

Westchester Joint Water Works ANALYTICAL TESTING RESULTS 2016

Definitions:

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.
Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contamination.
Milligrams per liter (mg/l): Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).
Non Detect (ND): The contaminant was not detected in the water by laboratory analysis.
No Determined Limit (NDL): No level has been established for drinking water.
Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
Picograms per liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).
Picocuries per liter (pci/L): A measure of the radioactivity in water.
Locational Running Annual Average (LRAA): The average value of multiple samples taken over the latest twelve month period at a particular location.
Treatment Technique: (TT): A required process intended to reduce the level of a contaminant in drinking water.
UCMR3: Unregulated Contaminant Monitoring Rule Three

Contaminant	Violation Yes/No	Date of Sample	Level Detected Max (Range)	Unit Measurement	MCLG	Regulatory Limit MCL,TT,AL Highest level allowed	Likely Source of Contamination
Regulated Inorganic Contaminants							
Barium	No	10/25/2016	0.019 (0.016 - 0.019)	mg/l	2	2	Erosion of natural deposits.
Chloride	No	10/25/2016	11.4 (10.5 - 11.4)	mg/l	-	250	Naturally occurring; road salt
Fluoride	No	2016	0.82 (0.49 - 0.82)	mg/l	-	2.2	Erosion of natural deposits; Water additive which promotes strong teeth.
Cyanide	No	10/25/2016	0.004 (0.003 - 0.004) (g)	mg/l	-	0.2	discharge from industrial chemical factories.
Manganese	No	10/25/2016	25.2 (16.8 - 25.2) (a)	ug/l	-	300	Naturally occurring
Nitrate	No	10/25/2016	0.101 (0.083 - 0.101)	mg/l	10	10	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits
Sodium	No	10/25/2016	9.3 (8.2 - 9.3) (b)	mg/l	-	NDL	Naturally occurring; road salt
Sulfate	No	10/25/2016	4.37 (4.34 - 4.37)	mg/l	250	250	Erosion of natural deposits
Turbidity - Entry Point (Purchase Booster Station)	No	2016	1.10 (0.77 - 1.10) (c)	NTU	N/A	5	Soil runoff
Zinc	No	10/25/2016	0.0045 (LOQ - 0.0045)	mg/l	-	5	Naturally occurring
Microbiological Contaminants							
Total Coliform - Distribution	No	2016	3 Total / 4% , February	samples	0	5% in one month	Naturally present in the environment
Contaminants Monitored Under Interim Enhanced Surface Water Treatment Rule (Stage 2 Disinfection Byproducts)							
Total Trihalomethanes:							
Site 1	No	2016	34 (d) (23 - 37) (e)	ug/l	0	80	Byproduct of drinking water chlorination
Site 2	No	2016	22 (d) - 23) (e) (18)	ug/l	0	80	Byproduct of drinking water chlorination
Site 3	No	2016	31 (d) (23 - 37) (e)	ug/l	0	80	Byproduct of drinking water chlorination
Site 4	No	2016	42 (d) (20 - 50) (e)	ug/l	0	80	Byproduct of drinking water chlorination
Site 5	No	2016	34 (d) (23 - 51) (e)	ug/l	0	80	Byproduct of drinking water chlorination
Site 6	No	2016	14 (d) (11 - 16) (e)	ug/l	0	80	Byproduct of drinking water chlorination
Site 7	No	2016	25 (d) (17 - 28) (e)	ug/l	0	80	Byproduct of drinking water chlorination
Site 8	No	2016	23 (d) (18 - 28) (e)	ug/l	0	80	Byproduct of drinking water chlorination
Haloacetic Acid 5 (HAA5):							
Site 1	No	2016	35 (d) (29 - 43) (e)	ug/l	0	60	Byproduct of drinking water chlorination
Site 2	No	2016	30 (d) (25 - 30) (e)	ug/l	0	60	Byproduct of drinking water chlorination
Site 3	No	2016	35 (d) (30 - 38) (e)	ug/l	0	60	Byproduct of drinking water chlorination
Site 4	No	2016	40 (d) (24 - 46) (e)	ug/l	0	60	Byproduct of drinking water chlorination
Site 5	No	2016	38 (d) (30 - 51) (e)	ug/l	0	60	Byproduct of drinking water chlorination
Site 6	No	2016	23 (d) (20 - 26) (e)	ug/l	0	60	Byproduct of drinking water chlorination
Site 7	No	2016	24 (d) (21 - 29) (e)	ug/l	0	60	Byproduct of drinking water chlorination
Site 8	No	2016	29 (d) (13 - 33) (e)	ug/l	0	60	Byproduct of drinking water chlorination
Radiological Compliance							
Gross Alpha	No	2010	0.04 +/- 0.3 (d)	pCi/L	-	<15	Erosion of natural deposits
Gross Beta	No	2010	0.51 +/- 0.44 (d)	pCi/L	-	<5	Erosion of natural deposits
Radium 226	No	2010	0.06 +/- 0.05 (d)	pCi/L	-	<5	Erosion of natural deposits
Radium 228	No	2010	0.02 +/- 0.32 (d)	pCi/L	-	<5	Erosion of natural deposits
Lead and Copper Rule Sampling Results							
Lead	No	June-Sept.2016	4.4 (f) (ND-55.1)	ug/l	0	AL: 15	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	No	June-Sept.2016	202.0 (f) (36.1)	ug/l	0	AL: 1,300	Corrosion of household plumbing systems; Erosion of natural deposits
UCMR3 Detects(h)							
Chromium	No	7/10/2014	0.31	ug/l	-	NDL	Erosion of natural deposits
Strontium	No	7/10/2014	19.7	ug/l	-	NDL	Naturally occurring mineral
Undetected Conventional Physical And Chemical Parameters							
Antimony, Arsenic, Beryllium, Bromate, Cadmium, Chlorite, Chromium, Ethylene glycol, Iron, Mercury, Selenium, Silver, Thallium, Nitrite, Nickel, Propylene glycol, Lead and Color							
Undetected Organic (Principal, Specified and Unspecified) Contaminants							
Carbamate pesticides (EPA method 531.1), Pesticides (EPA method 508), Endothal, Glyphosate, MTBE, Nitrobenzene, Herbicides (EPA method 515.1), Microextractables (EPA method 504.1)							
Volatile organic compounds (EPA method 524.2), Organic chemicals (EPA method 525.2).							

- (a) If iron and manganese are present, the total concentration of both should not exceed 500 ug/l
 (b) Water with > 20 mg/l of sodium should not be consumed by those on a severely restricted sodium diet. Water with >270 mg/l of sodium should not be consumed by people on a moderately restricted diet.
 (c) Turbidity is a measure of cloudiness of the water. We test it because it is a good indicator of water quality. The highest monthly average turbidity measurement for the year (1.10 NTU) occurred in March 2016. High turbidity can hinder the effectiveness of disinfectants. Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. MCL is the average of two consecutive days.
 (d) This level represents the highest locational running annual average calculated from the data collected.
 (e) This represents the range for this sampling location.
 (f) The level presented represents the 90th percentile of the 30 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the values detected at your water system. In the case of lead, 30 samples were collected at your water system and the 90th percentile value was 2.4 ug/l, the 4th highest value of the samples taken. In the case of copper, 30 samples were collected from your water system and the 90th percentile value was 202.0 ug/l, the 4th highest value of the samples taken. Of the 30 sites tested, 2 exceeded the action level for lead and none exceeded the action level for copper.
 (g) Detected but below the MCL.
 (h) For further information related to the UCMR3 results please contact Terry O'Neill Chief Water Treatment Plant Operator at 914-698-3500.