IET Renews Exclusive Technology License from Evonik Soil & Groundwater Remediation (Formerly PeroxyChem)

PHILADELPHIA. January 20th, 2024 Innovative Environmental Technologies, Inc. (IET) has renewed its license with Evonik Corporation for Evonik's proprietary in situ geochemical stabilization (ISGS) technology. Under the terms of the agreement, IET has exclusive rights to ISGS technology in North America.

ABOUT THE TECHNOLOGY: In situ geochemical stabilization (ISGS) entails the use of modified permanganate solutions for the purposes of mass removal and flux reduction (i.e., NAPL stabilization). As the oxidant migrates through the treatment area, various geochemical reactions destroy the targeted compounds present in the dissolved phase. This causes a "hardening" or "chemical weathering" of the NAPL as it steadily loses its more labile components. This causes a net increase in viscosity of the organic material, which yields a more stable, recalcitrant residual mass. In addition, both the insoluble MnO2 precipitate that results from permanganate oxidation and other mineral species included in the ISGS formulation accumulate along the NAPL interface, physically coating the NAPL and thereby reducing the flux of dissolved–phase constituents of interest (COI) into the groundwater.

The technology provides both mass removal and mass stabilization. To achieve these objectives, the delivery of the ISGS material must be effectively distributed to the targeted zone(s) so as to facilitate the formation of the Birnessite-like crust. Birnessite is an oxide of Mn and Mg, along with Na, Ca and K with the composition:

(Na,Ca,K)(Mg,Mn) $Mn_6O_{14} \dots 5H_2O$

"The continuation of the ISGS technology license will allow IET to further broaden the suitable applications. The teaming relationship established between the technology owner and our company solidifies IET as a technology leader, providing both in-house patented technologies and licensed technologies. IET looks forward to providing the ISGS technology to broader targeted NAPL sources as an economical alternative to traditional stabilization processes." said Michael Scalzi, President of IET.

EVONIK is a leading specialty chemical company active in more than 100 countries around the world and generated sales of €18.5 billion in 2022. Evonik's portfolio of soil and ground water remediation technologies have been used to successfully treat contaminated thousands of sites around the globe. Learn more at: evonik.com/remediation

Innovative Environmental Technologies, Inc. (IET) is the oldest and most respected remedial contractor providing patented and licensed in-situ injection services in the United States. Formed in 1998, IET provides turn-key design and implementation services to environmental consulting companies. Since 1998, IET has designed and implemented over 1,000 in-situ remediation projects. IET is committed to providing the most appropriate and cost-effective technology based solutions for a wide variety of impacted soils and groundwater. IET's suite of in-house patented, patent pending and licensed technologies allow for the in-situ treatment of chlorinated solvents, DNAPLs, LNAPLs, petroleum hydrocarbons, PAHs, Chlorinated aromatics, pesticides and heavy metals.