*Advancing Water Treatment With Responsible Innovation™*

# Case Study: Wastewater Collections, Excessive $H_2S$ Levels

## INTRODUCTION:

A large metropolitan city in the Midwest was experiencing excessive $H_2S$ gas levels in an area of its wastewater collection system. The resulting odors brought in numerous complaints.

## INVESTIGATION:

A field investigation by United's Wastewater Specialists determined that high levels of fats, oils and grease (FOG) in the collection system were the major contributing factor to the $H_2S$ generation and odors.

## IMPLEMENTATION:

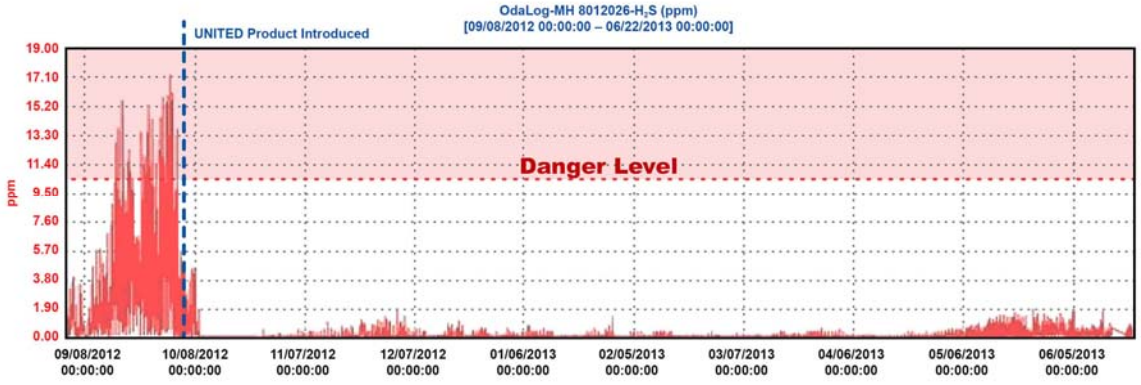
A program was designed to control the FOG, utilizing United's patent pending Inter-Core Technology blocks.

Products put in use include:

- **United 988 GAS MASTER H2S Inhibitor Block** – These blocks contain a special blend of highly concentrated bacteria that work together to both reduce the FOG and inhibit $H_2S$ production.
- **United 856 BIO-ACCEL for Grease and Odor Control in Wastewater Environments –** A block formulated with enzymes (no bacteria or surfactants) to predigest the FOG and accelerate bacterial activity within the system, which was needed in this particular situation.

## RESULTS:

The use of the blocks has been effective in controlling the FOG and $H_2S$ odors. The municipality testing data was recorded and documented in the chart shown. The chart was provided by the municipality and supports the findings that $H_2S$ levels dropped significantly. The high level before start of treatment was 17.38 ppm, and immediately dropped upon application of United 988 and United 856. Subsequently, levels remained well below the danger levels, dropping to lows of 0 ppm and an average of 0.51 ppm over 8 months.



**CONCLUSION:**

Recommendations submitted by the United Wastewater Treatment Specialist were implemented and the $H_2S$ gas problem was resolved. The United program continued to be followed by the municipality using the specially formulated bacteria blocks to eliminate the $H_2S$ gas problem from reoccurring. United's bacteria blocks contain a unique strain of bacteria in high concentrations that allows for a very dangerous situation to be contained and controlled.