

THM Rapid Response (THM-RR) System On-site Process Control of Individual and Total THMs



Dr. Gary L. Emmert — Inventor of the THM-RR, Chief Scientific Officer of Foundation Instruments, Inc., and Professor and Chair of Chemistry at The University of Memphis

- No waiting for accurate THM results
- Revolutionary patented process
- No Reagents (hazardous or otherwise)—no waste!
- Uses inexpensive nitrogen, not helium
- Targets THMs, not TOC
- Simple automated operation

“Outstanding installation, service and support”

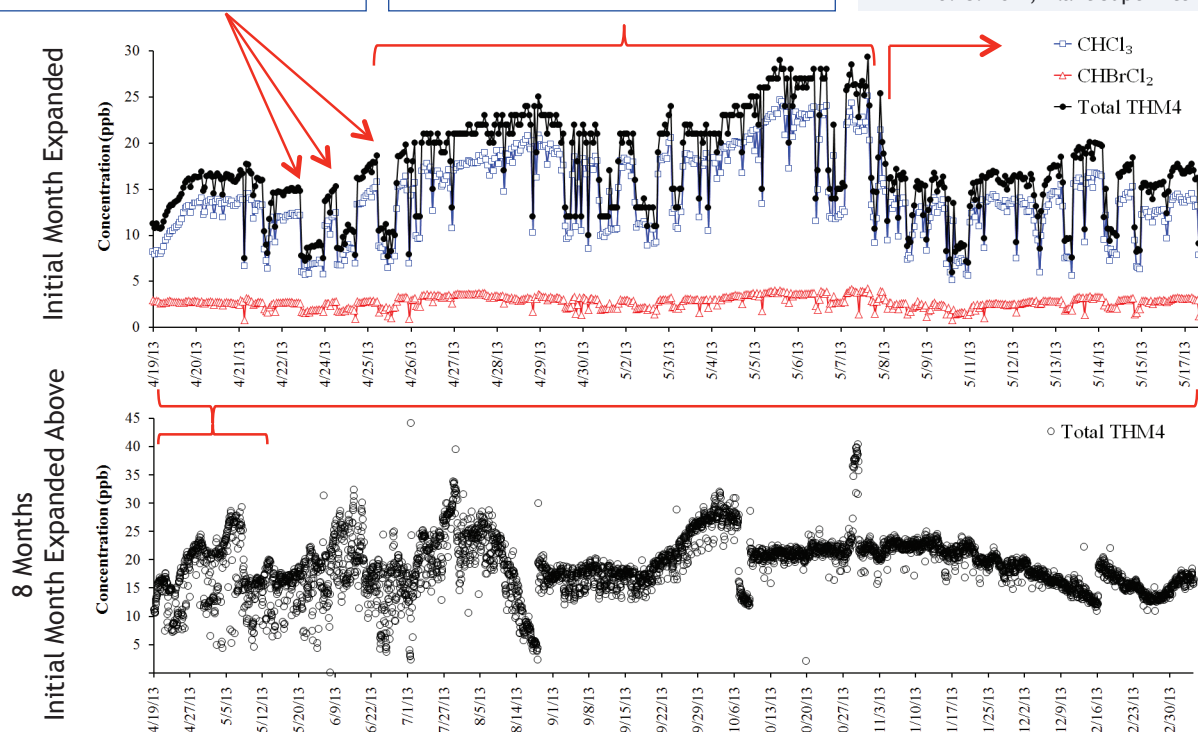
— R. Easley, Director of Water Quality and Operations, Central Arkansas Water

City of Lebanon, TN, Water Treatment Plan, THM-RR Results

Process Mapping
Sludge removal in settling tank

Process Optimization
Powdered Activated Carbon

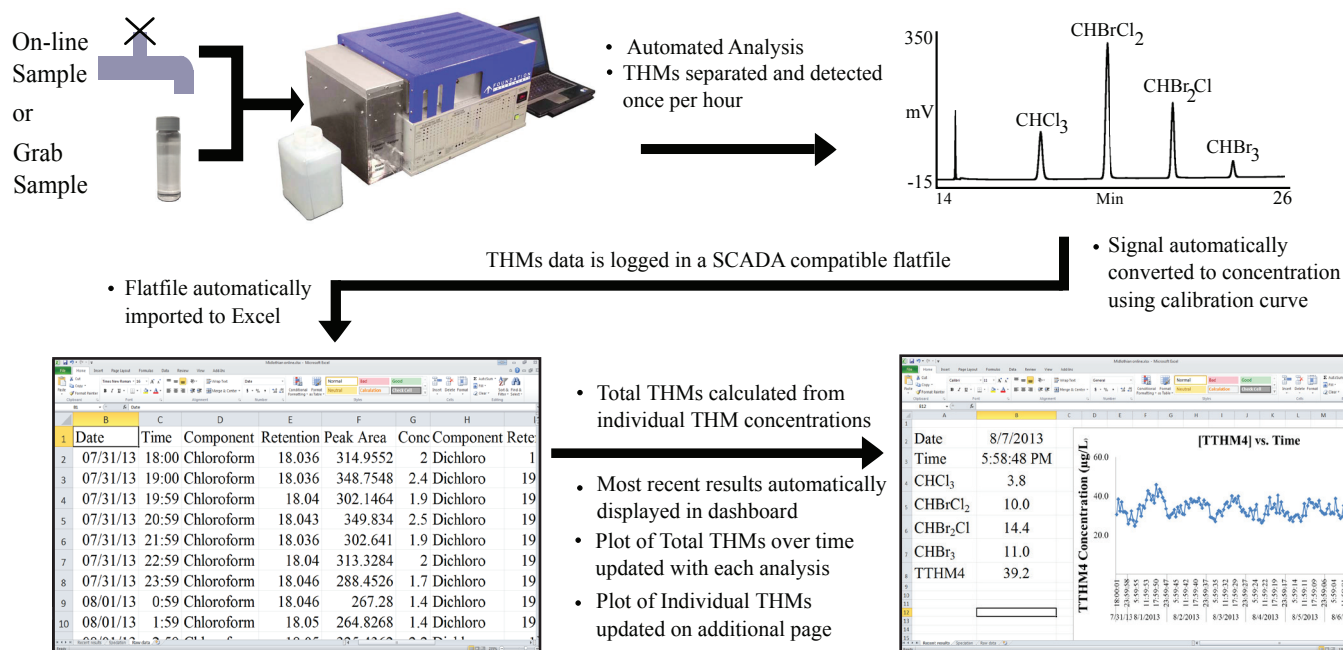
“In 1 year, we recouped the THM-RR cost from reduced chemical usage”
— J. C. York, Plant Superintendent



“Controlling Disinfection By-Products Is Our Foundation”

Why spend money to remove TOC that does not become THMs? Save Money, Labor, and Time!

Overview of the Operation of the Automated THM-RR System



“In rigorous peer-reviewed studies, the THM-RR system agreed with USEPA 524.2 to within 1.3 ± 1.1 ppb.” (Brown et al., *Anal. Chim. Acta*, Vol. 853, pp. 351-359, 2015)

“The data the THM-RR generates shows changes within our own treatment plant that previously we could not effectively quantify.”

— Dr. Manny Ojo, Environmental Lab Manager, Metro Nashville Water Services, Nashville, TN

Foundation Instruments, Inc.

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