NYC DEP 2019 Emerging Contaminants Monitoring Project Summary, 10/22/19

Background

DEP employees closely monitor New York City's drinking water supply to ensure that our customers receive the highest quality water. We annually perform more than 240,000 tests in the upstate watersheds that feed our reservoir system, and another 400,000 tests of water in distribution pipes throughout the five boroughs. These tests continue to show that the City's drinking water is some of the best in the world, meeting or surpassing all state and federal standards. Detailed information about this testing program can be found in DEP's 2018 Drinking Water Supply and Quality Report at https://www1.nyc.gov/site/dep/about/drinking-water-supply-quality-report.page.

New York City's reservoirs collect water from rain and melting snow throughout our watershed. As water travels over the surface of the land or underground, a variety of minerals, organic materials and other substances can dissolve into the water.

For decades, DEP scientists have regularly tested our water supply to understand the substances that could enter our reservoirs now and in the future. Modern testing techniques allow our laboratory experts to detect some substances at levels as low as one part per trillion – an amount so small that it represents one drop of water in 56 Olympic-sized swimming pools, or 1 second of time in 31,700 years.

In addition to potential contaminants that are known today, DEP also focuses on protecting our drinking water in the future. That's why we worked with the U.S. Geological Survey and the New York State Department of Health in 2009 to develop a list of 72 emerging contaminants – substances that are not regulated today but deserve further analysis. These substances primarily include pharmaceutical and personal-care products that are typically used in our homes. DEP scientists detected some of these materials, but only at levels so low that they posed no concern for the health of our customers. Reports were published and are available at https://www1.nyc.gov/site/dep/about/document-portal.page

2019 Monitoring Summary

Experts have added new substances to the list of emerging contaminants over the past decade, prompting DEP scientists to begin a new study in 2019. The latest study focuses on more than 140 materials, the vast majority of which were not detected in our reservoirs or the stream, creeks and rivers that feed them. Our latest analysis also included several perfluorinated compounds. These materials were often not detected, or they were detected at levels far below New York State's proposed standard of 10 parts per trillion (PFOS, PFOA), which will become the most stringent limit in the United States when it takes effect later this year. Only a few samples, collected from small streams near the Westchester County Airport, measured higher.

Data from this new monitoring project is published on DEP's website at (https://www1.nyc.gov/assets/dep/downloads/pdf/water/drinking-water/emerging-contaminants-monitoring-project-plan.pdf). DEP will repeat this testing every three months this year and it will continue to publish the results, including a full report at the end of the year.

DEP Emerging Contaminant Monitoring Project 2019

Quarter 3 Summary Results (ng/L unless otherwise indicated)	Sources	Standard	CroGH***	DEL18DT	DEL17	CatAlum	CWB1.5*[5]	EARCM*[5]	RDRRCM*[5]	MB-1	N5-1	N12	BG9	WHIP	E9	E10	E11
Compound			7/24/19	7/24/19	7/24/19	7/24/19	7/24/19	7/24/19	7/24/19	7/24/19	7/24/19	7/24/19	7/24/19	7/24/19	7/24/19	7/24/19	7/24/19
UCMR3																	
Strontium (ug/L)	Erosion of natural deposits	1500 (EPA health ref level)	69	16	16	12	24	12	15	73	81	160	83	85	89	220	63
Vanadium (ug/L)	Erosion of natural deposits	21 (EPA health ref level)	ND	ND	ND	ND	0.2	ND	ND	1.3	1.9	0.42	0.59	0.85	0.43	0.52	0.88
Hexavalent Chromium (ug/L)	Erosion of natural deposits	10 (Califonia MCL)	0.18	0.17	0.19	0.21	0.15	0.16	0.15	0.17	0.30	0.23	0.13	0.17	0.033	0.20	0.13
Chlorate (ug/L)	Pesticide runoff, DBP)	210 (EPA health ref level)	ND	ND	ND	ND	ND	ND	ND	91	16	41	37	13	ND	ND	ND
1,4- Dioxane (ug/L)	Solvents	1 (NYS proposed MCL)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	Consumer products	50,000 (NYS UOC MCL)**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSSA)	Consumer products	50,000 (NYS UOC MCL)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluorobutanesulfonic acid (PFBS)	Consumer products	50,000 (NYS UOC MCL)	ND	ND	ND	ND	ND	ND	ND	4.2	3.0	3.3	2.6	2.9	2.4	44	3.7
Perfluorodecanoic acid (PFDA)	Consumer products	50,000 (NYS UOC MCL)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.2	ND
Perfluorododecanoic acid (PFDoA)	Consumer products	50,000 (NYS UOC MCL)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluoroheptanoic acid (PFHpA)	Consumer products	50,000 (NYS UOC MCL)	ND	ND	ND	ND	ND	ND	ND	3.2	2.7	4.2	2.3	2.4	4.9	71	10
Perfluorohexanesulfonic acid (PFHxS)	Consumer products	50,000 (NYS UOC MCL)	ND	ND	ND	ND	ND	ND	ND	2.9	ND	2.9	ND	ND	ND	480	17
Perfluorohexanoic acid (PRHxA)	Consumer products	50,000 (NYS UOC MCL)	2.2	ND	ND	ND	ND	ND	ND	8.0	4.8	6.4	4.4	5.1	6.9	130	16
Perfluorononanoic acid (PFNA)	Consumer products	50,000 (NYS UOC MCL)	ND	ND	ND	ND	ND	ND	ND	2.2	2.3	ND	ND	ND	ND	60	10
Perfluorooctanoic acid (PFOA)	Consumer products	10 (NYS proposed MCL)	3.1	ND	ND	ND	ND	ND	ND	7.6	8.3	13	7.5	9.5	13	140	16
Perfluorooctanesulfonic acid (PFOS)	Consumer products	10 (NYS proposed MCL)	2.0	ND	ND	ND	ND	ND	ND	8.5	5.1	6.0	4.2	4.3	5.5	950	20
Perfluorotetradecanoic acid ((PFTA)	Consumer products	50,000 (NYS UOC MCL)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluorotridecanoic acid (PFTrDA)	Consumer products	50,000 (NYS UOC MCL)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluoroundecanoic acid (PFUnA)	Consumer products	50,000 (NYS UOC MCL)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11	ND
UCMR4																	
Germanium (ug/L)			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese (ug/L)	Erosion of natural deposits	300 (NYS Secondary MCL)	82	10	19	45	40	18	18	130	140	21	170	79	160	82	670
α-HCH (ug/L)			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorpyrifos (ug/L)			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethipin (ug/L)			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethoprop (ug/L)			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Oxyfluorfen (ug/L)			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Profenofos (ug/L)			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tebuconazole (ug/L)			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0	ND	ND	ND	ND
Total Permethrin (trans and cis) (ug/L)			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tribufos (ug/L)			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o - Toluidine (ug/L)			ND	ND*6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Quinolone (ug/L)			ND	ND*6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butylated hydroxanisole (BHA) (ug/L)			ND	ND*6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1- butanol (ug/L)			ND	ND	ND	ND	ND*5	ND	ND*5	ND*5	ND	ND	ND	ND	ND*5	ND	ND
2- methoxyethanol (ug/L)			ND	ND	ND	ND	ND*5	ND	ND*5	ND*5	ND	ND	ND	ND	ND*5	ND	ND
2- propen-1-ol (allyl alcohol) (ug/L)			ND	ND	ND	ND	ND*5	ND	ND*5	ND*5	ND	ND	ND	ND	ND*5	ND	ND
Microcystin LA (ug/L)			ND	ND	ND	ND	ND	ND	ND	x	x	x	x	x	x	x	x
Microcystin-LF (ug/L)			ND	ND	ND	ND	ND	ND	ND	x	x	x	x	x	x	x	x
Microcystin-LR (ug/L)			ND	ND	ND	ND	ND	ND	ND	x	x	x	x	x	x	x	x
Microcystin-LY (ug/L)			ND	ND	ND	ND	ND	ND	ND	x	x	x	x	x	x	x	x
Microcystin-RR (ug/L)			ND	ND	ND	ND	ND	ND	ND	x	x	x	x	x	x	x	x
Microcystin-YR (ug/L)			ND	ND	ND	ND	ND	ND	ND	x	x	x	x	x	x	x	x
Anatoxin -a (ug/L)			ND	ND	ND	ND	ND	ND	ND	x	x	x	x	x	x	x	x
Cylindrospermopsin (ug/L)			ND	ND	ND	ND	ND	ND	ND	x	x	x	x	x	x	x	x
Nodularin-R (ug/L)			ND	ND	ND	ND	ND	ND	ND	x	x	x	x	x	x	x	x
2,4-D	Pesticide	70,000 (NYS MCL)	10	ND	ND	ND	ND	ND	ND	7.2	1600	7.6	16	10	12	ND	ND
4-nonylphenol (semi-quantitative)			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-tert-octylphenol			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acesulfame -K	Artificial sweetener	50,000 (NYS UOC MCL)	130	ND	ND	ND	23	ND	ND	33	ND	69	22	140	28	180	ND
Bendroflumethiazide			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bisphenol A (BPA)	Polycarbonate plastics	50,000 (NYS UOC MCL)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	18	ND	ND	59	28
Butalbital			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butylparaben			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloramphenicol			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Clofibric Acid			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diclofenac			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Estradiol			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Estriol			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Estrone	Reproductive hormone	50,000 (NYS UOC MCL)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethinyl-Estradiol - 17 - alpha			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylparaben			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Gemfibrozil			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ibuprofen			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iohexol	X-ray medication drug	50,000 (NYS UOC MCL)	34	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	29	ND	ND	ND
Iopromide			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isobutylparaben			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylparaben			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naproxen			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propylparaben			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Salicylic Acid			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sucralose	Artificial sweetener	50,000 (NYS UOC MCL)	330	ND	ND	ND	ND	ND	ND	ND	ND	140	ND	260	ND	280	ND
Triclocarban			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Triclosan			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Warfarin			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,7-Dimethylxanthine			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetaminophen			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Albuterol			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Amoxicillin (semi - quantitative)			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Androstenedione			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Atenolol			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Atrazine	Pesticide	3,000 (NYS MCL)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bezafibrate			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromacil			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Caffeine	Coffee, tea	50,000 (NYS UOC MCL)	17	ND	ND	ND	ND	ND	ND	50	15	ND	14	ND	ND	ND	13

DEP Emerging Contaminant Monitoring Project 2019

Quarter 3 Summary Results (ng/L unless otherwise indicated)	Sources	Standard	CroGH***	DEL18DT	DEL17	CatAlum	CWB1.5*5	EARCM*5	RDRRCM*5	MB-1	N5-1	N12	BG9	WHIP	E9	E10	E11
Compound			7/24/19	7/24/19	7/24/19	7/24/19	7/24/19	7/24/19	7/24/19	7/24/19	7/24/19	7/24/19	7/24/19	7/24/19	7/24/19	7/24/19	7/24/19
Carbadox			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbamazepine	Anti-convulsant drug	50,000 (NYS UOC MCL)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10	ND	ND	ND
Carisoprodol			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloridazon			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorotoluron			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cimetidine			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cotinine			ND	ND	ND	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	ND
Cyanazine			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DACT			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEA			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEET			ND	ND	ND	ND	ND	ND	ND	46	14	ND	35	ND	ND	ND	10
Dehydronifedipine			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DIA			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diazepam			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dilantin			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diltiazem			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diuron			ND	ND	ND	ND	ND	ND	ND	ND	42	ND	14	ND	ND	ND	ND
Erythromycin			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Flumeqine			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoxetine			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isoproturon			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ketoprofen			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ketorolac			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lidocaine	Local anesthetic drug	50,000 (NYS UOC MCL)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lincomycin			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Linuron			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lopressor			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Meclofenamic Acid			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Meprobamate			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metazachlor			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metformin	Diabetes treatment drug	50,000 (NYS UOC MCL)	5.6	7.6	6.8	6.4	10	ND	7.0	14	17	6.3	10	10	11	6.5	12
Metolachlor			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nifedipine			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Norethisterone			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sulfometuron Methyl			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	45	ND	ND	ND	ND
Oxolinic acid			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentoxifylline			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenazone			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Primidone			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Progesterone			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propazine			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Quinoline	Manufacture of dyes	50,000 (NYS UOC MCL)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Simazine			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sulfachloropyridazine			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sulfadiazine			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sulfadimethoxine			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sulfamerazine			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sulfamethazine			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sulfamethoxazole			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sulfamethizole			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sulfathiazole			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TCEP			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TCPP	2-chloroethyl) phosphate (flame retar	50,000 (NYS UOC MCL)	ND	100	130	ND	130	ND	110	110	200	ND	160	280	430	170	180
TDCPP			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Testosterone			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Theobromine	Chocolate, cocoa	50,000 (NYS UOC MCL)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Theophylline			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thiabendazole	Food preservative	50,000 (NYS UOC MCL)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trimethoprim			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
RADIONUCLIDE SUITE																	
Radium 226 (pC/L)			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Radium 228 (pC/L)			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alpha, Gross (pC/L)	Natural or man-made sources	15 (NYS MCL)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Beta, Gross (pC/L)	Natural or man-made sources	4 mrem/year (MCL)	ND	ND	ND	ND	ND	ND	ND	3.8	4.3	4	3.8	ND	5.1	3.8	3.5
Uranium (pC/L)			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Uranium (pC/L)			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

* ND = not detected

** NYS UOC MCL = New York State Unregulated Organic Contaminant Maximum Contaminant Level

*** - sampled at CRO1B elevation tap this quarter - Croton is off line

*4 - three added for the 3rd and 4th quarter sampling

*5 - resampled on 08/29/2019