Andrew J.B. Cohen, PhD, PH

Independent Contaminant Hydrogeologist with 34 years of experience in consulting, teaching, and research focused on the characterization, forensic analysis, fate and transport, and remediation of contaminated sites. Skilled in dissecting complex data sets to establish causation, enhanced data interpretation, and developing conceptual models essential for informed decision-making. Demonstrated proficiency in presenting clear, persuasive findings to stakeholders.

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Contact Information

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Education & Certification

Ph.D., Civil & Environmental Engineering, University of California, Berkeley, 1999
M.S., Civil Engineering, University of California, Berkeley, 1993
B.S., Water Resources, SUNY Oneonta, 1991

Certified Professional Hydrologist (08-HGU-1024), American Institute of Hydrology

Memberships

International Association of Hydrogeologists
National Ground Water Association
American Bar Association - Section of Environment Energy and Resources
Heterodox Academy (HxA)

Work History

Founder, GroundwaterU.org, 2022 – current
Independent Consultant, 2020 – current
Environmental Consulting Firms (1999 – 2020), URS, Parsons, Geosyntec, TRC, ERM
Adjunct Professor, Contaminant Hydrogeology, New Jersey Institute of Technology, Newark, NJ, 2012, 2018
Adjunct Professor, Environmental Hydrogeology, Montclair State University, Montclair, NJ, 2014
Research Associate, Earth Science Division, Lawrence Berkeley National Laboratory, Berkeley, CA, 1992 – 1999

Experience

Site Characterization and Chemical Source, Fate, and Transport Assessment

Forensic PFAS Evaluation at Metal Plating Site

Evaluated historical reports and soil/groundwater data related to PFOA and PFOS contamination due to mist-suppressant use at a metal plating facility. Conducted forensic analysis of contaminant distribution, identifying co-contamination suggesting that a portion of drinking water impacts may not be exclusively attributable to the chemical manufacturer's product. Site location: Delaware

Forensic PFAS Evaluation at Oil Refinery Site

Evaluated extensive PFAS dataset associated with a petroleum refinery that includes groundwater, surface water impoundments, wastewater treatment plant influent/effluent, groundwater treatment system influent/effluent, outfalls, and stream and river samples to determine impacts of site discharges to surface water quality. Analysis of PFAS chemical signatures and hydrogeologic conditions supported evaluation of an attribution of upstream Air Force base as a partial source of on-site groundwater contamination. Site location: Commerce City, Colorado.

Forensic PFAS Evaluation at Airport AFFF Site

Evaluated groundwater data, including aqueous film-forming foam (AFFF) chemical signatures based on 21 PFAS compounds across shallow, intermediate, and deep aquifer zones. The analysis integrated groundwater flow directions, potential source locations, and chemical compositions from both on-site and off-site sources. The evaluation identified evidence of off-site PFAS sources north of the site and indicated that PFAS detections in the intermediate and deep aquifer zones were consistent with releases from the Former Fire Training Area. The study also indicated that an off-site plume was migrating beneath the site from the northwest and found limited support for the nearby landfill as a significant PFAS source. Site location: Atlantic City International Airport, New Jersey.

CSIA-Based Source Attribution of Chlorinated Solvent Groundwater Plume

Performed forensic hydrogeologic analysis of a complex chlorinated solvent plume using groundwater, compound-specific isotope analysis (CSIA), and geochemical indicators. Evaluated multiple contaminant source areas, resolved groundwater flow geometry, and identified lines of evidence linking distinct portions of the plume to specific upgradient releases.A unique aspect of the work was the use of ammonia concentration distributions as an independent tracer to evaluate groundwater flow pathways and assess consistency with source-attribution interpretations. Atlantic City International Airport, New Jersey.

CSIA Evaluation of Off-Site VOC Migration, Landfill Superfund Site

Performed compound-specific isotope analysis (CSIA) evaluation to assess whether VOCs detected in off-site residential wells were related to on-site chlorinated ethene contamination. Integrated carbon and chlorine isotope data, VOC concentrations, chemical fingerprints, groundwater flow relationships, and degradation indicators for PCE, TCE, and cis-1,2-DCE. Used Rayleigh graphs and dual-isotope plots to evaluate biodegradation patterns, source relationships, and potential migration pathways from on-site monitoring wells to off-site wells. The analysis provided an independent forensic line of evidence indicating that low-level off-site TCE and cis-1,2-DCE detections were consistent with migration from on-site chlorinated ethene releases, supporting refinement of the site conceptual model. Site location: Maine

Historical Source Attribution for PCE/TCA Soil and Groundwater Contamination

Analyzed historical operations, soil, and groundwater data at a multiple-owner former aeronautical parts manufacturing site to evaluate potential source relationships for PCE and TCA contamination in soil and groundwater. The analysis found that chemical impurity evidence (1,1,2-trichloroethane), inferred release timing, and ownership history were inconsistent with the client being the source. Site location: Ohio

Forensic VOC Source Evaluation and Plume Migration Assessment

Evaluated whether suspected source areas were responsible for downgradient VOC impacts by integrating groundwater chemistry, soil vapor data, lithology, well construction details, hydrostratigraphic interpretation, groundwater flow directions, and VOC speciation. Used Henry's Law calculations to compare measured soil vapor signatures with estimated equilibrium vapor concentrations from underlying groundwater, helping distinguish plume-related vapor impacts from potential local vadose-zone sources. Evaluated historical hydraulic gradients and calculated estimated plume travel distances for TCE and cis-1,2-DCE using retardation factors and site-specific aquifer parameters. The analysis evaluated whether hydrogeologic and chemical data were consistent with areas serving as VOC source areas and estimated the likely downgradient extent of associated groundwater plumes. Site location: Toronto, Ontario.

RCRA Site Characterization and Remediation Technical Lead

Served as technical lead for multiple investigations and remedial strategy at 1,450-acre site. Multiple projects, including investigation planning and analysis of site-wide data to identify sources, nature and extent, fate and transport, and risks associated with soil, groundwater, surface water, and sediment

contamination. Preparation of investigation and remediation-related reports. Frequent presentations to NJDEP, USEPA, and client's Science Advisory Board. In concert with client team, developed short- and long-term remediation strategies. Site Location: New Jersey

Petroleum Site Characterization and Data Visualization

Developed detailed maps and cross sections depicting the lateral and vertical distribution of benzene and other petroleum-related compounds in soil and groundwater using RockWorks environmental visualization software. Compiled, validated, and interpreted extensive historical investigation data to support conceptual site model development, contaminant plume delineation, and evaluation of site conditions for remedial decision-making. Site Location: New Jersey

DNAPL Source Zone Characterization and Conceptual Site Model Development

Conducted detailed characterization of DNAPL distribution within an unconfined aquifer through integration of soil core observations, direct evidence of NAPL occurrence, and borehole camera imagery. Evaluated DNAPL architecture, including zones of partial saturation, and developed high-resolution geologic cross sections illustrating the relationship between DNAPL distribution and low-permeability lenses that controlled migration and storage. Integrated historical aerial photographs, maps, and site operational records to identify likely source areas and reconstruct release history, resulting in a refined conceptual site model of DNAPL fate and transport. Site Location: New Jersey.

Hazardous Waste Landfill Remediation Strategy

Developed the conceptual site model and performed advanced analysis of soil, sludge, groundwater, and contaminant chemistry data for a 28-acre hazardous waste landfill. Quantified contaminant mass distribution, identified DNAPL source conditions through solubility and partitioning analyses, developed a contaminant prioritization methodology based on mobility and groundwater impact potential, and evaluated the contribution of tentatively identified compounds to source mass. The resulting conceptual model supported remedial technology evaluation and treatability study design. Site location: New Jersey.

Aquitard Integrity Analysis

Identified lines of evidence regarding whether a water supply aquifer was not significantly impacted by a shallow, contaminated aquifer. Study included X-ray analysis of aquitard clay samples to identify potential secondary pathways for DNAPL migration (such as root holes and burrows), and measurement and matrix diffusion analysis of chemical concentration profiles in the aquitard. Site Location: New Jersey.

Hydraulic Connectivity Assessment Between Surface Water and Adjacent Aquifer

Conducted a detailed transient hydraulic evaluation to determine the degree of hydraulic connectivity between an industrial canal, surrounding groundwater systems, and nearby pumping wells. Analysis of continuous 15-minute water level measurements indicated that canal stage fluctuations caused by rainfall events and sluice gate operations were rapidly transmitted into the surrounding B Aquifer, providing evidence of hydraulic connection.The investigation further distinguished the effects of precipitation, tidal forcing, and groundwater extraction on aquifer behavior, identified spatially variable gaining and losing reaches along the canal, and refined the conceptual understanding of groundwater-surface water interaction controlling contaminant migration pathways. Site location: New Jersey.

Arsenic Mobilization and Groundwater-Surface Water Interaction Assessment

Conducted a forensic evaluation of arsenic and metals contamination at a large industrial site by integrating hydrogeologic, geochemical, and ecological datasets. Developed a conceptual model indicating that elevated dissolved arsenic concentrations were controlled by redox-driven iron reduction and arsenic mobilization processes occurring within organic-rich wetland and peat deposits, rather than simple advective transport alone. The analysis evaluated relationships between historical source areas and groundwater, wetland, creek, and sediment impacts, and provided technical support for ecological investigations, remedial strategy development, and future land-use planning. Site location: New Jersey.

DNAPL Source Identification and Pump-and-Treat Performance Evaluation

Evaluated historical site characterization data and long-term pump-and-treat system performance data to reassess the distribution and behavior of VOC contamination in groundwater. Integrated concentration trends, extraction well performance, hydrogeologic conditions, and contaminant distribution patterns to identify previously unrecognized DNAPL source areas consistent with persistent elevated concentrationsin selected extraction wells. Developed a revised conceptual site model that distinguished active source zones from dissolved plume impacts and evaluated limitations of continued reliance on pump-and-treat remediation alone. Findings informed evaluation of targeted source-area remediation strategies designed to accelerate cleanup and reduce long-term remediation costs. Site location: Texas.

Contaminated Sediment Mass Flux Assessment and Expert Support

Prepared a Position Brief that provides estimates of the potential contribution of contaminants of concern (COCs) to the Passaic River sediment from a former manufacturing site. Calculations considered evaluation of historical data to estimate COC mass flux due to sewerage discharges. The evaluation estimated the client's potential contribution and found it to be small relative to other evaluated sources.Also identified mathematical errors in Cost Allocator's protocol. Site location: New Jersey

Contaminated Sediment Characterization

Investigation, design, Conceptual Site Model development for sediment contaminated with VOCs and aniline. Project included high-resolution profiling of sediment pore water concentrations, sediment pore water measurements using sediment peepers, and fate & transport assessment to quantify groundwater-sediment-surface water interaction and degradation of chlorobenzene in sediment. Site location: New Jersey

Site-Wide Conceptual Site Model and Investigation Strategy

Led a multidisciplinary team in the evaluation of site-wide soil and groundwater data to develop a comprehensive conceptual site model for a contaminated industrial facility. Assessed contaminant fate and transport, identified likely biodegradation pathways, and estimated site-wide contaminant mass. Developed a phased investigation strategy that identified critical data gaps and prioritized additional characterization activities. Constructed a three-dimensional geologic and contaminant distribution model to communicate complex site conditions and remediation challenges to clients and regulatory agencies. Site location: New Jersey

Groundwater Plume Discharge to River Investigation

Assessed the distribution, sources, and transport mechanisms of chlorofluorocarbons (e.g., Freon), chlorinated solvents, and gasoline antiknock chemicals in Delaware River (river sediment and surface water), and in an aquifer beneath the Delaware River. Investigation performed over 2.5 miles of coastline included dual frequency echo-sounder for bathymetric mapping, side-scan sonar to map sediment types, vibratory coring to map lithology of sediment and depth to an underlying aquifer, and push-probe and grab confirmatory sampling of sediment. Temporary wells were advanced beneath the riverbed to collect groundwater samples. Identified aquifer subcrop and DNAPL beneath the river, and calculated plume mass flux discharge to the river. Site location: New Jersey

Fractured Rock Aquifer Site Characterization, PRP Identification, and Expert Support

Led the integration and interpretation of extensive hydrogeologic, geochemical, and historical data to characterize groundwater contamination and identify additional potential source areas and potentially responsible parties (PRPs) associated with multiple contaminant plumes beneath and downgradient of a pharmaceutical manufacturing facility. Evaluated chemical and hydraulic data from more than 1,100 wells, 19,800 soil samples, multiport Westbay monitoring wells containing up to 24 discrete sampling intervals per borehole, surface and borehole geophysics from more than 110 borings, rock core data, and historical operational records. Developed a custom VBA-based 4D groundwater visualization and analysis tool that enabled real-time exploration of contaminant distributions, chemical fingerprints, hydraulic head, fracture orientations, and hydrogeologic features in three-dimensional space. The resulting

conceptual site model described contaminant migration through multiple dipping hydrogeologic units offset by faulting within a fractured and faulted sandstone bedrock aquifer impacted by DNAPL, VOCs, and 1,4-dioxane.Prepared Conceptual Site Model report and expert rebuttal analysis.

Fractured Rock Conceptual Site Model and Remediation Optimization

Pohatcong Superfund Site, New Jersey: Analyzed hydrogeologic data and TCE concentration data to characterize fracture zones in fractured dolostone aquifer and the factors affecting pump and treat system performance. The revised Conceptual Site Model supported evaluation of reduced extraction rates and associated remedial cost implications.The project exemplifies how a detailed reexamination of existing site data can provide a refined understanding of site conditions, reconsideration of remediation strategy and reduction of long-term costs. Site location: New Jersey.

Fractured Rock Characterization Research Project

Research project in Raymond, California funded by USDOE and USEPA included testing and development of traditional and new tools to characterize groundwater flow in fractured crystalline rock, including multi-well pumping tests, downhole flow measurement technologies, downhole fracture detection and borehole geophysical and cross-hole seismic data, and fracture distribution and geometry data. Prepared fractured rock characterization guidance report and USEPA Project Summary Report. Site location: California.

Hydrogeologic Reconnaissance to Support Agricultural Water Supply

Conducted hydrogeologic reconnaissance at four nursery sites in Morocco's High Atlas and Middle Atlas Mountains in collaboration with the High Atlas Foundation. Integrated geologic maps, hydrogeologic literature, Google Earth imagery, topographic analysis, well inspections, field observations, and interviews with local community members to evaluate groundwater availability under severe drought conditions. Identified practical, low-cost water-supply solutions, including deepening existing wells to intercept productive limestone aquifer zones, targeting structural contacts associated with spring discharge, and redeveloping sediment-impacted sandstone wells. Communicated findings through interactive Google Earth visualizations and narrated screen-recorded briefings, providing actionable recommendations without relying on expensive speculative drilling. Site location: Morocco.

Surface Water Bacterial Contamination Assessment and Expert Support

Served as a pro bono technical advisor to a resident investigating elevated coliform and E. coli concentrations in a creek adjacent to her property. Evaluated potential bacterial contaminant pathways associated with nearby septic drip fields, wastewater ponds, surface-water runoff, and possible groundwater discharge to the stream. Reviewed topographic maps, satellite imagery, state environmental database records, vegetation patterns, and suspected flow pathways to identify targeted follow-up sampling locations. Recommended sampling points to distinguish upstream background conditions from potential septic-related impacts entering the creek upstream of the residence. Site location: Tennessee.

Aquifer Test Analyses

Analyzed aquifer pumping test data to characterize hydraulic properties supporting site investigation and remediation activities at a former pharmaceutical manufacturing facility. Developed barometric efficiency corrections using total pressure transducer data and multiple pumping tests to remove atmospheric pressure influences, improving the accuracy of aquifer parameter estimates and hydrogeologic interpretations. Multiple site locations in California, Oklahoma, New Jersey

Hydrogeologic Modeling

Groundwater Modeling for Remedial Design

Simulated chemical retardation and biodegradation of benzene and MTBE groundwater plume using modeling software MODFLOW, MODPATH, and MT3D. Model used as a design tool to define an optimal

system layout at JFK International Airport. Created graphical interface via Excel VBA programming to query a remediation performance database and visualize multi-well extraction system performance. Site location: JFK International Airport, Jamaica, New York:

Groundwater Modeling of proposed nuclear waste repository

Simulated groundwater flow at Yucca Mountain, Nevada using the TOUGH2 modeling program. Constructed a three-dimensional saturated-zone model that explicitly represented faulted, dipping hydrogeologic strata with variable thickness, orientation, permeability, and displacement along strike. The model included 23 layers and 11 faults. Simulations evaluated how fault geometry, permeability contrasts, altered fault zones, and stratigraphic displacement affect groundwater flow pathways, vertical gradients, and contaminant macrodispersion. Results showed that contaminant transport could deviate substantially from the apparent water-table gradient and that faults may either enhance or inhibit vertical dispersion depending on release location and geologic configuration. Also simulated pump tests and developed a particle-tracking post-processor and an analytical solution for transient three-dimensional gas flow in the vadose zone.

Groundwater–Surface Water Discharge Modeling

Simulated groundwater discharge to a surface water canal using a MODFLOW model as part of a broader groundwater-to-sediment-to-surface-water fate-and-transport assessment. The model incorporated variable-permeability aquifer materials and canal sediment to distinguish groundwater flow paths that discharged upward through organic-rich sediment from those that migrated beneath the canal and continued downgradient.In addition to its use as an exploratory modeling tool, the results helped identify locations where a groundwater plume could be impacting canal sediment through groundwater discharge and contaminant sorption to high-organic-carbon sediment. Site location: New Jersey

Groundwater Modeling of Fractured Rock Aquifer

Constructed and calibrated a numerical groundwater flow model of a fractured crystalline rock aquifer using multi-well pumping test data to evaluate hydraulic connectivity, groundwater flow geometry, and the role of discrete transmissive fracture zones. The model provided a quantitative framework for interpreting aquifer response to pumping and for refining the conceptual understanding of groundwater movement through a complex fractured rock network. Developed an analytical solution for transient crossflow between aquifers that can occur when groundwater wells connect different fracture zones.

Geologic Modeling of Fractured Rock Aquifer

Developed a 3-D geologic model of fractured bedrock research site using Advanced Visual Systems (AVS) software. Integrated borehole deviation data, surface mapping, digitized topography, borehole geophysical logs and imaging data, and mapped fracture orientations to visualize the well field, topographic surface, and transmissive fracture network in three dimensions. Used the model to test fracture-plane orientations, evaluate potential fracture intersections between wells, assess fracture connectivity, and infer possible surface expressions of subsurface transmissive features. The visualization improved interpretation of complex fractured rock hydrogeologic structure and helped refine the conceptual model of groundwater flow pathways at the site. Site location: California

Chemical Partitioning Modeling

Developed a soil-groundwater-surface water partitioning calculator, used to quantify groundwater plume discharge and subsequent surface water dilution, chemical partitioning in sediment, and assessment of residual NAPL in soil samples. The calculator is a spreadsheet-based program constructed as a stand-alone software application, and has an easy user interface, Monte Carlo analysis, and lookup tables.

Chemical Mass Distribution Modeling

Developed Excel-based VBA program used to assess if NAPL is present in the subsurface based on user-defined soil, groundwater, or soil gas concentrations. Program also performs estimates of NAPL mass

distribution (free phase, dissolved, vapor, and sorbed) and considers the uncertainty of chemical and field properties via Monte Carlo calculations.

Animation of Pump-and-Treat Remediation

Created a custom PowerPoint-based animation illustrating groundwater pump-and-treat remediation at a former industrial plant with off-site solvent plume migration. Used site-specific groundwater flow directions, measured water levels, plume maps, extraction well locations, and concentration trends to show pre-remediation conditions, hydraulic containment by four extraction wells, and plume reduction over time. The animation provided a clear, data-based, efficient method for communicating remediation performance to technical teams, regulators, legal teams, and other stakeholders without relying on complex numerical modeling software.

Animation of DNAPL Migration Simulation in Fractured Rock Aquifer

Created a custom animation, based on site characterization data from a real fractured-rock contamination site, to illustrate DNAPL migration and groundwater plume development. The animation shows preferential groundwater flow, DNAPL movement through fractures, dissolution and advective transport, matrix diffusion, and groundwater plume discharge to surface water. The work translated complex fractured-rock contaminant transport processes into a clear visual conceptual model without relying on numerical groundwater modeling software.

Remediation

Groundwater Geochemistry Evaluation, Natural Attenuation Assessment, and Remedy Selection

Conducted a detailed evaluation of groundwater chemistry and plume distribution at a former oil refinery to support remedial decision-making for ammonia-contaminated groundwater. Delineated the plume extent, interpreted dissolved oxygen and oxidation-reduction conditions, and evaluated geochemical evidence for naturally occurring nitrogen transformation processes within the aquifer. Developed the conceptual site model and technical support for selection of Monitored Natural Attenuation (MNA) as the remedial approach. Site location: New Jersey

Contaminated Sediment Remediation

Remedial selection for sediment contaminated with VOCs and aniline. Project manager for bench-scale test project that assessed the efficacy of a Geosynthetic Bentonite Liner cap, and design of a sheet pile barrier to prevent groundwater plume discharge to surface water. Prepared Remediation Action Selection Report for regulatory approval.

Former Metal Plating Site Groundwater Remediation

Managed hydrogeologic characterization of a former metal plating facility impacted by PCE and hexavalent chromium in soil and groundwater. Delineated the vertical and lateral extent of a groundwater plume extending approximately one mile downgradient through high-resolution vertical groundwater profiling and evaluation of on-site and off-site data. Managed a nanoscale zero-valent iron (nZVI) remediation pilot test and coordinated technical activities with the U.S. Environmental Protection Agency Region 2 and the U.S. Army Corps of Engineers. Site location: New York.

Former Gasoline Service Area Groundwater Remediation

Managed remediation activities for a petroleum-contaminated site impacted by groundwater and light non-aqueous phase liquid (LNAPL). Evaluated groundwater concentration trends, contaminant mass removal rates, and LNAPL thickness data to assess remedial system performance and progress toward cleanup objectives. Prepared remedial action progress reports and managed project budgets, schedules, and regulatory deliverables. Site location: New Jersey.

DNAPL Mass Estimation and Remedial Cost Assessment

Evaluated remedial cost estimates for a former chemical manufacturing facility by reviewing assumptions regarding the distribution and volume of dense non-aqueous phase liquid (DNAPL). Identified errors in

source-volume calculations, developed revised DNAPL mass estimates, and quantified the degree to which source mass and associated remediation costs had been overstated by another expert.

Pilot-Scale Evaluation of Methanotrophic Treatment Technology

Prepared the pilot test work plan and participated in the design, implementation, and interpretation of a field-scale evaluation of Methanotrophic Treatment Technology (MTT) to remediate PCE-contaminated groundwater. Developed the test work plan andmanaged the installation of injection system and monitoring equipment, tracer and monitoring programs, collection and interpretation of groundwater, soil-gas, dissolved oxygen, VOC, and hydraulic data, and Helium tracer testing and high-frequency monitoring were used to evaluate gas migration pathways, radius of influence, amendment distribution, and overall pilot test performance.

Non-Profit Initiatives

GroundwaterU.org

Founder of GroundwaterU.org, an online library of curated educational videos related to groundwater – from science and engineering to law and policy, and for all interest and learning levels. It bridges the knowledge gap between groundwater experts and the millions of people who need to sustain access to clean water. GroundwaterU.org is a non-profit initiative developed by GroundwaterU, LLC.

The Groundwater Project

Co-author (with John A. Cherry), *Conceptual and Visual Understanding of Hydraulic Head and Groundwater Flow*, 2020, ISBN: 978-1-7770541-6-8. 17,000+ downloads from 160 countries and 72,000+ webbook views as of September 2025. Available from The Groundwater Project website (gw-project.org).

Publications and Presentations

Book

1. Cohen, Andrew J.B., and John A. Cherry[1], Conceptual and Visual Understanding of Hydraulic Head and Groundwater Flow, 2020, The Groundwater Project. [17,000+ book downloads as of September 2025]

Guidance Report

2. Hydrogeologic Characterization of Fractured Rock Formations: A Guide for Groundwater Remediators, Sponsored by US Department of Energy and US Environmental Protection Agency, Washington, DC, Oct 1995, 145 pp. https://www.osti.gov/servlets/purl/219408

University Theses

3. Cohen, A.J.B., 1999. Three-dimensional numerical modeling of the influence of faults on groundwater flow at Yucca Mountain, Nevada, 148 pp.
4. Cohen, A.J.B., Hydrogeologic Characterization of a Fractured Granitic Rock Aquifer, Raymond, California, 97 pp.

Professional Conference Presentations

[1] 2020 Stockholm Water Prize Laureate and Professor Emeritus, Waterloo University.

5. Introduction to GroundwaterU – A Public Video Library for Groundwater Education, International Association of Hydrogeologists Congress, Davos, Switzerland, September 12, 2024.
6. Introduction to GroundwaterU – A Public Video Library for Groundwater Education, Sustainable Development Goals Conference, Paris, France, May 18, 2022.
7. Effects of Variable Analytical Parameter Suite on Identification of PFAS Sources to Surface Water & Groundwater, Northeast Conference on the Science of PFAS: Public Health & the Environment, Framingham, MA, December 1, 2020.
8. PFAS Forensics: Chemical Signatures in Surface Water and Groundwater, Emerging Contaminants Program Meeting, Environmental Business Council of New England, May 2, 2019.
9. Comparison of Techniques for Pore Water Monitoring of VOCs, (with E. Lutz, S. Norcross, and K. West), Eighth International Conference on Remediation of Chlorinated and Recalcitrant Compounds, Monterey, California, May 21-24, 2012.
10. Comparison of Techniques for Pore Water Monitoring and Biodegradation Assessment in Freshwater Sediments, (with E. Lutz, S. Norcross, and K. West), Sediment Management Work Group 2012 Spring Sponsor Forum, Newark, New Jersey, May 16-17, 2012.
11. Engineering Test Evaluation for Capping of Contaminated Sediments in Salem Canal, DuPont Chambers Works, New Jersey, USA (with H. Huls, T.A. Ei, and D. Hwang), Fifth International Conference on Remediation of Contaminated Sediments, Jacksonville, Florida, February 2-5, 2009. https://www.slideshare.net/AndrewJBCohen1/cs-poster-final-020109.pdf.
12. Quantitative Evaluation of Chlorobenzene Transport between Sediment and Groundwater (with K. West), 4th International Conference on Remediation of Contaminated Sediments, Savannah, GA, January 22-25, 2007.
13. Sub-Site-Scale Saturated Zone Model for Yucca Mountain (with C. M. Oldenburg, A. M. Simmons, A. K. Mishra, and J. Hinds), International High-Level Waste Management Conference and Exposition, Las Vegas, NV, May 11-14, 1998.
14. Effects of Faulted Stratigraphy on Saturated Zone Flow beneath Yucca Mountain (with C.M. Oldenburg), Field Testing and Associated Modeling of Potential High-Level Nuclear Waste Geologic Disposal Sites (FTAM) conference, Berkeley, CA, December 15-16, 1997. https://tough.lbl.gov/assets/files/02/documentation/proceedings/1998-CohenOldenburg.pdf
15. Reactive Transport Studies at the Raymond Field Site (with B. Freifeld, K. Karasaki, and R. Solbau), Sixth Annual International Conference on High Level Radioactive Waste Management, Las Vegas, NV, April 30-May 5, 1995.
16. Integrated Hydrogeologic Characterization of a Fractured Granitic Rock Formation (with K. Karasaki and B. Freifeld), American Geophysical Union Fall Meeting, San Francisco, CA, December 5-9, 1994.
17. Site Characterization of Groundwater Flow and Transport in Fractured Rock Systems for Improvement of Pump-and-Treat Remediation, Robert S. Kerr Environmental Research Laboratory Ground-Water Seminar, Oklahoma City, OK, June 1-3, 1994.
18. Hydrologic Imaging of Fractured Rock (with K. Karasaki, B. Freifeld, and P. Cook), XVIII International Symposium on the Scientific Basis for Nuclear Waste Management, Kyoto, Japan, October 23-27, 1994; *Lawrence Berkeley National Laboratory Report, LBL-36012.*
19. Characterizing a Fractured Granitic Rock Aquifer, Geotechnical Society Meeting Seminar, University of California, Berkeley, CA, May 4, 1994.

20. Inferred Hydrogeologic Structure of a Fractured Rock Aquifer From Well Log and Well Test Analysis, 5th International Symposium on Geophysics for Minerals, Geotechnical, and Environmental Applications, Tulsa, OK, Oct 24-28, 1993.
21. Effect of Boreholes on the Nature of Flow in Fractured Crystalline Formations (with K. Karasaki), American Geophysical Union Fall Meeting, San Francisco, CA, Dec 11-15, 1995.

Invited Presentations

22. The Seductive Appeal of PFAS Fingerprinting: Persuasion and Deception, GeoEnviroPro Webinar, December 3, 2025.
23. "Visualization of Groundwater Contamination, University of New Mexico, Dept. of Earth and Planetary Sciences, September 10, 2025.
24. Hydrogeologic Explorations to Benefit Farmers in the Atlas Mountains, Morocco, GeoEnviroPro Webinar, January 31, 2024.
25. USEPA Guidance on Groundwater Contaminated by PFAS is Technically Unsound, GeoEnviroPro Webinar, February 1, 2023.
26. Introduction to GroundwaterU: An Online Library of Groundwater Educational Videos, Groundwater Resources Association of California, May 25, 2022.
27. Visual Understanding of Groundwater Contamination, New Jersey Licensed Site Remediation Professionals Association (LSRPA) Aspiring Professionals Series, March 24, 2022.
28. Introduction to Groundwater Contamination, Geosystems Weekly Seminar, University of California, Berkeley, September 8, 2021.
29. Occurrence and Migration of PFAS Firefighting Foam in Surface Water and Groundwater, GeoEnviroPro Educational Series, February 17, 2021.
30. Visual Understanding of Groundwater Contamination, Hugo Neu Corporation Sustainability Seminar Series, Stevens Institute of Technology, February 16, 2021.
31. Introduction to “Conceptual and Visual Understanding of Hydraulic Head and Groundwater Flow,” GeoEnviroPro Webinar, September 16, 2020.
32. PFAS Forensics: Chemical Signatures in Surface Water and Groundwater, Chemours Technology Forum Meeting, July 31, 2019.
33. In Situ Measurement of Seepage Velocity and Chlorobenzene Degradation Rates in Freshwater Sediment, Rutgers University Geotechnical Seminar, Sept 1, 2015.
34. Example Conceptual Site Models of DuPont Chambers Works (with E. Lutz, S. Norcross, and G. Wealthall), 26th Annual University Consortium for Field - Focused Groundwater Meeting, Guelph, Ontario, June 2014.
35. Calculated Organic Carbon Partitioning Coefficient (Koc) in Sediment at Chambers Works, DuPont Technology Forum Meeting, September 16, 2013
36. Field Investigation of Aquitard Integrity and Plume Arrival Time Analysis (with T. Ei, N. Grosso, S. Norcross, and K. West), 22nd Annual University Consortium for Field - Focused Groundwater Meeting, Guelph, Ontario, May 19-21, 2010.
37. Groundwater Plume Discharge Through Canal Sediment and the Proposed Groundwater and Sediment Remedial Actions, 20th Annual Univ. Consortium for Field - Focused Groundwater Meeting, Orangeville, ON, May 6-8, 2008.

38. Characterizing a Fractured Granitic Rock Aquifer, Geotechnical Society Meeting Seminar, University of California, Berkeley, CA., May 4, 1994.

39. Site Characterization of Groundwater Flow and Transport in Fractured Rock Systems for Improvement of Pump-and-Treat Remediation, Robert S. Kerr Environmental Research Laboratory Ground-Water Seminar, Oklahoma City, OK, June 1-3, 1994.

40. Inferred Hydrogeologic Structure of a Fractured Rock Aquifer from Well Log and Well Test Analysis, 5th International Symposium on Geophysics for Minerals, Geotechnical, and Environmental Applications, Tulsa, OK, October 24-28, 1993.

Science Advisory Board Presentations

In my role as the Technical Lead for Environmental Investigations at DuPont's Chambers Works, I presented findings to DuPont's Science Advisory Board (SAB), which provided peer review of the data collection methods, data analysis, and conclusions associated with numerous investigations and remediation activities. The SAB was comprised of Dr. John Cherry, Professor, University of Waterloo; Dr. Lisa Axe, Professor, New Jersey Institute of Technology; Dr. Donna Fennell, Professor, Rutgers University; Dr. David Sabatini, Professor, University of Oklahoma; Dr. Jim Spain, Professor, Georgia Institute of Technology.

41. Salem Canal Sediment Biodegradation Study (with S. Kota, and D. Hwang), DuPont Science Advisory Board meeting, Wilmington, DE, March 30, 2010.

42. Freon and Fluoroproducts Contamination of Groundwater: Investigation and Conceptual Site Model (with P. Chen, and S. Norcross), DuPont Science Advisory Board meeting, Wilmington, DE, July 9, 2009.

43. Delaware River Investigation Findings – Groundwater to Surface Water Interaction (with S. Norcross and K. West), DuPont Science Advisory Board meeting, Wilmington, DE, October 1, 2008.

44. Protection of Drinking Water Aquifer Assessment, DuPont Chambers Works Site (with S. Norcross and K. West), DuPont Science Advisory Board meeting, Wilmington, DE, September 30, 2008.

45. Dense Non-Aqueous Phase Liquid (DNAPL) Architecture, Source Prioritization Modeling, and DNAPL Characterization Strategy (with S. Norcross), DuPont Science Advisory Board meeting, Wilmington, DE, March 27, 2008.

46. Hazardous Waste Landfill – Conceptual Model and Treatability Studies (with B. Butler, D. Hwang, S. Kota, and P. Madden), DuPont Science Advisory Board meeting, Wilmington, DE, March 26, 2008.

47. Analysis of Metals Fate and Transport, Carneys Point, DuPont Science Advisory Board meeting, Deepwater, NJ, September 7, 2007.

48. Groundwater Plume Discharge to Surface Water and Sediment Contamination, DuPont Science Advisory Board meeting, Deepwater, NJ, September 6, 2006.

Lawrence Berkeley National Laboratory Reports

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