MOUNTAINS OF OPPORTUNITY

CRANBROOK

2022 Annual Drinking Water Quality Report

Jan 1, 2022-December 31,2022

Facility # 12-088-00004

Table of Contents: 2

## Appendix-Water Quality Laboratory Results

(Source Water and Water Distribution System)

Introduction:

This annual Water Quality Report satisfies requirements outlined in the Drinking Water Protection Regulation, Section11 for the City of Cranbrook, Water Distribution System including, Facility # 12-088-00004-Phillips Reservoir Treatment Plant, wells 3, 4 and 5 as well as the City of Cranbrook Water Distribution System. The Environmental Operators Certification Program (EOCP) Facility Classifications for both, treatment, and distribution, are classified as level 2 facilities and is operated and maintained by EOCP certified operators at this level.

Total 2022 Water Consumption:

The city draws water from Gold Creek and Joseph Creek year-round, as well as three ground water sources throughout the city. Wells 3, 4 and 5. A total of 4,044,818.7445 cubic meters or 889,735,739.9443 million imperial gallons of water were treated and distributed through the municipal water system in 2022. The wells added another 210,240,000 million imperial gallons of treated water to the municipal water system.
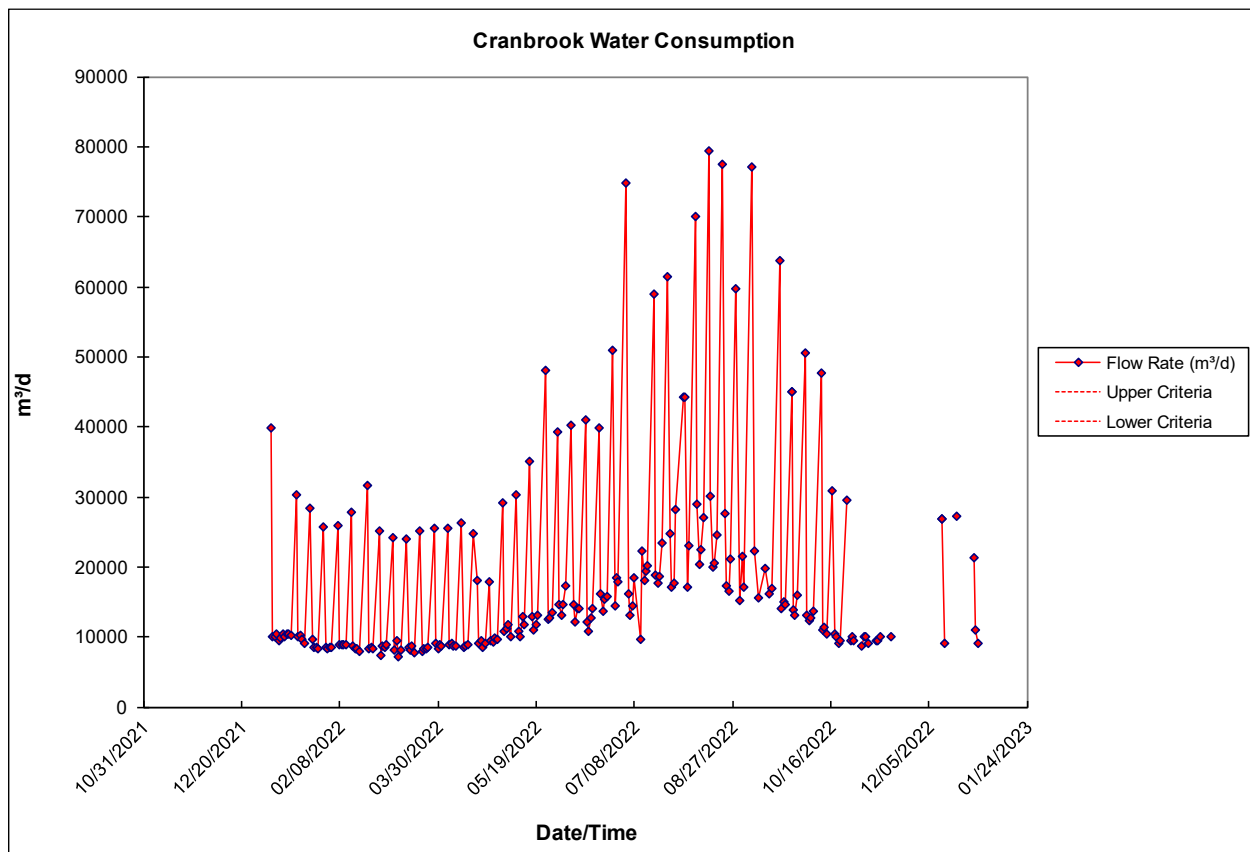
Water Quality Monitoring:

The City of Cranbrook has developed and maintained a water quality monitoring program which includes the source waters, treatment, and distribution sides of the system. Certified operators collect daily samples to measure for Turbidity, pH, cl2 residuals, Water Temperature, Conductivity, System Pressures, Flows Through Treatment Plant, Reservoir Levels as well as fluoride residuals.

Weekly bacteriological water samples are collected at predetermined sites within the distribution system and submitted to an independent lab, to verify that the water is bacteria free.

Water catchment sampling from Phillips Reservoir, Gold Creek and Joseph Creek watersheds are performed every 3 weeks.

Disinfection By-Products (DBP) samples are collected and submitted quarterly during the colder winter months and monthly during warmer summer months. Sample analysis targets the group of compounds for Trihalomethanes (THM) and Halo-Acetic Acids (HAA). Total Organic Carbon (TOC) and Dissolved Organic Carbon (DOC) are also collected with the DPB samples and sent to an independent lab.

More information can be found at the link below:

https://cranbrook.ca/residents/water-conservation/water-quality/

Water Emergency Response:

The City of Cranbrook's, safe and desirable drinking water is vital to the community. Emergency response planning is an essential part of managing a drinking water system. Most public water system emergencies are easily resolved.

In 2022, the City of Cranbrook experienced a number of water main and water service leaks that crews were able to repair within a few hours of being notified. Some took more time than others to repair due to weather conditions and soil conditions.

After repairs are made, the section of pipe is isolated to flush that section through the nearest hydrant to remove any material that may have infiltrated into the pipe. All new parts are disinfected before installation.

Water Conservation Measures:

Maintaining a full reservoir is of the utmost importance to the City of Cranbrook. During spring freshet, the city tries to capture as much spring runoff as possible. When the water becomes too turbid, water will get diverted past the Phillips Reservoir until sources become clear enough to divert back into the Phillips Reservoir.

During hot dry months, it becomes increasingly difficult to maintain a full reservoir because of the low water levels in Gold Creek and Joseph Creek. In 2022, the city was forced to implement a stage 2 water restriction in June 2022.

The City's Water Ambassador, Bylaw and Communications Officer work extremely hard to inform and educate the public about the importance of water conservation. Most of which is done through social media, local radio stations and the City's web site.

All information about the reservoir level and water restrictions can be found on the city's web page at www.cranbrook.ca.

Outdoor Water Use
Water Restriction Stages

CRANBROOK

Activity	Stage 1	Stage 2	Stage 3	Stage 4
Outdoor water use days and times are to be followed according to the water uses listed below. ✓ indicates permitted ✗ indicates not permitted	Normal Regulations 5 am - 10 am & 8 pm - 11 pm THREE days per week: Even # address: Mon • Thurs • Sat Odd # address: Tues • Fri • Sun	5 am - 10 am & 8 pm - 11 pm TWO days per week: Even # address: Monday • Thursday Odd # address: Tuesday • Friday	6 am - 8 am & 8 pm - 10 pm ONE days per week: Even # address: Thursday Odd # address: Tuesday	✗
* Watering: • vegetable gardens • edible plants	✓ no restrictions	✓ no restrictions	✓ no restrictions	✗
Watering with a hose with a shut-off nozzle, or irrigation system: • lawns • trees and shrubs • flower gardens	✓	✓	✓	✗
Watering using a sprinkler: • lawns • trees and shrubs • flower gardens	✓	✓	✗	✗
# Washing outdoor surfaces: • sidewalks • driveways • parking lots • building surfaces • windows	✓ with a handheld shut-off nozzle	✓ with a handheld shut-off nozzle	✗	✗
△ Washing: • personal vehicles	✓ with a handheld shut-off nozzle	✓ with a handheld shut-off nozzle	✗	✗
Filling of residential: • fountains • pools • hot tubs • garden ponds	✓	✓	✗	✗
◊ Watering: • new sod • seed • grass outside of the permitted restrictions	PERMIT REQUIRED	PERMIT REQUIRED	✗	✗

* Permitted from stage 1 to 3, except on Wednesday # Permitted from stage 1 to 3 for applying product such as paint, preservative and stucco, repointing bricks, or preparing a surface prior to paving. Permitted to stage 4 only if required to comply with health or safety regulations. △ Commercial carwash permitted from stage 1 to 3. ◊ Permits can be acquired by contacting the Engineering and Development Services by calling 311. ‡ Commercial, Industrial, and Institutional (City Parks and Fields) follow stage 1 in stage 2, and stage 2 in stage 3. Not exempt in stage 4. Golf course irrigation systems on own wells; don't use City system.
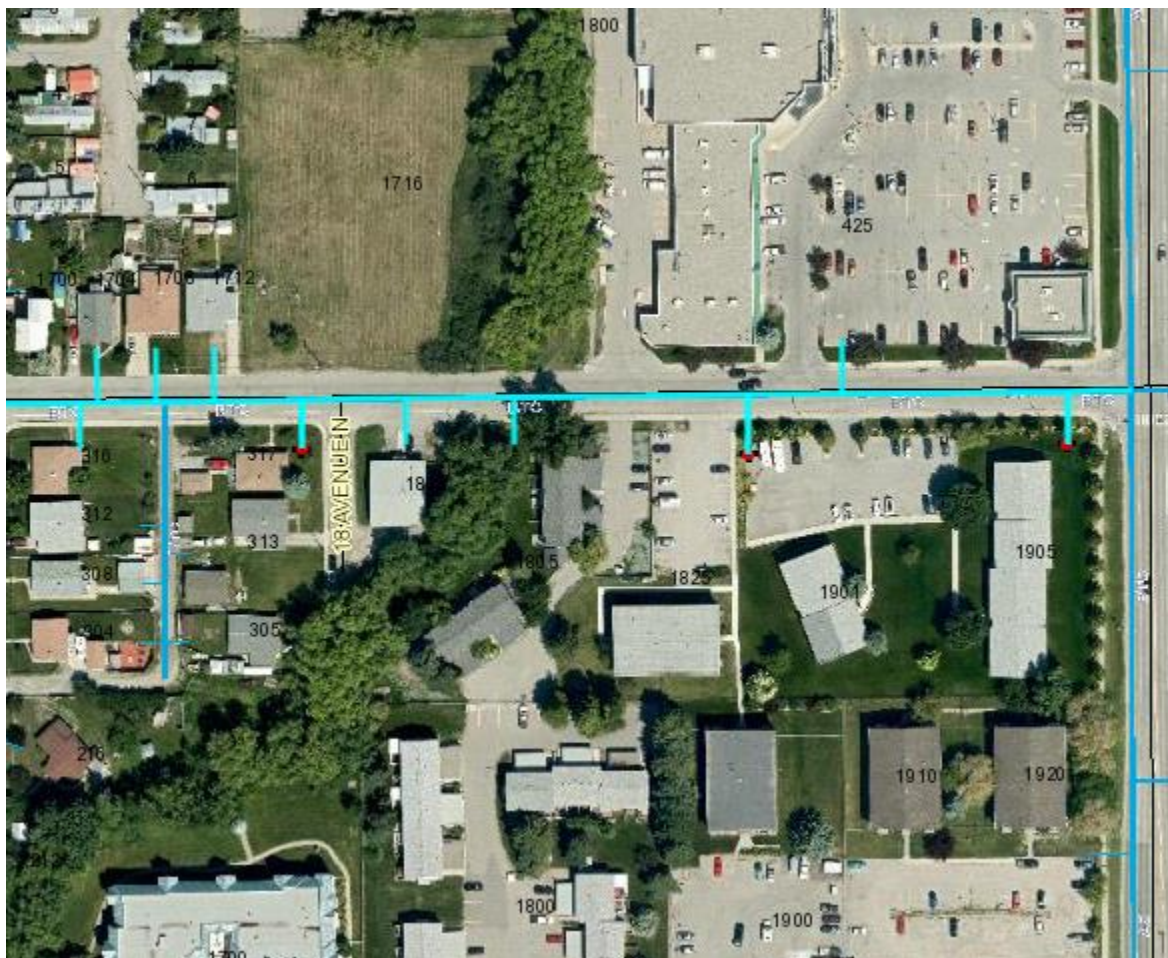
Water infrastructure was completed on a section of 4th St N between Victoria Ave and 17th Ave N in 2022.

-A total of 3 Fire Hydrants were replaced

-A total of 6 Water Service Lines were replaced with ¾" Municipal Poly

-A total of 370m of 200mm diameter C900 DR18 PVC water main installed.

-The Average flow from the reservoir into the distribution system is,

 3,500,000 Imperial Gallons/24hrs. or 15,911 cubic meters/24hrs.

-The dosing of chlorine gas at the treatment plant is, 1.20mg/L

-The fluoride dosage at the treatment plant is, 0.712 mg/L

-From the deep wells within the city, the sodium hypo-chloride liquid

 dosage is 0.60 mg/L.

The City of Cranbrook, Public Works Operators, work diligently to maintain safe, clean drinking water from Source to Tap, for all consumers.

Water System Data Report Filter Summary

Organization: City of Cranbrook

User Name: Jason Perrault

Water System: City of Cranbrook

Report Name: Annual Water Quality Report - 2022

Report Description: As per Section 11 of the BC Water Protection Act/Regulation as mandated by the IHA Drinking Water Officer as part of the Conditions on Permit for the City of Cranbrook.

Report Template Name: Annual Water Quality Report

Collection Date Range: 01/01/2022 - 12/31/2022 (mm/dd/yyyy)

Reading Types: Analyte Report by Sampling Point

Reading Types: Lab Data Transfer

Calculate Exceedances: Apply Measurement Criteria

Show Records for Exceedances Only: Yes

Suppress Lists with no Records: No

Treatment of ND Results with Detection Limits in Reports Statistics: Non-Detect (results are ignored in average statistics)

Treatment of OR Results with Detection Limits in Reports Statistics: Over-Range (results are ignored in average statistics)

Grouped By: Sampling Point, List by: Analyte + Reading Type

Sort Records By: Collection Date

WaterTrax

Facility: Phillips Reservoir; Phillips Reservoir - Plant
Sampling Point: Phillips Reservoir RAW PRIORITY (16-2-SR, 30666)

Aeromonas spp.(Lab Data Transfer)   Criteria   Lab/User Name

# samples:	52	min:	0 CFU/100ml
# detects:	52	max:	1,200 CFU/100ml
# non-detects:	0	Geometric Mean:	20.88 CFU/100ml (based on 52 numerical results)
# of Exceedences:	0	med:	18.00 CFU/100ml (based on 52 numerical results)

Alkalinity (total, as CaCO3)(Lab Data Transfer)   Criteria   Lab/User Name

# samples:	54	min:	110 mg/L
# detects:	54	max:	150 mg/L
# non-detects:	0	avg:	130 mg/L (based on 54 numerical results)
# of Exceedences:	0	med:	125 mg/L (based on 54 numerical results)

Aluminum (total)(Lab Data Transfer)   Criteria   Lab/User Name

# samples:	4	min:	0.087 mg/L
# detects:	4	max:	0.139 mg/L
# non-detects:	0	avg:	0.116 mg/L (based on 4 numerical results)
# of Exceedences:	0	med:	0.119 mg/L (based on 4 numerical results)

Ammonia (total, as N)(Lab Data Transfer)   Criteria   Lab/User Name

# samples:	54	min:	1.00 ug/L
# detects:	46	max:	94,100 ug/L
# non-detects:	8	avg:	2,082.38 ug/L (based on 46 numerical results)
# of Exceedences:	0	med:	18.55 ug/L (based on 46 numerical results)

Antimony (total)(Lab Data Transfer)   Criteria   Lab/User Name

# samples:	4	min:	n/a
# detects:	0	max:	n/a
# non-detects:	4	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0	med:	n/a (based on 0 numerical results)

WaterTrax

Arsenic (total)(Lab Data Transfer)   Criteria   Lab/User Name

# samples:	4	min:	n/a
# detects:	0	max:	n/a
# non-detects:	4	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0	med:	n/a (based on 0 numerical results)

Barium (total)(Lab Data Transfer)   Criteria   Lab/User Name

# samples:	4	min:	0.025 mg/L
# detects:	4	max:	0.034 mg/L
# non-detects:	0	avg:	0.029 mg/L (based on 4 numerical results)
# of Exceedences:	0	med:	0.028 mg/L (based on 4 numerical results)

Beryllium (total)(Lab Data Transfer)   Criteria   Lab/User Name

# samples:	4	min:	n/a
# detects:	0	max:	n/a
# non-detects:	4	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0	med:	n/a (based on 0 numerical results)

Boron (total)(Lab Data Transfer)   Criteria   Lab/User Name

# samples:	4	min:	0.433 mg/L
# detects:	4	max:	0.581 mg/L
# non-detects:	0	avg:	0.508 mg/L (based on 4 numerical results)
# of Exceedences:	0	med:	0.510 mg/L (based on 4 numerical results)

Cadmium (total)(Lab Data Transfer)   Criteria   Lab/User Name

# samples:	4	min:	n/a
# detects:	0	max:	n/a
# non-detects:	4	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0	med:	n/a (based on 0 numerical results)

Calcium (total)(Lab Data Transfer)   Criteria   Lab/User Name

WaterTrax

# samples:	4	min:	25.7 mg/L
# detects:	4	max:	35.5 mg/L
# non-detects:	0	avg:	30.3 mg/L (based on 4 numerical results)
# of Exceedences:	0	med:	30.0 mg/L (based on 4 numerical results)

| **Chromium (total)(Lab Data Transfer)** | | **Criteria** | **Lab/User Name** |

# samples:	4	min:	n/a
# detects:	0	max:	n/a
# non-detects:	4	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0	med:	n/a (based on 0 numerical results)

| **Cobalt (total)(Lab Data Transfer)** | | **Criteria** | **Lab/User Name** |

# samples:	4	min:	n/a
# detects:	0	max:	n/a
# non-detects:	4	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0	med:	n/a (based on 0 numerical results)

| **Colour(Lab Data Transfer)** | | **Criteria** | **Lab/User Name** |

# samples:	53	min:	2.01 TCU
# detects:	53	max:	5.34 TCU
# non-detects:	0	avg:	3.65 TCU (based on 53 numerical results)
# of Exceedences:	0	med:	3.53 TCU (based on 53 numerical results)

| **Conductivity(Lab Data Transfer)** | | **Criteria** | **Lab/User Name** |

# samples:	54	min:	177 uS/cm
# detects:	54	max:	261 uS/cm
# non-detects:	0	avg:	209 uS/cm (based on 54 numerical results)
# of Exceedences:	0	med:	207 uS/cm (based on 54 numerical results)

| **Copper (total)(Lab Data Transfer)** | | **Criteria** | **Lab/User Name** |

| # samples: | 4 | min: | n/a |
| # detects: | 0 | max: | n/a |

WaterTrax

# non-detects:	4	**avg:**	n/a (based on 0 numerical results)
# of Exceedences:	0	**med:**	n/a (based on 0 numerical results)

Cryptosporidium spp. (total, confirmed)(Lab Data Transfer)		**Criteria**	**Lab/User Name**

# samples:	11	**min:**	0 counts/100L
# detects:	8	**max:**	4 counts/100L
# non-detects:	3	**Geometric Mean:**	1.4 counts/100L (based on 8 numerical results)
# of Exceedences:	0	**med:**	0.0 counts/100L (based on 8 numerical results)

Escherichia coli / E. coli (counts)(Lab Data Transfer)		**Criteria**		**Lab/User Name**
* 08/02/2022 09:17	2 counts/100ml	<=0, P	Microbiological Standard	MB Labs
* 11/07/2022 08:58	3 counts/100ml	<=0, P	Microbiological Standard	MB Labs
* 11/21/2022 09:05	2 counts/100ml	<=0, P	Microbiological Standard	MB Labs

# samples:	52	**min:**	0 counts/100ml
# detects:	52	**max:**	3 counts/100ml
# non-detects:	0	**Geometric Mean:**	1 counts/100ml (based on 52 numerical results)
# of Exceedences:	3	**med:**	0 counts/100ml (based on 52 numerical results)

Giardia spp. (total, confirmed)(Lab Data Transfer)	**Criteria**	**Lab/User Name**

# samples:	11	**min:**	0 counts/100L
# detects:	8	**max:**	2.5 counts/100L
# non-detects:	3	**Geometric Mean:**	1.00 counts/100L (based on 8 numerical results)
# of Exceedences:	0	**med:**	0.00 counts/100L (based on 8 numerical results)

Gold (total)(Lab Data Transfer)		**Criteria**	**Lab/User Name**

# samples:	4	**min:**	n/a
# detects:	0	**max:**	n/a
# non-detects:	4	**avg:**	n/a (based on 0 numerical results)
# of Exceedences:	0	**med:**	n/a (based on 0 numerical results)

WaterTrax

Hardness (total, as CaCO3)(Lab Data Transfer)		**Criteria**	**Lab/User Name**
# samples:	4	min:	92.0 mg/L
# detects:	4	max:	122 mg/L
# non-detects:	0	avg:	108.5 mg/L (based on 4 numerical results)
# of Exceedences:	0	med:	110.0 mg/L (based on 4 numerical results)

Iron (total)(Lab Data Transfer)		**Criteria**	**Lab/User Name**
# samples:	4	min:	0.028 mg/L
# detects:	4	max:	0.089 mg/L
# non-detects:	0	avg:	0.062 mg/L (based on 4 numerical results)
# of Exceedences:	0	med:	0.065 mg/L (based on 4 numerical results)

Lanthanum (total)(Lab Data Transfer)		**Criteria**	**Lab/User Name**
# samples:	4	min:	n/a
# detects:	0	max:	n/a
# non-detects:	4	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0	med:	n/a (based on 0 numerical results)

Lead (total)(Lab Data Transfer)		**Criteria**	**Lab/User Name**
# samples:	4	min:	0.000537 mg/L
# detects:	1	max:	0.000537 mg/L
# non-detects:	3	avg:	0.000537 mg/L (based on 1 numerical results)
# of Exceedences:	0	med:	0.000537 mg/L (based on 1 numerical results)

Magnesium (total)(Lab Data Transfer)		**Criteria**	**Lab/User Name**
# samples:	4	min:	6.76 mg/L
# detects:	4	max:	9.90 mg/L
# non-detects:	0	avg:	8.00 mg/L (based on 4 numerical results)
# of Exceedences:	0	med:	7.67 mg/L (based on 4 numerical results)

Manganese (total)(Lab Data Transfer)		**Criteria**	**Lab/User Name**

WaterTrax

# samples:	54	min:	0.000015 mg/L
# detects:	53	max:	0.052 mg/L
# non-detects:	1	avg:	0.020189 mg/L (based on 53 numerical results)
# of Exceedences:	0	med:	0.013000 mg/L (based on 53 numerical results)

Mercury (total)(Lab Data Transfer)		**Criteria**	**Lab/User Name**
# samples:	4	min:	n/a
# detects:	0	max:	n/a
# non-detects:	4	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0	med:	n/a (based on 0 numerical results)

Molybdenum (total)(Lab Data Transfer)		**Criteria**	**Lab/User Name**
# samples:	4	min:	n/a
# detects:	0	max:	n/a
# non-detects:	4	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0	med:	n/a (based on 0 numerical results)

Mould (total)(Lab Data Transfer)		**Criteria**	**Lab/User Name**
# samples:	54	min:	0 counts/ml
# detects:	54	max:	2.0 counts/ml
# non-detects:	0	Geometric Mean:	1.0 counts/ml (based on 54 numerical results)
# of Exceedences:	0	med:	0.0 counts/ml (based on 54 numerical results)

Nickel (total)(Lab Data Transfer)		**Criteria**	**Lab/User Name**
# samples:	4	min:	n/a
# detects:	0	max:	n/a
# non-detects:	4	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0	med:	n/a (based on 0 numerical results)

Nitrate (as N)(Lab Data Transfer)		**Criteria**	**Lab/User Name**
# samples:	54	min:	0.00100 mg/L
# detects:	44	max:	0.145 mg/L

WaterTrax

# non-detects:	10	**avg:**	0.02054 mg/L (based on 44 numerical results)
# of Exceedences:	0	**med:**	0.01455 mg/L (based on 44 numerical results)

Nitrite (as N)(Lab Data Transfer)		**Criteria**	**Lab/User Name**
# samples:	54	**min:**	0.000400 mg/L
# detects:	17	**max:**	0.124 mg/L
# non-detects:	37	**avg:**	0.010494 mg/L (based on 17 numerical results)
# of Exceedences:	0	**med:**	0.004000 mg/L (based on 17 numerical results)

o-Phosphate (as P)(Lab Data Transfer)		**Criteria**	**Lab/User Name**
# samples:	54	**min:**	0.900 ug/L
# detects:	54	**max:**	3,700 ug/L
# non-detects:	0	**avg:**	72.524 ug/L (based on 54 numerical results)
# of Exceedences:	0	**med:**	3.950 ug/L (based on 54 numerical results)

pH(Lab Data Transfer)		**Criteria**	**Lab/User Name**
# samples:	54	**min:**	6.37
# detects:	54	**max:**	8.31
# non-detects:	0	**avg:**	7.55 (based on 54 numerical results)
# of Exceedences:	0	**med:**	7.62 (based on 54 numerical results)

Phosphate (total, as P)(Lab Data Transfer)		**Criteria**	**Lab/User Name**
# samples:	54	**min:**	4.70 ug/L
# detects:	54	**max:**	16.9 ug/L
# non-detects:	0	**avg:**	8.48 ug/L (based on 54 numerical results)
# of Exceedences:	0	**med:**	7.80 ug/L (based on 54 numerical results)

Potassium (total)(Lab Data Transfer)		**Criteria**	**Lab/User Name**
# samples:	4	**min:**	0.320 mg/L
# detects:	4	**max:**	0.670 mg/L
# non-detects:	0	**avg:**	0.540 mg/L (based on 4 numerical results)
# of Exceedences:	0	**med:**	0.585 mg/L (based on 4 numerical results)

WaterTrax

Scandium (total)(Lab Data Transfer)   Criteria   Lab/User Name

# samples:	4	**min:**	n/a
# detects:	0	**max:**	n/a
# non-detects:	4	**avg:**	n/a (based on 0 numerical results)
# of Exceedences:	0	**med:**	n/a (based on 0 numerical results)

Selenium (total)(Lab Data Transfer)   Criteria   Lab/User Name

# samples:	4	**min:**	n/a
# detects:	0	**max:**	n/a
# non-detects:	4	**avg:**	n/a (based on 0 numerical results)
# of Exceedences:	0	**med:**	n/a (based on 0 numerical results)

Silicon (total, as Si)(Lab Data Transfer)   Criteria   Lab/User Name

# samples:	4	**min:**	2.62 mg/L
# detects:	4	**max:**	3.99 mg/L
# non-detects:	0	**avg:**	3.44 mg/L (based on 4 numerical results)
# of Exceedences:	0	**med:**	3.58 mg/L (based on 4 numerical results)

Silver (total)(Lab Data Transfer)   Criteria   Lab/User Name

# samples:	4	**min:**	n/a
# detects:	0	**max:**	n/a
# non-detects:	4	**avg:**	n/a (based on 0 numerical results)
# of Exceedences:	0	**med:**	n/a (based on 0 numerical results)

Sodium (total)(Lab Data Transfer)   Criteria   Lab/User Name

# samples:	4	**min:**	1.99 mg/L
# detects:	4	**max:**	3.36 mg/L
# non-detects:	0	**avg:**	2.55 mg/L (based on 4 numerical results)
# of Exceedences:	0	**med:**	2.42 mg/L (based on 4 numerical results)

Sulphate(Lab Data Transfer)   Criteria   Lab/User Name

WaterTrax

# samples:	1	min:	3.96 mg/L
# detects:	1	max:	3.96 mg/L
# non-detects:	0	avg:	3.96 mg/L (based on 1 numerical results)
# of Exceedences:	0	med:	3.96 mg/L (based on 1 numerical results)

Tannins and Lignins(Lab Data Transfer)		**Criteria**	**Lab/User Name**

# samples:	1	min:	0.880 mg/L
# detects:	1	max:	0.880 mg/L
# non-detects:	0	avg:	0.880 mg/L (based on 1 numerical results)
# of Exceedences:	0	med:	0.880 mg/L (based on 1 numerical results)

Tin (total)(Lab Data Transfer)		**Criteria**	**Lab/User Name**

# samples:	4	min:	n/a
# detects:	0	max:	n/a
# non-detects:	4	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0	med:	n/a (based on 0 numerical results)

Titanium (total)(Lab Data Transfer)		**Criteria**	**Lab/User Name**

# samples:	4	min:	n/a
# detects:	0	max:	n/a
# non-detects:	4	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0	med:	n/a (based on 0 numerical results)

Total Dissolved Solids / TDS(Lab Data Transfer)		**Criteria**	**Lab/User Name**

# samples:	54	min:	0.115 mg/L
# detects:	54	max:	151 mg/L
# non-detects:	0	avg:	119.335 mg/L (based on 54 numerical results)
# of Exceedences:	0	med:	119.500 mg/L (based on 54 numerical results)

Total Kjeldahl Nitrogen / TKN(Lab Data Transfer)		**Criteria**	**Lab/User Name**

# samples:	54	min:	0.016 mg/L
# detects:	54	max:	0.248 mg/L

WaterTrax

# non-detects:	0	**avg:**	0.117 mg/L (based on 54 numerical results)
# of Exceedences:	0	**med:**	0.112 mg/L (based on 54 numerical results)

Total Organic Carbon / TOC(Lab Data Transfer)		**Criteria**		**Lab/User Name**

# samples:	54	**min:**	1.24 mg/L
# detects:	54	**max:**	19.5 mg/L
# non-detects:	0	**avg:**	5.69 mg/L (based on 54 numerical results)
# of Exceedences:	0	**med:**	5.44 mg/L (based on 54 numerical results)

Total Suspended Solids / TSS(Lab Data Transfer)		**Criteria**		**Lab/User Name**
* 10/24/2022 09:10	**11.0 mg/L**	**>=0, <=10**	**User-Defined**	**MB Labs**
* 11/07/2022 08:58	**28.0 mg/L**	**>=0, <=10**	**User-Defined**	**MB Labs**

# samples:	54	**min:**	1.00 mg/L
# detects:	14	**max:**	28.0 mg/L
# non-detects:	40	**avg:**	7.01 mg/L (based on 14 numerical results)
# of Exceedences:	2	**med:**	5.00 mg/L (based on 14 numerical results)

Tungsten (total)(Lab Data Transfer)		**Criteria**		**Lab/User Name**

# samples:	4	**min:**	n/a
# detects:	0	**max:**	n/a
# non-detects:	4	**avg:**	n/a (based on 0 numerical results)
# of Exceedences:	0	**med:**	n/a (based on 0 numerical results)

Turbidity(Lab Data Transfer)		**Criteria**		**Lab/User Name**
* 01/10/2022 09:00	**1.10 NTU**	**<=1, OR**	**User-Defined**	**MB Labs**
* 01/24/2022 08:50	**1.02 NTU**	**<=1, OR**	**User-Defined**	**MB Labs**
* 02/14/2022 09:00	**1.03 NTU**	**<=1, OR**	**User-Defined**	**MB Labs**
* 02/22/2022 08:50	**1.06 NTU**	**<=1, OR**	**User-Defined**	**MB Labs**
* 02/28/2022 09:35	**1.35 NTU**	**<=1, OR**	**User-Defined**	**MB Labs**

WaterTrax

Turbidity(Lab Data Transfer)		Criteria		Lab/User Name
* 03/07/2022 08:50	1.15 NTU	<=1, OR	User-Defined	MB Labs
* 04/25/2022 09:00	1.12 NTU	<=1, OR	User-Defined	MB Labs
* 05/02/2022 09:05	1.09 NTU	<=1, OR	User-Defined	MB Labs
* 06/13/2022 09:10	1.19 NTU	<=1, OR	User-Defined	MB Labs

# samples:	54	min:	0.500 NTU
# detects:	54	max:	1.35 NTU
# non-detects:	0	avg:	0.806 NTU (based on 54 numerical results)
# of Exceedences:	9	med:	0.775 NTU (based on 54 numerical results)
		95th percentile:	1.160 NTU

Uranium (total)(Lab Data Transfer)		Criteria		Lab/User Name

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

UV transmittance(Lab Data Transfer)		Criteria		Lab/User Name

# samples:	54	min:	87.0 %
# detects:	54	max:	94.2 %
# non-detects:	0	avg:	91.4 % (based on 54 numerical results)
# of Exceedences:	0	med:	91.6 % (based on 54 numerical results)

Vanadium (total)(Lab Data Transfer)		Criteria		Lab/User Name

# samples:	4	min:	n/a
# detects:	0	max:	n/a
# non-detects:	4	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0	med:	n/a (based on 0 numerical results)

Zinc (total)(Lab Data Transfer)		Criteria		Lab/User Name

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# samples:	4	**min:**	0.011 mg/L
# detects:	4	**max:**	0.015 mg/L
# non-detects:	0	**avg:**	0.013 mg/L (based on 4 numerical results)
# of Exceedences:	0	**med:**	0.014 mg/L (based on 4 numerical results)

Result Legend:

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,
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

Water System Data Report Filter Summary

Organization:	City of Cranbrook
User Name:	Kent Keiver
Water System:	City of Cranbrook
Report Name:	Well #3 Fire Hall - Inorganics
Report Description:	
Report Template Name:	Well #3 Water Quality Analysis for Annual Report
Collection Date Range:	01/01/2022 - 12/31/2022 (mm/dd/yyyy)
Reading Types:	Analyte Report by Sampling Point
Reading Types:	Lab Data Transfer, Laboratory Report
Calculate Exceedances:	Apply Measurement Criteria
Show Records for Exceedances Only:	No
Suppress Lists with no Records:	Yes
Treatment of ND Results with Detection Limits in Reports Statistics:	Non-Detect (results are ignored in average statistics)
Treatment of OR Results with Detection Limits in Reports Statistics:	Over-Range (results are ignored in average statistics)
Grouped By:	Water System, List by: Analyte
Sort Records By:	Collection Date

Aluminum (total)

# samples:	2	**min:**	0.135 mg/L
# detects:	2	**max:**	0.166 mg/L
# non-detects:	0	**avg:**	0.151 mg/L (based on 2 numerical results)
# of Exceedences:	0		

Ammonia (total, as N)

# samples:	3	**min:**	2.60 ug/L
# detects:	2	**max:**	10.2 ug/L
# non-detects:	1	**avg:**	6.40 ug/L (based on 2 numerical results)
# of Exceedences:	0		

Antimony (total)

# samples:	2	**min:**	n/a
# detects:	0	**max:**	n/a
# non-detects:	2	**avg:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Arsenic (total)

# samples:	2	**min:**	n/a
# detects:	0	**max:**	n/a
# non-detects:	2	**avg:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Barium (total)

# samples:	2	**min:**	0.141 mg/L
# detects:	1	**max:**	0.141 mg/L
# non-detects:	1	**avg:**	0.141 mg/L (based on 1 numerical results)
# of Exceedences:	0		

Beryllium (total)

# samples:	2	**min:**	n/a
# detects:	0	**max:**	n/a
# non-detects:	2	**avg:**	n/a (based on 0 numerical results)
# of Exceedences:	0		

Boron (total)

# samples:	2	**min:**	0.551 mg/L
# detects:	2	**max:**	0.567 mg/L

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# non-detects:	0	avg:	0.559 mg/L (based on 2 numerical results)
# of Exceedences:	0		

Cadmium (total)

# samples:	2	min:	n/a
# detects:	0	max:	n/a
# non-detects:	2	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Calcium (total)

# samples:	2	min:	60.0 mg/L
# detects:	2	max:	70.3 mg/L
# non-detects:	0	avg:	65.2 mg/L (based on 2 numerical results)
# of Exceedences:	0		

Chloride

# samples:	3	min:	1.13 mg/L
# detects:	3	max:	41.1 mg/L
# non-detects:	0	avg:	26.18 mg/L (based on 3 numerical results)
# of Exceedences:	0		

Chromium (total)

# samples:	2	min:	n/a
# detects:	0	max:	n/a
# non-detects:	2	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Cobalt (total)

# samples:	2	min:	n/a
# detects:	0	max:	n/a
# non-detects:	2	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Copper (total)

# samples:	2	min:	n/a
# detects:	0	max:	n/a
# non-detects:	2	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Fluoride

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# samples:	3	min:	0.048 mg/L
# detects:	2	max:	0.220 mg/L
# non-detects:	1	avg:	0.134 mg/L (based on 2 numerical results)
# of Exceedences:	0		

Gold (total)

# samples:	2	min:	n/a
# detects:	0	max:	n/a
# non-detects:	2	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Iron (total)

# samples:	2	min:	0.020 mg/L
# detects:	2	max:	0.113 mg/L
# non-detects:	0	avg:	0.067 mg/L (based on 2 numerical results)
# of Exceedences:	0		

Lanthanum (total)

# samples:	2	min:	n/a
# detects:	0	max:	n/a
# non-detects:	2	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Lead (total)

# samples:	2	min:	n/a
# detects:	0	max:	n/a
# non-detects:	2	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Magnesium (total)

# samples:	2	min:	43.5 mg/L
# detects:	2	max:	45.5 mg/L
# non-detects:	0	avg:	44.5 mg/L (based on 2 numerical results)
# of Exceedences:	0		

Manganese (total)

# samples:	3	min:	n/a
# detects:	0	max:	n/a
# non-detects:	3	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

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Mercury (total)

# samples:	2	min:	n/a
# detects:	0	max:	n/a
# non-detects:	2	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Molybdenum (total)

# samples:	2	min:	n/a
# detects:	0	max:	n/a
# non-detects:	2	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Nickel (total)

# samples:	2	min:	n/a
# detects:	0	max:	n/a
# non-detects:	2	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Nitrate (as N)

# samples:	3	min:	2.24 mg/L
# detects:	3	max:	2.29 mg/L
# non-detects:	0	avg:	2.26 mg/L (based on 3 numerical results)
# of Exceedences:	0		

Nitrite (as N)

# samples:	3	min:	n/a
# detects:	0	max:	n/a
# non-detects:	3	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Phosphorus (total)

# samples:	2	min:	n/a
# detects:	0	max:	n/a
# non-detects:	2	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Potassium (total)

# samples:	2	min:	3.28 mg/L
# detects:	2	max:	4.00 mg/L
# non-detects:	0	avg:	3.64 mg/L (based on 2 numerical results)
# of Exceedences:	0		

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Scandium (total)

# samples:	2	min:	n/a
# detects:	0	max:	n/a
# non-detects:	2	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Selenium (total)

# samples:	2	min:	n/a
# detects:	0	max:	n/a
# non-detects:	2	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Silicon (total, as Si)

# samples:	2	min:	4.10 mg/L
# detects:	2	max:	8.37 mg/L
# non-detects:	0	avg:	6.24 mg/L (based on 2 numerical results)
# of Exceedences:	0		

Silver (total)

# samples:	2	min:	n/a
# detects:	0	max:	n/a
# non-detects:	2	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Sodium (total)

# samples:	2	min:	23.5 mg/L
# detects:	2	max:	26.5 mg/L
# non-detects:	0	avg:	25.0 mg/L (based on 2 numerical results)
# of Exceedences:	0		

Strontium (total)

# samples:	2	min:	0.031 mg/L
# detects:	2	max:	0.290 mg/L
# non-detects:	0	avg:	0.161 mg/L (based on 2 numerical results)
# of Exceedences:	0		

Sulphate

# samples:	3	min:	0.932 mg/L
# detects:	3	max:	29.5 mg/L
# non-detects:	0	avg:	18.811 mg/L (based on 3 numerical results)
# of Exceedences:	0		

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Tin (total)

# samples:	2	min:	n/a
# detects:	0	max:	n/a
# non-detects:	2	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Titanium (total)

# samples:	2	min:	n/a
# detects:	0	max:	n/a
# non-detects:	2	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Tungsten (total)

# samples:	2	min:	n/a
# detects:	0	max:	n/a
# non-detects:	2	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Vanadium (total)

# samples:	2	min:	n/a
# detects:	0	max:	n/a
# non-detects:	2	avg:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Zinc (total)

# samples:	2	min:	0.012 mg/L
# detects:	2	max:	0.013 mg/L
# non-detects:	0	avg:	0.013 mg/L (based on 2 numerical results)
# of Exceedences:	0		

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