

ORGANOCLAY MRM removes mercury from New Jersey construction site



A national remediation contractor was tasked with the construction and operation of a groundwater treatment system for a large excavation site in East Rutherford, NJ. The site owner is a multinational chemical company, and the groundwater was contaminated with organics, arsenic, and mercury. The design engineer specified CETCO's ORGANOCLAY MRM (Mercury Removal Media) to be included in the treatment system. ORGANOCLAY MRM is a granular filtration media comprised of chemically modified bentonite clay that efficiently sorbs a variety of elemental and methylmercury species.

The treatment system consisted of two processes. Groundwater extracted from site dewatering activities was first pumped through filtration vessels filled with 16,000 lbs of ORGANOCLAY MRM. Effluent from these vessels was then pumped through another set of similarly sized vessels containing granular activated carbon. The final effluent had to meet the NJDEP discharge parameters for all of the Contaminants of Concern.

A primary concern in this project was the varied chemical composition of the waste stream, which contained both organics and metals. Traditional sorptive media tend to exhibit interference effects in these mixed waste streams such that organic contaminants can prevent efficient metals uptake. However, ORGANOCLAY MRM will simultaneously adsorb both classes of contaminants. Data obtained from the site indicates that media met all State criteria such that treated effluent was permitted to be discharged.

As of October 29, 2012, the contractor had completed approximately 75% of the project with no discharge exceedances during continuous operation of the treatment system. Superstorm Sandy then moved through the site and filled the ongoing excavations with more water requiring treatment. The contractor is confident the existing treatment system will be able to successfully handle the remainder of the water even with the unexpected increase in volume to be treated.

LOCATION

East Rutherford, New Jersey

PRODUCTS USED

ORGANOCLAY MRM

cetco@mineralstech.com | cetco.com | 800.527.9948

© 2017 CETCO. IMPORTANT: The information contained herein supersedes all previous printed versions, and is believed to be accurate and reliable. For the most up-to-date information, please visit www.cetco.com. CETCO accepts no responsibility for the results obtained through application of this product. CETCO reserves the right to update information without notice.

