



### Publication

## Extending the applicability of compound-specific isotope analysis to low concentrations of 1,4-dioxane – phase 2

Peter Bennett, Principal Consultant at Haley & Aldrich, is the lead author of a newly published report, “Extending the applicability of compound-specific isotope analysis to low concentrations of [1,4-dioxane](#) – phase 2.” Bennett and Dr. Ramon Aravena of the University of Waterloo produced the report as part of a project for the Department of Defense Strategic Environmental Research and Development Program (SERDP).

The project allows for the use of an advanced tool, compound-specific isotope analysis (CSIA), to assess 1,4-dioxane degradation in groundwater. CSIA is a powerful tool for verifying degradation of common groundwater pollutants, but prior to this project, CSIA was not sensitive enough for application at many sites with 1,4-dioxane contamination. This project enhanced the sensitivity of CSIA for widespread use at 1,4-dioxane sites. The new method involves pre-concentration of [1,4-dioxane](#) onto a sorbent and is now commercially available at the University of Waterloo Environmental Isotope Laboratory.

This method can provide regulators with convincing evidence of [1,4-dioxane](#) degradation at industrial-release sites and can inform appropriate remedial strategies.

To learn more, [read the full report on the SERDP website](#). To understand how this might be applicable to your sites, please [contact Peter](#), a remediation practice leader and forensic analysis expert.