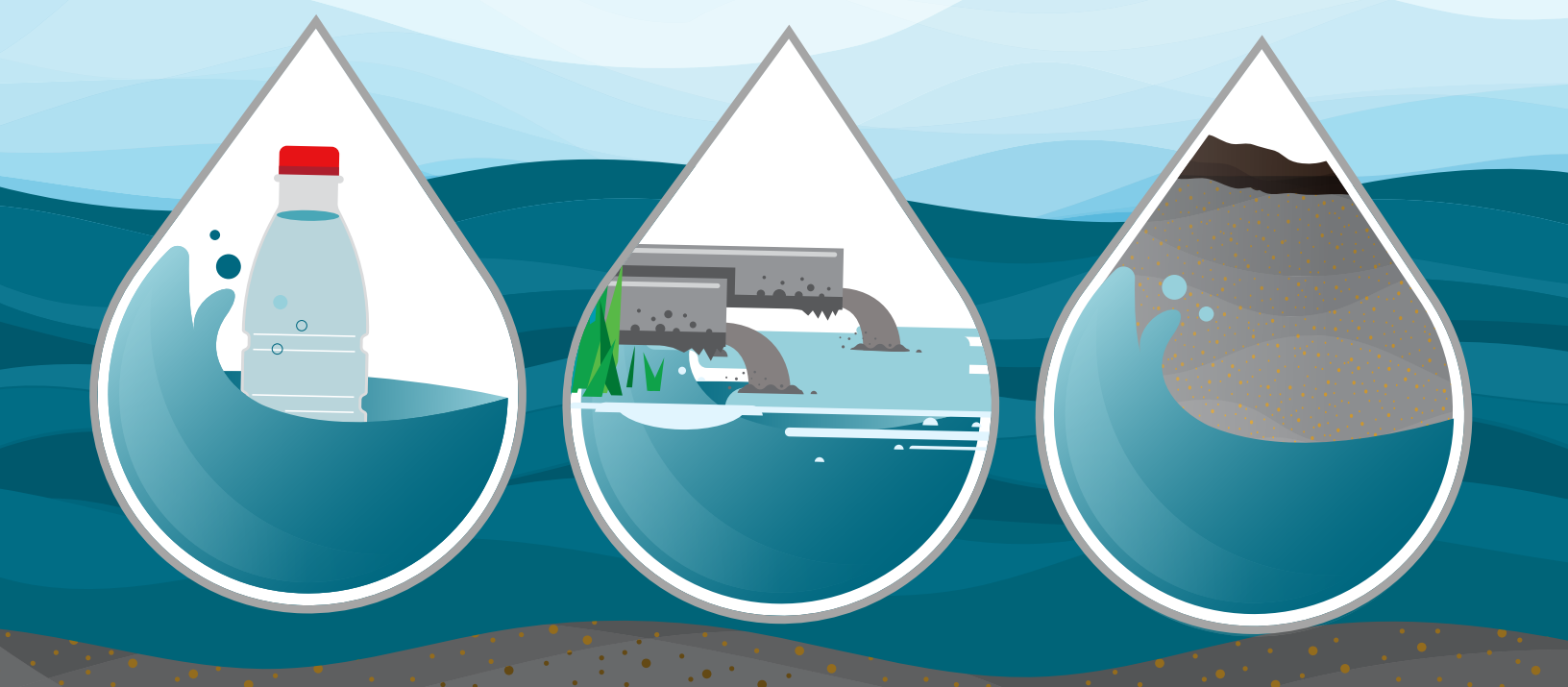
Automated wet chemistry analysis

Water and nutrient analyses finally mastered

Powerful. Efficient. Confident.

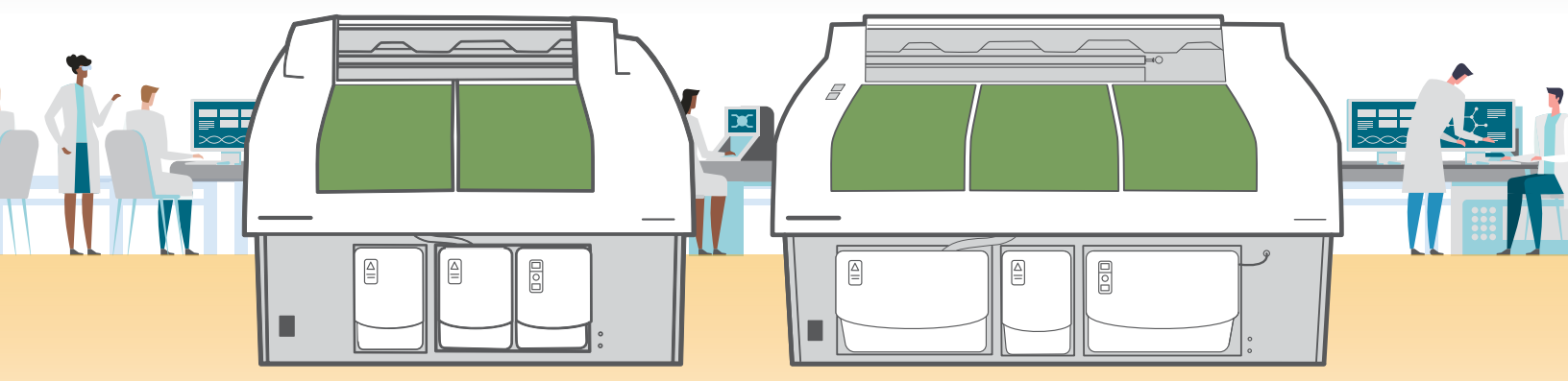
For fully-automated wet chemistry analysis of drinking water, wastewater, and soil samples



The importance of accurate nutrient analysis

Determining nutrient levels in drinking water, wastewater, and soil samples is critical for protecting aquatic habitats and maintaining clean and safe drinking water supplies. Utility companies and environmental laboratories must regularly measure elemental phosphorus and nitrogen in sewage water, along with a range of other pollution indicators, to ensure discharge streams are compliant with regulatory standards. Wastewater nutrient analysis can also be used for the assessment of population-level infection, including SARS-CoV-2 surveillance, by providing important biomarker indications for population size.

Thermo Scientific™ Gallery™ and Gallery™ Plus Aqua Master Discrete Analyzers are easy-to-operate automated systems created specifically for simultaneous multiparameter water and nutrient analyses, powered by specially designed software features to help customers meet local regulations, realize high-throughput automation, and achieve walkaway efficiency.

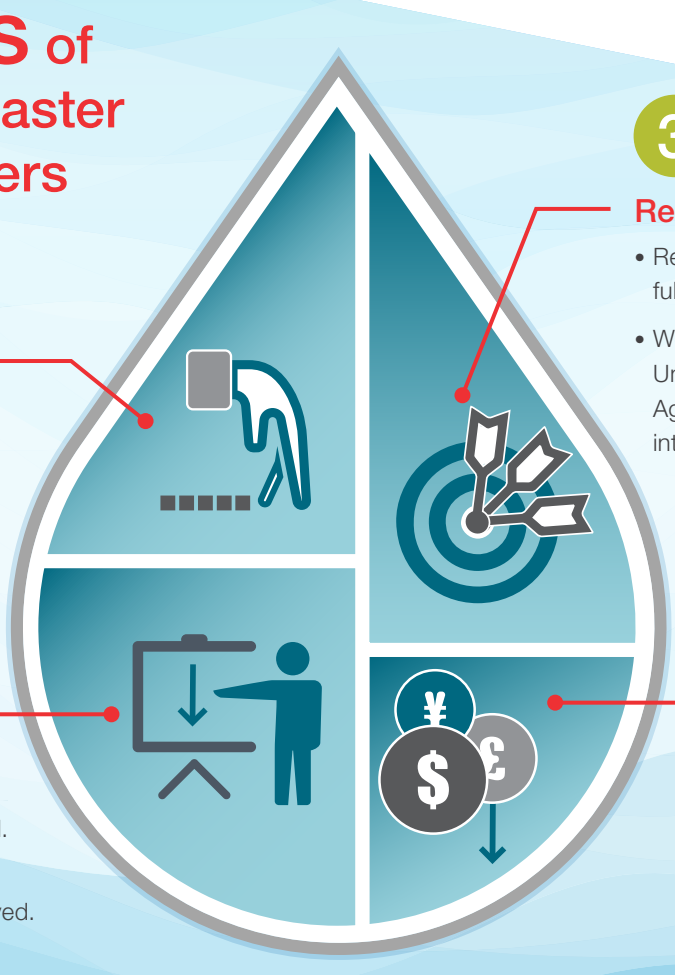


Simply a better way of automating wet chemistry testing

If your laboratory is using manual methods or has old wet chemistry instruments, such as the discontinued Lachat QuikChem™ Flow Injection Analyzer, segmented flow analyzers, or titrators, it is time to consider upgrading to a fully automated wet chemistry analyzer—an open system capable of adopting to your existing spectrophotometric methods and reagents.

The Gallery Aqua Master discrete analyzers are the ultimate automated analyzers for wet chemistry labs. They offer a simpler workflow and are a more reliable, and easier-to-operate testing solution compared to traditional wet chemistry methods, enabling up to three hours of walkaway time.

4 benefits of Gallery Aqua Master discrete analyzers



1 Walkaway efficiency

- Multiparameters are tested simultaneously. Test workflows are highly automated for up to 350 tests per hour and 3 hours of walkaway time.

2 Low training needs and maintenance

- Easy to operate by a single technician from any expertise level.
- New users can be easily trained in hours. Lab staffing issues resolved.

3 Reliable and compliant

- Reduced manual handling errors and fully traceable results.
- Workflows are automated following United States Environmental Protection Agency (U.S. EPA) methods and international standards.

4 Cost effective

- Reduced sample and reagent volumes for lowest waste generation and a reduced cost-per-test (up to 20 times lower).

Overcoming Nitrate + Nitrite (TON) measurement challenges

Wave goodbye to carcinogenic cadmium reduction coils, hazardous chemicals, and time-consuming manual methods.

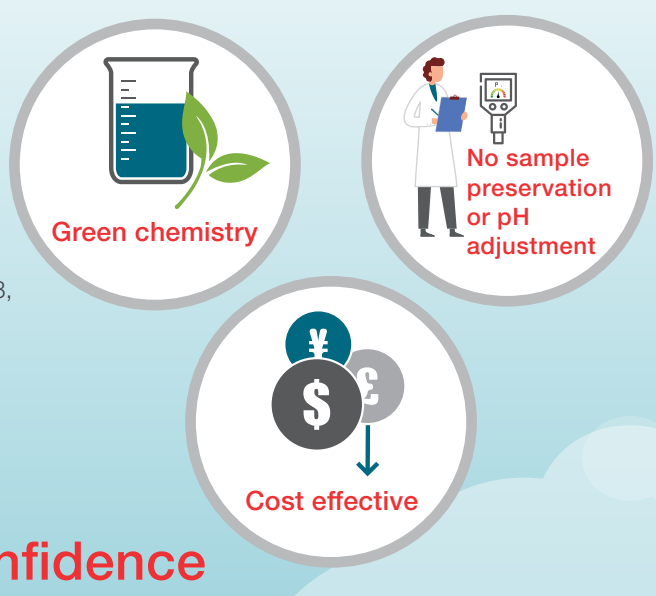
Limitations of traditional cadmium reduction coil methods

- Carcinogenic health risk
- Costly waste disposal
- Time-consuming, manual methods

The right way of measuring Nitrate + Nitrite: Safer enzymatic methods

In compliance with 40 CFR Part 141.23, 40 CFR Part 141, NECi–N07-0003, USGS I-2547-11, USGS I-2548-11, and NECi Nitrate-Reductase regulatory standards, the enzymatic methods and ready-to-use reagents improve safety, increase result reproducibility, and reduce cost-per-test.

Advantages of enzymatic TON method



Regulatory compliance with confidence

All Gallery and Gallery Plus system methods are compliant with U.S. EPA, National Environmental Laboratories Accreditation Conference (NELAC), and recognized international standards.

Gallery discrete analyzers

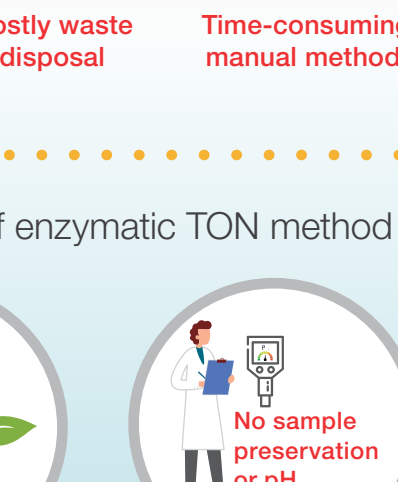
U.S. EPA wastewater reference methods

Analyte	Regulatory method
Alkalinity	EPA 310.2 (Rev. 1974)
Ammonia	EPA 350.1 (Rev. 2.0 1993)
	SM 4500-NH3-F
	SM 4500-NH3-G
COD*	EPA 410.4 (Rev. 2.0 1993)
Chloride	SM 4500-Cl-E
Chlorine (Total residual)*	SM 4500-Cl-G
Conductivity	EPA 120.1 (Rev. 1982)
Copper*	SM 3500-Cu-C
Cyanide (Amenable)*	SM 4500-CN-G
Cyanide (Total)*	EPA 335.4 (Rev. 1.0 1993)
	SM 4500-CN-E
Fluoride	SM 3500-F-D
Total hardness	EPA 130.1 (Issued 1971)
Chromium	SM 3500 Cr-B
Iron	SM 3500 Fe-B
Nitrate + Nitrite (TON) (Enzymatic reduction)	N07-0003
	ASTM D7781-14
	USGS I-2547-11
	USGS I-2548-11
Nitrate + Nitrite (TON) (Hydrazine reduction)	SM 4500-NO3-H
Nitrate + Nitrite (TON) (Vanadium reduction)	NEMI (Nitrate via manual Vanadium (III) reduction)
Nitrite	N07-0003 (Bypass enzymatic reduction)
	SM 4500 NO2-B
Orthophosphate	EPA 365.1 (Rev. 2.0 1993)
	SM 4500-P-E
pH	EPA 150.2 (Dec. 1982)
Silica	SM 4500 SiO2-C
	SM 4500 SiO2-D
Sulfate	SM 4500 SO4-E
	ASTM D516-16
Sulfide*	SM 4500-S2-D
Total Kjeldahl nitrogen (TKN)*	EPA 351.2 (Rev. 2.0 1993)
Total phenol*	EPA 420.1 (Rev. 1978)
Total phosphorous (TP)*	EPA 365.1 (Rev. 2.0 1993)
	EPA 365.4 (Issued 1974)
	SM 4500-P-E

U.S. EPA drinking water reference methods

Analyte	Regulatory method
Conductivity	SM 2510-B
Cyanide (Total)*	EPA 335.4
	SM 4500-E
Cyanide (Amenable)*	SM 4500-G
Fluoride	3500-F B, D
Nitrate + Nitrite (TON) (Enzymatic reduction)	NECi Nitrate-Reductase
Nitrite	NECi Nitrate-Reductase (Bypass enzyme)
	SM 4500-NO2-B
pH	EPA 150.2
Orthophosphate	EPA 365.1
	SM 4500 P-E
	SM 4500 P-F
Silica	SM 4500 SiO2-C
	SM 4500 SiO2-D

* Third party reagent



Thermo Scientific Gallery Aqua Master and Gallery Plus Aqua Master discrete analyzers

They're what you've been asking for.

Learn more at **thermofisher.com/AquaMaster**

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