

The First Unregulated Contaminant Monitoring Rule (UCMR 1) Data Summary: 2001–2005

Background

The EPA uses the Unregulated Contaminant Monitoring Rule (UCMR) program to collect nationally representative data for contaminants that may be present in drinking water but do not have regulatory standards set under the Safe Drinking Water Act (SDWA). This monitoring is used by the agency to understand the frequency and level of occurrence of unregulated contaminants in the nation's drinking water systems. Every five years, taking into consideration the EPA's Contaminant Candidate List (CCL), the agency develops a new list of UCMR contaminants for monitoring. SDWA calls for the EPA to:

- Issue a list of unregulated contaminants to be monitored by certain public water system (PWS) types¹
 every five years
- Require large PWSs (*i.e.*, those that serve more than 10,000 people) to monitor their water for the contaminants
- Require a nationally representative sample of small PWSs serving 10,000 or fewer people to monitor²
- Make analytical results available in a National Contaminant Occurrence Database (NCOD) for drinking water

UCMR 1 required monitoring between 2001 and 2005 for the 26 contaminants listed in <u>Table 1</u>. UCMR 1 contaminants were monitored under the UCMR Assessment Monitoring (AM) or Screening Survey (SS) design. The UCMR 1 SS was designed to determine if additional monitoring would be needed. After UCMR 1, the SS design was adapted to be representative of national occurrence. For more information, refer to the EPA's <u>UCMR 1 website</u>. Summary details for contaminant occurrence are shown in <u>Table 2</u> and represent the final release of UCMR 1 analytical results. Before conducting your own assessment of the data, please review the <u>Data Considerations</u> section.

¹ UCMR 1 requirements applied to community water systems (CWSs) and non-transient non-community water systems (NTNCWSs). They did not apply to transient non-community water systems (TNCWSs). The use of "PWS" throughout this document refers to participating CWSs and NTNCWSs. For more information on PWS types, visit the agency's website.

² SDWA, as amended by Section 2021 of America's Water Infrastructure Act of 2018, calls for the EPA to require small PWSs serving between 3,300 and 10,000 people to monitor for UCMR contaminants, subject to the availability of EPA appropriations and sufficient laboratory capacity, and to require a nationally representative sample of small PWSs serving fewer than 3,300 people to monitor. This expansion in small PWS monitoring applies to the fifth UCMR (UCMR 5) and subsequent monitoring cycles.

Table 1. Contaminants and Methods

Contaminant	CASRN ¹	EPA Method	Contaminant Classification	Monitoring Requirement ²	
perchlorate	14797-73-0	314.0	Solid rocket propellants, munitions, fireworks, airbag initiators for vehicles, matches, and signal flares	AM	
methyl-tertiary-butyl-ether (MTBE)	1634-04-4	502.2, 524.2	Fuel additive; solvent	AM	
molinate	2212-67-1	507, 525.2	Pesticide	AM	
s-ethyl-dipropylthiocarbamate (EPTC)	759-94-4	507, 525.2	Pesticide	AM	
terbacil	5902-51-2	507, 525.2	Pesticide	AM	
4,4'-dichloro dichlorophenyl ethylene (DDE)	72-55-9	508, 508.1, 525.2, AOAC ³ 990.06	Pesticide	AM	
dimethyl tetrachloroterephthalate (DCPA) mono/di-acid degradate	887-54-7; 2136-79-0	515.1, 515.2, 515.3, 515.4	Pesticide	AM	
nitrobenzene ⁴	98-95-3	524.2	Industrial chemical	AM	
2,4-dinitrotoluene	121-14-2	525.2	Explosives and related compounds	AM	
2,6-dinitrotoluene	606-20-2	525.2	Explosives and related compounds	AM	
acetochlor	34256-82-1	525.2	Pesticide	AM	
1,2-diphenylhydrazine	122-66-7	526	Industrial chemical	SS	
diazinon	333-41-5	526	Pesticide	SS	
disulfoton	298-04-4	526	Pesticide	SS	
fonofos	944-22-9	526	Pesticide	SS	
prometon	1610-18-0	526	Pesticide	SS	
terbufos	13071-79-9	526	Pesticide	SS	
2-methyl-phenol	95-48-7	528	Chemical intermediate	SS	
2,4-dichlorophenol	120-83-2	528	Pesticide	SS	
2,4-dinitrophenol	51-28-5	528	Pesticide; explosives and related compounds	SS	
2,4,6-trichlorophenol	88-06-2	528	Pesticide	SS	
diuron	330-54-1	532	Pesticide	SS	
linuron	330-55-2	532	Pesticide	SS	
Aeromonas	NA	1605	Bacteria	SS	

¹ CASRN – Chemical Abstracts Service Registry Number, NA – Not Available

² AM – Assessment Monitoring, SS – Screening Survey. The SS design included 300 PWSs that were randomly selected from those PWSs required to conduct AM. A different set of 300 PWSs were selected for the chemical contaminant SS and the *Aeromonas* SS. For more information, refer to the EPA's <u>UCMR 1 website</u>.

³ Method 990.06 is from the Association of Official Analytical Chemists (AOAC).

⁴ Nitrobenzene was also included as an SS contaminant using EPA Method 526. Results are reported as LL-nitrobenzene (see <u>Table 2</u>).

Information About UCMR 1 Results

The purpose of this document is to summarize and provide additional information about UCMR 1 results.

The UCMR 1 minimum reporting levels (MRLs) are the lowest concentrations that laboratories were permitted to report to the EPA during UCMR 1 monitoring¹. UCMR MRLs are determined using data from multiple laboratories that participate in the EPA's MRL-setting studies and are not associated with contaminant health effects information. The EPA establishes UCMR MRLs to ensure consistency in the quality of the information reported to the agency.

Community water systems (CWSs) required to monitor under UCMR must inform their customers of UCMR results (including the average and range of results) in their annual Consumer Confidence Report (CCR). See 40 CFR 141.153(d)(7) for the CCR regulatory requirements and Section IV of the EPA's guidance Preparing Your Drinking Water Consumer Confidence Report for details on the content of the report. Additional resources are available on the EPA's CCR Compliance Help webpage.

Non-transient non-community water systems (NTNCWSs) (e.g., a school that operates its own drinking water system) and CWSs required to monitor under UCMR must inform their customers of the availability of UCMR results through Tier 3 Public Notification (PN). See 40 CFR 141.207 for the PN regulatory requirements and the EPA's PN Compliance Help webpage for guidance.

UCMR occurrence data are used to inform the agency's <u>Regulatory Determination</u> process (*i.e.*, the process that addresses potential regulatory actions for unregulated contaminants). State and local officials may also use the UCMR data to assess the need for actions to protect public health. States may establish requirements or levels (regulatory or non-regulatory) for drinking water contaminants not yet regulated by the EPA. PWSs are responsible for being aware of and complying with their state's requirements, if any.

¹ More specifically, an MRL is the quantitation limit for a contaminant that is considered achievable, with 95% confidence, by at least 75% of laboratories nationwide using a specified analytical method (recognizing that individual laboratories may be able to measure at lower levels). Note: The Agency for Toxic Substances and Disease Registry (ATSDR) uses the term "MRL" for a different purpose (*i.e.*, to describe "Minimal Risk Level"). The UCMR term and the ATSDR term have no relationship to each other.

Table 2. UCMR 1 Data Summary^{1,2}

Contaminant	UCMR MRL³ (μg/L)	Total number of results ⁴	Number of results ≥MRL	Total number of PWSs with results ⁴	Number of PWSs with results ≥MRL
perchlorate	4	34,728	647	3,870	160
MTBE	5	34,131	26	3,877	19
molinate	0.9	34,298	1	3,879	1
EPTC	1	34,297	0	3,879	0
terbacil	2	34,299	0	3,879	0
4,4'-DDE	0.8	34,370	1	3,880	1
DCPA mono/di-acid degradate	1	34,278	787	3,882	177
nitrobenzene	10	33,937	2	3,867	2
LL-nitrobenzene⁵	0.5	2,556	0	349	0
2,4-dinitrotoluene	2	34,126	1	3,879	1
2,6-dinitrotoluene	2	34,126	0	3,879	0
acetochlor	2	34,274	0	3,875	0
1,2-diphenylhydrazine	0.5	2,354	0	310	0
diazinon	0.5	2,354	0	310	0
disulfoton	0.5	2,348	0	310	0
fonofos	0.5	2,354	0	310	0
prometon	0.5	2,354	0	310	0
terbufos	0.5	2,349	0	310	0
2-methyl-phenol	1	2,308	0	304	0
2,4-dichlorophenol	1	2,308	0	304	0
2,4-dinitrophenol	5	2,305	0	304	0
2,4,6-trichlorophenol	1	2,308	0	304	0
diuron	1	2,360	1	308	1
linuron	1	2,357	0	308	0
Aeromonas	CFU/100mL ⁶	5,042	130	293	42

 $^{^1}$ Analytical results from the UCMR program are reported by laboratories and provided by the agency in micrograms/liter (μ g/L, or parts per billion). To convert results in μ g/L to nanograms/liter (η g/L, or parts per trillion), multiply the value by 1,000. Note that *Aeromonas* was reported in different units than the chemical contaminants. UCMR results are presented as single measurements and do not represent a locational running annual average.

² UCMR 1 contaminants (except Aeromonas) may have untreated (i.e., raw) water results included in the summary.

³ UCMR MRL – EPA-established UCMR Minimum Reporting Level. Based on laboratory capability; not related to contaminant health effects information. Note that the MRL for *Aeromonas* is in different units than the chemical contaminants.

⁴ UCMR 1 contaminants were monitored under either the UCMR Assessment Monitoring (AM) or Screening Survey (SS) design, affecting the number of results and PWSs with results for each contaminant. PWSs were required to collect *Aeromonas* samples six times during a 12-month period, compared to two or four times for other UCMR 1 contaminants, increasing the total SS results for *Aeromonas*. For more information on UCMR 1 monitoring design, refer to the EPA's <u>UCMR 1 website</u>.

⁵ LL – Lower Limit. LL-nitrobenzene is nitrobenzene as analyzed using EPA Method 526 for UCMR 1 SS design, which had a lower UCMR MRL compared to nitrobenzene as analyzed using EPA Method 524.2 for UCMR 1 AM design.

⁶ CFU/100mL – Colony forming units per one hundred milliliters. Within the 5,042 *Aeromonas* samples reported for UCMR 1, 99.6% of samples (5,022) had a detection limit of 0.2 CFU/100mL, representing the actual minimum observation possible of 1 CFU detected per 500mL of filtered sample. The remaining 0.4% of *Aeromonas* samples (20 of 5,042) had elevated and varying detection limits of 0.3, 0.8, 0.9, 1, 1.6, 9, and 9.1 CFU/100mL, when sample matrix suspended solids prevented filtration of the full 500mL of sample.

Data Considerations

The UCMR 1 analytical results are publicly available through the <u>UCMR Archival Data Finder</u> and as <u>text files</u>. Caution should be used in any interpretation of the UCMR 1 data since some untreated (*i.e.*, raw) source water data from several states are also included in the results. Any positive result from untreated source waters, which are subsequently treated, is generally not used to conduct drinking water exposure assessments. Rather, such cases generally triggered finished water sampling at the entry point to the distribution system.

UCMR 1 contaminants were monitored under either the UCMR Assessment Monitoring (AM) or Screening Survey (SS) design. The UCMR 1 SS design included approximately 300 PWSs randomly selected from those PWSs required to conduct AM and was designed to determine if additional monitoring would be needed. After UCMR 1, the SS design was adapted to include more PWSs, to exclude those PWSs required to participate in AM, and to be representative of national occurrence. For more information, refer to the EPA's UCMR 1 website.

The UCMR Archival Data Finder allows people to easily search for, summarize, and download the UCMR 1 analytical results. Results can be filtered using multiple data fields, including public water system (PWS), PWS size, state, EPA Region, contaminant, sample type, and results at or above UCMR minimum reporting levels (MRLs) (data definitions provided in Table 3). Selected results can be viewed online or downloaded as a Microsoft Excel file (.xlsx). Additional resources for the UCMR Archival Data Finder are available here.

For those interested in large-scale data processing using statistical or data analysis software, the EPA recommends using the occurrence data text files containing the UCMR 1 analytical results as well as additional information reported during monitoring. Data are provided in tab delimited text files (.txt) (see below for descriptions), with field names included in the first row of each file and no text qualifier. The EPA recommends importing all ID fields into your choice of software (e.g., Microsoft Excel, Microsoft Access) as text since some of the IDs can otherwise be misinterpreted as long integer field types when they contain alpha characters.

- To download the occurrence data text files (data definitions provided in <u>Table 4</u>), select one of the following zip files from UCMR 1 (2001-2005) Occurrence Data:
 - UCMR 1 Occurrence Data Text Files to view all the analytical results (i.e., results for all contaminants reported by all PWSs).
 - O UCMR 1 Occurrence Data Text Files by State to view all the analytical results, organized by Tribes and states. Within that zip file, one text file (UCMR1_All_Tribes_AK_LA.txt) will have all results for Tribal PWSs and for the states starting alphabetically with A through L; another file (UCMR1_All_MA_WY.txt) will have all results for the states starting alphabetically with M through W. The results are organized this way to address file size limitations and streamline data management.
 - UCMR 1 Occurrence Data Text Files by Method Classification to view all the analytical results, organized by analytical method. Within that zip file, you will find individual text files with results organized by method (e.g., a Method 314.0 file with results for perchlorate).
- The following text file for additional data elements (i.e., information beyond analytical results for the 26 UCMR 1 contaminants) is also contained in each of the above zip files:
 - UCMR1_Aeromonas_AddtlDataElem.txt Supplemental data from SS monitoring for Aeromonas (data definitions provided in <u>Table 5</u>)

For step-by-step details on using the UCMR Archival Data Finder and occurrence data text files, please refer to the document Instructions for Accessing UCMR Results. Additional reference material is available on the EPA's UCMR 1 website.

In addition to reporting occurrence data for UCMR 1 contaminants, the EPA tasked the laboratories contracted to analyze small PWS samples with reporting results for 1,3-dichloropropene (CASRN 542-75-6, DTXSID1022057). This additional unregulated contaminant was within the scope of the methods already performed for the UCMR 1 contaminants. The results for 1,3-dichloropropene from small PWS monitoring are included in the UCMR Archival Data Finder and the occurrence data text files.

Table 3. UCMR 1 Data Definitions for the UCMR Archival Data Finder

The data definitions below are specific to the UCMR 1 data. The UCMR Archival Data Finder also contains data from additional UCMR cycles, which may have different definitions for the provided fields. Please refer to the document Instructions for Accessing UCMR Results for data definitions specific to each cycle.

Field Name	Definition	
UCMR Cycle	UCMR cycle and monitoring years. Results may have sample collection dates outside the designated UCMR sample collection timeframe (e.g., resample collection): UCMR 1 (2001–2005)	
PWS ID	Public Water System (PWS) Identification Code. The code used to identify each PWS. The code begins with the standard 2-character postal state abbreviation or Region code for Tribes; the remaining 7 numbers are unique to each PWS in the state	
PWS Name	Name of the PWS	
Contaminant	The UCMR 1 contaminant analyzed	
Result	Numeric value of the analytical result in µg/L for the chemical contaminants and CFU/100mL for the microbial contaminants. Results less than the UCMR MRL are indicated by <mrl< td=""></mrl<>	
Units	Units of the UCMR MRL and analytical results: µg/L (micrograms per liter), CFU/100mL (colony forming units per one hundred milliliters)	
Collection Date	Date of sample collection (month, day, year)	
Facility ID	Identification code for each applicable facility associated with water treatment or delivery at the PWS	
Facility Name	Name of the facility at the PWS. This field is blank for some records	
Sample Point ID	Identification code for each sample point location at the PWS	
Sample Point Name	Name of the sample point at the PWS. This field is blank for some records	
Sample Event Code	Null for UCMR 1	
Sample ID	Identification code for each sample. Created using a concatenation of PWS ID, Facility ID, Sample Point ID, Collection Date, Method ID, and UCMR1 Sample Type	
Method ID	Identification code of the analytical method	
PWS Size	Size category of the PWS for UCMR 1, based on retail population as indicated by the Safe Drinking Water Information System (Federal) (SDWIS/FED) in 2000¹: S (≤ 10,000), L (> 10,000)	
Facility Water Type	Source of water at the facility: SW (surface water), GW (ground water), GU (ground water under the direct influence of surface water), [blank] (unknown)	
Sample Point Type	Sampling Point Type Code: EP (entry point to the distribution system), SR (source water – untreated water), LD (location in the distribution system where the disinfectant residual is the lowest which is approved by the state for THM [DBP] and/or total coliform sampling), MD (midpoint in the distribution system where the chlorine residual would be expected to be typical for the system such as the location for sampling coliform indicator bacteria as described in 40 CFR 141.21), MR (point of maximum retention is the point located the furthest from the entry point to the distribution system that is approved by the state for trihalomethane [THM] (disinfectant byproducts [DBP]) and/or total coliform sampling), UK (not definitively known)	
EPA Region	EPA Region (states): Region 1 (CT, ME, MA, NH, RI, VT), Region 2 (NJ, NY, PR [Puerto Rico], VI [Virgin Islands]), Region 3 (DE, DC, MD, PA, VA, WV), Region 4 (AL, FL, GA, KY, MS, NC, SC, TN), Region 5 (IL, IN, MI, MN, OH, WI), Region 6 (AR, LA, NM, OK, TX), Region 7 (IA, KS, MO, NE), Region 8 (CO, MT, ND, SD, UT, WY), Region 9 (AZ, CA, HI, NV, GU [Guam], MP [Northern Marianas Islands]), Region 10 (AK, ID, OR, WA)	
State	State abbreviation. Tribal PWSs without primacy are attributed to an EPA Region (05, 06, 07, 08, 09)	
Associated Facility ID	Null for UCMR 1	
Associated Sample Point ID	Null for UCMR 1	
Monitoring Requirement	AM (Assessment Monitoring), SS (Screening Survey)	

¹ A fixed PWS applicability date was not codified for UCMR 1, unlike the subsequent UCMR cycles, resulting in some revisions to population served that occurred during the UCMR 1 monitoring period.

Field Name	Definition
Minimum Reporting Level (MRL)	Minimum Reporting Level defined by UCMR 1 in μ g/L for the chemical contaminants and CFU/100mL for the microbial contaminants. Based on laboratory capability; not related to contaminant health effects information
UCMR1 Sample Type	RFS (raw field sample), RDS (raw duplicate field sample), TFS (treated field sample), TDS (treated duplicate field sample), [blank] (unknown)
CASRN	Chemical Abstracts Service Registry Number (CASRN) is a unique identifier assigned by the Chemical Abstracts Service (a division of the American Chemical Society) to every chemical substance (organic and inorganic compounds, polymers elements, nuclear particles, etc.) in the open scientific literature. It contains up to 10 digits, separated by hyphens into three parts
DTXSID	Distributed Structure-Searchable Toxicity Substance Identifier (DTXSID) is a unique substance identifier used in the EPA's CompTox Chemicals database, where a substance can be any single chemical, mixture, or polymer

Table 4. Data Definitions for Text Files: UCMR1_All, UCMR1_All_Tribes_AK_LA, UCMR1_All_MA_WY, and UCMR1_MethodNumber

Field Name	Definition	
PWSID	Public Water System (PWS) Identification Code. The code used to identify each PWS. The code begins with the standard 2-character postal state abbreviation or Region code for Tribes; the remaining 7 numbers are unique to each PWS in the state	
PWSName	Name of the PWS. This field is blank for some records	
Size	Size category of the PWS for UCMR 1, based on retail population as indicated by the Safe Drinking Water Information System (Federal) (SDWIS/FED) in 2000¹: S (≤ 10,000), L (> 10,000)	
FacilityID	Identification code for each applicable facility associated with water treatment or delivery at the PWS	
FacilityName	Name of the facility at the PWS. This field is blank for some records	
FacilityWaterType	Source of water at the facility: SW (surface water), GW (ground water), GU (ground water under the direct influence of surface water), [blank] (unknown)	
SamplePointID	Identification code for each sample point location at the PWS	
SamplePointName	Name of the sample point at the PWS. This field is blank for some records	
SamplePointType	Sampling Point Type Code: EP (entry point to the distribution system), SR (source water – untreated water), LD (location in the distribution system where the disinfectant residual is the lowest which is approved by the state for THM [DBP] and/or total coliform sampling), MD (midpoint in the distribution system where the chlorine residual would be expected to be typical for the system such as the location for sampling coliform indicator bacteria as described in 40 CFR 141.21), MR (point of maximum retention is the point located the furthest from the entry point to the distribution system that is approved by the state for trihalomethane [THM] (disinfectant byproducts [DBP]) and/or total coliform sampling), UK (not definitively known)	
AssociatedFacilityID	Null for UCMR 1	
AssociatedSamplePointID	Null for UCMR 1	
CollectionDate	Date of sample collection (month, day, year)	
SampleID	Identification code for each sample. Created using a concatenation of PWSID, FacilityID, SamplePointID, CollectionDate, MethodID, and UCMR1SampleType	
Contaminant	The UCMR 1 contaminant analyzed	
MRL	Minimum Reporting Level (MRL) defined by UCMR 1 in µg/L for the chemical contaminants and CFU/100mL for the microbial contaminants. Based on laboratory capability; not related to contaminant health effects information	
Units	Units of the UCMR MRL and analytical results: µg/L (micrograms per liter), CFU/100mL (colony forming units per one hundred milliliters)	
MethodID	Identification code of the analytical method	
AnalyticalResultsSign	Sign indicating whether the analytical result is less than (<) the UCMR MRL or equal to (=) a numeric value at or above the UCMR MRL	
AnalyticalResultValue	Numeric value of the analytical result in µg/L for the chemical contaminants and CFU/100mL for the microbial contaminants. Null (or blank) values represent results less than the UCMR 1 MRL	

Field Name	Definition
SampleEventCode	Null for UCMR 1
MonitoringRequirement	AM (Assessment Monitoring), SS (Screening Survey)
Region	EPA Region (states): 1 (CT, ME, MA, NH, RI, VT), 2 (NJ, NY, PR [Puerto Rico], VI [Virgin Islands]), 3 (DE, DC, MD, PA, VA, WV), 4 (AL, FL, GA, KY, MS, NC, SC, TN), 5 (IL, IN, MI, MN, OH, WI), 6 (AR, LA, NM, OK, TX), 7 (IA, KS, MO, NE), 8 (CO, MT, ND, SD, UT, WY), 9 (AZ, CA, HI, NV, GU [Guam], MP [Northern Marianas Islands]), 10 (AK, ID, OR, WA)
State	State abbreviation. Tribal PWSs without primacy are attributed to an EPA Region (05, 06, 07, 08, 09)
UCMR1SampleType	RFS (raw field sample), RDS (raw duplicate field sample), TFS (treated field sample), TDS (treated duplicate field sample), [blank] (unknown)

Table 5. Data Definitions for Text File: UCMR1_Aeromonas_AddtlDataElem

Field Name	Definition	
PWSID	Public Water System (PWS) Identification Code. The code used to identify each PWS. The code begins with the standard 2-character postal state abbreviation or Region code for Tribes; the remaining 7 numbers are unique to each PWS in the state	
FacilityID	Identification code for each applicable facility associated with water treatment or delivery at the PWS	
SamplePointID	Identification code for each sample point location at the PWS	
CollectionDate	Date of sample collection (month, day, year)	
UCMR1SampleType	RFS (raw field sample), RDS (raw duplicate field sample), TFS (treated field sample), TDS (treated duplicate field sample)	
SampleID	Identification code for each sample. Created using a concatenation of PWSID, FacilityID, SamplePointID, CollectionDate, MethodID, and UCMR1SampleType	
рН	pH measurement of the sample	
pHMethod	Identification code of the analytical method used to measure pH: EPA 150.1, SM4500-H+B, [blank] (not reported)	
Temperature	Temperature measurement of the sample	
TemperatureUnits	Deg C (degrees Celsius), [blank] (not reported)	
TemperatureMethod	Identification code of the analytical method used to measure temperature: SM 2550, [blank] (not reported)	
Turbidity	Turbidity measurement of the sample	
TurbidityUnits	NTU (Nephelometric Turbidity unit), [blank] (not reported)	
TurbidityMethod	Identification code of the analytical method used to measure turbidity: EPA 180.1, SM 2130 B, [blank] (not reported)	
FreeDisinfectantResidual	Free disinfectant residual measurement of the sample	
Free Disinfectant Residual Units	mg/L (milligrams per liter), [blank] (not reported)	
Free Disinfectant Residual Method	Identification code of the analytical method used to measure free disinfectant residual: SM 4500-CI D, SM 4500-CI F, SM 4500-CI G, [blank] (not reported)	
TotalDisinfectantResidual	Total disinfectant residual measurement of the sample	
TotalDisinfectantResidualUnits	mg/L (milligrams per liter), [blank] (not reported)	
TotalDisinfectantResidualMethod	Identification code of the analytical method used to measure total disinfectant residual: SM 4500-CI D, SM 4500-CI F, SM 4500-CI G, [blank] (not reported)	
Region	EPA Region (states): 1 (CT, ME, MA, NH, RI, VT), 2 (NJ, NY, PR [Puerto Rico], VI [Virgin Islands]), 3 (DE, DC, MD, PA, VA, WV), 4 (AL, FL, GA, KY, MS, NC, SC, TN), 5 (IL, IN, MI, MN, OH, WI), 6 (AR, LA, NM, OK, TX), 7 (IA, KS, MO, NE), 8 (CO, MT, ND, SD, UT, WY), 9 (AZ, CA, HI, NV, GU [Guam], MP [Northern Marianas Islands]), 10 (AK, ID, OR, WA)	
State	State abbreviation. Tribal PWSs without primacy are attributed to an EPA Region (05, 06, 07, 08, 09)	