



## TechDirect, December 1, 2025

Welcome to TechDirect! Since the November 1 message, TechDirect gained 79 new subscribers for a total of 36,928. If you feel the service is valuable, please share TechDirect with your colleagues. Anyone interested in subscribing may do so on CLU-IN at <https://clu-in.org/techdirect>. All previous issues of TechDirect are archived there. The TechDirect messages of the past can be searched by keyword or can be viewed as individual issues.

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TechDirect's purpose is to identify new technical, policy and guidance resources related to the assessment and remediation of contaminated soil, sediments and groundwater.

Mention of non-EPA documents or presentations does not constitute a U.S. EPA endorsement of their contents, only an acknowledgment that they exist and may be relevant to the TechDirect audience.

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### > Upcoming Live Internet Seminars

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**EPA Good Samaritan Mine Cleanup Program Webinar - Tuesday, December 2, 2025, 2:00PM-3:00PM EST (19:00-20:00 GMT).** This EPA hosted webinar on the Good Samaritan Remediation of Abandoned Hardrock Mines Act of 2024 will cover the scope of the program, highlight key aspects of the law, discuss the program's permitting process and NEPA review, and explain the program's goals and implementation timelines. For more information and to register, see <https://www.epa.gov/cleanups/good-samaritan-remediation-abandoned-hardrock-mines-program#webinar>

**ITRC: Pump & Treat Optimization Training - Thursday, December 4, 2025, 1:00PM-3:00PM EST (18:00-20:00 GMT).** This training aims to summarize existing information and best practices while also developing a systemic and adaptive optimization framework specifically for P&T well-network design and management. The primary audience for this training is environmental project decision-makers, which may include federal, state, tribal, and various local agency employees; contractors to these agencies; and potentially liable parties and their engineers and consultants as well as involved stakeholders. Generally, those involved in designing, building and operating, and optimizing pump & treat systems would benefit. The goal of the training is to provide a roadmap for optimizing a P&T system and refining the remedial strategy or shifting toward another remedial approach. Pump & Treat optimization should be systematic and data-based, and the training and document aim to provide tools and direction to assist in this rigorous process. For more information and to register, see <https://www.itrcweb.org> or <https://www.clu-in.org/live>.

**RemPlex Seminar: Moab UMTRA Project - Tuesday, December 9, 2025, 1:30PM-3:00PM EST (18:30-20:00 GMT).** The Department of Energy's Moab Uranium Mill Tailings Remedial Action (UMTRA) project is focused on the relocation of mill

tailings and the remediation of contaminated groundwater at the site of a former uranium-ore processing facility. This seminar will provide an update on progress being made through collaborations with scientific partners and regulatory agencies as the Moab UMTRA project moves towards site closure. This will include presentations of new and expanded groundwater investigations that have been completed to better understand contaminant behavior and refine remediation strategies. For more information and to register, see <https://www.pnnl.gov/events/remplex-seminar-moab-umtra-project>

**ITRC: Introduction to Hydrocarbons Training - Tuesday, January 13, 2026, 1:00PM-3:00PM EST (18:00-20:00 GMT).** Petroleum is a complex mixture of many compounds. Regulatory and technical guidance documents commonly focus on the hydrocarbon components of that mixture, or perceived risks that they present. However, focusing on a specific area of concern often causes practitioners to overlook other aspects of a release. For example, concerns related to exposure to total petroleum hydrocarbons (TPH) risks may be overlooked while pursuing concerns related to light non-aqueous phase liquid (LNAPL) recovery or petroleum vapor intrusion (PVI). This class is designed to provide a basic overview of hydrocarbon behavior in the subsurface and how to scientifically assess concerns arising from the release of petroleum products into the environment. It will highlight key issues that help identify and manage TPH, LNAPL, and PVI risks together. For more information and to register, see <https://www.itrcweb.org> OR <https://www.clu-in.org/live>.

**ITRC: Managed Aquifer Recharge (MAR) Training - Thursday, January 15, 2026, 1:00PM-3:00PM EST (18:00-20:00 GMT).** This training is intended for state regulators and stakeholders who may not be familiar with the opportunities and challenges associated with MAR. It provides a basic understanding of MAR concepts, along with case studies, that showcase examples of successful MAR applications. For those who are familiar with MAR, the training gives an overview of the components of the MAR process along with the important considerations associated with each component necessary for the design and implementation of a MAR project. For more information and to register, see <https://www.itrcweb.org> OR <https://www.clu-in.org/live>.

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## > New Documents and Web Resources

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**Research Brief 368: Nanoparticles Help Plants Clean Up Forever Chemicals.** NIEHS Superfund Research Program (SRP)-funded researchers developed a novel material that enhances the ability of plants to remove per- and polyfluoroalkyl substances (PFAS) from soil and water. View or download the brief at [https://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief\\_ID=368](https://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief_ID=368)

**New Publication on Using Stable Pb Isotopes for Source Attribution, August 2025.** US EPA ORD scientists published this paper titled "Source apportionment of lead in the San Juan watershed (USA): Influences from weathering of mineralized and sedimentary deposits." This study examined the sources and distribution of lead within the San Juan watershed located in southwestern Colorado and the four corners region of Colorado, New Mexico, Arizona, and Utah. This analysis demonstrated that lead isotope ratios can be used to effectively trace transport through watershed systems where multiple lead sources exist and where concentrations may be similar to geogenic values. View or download at <https://pubs.acs.org/doi/10.1021/acsenvironau.5c00070>

**Advanced Oxidation Assisted Groundwater Treatment System: A Field Evaluation (September 2025, EPA/600/R-25/125).** The objective of this project was to demonstrate the Office of Research and Developments in-house developed

cost-effective small-scale Point of Entry (POET) advanced oxidation treatment technology at the Williams Property Superfund site in New Jersey with the help of the New Jersey Department of Environmental Protection (NJDEP). This advanced oxidation technology approach will not only be useful for treating 1,4 dioxane in water but also will find applications for the remediation of various other organic chemicals in water. This field demonstration report will support/guide various EPA regions, states, municipalities, homeland security/FEMA, and the US Army for selecting technologies to treat their water/wastewaters. View or download at

[https://cfpub.epa.gov/si/si\\_public\\_record\\_Report.cfm?dirEntryId=367312&Lab=CESER](https://cfpub.epa.gov/si/si_public_record_Report.cfm?dirEntryId=367312&Lab=CESER)

**Archived RemPlex 2025 Summit.** This conference was organized by the Center for the Remediation of Complex Sites (RemPlex) in cooperation with the International Atomic Energy Agency's ENVIRONET. The Global Summit was held in person at Pacific Northwest National Laboratory in Richland, WA, with a virtual option. Remediation topics presented are available to replay online including resilience planning, characterization and monitoring, artificial intelligence, sustainability and circularity, data management, autonomous measurements, achieving end states, and more. View or replay archived sessions at <https://www.pnnl.gov/projects/remplex/2025-summit/program>

**Technology Innovation News Survey Corner.** The Technology Innovation News Survey contains market/commercialization information; reports on demonstrations, feasibility studies and research; and other news relevant to the hazardous waste community interested in technology development. Recent issues, complete archives, and subscription information is available at <https://clu-in.org/products/tins/>. The following resources were included in recent issues:

- PFAS Destruction by a Hazardous Waste Incinerator: Testing Results
- Monitored Natural Attenuation (MNA) Assessment for the Chemicals, Metals, and Pesticides (CMP) Pits Operable Unit (OU) and the Pen Branch Wetland
- Advanced Oxidation Assisted Groundwater Treatment System: A Field Evaluation
- Multi-Scale Evaluation of PFAS Thermal Destruction Requirements
- Adsorptive Media Selection Tool
- Insights and Strategic Opportunities From the USGS 2024 Per- and Polyfluoroalkyl Substances (PFAS) Interagency Workshop

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## > Conferences and Symposia

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**Design and Construction Issues at Hazardous Waste Sites (DCHWS West), January 26-28, 2026, Denver, CO.** The DCHWS West, co-sponsored by the US EPA and Society of American Military Engineers (SAME) and originally scheduled for November 3-5, 2025, has been postponed to January 26-28, 2026. The applications of engineering and science associated with cleaning up hazardous waste sites continue to evolve rapidly. The event's primary goal is to facilitate an interactive engagement between professionals from government and the private sector related to relevant and topical issues. For more information, please visit

<https://sites.google.com/samephiladelphiapost.org/dchws/west-symposium/fall-2025-dchws>.

**Design and Construction Issues at Hazardous Waste Sites (DCHWS East), March 6-8, 2026, Philadelphia, PA.** The US EPA and Society of American Military Engineers (SAME) co-sponsor the DCHWS East each Spring. The applications of engineering and science associated with cleaning up hazardous waste sites continue to evolve rapidly.

The event's primary goal is to facilitate an interactive engagement between professionals from government and the private sector related to relevant and topical issues. For more information and to register, please visit <https://dchws.org>

**NOTE: For TechDirect, we prefer to concentrate mainly on new documents and the Internet live events.** However, we do support an area on CLU-IN where announcement of conferences and courses can be regularly posted. We invite sponsors to input information on their events at <https://clu-in.org/courses> . Likewise, readers may visit this area for news of upcoming events that might be of interest. It allows users to search events by location, topic, time period, etc.

If you have any questions regarding TechDirect, contact Jean Balent at (202) 566-0832 or [balent.jean@epa.gov](mailto:balent.jean@epa.gov).

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