# AECOM Treatability Laboratory

## Areas of Expertise

- Bioremediation (aerobic and anaerobic)
- Chemical oxidation and reduction
- Solidification/stabilization
- Metals fixation
- Column studies
- Wastewater treatment
- Sediment dewatering
- Adsorptive media tests

**Some of the contaminants of concern that can be evaluated with these tests include:**

- PFAS
- 1,4-Dioxane
- Chlorinated solvents
- Benzene, toluene, ethylbenzene, and xylene (BTEX) and hydrocarbons
- Toxic metals: mercury, arsenic, hexavalent chromium, lead

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## Overview

The AECOM Treatability Laboratory provides a cost competitive, highly customizable option for performing batch and column treatability tests to evaluate chemical, biological, and physical treatment approaches for a wide range of chemicals in environmental media. Bench-scale treatability tests can be used to compare treatment alternatives, evaluate reagent chemistry, dosages and application methods, shed light on site biogeochemical conditions, and provide proof-of-concept evidence that a selected remedial technology will attain performance objectives. The treatability tests results can be used to support all aspects of remedy selection, design, and implementation.

## Benefits

- Iterative and cutomizable
- Low-cost, simultaneous testing of multiple treatment approaches
- Fine-tuning of remedial design
- Costs-savings and schedule optimization for pilot and full-scale imple-mentation
- Objective, unbiased testing
- Third party validation
- Synergy with AECOM's technical experts, seamless and streamlined inclusion into larger projects
- Flexibility for scope (narrow vs. broad)
- Quick turn-around time

## Analytical Capabilities

On-site analytical capabilities produce
real-time contaminant degradation data that allows implementing changes to the treatment, if needed.

Our facility offers the following analytical capabilities:

- Ion chromatography: nitrate, chloride, sulfate
- Gas chromatography: VOCs and hydrocarbon gases
- UV-VIS spectrophotometry: reduced iron, biomass protein, hexavalent chromium
- Oxidant demand, total organic carbon (TOC)
- Moisture content, total suspended solids, volatile suspended solids, and loss on ignition
- pH, ORP, DO, specific conductivity, temperature, and turbidity



**More Information:** AskEnvironment@aecom.com