



TRANSMITTAL

DATE: March 19, 2021

SEND VIA: Email

PAGE 1 OF 1

TO: Mr. Mike Jensen

RE: 2020 Summary Report Vale Canada Limited

ATTN: Sarah Deadman and Julie Friel

We enclose the following:

NO. OF COPIES	DOCUMENT/ DRAWINGS	DESCRIPTION
1	Documents	<p>Summary Report for Vermilion Water Treatment Plant for the 2020 calendar year as required under Schedule 22 of O. Reg. 170/03.</p> <p>This report is for information only and posting is not required as per MECP legislation.</p>

COMMENTS:

Should there be any questions please feel free to contact me directly at 682-8247.
Thanks,

Name: ***Wendy Wisniewski***



Water Plants
Ontario Operations

March 19, 2021

Mrs. Denise Lemieux,

Please find the attached 2020 Summary Report for the Vermilion Water Treatment Plant and Systems. This report is in accordance with legislation O. Reg. 170/03 which requires an annual Summary Report to be prepared no later than March 31st for the preceding calendar year.

The report must be provided to the board of directors (or designate) of a corporation if privately owned, and to any system or municipality who receives water from the owner's treatment facilities. The report must list requirements of the Act, the regulations, system's approval and any order that the system failed to meet at any time during the report period. It must specify the actions and measures taken to correct the failures if any.

For the purpose of enabling the owner to assess the capabilities and planned uses of the system the following information is also provided; a summary of the quantities and flow rates of water supplied, monthly averages, maximum daily flows, and instantaneous peak flow rates with a comparison of the summary of flow rates to the rated capacities in the systems approval.

This report identifies several areas of improvement and dedication by the staff to continue to strive to produce the best possible product for Vale and the community we serve. The continued upgrades to this facility in terms of equipment, communication and connectivity to the larger complex will aid in the transfer of data as well as enhance overall monitoring. We are underway with a study to look at current and future water demands both within Vale as well as with the City of Greater Sudbury and surrounding communities.

Should you have any questions or require any clarification, please contact me directly.

Thank you,

A handwritten signature in black ink, appearing to read "Wendy Wisniewski".

Wendy Wisniewski
Senior Environmental Analyst
Vale

A handwritten signature in blue ink, appearing to read "Denise Lemieux".

Denise Lemieux
Manager- Water Plants
Vale

SCHEDULE 22



Safe Drinking Water Act, 2002
ONTARIO REGULATION 170/03
Last amendment: O. Reg. 509/17.
DRINKING-WATER SYSTEMS

SCHEDULE 22
SUMMARY REPORTS FOR MUNICIPALITIES
Municipal: Large Residential and Small Residential

SUMMARY REPORT

Schedule 22



Vermilion Water Treatment Plant
Ontario Regulation 170/03
March 31, 2021

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1. Introduction
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1.0 Introduction

The purpose of this report is to provide senior management of Vale's Water Plants with the Vermilion Water Treatment Plant's drinking water systems status and capacities. This report lists the requirements of the Safe Drinking Water Act (SDWA), the regulations, the Plant's compliance to the Act and Regulations, and any order from the Ministry of Environment, Conservation and Parks (MECP) that the system failed to meet during the period covered by the report. Should a failure of the system be identified the measures that were taken to correct the failure will be identified.

This report will also list a summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly averages, maximum daily flows and daily instantaneous peak flow rates, with a comparison to the rated capacity of the system. This will enable the reader of the report to assess the capability of the system to meet existing and future planned uses of the system.

In accordance with the Ministry of Environment, Conservation and Parks (MECP) regulation 170/03, the reporting period for this report is January 1st, 2020 to December 31st, 2020

This Summary Report is required by the MECP and is filed annually for the previous calendar year. An "Annual Report", to fulfill Section 11 of Ontario Regulation 170/03, has been completed separately and provides the details of drinking water quality at the Vermilion Water Treatment Plant. This annual report is available for viewing on site at VALE's Supervisor's office by contacting 705-682-6548,

Purpose

As stated in the introduction this report is required by the Ministry of Environment, Conservation and Parks (MECP), and is filed annually for the previous calendar year and satisfies Ontario Regulation 170/03, sch. 22.

2.0 Vermilion Water Treatment Plant Operational Requirements

System

VALE's Vermilion Water Treatment Plant is located off Regional Road 24, at 1040 Wavell Street across from the VALE Creighton Mine turnoff. The Vermilion Water Treatment Plant produces potable water for:

- VALE Operations – Creighton Mine, Nickel Refinery, Copper Refinery, Smelter, South Mine, North Mine, Clarabelle, Tailings Area and the
- City of Greater Sudbury-Copper Cliff, Lively, Naughton, Whitefish & Atikameksheng Anishnawbek First Nations

The Vermilion Water Treatment Plant provides water to the City of Greater Sudbury which serves more than 10,000 people with the treated water. Therefore, the Vermilion Water Treatment Plant is designated Large Municipal Residential. The Vermilion Plant obtains its water supply from a surface water source. The surface water source is the Vermilion River. Under Ontario Regulation 170/03 the general obligations of the Vermilion Water Treatment Plant are:

1. **Filtration and Primary Disinfection.** The Vermilion Water Treatment Plant has treatment equipment that is designed to be capable of chemically assisted filtration. Use of conventional filtration, the treatment consists of chemical coagulation with Alum, polymer, rapid mixing, flocculation and sedimentation followed by rapid sand filtration. The Vermilion Water Treatment Plant uses chemical coagulant at all times when plant is in operation, monitors and adjusts chemical dosages in response to variations in raw water quality; maintains effective filter backwashes, ensures that the effluent turbidity requirements are met at all times by continuously monitoring filtrate turbidity from each filter; and target filtered water turbidities of less than or equal to 0.3 NTU in 95% of the measurements each month. It is also designed to be capable of achieving, at all times, primary disinfection in accordance with the Ministry's Procedure for Disinfection of Drinking Water in Ontario, including at least 99 per cent removal or inactivation of Cryptosporidium oocysts, at least 99.9 per cent removal or inactivation of Giardia cysts and at least 99.99 per cent removal or inactivation of viruses by the time water enters the distribution system.
2. **Secondary Disinfection.** Vermilion Water Treatment Plant is operated so that a disinfectant residual is maintained in the distribution system (secondary disinfection). This results in a persistent disinfectant residual that protects the water from microbiological re-contamination, reduces bacterial regrowth, controls biofilm formation and serves as an indicator of distribution system integrity (loss of disinfectant residual indicating that the system integrity has been compromised). Chlorine provides a persistent disinfectant residual that is used for the maintenance of a residual in the distribution system. The Vermilion Water Treatment Plant is therefore capable of secondary disinfection because of its use of liquefied chlorine for chlorination in accordance with the Ministry's *Procedure for Disinfection of Drinking Water in Ontario* and is therefore designed to be capable of achieving, at all locations within the City of Greater Sudbury's Distribution System a free chlorine residual of 0.2 milligrams per liter. The Vermilion Water Treatment Plant is also capable of achieving, at all locations within VALE Plumbing System a free chlorine residual of 0.2 milligrams per liter.
3. **Operation of Plant.** The Vermilion Water Treatment Plant is operated:
 - 1) ensuring that whenever water is being supplied by the plant the water treatment equipment is in operation and
 - 2) that the treatment equipment is operated in accordance with the Ministry's *Procedure for Disinfection of Drinking Water in Ontario*.
 - 3) that the treatment plant is in accordance with Municipal Drinking Water License 191-101 issue number 3 dated February 23, 2021 and the Drinking Water Work Permit 191-201 issue number 3 dated February 23, 2021.
 - 4) that the water treatment equipment is operated in a manner that achieves the design capabilities
 - 5) that the water treatment equipment provides chlorination for secondary disinfection
 - 6) that the equipment is operated so that, at all times and at all locations within the City of Greater Sudbury Distribution System the free chlorine residual is never less than 0.05 milligrams per liter.
 - 7) Adjustments to the water treatment equipment are carried out only by certified operators.
4. **Operational Checks, Sampling, Testing and Maintenance.** The Vermilion Water Treatment Plant performs operational check, sampling, testing and maintenance in accordance with Ontario Regulation 170/03. The following section outlines compliance to:
 - 1) Sample locations
 - 2) Sampling frequency
 - 3) Sample handling
 - 4) Sampling equipment

- 5) Sampling laboratories
- 6) Interpretation of Sample Test Results
- 7) Sampling records, and
- 8) Equipment maintenance.

Sample locations:

Samples are taken from the point at which water enters the drinking-water systems, distribution system or plumbing works that are connected to the drinking-water system. Microbiological samples and chlorine residual are required to ensure safe drinking water. A water sample is taken and tested for a microbiological parameter, and another sample is taken at the same time from the same location and is tested immediately for free chlorine residual.

Sampling methods. The samples can be taken in the form of grab samples or by a continuous sampler. Continuous monitoring is used for:

- (a) turbidity;
- (b) fluoride;
- (c) free chlorine residual; and
- (d) free chlorine residual and total chlorine residual measured for the purpose of determining combined chlorine residual.

Sampling frequency:

The continuous monitoring equipment complies with standards for minimum testing and recording frequency specified in the table below.

Parameter	Minimum Testing Recording Frequency	Maximum Alarm Standard	Minimum Alarm Standard
Free chlorine residual required to achieve primary disinfection	5 minutes	Not applicable	0.1 milligrams per litre less than the concentration of free chlorine residual that is required to achieve primary disinfection
Free chlorine residual and total chlorine residual measured for the purpose of determining combined chlorine residual required to achieve primary disinfection	5 minutes	Not applicable	0.1 milligrams per litre less than the concentration of combined chlorine residual that is required to achieve primary disinfection
Free chlorine residual in a distribution sample	1 hour	Not applicable	0.05 milligrams per litre
Free chlorine residual and total chlorine residual measured for the purpose of determining combined chlorine residual in a distribution sample	1 hour	Not applicable	0.25 milligrams per litre
Turbidity	15 minutes	1.0 Nephelometric Turbidity Units (NTU)	Not applicable

Sample handling:

All samples are taken and handled in accordance with the directions of the laboratory to which the sample will be delivered for testing, including directions with respect to,

- (a) collection procedures;

- (b) the use of specified kinds of containers or of containers that are provided by the laboratory;
- (c) the labelling of samples;
- (d) the completion and submission of forms that are provided by the laboratory;
- (e) methods of transporting samples, including temperature conditions that must be maintained during transportation; and
- (f) time periods for delivery of samples.

Sample Equipment:

Chlorine residual testing is done by a certified operator using a HACH DR / 2800 spectrophotometer. Continuous monitoring is carried out at locations that have been identified as appropriate by the Ontario Regulation 170/03. Continuous monitoring is carried out on chlorine residual, turbidity and fluoride.

- (a) Chlorine Residual. Sampling and testing for free chlorine residual is carried out by continuous monitoring equipment at a location where the intended contact time has just been completed. This is done in accordance with the Ministry's *Procedure for Disinfection of Drinking Water in Ontario*. The Vermilion Water Treatment Plant provides secondary disinfection with chlorination and an "on-line" distribution analyzer is located within the City of Greater Sudbury's distribution network and continually tests for free chlorine residual. The SCADA system is programmed to monitor CT values and alarm if CT is not being met as per MECP chlorination guidelines.
- (b) Turbidity. Sampling and testing for turbidity is carried out by continuous monitoring equipment on each filter effluent line. All turbidity testing is conducted using a turbidity meter that measures turbidity in Nephelometric Turbidity Units (NTU)
- (c) Fluoridation. Sampling and testing for fluoride is carried out by continuous monitoring equipment. Grab samples are taken at the end of the fluoridation process at least (1) time per shift. The grab sample is tested for fluoride with a bench meter. The target concentration of fluoride is between 0.5 and 0.8 milligrams per litre at the end of the fluoridation process.

Sampling Laboratories. Testing of a water sample is done by a laboratory that was identified to the Director in a written notice to said Director.

1. Testmark Laboratories LTD.
7 Margaret St., Garson, Ontario
Canada, P3L 1E1 Phone: (705) 693-1121

Interpretation of Sample Test Results:

All testing is carried out and interpreted by a certified operator or water quality analyst. Bench scale test results, as well as, continuous monitoring test results are examined each shift (well within the 72 hours after sampling and testing) by a certified operator. The continuous monitoring equipment has an alarm that sounds if the equipment malfunctions or loses power or a test result for a parameter is above or below the maximum alarm standard at:

- the location where the equipment conducts tests.
- and in the Vermilion Water Treatment Plant Control Room where a certified operator is present.

If any of the testing equipment malfunctions or loses power or a test result for a parameter is above or below the maximum alarm standards, the certified operator takes appropriate action.

Sampling Records. Every sample that is taken has a record made stating the date and time the sample was taken, the location where the sample was taken and the name of the person who took the sample. This does not apply to a sample tested by continuous monitoring equipment.

Equipment maintenance. An Engineering report was prepared on May 31st, 2001. After the engineer inspected the plant, the resulting report ensured compliance:

- 1) with Schedule 2 was being provided, and
- 2) compliance with Schedule 6 for operational checks.
- 3) with a maintenance schedule that sets out requirements relating to the frequency with which the water treatment must be inspected, tested and replaced.

The continuous monitoring equipment, as well as, the flow measurement equipment is checked and calibrated in accordance with the manufacturer's instructions by Ontario Mill, Tailings and Water Plant Instrumentation Department personnel and outside certified agencies. We follow a CMMS system for work orders and Preventative Maintenance Scheduling/tracking.

Compliance

Compliance to Safe Drinking Water Act and its associated Regulations:

1. There were no adverse test results requiring notification during this reporting period.
2. A minimum of 52 weekly samples for microbiological testing was completed as required under section 10-3 & 10-4 in 2020.
3. All operational testing required under Schedule 7 in 2019 were completed.
4. There was additional testing required by an approval or order in 2020 under section 4.4, table 7 of Municipal Drinking Water License #191-101 issue number 2. The additional tests are in regard to Total Suspended Solids (TSS) being discharged to the environment as part of the existing process. Sampling to review TSS levels was initiated in 2008 and continued to date with results and letter on file with the MECP.
5. All required Organic parameters were tested for in 2020 and none exceeded the levels outlined in Safe Drinking Water Act, 2002 – Ontario Regulation 169/03 Ontario Drinking-Water Quality Standards.
6. All required inorganic parameters were tested for in 2020 and none exceeded the levels outlined in Safe Drinking Water Act, 2002 – Ontario Regulation 169/03 Ontario Drinking-Water Quality Standards.

3.0 Legislative and Regulation Requirements

Safe Drinking Water Act, 2002, S.O. 2002, c.32

Commencement of this Act:

The date of Royal Assent was December 13th, 2002. Sections 1 to 170 of the Act come into force on a day to be named by proclamation of the Lieutenant Governor.

		O. Reg.	Latest Amendments
	SAFE DRINKING WATER ACT, 2002		
1	Certification of Drinking-Water System Operators and Water Quality Analysts	128/04	507/17
2	Compliance and Enforcement	242/05	328/08
3	Definitions of "Deficiency" and "Municipal Drinking-Water System"	172/03	209/19
4	Definitions of Words and Expressions Used in the Act	171/03	336/13
5	Drinking-Water Systems	170/03	185/18
6	Drinking-Water Testing Services	248/03	508/17
7	Ontario Drinking-Water Quality Standards	169/03	457/16
8	Ontario Licensing of Municipal Drinking Water Systems	188/07	325/08

9	Financial Plans	453/07	69/08
10	Service of Documents	229/07	
11	Schools, Private Schools and Child Care Centers	243/07	459/16
12	Municipal Residential Drinking Water Systems in Source Protection Areas	205/15	

The following Regulations are associated with the Safe Drinking Water Act, 2002, S.O. 2002, c.32

1. **O. Reg. 128/04 Certification of Drinking-Water System Operators and Water Quality Analysts**

This Regulation was filed on May 14, 2004 (Amended to 507/17). In 2009, Section 29 listing Operator training requirements and the number of training hours required came into force. Class III Water Treatment will require 14 hours of continuing education with an additional 26 hours of on-the-job practical training.

The continuing education that is used to meet the training requirements must be approved by the Director using criteria which includes the following:

- a. The training course must have documented learning objectives.
- b. The training course must be planned and be provided by a qualified training provider.
- c. The training course must include a means to verify that the participants have learned the material covered in the course
- d. The training course must cover subject matter that is directly related to the duties typically performed by an operator.

The on-the-job practical training that is used to meet the training requirements must meet criteria that includes the following:

- a. The training must have documented learning objectives.
- b. The training must be provided by a trainer with expertise in the subject matter that is being covered.
- c. The training must be in respect of subject matter that is directly related to the duties typically performed by an operator

Note: The annual number of hours of training set out in the Table to this section may be averaged over the three years during which an operator's certificate is valid but shall not be reduced or prorated for an operator who is employed on a part-time basis.

ANNUAL TRAINING FOR OPERATORS

Type and Class of Subsystem Where the Operator is Employed	Training Requirements	Minimum Total Hours
Limited Groundwater or Limited Surface Water	7 hours or more of continuing education, with the remaining hours to at least the minimum total as on-the-job practical training	20
Class I Water Treatment or Class I Distribution or Class I Distribution and Supply	7 hours or more of continuing education, with the remaining hours to at least the minimum total as on-the-job practical training	30
Class II Water Treatment or Class II Distribution or Class II Distribution and Supply	12 hours or more of continuing education, with the remaining hours to at least the minimum total as on-the-job practical training	35
Class III Water Treatment or Class III Distribution or Class III Distribution and Supply	14 hours or more of continuing education, with the remaining hours to at least the minimum total as on-the-job practical training	40
Class IV Water Treatment or Class IV Distribution or Class IV Distribution and Supply	14 hours or more of continuing education, with the remaining hours to at least the minimum total as on-the-job practical training	50

O. Reg. 128/04, s. 29, Table.

2. **O. Reg. 242/05 Compliance and Enforcement**

Ontario regulation 242/05 (Amended to O. Reg 328/08). This regulation lists the requirements for inspections. What to do when deficiencies and contraventions are found. This regulation also deals with enforcement, investigations and notices required once investigations have been completed.

3. **O. Reg. 172/03 Definitions of "Deficiency" and "Municipal Drinking-Water System"**

Ontario regulation 172/03 (Amended to O.Reg 209/19). Provides definitions of words and expressions within the Safe Drinking Water Act and associated Regulations.

4. **O. Reg. 171/03 Definitions of Words and Expressions Used in the Act**

Ontario regulation 171/03 (Amended to O.Reg 336/13). Provides definitions of words and expressions within the Safe Drinking Water Act and associated Regulations.

5. **O. Reg. 170/03 Drinking-Water Systems**

This Regulation was filed on 10/02/2004. Ontario Regulation 170/03 is amended to O.Reg 185/18. This regulation outlines the requirements for:

- 1) Types of Drinking Water Systems
- 2) Required reports (annual, summary reports)
- 3) Retention of records
- 4) Treatment equipment requirements
- 5) Types of Treatment
- 6) Operational Checks, Sampling and Testing
- 7) Use of accredited laboratories
- 8) Maintenance and Operational
- 9) Microbiological Sampling and Testing
- 10) Chemical Sampling and Testing
- 11) Reporting Adverse Test Results and Other Problems
- 12) Corrective Action
- 13) Engineers' Reports
- 14) Inorganic Parameters
- 15) Organic Parameters

6. **O. Reg. 248/03 Drinking-Water Testing Services**

Ontario Regulation 248/03 (Amended to O.Reg. 508/17). Drinking-Water Testing Services is the regulation governing accredited laboratories that came into effect October 31, 2004.

- 1) Lists systems that do not require drinking-water testing licence
- 2) Lists prescribed tests of the Safe Drinking Water Act
- 3) Lists person(s) to do water quality analysis
- 4) Lists the types of tests that can be conducted for the sole purpose of carrying out research or Criteria for drinking-water testing services
- 5) Conditions of drinking-water testing licence
- 6) Handling samples
- 7) Testing records
- 8) Laboratory qualifications and accreditation

7. **O. Reg. 169/03 Ontario Drinking-Water Quality Standards**

Ontario Regulation 169/03 (Amended to O.Reg 457/16). This regulation sets out standards in Schedules 1, 2 and 3 as prescribed drinking-water quality standards. This regulation also deems the compliance standards for water quality.

8. **O. Reg. 188/07 Licensing of Municipal Drinking Water Systems**

Ontario Regulation 188/07 (Amended to O.Reg 325/08) requires all owners of a municipal drinking water system to obtain a license from the Director of the Ministry of Environment, Conservation and Parks in order to operate their system. The requirements to obtain a license include

- 1.A drinking water works permit
- 2.An operational plan documenting the quality management system
- 3.A financial plan
- 4.Accreditation of the operating authority confirming third-party verification that their quality management system conforms to Ontario's Drinking Water Quality Management Standard
- 5.A permit to Take water

9. **O. Reg. 453/07 Financial Plans**

Ontario regulation 453/07 (Amended to O.Reg 69/08) requires facilities that provide municipal drinking water to prepare a financial plan

10. **O. Reg. 229/07 Service of Documents**

Ontario Regulation 229/07 stipulates the methods of giving or serving documents and conditions applying to those methods,

11. **O. Reg. 243/07 Schools, Private Schools and Day Nurseries**

Ontario regulation 243/07 (Amended to O.Reg 459/16). This regulation deals with private schools and day nurseries that do not obtain their water from a drinking water system. It presents the interpretation, the requirements for weekly flushing, record keeping and the exemptions.

12. **O. Reg. 205/18 Municipal Residential Drinking Water Systems in Source Protections Areas**

Ontario regulation 205/18 This regulation ensures sources of drinking water for new or expanding municipal drinking water systems are protected before treated water is provided to the public.

Exemption

Exemptions for Vermilion Water Treatment Plant

The City of Greater Sudbury purchases approximately 25-30% of the Vermilion Water Treatment Plant daily production. The other 70-75% is used by VALE Operations. The distribution system is owned and maintained by the City of Greater Sudbury. City of Greater Sudbury personnel are required to take samples in Distribution System. Should they find a sample that is non-compliant then they must alert the Vermilion Water Treatment Plant as well as report these test values to the Ministry of Environment, Conservation and Parks Spill Action Center and the local Medical Officer of Health. We also get regular sample updates on chlorine residuals and fluoride levels in the distribution system from the City. Typically, we meet semi-annually to discuss operational issues and capital requirements

Engineer's Report

An Engineering report was prepared on May 31st, 2001. The required engineers report was completed to certify compliance to existing regulations. The Engineer made recommendations on all the deviations that were found within the drinking water system. Under the SDWA, the requirement for an Engineer's Reports has been removed as part of the regulations. This is incorporated and included in the comprehensive Drinking Water Quality Management System (DWQMS).

4.0 Executive Summary

In 2020, the Vermilion Water Treatment Plant was operated in compliance with the Safe Drinking Water Act and all its associated Regulations. A comprehensive DWQMS was implemented and submitted in accordance with the regulations. All audits have been completed for all 21 elements and SAI- Global has granted a full scope accreditation. The plant monitors CT values and requirements on-line continual and have alarms associated. Equipment manuals are all available via the web or hard copies on site and all approvals/upgrades are being managed with through Vale's Environmental department and the MECP.

The treatment system was operated so that the maximum flow rate of 81,800 m³/d was never exceeded in 2020. The peak daily flow was recorded July 1, 2020 at 50,784 m³/d for a capacity vs. design of 62.1%. (There were other peak daily flows recorded but investigations showed this was during periods of maintenance on flow meters or during plant downtimes).

The Vermilion Water Treatment plant operated and maintained the disinfection facilities of the plant in such a manner that it was in accordance with the Ministry Procedure B13-3 entitled "Chlorination of Potable Water Supplies in Ontario", dated January 2001. It also complied with the "Procedure for Disinfection of Drinking Water in Ontario" as adopted by the safe drinking water act in April 2003.

The water works was operated in such a manner that a sufficient quantity of water was directed to Meatbird Creek. The plant maintained a minimum daily average flow of 106.0 L/s to the creek at all times in 2020. (excluding maintenance events or emergencies as required)

Monitoring and Recording:

1. Raw water from river to plant:

- Flow rate of the raw water feed to the Treatment Plant was recorded daily
- Quantity of water was calculated daily.

2. Treated Water:

- Maximum design capacity of the Vermilion Water Treatment Plant 81,800 m³/d.
- Flow rate of treated water supplied by the water works was recorded daily
- Volume of water conveyed through the treatment system was recorded daily

3. Meatbird Creek System:

- Target Flow Rate in the operating licence is 106 L/s
- Flow rate to Meatbird Creek.
- Daily quantity of water directed to Meatbird Creek.

5.0 Water Distribution Systems & Flow Summaries

The City of Greater Sudbury owns and manages the distribution system. They sample the water in the distribution system and report any problems to the Vermilion Water Treatment Plant Operator and any exceedances from standards to the Ministry of Environment, Conservation and Parks and the Medical Officer of Health.

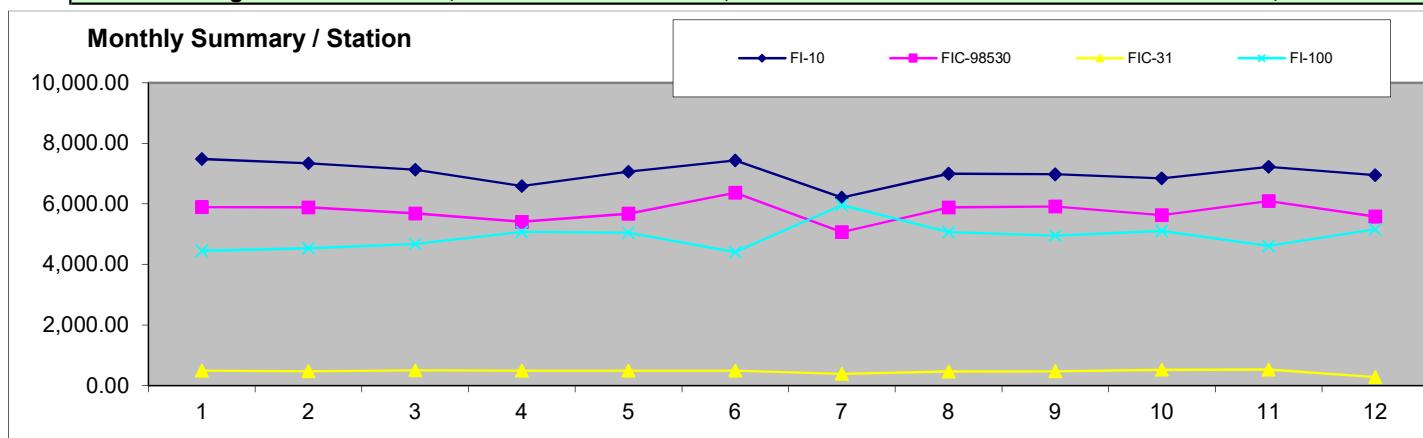
The Following Tables Summarize the Monthly Flows for the Vermilion Water Treatment Plant and the on-line water quality data:



Annual Average Flow Summary Vermilion WTP

Summary : 2020

Month	Raw Inlet Flow	CC Treated Flow	Creighton Flow	U-Drain Flow
	(FI-10)	(FIC-98530)	(FIC-31)	(FI-100)
	GPM	GPM	GPM	USGPM
January	7,485.87	5,895.15	495.22	4,451.95
February	7,336.85	5,881.98	480.85	4,531.82
MarcJ	7,129.59	5,688.02	504.14	4,678.48
April	6,591.14	5,406.49	492.53	5,082.45
May	7,062.23	5,672.55	499.41	5,047.82
June	7,439.14	6,369.63	494.74	4,410.91
July	6,209.28	5,067.91	392.21	5,962.09
August	6,998.87	5,890.00	470.06	5,073.19
September	6,980.83	5,913.53	476.66	4,950.34
October	6,843.43	5,625.09	525.60	5,107.40
November	7,225.77	6,095.68	530.22	4,616.87
December	6,951.95	5,580.84	284.34	5,165.06
Annual Average: 7,021.25 5,757.24 470.50 4,923.20				





Monthly Flow Reading Summary Vermilion WTP

1-Jan-2020													
Month	Min	9,373.39	-71.54	6,636.03	5,669.38	2,313.05	5,373.78	454.13	89.21	418.89	10,501.19	1,073.45	3,795.21
Month	Max	11,836.59	7,468.76	8,732.51	7,224.91	4,542.30	6,539.38	655.16	494.28	529.87	11,898.65	3,520.26	4,917.55
Date	Raw Inlet Flow (FI-10)			CC Treated Flow (FIC-98530)			Creighton Flow (FIC-31)			U-Drain Flow (FI-100)			
	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum USGPM	Minimum USGPM	Average USGPM	
1-Jan	10067.37	6545.63	7076.34	6000.94	3694.67	5766.34	454.13	395.94	418.89	11343.40	2026.24	4667.12	
2-Jan	10427.11	6654.82	7114.29	6241.05	3653.25	5857.19	504.92	395.11	479.84	11099.82	1515.24	4504.65	
3-Jan	10371.22	5211.65	7486.54	6540.76	4034.73	6276.04	604.22	396.16	474.36	11082.29	1271.20	4060.08	
4-Jan	10239.55	5087.13	6972.67	6248.08	4094.51	5806.34	555.29	395.74	490.91	11812.34	1399.51	4513.31	
5-Jan	10125.31	5159.85	6949.24	6163.30	4101.60	5777.30	604.31	395.39	488.22	11115.01	1453.30	4556.43	
6-Jan	9600.51	6536.51	7275.25	6800.34	3635.61	6059.50	605.89	395.50	505.99	11305.71	2364.32	4228.37	
7-Jan	10115.22	6559.77	7253.36	6380.38	3757.94	6057.83	604.70	395.83	486.37	11544.30	1617.54	4221.25	
8-Jan	9428.77	6138.39	7044.10	6305.64	3629.95	5898.26	604.29	444.46	492.19	11893.71	2549.70	4368.10	
9-Jan	9373.39	5988.14	6636.03	5955.92	3155.50	5473.17	553.76	396.21	485.60	11775.50	2520.52	4762.60	
10-Jan	10630.26	5503.18	7060.35	6183.78	3945.89	5953.90	555.09	395.35	494.38	11322.37	1073.45	4376.88	
11-Jan	9768.65	5522.11	6935.49	6288.73	3682.03	5820.05	606.61	442.90	494.22	11489.49	2144.41	4589.73	
12-Jan	9712.97	6022.61	6736.02	6087.82	3756.81	5667.06	606.49	89.21	500.40	11749.72	2151.13	4688.38	
13-Jan	10737.43	521.49	7152.18	6510.57	3693.95	5969.72	605.90	297.69	527.56	11012.07	1432.73	4389.47	
14-Jan	10983.52	6832.84	7490.20	6221.97	4065.97	5963.27	505.31	347.82	490.67	11382.30	1256.47	4400.23	
15-Jan	9800.71	5859.58	7354.64	6310.33	4395.50	5819.51	503.71	444.53	479.05	11658.76	3003.35	4582.56	
16-Jan	10005.40	6686.97	7175.91	5884.29	4542.30	5412.67	574.88	474.27	507.62	11742.90	2902.72	4861.13	
17-Jan	9967.52	6602.05	7981.45	6708.10	3259.91	6168.57	606.15	443.70	511.84	10878.78	3036.56	4178.78	
18-Jan	9621.21	6810.15	8139.15	6873.97	3239.81	6163.81	587.01	395.56	490.80	11545.67	3292.34	4196.36	
19-Jan	9553.64	6089.04	7613.77	6099.89	3356.37	5695.26	606.08	404.58	502.21	11628.90	3520.26	4658.45	
20-Jan	11325.01	5716.67	7892.10	6487.09	3603.67	6018.55	554.43	433.31	481.57	10501.19	1569.72	4371.44	
21-Jan	11359.51	6699.22	8365.69	6848.64	3514.86	6311.67	604.96	396.17	501.49	11034.23	1308.17	4037.54	
22-Jan	11037.83	7449.38	8732.51	6810.60	3908.24	6539.38	604.57	443.65	489.13	11115.49	2167.60	3795.21	
23-Jan	11109.99	5984.47	7918.71	6638.83	3990.71	5980.53	554.83	494.28	519.24	11623.03	1930.14	4384.09	
24-Jan	11134.81	6848.95	7586.66	6033.26	3926.83	5664.80	606.64	490.50	517.41	11506.68	1965.76	4695.10	
25-Jan	11286.79	7016.95	7861.23	6330.59	3868.07	5858.57	606.64	396.63	511.42	11493.96	2072.77	4523.90	
26-Jan	10808.61	7468.76	8256.25	6447.68	3368.08	6160.09	555.05	396.29	491.12	11391.91	2745.27	4232.58	
27-Jan	11836.59	6573.41	7939.97	7207.19	3698.44	5856.20	557.23	348.14	484.04	11443.28	1559.31	4570.20	
28-Jan	11014.75	-71.54	7822.66	6436.30	3899.67	5886.72	655.16	445.33	498.81	11717.76	1296.71	4509.78	
29-Jan	10908.12	6198.73	7736.37	6494.29	3610.31	6078.01	604.73	444.71	509.49	11898.65	1562.86	4285.73	
30-Jan	10602.05	5709.45	7181.28	5669.38	3839.91	5373.78	605.80	494.14	529.87	11446.62	2243.42	4883.51	
31-Jan	10714.96	6681.86	7321.59	7224.91	2313.05	5415.51	604.02	443.07	496.99	11452.49	2539.96	4917.55	
1-Feb													
Average	10,440.93	5,890.59	7,485.87	6,401.12	3,717.36	5,895.15	579.45	405.55	495.22	11,419.62	2,048.15	4,451.95	



Monthly Flow Reading Summary

Vermilion WTP

1-Feb-2020	Month Min	8,454.06	179.41	6,149.59	5,755.53	3,268.18	5,373.27	479.83	298.03	447.22	5,245.67	17.37	3,936.59
	Month Max	12,954.37	7,417.44	8,430.32	6,809.89	5,510.95	6,441.90	604.98	493.39	516.49	12,314.00	4,039.81	5,092.72
Date	Raw Inlet Flow (FI-10)			CC Treated Flow (FIC-98530)			Creighton Flow (FIC-31)			U-Drain Flow (FI-100)			
	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum USGPM	Minimum USGPM	Average USGPM	
1-Feb	11183.68	7218.85	8162.78	6548.84	3744.39	6127.62	530.96	444.43	499.16	10893.19	2158.68	4266.13	
2-Feb	11704.52	7417.44	8408.23	6454.04	4274.70	6214.07	554.38	493.39	512.39	11140.80	1114.76	4134.37	
3-Feb	9572.47	5883.76	8348.59	6573.59	5212.13	6252.05	555.63	298.03	516.49	10716.08	3510.15	4210.32	
4-Feb	12954.37	7119.29	8235.54	6437.82	3567.45	6064.59	555.35	440.91	511.96	10945.11	17.37	4291.85	
5-Feb	10919.82	7002.62	7912.97	6150.61	3835.16	5851.27	554.22	444.37	509.13	9798.69	2040.43	4563.63	
6-Feb	11795.37	4618.04	7773.88	6132.65	3493.70	5798.94	604.98	443.73	507.36	11198.95	1685.73	4598.27	
7-Feb	11255.23	7351.89	8363.41	6513.49	3268.18	6132.35	555.87	444.23	502.98	11406.88	1644.84	4225.53	
8-Feb	8489.58	7068.04	7692.87	6150.37	5510.95	5846.68	554.36	395.82	467.31	5245.67	4039.81	4589.68	
9-Feb	10572.25	5193.12	7617.99	6406.56	3432.74	5696.88	553.32	396.26	479.00	11736.89	2473.77	4699.39	
10-Feb	11794.63	7230.75	8430.32	6809.89	3743.77	6441.90	555.63	395.69	473.38	6220.48	1482.41	3936.59	
11-Feb	11233.83	5933.59	7915.21	6376.62	3400.52	5933.46	505.04	395.83	453.85	11285.58	1721.95	4459.09	
12-Feb	10915.14	5846.59	7626.76	6153.06	3890.05	5859.71	504.05	395.91	447.22	11711.52	1920.06	4593.38	
13-Feb	10458.63	6788.59	7215.01	5824.73	3966.04	5380.87	554.69	395.63	508.00	11206.00	2412.77	4890.96	
14-Feb	10493.42	6707.74	7446.83	6429.72	3982.36	5893.76	504.12	443.66	473.18	11389.77	1828.88	4560.04	
15-Feb	10515.46	6907.32	7766.87	6556.75	3871.91	6220.62	504.18	444.23	472.89	11209.85	1819.72	4163.41	
16-Feb	9936.12	6524.50	7273.37	6218.67	3489.12	5793.00	479.83	396.67	468.30	12123.37	2732.94	4596.10	
17-Feb	10339.28	6740.97	7137.85	6292.27	3719.28	5786.84	554.78	298.30	457.18	11406.25	1698.30	4654.05	
18-Feb	10494.22	6707.23	7181.44	6153.83	3876.30	5963.42	554.04	467.71	481.63	11170.28	1174.02	4408.66	
19-Feb	9649.55	5536.77	7070.72	6196.06	3988.02	5964.34	502.91	467.53	475.05	11245.57	1761.47	4487.20	
20-Feb	9627.53	6182.48	6981.91	6158.66	4033.26	5913.03	504.11	444.37	468.31	11436.51	1898.30	4574.19	
21-Feb	8454.06	3570.23	6388.67	5755.53	3997.44	5373.27	503.77	468.56	489.53	12314.00	3531.73	5092.72	
22-Feb	9176.29	4767.28	6604.23	6101.08	3884.38	5540.27	504.39	376.69	465.61	11927.70	2608.83	4845.76	
23-Feb	10129.77	3771.35	6715.44	6245.56	3875.53	5946.29	503.93	395.70	448.17	11300.05	2565.35	4539.13	
24-Feb	9261.23	908.83	6611.70	6509.95	3424.82	5937.15	554.73	444.84	490.24	12179.16	3656.62	4522.88	
25-Feb	9110.05	2897.77	6564.44	6218.16	3628.92	5947.27	504.52	425.27	468.04	11685.19	3556.36	4541.40	
26-Feb	10090.71	179.41	6320.37	6104.32	3552.12	5689.18	504.53	396.07	451.99	11674.39	2061.40	4747.58	
27-Feb	9661.16	340.90	6149.59	5917.97	3588.63	5474.59	553.79	395.58	483.54	11538.79	2348.17	4886.52	
28-Feb	10146.14	732.61	6447.86	5992.51	4060.59	5767.00	554.55	395.76	502.31	11386.33	1793.30	4646.49	
29-Feb	9849.64	737.60	6403.67	5980.73	4057.61	5766.87	553.56	396.03	460.48	11902.47	2171.99	4697.55	
1-Mar													
Average	10,337.38	5,099.50	7,336.85	6,253.93	3,874.83	5,881.98	533.80	415.21	480.85	11,013.64	2,187.25	4,531.82	



Monthly Flow Reading Summary Vermilion WTP

1-Mar-2020	Month Min	9,703.21	225.91	6,009.09	5,489.86	3,093.23	4,894.13	503.99	341.02	460.42	10,666.61	74.21	4,020.58
	Month Max	11,472.90	7,006.65	7,821.23	6,876.02	4,433.79	6,347.39	705.73	492.21	547.36	12,240.39	3,184.10	5,332.36
Date	Raw Inlet Flow (FI-10)			CC Treated Flow (FIC-98530)			Creighton Flow (FIC-31)			U-Drain Flow (FI-100)			
	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum USGPM	Minimum USGPM	Average USGPM	
1-Mar	9968.77	800.07	6447.42	5962.40	4037.26	5767.17	553.21	395.58	472.57	11529.16	2135.20	4691.64	
2-Mar	9981.77	4520.44	6455.70	6356.93	3768.25	5754.35	504.95	396.06	460.42	11710.03	2004.00	4725.99	
3-Mar	9703.21	840.26	6009.09	5646.20	3353.37	4894.13	503.99	395.32	477.21	12240.39	3184.10	5332.36	
4-Mar	10529.90	6206.59	6902.24	5684.39	3625.68	5198.74	606.65	396.09	505.68	11385.21	2081.71	5075.10	
5-Mar	10416.07	6145.84	7156.48	5689.09	3583.00	5469.86	504.45	444.51	472.87	12144.86	2505.69	4984.95	
6-Mar	10668.93	5921.22	7397.51	5952.40	3851.62	5596.81	705.39	395.92	526.65	11628.57	2089.27	4761.63	
7-Mar	11472.90	7006.65	7614.28	5960.66	3725.65	5726.45	606.43	395.01	497.45	11827.08	1295.06	4672.86	
8-Mar	resample	resample	resample	resample	resample	resample	resample	resample	resample	resample	resample	resample	
9-Mar	11079.67	6033.63	7551.98	6410.02	3747.89	5760.57	604.13	394.75	502.91	11140.16	1619.12	4645.92	
10-Mar	10613.15	6909.91	7451.71	5956.61	3747.58	5760.18	606.42	396.15	490.00	11786.47	2266.90	4674.29	
11-Mar	10423.99	5890.96	7244.89	5936.75	3751.40	5379.73	606.47	419.42	541.92	11866.77	2580.09	4891.10	
12-Mar	10684.77	6738.27	7217.90	5691.20	3768.60	5349.21	601.61	396.22	477.33	12094.54	2627.72	5002.91	
13-Mar	10818.66	6646.02	7361.08	6478.76	3567.79	5645.30	705.73	394.14	523.91	11760.02	1675.41	4768.56	
14-Mar	10777.08	5833.27	7681.39	6461.73	3668.26	5911.42	605.77	396.31	475.52	11821.28	2015.52	4505.65	
15-Mar	10896.61	6150.41	7460.03	6312.10	3865.56	5763.78	705.47	396.28	523.98	11498.28	2032.98	4657.77	
16-Mar	10609.09	5841.74	7458.21	6235.00	3682.50	5762.84	656.09	395.23	520.96	11622.40	2097.81	4675.63	
17-Mar	10340.38	5604.79	7252.05	6112.48	3643.91	5762.78	655.18	395.46	518.58	11682.58	2214.67	4684.25	
18-Mar	10074.19	5547.76	7055.00	5941.34	3948.53	5449.35	689.44	394.88	527.85	11789.13	2630.82	4877.56	
19-Mar	11258.05	225.91	6633.68	5489.86	3820.42	5180.43	655.73	395.56	531.29	12091.46	74.21	5033.22	
20-Mar	10159.29	6002.56	6597.81	5993.21	3679.94	5528.59	628.86	394.24	470.55	11367.14	1772.10	4814.77	
21-Mar	10106.98	6444.70	7391.70	6876.02	3093.23	6107.59	656.77	396.31	541.59	10666.61	1987.27	4274.35	
22-Mar	10020.93	5451.35	7053.77	6498.68	3836.69	5788.13	656.39	394.84	540.99	11725.99	2231.18	4537.40	
23-Mar	10652.71	5418.42	7102.87	6489.18	3926.98	5793.00	555.41	396.49	475.77	11423.94	1233.69	4608.07	
24-Mar	10527.43	6134.33	7821.23	6688.14	4024.67	6347.39	607.34	395.92	515.79	10918.13	1439.89	4024.00	
25-Mar	10247.36	6132.79	6949.81	6083.16	3667.59	5765.44	555.09	395.43	478.60	11739.68	1610.72	4618.10	
26-Mar	10182.54	6132.67	6882.50	5971.97	3727.48	5766.58	505.37	341.02	467.51	11550.81	1596.48	4622.20	
27-Mar	9831.79	6186.84	6953.23	5979.07	3856.32	5760.19	606.10	492.21	502.38	11865.78	2082.01	4539.03	
28-Mar	10709.70	6424.75	7278.80	6659.89	4433.79	6059.24	606.39	394.67	511.57	10957.34	949.79	4275.33	
29-Mar	10537.41	6886.85	7640.79	6529.57	4403.36	6326.25	580.25	395.29	484.74	10721.20	1142.30	4020.58	
30-Mar	9758.81	5228.13	7050.79	6228.08	3827.88	5710.45	582.81	395.57	547.36	11998.73	2597.14	4573.55	
31-Mar	10045.37	331.09	6813.78	5815.89	3908.72	5554.71	606.23	372.22	540.38	11442.27	2763.83	4785.56	
1-Apr													
Average	10,436.58	5,321.27	7,129.59	6,136.36	3,784.80	5,688.02	607.47	398.57	504.14	11,599.87	1,951.22	4,678.48	



Monthly Flow Reading Summary Vermilion WTP

1-Apr-2020	Month Min	8,234.56	3,745.83	5,689.79	5,228.84	3,043.16	4,711.46	402.88	297.87	389.84	10,961.35	763.54	4,303.14
	Month Max	11,417.19	6,727.23	7,560.95	6,723.71	4,473.75	6,160.92	655.77	541.05	562.33	12,749.87	4,021.07	5,893.60
Date	Raw Inlet Flow (FI-10)			CC Treated Flow (FIC-98530)			Creighton Flow (FIC-31)			U-Drain Flow (FI-100)			
	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum USGPM	Minimum USGPM	Average USGPM	
1-Apr	10094.61	6365.18	6915.39	5873.23	3741.00	5568.44	604.67	395.90	484.68	12101.30	2684.37	4854.01	
2-Apr	10031.82	5767.23	6813.37	5738.62	3256.70	5294.63	554.57	395.44	477.52	12389.10	2992.54	5115.97	
3-Apr	10357.76	5788.76	6777.88	5523.18	3617.83	5266.97	654.88	541.05	562.33	11441.77	2704.92	5013.20	
4-Apr	10086.04	6074.42	6707.32	5534.37	3511.34	5264.85	653.12	395.14	520.64	11659.65	2822.45	5035.34	
5-Apr	10387.56	6133.55	6817.66	5513.43	3427.99	5258.94	606.52	298.36	560.34	11810.55	2789.95	5089.20	
6-Apr	10554.68	5577.73	6580.16	5484.89	3043.16	5070.81	655.77	395.89	554.35	12158.94	2907.75	5202.64	
7-Apr	10872.15	5316.16	6652.94	5292.35	3214.43	4968.28	605.39	348.70	505.57	11863.31	3023.68	5347.98	
8-Apr	9267.65	6214.26	6814.38	5893.63	3891.66	5288.27	605.03	299.05	521.76	11842.19	3600.69	5172.74	
9-Apr	10299.46	5377.39	6963.26	5844.51	3819.92	5562.44	505.12	395.81	497.78	12057.90	2839.12	4941.38	
10-Apr	10670.24	6514.03	6914.61	5986.65	3612.09	5666.78	402.88	371.97	389.84	11679.04	2581.14	4888.64	
11-Apr	9830.07	5665.02	6674.43	5825.44	3201.88	5220.31	605.43	371.58	502.30	12333.33	3232.78	5138.83	
12-Apr	10004.45	5722.18	6407.83	5275.49	3274.55	4970.51	454.02	372.73	449.15	12137.27	3103.17	5329.42	
13-Apr	10812.47	6079.06	6717.52	5810.32	3085.43	5121.37	505.26	394.06	470.56	11960.32	2261.30	5225.70	
14-Apr	11417.19	6727.23	7560.95	6620.36	4266.21	6058.62	556.29	491.71	507.31	10974.94	763.54	4440.03	
15-Apr	10162.32	5146.04	7286.00	6723.71	4293.55	6160.92	604.70	395.79	490.03	11508.10	1217.93	4303.14	
16-Apr	9258.63	3745.83	6243.41	5587.31	3968.42	5269.24	503.85	372.71	467.93	12132.26	2637.98	5107.91	
17-Apr	9243.38	5884.54	6628.90	6238.52	4178.05	5808.74	505.14	394.91	452.88	11573.69	2519.41	4736.31	
18-Apr	9100.44	5798.60	6741.88	6242.32	4175.62	5972.83	606.65	372.28	527.35	11923.17	2229.92	4607.38	
19-Apr	8510.68	5167.13	6106.35	6127.60	4473.75	5396.03	603.92	297.92	507.15	10961.35	2830.32	5143.06	
20-Apr	8993.37	5100.46	5820.67	5742.24	3957.32	5126.00	603.53	395.73	468.98	12210.41	2439.58	5306.98	
21-Apr	9554.20	4313.35	6355.03	5850.02	3879.69	5565.73	603.66	396.30	460.25	11823.35	2606.99	5084.33	
22-Apr	8543.16	4943.54	6252.68	5837.03	3356.87	5187.42	503.73	396.32	459.37	12642.69	3608.20	5385.92	
23-Apr	8425.24	4840.96	5689.79	5228.84	3257.88	4711.46	453.52	297.87	410.13	12442.72	3556.06	5849.75	
24-Apr	9425.90	4872.61	6246.11	5854.23	3444.41	5292.89	604.19	348.95	460.78	11713.06	2666.38	5313.90	
25-Apr	10387.65	6165.88	6870.40	6326.19	4163.41	5820.27	606.20	442.93	529.91	11432.21	1685.88	4804.50	
26-Apr	10262.58	5227.35	7215.10	6471.07	4098.25	6128.34	605.89	348.68	546.87	11364.41	1658.45	4580.92	
27-Apr	9185.25	5573.22	6407.91	6200.70	3717.01	5511.66	605.38	348.31	519.27	12117.46	2841.76	5093.24	
28-Apr	9379.54	6028.23	6474.25	5773.08	3611.40	5562.33	555.73	395.96	515.23	11807.67	2455.30	5047.01	
29-Apr	8234.56	3967.57	6197.13	5759.91	3392.16	5255.77	605.24	396.39	464.39	12749.87	4021.07	5420.46	
30-Apr	8467.64	5333.71	5880.85	5464.11	3420.00	4843.71	606.26	380.83	491.40	12664.65	3844.18	5893.60	
1-May	Average	9,727.36	5,514.38	6,591.14	5,854.78	3,678.40	5,406.49	571.55	381.64	492.53	11,915.89	2,704.23	5,082.45



Monthly Flow Reading Summary Vermilion WTP

1-May-2020													
Month	Min	8,954.38	193.05	6,253.18	5,500.28	3,151.00	5,256.81	453.62	347.46	429.43	5,453.98	1,904.12	3,848.59
Month	Max	11,180.97	7,069.28	7,917.77	7,710.52	5,558.58	6,825.25	706.01	492.98	557.29	12,560.33	3,455.87	5,619.14
Date	Raw Inlet Flow (FI-10)			CC Treated Flow (FIC-98530)			Creighton Flow (FIC-31)			U-Drain Flow (FI-100)			
	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum USGPM	Minimum USGPM	Average USGPM	
1-May	9498.71	5570.18	6300.12	5553.13	3151.00	5263.33	606.67	395.76	511.15	12135.01	2986.69	5545.37	
2-May	9435.61	5547.77	6375.44	5510.48	3175.05	5256.81	606.96	492.98	535.54	12228.19	3211.26	5552.24	
3-May	9468.11	5512.51	6253.18	5500.28	3193.31	5271.12	505.31	443.46	476.17	12311.89	3042.00	5619.14	
4-May	9023.91	4889.27	6385.34	6487.27	3607.62	5453.72	553.88	396.51	465.68	12560.33	3435.72	5518.32	
5-May	9906.79	5145.94	6774.59	6315.89	3869.94	5928.86	504.36	395.78	467.60	11608.54	2133.49	5114.37	
6-May	10795.07	193.05	7022.92	6074.69	3865.23	5860.82	605.69	395.75	504.25	11828.46	2105.52	5045.04	
7-May	10730.68	5577.24	7591.29	6137.00	4035.35	5864.56	654.82	443.41	542.07	11673.77	2173.55	4877.13	
8-May	10177.14	6323.62	7430.78	6117.91	3327.07	5476.49	655.12	347.46	523.36	12254.89	3340.65	5223.49	
9-May	9883.00	6672.86	7272.17	5820.02	3863.29	5419.85	654.46	444.39	470.55	12264.57	3438.15	5267.43	
10-May	10979.89	7069.28	7792.19	6112.01	3608.86	5746.88	655.51	347.92	549.81	11828.47	2563.67	4957.89	
11-May	10862.74	6220.01	7781.04	6833.92	3561.77	5855.55	654.72	348.01	490.17	11981.91	2287.58	4941.13	
12-May	11180.97	5917.62	7426.66	6061.94	4307.04	5633.26	606.32	395.78	519.52	9840.15	1924.68	4981.21	
13-May	10251.22	6102.46	7465.96	5841.88	3815.59	5531.87	704.21	420.26	474.24	12181.24	3181.36	5087.10	
14-May	10452.08	5661.05	7525.02	5792.26	3892.33	5522.86	706.01	395.95	529.67	12242.07	2987.20	5090.40	
15-May	10184.10	6717.49	7567.72	5822.04	3887.97	5479.32	654.87	395.36	551.23	12450.89	3238.67	5082.52	
16-May	9627.29	6181.21	7444.97	5835.37	3984.99	5559.75	657.70	395.31	557.29	11927.94	3455.87	5023.75	
17-May	10019.12	6420.75	6980.55	6034.65	3836.71	5569.27	655.94	395.46	557.13	11943.65	2204.86	5018.30	
18-May	9115.43	5281.22	7035.82	6343.98	3834.13	5976.38	655.56	395.25	466.48	11919.67	3122.24	4791.17	
19-May	9584.90	5466.56	6720.45	5847.49	3892.93	5527.11	655.16	395.84	553.56	12015.12	2418.15	5058.35	
20-May	10003.23	5704.99	6718.95	5765.71	3657.27	5563.37	603.91	395.98	480.83	11960.95	2545.01	5074.10	
21-May	9936.84	5679.41	6938.83	5856.10	3732.47	5563.21	606.06	492.29	548.98	11961.59	2397.86	5014.06	
22-May	9722.48	5667.13	6756.44	5770.73	3729.96	5561.74	555.26	394.74	476.38	12007.74	2623.37	5084.27	
23-May	9925.16	6572.35	7080.21	6093.52	3923.42	5791.02	655.65	395.15	540.52	11577.27	2257.92	4859.06	
24-May	10029.71	6616.17	7183.69	6308.27	4091.97	6027.82	504.20	396.19	450.70	11472.98	2048.64	4726.73	
25-May	10083.61	5509.50	7045.33	6458.95	3907.03	5917.68	604.27	395.25	467.55	11989.65	2008.60	4850.26	
26-May	9133.63	6328.95	7209.53	6751.36	3883.50	6110.51	604.73	395.99	474.33	11655.42	3223.83	4706.09	
27-May	9161.87	6315.40	7917.77	7710.52	5558.58	6825.25	604.11	395.20	456.42	5453.98	2948.04	3848.59	
28-May	9969.89	5063.36	6865.68	6203.23	3563.90	5626.38	504.84	396.20	482.10	12264.31	1904.12	5049.61	
29-May	9483.69	6205.25	6926.81	6204.28	3603.03	5800.79	504.68	396.65	473.91	12021.48	2720.19	4965.67	
30-May	8954.38	4987.56	6552.28	5979.37	3446.49	5400.01	453.62	396.60	429.43	12236.32	3361.93	5327.15	
31-May	9300.85	4836.67	6587.57	5863.99	3531.67	5463.31	504.75	396.15	455.25	12209.71	2742.22	5182.53	
1-Jun													
Average	9,899.42	5,676.03	7,062.23	6,097.04	3,785.14	5,672.55	601.92	402.81	499.41	11,742.20	2,710.74	5,047.82	



Monthly Flow Reading Summary Vermilion WTP

1-Jun-2020	Month Min	8,528.00	-71.93	6,313.84	6,084.58	2.29	5,647.22	502.45	-4.02	434.34	8,954.06	13.65	3,112.80
	Month Max	11,571.48	7,623.10	8,814.86	8,639.79	4,856.67	7,609.81	1,663.24	495.08	583.81	13,204.56	3,699.65	5,060.70
Date	Raw Inlet Flow (FI-10)			CC Treated Flow (FIC-98530)			Creighton Flow (FIC-31)			U-Drain Flow (FI-100)			
	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum USGPM	Minimum USGPM	Average USGPM	
1-Jun	9628.91	6131.87	6840.73	6358.59	4389.38	5798.89	560.25	395.82	473.47	10326.28	2210.91	4928.51	
2-Jun	10181.18	5158.10	7140.60	6253.66	4029.02	6053.38	503.54	396.15	436.68	11517.37	1469.13	4693.65	
3-Jun	10658.14	41.03	7616.57	6601.52	4323.93	6308.27	533.22	421.23	479.78	11655.08	1689.61	4443.06	
4-Jun	11370.09	6423.37	8126.39	7029.25	4566.39	6623.17	528.94	199.68	457.41	10886.55	902.03	4150.31	
5-Jun	10733.31	7623.10	8379.41	7024.32	3797.26	6745.52	654.71	420.65	533.47	11248.62	1702.43	3959.54	
6-Jun	10616.87	6626.21	7509.70	6897.17	3856.64	6152.87	528.73	420.93	464.37	11581.09	1700.60	4666.50	
7-Jun	10501.81	7108.26	7604.25	6699.69	3991.84	6451.82	502.45	421.00	450.48	11195.92	1520.39	4338.18	
8-Jun	10598.03	6869.73	7616.64	7108.68	4099.00	6455.50	553.79	420.54	465.35	11337.28	1437.87	4309.42	
9-Jun	10725.43	6954.35	7712.32	6690.88	4241.19	6457.53	556.62	395.06	468.89	11479.04	1567.84	4429.56	
10-Jun	10352.36	3959.00	7758.35	6998.59	23.07	6361.75	1663.24	-4.02	521.36	11780.06	1643.56	4610.00	
11-Jun	9243.48	4977.78	7103.15	6143.44	3492.86	5826.05	654.22	395.84	563.90	12108.23	2432.24	5016.07	
12-Jun	9722.81	4934.47	6892.14	6084.58	3786.29	5691.73	654.32	421.84	524.20	13204.56	1975.94	5060.70	
13-Jun	10200.08	6264.69	7175.04	6523.61	3965.55	6166.05	553.65	397.12	499.35	11736.72	2484.22	4625.54	
14-Jun	8929.61	5950.79	7236.51	6377.75	4144.53	5920.57	528.52	396.91	454.12	12477.87	3699.65	4922.75	
15-Jun	9787.51	6547.72	7800.38	7017.20	3899.57	6398.37	528.50	395.84	510.89	11160.19	2518.08	4384.85	
16-Jun	9888.03	6990.80	7908.29	7498.58	3857.24	6771.58	581.69	372.78	508.27	10910.67	2434.97	3976.18	
17-Jun	9358.91	-71.93	6313.84	7660.84	2.29	5647.22	748.08	196.52	434.34	8954.06	13.65	4107.74	
18-Jun	10517.84	6197.10	8122.32	8639.79	4856.67	7007.65	508.99	491.14	499.89	9843.39	1092.95	3777.96	
19-Jun	11571.48	7119.86	8814.86	8102.25	4287.54	7609.81	504.79	445.75	492.99	10239.91	195.27	3112.80	
20-Jun	10545.86	6066.82	8425.50	8305.75	4304.89	7125.32	555.28	444.93	506.37	11457.19	1282.84	3565.77	
21-Jun	10466.87	6039.81	7679.07	7326.80	4626.90	6755.03	653.83	395.06	457.41	11277.27	1070.33	4098.17	
22-Jun	9345.97	5173.63	7539.99	7536.77	3820.01	6736.89	653.74	392.35	503.60	11086.82	2511.25	4113.51	
23-Jun	9221.01	5757.98	7523.80	7034.66	3901.17	6723.66	603.76	397.07	551.02	11403.23	2476.44	4022.72	
24-Jun	8907.64	5623.52	6976.94	6929.66	3431.58	6302.26	604.45	396.51	516.19	12437.02	3252.63	4550.46	
25-Jun	8528.00	6020.09	6558.27	6445.74	4299.70	5806.34	653.98	495.08	583.81	12168.42	3556.49	5001.92	
26-Jun	9624.84	5186.95	6929.32	6509.63	3962.17	6186.72	604.11	419.46	520.47	11673.61	2117.13	4712.17	
27-Jun	9767.51	5263.29	6860.89	6904.06	4024.12	6219.95	503.19	396.69	456.52	11688.01	1933.72	4746.78	
28-Jun	9210.87	6186.88	6635.84	6264.22	3775.81	5960.60	503.52	420.25	478.35	12394.25	3098.07	5012.49	
29-Jun	9944.76	6322.08	7019.97	7032.35	4238.29	6228.72	604.64	444.18	514.06	11507.79	1717.30	4687.55	
30-Jun	10231.17	5950.96	7353.03	7004.87	4424.69	6595.86	653.82	396.26	515.12	11654.98	1370.41	4302.56	
1-Jul													
Average	10,012.68	5,646.61	7,439.14	6,966.83	3,813.99	6,369.63	614.75	386.62	494.74	11,413.05	1,902.60	4,410.91	



Monthly Flow Reading Summary Vermilion WTP

1-Jul-2020													
	Month Min	7,331.33	170.56	4,343.01	4,480.38	2.67	3,641.84	325.82	2.01	209.40	10,221.42	289.82	3,945.75
	Month Max	11,386.11	6,718.64	8,019.99	8,662.49	5,129.32	7,011.92	2,092.98	444.02	499.80	13,913.01	5,116.21	7,185.17
Date	Raw Inlet Flow (FI-10)			CC Treated Flow (FIC-98530)			Creighton Flow (FIC-31)			U-Drain Flow (FI-100)			
	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum USGPM	Minimum USGPM	Average USGPM	
1-Jul	11386.11	6718.64	7767.99	8662.49	5129.32	7011.92	653.92	347.73	499.80	10542.29	289.82	3945.75	
2-Jul	10225.25	1497.80	7090.13	7023.73	1086.20	6163.71	526.89	444.02	483.48	11846.86	1863.47	4764.79	
3-Jul	10381.03	170.56	7237.87	7032.33	4215.75	6262.44	554.43	394.50	487.76	11408.84	1954.18	4825.28	
4-Jul	10527.52	6588.37	8019.99	7736.44	572.80	6853.78	827.32	245.69	475.14	11494.73	1682.67	4088.79	
5-Jul	9739.20	1068.57	6944.90	6392.88	2.67	5547.59	2092.98	2.01	469.56	12184.73	1559.77	5496.13	
6-Jul	8608.53	4252.08	6297.71	6385.60	3316.52	5102.13	453.64	396.30	403.55	13273.69	3916.68	5801.50	
7-Jul	7331.33	3325.16	4343.01	4480.38	2751.37	3641.84	501.93	83.76	275.98	13913.01	5116.21	7185.17	
8-Jul	10278.07	3676.59	5782.06	6196.21	3270.06	5000.42	503.89	88.47	261.38	10221.42	1927.64	6138.30	
9-Jul	8955.37	4726.63	6463.94	6276.48	3990.93	5381.88	502.93	88.32	209.40	11832.02	3495.83	5703.47	
10-Jul	8779.39	4454.23	5618.00	5014.36	3686.82	4516.41	452.03	88.90	299.75	13227.74	3921.33	6418.35	
11-Jul	9279.67	5121.92	6242.91	5562.64	4021.97	5075.96	326.17	89.54	247.41	12377.06	3494.50	5930.33	
12-Jul	9285.29	3257.48	6183.13	5523.10	3790.40	5024.75	701.43	88.28	299.76	13180.05	3228.79	5940.44	
13-Jul	8806.75	3341.13	6203.21	6246.60	3377.34	5155.55	401.81	322.14	357.42	12535.97	3790.98	5965.36	
14-Jul	8415.87	4605.71	5579.22	5301.68	3879.08	4544.10	326.67	323.05	324.98	13476.16	4286.27	6575.62	
15-Jul	8401.63	4684.29	5897.47	5562.01	3361.98	4770.19	326.00	323.85	325.01	13558.36	4268.83	6338.17	
16-Jul	8715.54	4765.98	5890.25	5298.99	3332.65	4722.03	401.57	324.28	346.64	13364.04	3944.39	6369.87	
17-Jul	9512.04	4874.80	6279.87	5801.58	3373.61	5062.47	689.88	322.14	491.91	12609.35	3446.88	6022.80	
18-Jul	9203.75	5567.89	6459.02	5853.30	3501.57	5342.54	326.11	324.00	325.06	13023.99	3641.79	5867.54	
19-Jul	9111.96	4815.38	5976.88	5306.81	3997.26	4815.58	325.82	324.26	325.01	13119.54	3672.17	6306.88	
20-Jul	8369.77	4536.78	5605.69	5082.49	3565.38	4434.64	603.01	94.58	401.93	13304.49	4300.31	6609.15	
21-Jul	8666.36	4864.92	5659.99	5005.95	3672.80	4405.71	502.47	92.28	416.79	13273.77	4095.62	6553.33	
22-Jul	8803.06	4799.45	5641.65	5066.79	3403.59	4396.98	502.61	396.62	447.47	13104.77	4057.27	6570.48	
23-Jul	7952.26	4681.51	5450.40	4976.69	3803.04	4192.81	502.98	394.90	451.18	13566.44	4807.74	6754.38	
24-Jul	8178.37	4310.70	5387.25	4965.97	2765.94	4172.80	552.34	395.97	433.97	13798.07	4644.94	6795.69	
25-Jul	9792.68	5484.62	6423.78	6056.56	3505.31	5131.73	502.62	396.75	427.91	12308.59	2997.89	5992.32	
26-Jul	8824.74	5116.14	6189.99	6023.98	3491.01	4965.38	452.16	396.54	425.37	13250.04	4000.97	6094.51	
27-Jul	8893.94	4995.99	6105.62	5737.91	2600.53	4785.77	527.59	396.70	466.53	12943.59	3954.84	6198.70	
28-Jul	9595.36	5644.57	6655.64	5748.04	3654.26	5463.42	477.74	372.70	433.95	12497.05	3498.68	5635.93	
29-Jul	9460.08	5172.84	6280.54	5500.37	4279.74	4979.65	478.90	419.97	428.28	11814.26	3259.11	6041.54	
30-Jul	8543.99	5029.52	6222.56	5159.22	3920.72	4883.16	530.10	372.94	488.89	11961.17	3858.34	6091.85	
31-Jul	9464.94	5441.92	6587.02	5955.60	3412.65	5297.76	503.08	372.18	427.29	12196.12	3380.97	5802.51	
1-Aug													
Average	9,144.83	4,438.46	6,209.28	5,836.68	3,313.98	5,067.91	549.39	281.40	392.21	12,619.62	3,430.93	5,962.09	



Monthly Flow Reading Summary Vermilion WTP

1-Aug-2020	Month Min	8,957.56	-72.08	5,810.08	4,998.02	2.35	4,522.77	426.76	199.43	394.85	11,179.33	23.92	3,554.82
	Month Max	11,480.98	7,015.66	7,616.53	7,200.31	4,549.98	6,571.15	802.02	492.76	527.85	13,168.73	3,912.85	6,196.45
Date	Raw Inlet Flow (FI-10)			CC Treated Flow (FIC-98530)			Creighton Flow (FIC-31)			U-Drain Flow (FI-100)			
	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum USGPM	Minimum USGPM	Average USGPM	
1-Aug	9309.72	5774.28	6454.43	5844.98	3527.13	5160.13	502.89	395.93	441.57	12369.38	3688.37	5870.52	
2-Aug	9058.71	5653.73	6495.10	5593.94	3391.51	5207.39	426.98	349.01	404.41	12671.32	3912.85	5844.39	
3-Aug	9100.46	5468.90	6268.81	5862.96	3206.60	4990.53	426.76	348.46	394.85	12805.55	3684.28	6014.00	
4-Aug	9777.82	36.02	6377.36	5526.48	3106.05	5167.72	602.92	396.75	454.42	13168.73	3363.75	5789.57	
5-Aug	10270.45	5538.93	6623.01	5967.68	3697.08	5380.56	502.20	444.64	456.54	12222.92	2440.57	5587.97	
6-Aug	9671.35	6512.31	6893.59	6092.15	3678.98	5764.21	502.23	445.01	461.89	12368.64	3271.05	5313.66	
7-Aug	9418.36	6427.11	6908.41	6117.47	3915.35	5756.32	652.76	395.69	475.53	12556.22	3413.76	5370.79	
8-Aug	10234.70	6444.77	7112.67	6667.48	4139.77	5992.15	654.57	395.93	525.59	11564.60	2388.65	5108.23	
9-Aug	9322.55	4655.55	7317.61	6666.12	3852.02	6293.84	654.30	396.05	527.85	12193.30	3495.65	4781.86	
10-Aug	10339.67	6611.16	7200.42	6487.49	3850.91	6093.37	553.63	298.57	490.02	12189.49	2013.03	5033.03	
11-Aug	10241.35	7015.66	7400.48	6604.64	3710.77	6341.28	552.70	444.65	485.21	11475.66	2253.71	4709.39	
12-Aug	10093.81	6860.86	7410.79	6678.85	3732.53	6364.03	503.89	492.76	499.95	12273.00	2343.06	4684.31	
13-Aug	10528.64	6532.74	7464.19	6712.72	4375.42	6361.10	554.69	443.91	510.58	11778.71	1866.70	4658.79	
14-Aug	10514.58	6838.85	7337.08	6669.56	4423.42	6364.34	452.88	443.83	449.78	12363.79	1916.09	4741.56	
15-Aug	10687.64	6510.68	7380.66	6605.90	4295.24	6357.18	502.02	444.47	450.64	11864.48	1574.95	4737.70	
16-Aug	10256.48	5638.18	7273.20	6554.36	4088.13	6248.13	802.02	282.82	456.65	12338.89	2233.69	4825.19	
17-Aug	11480.98	43.86	7097.01	7200.31	942.37	5998.54	528.07	396.71	485.35	11984.02	100.99	4984.44	
18-Aug	9449.77	5256.93	6823.32	6436.26	3828.27	5733.40	503.72	396.02	482.59	12901.39	3275.58	5245.51	
19-Aug	8957.56	4493.19	5810.08	4998.02	2607.63	4522.77	504.37	470.25	489.44	13088.94	3723.26	6196.45	
20-Aug	9620.04	5364.42	6393.85	5987.19	3697.13	5187.96	477.79	396.97	472.86	12039.98	3095.99	5668.80	
21-Aug	10228.11	6408.41	6998.20	6292.02	3924.84	6019.07	502.32	346.81	436.22	11653.44	2102.78	5065.42	
22-Aug	10615.35	6812.00	7358.12	6633.82	4120.93	6365.18	503.21	396.62	449.62	12190.70	1747.53	4668.31	
23-Aug	10343.60	6280.19	7032.51	6550.16	3705.86	5919.47	452.86	444.90	449.92	12644.26	2094.68	5106.79	
24-Aug	10139.54	6583.99	7094.90	6641.95	4193.82	6059.49	505.32	445.27	479.99	12075.54	2332.39	4972.54	
25-Aug	10244.26	6401.06	7088.78	6330.19	4162.28	6069.42	528.88	396.80	495.77	12013.88	2261.56	4960.51	
26-Aug	10817.48	6824.05	7616.53	6917.17	4549.98	6571.15	552.91	395.89	473.87	11260.36	1428.10	4398.27	
27-Aug	9497.76	-72.08	7299.29	7024.51	2.35	6150.73	654.96	199.43	486.86	12030.17	23.92	3554.82	
28-Aug	9979.61	6406.69	7118.69	6611.70	3670.87	6138.21	503.54	396.99	473.59	12206.98	2436.17	4870.02	
29-Aug	9646.29	4676.73	6737.01	6050.90	3597.08	5553.69	502.91	396.73	462.95	12432.59	508.58	4982.53	
30-Aug	10389.77	6598.44	7162.84	6715.76	3678.22	6096.83	502.39	396.70	463.65	11658.81	1835.13	4933.84	
31-Aug	10454.23	6679.54	7416.08	6625.37	3849.80	6361.87	553.55	396.39	483.58	11179.33	1916.71	4589.61	
1-Sep													
Average	10,022.28	5,525.07	6,998.87	6,376.39	3,597.49	5,890.00	536.27	396.48	470.06	12,179.52	2,346.57	5,073.19	



Monthly Flow Reading Summary Vermilion WTP

1-Sep-2020														
		Month Min	8,281.73	-32.97	6,289.01	5,756.65	2.46	5,004.78	453.82	2.30	174.27	8,353.08	505.14	3,780.22
		Month Max	11,311.13	6,880.25	8,123.14	8,154.57	4,734.71	7,058.31	754.82	588.12	614.64	12,743.31	3,912.59	5,753.48
Date	Raw Inlet Flow (FI-10)			CC Treated Flow (FIC-98530)			Creighton Flow (FIC-31)			U-Drain Flow (FI-100)				
	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum USGPM	Minimum USGPM	Average USGPM		
1-Sep	10317.82	5312.98	7407.16	6697.89	3487.50	6350.43	502.82	397.05	460.65	11527.02	2058.92	4665.05		
2-Sep	9871.94	5692.94	7093.48	6602.67	3657.85	5962.50	502.42	396.88	471.32	11907.02	2650.27	5007.99		
3-Sep	9406.32	5200.80	6333.55	5904.04	2814.59	5004.78	552.84	445.75	473.51	12725.71	3345.33	5753.48		
4-Sep	9527.43	-32.97	7018.80	6509.08	3649.76	5962.95	502.23	445.04	468.74	11669.04	3092.71	5011.26		
5-Sep	9635.29	6880.25	7265.42	6527.06	3751.06	6240.96	502.85	445.27	463.83	11719.60	3059.40	4792.37		
6-Sep	9060.83	5535.24	6689.22	6340.49	3796.59	5425.73	502.53	444.73	470.49	12743.31	3537.31	5433.83		
7-Sep	10791.88	6095.62	6953.22	6536.49	4076.63	5928.37	501.83	396.57	424.26	11672.15	1329.99	5078.03		
8-Sep	10453.47	6702.78	7344.65	6810.89	4046.44	6320.90	502.19	445.60	465.88	11880.70	1772.07	4626.21		
9-Sep	10079.29	6557.53	7115.71	6374.49	3814.23	6028.94	503.84	495.68	499.92	11947.80	2172.07	4865.65		
10-Sep	9363.15	5632.45	6761.93	5907.75	3338.63	5543.14	503.61	495.15	499.96	11687.25	3184.88	5228.75		
11-Sep	11311.13	6479.32	7541.67	7736.56	4592.50	6401.00	603.53	445.78	508.97	10539.91	505.14	4430.35		
12-Sep	10974.04	6595.15	8123.14	7911.57	4678.52	7058.31	453.82	444.19	449.80	10998.07	953.81	3780.22		
13-Sep	10096.68	6738.71	7422.41	7199.83	3991.40	6444.30	503.15	445.41	486.95	11992.75	1927.10	4425.71		
14-Sep	10848.38	6679.70	7551.18	7494.35	4734.71	6627.95	454.28	444.36	449.83	11175.77	978.23	4231.26		
15-Sep	9057.14	5286.21	6746.92	7126.75	3873.38	5723.44	458.61	445.08	449.80	11707.96	3334.77	5082.53		
16-Sep	8281.73	5642.73	6397.54	5756.65	3814.90	5246.13	503.41	396.37	461.41	12367.06	3912.59	5445.68		
17-Sep	9159.17	5367.77	6706.02	6018.06	3858.00	5617.81	603.17	445.82	519.29	11850.87	3132.55	5117.50		
18-Sep	9755.09	5447.05	6793.05	6098.82	3572.45	5762.93	603.71	445.81	503.69	11785.25	2462.78	5063.28		
19-Sep	9192.19	5241.99	6796.17	6306.43	3539.55	5813.04	602.65	348.43	468.01	12121.72	3148.60	5122.66		
20-Sep	8991.23	5138.55	6616.10	5930.90	3603.99	5505.27	653.23	447.48	584.80	12017.02	3252.79	5241.31		
21-Sep	9755.85	5351.62	6795.54	6426.53	3753.28	5758.57	652.50	445.97	547.96	12032.48	2255.80	5093.49		
22-Sep	9694.66	5432.13	6937.16	8154.57	3118.23	5764.41	754.76	588.12	614.64	11484.25	2328.14	5024.06		
23-Sep	9310.87	6506.93	7203.26	6935.40	3560.71	6208.11	754.82	396.98	604.26	11684.16	2990.26	4646.01		
24-Sep	8392.33	-30.70	6796.31	6936.57	2.46	5447.20	723.91	2.30	497.82	8353.08	3377.31	5303.31		
25-Sep	9547.07	5137.44	7534.88	6999.62	3858.28	6629.53	654.00	396.55	524.68	11061.71	2712.98	4205.18		
26-Sep	9723.77	5659.34	7172.15	6813.18	3816.87	6110.98	528.42	397.20	486.33	11150.67	2058.77	4736.20		
27-Sep	8756.15	5752.11	6559.20	5866.06	3456.17	5468.08	528.94	445.19	463.80	12374.37	3308.59	5298.04		
28-Sep	9148.81	6162.47	6676.58	6573.94	3997.24	5992.48	477.40	2.32	174.27	11936.92	2889.44	5130.01		
29-Sep	9299.08	5525.11	6783.40	6322.79	3665.01	5912.48	552.66	62.70	318.25	12079.56	2612.81	5180.04		
30-Sep	8507.97	3816.20	6289.01	5967.97	2870.24	5145.07	553.11	397.11	486.71	12389.54	2636.74	5490.69		
1-Oct														
Average	9,610.36	5,383.58	6,980.83	6,626.25	3,626.37	5,913.53	556.58	395.03	476.66	11,686.09	2,566.07	4,950.34		



Monthly Flow Reading Summary Vermilion WTP

1-Oct-2020	Month Min	8,587.86	-50.11	6,287.41	5,501.37	3,026.47	5,156.00	551.67	85.31	322.37	10,757.44	509.97	4,344.35
	Month Max	11,073.62	7,079.81	7,772.44	6,732.10	4,083.23	6,313.87	1,032.28	593.35	618.12	12,670.35	3,453.83	5,502.86
Date	Raw Inlet Flow (FI-10)			CC Treated Flow (FIC-98530)			Creighton Flow (FIC-31)			U-Drain Flow (FI-100)			
	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum USGPM	Minimum USGPM	Average USGPM	
1-Oct	9300.65	4056.81	6440.75	6021.80	3572.82	5457.90	603.81	85.31	509.36	11644.79	1780.96	5192.68	
2-Oct	8611.38	5388.77	6287.41	5825.02	4001.57	5156.00	653.84	390.72	513.13	12670.35	3377.48	5502.86	
3-Oct	9249.08	6202.17	6632.04	5980.42	3949.98	5660.21	605.47	397.50	523.26	11669.27	2670.65	5085.81	
4-Oct	8807.60	5325.77	6656.11	5961.38	4083.23	5666.47	551.67	439.21	453.68	12237.13	2929.65	5196.51	
5-Oct	9095.73	6080.80	6691.15	6137.17	3379.93	5654.19	654.85	445.00	531.99	11806.46	2579.00	5081.47	
6-Oct	9885.92	4632.92	6999.75	6420.32	3513.21	6004.12	653.86	396.46	539.47	11396.22	1116.90	4821.13	
7-Oct	9724.32	-50.11	7100.64	6516.90	3312.83	5900.70	604.27	396.97	570.95	12187.30	2592.34	4921.56	
8-Oct	8948.27	5225.45	6852.08	5760.91	3436.35	5318.61	603.31	396.14	512.33	12293.84	3453.83	5380.98	
9-Oct	9602.00	5238.71	6789.11	5568.47	3898.87	5369.26	604.58	391.45	543.83	11971.44	2663.24	5280.60	
10-Oct	9452.55	5340.46	6966.88	5848.58	4055.79	5653.29	654.93	395.83	521.50	11566.47	2600.33	5092.91	
11-Oct	9500.97	5512.15	6997.10	5847.36	4010.80	5665.41	603.81	396.34	515.43	11697.53	2356.51	5050.98	
12-Oct	8874.94	6162.46	6824.22	5876.81	3587.64	5652.65	602.44	85.39	322.37	12198.41	3134.93	5207.44	
13-Oct	8881.66	5317.43	6707.89	6279.59	3809.64	5446.42	602.44	384.49	517.42	11757.86	3280.30	5270.75	
14-Oct	9232.96	6219.10	6840.55	5999.45	3697.09	5659.72	604.58	443.64	508.06	11669.94	2570.87	5122.24	
15-Oct	8634.87	6014.71	6841.41	5947.54	4046.73	5671.16	604.34	444.76	517.15	11924.48	3006.75	5178.17	
16-Oct	9154.13	5928.43	6456.44	6010.83	3524.08	5656.90	553.49	441.05	501.77	11685.57	2273.19	5176.53	
17-Oct	9610.72	5812.24	6591.98	5983.75	3638.74	5663.44	654.30	542.71	575.27	11871.81	1912.27	5038.59	
18-Oct	9133.50	5613.98	6820.49	5978.84	3563.46	5666.08	654.05	593.35	618.12	11939.55	2101.22	5015.11	
19-Oct	8587.86	5507.51	6532.44	6397.01	3679.16	5656.15	655.09	444.59	564.88	11589.73	2631.23	5067.05	
20-Oct	9056.01	5323.58	6316.33	5913.39	3620.12	5662.24	604.67	88.55	511.38	11583.92	2409.59	5093.55	
21-Oct	9895.66	5803.30	6712.22	5939.17	3762.01	5660.21	653.26	396.69	512.95	11326.74	2502.11	5074.17	
22-Oct	9585.94	6542.12	6955.01	5877.86	3786.62	5655.69	602.85	494.23	544.35	11939.39	3173.26	5085.10	
23-Oct	9272.24	5895.00	6722.29	5914.99	3623.97	5623.34	702.16	386.63	576.64	12068.58	2754.34	5101.36	
24-Oct	9384.15	5972.78	6649.04	5906.72	3672.22	5332.12	653.03	396.08	512.34	12085.41	3027.72	5388.33	
25-Oct	11073.62	6580.35	7436.63	6384.62	3533.01	5905.52	604.56	395.20	544.09	11474.66	1835.41	4872.86	
26-Oct	9700.65	3622.66	7359.12	6669.60	3329.05	5681.14	1032.28	229.07	483.11	11588.59	509.97	4885.99	
27-Oct	9697.73	5075.17	7165.66	5826.97	3396.95	5401.52	704.77	395.95	607.65	12284.41	3093.34	5256.59	
28-Oct	9384.11	5850.24	6743.74	5501.37	3026.47	5226.37	604.22	390.88	499.90	12101.20	3338.74	5423.62	
29-Oct	9973.39	5317.28	6710.39	6045.96	3832.45	5287.46	603.76	444.44	491.82	12020.54	2425.12	5392.81	
30-Oct	9679.81	6938.07	7575.01	6361.88	3726.66	6049.71	653.94	440.49	557.36	11425.75	2950.02	4727.37	
31-Oct	9877.59	7079.81	7772.44	6732.10	3535.44	6313.87	654.65	395.85	591.99	10757.44	2874.63	4344.35	
1-Nov													
Average	9,382.90	5,468.71	6,843.43	6,046.35	3,664.74	5,625.09	638.69	385.97	525.60	11,820.48	2,578.25	5,107.40	



Monthly Flow Reading Summary Vermilion WTP

1-Nov-2020	Month Min	8,341.36	-72.30	5,920.96	5,461.58	2.29	5,164.80	553.85	88.28	410.09	9,852.21	0.00	3,463.58
	Month Max	12,733.90	7,805.99	8,599.68	7,957.96	4,117.99	7,230.29	863.16	493.12	587.46	12,629.81	4,038.62	5,465.79
Date	Raw Inlet Flow (FI-10)			CC Treated Flow (FIC-98530)			Creighton Flow (FIC-31)			U-Drain Flow (FI-100)			
	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum USGPM	Minimum USGPM	Average USGPM	
1-Nov	9959.53	6902.58	8225.20	6814.50	3601.15	6526.40	652.89	395.46	547.69	11067.14	3140.96	4221.16	
2-Nov	10708.02	7491.23	8178.01	7395.23	3923.57	6559.34	604.57	396.30	556.86	10863.44	1789.46	4128.40	
3-Nov	9784.34	5945.99	7497.44	6668.62	3711.46	5971.21	604.94	444.36	558.51	11776.44	3007.70	4767.64	
4-Nov	9560.98	6020.31	7269.13	6154.85	3262.07	5734.35	654.89	395.05	571.11	12169.33	3167.62	4971.23	
5-Nov	8528.17	6308.61	7046.99	6126.54	3001.81	5441.41	654.61	396.10	578.14	11549.42	4038.62	5153.30	
6-Nov	10719.21	7151.53	7963.98	6819.59	3529.15	6431.74	623.75	396.16	553.15	10799.93	1923.33	4341.93	
7-Nov	10791.72	7692.11	8338.17	6877.11	3486.53	6650.09	623.63	443.51	491.47	11027.54	1962.79	4137.52	
8-Nov	10946.33	7805.99	8599.68	7918.89	3301.99	6804.57	653.48	444.15	554.56	11064.27	1706.09	3911.44	
9-Nov	12733.90	-72.30	8246.38	7957.96	2.29	6855.13	863.16	228.99	578.70	11291.53	0.00	3632.52	
10-Nov	9625.50	6143.24	7690.02	6988.71	3922.24	6268.25	654.09	396.48	547.75	11703.31	3164.77	4422.78	
11-Nov	9685.62	5938.14	6757.65	5461.58	3603.58	5164.80	653.78	88.28	410.09	12193.02	3230.81	5465.79	
12-Nov	10424.24	6581.55	7373.71	6800.35	3566.59	6026.92	603.71	396.81	517.70	11370.36	1996.56	4749.27	
13-Nov	10484.54	5672.13	7816.58	6889.70	3978.29	6648.44	604.86	445.29	512.52	11114.35	1359.19	4150.11	
14-Nov	10317.06	5422.79	7586.16	6903.69	3809.77	6646.86	604.01	395.47	503.14	10978.69	1446.01	4150.07	
15-Nov	9470.04	5257.52	7176.70	6967.32	4117.99	6227.74	705.00	444.47	585.70	11661.06	2580.93	4552.52	
16-Nov	9275.90	5614.35	6693.80	6191.52	3975.18	5761.15	705.75	395.78	560.25	11863.05	2712.76	4966.79	
17-Nov	9100.88	5602.56	6549.99	5852.16	3707.33	5395.19	655.27	396.17	563.96	11845.18	3199.43	5221.63	
18-Nov	9234.43	5821.06	6531.18	5835.29	3091.33	5191.72	603.86	396.23	493.04	12262.32	3199.45	5422.55	
19-Nov	10093.71	6394.94	7378.89	7828.36	3882.78	6540.69	604.19	396.35	480.20	10859.85	1484.08	4319.40	
20-Nov	9728.75	7216.15	8086.19	7891.95	3604.09	7230.29	754.74	394.23	587.46	9852.21	1679.62	3463.58	
21-Nov	9429.89	6647.77	8071.86	7943.02	3551.84	7170.92	653.04	443.43	530.12	11817.60	2569.06	3584.36	
22-Nov	9066.23	5788.33	6763.21	6372.20	3552.24	5779.83	605.51	395.36	517.54	11866.95	3279.01	4932.12	
23-Nov	9621.14	6414.76	6876.04	7171.74	3884.61	5971.68	605.20	446.21	543.15	11924.56	2367.65	4799.04	
24-Nov	9723.17	6412.22	6809.27	6186.69	3812.89	5959.60	555.03	445.55	512.23	11429.61	2211.86	4821.36	
25-Nov	8923.66	4794.37	6498.12	6148.99	4031.81	5788.61	602.74	396.86	511.69	11781.37	2835.71	4948.15	
26-Nov	8408.88	5209.09	5990.69	5924.75	4001.75	5267.78	603.63	391.46	505.92	12629.81	3319.81	5350.92	
27-Nov	8584.90	5201.72	6289.36	6173.66	3297.34	5602.36	553.85	395.66	486.88	12316.96	3264.62	5107.12	
28-Nov	8881.96	4936.10	6435.11	6191.42	3912.07	5735.88	604.55	493.12	545.07	12273.08	3039.94	4942.11	
29-Nov	8341.36	5556.33	6112.68	6175.56	3975.69	5580.90	604.80	396.46	526.02	11206.57	3193.57	5065.90	
30-Nov	8521.38	4512.27	5920.96	6551.00	3403.69	5936.47	604.32	396.21	476.10	11653.09	2440.56	4805.28	
1-Dec	Average	9,689.18	5,879.45	7,225.77	6,706.10	3,550.10	6,095.68	635.93	396.20	530.22	11,540.40	2,510.40	4,616.87



Monthly Flow Reading Summary Vermilion WTP

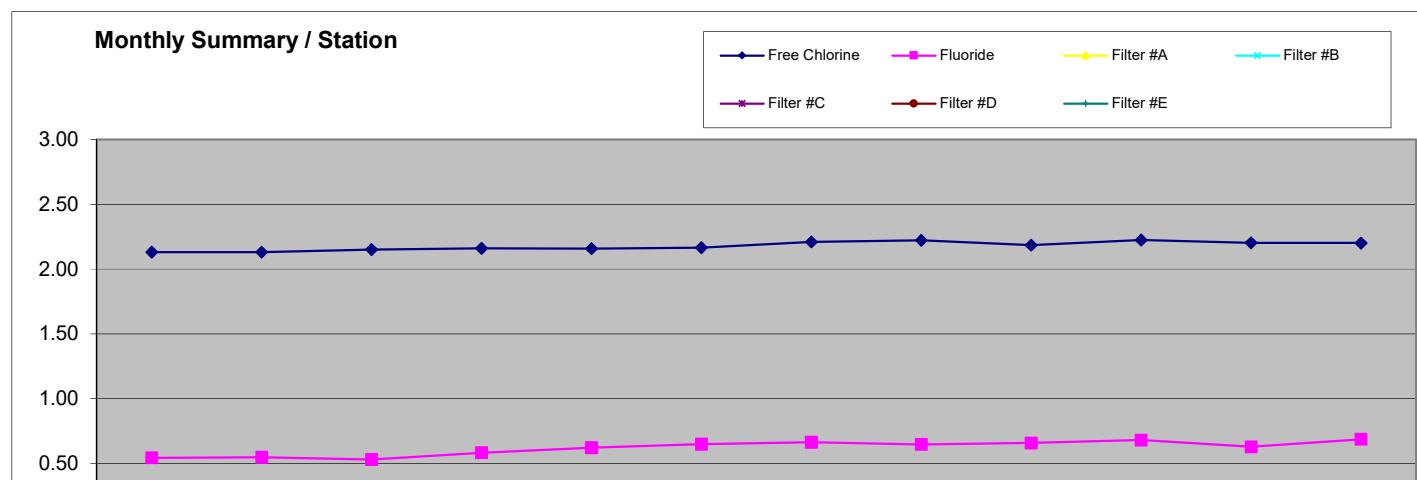
1-Dec-2020	Month Min	7,254.72	-71.53	4,852.48	5,338.99	2.31	4,964.38	420.40	9.54	172.27	11,384.04	0.00	4,392.29
	Month Max	15,966.07	6,678.18	7,938.26	6,719.54	4,032.59	6,544.83	1,380.59	298.40	414.82	12,751.12	3,486.84	5,658.10
Date	Raw Inlet Flow (FI-10)			CC Treated Flow (FIC-98530)			Creighton Flow (FIC-31)			U-Drain Flow (FI-100)			
	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum GPM	Minimum GPM	Average GPM	Maximum USGPM	Minimum USGPM	Average USGPM	
1-Dec	7254.72	3479.09	4948.80	6100.42	3457.75	5579.37	452.78	248.57	414.82	12112.66	3180.64	5123.68	
2-Dec	15966.07	-71.53	4852.48	6418.93	3.30	5500.94	1380.59	89.96	356.35	11556.20	2265.67	5212.71	
3-Dec	10760.70	4940.88	7938.26	6719.54	4032.59	6544.83	420.40	297.07	357.31	11546.82	2306.69	4392.29	
4-Dec	10516.80	5393.54	7387.68	6688.18	4022.23	5761.50	454.03	298.40	382.92	11544.34	2641.12	4988.04	
5-Dec	9342.63	4955.53	6706.68	5338.99	2995.02	5052.01	502.71	9.54	361.31	12588.21	3486.84	5577.49	
6-Dec	9977.30	4371.96	6555.58	5569.23	3880.74	5106.12	505.11	90.53	226.61	12194.52	3108.31	5565.64	
7-Dec	10042.29	5310.91	7180.22	6363.43	3758.53	5594.09	503.99	88.27	192.30	12117.35	3111.39	5168.34	
8-Dec	9871.27	5923.75	6951.76	5770.89	3676.43	5269.31	503.66	89.09	221.23	12076.03	3138.09	5408.16	
9-Dec	10486.76	5836.30	6920.50	5804.23	3687.10	5351.99	506.32	70.33	234.77	11861.61	2502.98	5371.99	
10-Dec	9334.26	-69.45	5700.91	5829.63	2.31	4964.38	503.95	78.12	265.98	12458.42	0.00	5658.10	
11-Dec	9499.91	5527.51	6596.78	5504.16	3147.17	5177.06	504.34	71.42	229.30	12263.44	3309.87	5499.26	
12-Dec	10258.51	5694.06	7053.94	5563.55	2944.07	5370.37	503.27	89.55	256.26	12164.03	2832.62	5314.10	
13-Dec	10454.22	5002.82	6941.91	5741.42	3422.08	5372.47	503.22	78.48	255.25	12372.30	2762.47	5282.53	
14-Dec	10454.22	6489.74	7277.25	6249.43	3297.97	5654.32	504.20	81.40	286.06	11669.06	2788.64	5063.15	
15-Dec	10444.07	5822.36	7290.94	5954.03	3589.52	5663.53	504.23	71.71	298.42	11426.42	2381.41	5035.42	
16-Dec	10055.42	6251.70	7488.39	6153.31	3591.16	5775.88	503.81	75.69	278.68	11901.30	3057.72	5015.59	
17-Dec	10605.24	6383.14	7550.90	6294.75	3923.39	5972.40	504.18	63.14	259.17	11584.83	2175.02	4872.94	
18-Dec	10819.33	6044.83	7633.19	6247.88	3890.35	5963.35	504.51	80.67	325.01	11805.50	2189.86	4859.91	
19-Dec	10378.50	6151.65	7568.40	6163.73	3612.99	5809.72	504.81	88.50	328.63	12032.58	3106.23	4986.30	
20-Dec	10540.04	6295.55	7269.69	5933.92	3469.44	5413.67	504.42	86.35	341.05	11898.24	3117.74	5263.20	
21-Dec	9710.30	6180.24	7167.33	5869.55	3324.60	5440.37	504.40	86.40	359.43	12021.14	3071.08	5253.15	
22-Dec	10068.55	6678.18	7188.00	6099.92	3597.18	5666.13	504.81	78.37	313.24	11503.72	2800.54	5081.17	
23-Dec	9702.23	6190.28	7124.96	5968.62	3609.78	5664.53	504.25	88.22	282.23	12023.67	2854.65	5101.69	
24-Dec	9805.73	6314.98	7050.92	5987.83	3590.27	5647.25	503.56	91.40	231.18	11856.82	3150.13	5144.65	
25-Dec	9839.61	5958.50	7094.10	5949.15	3809.14	5595.35	503.10	67.02	179.26	11616.14	3117.26	5205.75	
26-Dec	9542.51	6065.93	6684.37	5579.42	3752.58	5114.13	503.22	75.62	172.27	12751.12	3417.60	5634.75	
27-Dec	9926.16	5964.25	7219.78	6217.83	3738.18	5771.30	502.81	69.23	226.94	11928.53	2920.23	5054.49	
28-Dec	9763.80	5676.96	7089.54	6226.44	3571.31	5818.51	503.41	92.25	231.69	11819.58	2928.63	5013.06	
29-Dec	9817.68	5758.44	7144.08	6183.37	3820.32	5966.03	506.33	79.03	299.98	11478.03	2617.28	4886.84	
30-Dec	9601.19	5426.35	7021.47	6096.17	3815.99	5772.49	504.23	84.59	318.28	11384.04	2682.36	4989.14	
31-Dec	9515.62	5482.78	6911.51	5843.37	3449.71	5652.72	504.48	81.81	328.65	11707.55	2657.95	5093.29	
1-Jan													
Average	10,140.50	5,336.49	6,951.95	6,013.91	3,370.43	5,580.84	526.42	98.09	284.34	11,911.75	2,763.90	5,165.06	



Annual Turbidity Summary Vermilion WTP

Summary : 2020

Month	Free Chlorine Residual ppm	Fluoride Residual ppm	Filter #A Turbidity NTU	Filter #B Turbidity NTU	Filter #C Turbidity NTU	Filter #D Turbidity NTU	Filter #E Turbidity NTU
January	2.13	0.54	0.02	0.02	0.02	0.02	0.03
February	2.13	0.55	0.02	0.02	0.02	0.02	0.03
March	2.15	0.53	0.02	0.01	0.02	0.02	0.04
April	2.16	0.58	0.03	0.02	0.02	0.03	0.05
May	2.16	0.62	0.02	0.02	0.02	0.03	0.04
June	2.17	0.65	0.02	0.02	0.02	0.02	0.02
July	2.21	0.66	0.03	0.02	0.03	0.02	0.02
August	2.22	0.65	0.03	0.02	0.02	0.02	0.02
September	2.18	0.66	0.04	0.03	0.03	0.02	0.02
October	2.22	0.68	0.03	0.02	0.02	0.02	0.02
November	2.20	0.63	0.03	0.03	0.02	0.02	0.03
December	2.20	0.69	0.02	0.02	0.01	0.02	0.02
Annual Average:		2.18	0.62	0.03	0.02	0.02	0.03





Monthly Turbidity Reading Summary
Vermilion WTP

1-Jan-2020																						
Month	Min	2.20	0.04	2.04	0.50	0.45	0.48	0.02	0.00	0.02	0.00	0.01	0.02	0.00	0.02	0.02	0.01	0.02	0.03	0.00	0.02	
Month	Max	2.58	2.18	2.25	0.63	0.56	0.58	1.02	0.02	0.03	1.02	0.01	0.02	1.02	0.03	1.02	0.02	1.02	1.02	0.04	0.05	
Chlorine Residual (Al-85)																						
Date	Maximum ppm	Minimum ppm	Average ppm	Maximum ppm	Minimum ppm	Average ppm	Maximum NTU	Minimum NTU	Average NTU													
1-Jan	2.31	2.02	2.11	0.60	0.54	0.56	0.27	0.02	0.02	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.04	0.03	0.03	
2-Jan	2.26	2.00	2.12	0.58	0.53	0.55	0.04	0.02	0.02	1.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.04	0.03	0.03	
3-Jan	2.23	1.96	2.05	0.57	0.53	0.54	0.04	0.02	0.02	0.02	0.01	0.01	0.99	0.02	0.02	0.02	0.02	0.02	0.05	0.02	0.03	
4-Jan	2.36	2.04	2.10	0.59	0.50	0.55	0.06	0.02	0.02	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.04	0.03	0.03	
5-Jan	2.40	2.04	2.12	0.55	0.52	0.53	0.05	0.02	0.02	0.02	0.01	0.01	0.03	0.02	0.02	0.02	0.02	0.02	0.44	0.03	0.03	
6-Jan	2.52	1.99	2.18	0.62	0.51	0.55	0.50	0.02	0.03	0.02	0.01	0.01	0.03	0.02	0.02	0.02	0.02	0.02	0.08	0.02	0.04	
7-Jan	2.36	2.08	2.16	0.58	0.53	0.56	0.04	0.02	0.03	1.02	0.01	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.04	0.03	0.03	
8-Jan	2.58	2.11	2.20	0.60	0.54	0.57	0.04	0.02	0.03	0.02	0.01	0.02	1.02	0.02	0.03	0.02	0.02	0.02	0.04	0.02	0.03	
9-Jan	2.46	2.08	2.23	0.58	0.53	0.56	0.03	0.02	0.02	0.02	0.01	0.02	0.03	0.02	0.02	0.02	1.02	0.02	0.03	0.02	0.03	
10-Jan	2.24	1.99	2.06	0.56	0.51	0.54	0.04	0.02	0.02	0.02	0.01	0.01	0.03	0.02	0.02	0.03	0.02	0.02	0.45	0.02	0.03	
11-Jan	2.26	1.80	2.04	0.63	0.53	0.55	0.40	0.02	0.03	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.03	0.04	
12-Jan	2.32	1.74	2.04	0.62	0.55	0.58	0.03	0.02	0.03	1.02	0.01	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.07	0.02	0.04	
13-Jan	2.21	1.98	2.07	0.60	0.52	0.55	0.03	0.02	0.03	0.02	0.01	0.02	0.92	0.02	0.03	0.02	0.02	0.02	0.04	0.03	0.03	
14-Jan	2.27	1.99	2.07	0.54	0.52	0.53	0.08	0.02	0.03	0.02	0.01	0.01	0.03	0.02	0.02	1.02	0.02	0.02	0.04	0.02	0.03	
15-Jan	2.48	2.02	2.09	0.54	0.51	0.52	0.04	0.02	0.02	0.02	0.01	0.01	0.03	0.02	0.02	0.02	0.02	0.02	0.51	0.02	0.03	
16-Jan	2.45	2.03	2.17	0.54	0.50	0.53	0.58	0.02	0.03	0.02	0.01	0.01	0.03	0.02	0.02	0.02	0.02	0.02	0.04	0.03	0.03	
17-Jan	2.45	1.99	2.14	0.50	0.45	0.48	0.08	0.02	0.03	1.02	0.01	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.04	0.03	0.03	
18-Jan	2.46	2.06	2.13	0.55	0.50	0.53	0.04	0.02	0.03	0.02	0.01	0.01	0.96	0.02	0.03	0.02	0.02	0.02	0.04	0.02	0.03	
19-Jan	2.52	2.04	2.16	0.58	0.53	0.56	0.03	0.02	0.02	0.02	0.01	0.01	0.03	0.02	0.03	1.00	0.01	0.02	0.04	0.03	0.03	
20-Jan	2.36	2.07	2.19	0.59	0.55	0.57	0.05	0.02	0.02	0.02	0.01	0.01	0.03	0.02	0.02	0.02	0.02	0.02	0.36	0.02	0.05	
21-Jan	2.43	2.03	2.18	0.58	0.52	0.54	0.22	0.02	0.02	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.04	0.03	0.03	
22-Jan	2.51	0.04	2.14	0.55	0.52	0.53	1.02	0.00	0.03	1.02	0.00	0.02	1.02	0.00	0.03	0.87	0.02	0.02	1.02	0.00	0.04	
23-Jan	2.36	2.12	2.20	0.55	0.51	0.54	0.04	0.02	0.02	0.02	0.01	0.02	0.85	0.02	0.03	0.02	0.02	0.02	0.05	0.03	0.03	
24-Jan	2.55	2.18	2.25	0.57	0.53	0.55	0.02	0.02	0.02	0.02	0.01	0.01	0.03	0.02	1.01	0.02	0.02	0.02	0.07	0.03	0.03	
25-Jan	2.33	2.04	2.14	0.56	0.53	0.55	0.07	0.02	0.02	0.02	0.01	0.01	0.03	0.02	0.02	0.02	0.02	0.02	0.52	0.03	0.04	
26-Jan	2.43	2.00	2.09	0.55	0.52	0.54	0.44	0.02	0.02	0.02	0.01	0.01	0.03	0.02	0.02	0.02	0.02	0.02	0.05	0.03	0.04	
27-Jan	2.32	2.03	2.15	0.56	0.54	0.55	0.04	0.02	0.02	1.02	0.01	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.05	0.04	0.04	
28-Jan	2.27	2.03	2.10	0.54	0.52	0.53	0.03	0.02	0.02	0.02	0.01	0.01	1.00	0.02	0.03	0.02	0.02	0.02	0.05	0.02	0.04	
29-Jan	2.32	1.96	2.06	0.55	0.51	0.53	0.03	0.02	0.02	0.03	0.01	0.01	0.03	0.02	0.02	0.98	0.02	0.02	0.03	0.02	0.02	
30-Jan	2.34	2.07	2.16	0.59	0.55	0.57	0.03	0.02	0.02	0.04	0.01	0.01	0.04	0.02	0.02	0.02	0.02	0.02	0.52	0.02	0.03	
31-Jan	2.20	1.94	2.14	0.59	0.56	0.58	0.32	0.02	0.02	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.04	0.03	0.04	
1-Feb	Average	2.37	1.95	2.13	0.57	0.52	0.54	0.15	0.02	0.02	0.21	0.01	0.02	0.24	0.02	0.02	0.24	0.02	0.02	0.16	0.03	0.03



Monthly Turbidity Reading Summary
Vermilion WTP

1-Feb-2020

Month	Min	0.18	0.04	1.99	0.50	0.20	0.40	0.02	0.00	0.02	0.01	0.00	0.01	0.02	0.00	0.02	0.02	0.00	0.02	0.03	0.00	0.02
Month	Max	3.22	2.12	2.25	1.36	0.61	0.64	1.02	0.02	0.04	1.02	0.02	0.07	1.02	0.02	0.04	1.02	0.02	0.03	1.02	0.04	0.06
Date	Chlorine Residual (AI-85)			Fluoride Residual (HFS-Master)			Filter #A Turbidity (AI-98582)			Filter #B Turbidity (AI-98577)			Filter #C Turbidity (AI-98576)			Filter #D Turbidity (AI-98580)			Filter #E Turbidity (AI-98581)			
	Maximum ppm	Minimum ppm	Average ppm	Maximum ppm	Minimum ppm	Average ppm	Maximum NTU	Minimum NTU	Average NTU	Maximum NTU	Minimum NTU	Average NTU	Maximum NTU	Minimum NTU	Average NTU	Maximum NTU	Minimum NTU	Average NTU	Maximum NTU	Minimum NTU	Average NTU	
1-Feb	2.38	1.85	2.02	0.57	0.54	0.55	0.04	0.02	0.02	1.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.04	0.03	0.04
2-Feb	2.31	1.98	2.06	0.57	0.55	0.56	0.02	0.02	0.02	1.02	0.01	0.01	1.02	0.02	0.04	1.01	0.02	0.02	0.05	0.04	0.04	0.04
3-Feb	3.22	0.04	2.18	0.58	0.49	0.54	0.17	0.02	0.03	0.03	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.03	0.04
4-Feb	2.23	1.94	2.13	0.57	0.54	0.56	1.02	0.02	0.04	0.21	0.01	0.01	0.03	0.02	0.02	0.02	0.02	0.01	0.02	0.04	0.02	0.04
5-Feb	2.75	2.08	2.25	0.61	0.55	0.58	0.33	0.02	0.02	0.03	0.01	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.02	0.29	0.03	0.04
6-Feb	2.37	2.02	2.21	0.57	0.53	0.55	0.07	0.02	0.02	1.02	0.01	0.03	0.03	0.02	0.02	0.02	0.01	0.02	0.08	0.03	0.06	
7-Feb	2.59	2.03	2.11	0.68	0.47	0.55	0.06	0.02	0.02	1.02	0.02	0.03	0.12	0.02	0.02	0.93	0.01	0.02	0.03	0.03	0.03	
8-Feb	2.26	2.07	2.17	0.51	0.47	0.50	0.05	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.01	0.02	0.04	0.03	0.03
9-Feb	2.53	2.12	2.21	0.50	0.46	0.48	0.44	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.02	0.28	0.02	0.03
10-Feb	2.51	1.92	2.13	0.53	0.45	0.48	0.15	0.02	0.02	1.02	0.02	0.07	0.03	0.02	0.02	0.02	0.02	0.01	0.02	0.03	0.02	0.03
11-Feb	2.43	2.10	2.21	0.55	0.46	0.49	0.03	0.02	0.02	1.02	0.01	0.02	1.02	0.02	0.03	0.02	0.02	0.01	0.02	0.03	0.02	0.02
12-Feb	2.30	1.95	2.08	0.57	0.20	0.40	0.02	0.02	0.02	0.02	0.01	0.01	0.03	0.02	0.03	1.02	0.01	0.02	0.04	0.02	0.03	
13-Feb	2.40	2.05	2.11	0.64	0.57	0.60	0.03	0.02	0.02	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.51	0.03	0.03
14-Feb	2.27	1.98	2.09	0.63	0.44	0.53	0.31	0.02	0.02	0.02	0.01	0.01	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.04	0.03	0.04
15-Feb	2.18	1.89	1.99	0.62	0.53	0.56	0.04	0.02	0.02	1.02	0.01	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.04	0.02	0.03
16-Feb	2.54	1.96	2.11	0.61	0.58	0.59	0.02	0.02	0.02	0.02	0.01	0.02	1.02	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.03
17-Feb	2.40	2.04	2.18	0.62	0.56	0.61	0.08	0.02	0.02	0.02	0.01	0.01	0.03	0.02	0.03	1.00	0.02	0.02	0.04	0.02	0.03	
18-Feb	2.34	2.06	2.13	0.56	0.53	0.55	0.05	0.02	0.02	0.02	0.01	0.01	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.55	0.03	0.04
19-Feb	2.37	2.04	2.16	1.36	0.31	0.62	0.28	0.02	0.02	0.02	0.01	0.01	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.05	0.04	0.05
20-Feb	2.40	2.03	2.17	0.74	0.38	0.64	0.03	0.02	0.02	1.02	0.01	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.04	0.05
21-Feb	2.56	1.94	2.15	0.71	0.61	0.64	0.03	0.02	0.02	0.02	0.01	0.02	0.95	0.02	0.03	0.02	0.02	0.02	0.02	0.05	0.03	0.04
22-Feb	2.43	1.97	2.12	0.68	0.55	0.63	0.04	0.02	0.02	0.02	0.01	0.02	0.03	0.02	0.02	1.00	0.02	0.02	0.04	0.03	0.03	
23-Feb	2.42	1.94	2.11	0.61	0.49	0.57	0.06	0.02	0.02	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.46	0.02	0.03	
24-Feb	2.95	2.05	2.16	0.62	0.41	0.52	1.01	0.00	0.03	1.02	0.00	0.02	1.02	0.00	0.02	1.01	0.00	0.02	1.02	0.00	0.03	
25-Feb	2.58	2.03	2.13	0.64	0.50	0.53	0.04	0.02	0.02	1.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.03	
26-Feb	2.32	0.04	2.21	0.69	0.50	0.58	0.03	0.02	0.02	0.02	0.01	0.01	1.00	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.02	
27-Feb	2.34	1.94	2.10	0.65	0.51	0.55	0.03	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.02	0.99	0.02	0.03	0.04	0.02	0.03	
28-Feb	2.38	1.95	2.03	0.54	0.46	0.49	0.03	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.60	0.03	0.04	
29-Feb	2.26	2.00	2.09	0.56	0.38	0.48	0.27	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.04	0.03	0.03	
1-Mar	Average	2.45	1.86	2.13	0.63	0.48	0.55	0.16	0.02	0.02	0.34	0.01	0.02	0.23	0.02	0.02	0.26	0.02	0.02	0.16	0.03	0.03



Monthly Turbidity Reading Summary
Vermilion WTP

1-Mar-2020																		
Month Min	2.21	0.04	2.01	0.52	0.41	0.48	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.01	0.02	0.02	0.03	0.02
Month Max	2.68	2.11	2.26	1.00	0.61	0.66	0.93	0.02	0.03	1.02	0.01	0.02	1.02	0.03	1.02	0.03	1.02	0.09
Chlorine Residual (Al-85) Fluoride Residual (HFS-Master)																		
Date	Maximum ppm	Minimum ppm	Average ppm	Maximum ppm	Minimum ppm	Average ppm	Maximum NTU	Minimum NTU	Average NTU									
1-Mar	2.21	1.94	2.07	0.57	0.44	0.48	0.05	0.02	0.02	1.02	0.01	0.02	0.02	0.02	0.09	0.02	0.02	0.04
2-Mar	2.29	1.99	2.06	0.56	0.50	0.52	0.03	0.02	0.02	0.01	0.01	0.01	0.02	0.03	0.02	0.02	0.02	0.05
3-Mar	2.61	2.01	2.23	0.62	0.52	0.58	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.02	1.00	0.02	0.02
4-Mar	2.36	1.99	2.21	0.61	0.52	0.56	0.04	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.49
5-Mar	2.47	2.11	2.21	0.62	0.44	0.55	0.25	0.02	0.02	0.01	0.01	0.01	0.03	0.02	0.02	0.02	0.06	0.05
6-Mar	2.68	2.05	2.18	0.57	0.43	0.53	0.38	0.02	0.02	1.02	0.01	0.01	0.03	0.02	0.03	0.02	0.02	0.07
7-Mar	2.43	2.07	2.19	0.54	0.47	0.50	0.03	0.02	0.02	1.02	0.01	0.02	1.02	0.02	0.03	0.02	0.02	0.05
8-Mar	2.36	2.06	2.17	0.56	0.50	0.53	0.03	0.02	0.02	0.02	0.01	0.01	0.03	0.02	0.02	1.01	0.02	0.02
9-Mar	2.23	1.85	2.05	0.56	0.41	0.50	0.03	0.02	0.02	0.01	0.01	0.01	0.03	0.02	0.02	0.02	0.02	0.64
10-Mar	2.32	1.93	2.10	0.56	0.41	0.49	0.36	0.02	0.02	0.01	0.01	0.01	0.03	0.02	0.02	0.02	0.02	0.04
11-Mar	2.34	2.03	2.14	0.59	0.47	0.53	0.03	0.02	0.02	1.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.04
12-Mar	2.34	2.02	2.15	0.59	0.52	0.55	0.17	0.02	0.02	0.01	0.01	0.01	1.02	0.02	0.03	0.02	0.02	0.03
13-Mar	2.29	1.87	2.01	0.56	0.46	0.51	0.03	0.02	0.02	0.01	0.01	0.01	0.03	0.02	0.02	1.02	0.02	0.02
14-Mar	2.41	1.89	2.07	0.53	0.46	0.49	0.03	0.02	0.02	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.47
15-Mar	2.52	2.01	2.12	0.55	0.41	0.49	0.29	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.08
16-Mar	2.45	2.07	2.21	0.52	0.45	0.49	0.05	0.02	0.02	1.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02
17-Mar	2.45	2.09	2.18	0.54	0.47	0.49	0.04	0.02	0.02	0.02	0.01	0.01	1.02	0.02	0.03	0.04	0.02	0.03
18-Mar	2.54	2.03	2.22	0.54	0.47	0.51	0.03	0.02	0.02	0.02	0.01	0.01	0.03	0.02	0.02	1.01	0.02	0.03
19-Mar	2.45	1.96	2.26	0.54	0.49	0.51	0.03	0.02	0.02	0.02	0.01	0.01	0.02	0.02	0.02	0.03	0.02	0.64
20-Mar	2.36	1.97	2.21	0.55	0.44	0.50	0.31	0.02	0.02	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.04
21-Mar	2.35	1.89	2.12	0.76	0.49	0.56	0.03	0.02	0.03	1.02	0.01	0.02	0.03	0.02	0.03	0.02	0.02	0.04
22-Mar	2.45	2.07	2.19	0.72	0.61	0.66	0.03	0.02	0.02	0.02	0.01	0.01	1.02	0.02	0.03	0.02	0.02	0.04
23-Mar	2.36	1.99	2.20	1.00	0.52	0.60	0.03	0.02	0.02	0.02	0.01	0.01	0.03	0.02	0.02	1.02	0.02	0.03
24-Mar	2.43	2.00	2.09	0.58	0.50	0.54	0.93	0.02	0.02	1.00	0.01	0.01	1.00	0.02	0.02	1.01	0.02	0.03
25-Mar	2.34	1.82	2.14	0.61	0.50	0.56	0.31	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.02	0.02	0.02	0.08
26-Mar	2.29	1.94	2.04	0.59	0.53	0.56	0.06	0.02	0.02	1.02	0.01	0.02	0.02	0.01	0.02	0.02	0.02	0.03
27-Mar	2.45	0.04	2.15	0.59	0.52	0.55	0.05	0.02	0.03	0.02	0.01	0.02	1.02	0.01	0.02	0.02	0.02	0.04
28-Mar	2.40	1.98	2.12	0.56	0.49	0.53	0.04	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	1.01	0.02	0.03
29-Mar	2.37	2.07	2.15	0.53	0.48	0.50	0.04	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.03	0.02	0.04
30-Mar	2.55	2.09	2.25	0.57	0.47	0.52	0.28	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.02	0.03	0.02	0.10
31-Mar	2.36	1.98	2.20	0.58	0.49	0.53	0.04	0.02	0.03	1.02	0.01	0.02	0.02	0.01	0.02	0.03	0.02	0.04
1-Apr	2.40	1.93	2.15	0.59	0.48	0.53	0.13	0.02	0.02	0.31	0.01	0.01	0.25	0.02	0.02	0.25	0.02	0.04
Average	2.40	1.93	2.15	0.59	0.48	0.53	0.13	0.02	0.02	0.31	0.01	0.01	0.25	0.02	0.02	0.25	0.02	0.04



Monthly Turbidity Reading Summary
Vermilion WTP

1-Apr-2020																					
Month Min	2.18	0.04	2.09	0.56	0.42	0.50	0.03	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.02	0.02	0.03	0.00	0.02		
Month Max	2.65	2.14	2.25	0.71	0.62	0.67	0.99	0.03	0.04	1.02	0.02	0.03	1.02	0.04	1.02	0.03	1.02	0.07	0.05	0.13	
Chlorine Residual (Al-85) Fluoride Residual (HFS-Master) Filter #A Turbidity (Al-98552) Filter #B Turbidity (Al-98577) Filter #C Turbidity (Al-98576) Filter #D Turbidity (Al-98580) Filter #E Turbidity (Al-98581)																					
Date	Maximum ppm	Minimum ppm	Average ppm	Maximum ppm	Minimum ppm	Average ppm	Maximum NTU	Minimum NTU	Average NTU												
1-Apr	2.43	1.96	2.12	0.57	0.50	0.52	0.04	0.02	0.02	0.02	0.01	0.02	1.02	0.01	0.02	0.02	0.02	0.02	0.04	0.03	0.04
2-Apr	2.48	2.09	2.21	0.65	0.52	0.56	0.05	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.05	0.04
3-Apr	2.39	2.06	2.13	0.64	0.58	0.61	0.06	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.50	0.04
4-Apr	2.27	2.03	2.17	0.65	0.56	0.62	0.29	0.02	0.03	0.02	0.01	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.05	0.03	0.04
5-Apr	2.34	1.91	2.13	0.68	0.54	0.63	0.04	0.03	0.04	1.02	0.01	0.03	0.03	0.02	0.02	0.03	0.03	0.03	0.05	0.04	0.04
6-Apr	2.27	2.03	2.11	0.70	0.59	0.65	0.05	0.03	0.04	0.03	0.02	0.03	1.02	0.02	0.03	0.04	0.03	0.03	0.06	0.04	0.05
7-Apr	2.25	1.98	2.14	0.71	0.56	0.67	0.09	0.03	0.04	0.04	0.02	0.03	0.05	0.03	0.04	1.02	0.03	0.05	0.07	0.04	0.05
8-Apr	2.65	2.01	2.14	0.63	0.51	0.58	0.08	0.02	0.02	0.04	0.04	0.02	0.03	0.05	0.02	0.03	0.03	0.04	0.62	0.05	0.06
9-Apr	2.47	2.04	2.16	0.62	0.49	0.56	0.33	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.06	0.05	0.05
10-Apr	2.46	2.14	2.24	0.61	0.53	0.57	0.04	0.02	0.03	1.02	0.01	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.05	0.04	0.05
11-Apr	2.35	2.08	2.20	0.61	0.53	0.56	0.09	0.02	0.03	0.02	0.01	0.02	0.99	0.02	0.02	0.03	0.02	0.02	0.05	0.03	0.04
12-Apr	2.37	2.09	2.19	0.62	0.53	0.58	0.04	0.02	0.02	0.02	0.01	0.02	0.03	0.02	0.02	1.02	0.02	0.03	0.06	0.04	0.05
13-Apr	2.30	2.05	2.14	0.61	0.53	0.56	0.06	0.02	0.02	0.03	0.01	0.02	0.03	0.02	0.02	0.03	0.02	0.03	0.63	0.05	0.07
14-Apr	2.22	1.99	2.13	0.56	0.42	0.51	0.31	0.02	0.03	0.02	0.01	0.02	0.02	0.02	0.02	0.04	0.03	0.03	0.09	0.05	0.07
15-Apr	2.38	1.72	2.13	0.58	0.45	0.50	0.05	0.02	0.03	1.02	0.01	0.02	0.03	0.02	0.02	0.03	0.02	0.03	0.11	0.07	0.09
16-Apr	2.53	1.93	2.23	0.59	0.50	0.55	0.03	0.02	0.02	0.02	0.01	0.02	1.02	0.02	0.02	0.03	0.02	0.02	1.02	0.00	0.13
17-Apr	2.37	2.02	2.17	0.61	0.51	0.55	0.04	0.02	0.02	0.02	0.01	0.02	0.03	0.02	0.02	1.00	0.02	0.03	0.10	0.02	0.05
18-Apr	2.51	2.03	2.13	0.63	0.51	0.56	0.03	0.02	0.02	0.03	0.01	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.49	0.02	0.03
19-Apr	2.28	2.04	2.19	0.64	0.52	0.58	0.29	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.03
20-Apr	2.38	1.99	2.24	0.59	0.48	0.55	0.04	0.02	0.02	1.02	0.01	0.02	0.02	0.01	0.02	0.03	0.02	0.02	0.04	0.02	0.03
21-Apr	2.32	2.06	2.14	0.62	0.52	0.57	0.03	0.02	0.02	0.03	0.02	0.02	1.01	0.02	0.02	0.03	0.02	0.02	0.04	0.03	0.04
22-Apr	2.55	0.04	2.20	0.67	0.52	0.58	0.03	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.97	0.02	0.03	0.04	0.02	0.03
23-Apr	2.38	1.95	2.25	0.71	0.58	0.65	0.99	0.02	0.02	1.02	0.01	0.02	1.02	0.01	0.03	1.00	0.02	0.02	1.02	0.02	0.03
24-Apr	2.18	1.90	2.09	0.66	0.46	0.58	0.27	0.02	0.03	0.02	0.01	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.04	0.03	0.03
25-Apr	2.19	1.96	2.11	0.56	0.46	0.51	0.03	0.02	0.02	1.02	0.01	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.05	0.03	0.04
26-Apr	2.22	2.00	2.09	0.59	0.46	0.51	0.04	0.02	0.02	0.03	0.02	0.02	0.96	0.02	0.02	0.03	0.02	0.03	0.05	0.04	0.04
27-Apr	2.41	2.01	2.15	0.70	0.52	0.63	0.04	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.95	0.02	0.03	0.05	0.05	0.05
28-Apr	2.26	2.03	2.14	0.69	0.61	0.66	0.03	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.45	0.05	0.05
29-Apr	2.34	1.96	2.12	0.70	0.62	0.66	0.26	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.04	0.02	0.02	0.06	0.01	0.03
30-Apr	2.34	2.06	2.19	0.70	0.59	0.66	0.04	0.02	0.02	1.02	0.01	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.03	0.01	0.02
1-May																					
Average	2.36	1.94	2.16	0.64	0.52	0.58	0.13	0.02	0.03	0.26	0.01	0.02	0.26	0.02	0.02	0.26	0.02	0.03	0.20	0.03	0.05



Monthly Turbidity Reading Summary Vermilion WTP

1-May-2020	Water Quality Data - May 2020																					
Date	Chlorine Residual (Al-85)			Fluoride Residual (HFS-Master)			Filter #A Turbidity (AI-98582)			Filter #B Turbidity (AI-98577)			Filter #C Turbidity (AI-98576)			Filter #D Turbidity (AI-98580)			Filter #E Turbidity (AI-98581)			
	Month	Min	Max	Month	Min	Max	Maximum	Minimum	Average													
1-May	2.16	0.04	2.02	0.59	0.46	0.54	0.03	0.00	0.02	0.02	0.01	0.02	0.02	0.01	0.01	0.02	0.01	0.02	0.01	0.01	0.01	
Month Max	2.85	2.15	2.23	0.76	0.64	0.69	0.98	0.04	0.04	1.02	0.03	0.04	1.02	0.02	0.03	1.02	0.02	0.03	1.02	0.07	0.08	
2-May	2.17	1.87	2.05	0.65	0.58	0.62	0.06	0.02	0.03	0.06	0.02	0.02	0.97	0.02	0.02	0.97	0.02	0.03	0.97	0.03	0.04	
3-May	2.30	2.03	2.12	0.64	0.59	0.62	0.05	0.02	0.03	0.04	0.02	0.03	0.03	0.02	0.02	0.03	0.02	0.02	0.03	0.05	0.04	
4-May	2.31	2.05	2.16	0.67	0.61	0.64	0.10	0.03	0.03	0.09	0.03	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.04	0.03	0.03	
5-May	2.41	2.10	2.16	0.68	0.56	0.64	0.32	0.03	0.04	0.06	0.03	0.03	0.03	0.02	0.02	0.03	0.02	0.03	0.03	0.04	0.08	
6-May	2.34	2.08	2.19	0.61	0.55	0.59	0.07	0.04	0.04	1.02	0.03	0.04	0.03	0.02	0.02	0.04	0.03	0.04	0.09	0.03	0.05	
7-May	2.32	2.15	2.23	0.73	0.56	0.63	0.05	0.03	0.03	0.05	0.03	0.03	0.69	0.02	0.03	0.69	0.02	0.04	0.69	0.03	0.03	
8-May	2.35	2.08	2.18	0.67	0.61	0.64	0.06	0.03	0.03	0.04	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.04	0.04	0.02	0.03	
9-May	2.40	2.06	2.18	0.68	0.60	0.63	0.05	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.02	0.03	
10-May	2.34	2.02	2.19	0.66	0.58	0.63	0.06	0.02	0.02	1.02	0.02	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.04	0.02	0.03	
11-May	2.32	1.91	2.18	0.68	0.60	0.64	0.07	0.02	0.02	0.07	0.02	0.02	0.82	0.02	0.02	0.82	0.02	0.02	0.82	0.04	0.04	
12-May	2.31	2.03	2.14	0.69	0.60	0.66	0.05	0.02	0.02	0.10	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02	1.00	0.02	0.03	
13-May	2.28	1.96	2.16	0.69	0.64	0.66	0.16	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.76	0.03	0.05	
14-May	2.51	1.84	2.14	0.73	0.58	0.64	0.29	0.02	0.02	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.06	0.05	0.06	
15-May	2.85	0.04	2.12	0.69	0.59	0.63	0.06	0.02	0.02	1.02	0.02	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.07	0.05	0.06	
16-May	2.47	2.02	2.19	0.67	0.58	0.61	0.04	0.02	0.02	0.03	0.02	0.02	0.98	0.02	0.03	0.03	0.02	0.03	0.06	0.05	0.06	
17-May	2.33	2.03	2.16	0.65	0.57	0.62	0.06	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.06	0.05	0.06	
18-May	2.43	2.01	2.17	0.64	0.55	0.58	0.04	0.02	0.02	0.05	0.02	0.02	0.03	0.02	0.02	0.03	0.03	0.03	0.53	0.05	0.06	
19-May	2.43	2.02	2.14	0.70	0.55	0.62	0.21	0.02	0.02	0.04	0.02	0.02	0.03	0.02	0.02	0.04	0.02	0.03	0.07	0.02	0.05	
20-May	2.30	2.08	2.19	0.65	0.59	0.62	0.25	0.02	0.03	1.02	0.02	0.03	0.04	0.02	0.02	0.05	0.02	0.03	0.04	0.02	0.02	
21-May	2.30	2.10	2.18	0.65	0.58	0.61	0.06	0.02	0.02	0.09	0.02	0.02	0.94	0.02	0.03	0.94	0.02	0.02	0.03	0.02	0.02	
22-May	2.39	2.07	2.21	0.63	0.58	0.60	0.11	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.80	0.02	0.03	
23-May	2.42	2.04	2.22	0.60	0.54	0.57	0.04	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.03	0.35	0.02	0.02	
24-May	2.41	2.10	2.23	0.59	0.46	0.54	0.23	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.03	0.03	0.02	0.02	
25-May	2.26	2.00	2.20	0.72	0.51	0.64	0.03	0.02	0.02	1.02	0.02	0.03	0.03	0.02	0.02	0.05	0.03	0.03	0.03	0.02	0.02	
26-May	2.58	0.04	2.20	0.76	0.64	0.69	0.98	0.00	0.02	0.99	0.01	0.02	1.02	0.01	0.02	1.02	0.01	0.02	1.02	0.01	0.02	
27-May	2.19	2.07	2.14	0.69	0.58	0.64	0.11	0.02	0.02	0.03	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.02	0.01	0.01	0.02	
28-May	2.24	2.01	2.07	0.73	0.63	0.67	0.05	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.27	0.01	0.02	
29-May	2.22	1.94	2.05	0.67	0.54	0.61	0.36	0.02	0.02	0.03	0.01	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01	
30-May	2.16	1.98	2.08	0.65	0.57	0.61	0.03	0.02	0.02	1.02	0.01	0.02	0.02	0.01	0.01	0.02	0.01	0.02	0.01	0.01	0.01	
31-May	2.32	1.75	2.02	0.59	0.51	0.55	0.13	0.02	0.02	0.04	0.01	0.02	0.73	0.01	0.02	0.73	0.01	0.02	0.01	0.01	0.01	
1-Jun	Average																			0.16	0.03	0.04



Monthly Turbidity Reading Summary
Vermilion WTP

1-Jun-2020																					
Month Min	2.27	0.04	2.01	0.62	0.20	0.55	0.04	-0.18	0.02	0.02	-0.18	0.02	0.02	-0.18	0.02	0.02	-0.18	0.02	0.02	-0.18	0.01
Month Max	2.74	2.17	2.26	2.00	0.67	0.75	0.99	0.02	1.02	0.03	0.02	0.79	0.03	0.02	1.02	0.03	0.02	1.01	0.02	0.02	0.02
Chlorine Residual (Al-85) Fluoride Residual (HFS-Master)																					
Date	Maximum ppm	Minimum ppm	Average ppm	Maximum ppm	Minimum ppm	Average ppm	Maximum NTU	Minimum NTU	Average NTU												
1-Jun	2.36	2.08	2.17	0.72	0.53	0.64	0.04	0.02	0.02	0.03	0.01	0.02	0.02	0.01	0.02	0.93	0.02	0.02	0.02	0.01	0.01
2-Jun	2.29	2.10	2.16	0.85	0.62	0.70	0.09	0.02	0.03	0.04	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.41	0.01	0.02
3-Jun	2.38	2.02	2.13	0.76	0.62	0.66	0.38	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.02
4-Jun	2.27	1.97	2.13	0.74	0.63	0.67	0.07	0.02	0.03	1.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
5-Jun	2.40	1.98	2.10	0.72	0.60	0.66	0.04	0.02	0.03	0.03	0.02	0.02	0.75	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02
6-Jun	2.48	2.12	2.23	0.74	0.58	0.68	0.06	0.02	0.02	0.03	0.01	0.02	0.02	0.01	0.02	0.69	0.02	0.02	0.02	0.01	0.02
7-Jun	2.45	1.97	2.17	0.77	0.58	0.68	0.06	0.02	0.02	0.06	0.01	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.50	0.01	0.02
8-Jun	2.33	2.06	2.23	1.14	0.50	0.70	0.33	0.02	0.02	0.03	0.01	0.02	0.02	0.01	0.02	0.02	0.02	0.01	0.02	0.02	0.02
9-Jun	2.32	2.10	2.20	0.69	0.56	0.62	0.04	0.02	0.02	0.99	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02
10-Jun	2.33	1.61	2.15	0.73	0.20	0.58	0.04	0.02	0.02	0.03	0.02	0.02	0.77	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02
11-Jun	2.44	2.01	2.08	0.79	0.67	0.72	0.05	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.60	0.01	0.02	0.02	0.01	0.02
12-Jun	2.53	1.96	2.15	0.75	0.60	0.66	0.13	0.02	0.02	0.03	0.01	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.54	0.01	0.02
13-Jun	2.40	2.00	2.16	0.85	0.59	0.68	0.41	0.02	0.02	0.06	0.01	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.02	0.01	0.02
14-Jun	2.58	1.98	2.16	0.93	0.50	0.72	0.05	0.02	0.02	1.01	0.01	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02
15-Jun	2.38	2.03	2.14	0.78	0.37	0.58	0.15	0.02	0.02	0.02	0.02	0.02	0.58	0.01	0.02	0.02	0.01	0.02	0.05	0.01	0.02
16-Jun	2.40	2.09	2.16	2.00	0.20	0.57	0.06	0.02	0.02	0.05	0.01	0.02	0.02	0.02	0.02	0.65	0.01	0.02	0.02	0.01	0.02
17-Jun	2.49	1.61	2.01	0.67	0.50	0.59	0.07	0.02	0.02	0.05	0.01	0.02	0.04	0.01	0.02	0.03	0.02	0.02	0.09	0.01	0.02
18-Jun	2.30	2.00	2.16	0.62	0.51	0.57	0.07	0.02	0.02	0.04	0.01	0.02	0.03	0.01	0.02	0.04	0.01	0.02	0.71	0.01	0.02
19-Jun	2.59	1.97	2.07	0.68	0.50	0.59	0.43	0.02	0.02	0.97	0.01	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.02
20-Jun	2.41	1.92	2.07	0.62	0.50	0.55	0.07	0.02	0.02	0.05	0.02	0.02	0.59	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
21-Jun	2.45	2.10	2.25	0.66	0.57	0.61	0.05	0.02	0.02	0.03	0.01	0.02	0.04	0.02	0.02	0.67	0.02	0.02	0.03	0.02	0.02
22-Jun	2.45	2.10	2.20	0.70	0.57	0.63	0.04	0.02	0.02	0.04	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.61	0.02	0.02	
23-Jun	2.58	1.85	2.13	0.72	0.59	0.63	0.52	-0.17	0.02	0.03	-0.18	0.02	0.03	-0.18	0.02	0.02	-0.17	0.02	0.03	-0.17	0.02
24-Jun	2.47	0.04	2.19	0.71	0.60	0.64	0.99	0.02	0.03	1.00	0.01	0.03	0.79	0.02	0.02	1.02	0.00	0.02	1.01	0.00	0.02
25-Jun	2.74	2.16	2.26	0.68	0.57	0.64	0.06	0.02	0.02	0.05	0.02	0.02	0.67	0.02	0.02	0.01	0.02	0.02	0.01	0.01	0.02
26-Jun	2.37	1.99	2.25	0.75	0.58	0.66	0.05	0.02	0.03	0.03	0.02	0.02	0.03	0.02	0.02	0.78	0.02	0.02	0.02	0.01	0.02
27-Jun	2.42	2.05	2.20	0.84	0.60	0.74	0.09	-0.18	0.02	0.10	-0.18	0.02	0.03	-0.18	0.02	0.02	-0.18	0.02	0.59	-0.18	0.02
28-Jun	2.52	2.17	2.26	0.94	0.62	0.75	0.56	0.02	0.03	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
29-Jun	2.45	2.16	2.25	0.84	0.59	0.71	0.09	0.02	0.03	0.99	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.02
30-Jun	2.30	2.09	2.17	0.87	0.47	0.69	0.04	0.02	0.03	0.11	0.02	0.02	0.72	0.02	0.03	0.02	0.02	0.03	0.01	0.01	0.02
1-Jul																					
Average	2.43	1.94	2.17	0.81	0.54	0.65	0.17	0.01	0.02	0.23	0.00	0.02	0.18	0.00	0.02	0.20	0.00	0.02	0.17	0.00	0.02



**Monthly Turbidity Reading Summary
Vermilion WTP**

1-Jul-2020			Monthly Turbidity Reading Summary Vermilion WTP																			
Month Min	2.25	0.04	2.05	0.60	-0.25	0.58	0.03	-0.18	0.02	0.02	-0.18	0.02	0.02	-0.18	0.02	0.02	-0.18	0.02	0.02	-0.18	0.02	
Month Max	2.85	2.22	2.35	2.00	0.71	0.74	0.96	0.03	1.02	0.04	0.03	0.04	0.99	0.03	1.02	0.03	1.01	0.03	1.01	0.03	0.03	
Chlorine Residual (Al-85) Fluoride Residual (HFS-Master)																						
Date	Maximum ppm	Minimum ppm	Average ppm	Maximum ppm	Minimum ppm	Average ppm	Maximum NTU	Minimum NTU	Average NTU													
1-Jul	2.28	2.03	2.11	0.75	0.43	0.59	0.08	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.71	0.02	0.02	0.03	0.02	0.02
2-Jul	2.54	1.61	2.17	2.00	0.20	0.74	0.05	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.02	0.03	0.03	0.02	0.02	0.69	0.01	0.02
3-Jul	2.34	2.06	2.23	0.77	0.60	0.71	0.61	0.02	0.03	0.06	0.02	0.02	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.05	0.02	0.02
4-Jul	2.51	1.58	2.15	0.77	0.59	0.65	0.06	0.03	0.03	0.99	0.02	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.03	0.03	0.02	0.02
5-Jul	2.69	1.50	2.10	0.83	0.46	0.68	0.07	-0.18	0.03	0.06	-0.18	0.02	0.65	-0.18	0.03	0.03	-0.18	0.02	0.03	-0.18	0.02	0.02
6-Jul	2.37	2.09	2.16	2.00	-0.25	0.64	0.19	0.03	0.03	0.04	0.02	0.02	0.03	0.02	0.03	0.03	0.72	0.02	0.03	0.03	0.02	0.02
7-Jul	2.28	1.96	2.15	0.71	0.64	0.69	0.05	0.03	0.03	0.17	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.74	0.02	0.03
8-Jul	2.54	1.72	2.17	0.71	0.60	0.66	0.63	0.03	0.03	0.03	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.04	0.02	0.02
9-Jul	2.35	2.05	2.19	2.00	0.54	0.69	0.05	0.03	0.03	1.01	0.02	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.03	0.03	0.02	0.02
10-Jul	2.56	1.97	2.22	0.77	0.68	0.71	0.04	0.03	0.03	0.03	0.02	0.02	0.76	0.03	0.03	0.03	0.02	0.02	0.03	0.02	0.02	0.02
11-Jul	2.29	2.03	2.17	0.70	0.65	0.68	0.04	0.03	0.03	0.04	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.03	0.02	0.02
12-Jul	2.44	1.88	2.21	0.72	0.66	0.68	0.05	0.03	0.03	0.03	0.02	0.02	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.76	0.02	0.02
13-Jul	2.44	2.02	2.28	0.73	0.55	0.66	0.74	0.02	0.03	0.04	0.02	0.02	0.03	0.02	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.02
14-Jul	2.43	1.96	2.20	0.75	0.66	0.70	0.03	0.02	0.03	0.98	0.02	0.03	0.06	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
15-Jul	2.46	2.15	2.21	0.70	0.56	0.67	0.05	0.02	0.02	0.02	0.02	0.02	0.86	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.02
16-Jul	2.51	2.14	2.28	0.71	0.56	0.67	0.08	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.83	0.02	0.02	0.04	0.02	0.02
17-Jul	2.40	2.06	2.19	0.71	0.66	0.68	0.04	0.02	0.02	0.04	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.80	0.02	0.02
18-Jul	2.39	2.12	2.27	0.71	0.65	0.68	0.78	0.02	0.03	0.05	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
19-Jul	2.39	2.03	2.23	0.74	0.71	0.72	0.11	0.03	0.03	1.00	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.02	0.02	0.03	0.02	0.02
20-Jul	2.47	2.15	2.25	0.75	0.70	0.73	0.16	0.03	0.03	0.04	0.02	0.03	0.86	0.02	0.03	0.03	0.02	0.02	0.03	0.02	0.02	0.02
21-Jul	2.48	2.12	2.24	0.75	0.67	0.71	0.24	0.02	0.03	0.03	0.02	0.02	0.03	0.03	0.03	0.03	0.80	0.02	0.03	0.02	0.02	0.02
22-Jul	2.61	0.04	2.23	0.74	0.67	0.71	0.96	0.02	0.03	1.02	0.00	0.02	0.99	0.01	0.02	1.02	0.00	0.02	1.01	0.00	0.02	
23-Jul	2.42	2.17	2.29	0.73	0.58	0.66	0.74	0.02	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02
24-Jul	2.54	2.05	2.28	0.63	0.59	0.61	0.17	0.03	0.03	1.02	0.02	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02
25-Jul	2.31	2.08	2.17	0.60	0.54	0.58	0.07	0.02	0.03	0.05	0.02	0.02	0.84	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02
26-Jul	2.61	2.11	2.35	0.63	0.55	0.60	0.05	0.02	0.03	0.04	0.02	0.02	0.03	0.02	0.02	0.03	0.83	0.02	0.03	0.03	0.02	0.02
27-Jul	2.32	1.97	2.15	0.65	0.59	0.62	0.06	0.03	0.04	0.05	0.03	0.04	0.04	0.03	0.03	0.04	0.03	0.03	0.69	0.03	0.03	
28-Jul	2.25	1.92	2.05	0.65	0.55	0.60	0.74	0.03	0.04	0.05	0.02	0.03	0.03	0.02	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.03
29-Jul	2.34	2.05	2.20	0.65	0.61	0.63	0.05	0.03	0.04	1.02	0.02	0.03	0.03	0.02	0.03	0.02	0.03	0.02	0.03	0.03	0.02	0.03
30-Jul	2.52	2.11	2.26	0.65	0.59	0.63	0.26	0.03	0.03	0.05	0.03	0.03	0.84	0.02	0.03	0.03	0.02	0.02	0.03	0.02	0.02	0.02
31-Jul	2.85	2.22	2.33	0.65	0.57	0.62	0.04	0.03	0.03	0.04	0.02	0.03	0.03	0.02	0.03	0.03	1.02	0.02	0.03	0.03	0.02	0.02
1-Aug	2.45	1.93	2.21	0.83	0.56	0.66	0.24	0.02	0.03	0.26	0.01	0.02	0.21	0.02	0.02	0.03	0.24	0.01	0.02	0.17	0.01	0.02
Average	2.45	1.93	2.21	0.83	0.56	0.66	0.24	0.02	0.03	0.26	0.01	0.02	0.21	0.02	0.02	0.03	0.24	0.01	0.02	0.17	0.01	0.02



Monthly Turbidity Reading Summary
Vermilion WTP

1-Aug-2020																					
Month Min	2.23	0.04	2.08	0.64	0.13	0.62	0.03	-0.18	0.02	0.03	-0.18	0.02	0.02	-0.17	0.02	-0.19	0.01	0.02	-0.18	0.01	
Month Max	4.22	2.29	2.38	2.00	0.70	0.73	0.99	0.03	1.02	0.02	1.02	0.03	1.02	0.02	1.02	0.03	1.00	0.02	1.00	0.03	
Chlorine Residual (Al-85)																					
Date	Maximum ppm	Minimum ppm	Average ppm	Maximum ppm	Minimum ppm	Average ppm	Maximum NTU	Minimum NTU	Average NTU												
1-Aug	2.56	2.22	2.34	0.64	0.58	0.62	0.04	0.02	0.03	0.04	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.70	0.02	0.02	
2-Aug	2.49	2.21	2.30	0.68	0.60	0.63	0.69	0.02	0.03	0.04	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	
3-Aug	2.52	2.29	2.35	0.68	0.64	0.65	0.04	0.02	0.03	1.00	0.02	0.03	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
4-Aug	2.50	2.25	2.34	0.65	0.63	0.64	0.04	0.02	0.03	0.04	0.02	0.02	0.86	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
5-Aug	2.40	2.09	2.28	0.65	0.62	0.64	0.04	0.02	0.03	0.08	0.02	0.02	0.03	0.02	0.02	0.87	0.02	0.03	0.03	0.02	
6-Aug	2.32	1.92	2.11	0.66	0.62	0.63	0.06	0.03	0.03	0.04	0.02	0.03	0.02	0.02	0.04	0.02	0.03	0.65	0.02	0.03	
7-Aug	2.44	1.89	2.11	0.66	0.59	0.64	0.62	0.03	0.03	0.04	0.02	0.03	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.03	
8-Aug	2.28	1.95	2.17	0.65	0.60	0.63	0.04	0.03	0.03	1.02	0.02	0.03	0.03	0.02	0.02	0.03	0.02	0.02	0.03	0.02	
9-Aug	2.56	2.08	2.21	0.67	0.61	0.63	0.05	0.03	0.03	0.03	0.02	0.03	0.83	0.02	0.03	0.02	0.02	0.03	0.02	0.02	
10-Aug	2.50	2.09	2.30	0.66	0.62	0.64	0.06	0.03	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.89	0.02	0.02	0.03	0.02	
11-Aug	2.39	2.08	2.21	0.65	0.60	0.63	0.06	0.02	0.03	0.05	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.70	0.02	0.02	
12-Aug	2.41	2.11	2.19	0.66	0.57	0.63	0.66	0.02	0.03	0.03	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.03	0.02	
13-Aug	2.41	2.11	2.21	0.64	0.61	0.63	0.25	0.03	0.03	1.02	0.02	0.03	0.05	0.02	0.02	0.03	0.02	0.02	0.03	0.02	
14-Aug	2.50	2.23	2.27	0.64	0.61	0.63	0.06	0.03	0.03	0.03	0.02	0.03	0.87	0.02	0.03	0.03	0.02	0.02	0.03	0.02	
15-Aug	2.49	2.19	2.28	0.65	0.62	0.63	0.07	0.02	0.03	0.03	0.02	0.02	0.03	0.02	0.02	0.87	0.02	0.03	0.02	0.02	
16-Aug	2.48	2.16	2.23	0.68	0.57	0.64	0.07	-0.17	0.03	0.03	-0.18	0.02	0.02	-0.17	0.02	0.03	-0.17	0.02	0.75	-0.17	0.02
17-Aug	2.50	1.63	2.21	0.86	0.50	0.66	0.71	-0.18	0.03	0.03	-0.17	0.02	0.03	-0.17	0.02	0.03	-0.19	0.02	0.02	-0.18	0.02
18-Aug	2.50	2.16	2.26	0.73	0.66	0.69	0.06	0.02	0.02	0.98	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
19-Aug	2.33	2.02	2.16	0.75	0.70	0.73	0.06	0.02	0.02	0.03	0.02	0.02	0.88	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
20-Aug	2.41	2.09	2.20	0.72	0.65	0.68	0.07	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.84	0.02	0.02	0.02	0.02	
21-Aug	2.32	2.03	2.16	0.65	0.61	0.63	0.06	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.65	0.01	0.02	
22-Aug	2.28	2.00	2.08	0.65	0.58	0.62	0.65	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.02	
23-Aug	2.34	2.02	2.16	0.66	0.61	0.63	0.04	0.02	0.02	0.96	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	
24-Aug	2.23	1.95	2.11	0.64	0.62	0.63	0.14	0.02	0.02	0.03	0.02	0.02	0.85	0.02	0.02	0.04	0.02	0.02	0.01	0.02	
25-Aug	4.22	0.04	2.14	2.00	0.13	0.66	0.99	0.00	0.02	1.02	0.00	0.02	1.02	0.00	0.02	1.02	0.00	0.02	1.00	0.00	
26-Aug	2.38	1.97	2.20	0.68	0.64	0.66	0.05	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.62	0.01	0.02	
27-Aug	2.66	1.59	2.20	0.71	0.58	0.66	0.57	0.02	0.03	0.04	0.02	0.02	0.03	0.01	0.02	0.03	0.01	0.02	0.01	0.01	
28-Aug	2.46	2.18	2.31	0.72	0.65	0.68	0.06	0.02	0.02	1.02	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01	
29-Aug	2.47	2.19	2.38	0.70	0.66	0.69	0.04	0.02	0.02	0.03	0.02	0.02	0.79	0.01	0.02	0.02	0.01	0.01	0.02	0.01	
30-Aug	2.43	2.02	2.21	0.70	0.66	0.68	0.03	0.02	0.02	0.08	0.01	0.02	0.02	0.01	0.02	0.76	0.01	0.02	0.02	0.01	
31-Aug	2.32	2.02	2.17	0.72	0.65	0.67	0.07	0.02	0.02	0.03	0.02	0.02	0.02	0.03	0.01	0.02	0.02	0.56	0.01	0.02	
1-Sep	2.49	1.99	2.22	0.72	0.60	0.65	0.21	0.01	0.03	0.25	0.01	0.02	0.22	0.01	0.02	0.19	0.00	0.02	0.20	0.00	
Average	2.49	1.99	2.22	0.72	0.60	0.65	0.21	0.01	0.03	0.25	0.01	0.02	0.22	0.01	0.02	0.19	0.00	0.02	0.20	0.00	



Monthly Turbidity Reading Summary Vermilion WTP

1-Sep-2020																			
	Month Min	2.25	-1.25	1.52	0.60	-0.25	0.42	0.04	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.02	
	Month Max	3.40	2.20	2.35	0.90	0.70	0.74	0.96	0.07	0.10	1.02	0.07	0.11	1.01	0.06	0.08	1.01	0.05	0.07
Chlorine Residual (Al-85) Fluoride Residual (HFS-Master) Filter #A Turbidity (Al-98552) Filter #B Turbidity (Al-98577) Filter #C Turbidity (Al-98576) Filter #D Turbidity (Al-98580) Filter #E Turbidity (Al-98581)																			
Date	Maximum ppm	Minimum ppm	Average ppm	Maximum ppm	Minimum ppm	Average ppm	Maximum NTU	Minimum NTU	Average NTU	Maximum NTU	Minimum NTU	Average NTU	Maximum NTU	Minimum NTU	Average NTU	Maximum NTU	Minimum NTU	Average NTU	
1-Sep	2.34	1.94	2.10	0.71	0.62	0.67	0.56	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	
2-Sep	2.28	2.02	2.10	0.72	0.67	0.69	0.11	0.02	0.03	1.01	0.02	0.03	0.02	0.02	0.02	0.01	0.02	0.02	
3-Sep	2.45	2.00	2.20	0.79	0.70	0.74	0.19	0.03	0.03	0.04	0.02	0.03	0.02	0.02	0.03	0.01	0.02	0.02	
4-Sep	2.54	0.04	2.23	0.73	0.68	0.70	0.13	0.03	0.03	0.04	0.03	0.03	0.02	0.02	0.80	0.02	0.02	0.03	
5-Sep	2.47	1.96	2.21	0.72	0.68	0.69	0.10	0.03	0.03	0.05	0.03	0.03	0.04	0.02	0.03	0.11	0.02	0.03	
6-Sep	2.66	2.10	2.31	0.74	0.67	0.71	0.58	0.03	0.04	0.07	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.02	
7-Sep	2.44	1.97	2.27	0.71	0.64	0.68	0.27	0.03	0.04	1.01	0.02	0.03	0.03	0.02	0.02	0.03	0.02	0.02	
8-Sep	2.49	2.01	2.26	0.69	0.65	0.67	0.08	0.03	0.04	0.09	0.02	0.03	0.80	0.02	0.03	0.02	0.02	0.02	
9-Sep	2.51	2.16	2.28	0.69	0.48	0.66	0.05	0.03	0.03	0.05	0.02	0.03	0.03	0.02	0.02	0.76	0.02	0.02	
10-Sep	2.63	2.20	2.35	0.72	0.42	0.67	0.09	0.03	0.03	0.08	0.02	0.03	0.03	0.02	0.03	0.02	0.02	0.55	
11-Sep	2.40	1.83	2.16	0.71	0.38	0.63	0.47	0.03	0.04	0.07	0.03	0.04	0.05	0.02	0.03	0.04	0.02	0.03	
12-Sep	2.33	2.06	2.15	0.66	0.62	0.64	0.07	0.04	0.04	1.02	0.03	0.04	0.03	0.02	0.02	0.03	0.02	0.02	
13-Sep	2.36	2.05	2.14	0.66	0.63	0.64	0.21	0.03	0.03	0.07	0.02	0.03	0.98	0.01	0.03	0.01	0.02	0.02	
14-Sep	2.29	2.00	2.11	0.67	0.62	0.64	0.12	0.03	0.04	0.05	0.03	0.04	0.04	0.03	1.00	0.02	0.03	0.03	
15-Sep	2.55	0.04	2.21	0.70	0.63	0.67	0.12	0.04	0.05	0.07	0.04	0.04	0.04	0.03	0.04	0.05	0.04	0.58	
16-Sep	2.45	2.06	2.23	0.73	0.66	0.69	0.41	0.04	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.04	
17-Sep	2.38	1.90	2.13	0.70	0.66	0.67	0.19	0.05	0.08	1.02	0.04	0.07	0.07	0.03	0.04	0.07	0.03	0.08	
18-Sep	2.25	1.88	2.14	0.69	0.65	0.67	0.16	0.07	0.10	0.23	0.07	0.11	1.01	0.06	0.08	0.07	0.05	0.07	
19-Sep	2.65	1.88	2.20	0.69	0.64	0.66	0.20	0.03	0.04	0.07	0.03	0.04	0.08	0.02	0.04	1.01	0.02	0.03	
20-Sep	2.44	2.01	2.21	0.69	0.64	0.67	0.13	0.03	0.03	0.05	0.02	0.03	0.03	0.02	0.02	0.03	0.02	0.02	
21-Sep	3.40	0.04	2.21	0.69	0.62	0.65	0.46	0.03	0.04	0.11	0.02	0.02	0.03	0.02	0.02	0.02	0.04	0.02	
22-Sep	3.23	2.07	2.17	0.70	0.65	0.66	0.10	0.03	0.03	1.02	0.02	0.03	0.02	0.02	0.02	0.01	0.02	0.01	
23-Sep	2.90	2.04	2.16	0.66	0.59	0.63	0.23	0.03	0.03	0.04	0.02	0.03	0.98	0.02	0.03	0.02	0.01	0.02	
24-Sep	3.21	-1.25	1.52	0.83	-0.25	0.42	0.96	0.03	0.04	1.00	0.03	0.03	0.91	0.02	0.03	0.98	0.02	0.02	
25-Sep	2.50	2.09	2.20	0.60	0.54	0.56	0.05	0.02	0.03	0.03	0.02	0.02	0.02	0.01	0.02	0.97	0.01	0.01	
26-Sep	2.87	2.15	2.23	0.69	0.56	0.64	0.04	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.01	0.02	0.52	0.01	
27-Sep	2.44	2.14	2.27	0.72	0.66	0.69	0.37	0.02	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.01	
28-Sep	2.71	2.13	2.29	0.90	0.49	0.65	0.19	0.02	0.03	1.02	0.02	0.03	0.02	0.01	0.01	0.02	0.01	0.01	
29-Sep	2.39	2.12	2.26	0.70	0.66	0.67	0.06	0.02	0.02	0.03	0.02	0.02	0.96	0.01	0.02	0.05	0.01	0.01	
30-Sep	2.36	2.08	2.20	0.73	0.67	0.70	0.05	0.02	0.02	0.04	0.02	0.02	0.02	0.01	0.02	0.77	0.01	0.02	
1-Oct																			
Average	2.56	1.72	2.18	0.71	0.58	0.66	0.22	0.03	0.04	0.28	0.03	0.03	0.24	0.02	0.03	0.24	0.02	0.02	



**Monthly Turbidity Reading Summary
Vermilion WTP**

1-Oct-2020		Monthly Turbidity Reading Summary Vermilion WTP																			
Month	Min	2.27	0.04	2.13	0.65	0.57	0.62	0.04	-0.17	0.02	0.02	-0.17	0.02	0.01	-0.18	0.01	0.01	0.01	0.02	0.00	0.01
Month	Max	2.87	2.22	2.32	2.00	0.71	0.72	1.01	0.03	0.04	1.02	0.03	1.02	0.03	1.02	0.02	1.02	0.03	1.00	0.04	0.05
Chlorine Residual (Al-85) Fluoride Residual (HFS-Master)																					
Date	Maximum	Minimum	Average	Maximum	Minimum	Average	Maximum	Minimum	Average	Maximum	Minimum	Average	Maximum	Minimum	Average	Maximum	Minimum	Average	Maximum	Minimum	Average
	ppm	ppm	ppm	ppm	ppm	ppm	NTU														
1-Oct	2.42	2.07	2.16	0.72	0.67	0.70	0.15	0.02	0.02	0.04	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.45	0.01	0.02
2-Oct	2.49	1.97	2.22	0.76	0.67	0.72	0.37	0.02	0.03	0.04	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.01	0.04	0.01	0.02
3-Oct	2.48	2.11	2.28	0.73	0.68	0.69	0.04	0.02	0.03	1.02	0.01	0.03	0.02	0.01	0.02	0.02	0.01	0.01	0.02	0.01	0.01
4-Oct	2.45	2.16	2.22	0.71	0.67	0.70	0.09	0.02	0.03	0.03	0.02	0.02	0.99	0.01	0.02	0.02	0.01	0.01	0.02	0.01	0.02
5-Oct	2.44	2.11	2.21	0.72	0.59	0.69	0.12	0.02	0.03	0.03	0.02	0.02	0.01	0.02	0.95	0.01	0.02	0.02	0.01	0.01	0.01
6-Oct	2.37	2.08	2.18	0.70	0.67	0.68	0.08	0.02	0.03	0.03	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.50	0.01	0.02
7-Oct	2.41	1.82	2.14	2.00	0.57	0.67	0.34	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02
8-Oct	2.35	2.02	2.16	0.71	0.65	0.68	0.06	0.03	0.03	1.02	0.02	0.03	0.02	0.01	0.02	0.02	0.02	0.01	0.01	0.02	0.02
9-Oct	2.28	1.91	2.13	0.69	0.67	0.68	0.09	-0.17	0.03	0.05	-0.17	0.03	1.00	-0.18	0.02	0.02	0.01	0.02	0.02	0.02	0.02
10-Oct	2.46	2.08	2.25	0.68	0.66	0.67	0.09	0.03	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.91	0.01	0.02	0.02	0.02
11-Oct	2.55	2.14	2.32	0.68	0.66	0.67	0.04	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.53	0.01	0.02
12-Oct	2.57	2.22	2.32	0.71	0.66	0.68	0.39	0.02	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.01	0.02	0.01	0.02
13-Oct	2.39	2.12	2.25	0.71	0.67	0.69	0.05	0.02	0.03	1.02	0.02	0.03	0.02	0.01	0.02	0.01	0.01	0.01	0.02	0.01	0.02
14-Oct	2.37	2.06	2.23	0.70	0.67	0.68	0.08	0.02	0.03	0.03	0.02	0.02	1.00	0.01	0.02	0.02	0.01	0.01	0.02	0.01	0.01
15-Oct	2.62	2.13	2.23	0.71	0.68	0.69	0.05	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.02	0.82	0.01	0.02	0.02	0.01	0.01
16-Oct	2.50	2.18	2.29	0.70	0.68	0.69	0.20	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.01	0.49	0.01	0.02
17-Oct	2.39	2.16	2.27	0.72	0.66	0.69	0.52	0.02	0.03	0.02	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01
18-Oct	2.35	2.12	2.22	0.71	0.68	0.69	0.07	0.03	0.03	1.02	0.02	0.03	0.02	0.01	0.01	0.02	0.01	0.01	0.02	0.01	0.02
19-Oct	2.39	2.17	2.25	0.72	0.69	0.70	0.05	0.03	0.03	0.03	0.02	0.03	0.97	0.01	0.02	0.02	0.01	0.01	0.02	0.01	0.02
20-Oct	2.41	2.13	2.26	0.73	0.70	0.71	0.05	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	1.01	0.01	0.02	0.02	0.02
21-Oct	2.28	1.98	2.15	0.73	0.71	0.72	0.06	0.03	0.03	0.03	0.02	0.03	0.02	0.01	0.02	0.03	0.02	0.02	0.49	0.02	0.02
22-Oct	2.81	1.99	2.21	0.75	0.69	0.72	0.32	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.02	0.03	0.02	0.02
23-Oct	2.28	2.05	2.19	0.74	0.71	0.72	0.05	0.03	0.03	1.02	0.02	0.03	0.01	0.01	0.01	0.02	0.01	0.02	0.03	0.02	0.03
24-Oct	2.37	1.98	2.19	0.84	0.61	0.67	0.05	0.03	0.03	0.04	0.02	0.03	0.96	0.01	0.02	0.02	0.01	0.01	0.03	0.03	0.03
25-Oct	2.27	1.96	2.14	0.65	0.60	0.62	0.13	0.03	0.03	0.05	0.02	0.02	0.02	0.01	0.01	1.01	0.01	0.02	0.04	0.03	0.03
26-Oct	2.51	0.04	2.20	0.69	0.60	0.64	0.18	0.03	0.04	0.04	0.03	0.03	0.02	0.01	0.02	0.04	0.02	0.03	0.48	0.03	0.04
27-Oct	2.87	2.07	2.21	0.67	0.60	0.64	0.36	0.03	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.03	0.02	0.02	0.08	0.04	0.04
28-Oct	2.35	2.09	2.22	0.68	0.63	0.65	0.06	0.03	0.04	1.02	0.02	0.03	0.01	0.01	0.01	0.03	0.01	0.02	0.04	0.03	0.04
29-Oct	2.59	2.20	2.31	0.67	0.60	0.64	0.08	0.03	0.03	0.03	0.02	0.02	1.02	0.00	0.01	0.02	0.01	0.01	0.04	0.03	0.03
30-Oct	2.50	2.12	2.27	0.65	0.60	0.62	1.01	0.03	0.04	1.01	0.00	0.03	0.97	0.00	0.02	1.02	0.01	0.02	1.00	0.00	0.04
31-Oct	2.53	2.11	2.22	0.75	0.60	0.68	0.05	0.03	0.04	0.04	0.03	0.03	0.03	0.02	0.03	0.03	0.01	0.02	0.52	0.04	0.05
1-Nov	2.45	2.01	2.22	0.75	0.65	0.68	0.17	0.02	0.03	0.26	0.01	0.02	0.24	0.01	0.02	0.20	0.01	0.02	0.16	0.02	0.02
Average	2.45	2.01	2.22	0.75	0.65	0.68	0.17	0.02	0.03	0.26	0.01	0.02	0.24	0.01	0.02	0.20	0.01	0.02	0.16	0.02	0.02



Monthly Turbidity Reading Summary
Vermilion WTP

1-Nov-2020																					
Month Min	2.27	-1.25	1.84	0.57	-0.25	0.52	0.03	-0.25	0.01	0.03	-0.25	0.01	0.02	-0.25	0.00	0.02	-0.25	0.01	0.02	-0.25	0.01
Month Max	3.11	2.20	2.34	2.00	0.70	0.73	0.99	0.03	0.05	1.02	0.03	0.05	1.02	0.02	0.03	1.02	0.02	0.03	1.01	0.04	0.04
Chlorine Residual (AI-85)																					
Date	Maximum ppm	Minimum ppm	Average ppm	Maximum ppm	Minimum ppm	Average ppm	Maximum NTU	Minimum NTU	Average NTU												
1-Nov	2.68	2.07	2.23	0.77	0.68	0.72	0.36	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.05	0.03	0.04	
2-Nov	2.44	2.04	2.20	0.75	0.70	0.72	0.22	0.03	0.04	1.02	0.02	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.04	0.04	
3-Nov	2.50	1.97	2.23	0.79	0.67	0.73	0.05	0.03	0.03	0.03	0.02	0.03	1.02	0.02	0.03	1.02	0.00	0.02	0.04	0.03	
4-Nov	2.51	2.13	2.23	0.73	0.67	0.69	0.05	0.02	0.03	0.03	0.02	0.03	0.03	0.02	0.02	1.00	0.02	0.03	0.04	0.03	
5-Nov	2.58	2.02	2.25	0.72	0.67	0.69	0.13	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.54	0.03	
6-Nov	2.39	2.09	2.22	0.70	0.63	0.67	0.33	0.02	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.04	0.03	
7-Nov	2.38	2.11	2.17	0.70	0.65	0.66	0.05	0.03	1.02	0.02	0.04	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.03	0.03	
8-Nov	2.40	1.98	2.14	0.68	0.62	0.66	0.05	0.03	0.03	0.04	0.03	0.03	1.02	0.02	0.03	0.03	0.02	0.02	0.04	0.03	
9-Nov	2.79	-1.25	1.84	2.00	-0.25	0.54	0.08	-0.25	0.01	0.05	-0.25	0.01	0.03	-0.25	0.00	1.02	-0.25	0.02	0.07	-0.25	0.01
10-Nov	2.40	2.06	2.15	0.60	0.55	0.57	0.14	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.70	0.03	
11-Nov	2.46	2.11	2.22	0.62	0.55	0.58	0.32	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.03	0.03	
12-Nov	2.34	2.11	2.24	0.60	0.55	0.57	0.04	0.03	0.03	1.02	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.03	0.03	
13-Nov	2.48	2.11	2.23	0.60	0.53	0.56	0.08	0.03	0.03	0.07	0.02	0.03	1.02	0.02	0.03	0.03	0.02	0.02	0.03	0.03	
14-Nov	2.49	2.20	2.27	0.66	0.54	0.61	0.04	0.02	0.03	0.04	0.02	0.03	0.03	0.02	0.02	0.99	0.02	0.03	0.03	0.02	
15-Nov	2.60	2.20	2.30	0.69	0.61	0.65	0.07	0.02	0.02	0.05	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.43	0.02	
16-Nov	2.44	2.11	2.22	0.70	0.63	0.66	0.31	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	
17-Nov	2.30	2.05	2.21	0.75	0.65	0.69	0.04	0.02	0.02	1.02	0.02	0.03	0.02	0.01	0.02	0.02	0.02	0.02	0.03	0.03	
18-Nov	2.33	2.13	2.24	0.89	0.64	0.70	0.04	0.02	0.02	0.03	0.02	0.02	1.02	0.01	0.02	0.02	0.02	0.02	0.03	0.03	
19-Nov	2.36	2.05	2.19	0.73	0.48	0.65	0.04	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	1.02	0.02	0.02	0.04	0.03	
20-Nov	2.41	1.98	2.12	0.57	0.48	0.52	0.07	0.02	0.03	0.04	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.51	0.03	
21-Nov	2.64	1.88	2.15	0.62	0.48	0.53	0.50	0.03	0.05	0.10	0.03	0.05	0.03	0.02	0.02	0.03	0.02	0.02	0.04	0.03	
22-Nov	2.64	2.01	2.34	0.67	0.54	0.59	0.04	0.02	0.02	1.02	0.03	0.05	0.04	0.02	0.02	0.02	0.02	0.02	0.04	0.02	
23-Nov	3.11	2.05	2.32	0.65	0.55	0.59	0.03	0.02	0.02	0.04	0.02	0.03	1.01	0.01	0.02	0.03	0.02	0.02	0.02	0.02	
24-Nov	2.45	2.05	2.12	0.64	0.56	0.60	0.04	0.02	0.02	0.03	0.02	0.03	0.02	0.01	0.01	1.01	0.02	0.02	0.02	0.02	
25-Nov	2.67	0.04	2.31	0.67	0.57	0.61	0.03	0.01	0.02	0.03	0.02	0.03	0.02	0.01	0.01	0.02	0.49	0.02	0.02		
26-Nov	2.38	2.14	2.21	0.69	0.57	0.63	0.99	0.00	0.03	1.02	0.00	0.03	1.00	0.00	0.02	0.88	0.01	0.02	1.01	0.00	
27-Nov	2.39	2.13	2.20	0.69	0.57	0.62	0.03	0.02	0.03	1.02	0.02	0.04	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.02	
28-Nov	2.27	2.04	2.16	0.67	0.57	0.62	0.03	0.02	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.96	0.02	0.02	1.02	0.01	
29-Nov	2.45	2.16	2.21	0.67	0.58	0.63	0.08	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	1.02	0.01	0.02	0.02	0.02	
30-Nov	2.43	2.12	2.19	0.70	0.57	0.62	0.06	0.02	0.03	0.03	0.02	0.03	0.02	0.01	0.02	0.02	0.02	0.02	0.46	0.02	
1-Dec																					
Average	2.49	1.90	2.20	0.73	0.56	0.63	0.14	0.01	0.03	0.27	0.01	0.03	0.26	0.01	0.02	0.28	0.01	0.02	0.16	0.02	



**Monthly Turbidity Reading Summary
Vermilion WTP**

1-Dec-2020																					
Month Min	2.34	0.04	2.08	0.66	0.38	0.61	0.02	-0.25	0.00	0.02	-0.25	0.00	0.01	-0.25	-0.01	0.02	-0.25	-0.01	0.02	-0.25	0.00
Month Max	3.27	2.22	2.32	2.00	0.72	0.76	0.99	0.02	0.03	1.02	0.02	0.05	1.02	0.02	1.02	1.02	0.02	1.01	0.02	0.03	
Chlorine Residual (Al-85) Fluoride Residual (HFS-Master)																					
Date	Maximum ppm	Minimum ppm	Average ppm	Maximum ppm	Minimum ppm	Average ppm	Maximum NTU	Minimum NTU	Average NTU	Maximum NTU	Minimum NTU	Average NTU	Maximum NTU	Minimum NTU	Average NTU	Maximum NTU	Minimum NTU	Average NTU			
1-Dec	2.67	2.12	2.26	0.72	0.59	0.64	0.27	0.02	0.03	0.05	0.02	0.03	0.02	0.01	0.01	0.02	0.01	0.02	0.02	0.02	
2-Dec	3.27	1.82	2.32	0.76	0.53	0.63	0.04	0.02	0.03	1.02	0.02	0.05	0.14	0.01	0.02	0.07	0.01	0.02	0.03	0.02	
3-Dec	2.50	2.22	2.29	0.68	0.57	0.61	0.03	0.02	0.02	0.03	0.02	0.02	0.91	0.01	0.02	0.02	0.01	0.02	0.02	0.02	
4-Dec	2.49	2.16	2.27	0.70	0.58	0.64	0.05	0.02	0.02	0.03	0.02	0.02	0.01	0.01	0.01	0.99	0.01	0.02	0.02	0.02	
5-Dec	2.44	2.13	2.22	0.74	0.63	0.68	0.07	0.02	0.02	0.03	0.02	0.02	0.01	0.01	0.01	0.02	0.01	0.01	0.55	0.02	0.02
6-Dec	2.40	2.08	2.22	0.75	0.59	0.68	0.26	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.01	0.01	0.02	0.02	
7-Dec	2.47	2.11	2.28	0.73	0.59	0.65	0.03	0.02	0.03	1.02	0.02	0.03	0.02	0.01	0.01	0.02	0.01	0.02	0.02	0.02	
8-Dec	2.44	2.05	2.21	0.70	0.57	0.64	0.03	0.02	0.02	0.03	0.02	0.02	0.90	0.01	0.02	0.02	0.01	0.02	0.02	0.02	
9-Dec	2.63	2.14	2.27	2.00	0.38	0.74	0.09	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.02	1.02	0.01	0.02	0.02	0.02	
10-Dec	2.49	1.65	2.13	0.96	0.38	0.68	0.05	-0.25	0.00	0.04	-0.25	0.00	0.02	-0.25	-0.01	0.02	-0.25	-0.01	0.57	-0.25	0.00
11-Dec	2.40	2.09	2.27	0.76	0.62	0.69	0.31	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.01	0.02	0.02	0.02	
12-Dec	2.40	2.05	2.26	0.76	0.61	0.70	0.03	0.02	0.02	1.02	0.02	0.03	0.02	0.01	0.01	0.02	0.01	0.01	0.02	0.02	
13-Dec	2.42	2.05	2.20	0.78	0.66	0.70	0.03	0.02	0.02	0.02	0.02	0.02	0.94	0.01	0.02	0.02	0.01	0.01	0.02	0.02	
14-Dec	2.40	2.01	2.18	0.78	0.69	0.72	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	1.02	0.01	0.02	0.02	0.02	
15-Dec	2.33	2.01	2.16	0.76	0.69	0.72	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.53	0.02	
16-Dec	2.31	2.00	2.13	0.78	0.65	0.72	0.44	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.02	0.02	
17-Dec	2.24	1.90	2.11	0.82	0.70	0.75	0.04	0.02	0.03	1.02	0.02	0.03	0.02	0.01	0.02	0.02	0.01	0.02	0.02	0.02	
18-Dec	2.87	1.81	2.17	0.80	0.70	0.74	0.03	0.02	0.03	0.03	0.02	0.02	0.96	0.01	0.02	0.02	0.01	0.01	0.02	0.02	
19-Dec	2.53	1.87	2.13	0.82	0.72	0.76	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.02	1.02	0.01	0.02	0.02	0.02	
20-Dec	2.40	2.08	2.24	0.83	0.60	0.68	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.02	0.58	0.01	
21-Dec	2.36	2.07	2.23	0.69	0.54	0.64	0.38	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.01	0.02	0.02	
22-Dec	2.53	0.04	2.29	0.67	0.50	0.62	0.16	0.02	0.02	1.02	0.02	0.03	0.02	0.01	0.01	0.02	0.01	0.01	0.02	0.02	
23-Dec	2.42	2.01	2.20	0.67	0.59	0.62	0.04	0.02	0.02	0.02	0.02	0.02	0.98	0.01	0.02	0.02	0.01	0.01	0.02	0.02	
24-Dec	2.53	1.99	2.21	0.66	0.58	0.62	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.01	0.97	0.01	0.02	0.02	0.01	
25-Dec	2.38	1.96	2.18	0.76	0.61	0.69	0.04	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.01	0.55	0.01	
26-Dec	2.30	1.92	2.10	0.77	0.65	0.71	0.23	0.02	0.02	0.01	0.02	0.02	0.01	0.01	0.01	0.02	0.01	0.01	0.02	0.02	
27-Dec	2.31	1.91	2.08	0.77	0.60	0.70	0.03	0.02	0.03	1.02	0.02	0.03	0.02	0.01	0.01	0.02	0.01	0.01	0.02	0.02	
28-Dec	2.36	1.92	2.16	0.82	0.70	0.74	0.03	0.02	0.02	0.03	0.02	0.02	0.90	0.01	0.02	0.02	0.01	0.01	0.02	0.02	
29-Dec	2.41	2.05	2.15	0.77	0.68	0.72	0.99	0.00	0.02	1.01	0.00	0.03	1.02	0.00	0.02	1.01	0.01	0.02	1.01	0.00	
30-Dec	2.36	1.90	2.09	0.77	0.68	0.73	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.57	0.02	
31-Dec	2.35	2.09	2.24	0.79	0.63	0.74	0.28	0.02	0.03	0.03	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.02	0.02	
1-Jan	2.47	1.94	2.20	0.80	0.61	0.69	0.13	0.01	0.02	0.25	0.01	0.02	0.23	0.00	0.01	0.21	0.00	0.02	0.16	0.01	
Average	2.47	1.94	2.20	0.80	0.61	0.69	0.13	0.01	0.02	0.25	0.01	0.02	0.23	0.00	0.01	0.21	0.00	0.02	0.16	0.01	