

District of Peachland Annual Drinking Water Report – 2020



INTRODUCTION

The District of Peachland is legally required by the *Drinking Water Protection Act* to provide an annual report on their water supply systems. The annual report will provide water system users with an overview of the system, a summary of all water tests performed and an update to any significant maintenance and/or improvements made to the system.

Facility Name/Number: District of Peachland Water Distribution System (#561) EOCP Classification: Level III

Facility Name/Number: Peachland Creek Water Treatment Facility (#2288)

EOCP Classification: Level II

Facility Name/Number: Trepanier Creek Water Treatment Facility (#2289)

EOCP Classification: Level II

Facility Name/Number: Okanagan Lake Pumps Water Treatment Facility (#2290)

EOCP Classification: Level II

WATER SOURCES

Water for the District of Peachland is supplied from three surface water sources;

- Peachland Creek
- Trepanier Creek
- Okanagan Lake

The Peachland Creek system supplies water to all properties accessed from Princeton Avenue. It also supplies the properties accessed from Ponderosa Drive and the downtown area as far north as 11th Street (approximately). The Trepanier system supplies water to the remainder of the properties in the District (from 11th Street north). When the Okanagan Lake pumps are operated in place of the Trepanier Creek Intake, the supply area is identical to the Trepanier system. These supplies can be adjusted through the use of valving within the system.

The majority of water is supplied from the Peachland Creek (PCI) system (approximately 2/3) with the remainder supplied by the Trepanier Creek (TCI) system (approximately 1/3) or the Okanagan Lake Pumps. The Okanagan Lake Pumps (LPH) are typically operated during spring freshet/runoff to supply less turbid water to the Trepanier system. In 2020, the Okanagan Lake Pumps were active from April 21 – May 25.

DISTRIBUTION SYSTEM

The District of Peachland currently uses chlorine gas as its primary disinfectant. Chlorine is injected using flow paced technology and is dosed to provide inactivation of bacteria, viruses and protozoan cysts which may be present within the surface water source. District staff maintain a first user residual ranging from $0.9 - 1.9 \, \text{mg/L}$ (depending on the time of year and clarity of the raw water). At the ends of the system, a chlorine residual target is $0.2 \, \text{mg/L}$. A residual of chlorine remaining in the distribution system extends a measure of protection against any possible contamination entering the system after initial disinfection.

The distribution system and supply includes:

- 16 pressure reducing stations,
- 1 very high consequence dam (Peachland Lake)
- 1 high consequence dam (Silver Lake)
- 1 significant consequence dam (Glen Lake)
- 4 active reservoirs
- 6 active pump stations
- Approximately 81 km of pipeline

The Water Department is staffed by operators certified through the Environmental Operators Certification Program (EOCP – the association responsible for certification of system operators and classification of water distribution and treatment systems within British Columbia), with their certifications noted below;

- Director of Operations: Water Distribution Level IV / Water Treatment Level II
- Water Mechanic: Water Distribution Level II / Water Treatment Level II
- Water Mechanic: Water Distribution Level II / Water Treatment OIT (operator-in-training)

These operators have the capability to monitor the system at all times (24 hours per day, 365 days per year) through the use of the SCADA system (supervisory control and data acquisition). The system is set to alarm if it drifts beyond pre-determined set points, calling the standby operator to alert them. There is an operator on standby at all times.

ROUTINE MAINTENANCE

Fire Hydrants

All municipally owned fire hydrants are inspected, pressure tested and flushed annually. Hydrants undergo a complete tear down and rebuild on an as-needed basis.

Main Valve Exercising

Main valves are exercised at least biennially or on an as-needed basis.

System Flushing

System flushing occurs annually during the fall. Hydrants and blow offs are used to pass higher velocity water through the system in order to scour any sediment that may have settled in the system over the year.

Pressure Reducing Valves (PRVs)

PRV's are inspected monthly and repaired or rebuilt on an as-needed basis.

WATER MASTER PLAN

In 2007, the sitting mayor and council adopted the Water Master Plan (WMP), a set of comprehensive upgrades that was anticipated to provide treated water to Peachland in its entirety by the years 2023/24. The WMP was amended in 2015 to include information on increased population growth and changes in drinking water legislation. If more in-depth information is desired, it is available at the District's website (http://www.peachland.ca/water-master-plan-2015)

This year construction was nominally completed on the new Peachland Creek Water Treatment Plant (WTP). The new plant will be capable of a daily capacity of 25 MLD (expandable to 50 MLD) and includes a 2500 m³ treated water reservoir. The treatment process consists of clarification through the dissolved air flotation (DAF) process, multi-media filtration, ultraviolet (UV) disinfection and chlorination. In consultation with the EOCP, the plant has been pre-classified as a Level IV facility. Commissioning and operationalization is anticipated to be completed in Spring of 2021.

Completion of the WTP allows the District to exceed the minimum requirements of the Drinking Water Treatment Objectives for Surface Water Supplies in British Columbia. If minimum requirements are not met, water users can potentially be at increased risk of illness from protozoan pathogens.

To provide this filtered water to the entire District, a second project was added to the scope of construction; the installation of a large diameter water main to interconnect the Peachland Creek and Trepanier Creek systems. This project was initiated in the fall of 2020 and is anticipated to be nominally complete by the summer of 2021.

A summary of the anticipated project costs is noted below;

	Total Cost	Grant	Borrowing	DCCs/Reserves
Water Treatment Plant	\$24 Million	\$6.9	\$9.2	
water freatment Plant	\$24 WIIIIUII	Million	Million	\$7.9 Million
Transpier Interconnect	\$6.1	\$4.9		
Trepanier Interconnect	Million	Million		\$1.2 Million

WATER SAMPLING

Drinking water samples are tested weekly for *E.Coli* and total coliforms by Caro Analytical Services in Kelowna. There were no positive bacteriological samples detected in 2020.

District employees monitor and record daily turbidity values along with pH and chlorine levels. Turbidity is one of the main parameters leading to a water quality advisory or a boil water notice as it can affect the number and type of microorganisms that enter a surface water source. As surface waters experience increased flows (ie. spring runoff, major rainfall events, etc), turbidity can fluctuate dramatically and the public is notified accordingly. Records of average daily turbidity values can be found in Appendix IV.

Chlorine concentrations are continuously monitored at 4-5 stations throughout the system (depending on the time of year) as well as daily grab samples at a number of locations to ensure instrument accuracy.

Water samples are also collected annually in order to perform a comprehensive analysis, giving an indication of any changes occurring within the source waters and/or distribution system. It should be noted that all raw sources tested are within the maximum allowable concentration (MAC) limits set out in the Guidelines for Canadian Drinking Water Quality. Lastly, trihalomethanes (THM's) are also tested annually to provide an indication of the level of disinfection by-products present in the water supply system. The results from the comprehensive and THM analyses are included in Appendices I and II, respectively. The attached reports also indicate the limits or guidelines for each parameter listed.

WATER QUALITY ADVISORIES / BOIL WATER NOTICES / DO NOT USE NOTICE

Water quality advisories and boil water notices are notifications designed to inform the public of possible public health threats. The decision to institute an advisory or notice is made in discussion with staff at the Interior Health Authority (IHA).

A <u>water quality advisory</u> (WQA) is the lowest-level notification and used in situations where the possible public health threat is modest. These advisories are instituted when the turbidity in the water source increases over a value of 1 NTU (nephelometric turbidity units). Details of WQA's issued over the past year are noted below.

A <u>boil water notice</u> (BWN) is a moderate-level notification used in situations where the possible public health threat is one that can be effectively addressed by boiling the water. These notices are typically instituted when the water source turbidity increases over 5 NTU or there is a failure in the disinfection system. Details of BWN's issued over the past year are noted below.

A <u>do not use notice</u> is the highest level of notification. It is used in situations where a significant public health threat exists (ie. Chemical spill, etc). There were no do not use notices issued in 2020.

April 11/20 - with turbidity increasing above 1 NTU, a WQA was implemented.

April 22/20 - with turbidity increasing above 5 NTU, a BWN was implemented.

May 12/20 - with turbidity decreasing below 5 NTU and in consultation with IHA,

the BWN was downgraded to a WQA.

July 13/20 - with turbidity decreasing below 1 NTU, the WQA was rescinded.

WATER CONSUMPTION

In 2020, there was a total of 2,586.34 ML passing through the District Intakes. A monthly summary of consumption per intake and a graphical percentage comparison is located in Appendix III.

WORKS COMPLETED AND IN PROGRESS

- Annual leak detection program continues with the Ponderosa and Trepanier neighbourhoods surveyed.
- Trepanier Interconnect project construction initiated in the fall with anticipated completion in summer of 2021.
- Water treatment plant construction nominally completed. The plant is expected to begin commissioning and move to an operational state by the spring of 2021.
- The District was awarded a grant from the Okanagan Basin Water Board for the installation of hydrometric stations at Trepanier and Peachland Creek. The grant was also able to be used for the repair of an existing station at the Peachland Creek intake.

Appendix I – Comprehensive Analyses (Peachland Creek Intake, Trepanier Creek Intake)



CERTIFICATE OF ANALYSIS

REPORTED TO Peachland, Corporation of the District of

5806 Beach Avenue

You know that the sample you collected after

snowshoeing to site, digging 5 meters, and

(whew) is VERY important. We know that too.

racing to get it on a plane so you can submit it

PEACHLAND, BC V0H 1X7

ATTENTION WORK ORDER 20L1682 Shawn Grundy

PO NUMBER RECEIVED / TEMP 2020-12-15 12:45 / 4°C

PROJECT General Potability REPORTED 2020-12-22 15:51 PROJECT INFO COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Bia Picture Sidekicks

We've Got Chemistry

It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

Ahead of the Curve

Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

to the lab for time sensitive results needed to make important and expensive decisions

If you have any questions or concerns, please contact me at teamcaro@caro.ca

Authorized By:

Team CARO Client Service Representative

1-888-311-8846 | www.caro.ca

#110 4011



















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REPORTED TO Peachland, Corporation of the District of WORK ORDER 20L1682
PROJECT General Potability REPORTED 2020-12-22 15:51

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifi
#3 Swim Bay Washroom (20L1682-01) M	latrix: Water Sar	mpled: 2020-12-15 0	7:45			
Anions						
Chloride	2.17	AO ≤ 250	0.10	mg/L	2020-12-16	
Fluoride	< 0.10	MAC = 1.5		mg/L	2020-12-16	
Nitrate (as N)	0.019	MAC = 10	0.010	mg/L	2020-12-16	
Nitrite (as N)	< 0.010	MAC = 1	0.010		2020-12-16	
Sulfate	11.9	AO ≤ 500		mg/L	2020-12-16	
Calculated Parameters						
Total Trihalomethanes	0.0791	MAC = 0.1	0.00400	ma/L	N/A	
Hardness, Total (as CaCO3)	92.6	None Required	0.500		N/A	
Solids, Total Dissolved	109	AO ≤ 500		mg/L	N/A	
General Parameters						
	00.5	NIA			2020 42 24	
Alkalinity, Total (as CaCO3)	89.5	N/A		mg/L	2020-12-21	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	N/A N/A		mg/L	2020-12-21	
Alkalinity, Bicarbonate (as CaCO3)	89.5			mg/L		
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A		mg/L	2020-12-21	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	N/A		mg/L	2020-12-21	
Conductivity (EC)	189	N/A		μS/cm	2020-12-21	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020		2020-12-18	
pH	7.96	7.0-10.5		pH units	2020-12-21	HT2
Turbidity	0.38	OG < 1	0.10	NTU	2020-12-16	
Microbiological Parameters						
Coliforms Total	< 1	MAC = 0	1	CEU/100 ml	2020-12-15	
Coliforms, Total	<1 <1	MAC = 0		CFU/100 mL	2020-12-15	
E. coli	<1 <1	MAC = 0 MAC = 0		CFU/100 mL CFU/100 mL	2020-12-15 2020-12-15	
E. coli Total Metals			1	CFU/100 mL		
E. coli Total Metals Aluminum, total	0.0125	MAC = 0 OG < 0.1	0.0050	CFU/100 mL mg/L	2020-12-15	
E. coli Total Metals	<1	MAC = 0	0.0050 0.00020	CFU/100 mL mg/L mg/L	2020-12-15	
E. coli Total Metals Aluminum, total Antimony, total	0.0125 < 0.00020 < 0.00050	MAC = 0 OG < 0.1 MAC = 0.006	0.0050 0.00020 0.00050	mg/L mg/L mg/L	2020-12-15 2020-12-19 2020-12-19	
E. coli Total Metals Aluminum, total Antimony, total Arsenic, total Barium, total	0.0125 < 0.00020 < 0.00050 0.0235	MAC = 0 OG < 0.1 MAC = 0.006 MAC = 0.01 MAC = 2	0.0050 0.00020 0.00050 0.0050	mg/L mg/L mg/L mg/L	2020-12-15 2020-12-19 2020-12-19 2020-12-19 2020-12-19	
E. coli Total Metals Aluminum, total Antimony, total Arsenic, total Barium, total Boron, total	0.0125 < 0.00020 < 0.00050	MAC = 0 OG < 0.1 MAC = 0.006 MAC = 0.01 MAC = 2 MAC = 5	0.0050 0.00020 0.00050 0.0050 0.0500	mg/L mg/L mg/L mg/L mg/L mg/L	2020-12-15 2020-12-19 2020-12-19 2020-12-19	
E. coli Total Metals Aluminum, total Antimony, total Arsenic, total Barium, total Boron, total Cadmium, total	<1 0.0125 < 0.00020 < 0.00050 0.0235 < 0.0500 0.000015	MAC = 0 OG < 0.1 MAC = 0.006 MAC = 0.01 MAC = 2 MAC = 5 MAC = 0.005	0.0050 0.00020 0.00050 0.0050 0.0500 0.000010	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2020-12-15 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19	
E. coli Total Metals Aluminum, total Antimony, total Arsenic, total Barium, total Boron, total Cadmium, total Calcium, total	<1 0.0125 < 0.00020 < 0.00050 0.0235 < 0.0500 0.000015 30.3	MAC = 0 OG < 0.1 MAC = 0.006 MAC = 0.01 MAC = 2 MAC = 5 MAC = 0.005 None Required	0.0050 0.00020 0.00050 0.0050 0.0500 0.000010	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19	
E. coli Total Metals Aluminum, total Antimony, total Arsenic, total Barium, total Boron, total Cadmium, total Calcium, total Chromium, total	<10.0125 < 0.00020 < 0.00050 0.0235 < 0.0500 0.000015 30.3 < 0.00050	MAC = 0 OG < 0.1 MAC = 0.006 MAC = 0.01 MAC = 2 MAC = 5 MAC = 0.005 None Required MAC = 0.05	0.0050 0.00020 0.00050 0.0050 0.0500 0.000010 0.20	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2020-12-15 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19	
E. coli Total Metals Aluminum, total Antimony, total Arsenic, total Barium, total Cadmium, total Calcium, total Chromium, total Copper, total	< 0.0125 < 0.00020 < 0.00050 0.0235 < 0.0500 0.000015 30.3 < 0.00050 0.0657	MAC = 0 OG < 0.1 MAC = 0.006 MAC = 0.01 MAC = 2 MAC = 5 MAC = 0.005 None Required MAC = 0.05 MAC = 2	0.0050 0.00020 0.00050 0.0500 0.0500 0.000010 0.20 0.00050 0.00050	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2020-12-15 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19	
E. coli Fotal Metals Aluminum, total Antimony, total Arsenic, total Barium, total Boron, total Cadmium, total Calcium, total Chromium, total Copper, total Iron, total	< 0.0125 < 0.00020 < 0.00050 0.0235 < 0.0500 0.000015 30.3 < 0.00050 0.0657 0.057	MAC = 0 OG < 0.1 MAC = 0.006 MAC = 0.01 MAC = 2 MAC = 5 MAC = 0.005 None Required MAC = 0.05	0.0050 0.00020 0.00050 0.0050 0.0500 0.000010 0.20 0.00050 0.00050	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2020-12-15 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19	
E. coli Fotal Metals Aluminum, total Antimony, total Arsenic, total Barium, total Boron, total Cadmium, total Calcium, total Chromium, total Copper, total Iron, total Lead, total	< 0.0125 < 0.00020 < 0.00050 0.0235 < 0.0500 0.000015 30.3 < 0.00050 0.0657 0.057	MAC = 0 OG < 0.1 MAC = 0.006 MAC = 0.01 MAC = 2 MAC = 5 MAC = 0.005 None Required MAC = 0.05 MAC = 2 AO \leq 0.3 MAC = 0.005	0.0050 0.00020 0.00050 0.0050 0.0500 0.000010 0.20 0.00050 0.00050 0.00040	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2020-12-15 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19	
E. coli Fotal Metals Aluminum, total Antimony, total Arsenic, total Barium, total Cadmium, total Calcium, total Chromium, total Chromium, total Copper, total Iron, total Lead, total Magnesium, total	< 0.0125 < 0.00020 < 0.00050 0.0235 < 0.0500 0.000015 30.3 < 0.00050 0.0657 0.057 0.0046 4.08	MAC = 0 OG < 0.1 MAC = 0.006 MAC = 0.01 MAC = 2 MAC = 5 MAC = 0.005 None Required MAC = 0.05 MAC = 2 AO ≤ 0.3 MAC = 0.005 None Required	0.0050 0.00020 0.00050 0.0050 0.0500 0.000010 0.20 0.00050 0.00050 0.00040 0.010	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19	
E. coli Fotal Metals Aluminum, total Antimony, total Arsenic, total Barium, total Boron, total Cadmium, total Calcium, total Chromium, total Copper, total Iron, total Lead, total Magnesium, total Manganese, total	< 1 0.0125 < 0.00020 < 0.00050 0.0235 < 0.0500 0.000015 30.3 < 0.00050 0.0657 0.057 0.00046 4.08 0.00392	MAC = 0 OG < 0.1 MAC = 0.006 MAC = 0.01 MAC = 2 MAC = 5 MAC = 0.005 None Required MAC = 0.05 MAC = 2 AO ≤ 0.3 MAC = 0.005 None Required MAC = 0.012	0.0050 0.00020 0.00050 0.0050 0.0500 0.000010 0.20 0.00050 0.00040 0.010 0.00020	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19	
E. coli Total Metals Aluminum, total Antimony, total Arsenic, total Barium, total Boron, total Cadmium, total Chromium, total Copper, total Iron, total Lead, total Magnesium, total Manganese, total Potassium, total	< 0.0125 < 0.00020 < 0.00050	MAC = 0 OG < 0.1 MAC = 0.008 MAC = 0.01 MAC = 2 MAC = 5 MAC = 0.005 None Required MAC = 0.05 MAC = 2 AO ≤ 0.3 MAC = 0.005 None Required MAC = 0.12 N/A	0.0050 0.00020 0.00050 0.0050 0.0500 0.000010 0.20 0.00050 0.00040 0.010 0.00020 0.010	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19	
E. coli Total Metals Aluminum, total Antimony, total Arsenic, total Barium, total Boron, total Cadmium, total Calcium, total Chromium, total Copper, total Iron, total Lead, total Magnesium, total Manganese, total	< 1 0.0125 < 0.00020 < 0.00050 0.0235 < 0.0500 0.000015 30.3 < 0.00050 0.0657 0.057 0.00046 4.08 0.00392	MAC = 0 OG < 0.1 MAC = 0.006 MAC = 0.01 MAC = 2 MAC = 5 MAC = 0.005 None Required MAC = 0.05 MAC = 2 AO ≤ 0.3 MAC = 0.005 None Required MAC = 0.012	0.0050 0.00020 0.00050 0.0050 0.0500 0.000010 0.20 0.00050 0.00040 0.010 0.00020 0.010 0.00020 0.10	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19 2020-12-19	





TEST RESULTS

REPORTED TO PROJECT	Peachland, Corporation General Potability	of the District of			WORK ORDER REPORTED	20L1682 2020-12-2	2 15:51
Analyte		Result	Guideline	RL	Units	Analyzed	Qualifier
#3 Swim Bay Was	hroom (20L1682-01) Ma	atrix: Water Sar	npled: 2020-12-15 (7:45, Contin	nued		
Total Metals, Contin	ued						
Uranium, total		0.00112	MAC = 0.02	0.000020	mg/L	2020-12-19	
Zinc, total		0.0106	AO ≤ 5	0.0040	mg/L	2020-12-19	
Volatile Organic Cor	mpounds (VOC)						
Bromodichlorometh	iane	0.0032	N/A	0.0010	ma/L	2020-12-18	
Bromoform		< 0.0010	N/A	0.0010		2020-12-18	
Chloroform		0.0722	N/A	0.0010		2020-12-18	
Dibromochlorometh	nane	0.0036	N/A	0.0010	mg/L	2020-12-18	
Surrogate: Toluene	-d8	97		70-130	%	2020-12-18	
Surrogate: 4-Bromo	ofluorobenzene	80		70-130	%	2020-12-18	
#1 Todd Rd. Wash	room (20L1682-02) Mai	trix: Water Sam	pled: 2020-12-15 08	8:00			
Chloride		27.6	AO ≤ 250	0.10		2020-12-16	
Fluoride		< 0.10	MAC = 1.5		mg/L mg/L	2020-12-16	
Nitrate (as N)		0.070	MAC = 10	0.010		2020-12-16	
Nitrite (as N)		< 0.010	MAC = 10	0.010		2020-12-16	
Sulfate		16.9	AO ≤ 500		mg/L	2020-12-16	
Calculated Paramete	ers						
Total Trihalomethan	105	0.0435	MAC = 0.1	0.00400	ma/L	N/A	
Hardness, Total (as		135	None Required	0.500		N/A	
	CaCO31						
		169	AO ≤ 500		ma/L	N/A	
Solids, Total Dissoli General Parameters	ved		AO ≤ 500		mg/L	N/A	
Solids, Total Dissol General Parameters	ved	169	AO ≤ 500	1.00	-		
Solids, Total Dissol General Parameters Alkalinity, Total (as	ved CaCO3)	169 99.8		1.00	mg/L	2020-12-21	
Solids, Total Dissol General Parameters Alkalinity, Total (as Alkalinity, Phenolph	CaCO3)	169	N/A	1.00 1.0 1.0	mg/L mg/L		
Solids, Total Dissol General Parameters Alkalinity, Total (as	CaCO3) thalein (as CaCO3) ate (as CaCO3)	99.8 < 1.0	N/A N/A	1.00 1.0 1.0 1.0	mg/L	2020-12-21	
Solids, Total Dissoli General Parameters Alkalinity, Total (as Alkalinity, Phenolph Alkalinity, Bicarbon	CaCO3) thalein (as CaCO3) ate (as CaCO3) e (as CaCO3)	99.8 < 1.0 99.8	N/A N/A N/A	1.00 1.0 1.0 1.0	mg/L mg/L mg/L	2020-12-21 2020-12-21 2020-12-21	
Solids, Total Dissoli General Parameters Alkalinity, Total (as Alkalinity, Phenolph Alkalinity, Bicarbon, Alkalinity, Carbonat	CaCO3) thalein (as CaCO3) ate (as CaCO3) e (as CaCO3)	99.8 < 1.0 99.8 < 1.0	N/A N/A N/A N/A	1.00 1.0 1.0 1.0 1.0	mg/L mg/L mg/L mg/L	2020-12-21 2020-12-21 2020-12-21 2020-12-21	
Solids, Total Dissoli General Parameters Alkalinity, Total (as Alkalinity, Phenolph Alkalinity, Bicarbon, Alkalinity, Carbonat Alkalinity, Hydroxide	CaCO3) thalein (as CaCO3) ate (as CaCO3) e (as CaCO3)	99.8 < 1.0 99.8 < 1.0 < 1.0	N/A N/A N/A N/A	1.00 1.0 1.0 1.0 1.0	mg/L mg/L mg/L mg/L mg/L	2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-21	
Solids, Total Dissoli General Parameters Alkalinity, Total (as Alkalinity, Phenolph Alkalinity, Bicarbon, Alkalinity, Carbonat Alkalinity, Hydroxid Conductivity (EC)	CaCO3) thalein (as CaCO3) ate (as CaCO3) e (as CaCO3)	99.8 < 1.0 99.8 < 1.0 < 1.0 < 282	N/A N/A N/A N/A N/A	1.00 1.0 1.0 1.0 1.0 1.0 2.0 0.0020	mg/L mg/L mg/L mg/L mg/L	2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-21	нт2
Solids, Total Dissoli General Parameters Alkalinity, Total (as Alkalinity, Phenolph Alkalinity, Bicarbona Alkalinity, Carbonat Alkalinity, Hydroxidi Conductivity (EC) Cyanide, Total	CaCO3) thalein (as CaCO3) ate (as CaCO3) e (as CaCO3)	99.8 < 1.0 99.8 < 1.0 < 1.0 < 282 < 0.0020	N/A N/A N/A N/A N/A N/A MAC = 0.2	1.00 1.0 1.0 1.0 1.0 2.0 0.0020 0.10	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-18	HT2
Solids, Total Dissoli General Parameters Alkalinity, Total (as Alkalinity, Phenolph Alkalinity, Bicarbon, Alkalinity, Carbonat Alkalinity, Hydroxid Conductivity (EC) Cyanide, Total pH	caCO3) athalein (as CaCO3) ate (as CaCO3) be (as CaCO3) e (as CaCO3)	99.8 < 1.0 99.8 < 1.0 < 1.0 < 282 < 0.0020 7.98	N/A N/A N/A N/A N/A N/A MAC = 0.2 7.0-10.5	1.00 1.0 1.0 1.0 1.0 2.0 0.0020 0.10	mg/L mg/L mg/L mg/L mg/L mg/L pS/cm mg/L pH units	2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-18 2020-12-21	нт2
Solids, Total Dissoli General Parameters Alkalinity, Total (as Alkalinity, Phenolph Alkalinity, Bicarbon. Alkalinity, Carbonat Alkalinity, Carbonat Conductivity (EC) Cyanide, Total pH Turbidity	caCO3) athalein (as CaCO3) ate (as CaCO3) be (as CaCO3) e (as CaCO3)	99.8 < 1.0 99.8 < 1.0 < 1.0 < 282 < 0.0020 7.98	N/A N/A N/A N/A N/A N/A MAC = 0.2 7.0-10.5	1.00 1.0 1.0 1.0 1.0 2.0 0.0020 0.10	mg/L mg/L mg/L mg/L mg/L mg/L pS/cm mg/L pH units	2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-18 2020-12-21	НТ2
Solids, Total Dissoli General Parameters Alkalinity, Total (as Alkalinity, Bicarbon. Alkalinity, Bicarbon. Alkalinity, Carbonat Alkalinity, Carbonat Conductivity (EC) Cyanide, Total pH Turbidity	caCO3) athalein (as CaCO3) ate (as CaCO3) be (as CaCO3) e (as CaCO3)	99.8 < 1.0 99.8 < 1.0 < 1.0 < 282 < 0.0020 7.98 0.20	N/A N/A N/A N/A N/A N/A MAC = 0.2 7.0-10.5 OG < 1	1.00 1.0 1.0 1.0 1.0 2.0 0.0020 0.10	mg/L mg/L mg/L mg/L mg/L pS/cm mg/L pH units NTU	2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-18 2020-12-18	HT2
Solids, Total Dissoli General Parameters Alkalinity, Total (as Alkalinity, Bicarbon. Alkalinity, Bicarbon. Alkalinity, Carbonat Alkalinity, Carbonat Conductivity (EC) Cyanide, Total pH Turbidity Microbiological Para Coliforms, Total	caCO3) athalein (as CaCO3) ate (as CaCO3) be (as CaCO3) e (as CaCO3)	99.8 < 1.0 99.8 < 1.0 < 1.0 282 < 0.0020 7.98 0.20	N/A N/A N/A N/A N/A MAC = 0.2 7.0-10.5 OG < 1 MAC = 0	1.00 1.0 1.0 1.0 1.0 2.0 0.0020 0.10	mg/L mg/L mg/L mg/L mg/L mg/L pS/cm mg/L pH units NTU CFU/100 mL	2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-18 2020-12-16 2020-12-16	HT2
Solids, Total Dissoli General Parameters Alkalinity, Total (as Alkalinity, Bicarbon. Alkalinity, Bicarbon. Alkalinity, Carbonat Alkalinity, Hydroxidi Conductivity (EC) Cyanide, Total pH Turbidity Microbiological Para Coliforms, Total E. coli	caCO3) athalein (as CaCO3) ate (as CaCO3) be (as CaCO3) e (as CaCO3)	99.8 < 1.0 99.8 < 1.0 < 1.0 282 < 0.0020 7.98 0.20	N/A N/A N/A N/A N/A MAC = 0.2 7.0-10.5 OG < 1 MAC = 0	1.00 1.0 1.0 1.0 1.0 1.0 2.0 0.0020 0.10 1.10	mg/L mg/L mg/L mg/L mg/L mg/L pS/cm mg/L pH units NTU CFU/100 mL CFU/100 mL	2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-18 2020-12-16 2020-12-16	HT2
Solids, Total Dissoli General Parameters Alkalinity, Total (as Alkalinity, Bicarbon, Alkalinity, Bicarbon, Alkalinity, Carbonat Alkalinity, Hydroxid, Conductivity (EC) Cyanide, Total pH Turbidity Microbiological Para Coliforms, Total E. coli Total Metals	caCO3) athalein (as CaCO3) ate (as CaCO3) be (as CaCO3) e (as CaCO3)	99.8 < 1.0 99.8 < 1.0 29.8 < 1.0 < 1.0 282 < 0.0020 7.98 0.20 < 1	N/A N/A N/A N/A N/A N/A MAC = 0.2 7.0-10.5 OG < 1 MAC = 0 MAC = 0	1.00 1.0 1.0 1.0 1.0 2.0 0.0020 0.10	mg/L mg/L mg/L mg/L mg/L mg/L p/S/cm mg/L pH units NTU CFU/100 mL CFU/100 mL	2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-21 2020-12-18 2020-12-16 2020-12-16	НТ2





TEST RESULTS

REPORTED TO	Peachland, Corporation of the District of	WORK ORDER	20L1682
PROJECT	General Potability	REPORTED	2020-12-22 15:51

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
#1 Todd Rd. Washroom (20L1682-02)	Matrix: Water San	npled: 2020-12-15 0	8:00, Continu	ued		
Total Metals, Continued						
Barium, total	0.0626	MAC = 2	0.0050	mg/L	2020-12-19	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2020-12-19	
Cadmium, total	< 0.000010	MAC = 0.005	0.000010	mg/L	2020-12-19	
Calcium, total	41.8	None Required	0.20	mg/L	2020-12-19	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2020-12-19	
Copper, total	0.0323	MAC = 2	0.00040	mg/L	2020-12-19	
Iron, total	0.024	AO ≤ 0.3	0.010	mg/L	2020-12-19	
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2020-12-19	
Magnesium, total	7.50	None Required	0.010	mg/L	2020-12-19	
Manganese, total	0.00123	MAC = 0.12	0.00020	mg/L	2020-12-19	
Potassium, total	2.48	N/A	0.10	mg/L	2020-12-19	
Selenium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2020-12-19	
Sodium, total	11.9	AO ≤ 200	0.10	mg/L	2020-12-19	
Strontium, total	0.265	7	0.0010	mg/L	2020-12-19	
Uranium, total	0.00438	MAC = 0.02	0.000020	mg/L	2020-12-19	
Zinc, total	0.0111	AO ≤ 5	0.0040	mg/L	2020-12-19	
/olatile Organic Compounds (VOC)						
Bromodichloromethane	0.0030	N/A	0.0010	mg/L	2020-12-18	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2020-12-18	
Chloroform	0.0372	N/A	0.0010	mg/L	2020-12-18	
Dibromochloromethane	0.0033	N/A	0.0010	mg/L	2020-12-18	
Surrogate: Toluene-d8	98		70-130	%	2020-12-18	
Surrogate: 4-Bromofluorobenzene	80		70-130	%	2020-12-18	

Sample Qualifiers:

HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.





APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Peachland, Corporation of the District of PROJECT General Potability

WORK ORDER 20L1682 REPORTED

2020-12-22 15:51

Analysis Description	Method Ref.	Technique	Accredited	Location
Alkalinity in Water	SM 2320 B* (2017)	Titration with H2SO4	✓	Kelowna
Anions in Water	SM 4110 B (2017)	Ion Chromatography	✓	Kelowna
Coliforms, Total in Water	SM 9222* (2017)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Conductivity in Water	SM 2510 B (2017)	Conductivity Meter	✓	Kelowna
Cyanide, SAD in Water	ASTM D7511-12	Flow Injection with In-Line UV Digestion and Amperometr	ry 🗸	Kelowna
E. coli in Water	SM 9222* (2017)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Hardness in Water	SM 2340 B* (2017)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	✓	N/A
pH in Water	SM 4500-H+ B (2017)	Electrometry	✓	Kelowna
Solids, Total Dissolved in Water	SM 1030 E (2017)	SM 1030 E (2011)		N/A
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Trihalomethanes in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	√	Richmond
Turbidity in Water	SM 2130 B (2017)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL Reporting Limit (default)

Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors

ΑO Aesthetic Objective

CFU/100 mL Colony Forming Units per 100 millilitres

MAC Maximum Acceptable Concentration (health based)

mg/L Milligrams per litre

NTU Nephelometric Turbidity Units OG Operational Guideline (treated water) pH units pH < 7 = acidic, ph > 7 = basic μS/cm Microsiemens per centimetre ASTM ASTM International Test Methods

EPA United States Environmental Protection Agency Test Methods

SM Standard Methods for the Examination of Water and Wastewater, American Public Health Association





APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Peachland, Corporation of the District of PROJECT General Potability WORK ORDER

20L1682 2020-12-22 15:51

General Comments:

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued or once samples expire, whichever comes first. Longer hold is possible if agreed to in writing. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted red. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do <u>not</u> take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager:teamcaro@caro.ca

Please note any regulatory guidelines applied to this report are added as a convenience to the client, at their request, to help provide some initial context to analytical results obtained. Although CARO makes every effort to ensure accuracy of the associated regulatory guideline(s) applied, the guidelines applied cannot be assumed to be correct due to a variety of factors and as such CARO Analytical Services assumes no liability or responsibility for the use of those guidelines to make any decisions. The original source of the regulation should be verified and a review of the guideline(s) should be validated as correct in order to make any decisions arising from the comparison of the analytical data obtained to the relevant regulatory guideline for one's particular circumstances. Further, CARO Analytical Services assumes no liability or responsibility for any loss attributed from the use of these guidelines in any way.

Appendix II – Trihalomethane Analyses





CERTIFICATE OF ANALYSIS

REPORTED TO Peachland, Corporation of the District of

> 5806 Beach Avenue PEACHLAND, BC V0H 1X7

ATTENTION Shawn Grundy WORK ORDER 0071251

PO NUMBER RECEIVED / TEMP 2020-07-14 12:05 / 13°C PROJECT General Potability REPORTED 2020-07-20 12:04 PROJECT INFO COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks

You know that the sample you collected after

snowshoeing to site, digging 5 meters, and

racing to get it on a plane so you can submit it

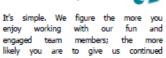
to the lab for time sensitive results needed to make important and expensive decisions

(whew) is VERY important. We know that too.



We've Got Chemistry

opportunities to support you.



Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

If you have any questions or concerns, please contact me at teamcaro@caro.ca

Authorized By:

Team CARO Client Service Representative

1-888-311-8846 | www.caro.ca

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7



Surrogate: 4-Bromofluorobenzene

TEST RESULTS

REPORTED TO	Peachland, Corporation of the District of	WORK ORDER	0071251
PROJECT	General Potability	REPORTED	2020-07-20 12:04

PROJECT General Foldbling				KEFOKTED	2020-07-2	.0 12.04
Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
#1 Todd's Washroom (0071251-01) Ma	trix: Water Sample	d: 2020-07-13 08:0	00			
Calculated Parameters						
Total Trihalomethanes	0.0571	MAC = 0.1	0.00400	mg/L	N/A	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	0.0022	N/A	0.0010	mg/L	2020-07-17	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2020-07-17	
Chloroform	0.0549	N/A	0.0010	mg/L	2020-07-17	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2020-07-17	
Surrogate: Toluene-d8	88		70-130	%	2020-07-17	
Surrogate: 4-Bromofluorobenzene	95		70-130	%	2020-07-17	
#3 Swimbat Washroom (0071251-02) N Calculated Parameters Total Trihalomethanes	Matrix: Water Samp 0.0666	MAC = 0.1	7: 45 0.00400	mg/L	N/A	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	0.0026	N/A	0.0010	mg/L	2020-07-17	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2020-07-17	
Chloroform	0.0640	N/A	0.0010	mg/L	2020-07-17	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2020-07-17	
Surrogate: Toluene-d8	88		70-130	%	2020-07-17	

70-130 %

2020-07-17

96





APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Peachland, Corporation of the District of PROJECT General Potability REPORTED 0071251

REPORTED 0071251

REPORTED 2020-07-20 12:04

Analysis Description	Method Ref.	Technique	Accredited	Location
Trihalomethanes in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	Richmond

Glossary of Terms:

RL Reporting Limit (default)

Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors

MAC Maximum Acceptable Concentration (health based)

mg/L Milligrams per litre

EPA United States Environmental Protection Agency Test Methods

Guidelines Referenced in this Report:

Guidelines for Canadian Drinking Water Quality (Health Canada, June 2019)

Note: In some cases, the values displayed on the report represent the lowest guideline and are to be verified by the end user

General Comments:

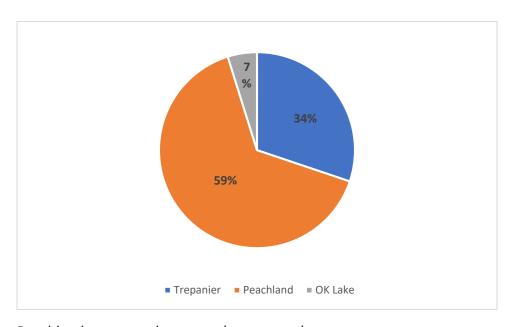
The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued unless otherwise agreed to in writing. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted red. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do <u>not</u> take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager:teamcaro@caro.ca

Please note any regulatory guidelines applied to this report are added as a convenience to the client, at their request, to help provide some initial context to analytical results obtained. Although CARO makes every effort to ensure accuracy of the associated regulatory guideline(s) applied, the guidelines applied cannot be assumed to be correct due to a variety of factors and as such CARO Analytical Services assumes no liability or responsibility for the use of those guidelines to make any decisions. The original source of the regulation should be verified and a review of the guideline(s) should be validated as correct in order to make any decisions arising from the comparison of the analytical data obtained to the relevant regulatory guideline for one's particular circumstances. Further, CARO Analytical Services assumes no liability or responsibility for any loss attributed from the use of these guidelines in any way.

Appendix III - 2020 Water Consumption

		Volume (UI	〈 Gal)		Volume	
	Trepanier	Peachland	Lake			
Month	Creek	Creek	Pumps	Total	m³	ML
January	5,583,900	15,036,000		20,619,900	93,821	93.74
February	6,135,800	12,452,000		18,587,800	84,574	84.50
March	7,834,700	25,288,000		33,122,700	150,708	150.58
April	8,285,000	31,472,000	8,040,000	47,797,000	217,476	217.29
May	7,534,700	37,477,000	32,292,000	77,303,700	351,732	351.43
June	24,386,300	29,155,000		53,541,300	243,613	243.40
July	33,939,400	48,285,000		82,224,400	374,121	373.80
August	39,223,200	54,062,000		93,285,200	424,448	424.08
September	30,379,800	41,127,000		71,506,800	325,356	325.08
October	16,046,000	17,484,000		33,530,000	152,562	152.43
November	8,986,000	10,826,000		19,812,000	90,145	90.07
December	3,878,700	13,705,000		17,583,700	80,006	79.94
TOTALS	192,213,500	336,369,000	40,332,000	568,914,500	2,586,337	2,586.34



Peachland water use by source (percentage)

Appendix IV – Turbidity data

	Daily Average Turbidity (NTU)				
	Peachland	Trepanier	OK Lake		
01-Jan-20	0.5	0.51	OFF		
02-Jan-20	0.54	0.52	OFF		
03-Jan-20	0.48	0.5	OFF		
04-Jan-20	0.46	0.48	OFF		
05-Jan-20	0.46	0.52	OFF		
06-Jan-20	0.48	0.51	OFF		
07-Jan-20	0.49	0.53	OFF		
08-Jan-20	0.45	0.56	OFF		
09-Jan-20	0.49	0.63	OFF		
10-Jan-20	0.51	0.55	OFF		
11-Jan-20	0.52	0.6	OFF		
12-Jan-20	0.51	0.61	OFF		
13-Jan-20	0.5	0.58	OFF		
14-Jan-20	0.5	0.59	OFF		
15-Jan-20	0.48	0.6	OFF		
16-Jan-20	0.48	0.53	OFF		
17-Jan-20	0.5	0.55	OFF		
18-Jan-20	0.54	0.66	OFF		
19-Jan-20	0.51	0.68	OFF		
20-Jan-20	0.52	0.14	OFF		
21-Jan-20	0.53	0.39	OFF		
22-Jan-20	0.5	0.38	OFF		
23-Jan-20	0.51	0.44	OFF		

	Daily Average Turbidity (NTU)				
	Peachland	Trepanier	OK Lake		
24-Jan-20	0.49	0.37	OFF		
25-Jan-20	0.5	0.3	OFF		
26-Jan-20	0.51	0.35	OFF		
27-Jan-20	0.48	0.37	OFF		
28-Jan-20	0.47	0.44	OFF		
29-Jan-20	0.48	0.35	OFF		
30-Jan-20	0.46	0.29	OFF		
31-Jan-20	0.48	0.29	OFF		
01-Feb-20	0.48	0.54	OFF		
02-Feb-20	0.61	0.32	OFF		
03-Feb-20	0.55	0.23	OFF		
04-Feb-20	0.51	0.19	OFF		
05-Feb-20	0.51	0.23	OFF		
06-Feb-20	0.51	0.22	OFF		
07-Feb-20	0.54	0.19	OFF		
08-Feb-20	0.51	0.19	OFF		
09-Feb-20	0.51	0.19	OFF		
10-Feb-20	0.52	0.21	OFF		
11-Feb-20	0.49	0.2	OFF		
12-Feb-20	0.47	0.18	OFF		
13-Feb-20	0.48	0.18	OFF		
14-Feb-20	0.49	0.21	OFF		
15-Feb-20	0.5	0.2	OFF		

	Daily Average Turbidity (NTU)			
	Peachland	Trepanier	OK Lake	
16-Feb-20	0.5	0.16	OFF	
17-Feb-20	0.5	0.17	OFF	
18-Feb-20	0.5	0.17	OFF	
19-Feb-20	0.5	0.19	OFF	
20-Feb-20	0.5	0.18	OFF	
21-Feb-20	0.52	0.18	OFF	
22-Feb-20	0.52	0.2	OFF	
23-Feb-20	0.55	0.18	OFF	
24-Feb-20	0.55	0.18	OFF	
25-Feb-20	0.54	0.16	OFF	
26-Feb-20	0.51	0.18	OFF	
27-Feb-20	0.49	0.18	OFF	
28-Feb-20	0.52	0.19	OFF	
01-Mar-20	0.66	0.2	OFF	
02-Mar-20	0.69	0.2	OFF	
03-Mar-20	0.8	0.21	OFF	
04-Mar-20	0.72	0.17	OFF	
05-Mar-20	0.68	0.17	OFF	
06-Mar-20	0.66	0.22	OFF	
07-Mar-20	0.65	0.23	OFF	
08-Mar-20	0.66	0.21	OFF	
09-Mar-20	0.77	0.18	OFF	
10-Mar-20	0.68	0.25	OFF	

	Daily Average Turbidity (NTU)			
	Peachland	Trepanier	OK Lake	
11-Mar-20	0.68	0.17	OFF	
12-Mar-20	0.67	0.17	OFF	
13-Mar-20	0.66	0.2	OFF	
14-Mar-20	0.64	0.16	OFF	
15-Mar-20	0.61	0.2	OFF	
16-Mar-20	0.66	0.26	OFF	
17-Mar-20	0.75	0.29	OFF	
18-Mar-20	0.95	0.17	OFF	
19-Mar-20	1	0.17	OFF	
20-Mar-20	0.8	0.15	OFF	
21-Mar-20	0.81	0.18	OFF	
22-Mar-20	1.08	0.21	OFF	
23-Mar-20	0.89	0.19	OFF	
24-Mar-20	0.73	0.26	OFF	
25-Mar-20	1.02	0.24	OFF	
26-Mar-20	0.78	0.19	OFF	
27-Mar-20	0.71	0.3	OFF	
28-Mar-20	0.72	0.3	OFF	
29-Mar-20	0.71	0.31	OFF	
30-Mar-20	0.73	0.37	OFF	
31-Mar-20	0.68	0.33	OFF	
1-Apr-20	0.75	0.23	OFF	
2-Apr-20	0.82	0.21	OFF	

	Daily Average Turbidity (NTU)				
	Peachland Trepanier OK Lal				
3-Apr-20	0.77	0.53	OFF		
4-Apr-20	0.44	0.59	OFF		
5-Apr-20	0.39	0.25	OFF		
6-Apr-20	0.47	0.46	OFF		
7-Apr-20	0.46	0.47	OFF		
8-Apr-20	0.5	0.57	OFF		
9-Apr-20	0.49	0.42	OFF		
10-Apr-20	0.48	0.7	OFF		
11-Apr-20	0.57	1.75	OFF		
12-Apr-20	0.59	0.95	OFF		
13-Apr-20	0.52	0.78	OFF		
14-Apr-20	0.54	0.92	OFF		
15-Apr-20	0.7	2.23	OFF		
16-Apr-20	1.11	2.47	OFF		
17-Apr-20	1.49	2.56	OFF		
18-Apr-20	1.89	2.28	OFF		
19-Apr-20	2.31	2.77	OFF		
20-Apr-20	2.9	3.09	OFF		
21-Apr-20	4.09	4.46	0.81		
22-Apr-20	5.41	2.45	1.55		
23-Apr-20	4.44	1.93	1.13		
24-Apr-20	4.25	0.26	0.83		
25-Apr-20	3.74	0.24	1.12		

	Daily Average Turbidity (NTU)			
	Peachland	Trepanier	OK Lake	
26-Apr-20	3.12	0.19	0.94	
27-Apr-20	2.38	0.3	1.41	
28-Apr-20	2.13	0.3	1.56	
29-Apr-20	1.91	0.31	1.61	
30-Apr-20	1.9	0.37	1.62	
1-May-20	2.01	OFF	1.28	
2-May-20	1.89	OFF	0.85	
3-May-20	2.75	OFF	1	
4-May-20	3.26	OFF	0.87	
5-May-20	2.33	OFF	0.81	
6-May-20	1.91	OFF	1.19	
7-May-20	1.73	OFF	0.87	
8-May-20	1.59	OFF	1.41	
9-May-20	1.48	OFF	1.25	
10-May-20	1.53	OFF	1.48	
11-May-20	1.63	OFF	1.09	
12-May-20	1.78	OFF	1.12	
13-May-20	1.66	OFF	1.18	
14-May-20	1.53	OFF	1.53	
15-May-20	1.51	OFF	1.5	
16-May-20	1.36	OFF	0.88	
17-May-20	1.28	OFF	1.33	
18-May-20	1.66	OFF	1	

	Daily Average Turbidity (NTU)			
	Peachland	Trepanier	OK Lake	
19-May-20	1.88	OFF	1.22	
20-May-20	2.62	OFF	0.93	
21-May-20	3.23	OFF	0.57	
22-May-20	1.65	1.22	0.37	
23-May-20	1.03	1	0.89	
24-May-20	0.96	1	0.8	
25-May-20	0.97	0.89	0.74	
26-May-20	1.05	1.67	OFF	
27-May-20	1.05	1.07	OFF	
28-May-20	1	0.86	OFF	
29-May-20	0.83	0.81	OFF	
30-May-20	0.91	0.79	OFF	
31-May-20	0.99	0.87	OFF	
1-Jun-20	1.07	0.76	OFF	
2-Jun-20	0.82	0.95	OFF	
3-Jun-20	0.76	0.78	OFF	
4-Jun-20	1.33	0.79	OFF	
5-Jun-20	1.61	0.75	OFF	
6-Jun-20	1.7	0.76	OFF	
7-Jun-20	1.69	0.61	OFF	
8-Jun-20	1.52	0.63	OFF	
9-Jun-20	1.47	0.63	OFF	
10-Jun-20	1.41	0.57	OFF	

	Daily Average Turbidity (NTU)		
	Peachland	Trepanier	OK Lake
11-Jun-20	1.61	0.56	OFF
12-Jun-20	1.47	0.73	OFF
13-Jun-20	5.44	0.99	OFF
14-Jun-20	3.45	0.66	OFF
15-Jun-20	1.5	0.68	OFF
16-Jun-20	0.75	0.52	OFF
17-Jun-20	0.75	0.53	OFF
18-Jun-20	0.6	0.6	OFF
19-Jun-20	0.6	0.61	OFF
20-Jun-20	0.59	0.54	OFF
21-Jun-20	0.55	0.5	OFF
22-Jun-20	0.6	0.47	OFF
23-Jun-20	0.6	0.52	OFF
24-Jun-20	0.56	0.96	OFF
25-Jun-20	1.55	0.98	OFF
26-Jun-20	2	0.97	OFF
27-Jun-20	1.1	0.91	OFF
28-Jun-20	1.1	0.85	OFF
29-Jun-20	0.96	0.94	OFF
30-Jun-20	0.92	0.85	OFF
1-Jul-20	0.85	0.76	OFF
2-Jul-20	0.82	0.77	OFF
3-Jul-20	0.84	0.75	OFF

	Daily Average Turbidity (NTU)		
	Peachland	Trepanier	OK Lake
4-Jul-20	0.86	0.73	OFF
5-Jul-20	0.89	0.69	OFF
6-Jul-20	1.05	0.79	OFF
7-Jul-20	1.08	0.95	OFF
8-Jul-20	1.02	0.7	OFF
9-Jul-20	0.96	0.96	OFF
10-Jul-20	0.91	0.67	OFF
11-Jul-20	0.86	0.65	OFF
12-Jul-20	0.81	0.56	OFF
13-Jul-20	0.6	0.76	OFF
14-Jul-20	0.53	0.61	OFF
15-Jul-20	0.54	0.74	OFF
16-Jul-20	0.57	0.62	OFF
17-Jul-20	0.58	0.64	OFF
18-Jul-20	0.58	0.55	OFF
19-Jul-20	0.58	0.5	OFF
20-Jul-20	0.57	0.84	OFF
21-Jul-20	0.56	0.55	OFF
22-Jul-20	0.57	0.55	OFF
23-Jul-20	0.57	0.51	OFF
24-Jul-20	0.54	0.56	OFF
25-Jul-20	0.54	0.46	OFF
26-Jul-20	0.53	0.42	OFF

ſ	Daily Average Turbidity (NTU)			Daily Aver	age Turbidit	y (NTU)	
ŀ	Peachland	Trepanier	OK Lake		Peachland	Trepanier	OK Lake
)	0.86	0.73	OFF	27-Jul-20	0.53	0.46	OFF
)	0.89	0.69	OFF	28-Jul-20	0.53	0.45	OFF
)	1.05	0.79	OFF	29-Jul-20	0.5	0.72	OFF
)	1.08	0.95	OFF	30-Jul-20	0.5	0.48	OFF
)	1.02	0.7	OFF	31-Jul-20	0.53	0.42	OFF
)	0.96	0.96	OFF	1-Aug-20	0.55	0.43	OFF
)	0.91	0.67	OFF	2-Aug-20	0.58	0.39	OFF
)	0.86	0.65	OFF	3-Aug-20	0.61	0.38	OFF
)	0.81	0.56	OFF	4-Aug-20	0.64	0.63	OFF
)	0.6	0.76	OFF	5-Aug-20	0.68	0.38	OFF
)	0.53	0.61	OFF	6-Aug-20	0.68	0.38	OFF
)	0.54	0.74	OFF	7-Aug-20	0.73	0.32	OFF
)	0.57	0.62	OFF	8-Aug-20	0.78	0.3	OFF
)	0.58	0.64	OFF	9-Aug-20	0.76	0.3	OFF
)	0.58	0.55	OFF	10-Aug-20	0.83	0.32	OFF
)	0.58	0.5	OFF	11-Aug-20	0.78	0.32	OFF
)	0.57	0.84	OFF	12-Aug-20	0.74	0.31	OFF
)	0.56	0.55	OFF	13-Aug-20	0.72	0.38	OFF
)	0.57	0.55	OFF	14-Aug-20	0.73	0.32	OFF
)	0.57	0.51	OFF	15-Aug-20	0.71	0.3	OFF
)	0.54	0.56	OFF	16-Aug-20	0.65	0.3	OFF
)	0.54	0.46	OFF	17-Aug-20	0.65	0.54	OFF
)	0.53	0.42	OFF	18-Aug-20	0.67	0.33	OFF

	Daily Average Turbidity (NTU)			
-	Peachland	Trepanier	OK Lake	
19-Aug-20	0.67	0.31	OFF	
20-Aug-20	0.69	0.32	OFF	
21-Aug-20	0.72	0.3	OFF	
22-Aug-20	0.76	0.29	OFF	
23-Aug-20	0.75	0.26	OFF	
24-Aug-20	0.76	0.34	OFF	
25-Aug-20	0.78	0.25	OFF	
26-Aug-20	0.77	0.26	OFF	
27-Aug-20	0.85	0.29	OFF	
28-Aug-20	0.87	0.25	OFF	
29-Aug-20	0.82	0.28	OFF	
30-Aug-20	0.81	0.24	OFF	
31-Aug-20	0.81	0.35	OFF	
1-Sep-20	0.9	0.21	OFF	
2-Sep-20	1.31	0.31	OFF	
3-Sep-20	0.88	0.26	OFF	
4-Sep-20	0.55	0.25	OFF	
5-Sep-20	0.61	0.26	OFF	
6-Sep-20	0.6	0.24	OFF	
7-Sep-20	0.63	0.26	OFF	
8-Sep-20	0.62	0.23	OFF	
9-Sep-20	0.55	0.21	OFF	
10-Sep-20	0.59	0.21	OFF	

	Daily Average Turbidity (NTU)			
	Peachland	Trepanier	OK Lake	
11-Sep-20	0.63	0.23	OFF	
12-Sep-20	0.61	0.23	OFF	
13-Sep-20	0.64	0.23	OFF	
14-Sep-20	0.64	0.22	OFF	
15-Sep-20	0.68	0.45	OFF	
16-Sep-20	0.49	0.24	OFF	
17-Sep-20	0.38	0.27	OFF	
18-Sep-20	0.45	0.25	OFF	
19-Sep-20	0.38	0.28	OFF	
20-Sep-20	0.63	0.29	OFF	
21-Sep-20	0.51	0.27	OFF	
22-Sep-20	0.41	0.28	OFF	
23-Sep-20	0.43	0.35	OFF	
24-Sep-20	0.67	0.4	OFF	
25-Sep-20	0.78	0.31	OFF	
26-Sep-20	0.74	0.3	OFF	
27-Sep-20	0.87	0.25	OFF	
28-Sep-20	0.82	0.26	OFF	
29-Sep-20	0.81	0.3	OFF	
30-Sep-20	0.79	0.28	OFF	
1-Oct-20	0.92	0.28 OFF		
2-Oct-20	0.94	0.28	OFF	
3-Oct-20	0.93	0.33	OFF	

	Daily Average Turbidity (NTU)			
	Peachland	Trepanier	OK Lake	
4-Oct-20	0.94	0.31	OFF	
5-Oct-20	0.89	0.32	OFF	
6-Oct-20	0.91	0.35	OFF	
7-Oct-20	0.9	0.32	OFF	
8-Oct-20	0.85	0.33	OFF	
9-Oct-20	0.79	0.31	OFF	
10-Oct-20	0.73	0.35	OFF	
11-Oct-20	0.67	0.31	OFF	
12-Oct-20	0.6	1.22	OFF	
13-Oct-20	0.52	0.72	OFF	
14-Oct-20	0.49	1.1	OFF	
15-Oct-20	0.48	0.52	OFF	
16-Oct-20	0.47	0.46	OFF	
17-Oct-20	0.56	0.61	OFF	
18-Oct-20	0.59	0.61	OFF	
19-Oct-20	0.61	0.54	OFF	
20-Oct-20	0.71	0.6	OFF	
21-Oct-20	0.84	0.36	OFF	
22-Oct-20	0.91	0.32	OFF	
23-Oct-20	0.98	0.32	OFF	
24-Oct-20	0.95	0.39	OFF	
25-Oct-20	0.76	0.22	OFF	
26-Oct-20	0.75	0.27	OFF	

	Daily Average Turbidity (NTU)			
	Peachland	Trepanier	OK Lake	
27-Oct-20	0.93	0.26	OFF	
28-Oct-20	0.94	0.33	OFF	
29-Oct-20	0.93	0.24	OFF	
30-Oct-20	0.92	0.44	OFF	
31-Oct-20	0.85	0.37	OFF	
1-Nov-20	0.76	0.34	OFF	
2-Nov-20	1.36	0.4	OFF	
3-Nov-20	0.63	0.61	OFF	
4-Nov-20	0.65	0.53	OFF	
5-Nov-20	0.64	1.04	OFF	
6-Nov-20	0.7	0.38	OFF	
7-Nov-20	0.7	0.26	OFF	
8-Nov-20	0.73	0.26	OFF	
9-Nov-20	0.69	0.28	OFF	
10-Nov-20	0.7	0.27	OFF	
11-Nov-20	0.68	0.24	OFF	
12-Nov-20	0.65	0.26	OFF	
13-Nov-20	0.65	0.23	OFF	
14-Nov-20	1.01	0.25	OFF	
15-Nov-20	1.37	0.23	OFF	
16-Nov-20	0.76	0.23	OFF	
17-Nov-20	0.79	0.31	OFF	
18-Nov-20	0.87	0.31	OFF	

	Daily Average Turbidity (NTU)		
	Peachland	Trepanier	OK Lake
19-Nov-20	0.95	0.27	OFF
20-Nov-20	1.01	0.28	OFF
21-Nov-20	0.67	0.25	OFF
22-Nov-20	0.63	0.3	OFF
23-Nov-20	0.64	0.27	OFF
24-Nov-20	1.12	0.37	OFF
25-Nov-20	0.57	0.32	OFF
26-Nov-20	0.57	0.27	OFF
27-Nov-20	0.57	0.28	OFF
28-Nov-20	0.72	0.28	OFF
29-Nov-20	0.77	0.25	OFF
30-Nov-20	0.71	0.27	OFF
1-Dec-20	0.87	0.25	OFF
2-Dec-20	0.65	0.25	OFF
3-Dec-20	0.55	0.4	OFF
4-Dec-20	0.5	0.26	OFF
5-Dec-20	0.41	0.25	OFF
6-Dec-20	0.35	0.25	OFF
7-Dec-20	0.85	0.23	OFF
8-Dec-20	3.18	0.28	OFF
9-Dec-20	2.35	0.25	OFF
10-Dec-20	0.71	0.25	OFF
11-Dec-20	0.71	0.24	OFF

	Daily Average Turbidity (NTU)		
	Peachland	Trepanier	OK Lake
12-Dec-20	0.76	0.76	OFF
13-Dec-20	0.78	0.78	OFF
14-Dec-20	0.77	0.77	OFF
15-Dec-20	0.76	0.76	OFF
16-Dec-20	0.73	0.73	OFF
17-Dec-20	0.95	0.95	OFF
18-Dec-20	0.76	0.76	OFF
19-Dec-20	0.66	0.66	OFF
20-Dec-20	0.59	0.59	OFF
21-Dec-20	0.61	0.61	OFF
22-Dec-20	0.82	0.82	OFF
23-Dec-20	0.71	0.71	OFF
24-Dec-20	0.61	0.61	OFF
25-Dec-20	0.69	0.69	OFF
26-Dec-20	0.67	0.67	OFF
27-Dec-20	0.75	0.75	OFF
28-Dec-20	0.7	0.7	OFF
29-Dec-20	0.67	0.67	OFF
30-Dec-20	0.59	0.59	OFF
31-Dec-20	0.58	0.58	OFF