

# Wastewater Treatment with WISE Solutions Water Clear™

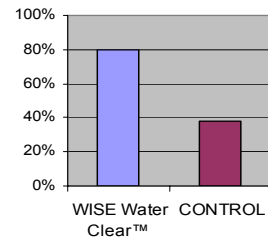
WISE Solutions wastewater treatment products have proven to reduce organic loadings in waste streams. The ability of the colloidal micelles to disrupt the molecular bonds of organic compounds turns organic particles, both suspended and dissolved, into a more readily digestible form for bacteria to break down.

## Dramatic Reduction in BOD in 72 hours

WISE was contracted to pre-treat a single batch of organic waste such that it could be discharged into the municipal sewage system. Initial BOD levels were 12,200 mg/l, well over the upper limit of 3000 mg/l needed to be accepted into the treatment plant.

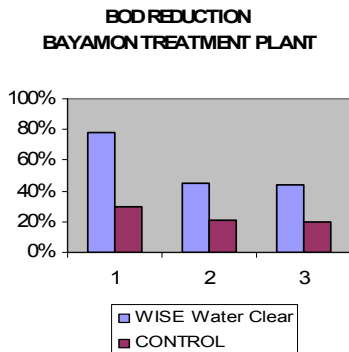
The waste was treated with the addition of one gallon of Wise Water Clear™ concentrate for every 10,000 gallons of waste. Pumps circulated the waste water in a small lagoon for a period of three days. The BOD level after treatment with Water Clear was 2400 mg/l, representing an 80% reduction. The level of untreated control sample was 7500 mg/l, a 38% reduction. In this case, the addition of WISE Water Clear to the waste stream more than doubled the BOD reduction of the waste organics relative to the untreated control.

BOD Reduction in Industrial Wastewater



## Case Study: Bayamon Wastewater Treatment Plant

WISE products were also used to remediate a wastewater treatment facility in Bayamon, Puerto Rico, adjacent to Bayamon River. The goal was to reduce BOD emissions, and to alleviate solids problems. Water Clear was added to the stream at a rate of 1:10,000. The waste then resided in aeration lagoons for three days. Waste water samples were taken from three lagoons as they were filled (see illustration), and as they were emptied three days later. BOD levels were taken and compared to historical levels as the effluent left the lagoons.



The initial average BOD for the three samples taken was 390 mg/L, and the average BOD out was 156 mg/l. The effluent treated with Water Clear realized a BOD reduction ranging from 78% to 45%, or an average of 59% compared to the control levels of approximately 20%.

The addition of Water Clear more than doubled the BOD reduction of the effluent, as well as prevented further solids build up in the aeration lagoons.

This trial demonstrated to the treatment plant personnel that

WISE Water Clear represents a cost-effective method to improve efficiency and reduce solids. The plant now uses WISE Technology on a continuous basis.

For more information or to obtain samples, contact:

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