

# CAT 100

## REMEDIATION PRODUCTS INC.

### Primary Use

Soils and groundwater highly impacted with halogenated compounds and complex mixes of recalcitrant contaminants typically addressed through combined remedies.

### Treatment Mechanism

Catalytic degradation of a broad spectrum of halogenated and recalcitrant organic compounds through surface reactions on a conductive platform fed with a continuous source of electrons.

### Delivery Methods

RPI-Approved Direct Push or Packer Injection. Direct Application via Soil Mixing or Trenching



### CAT 100 Product Description

CAT 100 is a fusion of RPI's BOS 100® and biotechnology to produce a technology capable of achieving results beyond the capabilities of either one alone. Electron transfer, the heart of all contaminant degradation processes, is promoted as the contaminant binds to the metal creating an electrical connection extending throughout the carbon. An electron pump created by slow degradation of complex carbohydrates and peptides feeds electrons to the conductor which shuttles them to the site of depletion. In this process the metallic iron facilitates catalytic degradation of the contaminant without significant depletion of the iron. This overall cycle enables degradation of far more contaminant mass than would be estimated by simple iron demand.

### CAT 100 Product Applications

The product is typically mixed with water to create a slurry that can be applied using a variety of techniques including: Direct push injection, soil mixing techniques, and trenching. It is commonly employed in plume wide treatment including treatment of source, mid, and downgradient plume regions. Plume area treatment is normally accomplished using slurry injection across the impacted thickness at a number of points located using a triangular grid pattern. Effective barriers can be constructed by injection using a tight point grid layout or through trenching or soil-mixing. Specialized injection techniques have been developed to address a variety of lithologic settings. CAT 100 was quietly introduced to last year and has now been used at multiple sites in the USA and Europe. These sites were impacted by NAPL and principal contaminants include carbon tetrachloride and associated daughters, TCE, PCE, and a complex spectrum of halogenated and non-halogenated compounds.

### RPI Group

RPI Group is comprised of Remediation Products, Inc. (RPI) and a group of select remediation contractors that employ a three-pronged approach to ensure success: High density soil and groundwater sampling to support detailed conceptual site model development, expert design, and proven installation techniques to ensure distribution of the CAT 100 in the targeted intervals. The RPI Quality Assurance Laboratory located in Golden, CO provides cradle to grave analytical support throughout the project at no charge to the client. AST Environmental (AST) acts as RPI's Distributor & Training Affiliate for the installation contractors. A list of the contractors can be found at RPI's website..

