Cascade Expands MobiLab Services with Industry's First Onsite Analyses for PFAS Emerging Contaminants of Concern

As the environmental industry focuses on this class of emerging contaminants, accurate and precise data is more important than ever.

WOODINVILLE, WASHINGTON, UNITED STATES, March 6, 2017 /EINPresswire.com/ -- Cascade Technical Services is the first environmental services provider to offer onsite analyses for the class of emerging contaminants of concern known as PFAS (poly and perfluorinated alkyl substances). This is not a screening technique, it is a full capability laboratory brought to the site. This is the newest addition to Cascade's MobiLab service line which provides fully defensible laboratory analyses for any project location in an accredited onsite laboratory.

PFAS MobiLab uses state of the art solid phase extraction and liquid chromatography to confidently identify and quantify PFAS in water and soil matrices

PFAS are extremely stable, man-made chemicals used to make a wide variety of specialty coatings and fire suppression foam (Aqueous Film Forming Foams or AFFF). Due to the strength of the carbon-fluorine bond these chemicals are very stable and persistent in the environment. They are highly soluble and sorb only moderately to organic matter and mineral surfaces, meaning they migrate readily in the subsurface. They have been detected in surface water, sediments, groundwater, soil, and air, as well is in animal and human blood around the globe. They are known to concentrate in the food chain and in the human body. Since these chemicals are persistent, mobile, toxic, and have been the subject of significant litigation, they have attracted considerable attention in the environmental industry.

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> *Seth Pitkin, Cascade's National Director of Site Characterization Services*

The US EPA recently established health advisory levels of 0.070 ug/L for perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) in drinking water. Industrial manufacturing sites typically have relatively few PFAS compounds (primarily PFOS and PFOA) while the AFFF sites have very complex chemistry with hundreds of compounds

present. Due to the very low detection limits and the potentially complex chemistry, laboratory analyses have only recently been developed to address the problem. In situ remedial technologies are largely untested at the present time.

Our PFAS MobiLab uses state of the art solid phase extraction and liquid chromatography (LC/MS/MS) to confidently identify and quantify PFAS in water and soil/sediment matrices. This allows for the use of dynamic work strategies which keep investigations focused and efficient. It also allows for identification of potential cross contamination due to sampling activities while in the field. The opportunities for cross contamination during PFAS sampling are abundant due to the prevalence of these compounds in our daily lives. This has been a significant challenge on many site characterization and remediation projects. With MobiLab's PFAS analyses, sources of cross contamination can be isolated and eliminated in the field before the field work is completed, increasing confidence in the results of the sampling program.

MobiLab provides flexibility and a customized sampling program for any remediation site. The sample preparation and injection may incorporate either direct sample injection or an in-line, solid phase extraction/enrichment. Plus, analyses can be augmented with analyses for volatile and semi-volatile organic compounds for complex contaminant mixtures such as those that are often found at firefighting training areas. The detection limits are in the low tens of parts-per-trillion (ppt) to single digit ppt levels. Sample throughput is typically about 30 samples per day, with results available within hours of sampling and the day after sampling for non-critical results.

"This is really a game-changer in terms of the ability of site investigators to apply state of the science dynamic work strategies and high resolution characterization methods to PFAS sites. The value of near-real time data at a price that is competitive with fixed laboratories for much longer turnarounds brings tremendous value to our clients," said Seth Pitkin, Cascade's National Director of Site Characterization Services.

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