



King County | Wastewater Treatment

1400 Discovery Park Blvd.
Seattle, WA 98199

February 11, 2025

Sean Wilson, P.E.
Washington Department of Ecology
Northwest Regional Office
PO Box 330316
Shoreline, WA 98133-9716

Dear Mr. Wilson:

King County was made aware that Analytical Resources (ARLLC), a lab subcontracted for Total Phenolics analysis for NPDES monitoring, reported results between June 2023 and December 2024 citing use of EPA 420.1. ARLLC was not accredited for EPA 420.1 during this period of time, but it is the method listed in Appendix A of our NPDES permits. ARLLC simultaneously ran the samples for Total Phenolics using SM 5530D, which is a method that ARLLC was accredited for during this time. Appendix A of our NPDES permits allows the use of other methods assuming certain criteria are met. SM 5530D is an approved method, has identical detection and reporting limits and meets the criteria specified in Appendix A.

The following facilities, sample dates and sample types were affected by this issue:

NPDES Permit	Facility	Collect Date	Sample Type(s)
WA0032247	Brightwater	08/01/2023	Influent and Final effluent
WA0029581	South Treatment Plant	08/01/2023	Influent and Final effluent
WA0029581	South Treatment Plant	08/02/2023	Influent and Final effluent
WA0029181	West Point	08/07/2023	Influent and Final effluent
WA0032247	Brightwater	10/30/2023	Influent and Final effluent
WA0029581	South Treatment Plant	11/06/2023	Influent and Final effluent
WA0029181	West Point	12/04/2023	Influent and Final effluent
WA0029181	Alki CSO	12/05/2023	CSO Effluent
WA0029181	Carkeek CSO	12/05/2023	CSO Effluent
WA0029181	Georgetown CSO	12/05/2023	CSO Effluent
WA0029181	Henderson/MLK CSO	12/05/2023	CSO Effluent
WA0029181	Elliott West CSO	12/05/2023	CSO Effluent
WA0029181	West Point	12/25/2023	Influent and Final effluent
WA0029181	West Point	01/08/2024	Influent and Final effluent
WA0029581	South Treatment Plant	01/22/2024	Influent and Final effluent
WA0029581	South Treatment Plant	01/23/2024	Influent and Final effluent

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WA0032247	Brightwater	01/29/2024	Influent and Final effluent
WA0029181	Georgetown CSO	02/28/2024	CSO Effluent
WA0029181	West Point	04/23/2024	Influent and Final effluent
WA0032247	Brightwater	04/29/2024	Influent and Final effluent
WA0029581	South Treatment Plant	04/29/2024	Influent and Final effluent
WA0032182	Carnation	05/14/2024	Final Effluent
WA0032247	Brightwater	07/29/2024	Final effluent
WA0029181	West Point	07/29/2024	Influent and Final effluent
WA0029581	South Treatment Plant	08/12/2024	Influent and Final effluent
WA0029581	South Treatment Plant	08/13/2024	Influent and Final effluent
WA0032247	Brightwater	08/14/2024	Influent
WA0029181	West Point	09/05/2024	Influent and Final effluent
WA0032247	Brightwater	09/12/2024	Effluent
WA0032247	Brightwater	10/23/2024	Influent and Final effluent
WA0029181	West Point	10/28/2024	Influent and Final effluent
WA0029581	South Treatment Plant	10/30/2024	Influent and Final effluent
WA0029181	Elliott West CSO	11/11/2024	CSO Effluent

The ARLLC memo summarizing this issue is attached to this letter. If you have additional questions concerning this matter, please contact me at 206-477-3347.

Sincerely,

Signed by:

839C2D72400D498...

Chapin Brackett
Process and Environmental Compliance Manager, WTD, DNRP

cc: Rebecca Singer, Operations Manager, WTD, DNRP

02/04/2025

Memo

TO:

Arina Podnozova,
King County

FROM:

Douglas Elijew,
Analytical Resources
LLC

CC:

N/A

RE:

420.1 Accreditation

Between the period of June 2023 and December 2024, ARLLC was unaccredited with the WADOE for Total Phenolics by EPA 420.1, and data reported during that timeframe was unaccredited. During that timeframe, we submitted acceptable PT results for SM 5530D and maintained accreditation for SM 5530D through WA DOE. All SM 5530D data reported was accredited.

EPA Method 420.1 and Method SM 5530D are very similar methods, that use the same principle for sample analysis. Liquid sample's reaction with 4-aminoantipyrine in the presence of potassium ferricyanide at a pH of 10 is identical for the analysis of Total Phenols by EPA 420.1 and SM 5530D. Both methods use the same distillation and spectrophotometric detection and have identical detection and reporting limits. Samples for both methods can be distilled and measured photometrically simultaneously. Both methods are listed in 40 CFR Part 136 as allowed methods for Total Phenols for NPDES projects.

There is a difference between Method 420.1 and SM 5530D, as far as the preservation and holding time requirements listed in the original methods, with Method 420.1 having a more complicated preservation step and a shorter holding time. Nevertheless, the EPA requirement for preservation and holding time for NPDES testing, as listed in 40 CFR Part 136, were followed for all samples submitted by King County Environmental Laboratory to ARLLC.

There should be no concern about usability of the sample results for NPDES compliance for Total Phenolics data reported by ARLLC by Method 420.1 during the period of June 2023 through December 2024 as the samples were analyzed using both methods at the same time.



Analytical Resources, LLC
Analytical Chemists and Consultants
Tukwila, WA

12214F
01/06/2025
