



# Remedial Capping

## HS-200+ Organoclay Active Sediment Caps

Active capping technology is a containment technology that isolates contaminants (i.e., Heavy Metals, PAHs, PCBs) from damaging surrounding aquatic environments such as lakes, rivers, groundwater. The HS-200+ is commonly used in sediment caps for isolating oils, greases, organic and inorganic compounds.

### Effective Adsorption

By altering the chemistry of the zeolite based organoclay, Hydrosil enhances the adsorption characteristics of several organic and heavy metal compounds: benzene, phenol, ethylbenzene, and naphthalene.

The HS-200+ is organophilic clay which has an oil adsorption capacity that minimally holds 50% of its' own weight in oils. The material is also effective at removing polycyclic aromatic hydrocarbons (PAH).

### The Science Behind HS-200+

Using proprietary test methods Hydrosil tested the HS-200+ with lightweight PAH (e.g., phenanthrene) and heavyweight PAH (e.g., pyrene). The tests carried out used multipoint sorption isotherms using triplicate analysis to determine the partition coefficients (Kd values).

Hydrosil's research showed that at lower concentrations several of the contaminant isotherms were linear.

Hydrosil Organoclay HS-200+ Properties	
Bulk Density	58 – 60 lb/ft <sup>3</sup>
Oil Adsorption Capacity	50 % wt/wt
Hydraulic Conductivity	0.030 – 0.042 cm/sec
Partitioning Coefficients	
Contaminants	Kd log (L/kg)
Lightweight PAH	4.7
Heavyweight PAH	5.5

\*Kd values were evaluated at 20C

