



ERIE COUNTY WATER AUTHORITY

INTEROFFICE MEMORANDUM

March 8, 2021

TO: Jerome D. Schad, Chair
Mark S. Carney, Vice Chair
Peggy A. LaGree, Treasurer

FROM: Sabrina A. Figler, Director of Water Quality

SUBJECT: Water Quality Department NYSDOH ELAP Certifications

In 2019, following several incidences of outside contract laboratory failures, we, the ECWA, made the determination to procure analytical chemistry instrumentation for the ECWA Water Quality Laboratory that would allow us to perform analysis in-house. This investment allowed for ECWA to obtain the control and integrity of required New York State Department of Health (NYSDOH) and EPA testing and samples, ensure quality control, and guarantee the timely reporting of results to our regulatory agencies.

In 2020, the Water Quality Laboratory acquired four analytical instruments including a TOC Analyzer, a GC/MS, an ICP/MS and an IC/LC/MS/MS. Thanks to the dedicated work of the Water Quality Staff, as of this date we are certified for the following Standard Method (SM) and Environmental Protection Agency (EPA) methods:

- ❖ EPA Method 524.2 Tri-halomethanes (THM, a DBP)
- ❖ EPA Method 200.8 Metals (including lead and copper)
 - Total metals approved: 15
- ❖ SM21-23 5310B Dissolved Organic Carbons (DOC)
- ❖ SM21-23 5310B Total Organic Carbons (TOC)
- ❖ EPA Method 524.2 - Volatile Organic Carbons – 58 compounds, MTBE & Vinyl chloride
- ❖ EPA Method 557 - Haloacetic Acids (HAA, a DBP)
- ❖ EPA Method 522 – 1,4-Dioxane: Certified
- ❖ EPA Method 537.1 - Per- and Polyfluroalkyl Substances (PFAS/PFOS)

The addition of these analytes to our current ELAP certifications allows the ECWA to perform approximately 85% of its required testing in-house.

The EPA Method 537.1 and 522 certifications are important accomplishments as PFAS and PFOA and 1,4-dioxane contamination has received much media attention in recent years. NYS just began regulating these compounds in September 2020 and two weeks ago the EPA made an announcement that they will begin regulating the PFAS and PFOA groups.

The EPA also just announced the candidate chemical list (CCL) to be tested in the upcoming EPA Unregulated Contaminant Monitoring Rule (UCMR5), which is to begin in 2023. We have the capability to test the entire list, except for one metal (lithium). The EPA gives laboratories the year prior to start to prepare for analysis; therefore, in 2022 we will be working towards the certification of EPA Method 533, ‘‘short-chained’’ PFAS and PFOA. This was not on my original list of methods when I requested our instrumentation.

In the upcoming months, Water Quality will be working on certification of EPA Method 544 - Cyanotoxins, including Microcystin and Nodularin. The concern over Harmful Algal Blooms (HAB) has been ever increasing with rising temperatures and global warming. I plan to use a multi-integrated and proactive approach to monitoring and screening for toxins and their producers in Lake Erie and the Niagara River. In addition to the EPA Method 544, we will be using the new FlowCam instrument, which identifies species, and calculates cell density, and we will incorporate into our monitoring plan review of satellite imagery and microscopy studies.

The laboratory is growing in leaps and bounds regarding its capabilities and state of the art instrumentation and technology for environmental water analysis.

cc: Russ Stoll
Len Kowalski
Mike Wymer

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER



Expires 12:01 AM April 01, 2021
Issued April 01, 2020
Revised March 03, 2021

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. JAMES FIGLER
VAN DE WATER TREATMENT PLANT
3750 RIVER RD
TONAWANDA, NY 14150

NY Lab Id No: 11528

*is hereby APPROVED as an Environmental Laboratory in conformance with the
National Environmental Laboratory Accreditation Conference Standards (2016) for the category
ENVIRONMENTAL ANALYSES POTABLE WATER
All approved analytes are listed below:*

Bacteriology

| | |
|---|-------------------------------------|
| Coliform, Total / E. coli (Qualitative) | SM 20, 21-23 9223B (-04) (Colilert) |
| E. coli (Enumeration) | SM 20, 21-23 9223B (-04) (Colilert) |
| Heterotrophic Plate Count | SimPlate |

Disinfection By-products

| | |
|------------------------|---------|
| Bromochloroacetic acid | EPA 557 |
| Dibromoacetic acid | EPA 557 |
| Dichloroacetic acid | EPA 557 |
| Monobromoacetic acid | EPA 557 |
| Monochloroacetic acid | EPA 557 |
| Trichloroacetic acid | EPA 557 |

Fuel Additives

| | |
|-------------------------|-----------|
| Methyl tert-butyl ether | EPA 524.2 |
|-------------------------|-----------|

Metals I

| | |
|------------------|--------------------|
| Arsenic, Total | EPA 200.8 Rev. 5.4 |
| Barium, Total | EPA 200.8 Rev. 5.4 |
| Cadmium, Total | EPA 200.8 Rev. 5.4 |
| Chromium, Total | EPA 200.8 Rev. 5.4 |
| Copper, Total | EPA 200.8 Rev. 5.4 |
| Lead, Total | EPA 200.8 Rev. 5.4 |
| Manganese, Total | EPA 200.8 Rev. 5.4 |
| Mercury, Total | EPA 200.8 Rev. 5.4 |
| Selenium, Total | EPA 200.8 Rev. 5.4 |
| Zinc, Total | EPA 200.8 Rev. 5.4 |

Metals II

| | |
|------------------|--------------------|
| Aluminum, Total | EPA 200.8 Rev. 5.4 |
| Antimony, Total | EPA 200.8 Rev. 5.4 |
| Beryllium, Total | EPA 200.8 Rev. 5.4 |
| Nickel, Total | EPA 200.8 Rev. 5.4 |
| Thallium, Total | EPA 200.8 Rev. 5.4 |

Miscellaneous

| | |
|---------------------------|--------------------------|
| 1,4-Dioxane | EPA 522 |
| Organic Carbon, Dissolved | SM 21-23 5310B (-00) |
| Organic Carbon, Total | SM 21-23 5310B (-00) |
| Turbidity | SM 21-23 2130 B (-01) |
| | HACH 10258 |
| UV 254 | SM 21-23 5910B (-00,-11) |

Non-Metals

| | |
|----------------------|---------------------------|
| Alkalinity | SM 21-23 2320B (-97) |
| Calcium Hardness | SM 21-23 3500-Ca B (-97) |
| Chloride | SM 21-23 4500-Cl- B (-97) |
| Fluoride, Total | SM 21-23 4500-F C (-97) |
| Specific Conductance | SM 21-23 2510B (-97) |

Perfluorinated Alkyl Acids

| | |
|-------------------------------------|-----------|
| Perfluorooctanesulfonic acid (PFOS) | EPA 537.1 |
| Perfluorooctanoic acid (PFOA) | EPA 537.1 |

Trihalomethanes

| | |
|----------------------|-----------|
| Bromodichloromethane | EPA 524.2 |
| Bromoform | EPA 524.2 |

Serial No.: 62509

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.



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Trihalomethanes

| | |
|-----------------------|-----------|
| Chloroform | EPA 524.2 |
| Dibromochloromethane | EPA 524.2 |
| Total Trihalomethanes | EPA 524.2 |

Volatile Aromatics

| | |
|-------------------------------|-----------|
| 1,2,3-Trichlorobenzene | EPA 524.2 |
| 1,2,4-Trichlorobenzene | EPA 524.2 |
| 1,2,4-Trimethylbenzene | EPA 524.2 |
| 1,2-Dichlorobenzene | EPA 524.2 |
| 1,3,5-Trimethylbenzene | EPA 524.2 |
| 1,3-Dichlorobenzene | EPA 524.2 |
| 1,4-Dichlorobenzene | EPA 524.2 |
| 2-Chlorotoluene | EPA 524.2 |
| 4-Chlorotoluene | EPA 524.2 |
| Benzene | EPA 524.2 |
| Bromobenzene | EPA 524.2 |
| Chlorobenzene | EPA 524.2 |
| Ethyl benzene | EPA 524.2 |
| Hexachlorobutadiene | EPA 524.2 |
| Isopropylbenzene | EPA 524.2 |
| n-Butylbenzene | EPA 524.2 |
| n-Propylbenzene | EPA 524.2 |
| p-Isopropyltoluene (P-Cymene) | EPA 524.2 |
| sec-Butylbenzene | EPA 524.2 |
| Styrene | EPA 524.2 |
| tert-Butylbenzene | EPA 524.2 |

Volatile Aromatics

| | |
|---------------|-----------|
| Toluene | EPA 524.2 |
| Total Xylenes | EPA 524.2 |

Volatile Halocarbons

| | |
|---------------------------|-----------|
| 1,1,1,2-Tetrachloroethane | EPA 524.2 |
| 1,1,1-Trichloroethane | EPA 524.2 |
| 1,1,2,2-Tetrachloroethane | EPA 524.2 |
| 1,1,2-Trichloroethane | EPA 524.2 |
| 1,1-Dichloroethane | EPA 524.2 |
| 1,1-Dichloroethene | EPA 524.2 |
| 1,1-Dichloropropene | EPA 524.2 |
| 1,2,3-Trichloropropane | EPA 524.2 |
| 1,2-Dichloroethane | EPA 524.2 |
| 1,2-Dichloropropane | EPA 524.2 |
| 1,3-Dichloropropane | EPA 524.2 |
| 2,2-Dichloropropane | EPA 524.2 |
| Bromochloromethane | EPA 524.2 |
| Bromomethane | EPA 524.2 |
| Carbon tetrachloride | EPA 524.2 |
| Chloroethane | EPA 524.2 |
| Chloromethane | EPA 524.2 |
| cis-1,2-Dichloroethene | EPA 524.2 |
| cis-1,3-Dichloropropene | EPA 524.2 |
| Dibromomethane | EPA 524.2 |
| Dichlorodifluoromethane | EPA 524.2 |
| Methylene chloride | EPA 524.2 |

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Volatile Halocarbons

| | |
|---------------------------|-----------|
| trans-1,2-Dichloroethene | EPA 524.2 |
| trans-1,3-Dichloropropene | EPA 524.2 |
| Trichloroethene | EPA 524.2 |
| Trichlorofluoromethane | EPA 524.2 |

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