.L., Meyers, W.J. and Hanson, G.N. (1993) Non-monotonic variation of seawater $^{87}\text{Sr}/^{86}\text{Sr}$ across the Ivorian/Chadian boundary (Mississippian, Osagean): Evidence from marine cements within the Irish Waulsortian Limestone. *Journal of Sedimentary Petrology*, Vol. 63, No. 3, p. 139 -149.
- Douthit, T.L., Meyers, W.J. and Hanson, G.N. (1990) Structure in the secular variation of seawater $^{87}\text{Sr}/^{86}\text{Sr}$ for the Ivorian/Chadian (Osagean, lower Carboniferous) (Abs.). 13th International Sedimentological Congress, Nottingham, England. Abstracts of Papers, p. 139.
- Marr, T.J., Sherding, W. and Douthit, T.L. (2003) The Relevance of MTBE Acid Hydrolysis to TBA Under Standard and Heated-Purge Analytical Methods. Proceedings, NGWA Conference, Petroleum Hydrocarbons and Organic Chemicals in Groundwater: Prevention, Assessment and Remediation, Costa Mesa, California, August 20 – 22, 2003.
- Kramer, W.H. and Douthit, T.L. (2000) Water Soluble Phase Oxygenates in Gasoline From Five New Jersey Service Stations. Proceedings, NGWA Conference, Petroleum Hydrocarbons and Organic Chemicals in Groundwater: Prevention, Detection and Restoration, Anaheim, California, November 15 – November 17, 2000.
- Clark, T.R., Staudt, W.J., and Douthit, T.L. (1998) Selecting Field Analytical Methods: A Decision Tree Approach. American Petroleum Institute Publication No. 4670, API Publishing Services, Washington, DC.
- Payne, R.E., Novick, N.J., Douthit, T.L., Brown, J.A., and Anderson, D.N. (1995) An evaluation of field methods for measuring indicators of intrinsic bioremediation of petroleum hydrocarbons in groundwater. Proceedings, NGWA Conference, Petroleum Hydrocarbons and Organic Chemicals in Groundwater: Prevention, Detection and Restoration, Houston, Texas, November 28 - December 1, 1995.
- Novick, N.J., Payne, R.E., and Douthit, T.L. (1995) A practical approach for evaluating intrinsic bioremediation of petroleum hydrocarbons in groundwater. Proceedings, NGWA

Conference, Petroleum Hydrocarbons and Organic Chemicals in Groundwater: Prevention, Detection and Restoration, Houston, Texas, November 28 - December 1, 1995.

Novick, N.J., Payne, R.E., and Douthit, T.L. (1995) Evaluating intrinsic bioremediation of petroleum hydrocarbons at service station sites. Annual American Chemical Society, Industrial and Engineering Chemistry Session, Special Symposium on Emerging Technologies in Hazardous Waste Management, Atlanta, Georgia, September 17 - September 20, 1995.

Schoonen, M.A.A. and Douthit, T.L. (1992) Experimental determination of the solubility product of dolomite (abs.). Goldschmidt Conference, May 8 - 10, 1992.