

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau E

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www.dec.ny.gov

December 11, 2019

Mr. George Green, Supervisor
Town of New Windsor
555 Union Avenue
New Windsor, New York 12553

Re: New Windsor Public Water Supply Well Sample Results
Butterhill Wellfield, New Windsor (T), Orange County

Dear Supervisor Green,

The New York State Department of Environmental Conservation (DEC) is providing you with a copy of analytical results derived from the December 5, 2019 sampling of the temporary granular activated carbon (GAC) water treatment system by DEC representatives that was installed at the Town of New Windsor (Town) Butterhill Wellfield located at 181 Forge Hill Road.

No PFOS or PFOA was detected in the Butterhill temporary GAC-treated water. The U.S. Environmental Protection Agency (EPA) lifetime health advisory level (HAL) is 70 parts per trillion (ppt) for PFOA, PFOS, or the combination of PFOA and PFOS. The proposed NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.

Specifically, the samples were analyzed for a total of six and twenty-one per- and polyfluoroalkyl substances (PFAS), including Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS). Data received for the 6 PFAS list analysis has been attached. However, sampling data associated with the 21 PFAS list are still pending from the lab, and will be provided to the Town under separate letter after receipt and review by DEC and the New York State Department of Health (DOH).

During this event, sampling was conducted at eight locations:

- pre-treatment (raw untreated water), which has a “BH20191205PRE-GAC” identifier in the Client Sample ID;
- mid-treatment (after the first GAC canister in Pair Train No. 1 and prior to the second GAC canister in Pair Train No.1), which has a “BH20191205-1 MID POINT” identifier in the Client Sample ID;
- post-treatment (after the GAC Pair Train 1), which has a “BH20191205-1 POST” identifier in the Client Sample ID;
- mid-treatment (after the first GAC canister in Pair Train No. 2 and prior to the second GAC canister in Pair Train No.2), which has a “BH20191205-2 MID POINT” identifier in the Client Sample ID;
- post-treatment (after the GAC Pair Train 2), which has a “BH20191205-2 POST” identifier in the Client Sample ID;

- mid-treatment (after the first GAC canister in Pair Train No. 3 and prior to the second GAC canister in Pair Train No.3), which has a “BH20191205-3 MID POINT” identifier in the Client Sample ID;
- post-treatment (after the GAC Pair Train 3), which has a BH20191205-3 POST” identifier in the Client Sample ID; and
- post-GAC treatment (treated water after all GAC Trains), which has a “BH20191205POST-GAC” identifier in the Client Sample ID.

The eight locations sampled (and their associated identifiers) are depicted in Figure 1.

If you have any technical questions regarding the analytical results or on the operation and performance of the GAC treatment system, please feel free to contact me or Dana Bryant, P.E., Arcadis (DEC’s Project Engineer) at (518) 250-7347 or dana.bryant@arcadis.com . For weekday or off hour / weekend emergency repair issues, please call DEC’s contractor, Carl Aldrich of Aztech Environmental Services at (518) 470-3052 or Todd Rollend at (518) 365-3333. For questions regarding site-related health concerns, please contact Steve Gagnon of the Orange County DOH at (845) 291-2331 or Steve Gladding, P.E., Ph.D of the NYSDOH Bureau of Water Supply Protection at (518) 402-7650; email: steven.gladding@health.ny.gov

Sincerely,



David J. Chiusano
Environmental Engineer/Project
Manager Remedial Section A,
Remedial Bureau E Division of
Environmental Remediation

Enclosures

ec: w/enclosures
D. Zagon, Town of New Windsor
J. Egitto, Town of New Windsor
D. McGoey/M. Weeks, MHE
W. Gilday, NYSDOH
Dr. Kim, NYSDOH
S. Gladding, NYSDOH
S. Gagnon, OCDOH
M. Andersen, OCDOH
D. Bryant, Arcadis
F. Fina, Aztech
M. Cruden, NYSDEC
D. Bendell, Region 3 RHWRE
D. Harrington, NYSDEC

Town of New Windsor
Butterhill Wellfield Temporary GAC Operation and Maintenance Sampling Results ** (Parts Per Trillion (PPT))

Date	Analyte	Result ¹ Raw Water	GAC Pair 1 MID	GAC Pair 1 POST	GAC Pair 2 MID	GAC Pair 2 POST	GAC Pair 3 MID	GAC Pair 3 POST	Treated Effluent	USEPA Drinking Water Health Advisory Guidance Value ³	Proposed NYS MCLs ⁴
December 2019	PFOA	2.4	ND ²	ND	ND	ND	ND	ND	ND	70 ³	10 ⁴
	PFOS	2.9	ND	ND	ND	ND	ND	ND	ND	70 ³	10 ⁴

Notes:

- ** At time of sampling Production Well No. 3 was in operation.
1. PFOS and PFOA results and comparison values are reported in parts per trillion (ppt, nanograms per liter, ng/l).
 2. "ND" means non-detect. The analyte was not detected in the sample.
 3. Guidance: USEPA Drinking Water Health Advisory guidance value is currently 70 ppt.
 4. The proposed NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.

How to Read Your Laboratory Reports

PFOA and PFOS Results:

- Analyte is the term used to describe what the laboratory was testing for, in this case PFOS and PFOA.
- Conc. (ng/l) is your result for PFOS and PFOA. In your case, no PFOS and PFOA were detected, thus ND or “non-detect” or <2.0 ng/l was reported. (ng/l = ppt)
- RL = reporting limit or RDL = reportable detection limit is the lowest level at which this specific testing protocol and laboratory has confidence in measuring the given analyte.
- Qualifiers are added information to help understand the quality of the data. Often, if something about the results or the calibration of the testing equipment was irregular, it would be reported here.

All other columns represent laboratory quality control information. The laboratory calibrates its equipment against a precise quantity of the chemical in order to ensure that the equipment is functioning properly. Some laboratory reports may not have all this information.

- Labeled Standard or Surrogate is the lab’s specific name for an individual control sample.
- %R is the percent of the control sample that was detected by the equipment. A 100% reading represents perfect equipment alignment.
- LCL-UCL is the lower concentration limit (LCL) and upper concentration limit (UCL). The LCL represents the lowest acceptable %R value and the UCL represent the highest acceptable %R value required to ensure your result is accurate.
- Qualifiers: If a result quality control variance is noted or if the %R value of any of the control samples were outside the allowable range that would have been noted in this last column. This gives the analyst less confidence in the measured value.

The analysis for PFOS and PFOA is performed using modified EPA Method 537. The laboratory may report a detection of PFOS and PFOA down to approximately 2.0 nanograms per liter (ng/l) or parts per trillion (ppt).

Inorganic Results:

- Parameter is the same as “analyte” above – it is the chemical being tested.
- Result is the concentration of that chemical detected.
- RL/PQL is the lowest level at which the specific laboratory test can reliably quantify the concentration. Below that number, the result is considered unreliable.
- DIL is the number of times the sample was diluted (necessary because the test has a certain range that it is accurate for).
- Units: mg/l is milligrams per liter or parts per million; ug/l is micrograms per liter or parts per billion.
- DW MCL stands for drinking water (DW) and “maximum contaminant level” (MCL). All chemicals that have a “maximum contaminant level” (MCL) established for drinking water (DW) have a level reported in this column.

- Sec Goal is the EPA nomenclature for all contaminants that have regulatory levels set based on aesthetics (for example, taste or color). DOH recognizes these EPA secondary goals as primary standards and enforces its drinking water quality program accordingly.
- Date/Time represents the date and time of the analysis at the lab.
- By refers to the technician who ran the test.
- Reference indicates the EPA method used in the test.