

a paradigm shift in measuring wastewater quality



The quality of wastewater generated from industrial operations and municipalities is highly regulated and closely monitored.

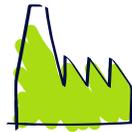
Traditional “oxygen demand” methods of determining wastewater quality can be time-consuming, costly, and less accurate than other techniques.

Instead, TOC analysis is a highly sensitive, non-specific measurement of organics present in a sample.

who can benefit from wastewater TOC analysis?



Municipality and water utility operators



Industrial process and wastewater treatment operators

why is it important?

Wastewater treatment plants around the globe have implemented TOC monitoring to help optimize their treatment processes.

food & beverage (U.S)

A food manufacturer implemented TOC testing to replace the traditional five-day BOD analysis used to monitor its wastewater effluent. TOC analysis allowed this facility to be more prepared to identify and resolve process upsets, meet effluent quality standards, and avoid regulatory fines.

CPI (Europe)

A large chemical manufacturer needed to improve monitoring and controls to meet the site’s effluent discharge permit levels and avoid exceeding required wastewater limits. Implementing TOC monitoring enabled operators to make real-time decisions to control upsets and avoid exceeding discharge limits.

food & beverage (Asia)

A food & beverage manufacturer implemented TOC monitoring to capture spikes in alcohol concentration. The hourly COD checks were incapable of capturing these changes due to its short detection window. TOC monitoring allowed the manufacturer to make informed decisions about its wastewater, to divert it for reprocessing and avoid upsets.

why TOC?

- ✓ Results in minutes, not days
- ✓ Improved process control
- ✓ Near real-time monitoring
- ✓ Less unplanned downtime
- ✓ Fewer permit violations and fines
- ✓ More stable operation

water quality measurement 101

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| BOD₅ <ul style="list-style-type: none">• Biochemical Oxygen Demand• Indirect measurement; typically used in municipal sewage treatment but also gaining traction in industrial applications• Five-day lab test | COD <ul style="list-style-type: none">• Chemical Oxygen Demand• Indirect measurement; typically used in industrial applications• Typically two-hour lab test | TOC <ul style="list-style-type: none">• Total Organic Carbon• Direct measurement; used in diverse water and wastewater applications• Results in 4–10 minutes |
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