Drinking Water Annual Report -2016

City of Quesnel Water System

PURPOSE

The City of Quesnel annual water report describes the water system and provides a summary of quality testing and water management during 2016. It is a requirement under the British Columbia Drinking Water Regulations Drinking Water Protection Act.

WATER SYSTEM OVERVIEW

The City of Quesnel water system is comprised of 6 operating groundwater wells (main system), 8 reservoirs, 5 booster pump stations, 2 main PRV stations and approximately 100 km of water main. In addition the City also maintains one independent groundwater well on Sword Road (small system) in South Quesnel to provide water to the ball parks. At present there is no treatment or disinfection provided to the City's water system. Approximately 10,000 residents are serviced by the City water system. In 2016, there was 2,284,143 cubic meters of water used. This is a reduction of 334,767 cubic meters from 2015.

WATER MANAGEMENT

The SCADA monitoring system enables City staff to observe real-time data and information of changing water system conditions which includes well operation and reservoir levels. System operators have the ability to remotely respond to system conditions and demands. Should an alarm arise in the water system which requires response from an operator, the SCADA will contact the operator by cell phone to report the condition. This reduces failure of equipment as well as increases pumping efficiency. Upgrades to the SCADA are ongoing as equipment becomes obsolete and communications between stations require updates to operate effectively.

The water system emergency plan is updated annually. Operating procedures continue to be reviewed in order to improve reliability of the distribution network. It is critical to the system to maintain pumps and equipment to a high standard which avoids costly failures.

Water system operators are certified to operate the City of Quesnel water system under the Environmental Operators Certification Program. The system is classified as a Class 2 water distribution system. An operator must have a minimum 5400 hours (or 3 years full time) as an operator to be eligible to apply for and write the Class 2 exam. In order to maintain certification, operators must receive 24 hours of approved training in every two year period and achieve a minimum of 70% on written examinations. This training is not only critical to maintaining certification, it is crucial for operators to stay current and provides opportunity to network with other operators over common challenges faced in field operations.

On February 29, 2016 the provincial government brought a first phase of regulations into effect with the Water Sustainability Act (WSA). The new WSA replaces the old Water Act. These new regulations include new requirements for well construction and maintenance, groundwater use and licensing, compliance, and dam safety. The City of Quesnel uses groundwater as the source for the water system. Prior to the new regulations groundwater was not licensed in British Columbia. With the new WSA licensing is required and annual fees will be charged based on volume used. City staff have begun the application process to apply for the license.

In August the Sword Rd. small system distribution network was connected with a water main from Dragon Hill reservoir and is now part of the community water system.

WATER MONITORING

To ensure the delivery of safe drinking water, the City has a program to monitor water quality at the source.

Historically, drinking water quality within the City has been monitored in consultation with the Provincial Health Inspector. The responsibility to ensure safe drinking water has been assisted by the adoption of the "British Columbia Drinking Water Regulations" by the province in May 2003. In accordance with these regulations, the City has developed a drinking water quality monitoring program to follow best practice.

The City sends water samples to an approved lab in Kelowna for all sampling points. Samples have also been received directly by Northern Health. There is direct contact between the City and lab on results and concerns. The Public Health Engineer at Northern Health Authority also has access to these results. From the laboratory, the results are downloaded directly to Water Trax, the City's water quality database.

The sampling parameters used to monitor potability are listed in the Guidelines for Canadian Drinking Water Quality (GCDWQ) and the British Columbia Drinking Water Regulations (BCDWR). These sampling parameters are used as indicators for bacteriological, chemical and physical contaminants.

Sampling frequency is also important in obtaining an accurate overview of water quality within the distribution system. As a minimum, the number of samples to be taken from the source and distribution system as required by provincial regulations are based on population. The minimum number of samples to be taken for the City of Quesnel's approximately 10,000 people is 13 per month. The City exceeds that number of monthly samples. The City samples 16 individual sites bi-weekly, for total coliforms, Ecoli, heterotrophic plate count and turbidity. As well, all reservoirs and wells are tested on a monthly basis for bacterial contaminants. In addition to the bacteriological parameters, additional testing is done for chemical & physical parameters.

WATER QUALITY

Samples are taken at the start, middle and end of the entire City water distribution system. Lab results are transmitted to the City via email, as well as to the Public Health Engineer at Northern Health. Results are then downloaded into the City's water quality database, Water Trax.

If it is observed during testing that certain parameters exceed the limits specified in the GCDWQ or BCDWR guidelines, a procedure is in place for retesting and notification of any results or conditions that render or could render the water unfit to drink.

The standard protocol when a water sample is found to contain the presence of coliforms, however minute, is to resample the water immediately at the same location and resubmit for testing. The provincial Environmental Health Officer will determine if any action by the City is necessary only after a second test also shows the presence of coliforms.

In accordance with the regulations of our operating permit, the City has a plan in effect to respond to emergencies to ensure the delivery of safe drinking water to all its residents.

In 2016 341 samples were tested for Ecoli and total coliforms. There were zero exceedences of Ecoli and 22 exceedences for total coliform. In the case of an exceedance, the line was flushed and resampled at the same site until coliform was not detected.

Complaints regarding water quality are addressed and followed up on a case by case basis. The majority of customer complaints are of "dirty" or black water. This is due to manganese found in the City water which adheres to pipe walls in the distribution system until it is disturbed or breaks free. Homeowners are advised to run a cold tap until the water clears. In some cases the City will flush the mains through a hydrant or blowoff. All mains are flushed each fall to remove mineral scale and buildup in the lines in addition to ensuring proper operation and maintenance of all City fire hydrants. The guideline for Canadian Drinking Water Quality aesthetic objective for manganese is 0.05 mg/L. The City of Quesnel wells vary from .014-.59 mg/L.

There are occasional complaints of cold water smelling like rotten eggs or sulfur. This is caused from the City water having a reaction with the small diameter "feed line" tubing which connects the household plumbing to the faucet under the sink. It is most common in homes that have new or recently upgraded taps or plumbing fixtures. A corrective measure for this is suggest homeowners replace the feed lines with metal tubing such as copper or alternatively clean the lines with sodium hypochlorite (household bleach), then rinse and reinstall. At the September 6 council meeting a report was presented on Water Quality summarizing these common complaints.

City of Quesnel Bylaw 1567 of 2004 was adopted in 2005 to ensure provisions for the elimination of cross connections between potable water and any non-potable source. The City has two Certified Backflow Assembly Testers on staff that annually tests assemblies in City parks and the City water supply system to protect against potential backflows and cross connections. They also install backflow prevention devices which are a secondary line of defence for backflow prevention.

It is the responsibility of the owner or operator of private buildings to install and test the approved backflow assembly upon installation and annually thereafter by a certified tester. Following the test, a copy of the report is to be forwarded to the City of Quesnel. This program has not been completely implemented as there is a lack of resources and staff to track and account for these assemblies. What staff time is available is focused on communication with contractors/plumbers and high risk users. The main group addressed is industrial, commercial and institutions. Utilities staff communicate and keep a watchful eye out for any potential cross connections.

CONCLUSION

The 2016 City of Quesnel Water System Annual Report is presented to Council as required by the British Columbia Drinking Water Regulations Drinking Water Protection Act. It has been established as a requirement to ensure accountability to the community for the water service provided. In order to meet the terms and conditions of the City's Water System Operating Permit issued by the BC Drinking Water Officer, this report is made available to the public.

Additional information may be obtained from the City of Quesnel Utilities Department at 250-992-6330, attention: Chris Coben, Utilities Superintendent.

Attachment "A" contains:
- a list of the sampling point sites and the parameters tested for the City of Quesnel

Attachment "B" contains:
- Water sampling result summary reports for 2016 on both of the City's water systems; Main System, & Small System (on Sword Road).

LINKS:
The Health Canada website (www.hc-sc.gc.ca) contains "Summary of Guidelines for Canadian Drinking Water Quality", which Health Canada publishes on current guidelines and updates each spring on their website.

Attachment "A"

	City of Quesnel Water Quality Monitoring Program	
SITE	**LOCATION**	**PARAMETERS**
BI-WEEKLY (Distribution System)		
FIRST WEEK		
Water Trax Locator #		
94 E4	Airport	Parameters: Total coliforms, Ecoli, HPC's, turbidity, temp
94 E5	Mills Rd	
94 E7	Marsh Dr	
94 E8	Graham Avenue	
94 E9	West Fraser Rd	
94 FO	Pederson Rd	
94 EF	Carson Pit (35D91K) Oct 2016 added to MAIN	
179 CA	Dennis Road	
THIRD WEEK		
94 E6	Carradice Rd	Parameters: Total coliforms, Ecoli, HPC's, turbidity, temp
94 F1	Dixon St	
94 F2	Front St – Hospital	
94 F3	Nason St	
94 F4	N. Star Dragon Hill	
94 F6	N Star South Hill	
94 F7	Chew Rd	
21 D9B	Bulk Water on North Star	
MONTHLY (Reservoirs)		
94 EA	R-1 Shadow Heights	Parameters: Total coliforms, Ecoli, Temp
94 F9	R-2 Pinecrest	
94 FA	R-3 Sugar Loaf	
94 EB	R-4 Abbott Dr 1	
94 EC	R-4 Abbott Dr 2	
94 FC	R-5 Dragon Hill	
94 FF	R-6 New Tatchell Reservoir	
MONTHLY (Wells)		
94 ED	Well A Sword Rd	Parameters: Total coliforms, Ecoli, Temp
94 D1	Well 3 Rolph at Roddis	
94 DC	Well 6 Rolph at Robertson	
94 EO	Well 7 N. Fraser Dr	
94 E1	Well 8 Hilborn Rd	
94 DF	Well 9 Carson Sub	
28000	Well 10 Hilborn Rd	

City of Quesnel
Water Quality Monitoring Program

SEMI - ANNUALLY (Distribution System) (first week April & Oct)		
94 E5	Mills Rd (94E5)	Parameters: Copper, Zinc, Lead, Iron, Vinyl chloride, Manganese, Temperature
94 FO	Pederson Rd (94F0)	
94 EF	Carson Pit (94EF) (April 2016) sm system	

ANNUALLY (Wells)		
94 ED	Well A Sword Rd	Parameters: Enhanced Potability, Metals, Langelier saturation index (LSI) Volatile Organic Compounds, Temp.
94 D1	Well 3 Rolph at Roddis	
94 DC	Well 6 Rolph at Robertson	
94 EO	Well 7 N. Fraser Drive	
94 E1	Well 8 Hilborn Rd	
94 DF	Well 9 Carson Sub	
28000	Well 10 Hilborn Rd	

<p align="center">Attachment "B"</p>

Water sample result reports (in pdf format):

- Main System Coliform/Ecoli Stats 2016
- Small System Coliform/Ecoli Stats 2016
- Main System Coliform/Ecoli Exceedences 2016
- Small System Coliform/Ecoli Exceedences 2016
- April Semi-Annual Summary on Main 2016
- April Semi-Annual Summary on Sm. System 2016
- October Semi-Annual Summary on Main 2016

Facility: Distribution System
Sampling Point: Bulk Water Site #1 (7-15-QC, 21D9B)

Escherichia coli / E. coli (counts)

# samples:	13	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	13	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	13	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility: Distribution System
Sampling Point: S- Airport (7-1-MR, 94E4)

Escherichia coli / E. coli (counts)

# samples:	12	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	12	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	12	**min:**	< 1 counts/100mL
# detects:	0	**max:**	< 1 counts/100mL
# non-detects:	12	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility: Distribution System
Sampling Point: S- Carradice Rd (7-3-MR, 94E6)

Escherichia coli / E. coli (counts)

# samples:	13	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	13	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

WaterTrax

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# samples:	13	min:	< 1 counts/100mL
# detects:	0	max:	< 1 counts/100mL
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

| **Facility:** | Distribution System |
| **Sampling Point:** | S- Chew Rd (7-13-MR, 94F7) |

Escherichia coli / E. coli (counts)

# samples:	13	min:	< 1 CFU/100mL
# detects:	0	max:	< 1 CFU/100mL
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	min:	< 1 counts/100mL
# detects:	0	max:	< 1 counts/100mL
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

| **Facility:** | Distribution System |
| **Sampling Point:** | S- Dennis Road (7-14-MD, 179CA) |

Escherichia coli / E. coli (counts)

# samples:	13	min:	< 1 CFU/100mL
# detects:	0	max:	< 1 CFU/100mL
# non-detects:	12	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	min:	< 1 counts/100mL
# detects:	0	max:	< 1 counts/100mL
# non-detects:	12	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	1		

| **Facility:** | Distribution System |
| **Sampling Point:** | S- Dixon (7-8-MR, 94F1) |

Escherichia coli / E. coli (counts)

| # samples: | 17 | min: | < 1 CFU/100mL |

WaterTrax

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# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	17	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	17	**min:**	< 1 counts/100mL
# detects:	6	**max:**	8 counts/100mL
# non-detects:	11	**Geometric Mean:**	3.031 counts/100mL (based on 5 numerical results)
# of Exceedences:	6		

Facility:	Distribution System
Sampling Point:	S- Marsh Drive (7-4-MD, 94E7)

Escherichia coli / E. coli (counts)

# samples:	13	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	13	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	**min:**	< 1 counts/100mL
# detects:	1	**max:**	> 1 counts/100mL
# non-detects:	12	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	1		

Facility:	Distribution System
Sampling Point:	S- Mills Rd (7-2-MR, 94E5)

Escherichia coli / E. coli (counts)

# samples:	13	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	13	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	**min:**	< 1 counts/100mL
# detects:	1	**max:**	1 counts/100mL
# non-detects:	12	**Geometric Mean:**	1.000 counts/100mL (based on 1 numerical results)
# of Exceedences:	1		

WaterTrax

Facility:　　　　　　　Distribution System
Sampling Point:　　　S- N. Star Dragon Hill (7-11-MD, 94F4)

Escherichia coli / E. coli (counts)

# samples:	13	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	13	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	**min:**	< 1 counts/100mL
# detects:	0	**max:**	< 1 counts/100mL
# non-detects:	13	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility:　　　　　　　Distribution System
Sampling Point:　　　S- N.Star South Hill (7-12-MD, 94F6)

Escherichia coli / E. coli (counts)

# samples:	14	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	14	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	14	**min:**	< 1 counts/100mL
# detects:	1	**max:**	1 counts/100mL
# non-detects:	13	**Geometric Mean:**	1.000 counts/100mL (based on 1 numerical results)
# of Exceedences:	1		

Facility:　　　　　　　Distribution System
Sampling Point:　　　S- Nason (7-10-MD, 94F3)

Escherichia coli / E. coli (counts)

# samples:	13	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	13	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

WaterTrax

11

# samples:	13	**min:**	< 1 counts/100mL
# detects:	0	**max:**	< 1 counts/100mL
# non-detects:	13	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility:	Distribution System
Sampling Point:	S- Pederson Rd (7-7-MD, 94F0)

Escherichia coli / E. coli (counts)

# samples:	12	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	12	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	12	**min:**	< 1 counts/100mL
# detects:	0	**max:**	< 1 counts/100mL
# non-detects:	12	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility:	Distribution System
Sampling Point:	S- West Fraser Rd (7-6-MR, 94E9)

Escherichia coli / E. coli (counts)

# samples:	13	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	13	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	**min:**	< 1 counts/100mL
# detects:	1	**max:**	1 counts/100mL
# non-detects:	12	**Geometric Mean:**	1.000 counts/100mL (based on 1 numerical results)
# of Exceedences:	1		

Facility:	Distribution System
Sampling Point:	S-Carson Pit (7-16-MR, 35D91)

Escherichia coli / E. coli (counts)

# samples:	9	**min:**	< 1 CFU/100mL

WaterTrax

12

# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	9	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	9	**min:**	< 1 counts/100mL
# detects:	7	**max:**	670 counts/100mL
# non-detects:	2	**Geometric Mean:**	21.670 counts/100mL (based on 7 numerical results)
# of Exceedences:	7		

Facility:	Distribution System
Sampling Point:	S-Graham Ave (7-5-MD, 94E8)

Escherichia coli / E. coli (counts)

# samples:	14	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	13	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	14	**min:**	< 1 counts/100mL
# detects:	1	**max:**	1 counts/100mL
# non-detects:	12	**Geometric Mean:**	1.000 counts/100mL (based on 1 numerical results)
# of Exceedences:	2		

Facility:	Distribution System
Sampling Point:	S-Hospital (7-9-MD, 94F2)

Escherichia coli / E. coli (counts)

# samples:	13	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	13	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	**min:**	< 1 counts/100mL
# detects:	0	**max:**	< 1 counts/100mL
# non-detects:	13	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

WaterTrax

13

Facility:	Reservoirs
Sampling Point:	R-1 Shadow Heights (8-1-MR, 94EA)

Escherichia coli / E. coli (counts)

# samples:	11	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	11	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	11	**min:**	< 1 counts/100mL
# detects:	0	**max:**	< 1 counts/100mL
# non-detects:	11	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility:	Reservoirs
Sampling Point:	R-2 Pinecrest (8-4-MR, 94F9)

Escherichia coli / E. coli (counts)

# samples:	12	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	12	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	12	**min:**	< 1 counts/100mL
# detects:	0	**max:**	< 1 counts/100mL
# non-detects:	12	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility:	Reservoirs
Sampling Point:	R-3 Sugarloaf (8-5-MR, 94FA)

Escherichia coli / E. coli (counts)

# samples:	12	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	12	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

WaterTrax

14

# samples:	12	**min:**	< 1 counts/100mL
# detects:	0	**max:**	< 1 counts/100mL
# non-detects:	12	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility:	Reservoirs
Sampling Point:	R-4 Abbott Dr 1 (8-2-MR, 94EB)

Escherichia coli / E. coli (counts)

# samples:	13	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	13	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	**min:**	< 1 counts/100mL
# detects:	1	**max:**	5 counts/100mL
# non-detects:	12	**Geometric Mean:**	5.000 counts/100mL (based on 1 numerical results)
# of Exceedences:	1		

Facility:	Reservoirs
Sampling Point:	R-4 Abbott Dr 2 (8-3-MR, 94EC)

Escherichia coli / E. coli (counts)

# samples:	13	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	13	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	**min:**	< 1 counts/100mL
# detects:	1	**max:**	3 counts/100mL
# non-detects:	12	**Geometric Mean:**	3.000 counts/100mL (based on 1 numerical results)
# of Exceedences:	1		

Facility:	Reservoirs
Sampling Point:	R-5 Dragon Hill (8-6-MR, 94FC)

Escherichia coli / E. coli (counts)

# samples:	12	**min:**	< 1 CFU/100mL

WaterTrax

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# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	12	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	12	**min:**	< 1 counts/100mL
# detects:	0	**max:**	< 1 counts/100mL
# non-detects:	12	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility:	Reservoirs
Sampling Point:	R-6 New Tatchell Reservoir (8-8-MR, 94FF)

Escherichia coli / E. coli (counts)

# samples:	12	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	12	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	12	**min:**	< 1 counts/100mL
# detects:	0	**max:**	< 1 counts/100mL
# non-detects:	12	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility:	Well 10 Hilborn Rd.; Well No 10
Sampling Point:	Well No 10 Hilborn Rd. (9-1-EP, 28000)

Escherichia coli / E. coli (counts)

# samples:	11	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	11	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	11	**min:**	< 1 counts/100mL
# detects:	0	**max:**	< 1 counts/100mL
# non-detects:	11	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

WaterTrax

Facility: Well 3 Rolph at Roddis; Well No 3
Sampling Point: Well 3 Rolph at Roddis (1-2-EP, 94D1)

Escherichia coli / E. coli (counts)

# samples:	7	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	7	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	7	**min:**	< 1 counts/100mL
# detects:	0	**max:**	< 1 counts/100mL
# non-detects:	7	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility: Well 6 Rolph at Robertson; Well No 6
Sampling Point: Well 6 Rolph at Robertson (3-2-EP, 94DC)

Escherichia coli / E. coli (counts)

# samples:	11	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	11	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	11	**min:**	< 1 counts/100mL
# detects:	0	**max:**	< 1 counts/100mL
# non-detects:	11	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility: Well 7 N. Fraser Dr; Well No 7
Sampling Point: Well 7 N. Fraser Dr (4-2-EP, 94E0)

Escherichia coli / E. coli (counts)

# samples:	11	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	11	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

WaterTrax

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# samples:	11	**min:**	< 1 counts/100mL
# detects:	1	**max:**	2 counts/100mL
# non-detects:	10	**Geometric Mean:**	2.000 counts/100mL (based on 1 numerical results)
# of Exceedences:	1		

Facility:	Well 8 Hilborn Rd; Well No 8
Sampling Point:	Well 8 Hilborn Rd (5-1-EP, 94E1)

Escherichia coli / E. coli (counts)

# samples:	11	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	11	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	11	**min:**	< 1 counts/100mL
# detects:	0	**max:**	< 1 counts/100mL
# non-detects:	11	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility:	Well 9 Carson Sub; Well No 9
Sampling Point:	Well 9 Carson Sub (6-2-EP, 94DF)

Escherichia coli / E. coli (counts)

# samples:	12	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	12	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	12	**min:**	< 1 counts/100mL
# detects:	1	**max:**	1 counts/100mL
# non-detects:	11	**Geometric Mean:**	1.000 counts/100mL (based on 1 numerical results)
# of Exceedences:	1		

Result Legend:

P=present, A=absent, PR=presumptive, ND=non-detect, U=non-detect, OR=over-range, OG=overgrown,
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment

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Report created on 01/13/2017 11:30:07 AM

WaterTrax

| **Facility:** | Distribution System |
| **Sampling Point:** | S- Carson Plt (2-1-MR, 94EF) |

Escherichia coli / E. coli (counts)

# samples:	12	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	12	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	12	**min:**	< 1 counts/100mL
# detects:	4	**max:**	15 counts/100mL
# non-detects:	8	**Geometric Mean:**	15.000 counts/100mL (based on 1 numerical results)
# of Exceedences:	4		

| **Facility:** | Well A Sword Rd; Well A Sword Rd |
| **Sampling Point:** | Well A Sword Rd (1-1-EP, 94ED) |

Escherichia coli / E. coli (counts)

# samples:	9	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	9	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	9	**min:**	< 1 counts/100mL
# detects:	0	**max:**	< 1 counts/100mL
# non-detects:	9	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Result Legend:

P=present, A=absent, PR=presumptive, ND=non-detect, U=non-detect, OR=over-range, OG=overgrown,
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment

< means less than lower detection limit shown
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« means detected & less than number shown
» means detected & greater than number shown

* Indicates Criteria is exceeded

WaterTrax

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Facility:	Distribution System
Sampling Point:	Bulk Water Site #1 (7-15-QC, 21D9B)

Facility:	Distribution System
Sampling Point:	S- Airport (7-1-MR, 94E4)

Facility:	Distribution System
Sampling Point:	S- Carradice Rd (7-3-MR, 94E6)

Facility:	Distribution System
Sampling Point:	S- Chew Rd (7-13-MR, 94F7)

Facility:	Distribution System
Sampling Point:	S- Dennis Road (7-14-MD, 179CA)

Total Coliforms (counts)		**Criteria**	
* 09/07/2016 07:35	**OG counts/100mL**	**<=0, OG, P**	**User-Defined**

# samples:	13	**min:**	< 1 counts/100mL
# detects:	0	**max:**	< 1 counts/100mL
# non-detects:	12	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	1		

Facility:	Distribution System
Sampling Point:	S- Dixon (7-8-MR, 94F1)

Total Coliforms (counts)		**Criteria**	
* 06/29/2016 14:20	**1 counts/100mL**	**<=0, OG, P**	**User-Defined**
* 11/14/2016 10:55	**> 5 counts/100mL**	**<=0, OG, P**	**User-Defined**
* 11/22/2016 10:25	**4 counts/100mL**	**<=0, OG, P**	**User-Defined**
* 11/30/2016 12:50	**2 counts/100mL**	**<=0, OG, P**	**User-Defined**
* 12/07/2016 13:00	**8 counts/100mL**	**<=0, OG, P**	**User-Defined**
* 12/22/2016 15:20	**4 counts/100mL**	**<=0, OG, P**	**User-Defined**

WaterTrax

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# samples:	17	min:	< 1 counts/100mL
# detects:	6	max:	8 counts/100mL
# non-detects:	11	Geometric Mean:	3.031 counts/100mL (based on 5 numerical results)
# of Exceedences:	6		

Facility:	Distribution System
Sampling Point:	S- Marsh Drive (7-4-MD, 94E7)

Total Coliforms (counts)		**Criteria**		
* 09/07/2016 **10:20**	**> 1 counts/100mL**	**<=0, OG, P**	**User-Defined**	

# samples:	13	min:	< 1 counts/100mL
# detects:	1	max:	> 1 counts/100mL
# non-detects:	12	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	1		

Facility:	Distribution System
Sampling Point:	S- Mills Rd (7-2-MR, 94E5)

Total Coliforms (counts)		**Criteria**		
* 05/11/2016 **11:10**	**1 counts/100mL**	**<=0, OG, P**	**User-Defined**	

# samples:	13	min:	< 1 counts/100mL
# detects:	1	max:	1 counts/100mL
# non-detects:	12	Geometric Mean:	1.000 counts/100mL (based on 1 numerical results)
# of Exceedences:	1		

Facility:	Distribution System
Sampling Point:	S- N. Star Dragon Hill (7-11-MD, 94F4)

Facility:	Distribution System
Sampling Point:	S- N.Star South Hill (7-12-MD, 94F6)

Total Coliforms (counts)		**Criteria**		
* 08/24/2016 **11:25**	**1 counts/100mL**	**<=0, OG, P**	**User-Defined**	

# samples:	14	min:	< 1 counts/100mL
# detects:	1	max:	1 counts/100mL

WaterTrax

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# non-detects:	13	**Geometric Mean:**	1.000 counts/100mL (based on 1 numerical results)
# of Exceedences:	1		

Facility:	Distribution System
Sampling Point:	S- Nason (7-10-MD, 94F3)

Facility:	Distribution System
Sampling Point:	S- Pederson Rd (7-7-MD, 94F0)

Facility:	Distribution System
Sampling Point:	S- West Fraser Rd (7-6-MR, 94E9)

Total Coliforms (counts)		**Criteria**	
* 09/07/2016 10:50	**1 counts/100mL**	**<=0, OG, P**	**User-Defined**

# samples:	13	**min:**	< 1 counts/100mL
# detects:	1	**max:**	1 counts/100mL
# non-detects:	12	**Geometric Mean:**	1.000 counts/100mL (based on 1 numerical results)
# of Exceedences:	1		

Facility:	Distribution System
Sampling Point:	S-Carson Pit (7-16-MR, 35D91)

Total Coliforms (counts)		**Criteria**	
* 10/11/2016 10:40	**670 counts/100mL**	**<=0, OG, P**	**User-Defined**
* 10/19/2016 12:40	**3 counts/100mL**	**<=0, OG, P**	**User-Defined**
* 10/19/2016 13:00	**7 counts/100mL**	**<=0, OG, P**	**User-Defined**
* 10/26/2016 15:10	**6 counts/100mL**	**<=0, OG, P**	**User-Defined**
* 10/26/2016 15:20	**30 counts/100mL**	**<=0, OG, P**	**User-Defined**
* 11/08/2016 14:20	**4 counts/100mL**	**<=0, OG, P**	**User-Defined**
* 11/22/2016 15:00	**29 counts/100mL**	**<=0, OG, P**	**User-Defined**

# samples:	9	**min:**	< 1 counts/100mL
# detects:	7	**max:**	670 counts/100mL

WaterTrax

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| # non-detects: | 2 | Geometric Mean: | 21.670 counts/100mL (based on 7 numerical results) |
| # of Exceedences: | 7 | | |

| **Facility:** | Distribution System |
| **Sampling Point:** | S-Graham Ave (7-5-MD, 94E8) |

Total Coliforms (counts)   **Criteria**

| * 01/26/2016 14:55 | **1 counts/100mL** | **<=0, OG, P** | **User-Defined** |
| * 09/07/2016 11:20 | **OG counts/100mL** | **<=0, OG, P** | **User-Defined** |

# samples:	14	min:	< 1 counts/100mL
# detects:	1	max:	1 counts/100mL
# non-detects:	12	Geometric Mean:	1.000 counts/100mL (based on 1 numerical results)
# of Exceedences:	2		

| **Facility:** | Distribution System |
| **Sampling Point:** | S-Hospital (7-9-MD, 94F2) |

| **Facility:** | Reservoirs |
| **Sampling Point:** | R-1 Shadow Heights (8-1-MR, 94EA) |

| **Facility:** | Reservoirs |
| **Sampling Point:** | R-2   Pinecrest (8-4-MR, 94F9) |

| **Facility:** | Reservoirs |
| **Sampling Point:** | R-3 Sugarloaf (8-5-MR, 94FA) |

| **Facility:** | Reservoirs |
| **Sampling Point:** | R-4 Abbott Dr 1 (8-2-MR, 94EB) |

Total Coliforms (counts)   **Criteria**

| * 11/30/2016 13:30 | **5 counts/100mL** | **<=0, OG, P** | **User-Defined** |

# samples:	13	min:	< 1 counts/100mL
# detects:	1	max:	5 counts/100mL
# non-detects:	12	Geometric Mean:	5.000 counts/100mL (based on 1 numerical results)
# of Exceedences:	1		

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WaterTrax

| **Facility:** | Reservoirs |
| **Sampling Point:** | R-4 Abbott Dr 2 (8-3-MR, 94EC) |

Total Coliforms (counts)		**Criteria**		
* 11/30/2016 16:30	3 counts/100mL	<=0, OG, P	User-Defined	

# samples:	13	min:	< 1 counts/100mL
# detects:	1	max:	3 counts/100mL
# non-detects:	12	Geometric Mean:	3.000 counts/100mL (based on 1 numerical results)
# of Exceedences:	1		

| **Facility:** | Reservoirs |
| **Sampling Point:** | R-5   Dragon Hill (8-6-MR, 94FC) |

| **Facility:** | Reservoirs |
| **Sampling Point:** | R-6 New Tatchell Reservoir (8-8-MR, 94FF) |

| **Facility:** | Well 10 Hilborn Rd.; Well No 10 |
| **Sampling Point:** | Well No 10 Hilborn Rd. (9-1-EP, 28000) |

| **Facility:** | Well 3 Rolph at Roddis; Well No 3 |
| **Sampling Point:** | Well 3 Rolph at Roddis (1-2-EP, 94D1) |

| **Facility:** | Well 6 Rolph at Robertson; Well No 6 |
| **Sampling Point:** | Well 6 Rolph at Robertson (3-2-EP, 94DC) |

| **Facility:** | Well 7 N. Fraser Dr; Well No 7 |
| **Sampling Point:** | Well 7 N. Fraser Dr (4-2-EP, 94E0) |

Total Coliforms (counts)		**Criteria**		
* 04/27/2016 10:40	2 counts/100mL	<=0, OG, P	User-Defined	

# samples:	11	min:	< 1 counts/100mL
# detects:	1	max:	2 counts/100mL
# non-detects:	10	Geometric Mean:	2.000 counts/100mL (based on 1 numerical results)
# of Exceedences:	1		

| **Facility:** | Well 8 Hilborn Rd; Well No 8 |

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Sampling Point:	Well 8 Hilborn Rd (5-1-EP, 94E1)

Facility:	Well 9 Carson Sub; Well No 9
Sampling Point:	Well 9 Carson Sub (6-2-EP, 94DF)

Total Coliforms (counts)　　　　　　　　**Criteria**

* 02/02/2016 09:50	1 counts/100mL	<=0, OG, P	User-Defined

# samples:	12	**min:**	< 1 counts/100mL
# detects:	1	**max:**	1 counts/100mL
# non-detects:	11	**Geometric Mean:**	1.000 counts/100mL (based on 1 numerical results)
# of Exceedences:	1		

Result Legend:

P=present, A=absent, PR=presumptive, ND=non-detect, U=non-detect, OR=over-range, OG=overgrown,
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment

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» means detected & greater than number shown

* Indicates Criteria is exceeded

WaterTrax

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Facility: Distribution System
Sampling Point: S- Carson Plt (2-1-MR, 94EF)

Total Coliforms (counts)		Criteria		
* 08/09/2016 10:35	> 5 counts/100mL	<=0, OG, P	User-Defined	
* 08/16/2016 11:30	> 2 counts/100mL	<=0, OG, P	User-Defined	
* 08/24/2016 09:30	> 2 counts/100mL	<=0, OG, P	User-Defined	
* 09/12/2016 15:00	15 counts/100mL	<=0, OG, P	User-Defined	

# samples:	12	min:	< 1 counts/100mL
# detects:	4	max:	15 counts/100mL
# non-detects:	8	Geometric Mean:	15.000 counts/100mL (based on 1 numerical results)
# of Exceedences:	4		

Facility: Well A Sword Rd; Well A Sword Rd
Sampling Point: Well A Sword Rd (1-1-EP, 94ED)

Result Legend:

P=present, A=absent, PR=presumptive, ND=non-detect, U=non-detect, OR=over-range, OG=overgrown,
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment

< means less than lower detection limit shown
> means greater than upper detection limit shown
« means detected & less than number shown
» means detected & greater than number shown

* Indicates Criteria is exceeded

WaterTrax

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Facility: Distribution System
Sampling Point: S- Mills Rd (7-2-MR, 94E5)

Copper (total)   **Criteria**
04/18/2016 14:05   0.006 mg/L   <=1.0   AO

# samples:	1	**min:**	0.006 mg/L
# detects:	1	**max:**	0.006 mg/L
# non-detects:	0	**avg:**	0.006 mg/L (based on 1 numerical results)
# of Exceedences:	0		

Escherichia coli / E. coli (counts)   **Criteria**
04/18/2016 14:05   < 1 CFU/100mL   <=0, P, PR   User-Defined

# samples:	1	**min:**	< 1 CFU/100mL
# detects:	0	**max:**	< 1 CFU/100mL
# non-detects:	1	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Heterotrophic Plate Count / HPC   **Criteria**
04/18/2016 14:05   < 5 CFU/mL   <=500   User-Defined

# samples:	1	**min:**	< 5 CFU/mL
# detects:	0	**max:**	< 5 CFU/mL
# non-detects:	1	**Geometric Mean:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Iron (total)   **Criteria**
04/18/2016 14:05   < 0.10 mg/L   <=0.3   AO

# samples:	1	**min:**	< 0.10 mg/L
# detects:	0	**max:**	< 0.10 mg/L
# non-detects:	1	**avg:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Lead (total)   **Criteria**
04/18/2016 14:05   < 0.001 mg/L   <=0.010   MAC

# samples:	1	**min:**	< 0.001 mg/L
# detects:	0	**max:**	< 0.001 mg/L
# non-detects:	1	**avg:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

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WaterTrax

Manganese (total)   **Criteria**

04/18/2016 14:05	0.008 mg/L	<=0.05	AO

# samples:	1	min:	0.008 mg/L
# detects:	1	max:	0.008 mg/L
# non-detects:	0	avg:	0.008 mg/L (based on 1 numerical results)
# of Exceedences:	0		

Temperature   **Criteria**

04/18/2016 14:05	7 degrees C
04/18/2016 14:05	7 degrees C

# samples:	2	min:	7 degrees C
# detects:	2	max:	7 degrees C
# non-detects:	0	avg:	7.000 degrees C (based on 2 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)   **Criteria**

04/18/2016 14:05	< 1 counts/100mL	<=0, OG, P	User-Defined

# samples:	1	min:	< 1 counts/100mL
# detects:	0	max:	< 1 counts/100mL
# non-detects:	1	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Turbidity   **Criteria**

04/18/2016 14:05	< 0.1 NTU	<=1	User-Defined

# samples:	1	min:	< 0.1 NTU
# detects:	0	max:	< 0.1 NTU
# non-detects:	1	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Vinyl chloride   **Criteria**

04/18/2016 14:05	< 0.0020 mg/L	<=0.002	MAC

# samples:	1	min:	< 0.0020 mg/L
# detects:	0	max:	< 0.0020 mg/L
# non-detects:	1	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Zinc (total)   Criteria
04/18/2016 14:05   < 0.04 mg/L   <=5   AO

# samples:	1	min:	< 0.04 mg/L
# detects:	0	max:	< 0.04 mg/L
# non-detects:	1	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility:	Distribution System
Sampling Point:	S- Pederson Rd (7-7-MD, 94F0)

Copper (total)   Criteria
04/18/2016 11:00   0.007 mg/L   <=1.0   AO

# samples:	1	min:	0.007 mg/L
# detects:	1	max:	0.007 mg/L
# non-detects:	0	avg:	0.007 mg/L (based on 1 numerical results)
# of Exceedences:	0		

Escherichia coli / E. coli (counts)   Criteria
04/18/2016 11:00   < 1 CFU/100mL   <=0, P, PR   User-Defined

# samples:	1	min:	< 1 CFU/100mL
# detects:	0	max:	< 1 CFU/100mL
# non-detects:	1	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Heterotrophic Plate Count / HPC   Criteria
04/18/2016 11:00   < 5 CFU/mL   <=500   User-Defined

# samples:	1	min:	< 5 CFU/mL
# detects:	0	max:	< 5 CFU/mL
# non-detects:	1	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Iron (total)   Criteria
04/18/2016 11:00   < 0.10 mg/L   <=0.3   AO

# samples:	1	min:	< 0.10 mg/L
# detects:	0	max:	< 0.10 mg/L
# non-detects:	1	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

WaterTrax

Lead (total)		**Criteria**	
04/18/2016 11:00	< 0.001 mg/L	<=0.010	MAC

# samples:	1	min:	< 0.001 mg/L
# detects:	0	max:	< 0.001 mg/L
# non-detects:	1	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0	

Manganese (total)		**Criteria**	
04/18/2016 11:00	0.042 mg/L	<=0.05	AO

# samples:	1	min:	0.042 mg/L
# detects:	1	max:	0.042 mg/L
# non-detects:	0	avg:	0.042 mg/L (based on 1 numerical results)
# of Exceedences:	0	

Temperature		**Criteria**	
04/18/2016 11:00	7 degrees C	
04/18/2016 11:00	7 degrees C	

# samples:	2	min:	7 degrees C
# detects:	2	max:	7 degrees C
# non-detects:	0	avg:	7.000 degrees C (based on 2 numerical results)
# of Exceedences:	0	

Total Coliforms (counts)		**Criteria**	
04/18/2016 11:00	< 1 counts/100mL	<=0, OG, P	User-Defined

# samples:	1	min:	< 1 counts/100mL
# detects:	0	max:	< 1 counts/100mL
# non-detects:	1	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0	

Turbidity		**Criteria**	
04/18/2016 11:00	< 0.1 NTU	<=1	User-Defined

# samples:	1	min:	< 0.1 NTU
# detects:	0	max:	< 0.1 NTU
# non-detects:	1	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0	

WaterTrax

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Vinyl chloride

		Criteria	
04/18/2016 11:00	< 0.0020 mg/L	<=0.002	MAC

# samples:	1	min:	< 0.0020 mg/L
# detects:	0	max:	< 0.0020 mg/L
# non-detects:	1	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Zinc (total)

		Criteria	
04/18/2016 11:00	< 0.04 mg/L	<=5	AO

# samples:	1	min:	< 0.04 mg/L
# detects:	0	max:	< 0.04 mg/L
# non-detects:	1	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Result Legend:

P=present, A=absent, PR=presumptive, ND=non-detect, U=non-detect, OR=over-range, OG=overgrown,
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment

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» means detected & greater than number shown

* Indicates Criteria is exceeded

WaterTrax

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Facility: Distribution System
Sampling Point: S- Carson Plt (2-1-MR, 94EF)

Copper (total)

		Criteria	
04/18/2016 10:30	0.015 mg/L	<=1.0	AO

# samples:	1	min:	0.015 mg/L
# detects:	1	max:	0.015 mg/L
# non-detects:	0	avg:	0.015 mg/L (based on 1 numerical results)
# of Exceedences:	0		

Escherichia coli / E. coli (counts)

		Criteria	
04/18/2016 10:30	< 1 CFU/100mL		

# samples:	1	min:	< 1 CFU/100mL
# detects:	0	max:	< 1 CFU/100mL
# non-detects:	1	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Heterotrophic Plate Count / HPC

		Criteria	
04/18/2016 10:30	53 CFU/mL	<=500	User-Defined

# samples:	1	min:	53 CFU/mL
# detects:	1	max:	53 CFU/mL
# non-detects:	0	Geometric Mean:	53.000 CFU/mL (based on 1 numerical results)
# of Exceedences:	0		

Iron (total)

		Criteria	
04/18/2016 10:30	< 0.10 mg/L	<=0.3	AO

# samples:	1	min:	< 0.10 mg/L
# detects:	0	max:	< 0.10 mg/L
# non-detects:	1	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Lead (total)

		Criteria	
04/18/2016 10:30	< 0.001 mg/L	<=0.010	MAC

# samples:	1	min:	< 0.001 mg/L
# detects:	0	max:	< 0.001 mg/L
# non-detects:	1	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

WaterTrax

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Manganese (total)   Criteria

04/18/2016 10:30	< 0.002 mg/L	<=0.05	AO

# samples:	1	min:	< 0.002 mg/L
# detects:	0	max:	< 0.002 mg/L
# non-detects:	1	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Temperature   Criteria

04/18/2016 10:30	7 degrees C
04/18/2016 10:30	7 degrees C

# samples:	2	min:	7 degrees C
# detects:	2	max:	7 degrees C
# non-detects:	0	avg:	7.000 degrees C (based on 2 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)   Criteria

04/18/2016 10:30	< 1 counts/100mL	<=0, OG, P	User-Defined

# samples:	1	min:	< 1 counts/100mL
# detects:	0	max:	< 1 counts/100mL
# non-detects:	1	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Turbidity   Criteria

04/18/2016 10:30	0.5 NTU	<=1	User-Defined

# samples:	1	min:	0.5 NTU
# detects:	1	max:	0.5 NTU
# non-detects:	0	avg:	0.500 NTU (based on 1 numerical results)
# of Exceedences:	0	95th percentile:	0.500 NTU

Vinyl chloride   Criteria

04/18/2016 10:30	< 0.0020 mg/L	<=0.002	MAC

# samples:	1	min:	< 0.0020 mg/L
# detects:	0	max:	< 0.0020 mg/L
# non-detects:	1	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

WaterTrax

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Zinc (total)   **Criteria**

04/18/2016 10:30	< 0.04 mg/L	<=5	AO

# samples:	1	**min:**	< 0.04 mg/L
# detects:	0	**max:**	< 0.04 mg/L
# non-detects:	1	**avg:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Result Legend:

P=present, A=absent, PR=presumptive, ND=non-detect, U=non-detect, OR=over-range, OG=overgrown,
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment

< means less than lower detection limit shown
> means greater than upper detection limit shown
« means detected & less than number shown
» means detected & greater than number shown

* Indicates Criteria is exceeded

WaterTrax

Facility: Distribution System
Sampling Point: S- Mills Rd (7-2-MR, 94E5)

Copper (total)   Criteria
10/11/2016 00:00   0.0061 mg/L   <=1.0   AO

# samples:	1	min:	0.0061 mg/L
# detects:	1	max:	0.0061 mg/L
# non-detects:	0	avg:	0.0061 mg/L (based on 1 numerical results)
# of Exceedences:	0		

Escherichia coli / E. coli (counts)   Criteria
10/11/2016 14:05   < 1 CFU/100mL   <=0, P, PR   User-Defined

# samples:	1	min:	< 1 CFU/100mL
# detects:	0	max:	< 1 CFU/100mL
# non-detects:	1	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Heterotrophic Plate Count / HPC   Criteria
10/11/2016 14:05   < 5 CFU/mL   <=500   User-Defined

# samples:	1	min:	< 5 CFU/mL
# detects:	0	max:	< 5 CFU/mL
# non-detects:	1	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Iron (total)   Criteria
10/11/2016 00:00   < 0.01 mg/L   <=0.3   AO

# samples:	1	min:	< 0.01 mg/L
# detects:	0	max:	< 0.01 mg/L
# non-detects:	1	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Lead (total)   Criteria
10/11/2016 00:00   0.0006 mg/L   <=0.010   MAC

# samples:	1	min:	0.0006 mg/L
# detects:	1	max:	0.0006 mg/L
# non-detects:	0	avg:	0.0006 mg/L (based on 1 numerical results)
# of Exceedences:	0		

Report created on 01/13/2017 1:30:43 PM

WaterTrax

Manganese (total)   **Criteria**
10/11/2016 00:00   0.0020 mg/L   <=0.05   AO

# samples:	1	min:	0.0020 mg/L
# detects:	1	max:	0.0020 mg/L
# non-detects:	0	avg:	0.0020 mg/L (based on 1 numerical results)
# of Exceedences:	0		

Temperature   **Criteria**
10/11/2016 00:00   13 degrees C
10/11/2016 14:05   13 degrees C

# samples:	2	min:	13 degrees C
# detects:	2	max:	13 degrees C
# non-detects:	0	avg:	13.000 degrees C (based on 2 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)   **Criteria**
10/11/2016 14:05   < 1 counts/100mL   <=0, OG, P   User-Defined

# samples:	1	min:	< 1 counts/100mL
# detects:	0	max:	< 1 counts/100mL
# non-detects:	1	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Turbidity   **Criteria**
10/11/2016 14:05   < 0.10 NTU   <=1   User-Defined

# samples:	1	min:	< 0.10 NTU
# detects:	0	max:	< 0.10 NTU
# non-detects:	1	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Vinyl chloride   **Criteria**
10/11/2016 00:00   < 0.0020 mg/L   <=0.002   MAC

# samples:	1	min:	< 0.0020 mg/L
# detects:	0	max:	< 0.0020 mg/L
# non-detects:	1	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Zinc (total)   Criteria

10/11/2016 00:00   0.005 mg/L   <=5   AO

# samples:	1	min:	0.005 mg/L
# detects:	1	max:	0.005 mg/L
# non-detects:	0	avg:	0.005 mg/L (based on 1 numerical results)
# of Exceedences:	0		

Facility:	Distribution System
Sampling Point:	S- Pederson Rd (7-7-MD, 94F0)

Copper (total)   Criteria

10/11/2016 11:35   0.0026 mg/L   <=1.0   AO

# samples:	1	min:	0.0026 mg/L
# detects:	1	max:	0.0026 mg/L
# non-detects:	0	avg:	0.0026 mg/L (based on 1 numerical results)
# of Exceedences:	0		

Escherichia coli / E. coli (counts)   Criteria

10/11/2016 11:35   < 1 CFU/100mL   <=0, P, PR   User-Defined

# samples:	1	min:	< 1 CFU/100mL
# detects:	0	max:	< 1 CFU/100mL
# non-detects:	1	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Heterotrophic Plate Count / HPC   Criteria

10/11/2016 11:35   < 5 CFU/mL   <=500   User-Defined

# samples:	1	min:	< 5 CFU/mL
# detects:	0	max:	< 5 CFU/mL
# non-detects:	1	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Iron (total)   Criteria

10/11/2016 11:35   < 0.01 mg/L   <=0.3   AO

# samples:	1	min:	< 0.01 mg/L
# detects:	0	max:	< 0.01 mg/L
# non-detects:	1	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

WaterTrax

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Lead (total) — Criteria

10/11/2016 11:35	0.0009 mg/L	<=0.010	MAC

# samples:	1	min:	0.0009 mg/L
# detects:	1	max:	0.0009 mg/L
# non-detects:	0	avg:	0.0009 mg/L (based on 1 numerical results)
# of Exceedences:	0		

Manganese (total) — Criteria

10/11/2016 11:35	0.0444 mg/L	<=0.05	AO

# samples:	1	min:	0.0444 mg/L
# detects:	1	max:	0.0444 mg/L
# non-detects:	0	avg:	0.0444 mg/L (based on 1 numerical results)
# of Exceedences:	0		

Temperature — Criteria

10/11/2016 11:35	12 degrees C
10/11/2016 11:35	12 degrees C

# samples:	2	min:	12 degrees C
# detects:	2	max:	12 degrees C
# non-detects:	0	avg:	12.000 degrees C (based on 2 numerical results)
# of Exceedences:	0		

Total Coliforms (counts) — Criteria

10/11/2016 11:35	< 1 counts/100mL	<=0, OG, P	User-Defined

# samples:	1	min:	< 1 counts/100mL
# detects:	0	max:	< 1 counts/100mL
# non-detects:	1	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Turbidity — Criteria

10/11/2016 11:35	< 0.10 NTU	<=1	User-Defined

# samples:	1	min:	< 0.10 NTU
# detects:	0	max:	< 0.10 NTU
# non-detects:	1	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

WaterTrax

Vinyl chloride | | **Criteria** | |
| 10/11/2016 11:35 | < 0.0020 mg/L | <=0.002 | MAC |

# samples:	1	min:	< 0.0020 mg/L
# detects:	0	max:	< 0.0020 mg/L
# non-detects:	1	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Zinc (total) | | **Criteria** | |
| 10/11/2016 11:35 | 0.006 mg/L | <=5 | AO |

# samples:	1	min:	0.006 mg/L
# detects:	1	max:	0.006 mg/L
# non-detects:	0	avg:	0.006 mg/L (based on 1 numerical results)
# of Exceedences:	0		

Result Legend:

P=present, A=absent, PR=presumptive, ND=non-detect, U=non-detect, OR=over-range, OG=overgrown,
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment

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