Regional District of Central Okanagan

Westside Regional Wastewater Treatment Plant Annual Report 2025

Prepared by: A. Lambrecht, PTech, RDCO Senior Process Technologist

Westside Regional Wastewater Treatment Plant Annual Report 2025

Purpose

This report is submitted by the Regional District of Central Okanagan according to the requirement for an annual report as stated in Operational Certificate (OC) PE 11652, Section 4.2 for the Westside Regional Wastewater Treatment Plant.

Introduction and Facility/Operator Classifications

The British Columbia Environmental Operators Certification Program (EOCP) classifies the Westside Regional Wastewater Treatment Plant (WRWTP) as a Level IV facility, EOCP # 157. Under this classification the facility must have one designated Level IV Chief Operator (***Table 1***).

The Plant is in the City of West Kelowna (CWK), British Columbia and is operated by the Regional District of Central Okanagan (RDCO). The WRWTP receives wastewater from the City of West Kelowna (CWK), the District of Peachland, and Westbank First Nation (WFN) Reserves #9 and #10.

The WRWTP operates the Westbank Process that uses biological nutrient removal (BNR) in sequential anaerobic, anoxic, and aerobic zones. The three-stage activated sludge process removes both nitrogen and phosphorus from the wastewater and achieves a high carbonaceous biochemical oxygen demand (c-BOD) removal. Aluminum sulphate is used for supplemental phosphorus removal. This, along with

clarifiers, Aqua Cloth Media filters and an ultraviolet disinfection system reduce the pathogens, solids and nutrients that discharge into Okanagan Lake.

Table 1 – 2025 WRWTP Staff and EOCP Designations

Operator Name	EOCP Number	EOCP Certificates
Bryan Mazda (Chief Operator)	6424	MWWT-4, WWC-1
Andrew Wannop	7807	MWWT-4
Douglas Murray	8918	MWWT-3
Scott Bruce	4841	MWWT-1, WWC-1
Ranjit Singh	1000544	MWWT-4
Paulo Balana	1001963	MWWT-1
Angela Lambrecht (Lab)	6468	MWWT-1
Greg Beloin (Lab)	7787	MWWT-2, WWC-1

Records of Effluent Water Balance and Water Reclamation (Service Water)

Effluent Water Balance

Flow Monitoring devices are in place at the treatment plant – a Parshall Flume is situated in the influent channel located before the Headworks building and two ultrasonic meters in the Final effluent channel(s) before the cloth filters in the tertiary treatment section of the plant. ***Table 2*** shows the average daily and monthly flows for 2025. The average daily flow into the WRWTP during 2025 was approximately **10,062 m3/day.**

Note:

Flow Verification was confirmed on both Influent and Effluent meters in 2024 by Centrix Control Solutions and a calibration adjustment on FE-4271 flow meter was made on January 18,2024.

A new flow meter was purchased and installed in 2025 but was not commissioned due to fluctuations in readings and high probability of error. Alternative flow meter options are being explored in 2026.

Lower flows recorded from January 19, 2024 – November 6, 2025, were a result of the calibration adjustment (-30KV) of the Effluent flow meter FE-4271. The calibration was re-adjusted (-20KV) November 6, 2025, with an error of **+/- 10%.**

WWTP INFLUENT FLOW METER PROVING							
TAG:	Description:	Date:	Time:	Visual Measured	As per 24" Flow Chart	Tx Measured	% Error +/-
FI-A-1202	24" Influent	Jan 5/24		762mm	812.8mm		6.7

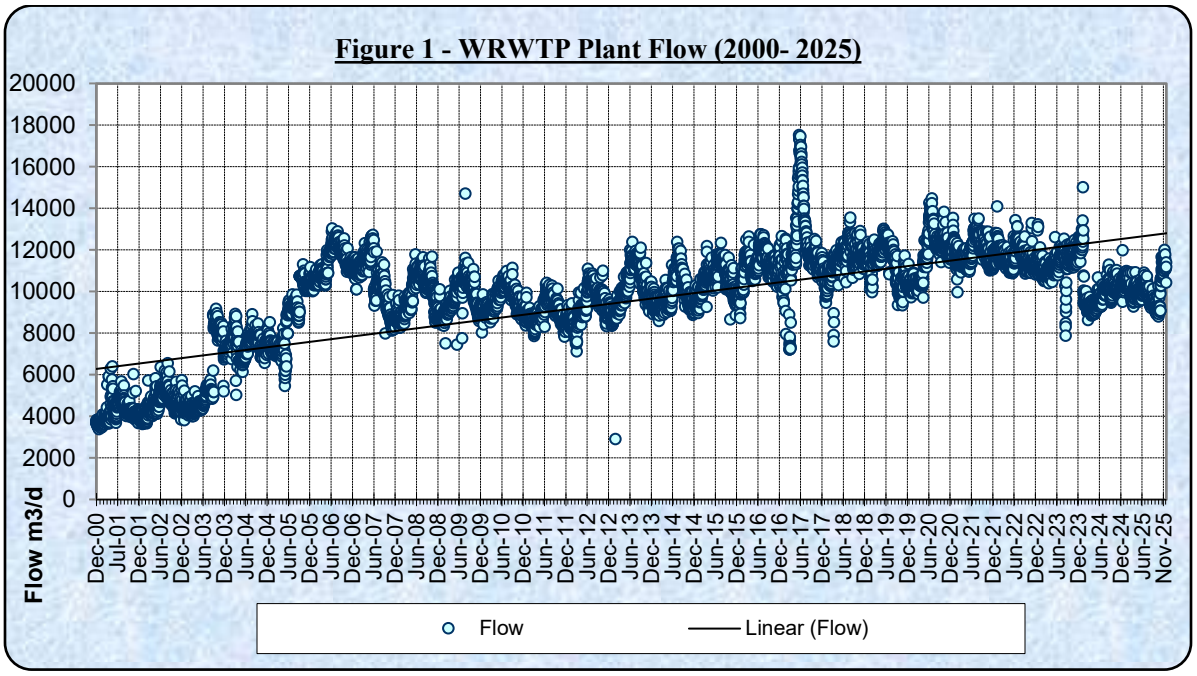
WWTP EFFLUENT FLOW METER PROVING						
TAG:	Description:	Date:	% Error +/-	Test Meter	Test Meter Model #	Comments
FE-F-4160	Bio 5/6	Jan 18/24	1.10	Rosemount	354778	
FE-F-4271	Bio 1/2/3/4	Jan 18/24	1.12	EH ProSonic	E108D102000	

Table 2 – Average Daily and Monthly Flows for 2025

2025	Average Daily Flow (m3/day)		Total Monthly Flow (m3/month)	
	Influent	Outfall	Influent	Outfall
Jan	10,787	10,454	334,382	324,067
Feb	10,916	10,255	305,645	287,130
Mar	10,991	9,809	340,711	304,074
Apr	11,037	10,014	331,117	300,405
May	10,976	9,904	340,268	307,023
Jun	11,260	10,200	337,793	306,008
Jul	11,451	10,116	354,996	313,590
Aug	11,614	9,551	360,031	296,075
Sep	11,376	9,366	341,286	280,994
Oct	11,043	9,250	342,322	286,737
Nov	10,749	10,597	322,458	317,914
Dec	10,997	11,246	340,895	348,639

Figure 1 illustrates the WRWTP Daily flow from December 2000 - December 2025.

Figure 1 – WRWTP Flow



Water Reclamation (Service water)

Plant effluent is utilized for wash-down water, polymer make down, pump seal water and irrigation. Commonly referred to as service water, this water is metered and chlorinated. The duration of irrigation for 2025 was from **April 4 – October 22**. The total service water used was **102,051 m3** while the total irrigation water used was **4,476 m3**.

General Reporting Requirements and Monitoring Programs

Federal Regulations were implemented for all Wastewater Facilities in 2013. Under these Regulations each facility is required to issue quarterly reports on the Effluent Quality and Quantity. It is anticipated that a reciprocity agreement will be reached so that only one report is required that satisfies both Federal and Provincial Regulations. Currently the RDCO WRWTP is complying with both requirements.

The WRWTP Lab follows the terms and conditions of the Quality Assurance Regulation (EDQA) and is an Accredited Laboratory in good standing with CALA's Laboratory Proficiency Program and is listed in the Directory of Qualified Laboratories on gov.bc.ca (Environmental Protection and Sustainability). The lab also incorporates a quality control program which is checked daily against known standards.

All analysis conducted in the lab follows Standard Methods for the Examination of Water and Wastewater, 24th Edition. Ten percent of the samples collected are duplicated to provide data quality assurance including field and sample blanks, the number of quality control samples are 20% of all samples collected (every five samples) and additional quality control standards are added during sample analysis as required.

CARO Analytical Services, Bureau Veritas and ALS Environmental are accredited independent laboratories located in BC. Samples from the WRWTP are sent to ***CARO Analytical Services, Bureau Veritas and/or ALS Environmental*** to be analyzed and data is uploaded to the Provincial EMS site monthly as required under the OC.

Additional sample analysis is required under the Federal Regulations and is reported quarterly using the ERRIS (Effluent Regulatory Reporting Information System). Where and when possible, sampling for both Provincial and Federal Regulations are combined. Data from the accredited independent laboratories include QA/QC, sample duplicates, and blanks (sample, trip, and field). These results aid in maintaining an appropriate level of quality assurance and quality control within the RDCO lab.

The influent and final effluent data reports for 2025 are provided in ***Appendix A.***

Effluent Monitoring Program

Table 3 – 2025 Monthly Average Final Effluent data

2025	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year Avg
Est. Total Nitrogen (mg/L)	9.35	7.71	6.95	6.76	5.66	5.28	5.11	5.40	5.05	5.70	4.64	3.90	5.96
Total Kjeldhal Nitrogen (mg/L)	2.28	2.22	2.25	2.15	1.92	1.56	1.87	1.68	1.64	2.32	1.63	1.77	1.94
Organic Nitrogen (mg/L)	1.78	1.69	1.63	1.49	1.53	1.36	1.58	1.53	1.46	1.75	1.34	1.29	1.54
Nitrate/Nitrite (mg/L)	7.06	5.50	4.69	4.60	3.90	3.73	3.24	3.73	3.41	3.44	3.00	2.13	4.04
Ammonia (mg/L)	0.50	0.53	0.62	0.67	0.41	0.20	0.29	0.14	0.18	0.57	0.30	0.48	0.4
Total Phosphorus (mg/L)	0.15	0.135	0.132	0.165	0.126	0.088	0.158	0.152	0.108	0.143	0.162	0.12	0.137
Ortho Phosphate (mg/L)	0.12	0.12	0.09	0.15	0.09	0.08	0.09	0.11	0.08	0.08	0.11	0.09	0.10
C-BOD (mg/L)	2	2.5	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
COD (mg/L)	15	14	18	21	18	25	29	19	20	20	22	21	20

Influent Monitoring Program

Table 4 – 2025 Monthly Average Raw Influent data

2025	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year Avg
Est. Total Nitrogen (mg/L)	46.6	57.0	50.5	54.8	58.6	48.0	68.7	60.1	59.2	63.5	50.6	50.4	55.7
Total Kjeldahl Nitrogen (mg/L)	57.8	53.6	54.5	52.3	58.7	54.0	64.3	59.4	54.1	70.1	55.1	58.6	57.7
Organic Nitrogen (mg/L)	26.6	16.5	24.8	16.3	22.6	17.8	27.5	24.1	21.5	36.3	18.1	22.4	22.9
Nitrate/Nitrite (mg/L)	0.12	0.16	0.18	0.37	0.31	0.15	0.09	0.10	0.13	0.45	0.14	0.19	0.20
Ammonia (mg/L)	32.6	37.1	34.0	36.7	38.0	36.7	37.0	36.9	34.0	35.3	38.5	35.8	36.1
Total Phosphorus (mg/L)	6.8	5.8	6.6	6.7	7.4	7.4	7.0	6.2	6.9	6.6	6.6	6.3	6.7
Ortho Phosphate (mg/L)	3.23	3.83	3.45	3.95	3.70	3.28	3.70	3.75	3.70	3.32	3.72	3.74	3.61
pH	7.31	7.12	7.26	7.19	7.10	7.23	7.28	7.27	7.35	7.30	7.43	7.47	7.28
BOD (mg/L)	275	188	197	247	542	270	364	212	252	280	220	330	281
COD (mg/L)	459	470	479	477	513	447	508	513	470	505	475	551	489
Total Suspended Solids (mg/L)	282	231	322	348	369	363	264	348	370	361	351	368	331

Peachland Emergency Storage and Infiltration Facility

The RDCO has implemented an Emergency Response Manual (contingency plan), which is updated regularly and sent to the Ministry of Environment (MOE) as required. The manual provides guidelines and a sufficient level of detail to address the appropriate course of action for many preconceived emergencies. The contingency plan includes spill procedures, first response, notification, and environmental regulations for the collection, treatment, and disposal systems for all the wastewater utilities.

Also included in the Emergency Response Manual is detailed protocol for the Peachland force main that runs along the bottom of Okanagan Lake. A leak response plan as well as an emergency response flow chart and emergency storage schematic are readily available to system operators and others needing information should a problem occur (***Appendix B).*** A static pressure test is conducted annually by RDCO staff on the Peachland Force Main and the capacity at the Emergency Storage Facility is one day storage (District of Peachland to research capacity issues), based on current flows.

The RDCO is working to remove this section from the Operation Certificate (OC). The use of the emergency discharge facility should be classified as a true emergency. As such this triggers reporting as an emergency rather than being managed as part of the operational certificate. Consequently, the RDCO is pursuing the removal of any clause relating to the emergency facility from the OC.

Flow meters are located at either end of the Force Main. Logic resides in the Telemetry Alarm Dialer that compares the Peachland Main flowmeter to the Peachland/WRWTP flowmeter.

The meter comparison is the difference between the two daily flow totalizers - a deviation alarm is generated if the totalizer exceeds +/- 5.0 m3 (the meter comparison is the flowing % difference between the flowmeters).

The Peachland force main pressure test was conducted on **October 31, 2025.**

Table 5 – 2025 Peachland Flow

Month	Flow (m3)
January	21,855
February	19,997
March	23,020
April	23,293
May	27,417
June	28,687
July	31,377
August	29,086
September	24,612
October	23,066
November	20,712
December	22,129

Sludge Monitoring Program

Both Fermenter sludge and DAF sludge are analyzed every six months for total metals and TKN. Analyses are done by CARO Analytical Services and/or ALS Environmental (independently accredited laboratories). The Fermenter and DAF sludge results are provided in ***Appendix A***.

The Biosolids produced by the centrifuge are trucked offsite to a contracted compost site and each month a sample is sent for complete metal testing to CARO Analytical Services and/or ALS Environmental.

Integrated Stormwater/Rainwater Management

The RDCO is collaborating with the Stakeholders to ensure that a formalized Storm Water Management Plan exists for each local authority. RDCO staff will have access to those plans, but the RDCO has no authority over storm water management in the wastewater treatment plant capture zone and surrounding areas. The RDCO is working towards an update to the Liquid Waste Management Plan in 2026 that will address storm water management within the RDCO.

- City of West Kelowna – Master Drainage Plan October 25, 2011
- District of Peachland – Subdivision Development Servicing Amended Bylaw - 2017
- Westbank First Nations – WFN Master Drainage Plan - 2013

Lake Sampling Monitoring Program

The Lake Sampling Program was replaced in 2011 with a Collaborative Monitoring Agreement. A Memorandum of Understanding (MOU) was signed between the MOE, the Okanagan Water Basin Board (OBWB), the City of Kelowna, the District of Summerland and the RDCO which established a framework for implementing a cost shared monitoring program of Okanagan Lake.

The 2025 Lake Monitoring Report will be made available to the public, and a link is posted on the RDCO website.

Exceedances 2025

No exceedances reported in 2025.

Treatment Works

The WRWTP completed the commissioning of two new process blowers installed in 2024.

Biofilter media was replace in October 2025.

Outfall Inspection

The WRWTP Outfall pipe was video inspected in 2021. The next scheduled inspection is 2026.

Water Management and Conservation

An Inflow and Infiltration Study was awarded to Urban Systems in early December 2015 and completed in May 2016. The study findings concluded that it would be a questionable return on investment to implement an extensive control program to reduce I&I (Infiltration and Inflow) flows. It was noted that the RDCO's sewer system has I&I combined rates that are well below the acceptable limits for infiltration on existing and new systems. Recommendations included that RDCO continue to collect and monitor rainfall data and identify a 5-year storm (or larger) and re-evaluate the inflow and infiltration levels during this event.

A Flow monitoring program is also in place that currently tracks total flow and rainfall events to apply a flow-based cost recovery program to each jurisdiction. This program could be expanded in the future to track potential sites for infiltration and inflow. The RDCO is working together with the partners to ensure that Cross Connection Programs exist for each local authority.

A Source Control Program was initiated in 2023 to monitoring domestic, industrial, and commercial wastewater discharged to the sewage collection system. The RDCO is collaborating with the residents and owners cooperatively through public awareness and information sharing. Changes to the Sewer Use Bylaws for local jurisdictions is recommended and will include overstrength waste surcharges for non-compliant users based on the source control monitoring results.

Bylaws

RDCO Sewer System Bylaw No. 1315, Consolidated April 17, 2025 (***Appendix C***) regulates the operation and use of the sanitary sewer systems within the boundaries of the RDCO on the west side of Okanagan Lake.

RDCO Ticket Information and Utilization Bylaw 1537, Consolidated April 17, 2025 (***Appendix C***).

RDCO Bylaws are reviewed every 10 years or as required.

Administration

The RDCO collaborates with the partners of the WRWTP, DWK, WFN and the District of Peachland to administer Bylaw No.1315 and 1537. Partner meetings take place quarterly where any pertinent information is discussed.

- Service connection standards
- Connection requirements
- Building sewer construction standards
- Interference with the sewer system
- Septic tanks
- Prohibited wastes
- Standards for restricted wastes
- Accidental discharges
- Requirements for pre-treatment
- Special control manholes
- Wastewater monitoring
- Control of waste disposal
- Provisions for sewer disconnection
- Recovery of costs for damage to the system
- Fees and Charges

Biosolids (Sludge withdrawal) Records

The WRWTP Biosolids are deposited into a tri-axle trailer - when full, a hauling contractor trucks them off-site to one of two land composting facilities contracted by the RDCO -Ingerbelle Composting Facility in Princeton and Curtis Farms in Spallumcheen. All sites comply with Provincial Environment Standards for Composting Facilities.

In 2025 the plant generated approximately **5,917** wet metric tonnes of Biosolids material.

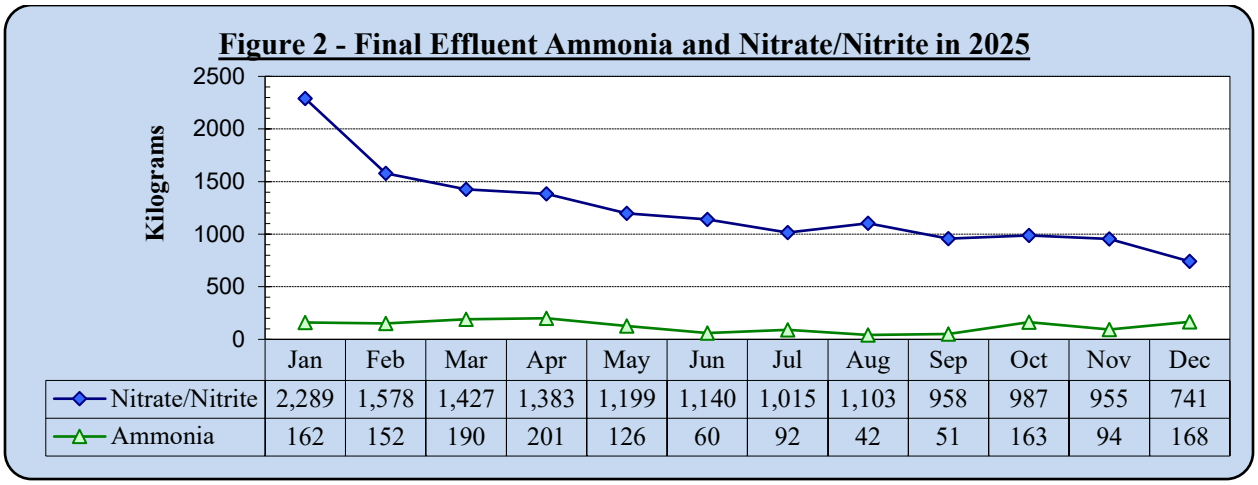
Table 6 – 2025 Biosolids Metals Analysis

2025 Biosolids												
Parameter	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
Aluminum	2,750	5,210	4,810	3,460	8,350	15,200	13,200	3,490	4,060	5,720	3,680	2,610
Antimony	0.9	0.7	1.1	1.0	0.7	1.0	1.0	0.9	0.7	1.0	1.2	0.7
Arsenic	0.8	0.8	0.9	1.1	0.9	1.5	4.5	1.0	0.9	1.1	1.0	0.9
Barium	55	59	64	64	59	71	80	58	47	68	62	52
Beryllium	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
Bismuth	15	10	16	18	12	15	21	16	14	18	20	15
boron	7	10	12	13	9	14	13	25	18	16	28	14
Cadmium	0.38	0.35	0.45	0.48	0.36	0.45	0.52	0.41	0.37	0.49	0.07	0.48
Calcium	7,950	8,720	10,000	8,310	7,680	7,160	9,070	20,400	15,600	8,910	23,400	6,680
Chromium	11	6	9	11	7	7	11	11	7	8	8	6
Cobalt	1.1	0.8	1.2	1.2	1.0	1.0	1.2	0.9	0.8	1.1	1.3	1.1
Copper	213	200	234	248	176	250	300	225	210	305	291	219
Iron	1,790	1,370	2,160	1,840	1,580	1,440	1,710	1,450	1,130	1,880	2,570	1,650
Lead	4.25	2.02	3.22	3.88	3.37	3.34	4.3	3.74	3.22	3.84	4.32	3.07
Lithium	1	2	1	2	1	2	1	2	0	2	1	2
Magnesium	4,220	3,240	4,860	5,350	2,910	3,760	4,360	3,940	3,420	4,790	4,670	4,730
Manganese	42	37	51	45	42	53	113	43	47	103	62	43
Molybdenum	4	4	4	6	4	13	7	5	4	6	6	5
Nickel	7.7	4.4	6.5	8.6	5.7	6.1	8.3	5.4	4.6	6.4	5.9	4.8
Phosphorus	17,300	17,200	20,300	20,600	15,500	20,300	23,700	18,500	14,900	20,900	22,900	20,900
Potassium	5,120	4,110	5,880	6,310	3,330	4,520	4,530	3,820	3,480	5,280	6,070	6,410
Selenium	2	2.1	2.3	2.5	2.1	2.3	2.9	2.5	2	2.7	2.5	2.3
Silver	0.8	0.8	0.9	1.0	0.9	1.1	1.1	1.0	0.8	1.1	0.8	0.7
Sodium	355	377	412	389	323	386	420	309	287	450	417	460
Strontium	42	56	61	54	55	57	65	96	71	57	101	45
Sulfur	3,720	3,700	3,840	4,000	3,310	3,700	5,420	4,100	3,660	4,700		3,900
Tin	12.7	7.2	10.4	10.4	9.2	10.6	14.4	11.6	10.5	12	12.9	9.2
Titanium	27	21	53	44	35	30	42	24	31	28	23	24
Uranium	3.3	2.9	3.7	5.4	3.5	5.0	5.6	3.2	2.7	3.5	3.2	2.8
Vanadium	3.8	3.1	4.5	4.6	4.2	5.9	5.8	3.0	2.9	3.5	3.3	3.2
Zinc	233	203	239	268	232	289	423	296	296	330	361	255
Zirconium	3	5	5	7	10	17	21	6	7	10	4	3
Moisture (%)	78.8	77.8	77.9	77.4	76.9	79.1	48.9	77.8	77.4	79.9	73.4	70.4
Solids (%)	21.2	23	22.1	22.8	23.1	22.1	19.7	21.8	22.6	20.8	26.6	20.5
Volatile Solids (%)	88.1	88.6	85.8	86.7	87.6	86.3	86.3	87.2	88.5	87.5	87.9	88.8
TKN (%)	7.79	4.44	5.73	4.51	5.25	3.52	2.89	6.66	6.59	5.67	12.1	5.33

Records of Nutrients in Kg discharged into Okanagan Lake

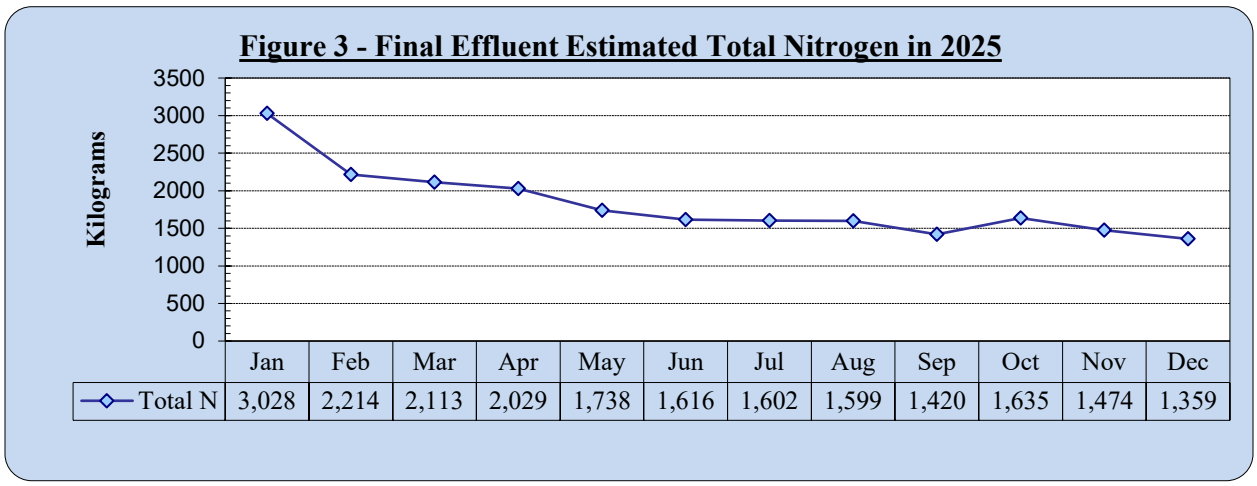
Figures 2, 3 and 4 show the amount (in Kg) of Ammonia, Nitrate/Nitrite, Total Nitrogen, Total Phosphorus and Ortho-Phosphorus being discharged into Okanagan Lake in 2025.

Figure 2 - Effluent Ammonia and Nitrate/Nitrite (Kg)



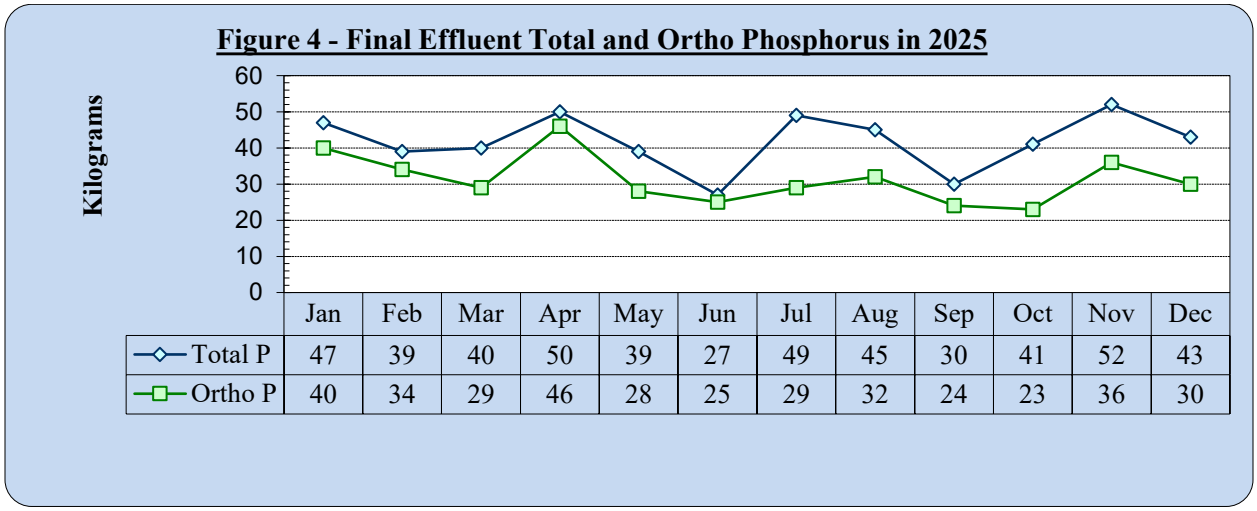
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Nitrate/Nitrite	2,289	1,578	1,427	1,383	1,199	1,140	1,015	1,103	958	987	955	741
Ammonia	162	152	190	201	126	60	92	42	51	163	94	168

Figure 3 – Effluent Total Nitrogen (Kg)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total N	3,028	2,214	2,113	2,029	1,738	1,616	1,602	1,599	1,420	1,635	1,474	1,359

Figure 4 – Effluent Total and Ortho Phosphorus (Kg)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total P	47	39	40	50	39	27	49	45	30	41	52	43
Ortho P	40	34	29	46	28	25	29	32	24	23	36	30

Total Kilogram discharge of nutrients to Okanagan Lake in 2025 were as follows:

1. **502 kg** Total Phosphorus (approximately **376 kg** was Orthophosphate)
2. **14,775 kg** of Nitrate/Nitrite Nitrogen
3. **1,501 kg** of Ammonia Nitrogen
4. **21,827 kg** of Total Nitrogen

Conclusion

On average, the WRWTP removed **98%** of the Total Phosphorus entering the plant and discharged **502 kg** of Total Phosphorus to Okanagan Lake in 2025.

In addition, Total Nitrogen was reduced by **89%**, with a BOD and solids reduction of more than **99%**.

The WRWTP is committed to preserving the quality of Okanagan Lake and providing the CWK, District of Peachland and WFN with quality ongoing service.

Appendix A

WRWTP Final Effluent, Raw Influent and WRWTP Sludge Solids Analyses

Analytical Results

Sub-Matrix: Composite Effluent
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Outfall Comp E104954	----	----	----	----
					Client sampling date / time: 02-Apr-2025 07:10	----	----	----	----
					VA25A7335-001	----	----	----	----
					Result	----	----	----	----
Physical Tests									
pH	----	E108/VA	0.10	pH units	7.68	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L	2.0	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	0.571	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	2.23	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L	6.34	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L	0.334	----	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	0.0758	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	0.201	----	----	----	----
Microbiological Tests									
Coliforms, thermotolerant [fecal]	----	E010.FC/VA	1	MPN/100 mL	<1	----	----	----	----
Coliforms, Escherichia coli [E. coli]	----	E010/VA	1	MPN/100 mL	<1	----	----	----	----
Aggregate Organics									
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/VA	2.0	mg/L	2.2	----	----	----	----
Chemical oxygen demand [COD]	----	E559-L/VA	10	mg/L	44	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Composite Influent (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Raw Influent Comp E222796	----	----	----	----
Client sampling date / time					02-Apr-2025 06:45	----	----	----	----
					VA25A7335-002	----	----	----	----
					Result	----	----	----	----
Physical Tests									
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L	322	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	37.2	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	54.6	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L	<0.0250 DLDS	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L	<0.0050 DLDS	----	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	3.38	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	6.66	----	----	----	----
Aggregate Organics									
Biochemical oxygen demand [BOD]	----	E550/VA	2.0	mg/L	247	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Grab Effluent (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Bioreactor	Fermenter Supernatant	----	----	----
Client sampling date / time					02-Apr-2025 06:44	02-Apr-2025 07:00	----	----	----
					VA25A7335-003	**VA25A7335-005**	----	----	----
					Result	Result	----	----	----
Physical Tests									
Alkalinity, total (as CaCO3)	----	E290/VA	1.0	mg/L	156	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L	318	----	----	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	13.4	----	----	----	----
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L	0.00334	----	----	----	----

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

					Client sample ID	Bioreactor	Fermenter Supernatant	----	----	----
					Client sampling date / time	02-Apr-2025 06:44	02-Apr-2025 07:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25A7335-003	VA25A7335-005	----	----	----
						Result	Result	----	----	----
Fatty Acids										
Hexanoic acid	142-62-1	E676/WP	1.0	mg/L		----	<1.0	----	----	----
Isobutyric acid	79-31-2	E676/WP	1.0	mg/L		----	1.5	----	----	----
Isovaleric acid	503-74-2	E676/WP	1.0	mg/L		----	1.7	----	----	----
Propanoic acid	79-09-4	E676/WP	5.0	mg/L		----	12.6	----	----	----
Valeric acid	109-52-4	E676/WP	1.0	mg/L		----	1.1	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

					Client sample ID	Biosolids E231763	----	----	----	----
					Client sampling date / time	02-Apr-2025 08:30	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25A7335-004	----	----	----	----
						Result	----	----	----	----
Physical Tests										
Moisture	----	E144/VA	0.25	%		77.4	----	----	----	----
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		5.56 FR4	----	----	----	----
Solids, fixed [FS]	----	E169/WT	0.10	%		13.3	----	----	----	----
Solids, total [TS]	----	E157/WT	0.10	%		22.8	----	----	----	----
Solids, volatile [VS]	----	EC165/WT	0.10	%		86.7	----	----	----	----
Microbiological Tests										
Coliforms, Escherichia coli [E. coli]	----	E014.EC/VA	2	MPN/g		1560000	----	----	----	----
Coliforms, thermotolerant [fecal]	----	E014.FC/VA	2	MPN/g		1560000	----	----	----	----
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		3460	----	----	----	----

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Biosolids E231763	----	----	----	----
					Client sampling date / time: 02-Apr-2025 08:30	----	----	----	----
					VA25A7335-004	----	----	----	----
					Result	----	----	----	----
Metals									
Antimony	7440-36-0	E440/VA	0.10	mg/kg	0.95	----	----	----	----
Arsenic	7440-38-2	E440/VA	0.10	mg/kg	1.12	----	----	----	----
Barium	7440-39-3	E440/VA	0.50	mg/kg	63.7	----	----	----	----
Beryllium	7440-41-7	E440/VA	0.10	mg/kg	<0.10	----	----	----	----
Bismuth	7440-69-9	E440/VA	0.20	mg/kg	18.3	----	----	----	----
Boron	7440-42-8	E440/VA	5.0	mg/kg	12.8	----	----	----	----
Cadmium	7440-43-9	E440/VA	0.020	mg/kg	0.480	----	----	----	----
Calcium	7440-70-2	E440/VA	50	mg/kg	8310	----	----	----	----
Chromium	7440-47-3	E440/VA	0.50	mg/kg	10.9	----	----	----	----
Cobalt	7440-48-4	E440/VA	0.10	mg/kg	1.21	----	----	----	----
Copper	7440-50-8	E440/VA	0.50	mg/kg	248	----	----	----	----
Iron	7439-89-6	E440/VA	50	mg/kg	1840	----	----	----	----
Lead	7439-92-1	E440/VA	0.50	mg/kg	3.88	----	----	----	----
Lithium	7439-93-2	E440/VA	2.0	mg/kg	<2.0	----	----	----	----
Magnesium	7439-95-4	E440/VA	20	mg/kg	5350	----	----	----	----
Manganese	7439-96-5	E440/VA	1.0	mg/kg	45.0	----	----	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.164	----	----	----	----
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg	5.51	----	----	----	----
Nickel	7440-02-0	E440/VA	0.50	mg/kg	8.59	----	----	----	----
Phosphorus	7723-14-0	E440/VA	50	mg/kg	20600	----	----	----	----
Potassium	7440-09-7	E440/VA	100	mg/kg	6310	----	----	----	----

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Biosolids E231763	----	----	----	----
					Client sampling date / time: 02-Apr-2025 08:30	----	----	----	----
					VA25A7335-004	----	----	----	----
					Result	----	----	----	----
Metals									
Selenium	7782-49-2	E440/VA	0.20	mg/kg	2.50	----	----	----	----
Silver	7440-22-4	E440/VA	0.10	mg/kg	0.95	----	----	----	----
Sodium	7440-23-5	E440/VA	50	mg/kg	389	----	----	----	----
Strontium	7440-24-6	E440/VA	0.50	mg/kg	54.4	----	----	----	----
Sulfur	7704-34-9	E440/VA	1000	mg/kg	4000	----	----	----	----
Thallium	7440-28-0	E440/VA	0.050	mg/kg	<0.050	----	----	----	----
Tin	7440-31-5	E440/VA	2.0	mg/kg	10.4	----	----	----	----
Titanium	7440-32-6	E440/VA	1.0	mg/kg	44.3	----	----	----	----
Tungsten	7440-33-7	E440/VA	0.50	mg/kg	0.76	----	----	----	----
Uranium	7440-61-1	E440/VA	0.050	mg/kg	5.40	----	----	----	----
Vanadium	7440-62-2	E440/VA	0.20	mg/kg	4.60	----	----	----	----
Zinc	7440-66-6	E440/VA	2.0	mg/kg	268	----	----	----	----
Zirconium	7440-67-7	E440/VA	1.0	mg/kg	7.1	----	----	----	----
Leachable Anions & Nutrients									
Kjeldahl nitrogen, total [TKN]	----	E319/SK	0.020	%	4.51	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

					Client sample ID	Primary Effluent Grab	Travel Blank	----	----	----
					Client sampling date / time	02-Apr-2025 07:05	02-Apr-2025 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25A7335-006	VA25A7335-007	----	----	----
						Result	Result	----	----	----
Physical Tests										
pH	----	E108/VA	0.10	pH units		----	5.40	----	----	----
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L		----	<1.0	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L		----	<0.0050	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L		52.2	<0.050	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L		----	<0.0050	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L		----	<0.0010	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L		----	<0.0010	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L		----	<0.0020	----	----	----
Aggregate Organics										
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/VA	2.0	mg/L		----	<2.0	----	----	----
Chemical oxygen demand [COD]	----	E559-L/VA	10	mg/L		----	<10	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Composite Effluent (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Outfall Comp E104954	----	----	----	----
					Client sampling date / time: 16-Apr-2025 08:00	----	----	----	----
					VA25A8713-001	----	----	----	----
					Result	----	----	----	----
Physical Tests									
pH	----	E108/VA	0.10	pH units	7.95	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L	1.6	----	----	----	----
Anions and Nutrients									
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	1.99	----	----	----	----
Aggregate Organics									
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/VA	2.0	mg/L	<2.0	----	----	----	----
Chemical oxygen demand [COD]	----	E559-L/VA	10	mg/L	36	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Composite Influent (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Raw Influent Comp E222796	----	----	----	----
					Client sampling date / time: 16-Apr-2025 07:50	----	----	----	----
					VA25A8713-002	----	----	----	----
					Result	----	----	----	----
Anions and Nutrients									
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	43.0	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Grab Influent
(Matrix: Water)

					Client sample ID	Primary Influent Grab	----	----	----	----
					Client sampling date / time	16-Apr-2025 07:55	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25A8713-003	----	----	----	----
						Result	----	----	----	----
Anions and Nutrients										
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L		48.0	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Composite Effluent (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Outfall Comp E104954 ----	----	----	----	----
					Client sampling date / time: 06-Aug-2025 07:10	----	----	----	----
					VA25B9607-001	----	----	----	----
					Result	----	----	----	----
Physical Tests									
pH	----	E108/VA	0.10	pH units	7.78	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L	1.6	----	----	----	----
Anions and Nutrients									
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	1.66	----	----	----	----
Aggregate Organics									
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/VA	2.0	mg/L	<2.0	----	----	----	----
Chemical oxygen demand [COD]	----	E559-L/VA	10	mg/L	38	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Composite Influent (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Raw Influent Comp E222796 ----	----	----	----	----
					Client sampling date / time: 06-Aug-2025 06:55	----	----	----	----
					VA25B9607-002	----	----	----	----
					Result	----	----	----	----
Anions and Nutrients									
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	57.3	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Grab Influent
(Matrix: Water)

					Client sample ID	Primary Influent Grab ----	----	----	----	----
					Client sampling date / time	06-Aug-2025 07:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25B9607-003	----	----	----	----
						Result	----	----	----	----
Anions and Nutrients										
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L		54.0	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Composite Effluent
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Outfall Comp E104954 ----	----	----	----	----
					Client sampling date / time: 20-Aug-2025 08:00	----	----	----	----
					VA25C1140-001	----	----	----	----
					Result	----	----	----	----
Physical Tests									
pH	----	E108/VA	0.10	pH units	7.83	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L	2.1	----	----	----	----
Microbiological Tests									
Coliforms, thermotolerant [fecal]	----	E010.FC/VA	1	MPN/100 mL	1	----	----	----	----
Coliforms, Escherichia coli [E. coli]	----	E010/VA	1	MPN/100 mL	<1	----	----	----	----
Aggregate Organics									
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/VA	2.0	mg/L	<2.0	----	----	----	----
Chemical oxygen demand [COD]	----	E559-L/VA	10	mg/L	43	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Composite Influent
(Matrix: Water)

					Client sample ID	Raw Influent Comp E222796 ----	----	----	----	----
					Client sampling date / time	20-Aug-2025 08:15	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25C1140-002	----	----	----	----
						Result	----	----	----	----
Physical Tests										
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L		251	----	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L		41.6	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L		61.4	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L		<0.0250 DLDS	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L		<0.0050 DLDS	----	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L		3.92	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L		6.22	----	----	----	----
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/VA	2.0	mg/L		212	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

					Client sample ID	Bioreactor ----	Fermenter Supernatant ----	Primary Effluent Grab ----	Travel Blank ----	----
					Client sampling date / time	20-Aug-2025 08:30	20-Aug-2025 08:40	20-Aug-2025 08:35	20-Aug-2025 00:00	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25C1140-003	VA25C1140-005	VA25C1140-006	VA25C1140-007	----
						Result	Result	Result	Result	----
Physical Tests										
Alkalinity, total (as CaCO3)	----	E290/VA	1.0	mg/L		200	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L		307	----	----	----	----
pH	----	E108/VA	0.10	pH units		----	----	----	5.35	----
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L		----	----	----	<1.0	----

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Bioreactor ----	Fermenter Supernatant ----	Primary Effluent Grab ----	Travel Blank ----	----
					Client sampling date / time	20-Aug-2025 08:30	20-Aug-2025 08:40	20-Aug-2025 08:35	20-Aug-2025 00:00	----
						VA25C1140-003	VA25C1140-005	VA25C1140-006	VA25C1140-007	----
						Result	Result	Result	Result	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L		----	----	----	<0.0050	----
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L		----	----	58.0	<0.050	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L		----	----	----	<0.0050	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L		----	----	----	<0.0010	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L		----	----	----	<0.0010	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L		----	----	----	<0.0020	----
Total Metals										
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L		14.3	----	----	----	----
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L		0.00265	----	----	----	----
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L		0.00446	----	----	----	----
Barium, total	7440-39-3	E420/VA	0.00010	mg/L		0.246	----	----	----	----
Beryllium, total	7440-41-7	E420/VA	0.000100	mg/L		0.000111	----	----	----	----
Bismuth, total	7440-69-9	E420/VA	0.000050	mg/L		0.0510	----	----	----	----
Boron, total	7440-42-8	E420/VA	0.010	mg/L		0.179	----	----	----	----
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L		0.00123	----	----	----	----
Calcium, total	7440-70-2	E420/VA	0.050	mg/L		67.8	----	----	----	----
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L		0.000340	----	----	----	----
Chromium, total	7440-47-3	E420/VA	0.00050	mg/L		0.0298	----	----	----	----
Cobalt, total	7440-48-4	E420/VA	0.00010	mg/L		0.00324	----	----	----	----
Copper, total	7440-50-8	E420/VA	0.00050	mg/L		0.843	----	----	----	----
Iron, total	7439-89-6	E420/VA	0.010	mg/L		2.98	----	----	----	----

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Bioreactor ----	Fermenter Supernatant ----	Primary Effluent Grab ----	Travel Blank ----	----
					Client sampling date / time: 20-Aug-2025 08:30	20-Aug-2025 08:40	20-Aug-2025 08:35	20-Aug-2025 00:00	----
					VA25C1140-003	VA25C1140-005	VA25C1140-006	VA25C1140-007	----
					Result	Result	Result	Result	----
Total Metals									
Lead, total	7439-92-1	E420/VA	0.000050	mg/L	0.00874	----	----	----	----
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L	0.0058	----	----	----	----
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L	33.4	----	----	----	----
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L	0.190	----	----	----	----
Mercury, total	7439-97-6	E508/VA	0.0000050	mg/L	0.000191	----	----	----	----
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L	0.0215	----	----	----	----
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L	0.0175	----	----	----	----
Phosphorus, total	7723-14-0	E420/VA	0.050	mg/L	116	----	----	----	----
Potassium, total	7440-09-7	E420/VA	0.050	mg/L	49.8	----	----	----	----
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L	0.0277	----	----	----	----
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L	0.00750	----	----	----	----
Silicon, total	7440-21-3	E420/VA	0.10	mg/L	10.7	----	----	----	----
Silver, total	7440-22-4	E420/VA	0.000010	mg/L	0.00255	----	----	----	----
Sodium, total	7440-23-5	E420/VA	0.050	mg/L	61.4	----	----	----	----
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L	0.420	----	----	----	----
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L	33.6	----	----	----	----
Tellurium, total	13494-80-9	E420/VA	0.00020	mg/L	<0.00020	----	----	----	----
Thallium, total	7440-28-0	E420/VA	0.000010	mg/L	0.000052	----	----	----	----
Thorium, total	7440-29-1	E420/VA	0.00010	mg/L	<0.00010	----	----	----	----
Tin, total	7440-31-5	E420/VA	0.00010	mg/L	0.00239	----	----	----	----
Titanium, total	7440-32-6	E420/VA	0.00030	mg/L	0.0231	----	----	----	----

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

					Client sample ID	Bioreactor ----	Fermenter Supernatant ----	Primary Effluent Grab ----	Travel Blank ----	----
					Client sampling date / time	20-Aug-2025 08:30	20-Aug-2025 08:40	20-Aug-2025 08:35	20-Aug-2025 00:00	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25C1140-003	VA25C1140-005	VA25C1140-006	VA25C1140-007	----
						Result	Result	Result	Result	----
Total Metals										
Tungsten, total	7440-33-7	E420/VA	0.00010	mg/L		0.00115	----	----	----	----
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L		0.0136	----	----	----	----
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L		0.00774	----	----	----	----
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L		0.814	----	----	----	----
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L		0.00286	----	----	----	----
Aggregate Organics										
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/VA	2.0	mg/L		----	----	----	<2.0	----
Chemical oxygen demand [COD]	----	E559-L/VA	10	mg/L		----	----	----	<10	----
Fatty Acids										
Acetic Acid	64-19-7	E676/WP	10	mg/L		----	189 DLHC	----	----	----
Butyric Acid	107-92-6	E676/WP	1.0	mg/L		----	24.3	----	----	----
Formic Acid	64-18-6	E676/WP	30	mg/L		----	<30	----	----	----
Hexanoic acid	142-62-1	E676/WP	1.0	mg/L		----	2.4	----	----	----
Isobutyric acid	79-31-2	E676/WP	1.0	mg/L		----	<1.0	----	----	----
Isovaleric acid	503-74-2	E676/WP	1.0	mg/L		----	<1.0	----	----	----
Propanoic acid	79-09-4	E676/WP	5.0	mg/L		----	72.8	----	----	----
Valeric acid	109-52-4	E676/WP	1.0	mg/L		----	9.6	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Biosolids E231763 ----	----	----	----	----
					Client sampling date / time: 20-Aug-2025 09:00	----	----	----	----
					VA25C1140-004	----	----	----	----
					Result	----	----	----	----
Physical Tests									
Moisture	----	E144/VA	0.25	%	77.8	----	----	----	----
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	5.25 FR10	----	----	----	----
Solids, fixed [FS]	----	E169/WT	0.10	%	12.8	----	----	----	----
Solids, total [TS]	----	E157/WT	0.10	%	21.8	----	----	----	----
Solids, volatile [VS]	----	EC165/WT	0.10	%	87.2	----	----	----	----
Microbiological Tests									
Coliforms, Escherichia coli [E. coli]	----	E014.EC/VA	2	MPN/g	109	----	----	----	----
Coliforms, thermotolerant [fecal]	----	E014.FC/VA	2	MPN/g	109	----	----	----	----
Metals									
Aluminum	7429-90-5	E440/VA	50	mg/kg	3490	----	----	----	----
Antimony	7440-36-0	E440/VA	0.10	mg/kg	0.85	----	----	----	----
Arsenic	7440-38-2	E440/VA	0.10	mg/kg	1.00	----	----	----	----
Barium	7440-39-3	E440/VA	0.50	mg/kg	58.4	----	----	----	----
Beryllium	7440-41-7	E440/VA	0.10	mg/kg	<0.10	----	----	----	----
Bismuth	7440-69-9	E440/VA	0.20	mg/kg	16.4	----	----	----	----
Boron	7440-42-8	E440/VA	5.0	mg/kg	24.6	----	----	----	----
Cadmium	7440-43-9	E440/VA	0.020	mg/kg	0.407	----	----	----	----
Calcium	7440-70-2	E440/VA	50	mg/kg	20400	----	----	----	----
Chromium	7440-47-3	E440/VA	0.50	mg/kg	10.6	----	----	----	----
Cobalt	7440-48-4	E440/VA	0.10	mg/kg	0.93	----	----	----	----
Copper	7440-50-8	E440/VA	0.50	mg/kg	225	----	----	----	----

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Biosolids E231763 ----	----	----	----	----
					Client sampling date / time	20-Aug-2025 09:00	----	----	----	----
					VA25C1140-004	----	----	----	----	
					Result	----	----	----	----	----
Metals										
Iron	7439-89-6	E440/VA	50	mg/kg	1450	----	----	----	----	
Lead	7439-92-1	E440/VA	0.50	mg/kg	3.74	----	----	----	----	
Lithium	7439-93-2	E440/VA	2.0	mg/kg	<2.0	----	----	----	----	
Magnesium	7439-95-4	E440/VA	20	mg/kg	3940	----	----	----	----	
Manganese	7439-96-5	E440/VA	1.0	mg/kg	42.8	----	----	----	----	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.129	----	----	----	----	
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg	5.24	----	----	----	----	
Nickel	7440-02-0	E440/VA	0.50	mg/kg	5.39	----	----	----	----	
Phosphorus	7723-14-0	E440/VA	50	mg/kg	18500	----	----	----	----	
Potassium	7440-09-7	E440/VA	100	mg/kg	3820	----	----	----	----	
Selenium	7782-49-2	E440/VA	0.20	mg/kg	2.46	----	----	----	----	
Silver	7440-22-4	E440/VA	0.10	mg/kg	0.95	----	----	----	----	
Sodium	7440-23-5	E440/VA	50	mg/kg	309	----	----	----	----	
Strontium	7440-24-6	E440/VA	0.50	mg/kg	96.0	----	----	----	----	
Sulfur	7704-34-9	E440/VA	1000	mg/kg	4100	----	----	----	----	
Thallium	7440-28-0	E440/VA	0.050	mg/kg	<0.050	----	----	----	----	
Tin	7440-31-5	E440/VA	2.0	mg/kg	11.6	----	----	----	----	
Titanium	7440-32-6	E440/VA	1.0	mg/kg	23.9	----	----	----	----	
Tungsten	7440-33-7	E440/VA	0.50	mg/kg	<0.50	----	----	----	----	
Uranium	7440-61-1	E440/VA	0.050	mg/kg	3.20	----	----	----	----	
Vanadium	7440-62-2	E440/VA	0.20	mg/kg	3.00	----	----	----	----	

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Biosolids E231763 ----	----	----	----	----
					Client sampling date / time	20-Aug-2025 09:00	----	----	----	----
					VA25C1140-004	----	----	----	----	----
					Result	----	----	----	----	----
Metals										
Zinc	7440-66-6	E440/VA	2.0	mg/kg	296	----	----	----	----	----
Zirconium	7440-67-7	E440/VA	1.0	mg/kg	5.5	----	----	----	----	----
Leachable Anions & Nutrients										
Kjeldahl nitrogen, total [TKN]	----	E319/SK	0.020	%	6.66	----	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Composite Effluent
(Matrix: Water)

					Client sample ID	Outfall Comp E104954 ----	----	----	----	----
					Client sampling date / time	20-Aug-2025 08:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25C1140-001	----	----	----	----
						Result	----	----	----	----
Physical Tests										
pH	----	E108/VA	0.10	pH units		7.83	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L		2.1	----	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L		0.137	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L		1.92	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L		4.33	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L		0.0282	----	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L		0.107	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L		0.199	----	----	----	----
Microbiological Tests										
Coliforms, thermotolerant [fecal]	----	E010.FC/VA	1	MPN/100 mL		1	----	----	----	----
Coliforms, Escherichia coli [E. coli]	----	E010/VA	1	MPN/100 mL		<1	----	----	----	----
Aggregate Organics										
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/VA	2.0	mg/L		<2.0	----	----	----	----
Chemical oxygen demand [COD]	----	E559-L/VA	10	mg/L		43	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Composite Influent
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Raw Influent Comp E222796 ----	----	----	----	----
					Client sampling date / time: 20-Aug-2025 08:15	----	----	----	----
					VA25C1140-002	----	----	----	----
					Result	----	----	----	----
Physical Tests									
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L	251	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	41.6	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	61.4	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L	<0.0250 DLDS	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L	<0.0050 DLDS	----	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	3.92	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	6.22	----	----	----	----
Aggregate Organics									
Biochemical oxygen demand [BOD]	----	E550/VA	2.0	mg/L	212	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Bioreactor ----	Fermenter Supernatant ----	Primary Effluent Grab ----	Travel Blank ----	----
					Client sampling date / time: 20-Aug-2025 08:30	20-Aug-2025 08:40	20-Aug-2025 08:35	20-Aug-2025 00:00	----
					VA25C1140-003	VA25C1140-005	VA25C1140-006	VA25C1140-007	----
					Result	Result	Result	Result	----
Physical Tests									
Alkalinity, total (as CaCO3)	----	E290/VA	1.0	mg/L	200	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L	307	----	----	----	----
pH	----	E108/VA	0.10	pH units	----	----	----	5.35	----
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L	----	----	----	<1.0	----

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Bioreactor ----	Fermenter Supernatant ----	Primary Effluent Grab ----	Travel Blank ----	----
					Client sampling date / time: 20-Aug-2025 08:30	20-Aug-2025 08:40	20-Aug-2025 08:35	20-Aug-2025 00:00	----
					VA25C1140-003	VA25C1140-005	VA25C1140-006	VA25C1140-007	----
					Result	Result	Result	Result	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	----	----	----	<0.0050	----
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	----	----	58.0	<0.050	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L	----	----	----	<0.0050	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L	----	----	----	<0.0010	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	----	----	----	<0.0010	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	----	----	----	<0.0020	----
Total Metals									
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	14.3	----	----	----	----
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L	0.00265	----	----	----	----
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L	0.00446	----	----	----	----
Barium, total	7440-39-3	E420/VA	0.00010	mg/L	0.246	----	----	----	----
Beryllium, total	7440-41-7	E420/VA	0.000100	mg/L	0.000111	----	----	----	----
Bismuth, total	7440-69-9	E420/VA	0.000050	mg/L	0.0510	----	----	----	----
Boron, total	7440-42-8	E420/VA	0.010	mg/L	0.179	----	----	----	----
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L	0.00123	----	----	----	----
Calcium, total	7440-70-2	E420/VA	0.050	mg/L	67.8	----	----	----	----
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L	0.000340	----	----	----	----
Chromium, total	7440-47-3	E420/VA	0.00050	mg/L	0.0298	----	----	----	----
Cobalt, total	7440-48-4	E420/VA	0.00010	mg/L	0.00324	----	----	----	----
Copper, total	7440-50-8	E420/VA	0.00050	mg/L	0.843	----	----	----	----
Iron, total	7439-89-6	E420/VA	0.010	mg/L	2.98	----	----	----	----

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Bioreactor ----	Fermenter Supernatant ----	Primary Effluent Grab ----	Travel Blank ----	----
					Client sampling date / time: 20-Aug-2025 08:30	20-Aug-2025 08:40	20-Aug-2025 08:35	20-Aug-2025 00:00	----
					VA25C1140-003	VA25C1140-005	VA25C1140-006	VA25C1140-007	----
					Result	Result	Result	Result	----
Total Metals									
Lead, total	7439-92-1	E420/VA	0.000050	mg/L	0.00874	----	----	----	----
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L	0.0058	----	----	----	----
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L	33.4	----	----	----	----
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L	0.190	----	----	----	----
Mercury, total	7439-97-6	E508/VA	0.0000050	mg/L	0.000191	----	----	----	----
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L	0.0215	----	----	----	----
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L	0.0175	----	----	----	----
Phosphorus, total	7723-14-0	E420/VA	0.050	mg/L	116	----	----	----	----
Potassium, total	7440-09-7	E420/VA	0.050	mg/L	49.8	----	----	----	----
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L	0.0277	----	----	----	----
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L	0.00750	----	----	----	----
Silicon, total	7440-21-3	E420/VA	0.10	mg/L	10.7	----	----	----	----
Silver, total	7440-22-4	E420/VA	0.000010	mg/L	0.00255	----	----	----	----
Sodium, total	7440-23-5	E420/VA	0.050	mg/L	61.4	----	----	----	----
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L	0.420	----	----	----	----
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L	33.6	----	----	----	----
Tellurium, total	13494-80-9	E420/VA	0.00020	mg/L	<0.00020	----	----	----	----
Thallium, total	7440-28-0	E420/VA	0.000010	mg/L	0.000052	----	----	----	----
Thorium, total	7440-29-1	E420/VA	0.00010	mg/L	<0.00010	----	----	----	----
Tin, total	7440-31-5	E420/VA	0.00010	mg/L	0.00239	----	----	----	----
Titanium, total	7440-32-6	E420/VA	0.00030	mg/L	0.0231	----	----	----	----

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Bioreactor ----	Fermenter Supernatant ----	Primary Effluent Grab ----	Travel Blank ----	----
					Client sampling date / time: 20-Aug-2025 08:30	20-Aug-2025 08:40	20-Aug-2025 08:35	20-Aug-2025 00:00	----
					VA25C1140-003	VA25C1140-005	VA25C1140-006	VA25C1140-007	----
					Result	Result	Result	Result	----
Total Metals									
Tungsten, total	7440-33-7	E420/VA	0.00010	mg/L	0.00115	----	----	----	----
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L	0.0136	----	----	----	----
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L	0.00774	----	----	----	----
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L	0.814	----	----	----	----
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L	0.00286	----	----	----	----
Aggregate Organics									
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/VA	2.0	mg/L	----	----	----	<2.0	----
Chemical oxygen demand [COD]	----	E559-L/VA	10	mg/L	----	----	----	<10	----
Fatty Acids									
Acetic Acid	64-19-7	E676/WP	10	mg/L	----	189 DLHC	----	----	----
Butyric Acid	107-92-6	E676/WP	1.0	mg/L	----	24.3	----	----	----
Formic Acid	64-18-6	E676/WP	30	mg/L	----	<30	----	----	----
Hexanoic acid	142-62-1	E676/WP	1.0	mg/L	----	2.4	----	----	----
Isobutyric acid	79-31-2	E676/WP	1.0	mg/L	----	<1.0	----	----	----
Isovaleric acid	503-74-2	E676/WP	1.0	mg/L	----	<1.0	----	----	----
Propanoic acid	79-09-4	E676/WP	5.0	mg/L	----	72.8	----	----	----
Valeric acid	109-52-4	E676/WP	1.0	mg/L	----	9.6	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Biosolids E231763 ----	----	----	----	----
					Client sampling date / time: 20-Aug-2025 09:00	----	----	----	----
					VA25C1140-004	----	----	----	----
					Result	----	----	----	----
Physical Tests									
Moisture	----	E144/VA	0.25	%	77.8	----	----	----	----
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	5.25 FR10	----	----	----	----
Solids, fixed [FS]	----	E169/WT	0.10	%	12.8	----	----	----	----
Solids, total [TS]	----	E157/WT	0.10	%	21.8	----	----	----	----
Solids, volatile [VS]	----	EC165/WT	0.10	%	87.2	----	----	----	----
Microbiological Tests									
Coliforms, Escherichia coli [E. coli]	----	E014.EC/VA	2	MPN/g	109	----	----	----	----
Coliforms, thermotolerant [fecal]	----	E014.FC/VA	2	MPN/g	109	----	----	----	----
Metals									
Aluminum	7429-90-5	E440/VA	50	mg/kg	3490	----	----	----	----
Antimony	7440-36-0	E440/VA	0.10	mg/kg	0.85	----	----	----	----
Arsenic	7440-38-2	E440/VA	0.10	mg/kg	1.00	----	----	----	----
Barium	7440-39-3	E440/VA	0.50	mg/kg	58.4	----	----	----	----
Beryllium	7440-41-7	E440/VA	0.10	mg/kg	<0.10	----	----	----	----
Bismuth	7440-69-9	E440/VA	0.20	mg/kg	16.4	----	----	----	----
Boron	7440-42-8	E440/VA	5.0	mg/kg	24.6	----	----	----	----
Cadmium	7440-43-9	E440/VA	0.020	mg/kg	0.407	----	----	----	----
Calcium	7440-70-2	E440/VA	50	mg/kg	20400	----	----	----	----
Chromium	7440-47-3	E440/VA	0.50	mg/kg	10.6	----	----	----	----
Cobalt	7440-48-4	E440/VA	0.10	mg/kg	0.93	----	----	----	----
Copper	7440-50-8	E440/VA	0.50	mg/kg	225	----	----	----	----

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Biosolids E231763 ----	----	----	----	----
					Client sampling date / time	20-Aug-2025 09:00	----	----	----	----
					VA25C1140-004	----	----	----	----	
					Result	----	----	----	----	----
Metals										
Iron	7439-89-6	E440/VA	50	mg/kg	1450	----	----	----	----	
Lead	7439-92-1	E440/VA	0.50	mg/kg	3.74	----	----	----	----	
Lithium	7439-93-2	E440/VA	2.0	mg/kg	<2.0	----	----	----	----	
Magnesium	7439-95-4	E440/VA	20	mg/kg	3940	----	----	----	----	
Manganese	7439-96-5	E440/VA	1.0	mg/kg	42.8	----	----	----	----	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.129	----	----	----	----	
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg	5.24	----	----	----	----	
Nickel	7440-02-0	E440/VA	0.50	mg/kg	5.39	----	----	----	----	
Phosphorus	7723-14-0	E440/VA	50	mg/kg	18500	----	----	----	----	
Potassium	7440-09-7	E440/VA	100	mg/kg	3820	----	----	----	----	
Selenium	7782-49-2	E440/VA	0.20	mg/kg	2.46	----	----	----	----	
Silver	7440-22-4	E440/VA	0.10	mg/kg	0.95	----	----	----	----	
Sodium	7440-23-5	E440/VA	50	mg/kg	309	----	----	----	----	
Strontium	7440-24-6	E440/VA	0.50	mg/kg	96.0	----	----	----	----	
Sulfur	7704-34-9	E440/VA	1000	mg/kg	4100	----	----	----	----	
Thallium	7440-28-0	E440/VA	0.050	mg/kg	<0.050	----	----	----	----	
Tin	7440-31-5	E440/VA	2.0	mg/kg	11.6	----	----	----	----	
Titanium	7440-32-6	E440/VA	1.0	mg/kg	23.9	----	----	----	----	
Tungsten	7440-33-7	E440/VA	0.50	mg/kg	<0.50	----	----	----	----	
Uranium	7440-61-1	E440/VA	0.050	mg/kg	3.20	----	----	----	----	
Vanadium	7440-62-2	E440/VA	0.20	mg/kg	3.00	----	----	----	----	

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Biosolids E231763 ----	----	----	----	----
					Client sampling date / time	20-Aug-2025 09:00	----	----	----	----
					VA25C1140-004	----	----	----	----	----
					Result	----	----	----	----	----
Metals										
Zinc	7440-66-6	E440/VA	2.0	mg/kg	296	----	----	----	----	----
Zirconium	7440-67-7	E440/VA	1.0	mg/kg	5.5	----	----	----	----	----
Leachable Anions & Nutrients										
Kjeldahl nitrogen, total [TKN]	----	E319/SK	0.020	%	6.66	----	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Composite Effluent
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Outfall Comp E104954 ----	----	----	----	----
					Client sampling date / time: 03-Dec-2025 07:00	----	----	----	----
					VA25D2509-001	----	----	----	----
					Result	----	----	----	----
Physical Tests									
pH	----	E108/VA	0.10	pH units	7.68	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L	<1.0	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	0.252	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	1.78	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L	2.86	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L	0.0502	----	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	0.0330	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	0.136	----	----	----	----
Microbiological Tests									
Coliforms, thermotolerant [fecal]	----	E010.FC/VA	1	MPN/100 mL	<1	----	----	----	----
Coliforms, Escherichia coli [E. coli]	----	E010/VA	1	MPN/100 mL	<1	----	----	----	----
Aggregate Organics									
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/VA	2.0	mg/L	<2.0	----	----	----	----
Chemical oxygen demand [COD]	----	E559-L/VA	10	mg/L	41	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Composite Influent
(Matrix: Water)

					Client sample ID	Raw Influent Comp E222796 ----	----	----	----	----
					Client sampling date / time	03-Dec-2025 07:30	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25D2509-002	----	----	----	----
						Result	----	----	----	----
Physical Tests										
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L		279	----	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L		37.7	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L		53.3	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L		<0.0250 DLDS	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L		<0.0050 DLDS	----	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L		3.93	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L		6.31	----	----	----	----
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/VA	2.0	mg/L		330	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

					Client sample ID	Bioreactor ----	Fermenter Supernatant ----	Primary Effluent Grab ----	----	----
					Client sampling date / time	03-Dec-2025 08:00	03-Dec-2025 07:45	03-Dec-2025 07:50	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25D2509-003	VA25D2509-005	VA25D2509-006	----	----
						Result	Result	Result	----	----
Physical Tests										
Alkalinity, total (as CaCO3)	----	E290/VA	1.0	mg/L		165	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L		337	----	----	----	----
Anions and Nutrients										
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L		----	----	42.2	----	----

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Bioreactor ----	Fermenter Supernatant ----	Primary Effluent Grab ----	----	----
					Client sampling date / time: 03-Dec-2025 08:00	03-Dec-2025 07:45	03-Dec-2025 07:50	----	----
					VA25D2509-003	VA25D2509-005	VA25D2509-006	----	----
					Result	Result	Result	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	11.9	----	----	----	----
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L	0.00259	----	----	----	----
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L	0.00532	----	----	----	----
Barium, total	7440-39-3	E420/VA	0.00010	mg/L	0.246	----	----	----	----
Beryllium, total	7440-41-7	E420/VA	0.000100	mg/L	0.000144	----	----	----	----
Bismuth, total	7440-69-9	E420/VA	0.000050	mg/L	0.0519	----	----	----	----
Boron, total	7440-42-8	E420/VA	0.010	mg/L	0.238	----	----	----	----
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L	0.00191	----	----	----	----
Calcium, total	7440-70-2	E420/VA	0.050	mg/L	68.5	----	----	----	----
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L	0.000313	----	----	----	----
Chromium, total	7440-47-3	E420/VA	0.00050	mg/L	0.0147	----	----	----	----
Cobalt, total	7440-48-4	E420/VA	0.00010	mg/L	0.00433	----	----	----	----
Copper, total	7440-50-8	E420/VA	0.00050	mg/L	0.884	----	----	----	----
Iron, total	7439-89-6	E420/VA	0.010	mg/L	4.19	----	----	----	----
Lead, total	7439-92-1	E420/VA	0.000050	mg/L	0.0101	----	----	----	----
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L	0.0070	----	----	----	----
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L	40.3	----	----	----	----
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L	0.220	----	----	----	----
Mercury, total	7439-97-6	E508/VA	0.0000050	mg/L	0.000197	----	----	----	----
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L	0.0234	----	----	----	----
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L	0.0191	----	----	----	----

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

					Client sample ID	Bioreactor ----	Fermenter Supernatant ----	Primary Effluent Grab ----	----	----
					Client sampling date / time	03-Dec-2025 08:00	03-Dec-2025 07:45	03-Dec-2025 07:50	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25D2509-003	VA25D2509-005	VA25D2509-006	----	----
						Result	Result	Result	----	----
Total Metals										
Phosphorus, total	7723-14-0	E420/VA	0.050	mg/L		146	----	----	----	----
Potassium, total	7440-09-7	E420/VA	0.050	mg/L		65.2	----	----	----	----
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L		0.0344	----	----	----	----
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L		0.00909	----	----	----	----
Silicon, total	7440-21-3	E420/VA	0.10	mg/L		12.3	----	----	----	----
Silver, total	7440-22-4	E420/VA	0.000010	mg/L		0.00229	----	----	----	----
Sodium, total	7440-23-5	E420/VA	0.050	mg/L		71.5	----	----	----	----
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L		0.500	----	----	----	----
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L		33.1	----	----	----	----
Tellurium, total	13494-80-9	E420/VA	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, total	7440-28-0	E420/VA	0.000010	mg/L		0.000071	----	----	----	----
Thorium, total	7440-29-1	E420/VA	0.00010	mg/L		<0.00010	----	----	----	----
Tin, total	7440-31-5	E420/VA	0.00010	mg/L		0.00235	----	----	----	----
Titanium, total	7440-32-6	E420/VA	0.00030	mg/L		0.0337	----	----	----	----
Tungsten, total	7440-33-7	E420/VA	0.00010	mg/L		0.00133	----	----	----	----
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L		0.0141	----	----	----	----
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L		0.00923	----	----	----	----
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L		0.830	----	----	----	----
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L		0.00301	----	----	----	----
Fatty Acids										
Acetic Acid	64-19-7	E676/WP	10	mg/L		----	232 DLHC	----	----	----

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Bioreactor ----	Fermenter Supernatant ----	Primary Effluent Grab ----	----	----
					Client sampling date / time: 03-Dec-2025 08:00	03-Dec-2025 07:45	03-Dec-2025 07:50	----	----
					VA25D2509-003	VA25D2509-005	VA25D2509-006	----	----
					Result	Result	Result	----	----
Fatty Acids									
Butyric Acid	107-92-6	E676/WP	1.0	mg/L	----	9.2	----	----	----
Formic Acid	64-18-6	E676/WP	30	mg/L	----	<30	----	----	----
Hexanoic acid	142-62-1	E676/WP	1.0	mg/L	----	<1.0	----	----	----
Isobutyric acid	79-31-2	E676/WP	1.0	mg/L	----	<1.0	----	----	----
Isovaleric acid	503-74-2	E676/WP	1.0	mg/L	----	<1.0	----	----	----
Propanoic acid	79-09-4	E676/WP	5.0	mg/L	----	47.2	----	----	----
Valeric acid	109-52-4	E676/WP	1.0	mg/L	----	3.8	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Biosolids E231763 ----	----	----	----	----
					Client sampling date / time: 03-Dec-2025 08:30	----	----	----	----
					VA25D2509-004	----	----	----	----
					Result	----	----	----	----
Physical Tests									
Moisture	----	E144/VA	0.25	%	70.4	----	----	----	----
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	5.46 FR6	----	----	----	----
Solids, fixed [FS]	----	E169/WT	0.10	%	11.5	----	----	----	----
Solids, total [TS]	----	E157/WT	0.10	%	20.5	----	----	----	----
Solids, volatile [VS]	----	EC165/WT	0.10	%	88.5	----	----	----	----
Microbiological Tests									
Coliforms, Escherichia coli [E. coli]	----	E014.EC/VA	2	MPN/g	3120000 PHA	----	----	----	----

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Biosolids E231763 ----	----	----	----	----
					Client sampling date / time	03-Dec-2025 08:30	----	----	----	----
						VA25D2509-004	----	----	----	----
						Result	----	----	----	----
Microbiological Tests										
Coliforms, thermotolerant [fecal]	----	E014.FC/VA	2	MPN/g		5470000 PHA	----	----	----	----
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		2610	----	----	----	----
Antimony	7440-36-0	E440/VA	0.10	mg/kg		0.70	----	----	----	----
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		0.94	----	----	----	----
Barium	7440-39-3	E440/VA	0.50	mg/kg		52.4	----	----	----	----
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		<0.10	----	----	----	----
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		15.3	----	----	----	----
Boron	7440-42-8	E440/VA	5.0	mg/kg		13.5	----	----	----	----
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		0.483	----	----	----	----
Calcium	7440-70-2	E440/VA	50	mg/kg		6680	----	----	----	----
Chromium	7440-47-3	E440/VA	0.50	mg/kg		6.12	----	----	----	----
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		1.05	----	----	----	----
Copper	7440-50-8	E440/VA	0.50	mg/kg		219	----	----	----	----
Iron	7439-89-6	E440/VA	50	mg/kg		1650	----	----	----	----
Lead	7439-92-1	E440/VA	0.50	mg/kg		3.07	----	----	----	----
Lithium	7439-93-2	E440/VA	2.0	mg/kg		<2.0	----	----	----	----
Magnesium	7439-95-4	E440/VA	20	mg/kg		4730	----	----	----	----
Manganese	7439-96-5	E440/VA	1.0	mg/kg		43.0	----	----	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.107	----	----	----	----
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		4.54	----	----	----	----

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

					Client sample ID	Biosolids E231763 ----	----	----	----	----
					Client sampling date / time	03-Dec-2025 08:30	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25D2509-004	----	----	----	----
						Result	----	----	----	----
Metals										
Nickel	7440-02-0	E440/VA	0.50	mg/kg		4.84	----	----	----	----
Phosphorus	7723-14-0	E440/VA	50	mg/kg		20900	----	----	----	----
Potassium	7440-09-7	E440/VA	100	mg/kg		6410	----	----	----	----
Selenium	7782-49-2	E440/VA	0.20	mg/kg		2.33	----	----	----	----
Silver	7440-22-4	E440/VA	0.10	mg/kg		0.73	----	----	----	----
Sodium	7440-23-5	E440/VA	50	mg/kg		460	----	----	----	----
Strontium	7440-24-6	E440/VA	0.50	mg/kg		44.6	----	----	----	----
Sulfur	7704-34-9	E440/VA	1000	mg/kg		3900	----	----	----	----
Thallium	7440-28-0	E440/VA	0.050	mg/kg		<0.050	----	----	----	----
Tin	7440-31-5	E440/VA	2.0	mg/kg		9.2	----	----	----	----
Titanium	7440-32-6	E440/VA	1.0	mg/kg		24.4	----	----	----	----
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		0.51	----	----	----	----
Uranium	7440-61-1	E440/VA	0.050	mg/kg		2.80	----	----	----	----
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		3.16	----	----	----	----
Zinc	7440-66-6	E440/VA	2.0	mg/kg		255	----	----	----	----
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		3.2	----	----	----	----
Leachable Anions & Nutrients										
Kjeldahl nitrogen, total [TKN]	----	E319/SK	0.020	%		5.33	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Travel Blank ----	----	----	----	----
Client sample ID					Travel Blank ----	----	----	----	----
Client sampling date / time					03-Dec-2025 00:00	----	----	----	----
					VA25D2509-007	----	----	----	----
					Result	----	----	----	----
Physical Tests									
pH	----	E108/VA	0.10	pH units	5.78	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L	<1.0	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	<0.0050	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	<0.050	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L	<0.0050	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L	<0.0010	----	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	<0.0010	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	<0.0020	----	----	----	----
Aggregate Organics									
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/VA	2.0	mg/L	<2.0	----	----	----	----
Chemical oxygen demand [COD]	----	E559-L/VA	10	mg/L	<10	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Composite Effluent (Matrix: Water)

					Client sample ID	Outfall Comp E104954 ----	----	----	----	----
					Client sampling date / time	10-Dec-2025 08:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25D3318-001	----	----	----	----
						Result	----	----	----	----
Physical Tests										
pH	----	E108/VA	0.10	pH units		8.19	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L		<1.0	----	----	----	----
Anions and Nutrients										
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L		2.58	----	----	----	----
Aggregate Organics										
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/VA	2.0	mg/L		<2.0	----	----	----	----
Chemical oxygen demand [COD]	----	E559-L/VA	10	mg/L		49	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Composite Influent (Matrix: Water)

					Client sample ID	Raw Influent Comp E222796 ----	----	----	----	----
					Client sampling date / time	10-Dec-2025 08:10	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25D3318-002	----	----	----	----
						Result	----	----	----	----
Anions and Nutrients										
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L		53.8	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	Primary Influent Grab ----	----	----	----	----
				Client sampling date / time	10-Dec-2025 08:15	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25D3318-003	----	----	----	----
					Result	----	----	----	----
Anions and Nutrients									
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	48.1	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Composite Effluent
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Outfall Comp	----	----	----	----
					Client sampling date / time: 05-Feb-2025 08:35	----	----	----	----
					VA25A2631-001	----	----	----	----
					Result	----	----	----	----
Physical Tests									
pH	----	E108/VA	0.10	pH units	7.79	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L	2.1	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	0.377	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	1.94	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L	6.80	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L	0.252	----	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	0.0831	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	0.198	----	----	----	----
Microbiological Tests									
Coliforms, thermotolerant [fecal]	----	E010.FC/VA	1	MPN/100 mL	<1	----	----	----	----
Coliforms, Escherichia coli [E. coli]	----	E010/VA	1	MPN/100 mL	<1	----	----	----	----
Aggregate Organics									
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/VA	2.0	mg/L	<2.0	----	----	----	----
Chemical oxygen demand [COD]	----	E559-L/VA	10	mg/L	33	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Composite Influent (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Raw Influent Comp	----	----	----	----
Client sampling date / time					05-Feb-2025 08:30	----	----	----	----
					VA25A2631-002	----	----	----	----
					Result	----	----	----	----
Physical Tests									
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L	121	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	38.5	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	54.0	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L	<0.0250 DLDS	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L	<0.0050 DLDS	----	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	3.92	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	5.79	----	----	----	----
Aggregate Organics									
Biochemical oxygen demand [BOD]	----	E550/VA	2.0	mg/L	188	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Grab Effluent (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Bioreactor	Fermenter Supernatant	Primary Grab Effluent	----	----
Client sampling date / time					05-Feb-2025 08:40	05-Feb-2025 08:50	05-Feb-2025 08:50	----	----
					VA25A2631-003	VA25A2631-005	VA25A2631-006	----	----
					Result	Result	Result	----	----
Physical Tests									
Alkalinity, total (as CaCO3)	----	E290/VA	1.0	mg/L	148	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L	284	----	----	----	----
Anions and Nutrients									
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	----	----	48.3	----	----

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

					Client sample ID	Bioreactor	Fermenter Supernatant	Primary Grab Effluent	----	----
					Client sampling date / time	05-Feb-2025 08:40	05-Feb-2025 08:50	05-Feb-2025 08:50	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25A2631-003	VA25A2631-005	VA25A2631-006	----	----
						Result	Result	Result	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L		29.5	----	----	----	----
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L		0.00304	----	----	----	----
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L		0.00428	----	----	----	----
Barium, total	7440-39-3	E420/VA	0.00010	mg/L		0.296	----	----	----	----
Beryllium, total	7440-41-7	E420/VA	0.000100	mg/L		0.000121	----	----	----	----
Bismuth, total	7440-69-9	E420/VA	0.000050	mg/L		0.0558	----	----	----	----
Boron, total	7440-42-8	E420/VA	0.010	mg/L		0.162	----	----	----	----
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L		0.00173	----	----	----	----
Calcium, total	7440-70-2	E420/VA	0.050	mg/L		59.1	----	----	----	----
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L		0.000321	----	----	----	----
Chromium, total	7440-47-3	E420/VA	0.00050	mg/L		0.0185	----	----	----	----
Cobalt, total	7440-48-4	E420/VA	0.00010	mg/L		0.00420	----	----	----	----
Copper, total	7440-50-8	E420/VA	0.00050	mg/L		1.02	----	----	----	----
Iron, total	7439-89-6	E420/VA	0.010	mg/L		3.70	----	----	----	----
Lead, total	7439-92-1	E420/VA	0.000050	mg/L		0.00972	----	----	----	----
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L		0.0066	----	----	----	----
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L		33.2	----	----	----	----
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L		0.177	----	----	----	----
Mercury, total	7439-97-6	E508/VA	0.0000050	mg/L		0.000278	----	----	----	----
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L		0.0212	----	----	----	----
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L		0.0211	----	----	----	----

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

					Client sample ID	Bioreactor	Fermenter Supernatant	Primary Grab Effluent	----	----
					Client sampling date / time	05-Feb-2025 08:40	05-Feb-2025 08:50	05-Feb-2025 08:50	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25A2631-003	VA25A2631-005	VA25A2631-006	----	----
						Result	Result	Result	----	----
Total Metals										
Phosphorus, total	7723-14-0	E420/VA	0.050	mg/L		126	----	----	----	----
Potassium, total	7440-09-7	E420/VA	0.050	mg/L		55.1	----	----	----	----
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L		0.0321	----	----	----	----
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L		0.00805	----	----	----	----
Silicon, total	7440-21-3	E420/VA	0.10	mg/L		11.8	----	----	----	----
Silver, total	7440-22-4	E420/VA	0.000010	mg/L		0.00306	----	----	----	----
Sodium, total	7440-23-5	E420/VA	0.050	mg/L		61.6	----	----	----	----
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L		0.459	----	----	----	----
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L		32.7	----	----	----	----
Tellurium, total	13494-80-9	E420/VA	0.00020	mg/L		<0.00040 DLA	----	----	----	----
Thallium, total	7440-28-0	E420/VA	0.000010	mg/L		0.000076	----	----	----	----
Thorium, total	7440-29-1	E420/VA	0.00010	mg/L		<0.00020 DLA	----	----	----	----
Tin, total	7440-31-5	E420/VA	0.00010	mg/L		0.00274	----	----	----	----
Titanium, total	7440-32-6	E420/VA	0.00030	mg/L		0.0295	----	----	----	----
Tungsten, total	7440-33-7	E420/VA	0.00010	mg/L		0.00245	----	----	----	----
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L		0.0187	----	----	----	----
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L		0.0109	----	----	----	----
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L		0.775	----	----	----	----
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L		0.00522	----	----	----	----
Fatty Acids										
Acetic Acid	64-19-7	E676/WP	10	mg/L		----	44	----	----	----

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

					Client sample ID	Bioreactor	Fermenter Supernatant	Primary Grab Effluent	----	----
					Client sampling date / time	05-Feb-2025 08:40	05-Feb-2025 08:50	05-Feb-2025 08:50	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25A2631-003	VA25A2631-005	VA25A2631-006	----	----
						Result	Result	Result	----	----
Fatty Acids										
Butyric Acid	107-92-6	E676/WP	1.0	mg/L		----	6.3	----	----	----
Formic Acid	64-18-6	E676/WP	30	mg/L		----	<30	----	----	----
Hexanoic acid	142-62-1	E676/WP	1.0	mg/L		----	<1.0	----	----	----
Isobutyric acid	79-31-2	E676/WP	1.0	mg/L		----	<1.0	----	----	----
Isovaleric acid	503-74-2	E676/WP	1.0	mg/L		----	<1.0	----	----	----
Propanoic acid	79-09-4	E676/WP	5.0	mg/L		----	17.6	----	----	----
Valeric acid	109-52-4	E676/WP	1.0	mg/L		----	1.0	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

					Client sample ID	Biosolids	----	----	----	----
					Client sampling date / time	05-Feb-2025 08:55	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25A2631-004	----	----	----	----
						Result	----	----	----	----
Physical Tests										
Moisture	----	E144/VA	0.25	%		77.8	----	----	----	----
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		5.57 FR6	----	----	----	----
Solids, fixed [FS]	----	E169/WT	0.10	%		11.4	----	----	----	----
Solids, total [TS]	----	E157/WT	0.10	%		23.0	----	----	----	----
Solids, volatile [VS]	----	EC165/WT	0.10	%		88.6	----	----	----	----
Organic / Inorganic Carbon										
Carbon, total [TC]	----	E351/SK	0.050	%		44.5	----	----	----	----

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Biosolids	----	----	----	----
					Client sampling date / time: 05-Feb-2025 08:55	----	----	----	----
					VA25A2631-004	----	----	----	----
					Result	----	----	----	----
Organic / Inorganic Carbon									
Carbon, inorganic [IC]	----	E354/SK	0.050	%	0.522	----	----	----	----
Carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354/SK	0.40	%	4.35	----	----	----	----
Carbon, total organic [TOC]	----	EC356/SK	0.050	%	44.0	----	----	----	----
Organic matter	----	EC356/SK	0.10	%	75.8	----	----	----	----
Microbiological Tests									
Coliforms, Escherichia coli [E. coli]	----	E014.EC/VA	2	MPN/g	2460000	----	----	----	----
Coliforms, thermotolerant [fecal]	----	E014.FC/VA	2	MPN/g	2460000	----	----	----	----
Metals									
Aluminum	7429-90-5	E440/VA	50	mg/kg	5210	----	----	----	----
Antimony	7440-36-0	E440/VA	0.10	mg/kg	0.69	----	----	----	----
Arsenic	7440-38-2	E440/VA	0.10	mg/kg	0.79	----	----	----	----
Barium	7440-39-3	E440/VA	0.50	mg/kg	59.0	----	----	----	----
Beryllium	7440-41-7	E440/VA	0.10	mg/kg	<0.10	----	----	----	----
Bismuth	7440-69-9	E440/VA	0.20	mg/kg	9.68	----	----	----	----
Boron	7440-42-8	E440/VA	5.0	mg/kg	10.0	----	----	----	----
Cadmium	7440-43-9	E440/VA	0.020	mg/kg	0.349	----	----	----	----
Calcium	7440-70-2	E440/VA	50	mg/kg	8720	----	----	----	----
Chromium	7440-47-3	E440/VA	0.50	mg/kg	6.24	----	----	----	----
Cobalt	7440-48-4	E440/VA	0.10	mg/kg	0.82	----	----	----	----
Copper	7440-50-8	E440/VA	0.50	mg/kg	200	----	----	----	----
Iron	7439-89-6	E440/VA	50	mg/kg	1370	----	----	----	----

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Biosolids	----	----	----	----
					Client sampling date / time: 05-Feb-2025 08:55	----	----	----	----
					VA25A2631-004	----	----	----	----
					Result	----	----	----	----
Metals									
Lead	7439-92-1	E440/VA	0.50	mg/kg	2.02	----	----	----	----
Lithium	7439-93-2	E440/VA	2.0	mg/kg	<2.0	----	----	----	----
Magnesium	7439-95-4	E440/VA	20	mg/kg	3240	----	----	----	----
Manganese	7439-96-5	E440/VA	1.0	mg/kg	36.8	----	----	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.188	----	----	----	----
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg	3.64	----	----	----	----
Nickel	7440-02-0	E440/VA	0.50	mg/kg	4.40	----	----	----	----
Phosphorus	7723-14-0	E440/VA	50	mg/kg	17200	----	----	----	----
Potassium	7440-09-7	E440/VA	100	mg/kg	4110	----	----	----	----
Selenium	7782-49-2	E440/VA	0.20	mg/kg	2.08	----	----	----	----
Silver	7440-22-4	E440/VA	0.10	mg/kg	0.84	----	----	----	----
Sodium	7440-23-5	E440/VA	50	mg/kg	377	----	----	----	----
Strontium	7440-24-6	E440/VA	0.50	mg/kg	56.2	----	----	----	----
Sulfur	7704-34-9	E440/VA	1000	mg/kg	3700	----	----	----	----
Thallium	7440-28-0	E440/VA	0.050	mg/kg	<0.050	----	----	----	----
Tin	7440-31-5	E440/VA	2.0	mg/kg	7.2	----	----	----	----
Titanium	7440-32-6	E440/VA	1.0	mg/kg	21.4	----	----	----	----
Tungsten	7440-33-7	E440/VA	0.50	mg/kg	0.71	----	----	----	----
Uranium	7440-61-1	E440/VA	0.050	mg/kg	2.94	----	----	----	----
Vanadium	7440-62-2	E440/VA	0.20	mg/kg	3.06	----	----	----	----
Zinc	7440-66-6	E440/VA	2.0	mg/kg	203	----	----	----	----

Analytical Results

Sub-Matrix: Soil/Solid (Matrix: Soil/Solid)					Client sample ID	Biosolids	----	----	----	----
					Client sampling date / time	05-Feb-2025 08:55	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25A2631-004	----	----	----	----
						Result	----	----	----	----
Metals										
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		5.4	----	----	----	----
Leachable Anions & Nutrients										
Kjeldahl nitrogen, total [TKN]	----	E319/SK	0.020	%		4.44	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	Travel Blank	----	----	----	----
					Client sampling date / time	05-Feb-2025 00:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25A2631-007	----	----	----	----
						Result	----	----	----	----
Physical Tests										
pH	----	E108/VA	0.10	pH units		5.17	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L		<1.0	----	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L		0.0079 RRV	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L		<0.050	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L		<0.0050	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L		<0.0010	----	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L		<0.0010	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L		<0.0020	----	----	----	----
Aggregate Organics										
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/VA	2.0	mg/L		<2.0	----	----	----	----
Chemical oxygen demand [COD]	----	E559-L/VA	10	mg/L		<10	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Composite Effluent (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Outfall Comp E104954	----	----	----	----
					Client sampling date / time: 19-Feb-2025 08:10	----	----	----	----
					VA25A3628-001	----	----	----	----
					Result	----	----	----	----
Physical Tests									
pH	----	E108/VA	0.10	pH units	7.74	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L	2.8	----	----	----	----
Anions and Nutrients									
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	2.55	----	----	----	----
Aggregate Organics									
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/VA	2.0	mg/L	2.6	----	----	----	----
Chemical oxygen demand [COD]	----	E559-L/VA	10	mg/L	51	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Water (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: PRIMARY EFFLUENT GRAB	RAW INFLUENT COMP	----	----	----
					Client sampling date / time: 19-Feb-2025 08:00	19-Feb-2025 07:45	----	----	----
					VA25A3628-002	VA25A3628-003	----	----	----
					Result	Result	----	----	----
Anions and Nutrients									
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	57.4	57.4	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Outfall Comp E104954	Raw Influent Comp E222796	----	----	----
					Client sampling date / time	12-May-2025 09:10	12-May-2025 08:50	----	----	----
						VA25B1171-001	VA25B1171-002	----	----	----
						Result	Result	----	----	----
Physical Tests										
TSS screen (PFAS)	n/a	E160PS/WT	30	mg/L		<30	210	----	----	----
Per- and Polyfluoroalkyl Substances (PFAS)										
Perfluorobutanoic acid [PFBA]	375-22-4	E745P-T/WT	2.0	ng/L		<24.0 DLM	<20.0 DLM	----	----	----
Perfluoropentanoic acid [PFPeA]	2706-90-3	E745P-T/WT	2.0	ng/L		8.7	<2.0	----	----	----
Perfluorohexanoic acid [PFHxA]	307-24-4	E745P-T/WT	0.40	ng/L		10.2	5.12	----	----	----
Perfluoroheptanoic acid [PFHpA]	375-85-9	E745P-T/WT	0.80	ng/L		<0.80	<0.80	----	----	----
Perfluorooctanoic acid [PFOA]	335-67-1	E745P-T/WT	1.0	ng/L		3.4	1.3	----	----	----
Perfluorononanoic acid [PFNA]	375-95-1	E745P-T/WT	2.0	ng/L		<2.0	<2.0	----	----	----
Perfluorodecanoic acid [PFDA]	335-76-2	E745P-T/WT	3.0	ng/L		<3.0	<15.0 DLI, SSP	----	----	----
Perfluoroundecanoic acid [PFUnA]	2058-94-8	E745P-T/WT	1.0	ng/L		<1.0	<5.0 DLI, SSP	----	----	----
Perfluorododecanoic acid [PFDoA]	307-55-1	E745P-T/WT	2.0	ng/L		<2.0	<10.0 DLI, SSP	----	----	----
Perfluorotridecanoic acid [PFTrDA]	72629-94-8	E745P-T/WT	2.0	ng/L		<2.0	<10.0 DLI, SSP	----	----	----
Perfluorotetradecanoic acid [PFTeDA]	376-06-7	E745P-T/WT	1.0	ng/L		<1.0	<5.0 DLI, SSP	----	----	----
Perfluorobutanesulfonic acid [PFBS]	375-73-5	E745P-T/WT	1.0	ng/L		<1.0	<1.0	----	----	----
Perfluoropentanesulfonic acid [PFPeS]	2706-91-4	E745P-T/WT	2.0	ng/L		<2.0	20.2	----	----	----
Perfluorohexanesulfonic acid [PFHxS]	355-46-4	E745P-T/WT	2.5	ng/L		<2.5	<2.5	----	----	----
Perfluoroheptanesulfonic acid [PFHpS]	375-92-8	E745P-T/WT	2.5	ng/L		<2.5	<2.5	----	----	----
Perfluorooctanesulfonic acid [PFOS]	1763-23-1	E745P-T/WT	2.0	ng/L		<2.0	<2.0	----	----	----
Perfluorononanesulfonic acid [PFNS]	68259-12-1	E745P-T/WT	3.0	ng/L		<3.0	<3.0	----	----	----
Perfluorodecanesulfonic acid [PFDS]	335-77-3	E745P-T/WT	2.0	ng/L		<2.0	<2.0	----	----	----
Perfluorododecanesulfonic acid [PFDoS]	79780-39-5	E745P-T/WT	2.0	ng/L		<2.0	<2.0	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Outfall Comp E104954	Raw Influent Comp E222796	----	----	----
					Client sampling date / time: 12-May-2025 09:10	12-May-2025 08:50	----	----	----
					VA25B1171-001	VA25B1171-002	----	----	----
					Result	Result	----	----	----
Per- and Polyfluoroalkyl Substances (PFAS)									
Fluorotelomer sulfonic acid, 4:2 [4:2 FTS]	757124-72-4	E745P-T/WT	1.0	ng/L	<1.0	<1.0	----	----	----
Fluorotelomer sulfonic acid, 6:2 [6:2 FTS]	27619-97-2	E745P-T/WT	4.0	ng/L	<4.0	<4.0	----	----	----
Fluorotelomer sulfonic acid, 8:2 [8:2 FTS]	39108-34-4	E745P-T/WT	4.0	ng/L	<4.0	<4.0	----	----	----
Perfluorooctanesulfonamide [PFOSA]	754-91-6	E745P-T/WT	2.0	ng/L	<2.0	<2.0	----	----	----
Methyl perfluorooctanesulfonamide, N- [NMeFOSA]	31506-32-8	E745P-T/WT	1.0	ng/L	<1.0	<1.0	----	----	----
Ethyl perfluorooctanesulfonamide, N- [NEtFOSA]	4151-50-2	E745P-T/WT	1.0	ng/L	<1.0	<1.0	----	----	----
Methyl perfluorooctanesulfonamidoacetic acid, N- [NMeFOSAA]	2355-31-9	E745P-T/WT	4.0	ng/L	<4.0	<4.0	----	----	----
Ethyl perfluorooctanesulfonamidoacetic acid, N- [NEtFOSAA]	2991-50-6	E745P-T/WT	4.0	ng/L	<4.0	<4.0	----	----	----
Methyl perfluorooctanesulfonamidoethanol, N- [NMeFOSE]	24448-09-7	E745P-T/WT	2.0	ng/L	<2.0	<2.0	----	----	----
Ethyl perfluorooctanesulfonamidoethanol, N- [NEtFOSE]	1691-99-2	E745P-T/WT	2.0	ng/L	<2.0	<2.0	----	----	----
Hexafluoropropylene oxide dimer acid [HFPO-DA]	13252-13-6	E745P-T/WT	4.0	ng/L	<4.0	<4.0	----	----	----
Perfluorononanoic acid, 4,8-dioxa-3H- [ADONA]	919005-14-4	E745P-T/WT	0.40	ng/L	<0.40	<0.40	----	----	----
Perfluoro-3-methoxypropanoic acid [PFMPA]	377-73-1	E745P-T/WT	0.40	ng/L	<0.40	<0.40	----	----	----
Perfluoro-4-methoxybutanoic acid [PFMBA]	863090-89-5	E745P-T/WT	0.40	ng/L	<0.40	<0.40	----	----	----
Nonafluoro-3,6-dioxaheptanoic acid [NFDHA]	151772-58-6	E745P-T/WT	5.0	ng/L	<5.0	<5.0	----	----	----
Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid, 9- [9Cl-PF3ONS]	756426-58-1	E745P-T/WT	0.4	ng/L	<0.4	<0.4	----	----	----
Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid, 11- [11Cl-PF3OUdS]	763051-92-9	E745P-T/WT	0.4	ng/L	<0.4	<0.4	----	----	----
Perfluoro(2-ethoxyethane)sulfonic acid [PFEESA]	113507-82-7	E745P-T/WT	0.80	ng/L	<0.80	<0.80	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

					Client sample ID	Outfall Comp E104954	Raw Influent Comp E222796	----	----	----
					Client sampling date / time	12-May-2025 09:10	12-May-2025 08:50	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25B1171-001	VA25B1171-002	----	----	----
						Result	Result	----	----	----
Per- and Polyfluoroalkyl Substances (PFAS)										
Fluorotelomer carboxylic acid, 3:3 [3:3 FTCA]	356-02-5	E745P-T/WT	10	ng/L		<10	<10	----	----	----
Fluorotelomer carboxylic acid, 5:3 [5:3 FTCA]	914637-49-3	E745P-T/WT	4.0	ng/L		<4.0	10.2	----	----	----
Fluorotelomer carboxylic acid, 7:3 [7:3 FTCA]	812-70-4	E745P-T/WT	2.0	ng/L		<2.0	<2.0	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Soil
(Matrix: Soil/Solid)

					Client sample ID	Biosolids E231763	Fermenter Sludge	----	----	----
					Client sampling date / time	12-May-2025 08:55	12-May-2025 09:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25B1171-003	VA25B1171-004	----	----	----
						Result	Result	----	----	----
Physical Tests										
Moisture	----	E144/WT	0.25	%		77.6	96.0	----	----	----
Per- and Polyfluoroalkyl Substances (PFAS)										
Perfluorobutanoic acid [PFBA]	375-22-4	E745P-T/WT	0.00020	mg/kg		<0.00071 DLHM	<0.00402 DLHM	----	----	----
Perfluoropentanoic acid [PFPeA]	2706-90-3	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----
Perfluorohexanoic acid [PFHxA]	307-24-4	E745P-T/WT	0.00010	mg/kg		0.00069 DLHM	<0.00201 DLHM	----	----	----
Perfluoroheptanoic acid [PFHpA]	375-85-9	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----
Perfluorooctanoic acid [PFOA]	335-67-1	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----
Perfluorononanoic acid [PFNA]	375-95-1	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----
Perfluorodecanoic acid [PFDA]	335-76-2	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----
Perfluoroundecanoic acid [PFUnA]	2058-94-8	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----
Perfluorododecanoic acid [PFDoA]	307-55-1	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----

Analytical Results

Sub-Matrix: Soil
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Biosolids E231763	Fermenter Sludge	----	----	----
					Client sampling date / time	12-May-2025 08:55	12-May-2025 09:00	----	----	----
						VA25B1171-003	VA25B1171-004	----	----	----
						Result	Result	----	----	----
Per- and Polyfluoroalkyl Substances (PFAS)										
Perfluorotridecanoic acid [PFTrDA]	72629-94-8	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----
Perfluorotetradecanoic acid [PFTeDA]	376-06-7	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----
Perfluorobutanesulfonic acid [PFBS]	375-73-5	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----
Perfluoropentanesulfonic acid [PFPeS]	2706-91-4	E745P-T/WT	0.00020	mg/kg		0.00336 DLHM	<0.00402 DLHM	----	----	----
Perfluorohexanesulfonic acid [PFHxS]	355-46-4	E745P-T/WT	0.00010	mg/kg		0.00071 DLHM	<0.00201 DLHM	----	----	----
Perfluoroheptanesulfonic acid [PFHpS]	375-92-8	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----
Perfluorooctanesulfonic acid [PFOS]	1763-23-1	E745P-T/WT	0.00010	mg/kg		0.00274 DLHM	0.00370 DLHM	----	----	----
Perfluorononanesulfonic acid [PFNS]	68259-12-1	E745P-T/WT	0.00020	mg/kg		<0.00071 DLHM	<0.00402 DLHM	----	----	----
Perfluorodecanesulfonic acid [PFDS]	335-77-3	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----
Perfluorododecanesulfonic acid [PFDoS]	79780-39-5	E745P-T/WT	0.00020	mg/kg		<0.00071 DLHM	<0.00402 DLHM	----	----	----
Fluorotelomer sulfonic acid, 4:2 [4:2 FTS]	757124-72-4	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----
Fluorotelomer sulfonic acid, 6:2 [6:2 FTS]	27619-97-2	E745P-T/WT	0.00050	mg/kg		<0.00179 DLHM	<0.0101 DLHM	----	----	----
Fluorotelomer sulfonic acid, 8:2 [8:2 FTS]	39108-34-4	E745P-T/WT	0.00025	mg/kg		<0.00089 DLHM	<0.00503 DLHM	----	----	----
Perfluorooctanesulfonamide [PFOSA]	754-91-6	E745P-T/WT	0.00010	mg/kg		<0.00350 DLM	<0.00201 DLHM, DLI	----	----	----
Methyl perfluorooctanesulfonamide, N- [NMeFOSA]	31506-32-8	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----
Ethyl perfluorooctanesulfonamide, N- [NEtFOSA]	4151-50-2	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----
Methyl perfluorooctanesulfonamidoacetic acid, N- [NMeFOSAA]	2355-31-9	E745P-T/WT	0.00020	mg/kg		0.00340 DLHM	<0.00402 DLHM	----	----	----
Ethyl perfluorooctanesulfonamidoacetic acid, N- [NEtFOSAA]	2991-50-6	E745P-T/WT	0.00020	mg/kg		<0.00071 DLHM	<0.00402 DLHM	----	----	----
Methyl perfluorooctanesulfonamidoethanol, N- [NMeFOSE]	24448-09-7	E745P-T/WT	0.00020	mg/kg		<0.00240 DLHM, DLI	<0.00402 DLHM	----	----	----
Ethyl perfluorooctanesulfonamidoethanol, N- [NEtFOSE]	1691-99-2	E745P-T/WT	0.00020	mg/kg		<0.00071 DLHM	<0.00402 DLHM	----	----	----

Analytical Results

Sub-Matrix: Soil
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Biosolids E231763	Fermenter Sludge	----	----	----
					Client sampling date / time	12-May-2025 08:55	12-May-2025 09:00	----	----	----
						VA25B1171-003	VA25B1171-004	----	----	----
						Result	Result	----	----	----
Per- and Polyfluoroalkyl Substances (PFAS)										
Hexafluoropropylene oxide dimer acid [HFPO-DA]	13252-13-6	E745P-T/WT	0.00040	mg/kg		<0.00143 DLHM	<0.00805 DLHM	----	----	----
Perfluorononanoic acid, 4,8-dioxa-3H-[ADONA]	919005-14-4	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----
Perfluoro-3-methoxypropanoic acid [PFMPA]	377-73-1	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----
Perfluoro-4-methoxybutanoic acid [PFMBA]	863090-89-5	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----
Nonafluoro-3,6-dioxaheptanoic acid [NFDHA]	151772-58-6	E745P-T/WT	0.00040	mg/kg		<0.00143 DLHM	<0.00805 DLHM	----	----	----
Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid, 9- [9Cl-PF3ONS]	756426-58-1	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----
Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid, 11- [11Cl-PF3OUdS]	763051-92-9	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----
Perfluoro(2-ethoxyethane)sulfonic acid [PFEESA]	113507-82-7	E745P-T/WT	0.00010	mg/kg		<0.00036 DLHM	<0.00201 DLHM	----	----	----
Fluorotelomer carboxylic acid, 3:3 [3:3 FTCA]	356-02-5	E745P-T/WT	0.00050	mg/kg		<0.00179 DLHM	<0.0101 DLHM	----	----	----
Fluorotelomer carboxylic acid, 5:3 [5:3 FTCA]	914637-49-3	E745P-T/WT	0.00050	mg/kg		0.0228 DLHM	<0.0101 DLHM	----	----	----
Fluorotelomer carboxylic acid, 7:3 [7:3 FTCA]	812-70-4	E745P-T/WT	0.00050	mg/kg		0.00183 DLHM	<0.0101 DLHM	----	----	----
Extracted Internal Standards (EIS) [PFAS]										
Ethyl perfluorooctanesulfonamide, n-D5 [D5-NEtFOSA]	n/a	E745P-T/WT	1.0	%		28.2	65.4	----	----	----
Ethyl perfluorooctanesulfonamidoacetic acid, n-D5 [D5-NEtFOSAA]	n/a	E745P-T/WT	1.0	%		41.0	99.6	----	----	----
Ethyl perfluorooctanesulfonamidoethanol, n-D9 [D9-NEtFOSE]	n/a	E745P-T/WT	1.0	%		23.3	64.4	----	----	----
Fluorotelomer sulfonic acid, 4:2-13C2 [13C2-4:2 FTS]	n/a	E745P-T/WT	1.0	%		367 SUR-ND	422 SUR-ND	----	----	----
Fluorotelomer sulfonic acid, 6:2-13C2 [13C2-6:2 FTS]	n/a	E745P-T/WT	1.0	%		429 SUR-ND	562 SUR-ND	----	----	----
Fluorotelomer sulfonic acid, 8:2-13C2 [13C2-8:2 FTS]	n/a	E745P-T/WT	1.0	%		373 SUR-ND	707 SUR-ND	----	----	----

Analytical Results

Sub-Matrix: Soil
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Biosolids E231763	Fermenter Sludge	----	----	----
					Client sampling date / time	12-May-2025 08:55	12-May-2025 09:00	----	----	----
						VA25B1171-003	VA25B1171-004	----	----	----
						Result	Result	----	----	----
Extracted Internal Standards (EIS) [PFAS]										
Hexafluoropropylene oxide dimer acid-13C3 [13C3-HFPO-DA]	n/a	E745P-T/WT	1.0	%		77.4	94.0	----	----	----
Methyl perfluorooctanesulfonamide, n-D3 [D3-NMeFOSA]	n/a	E745P-T/WT	1.0	%		17.0	58.4	----	----	----
Methyl perfluorooctanesulfonamidoacetic acid, n-D3 [D3-NMeFOSAA]	n/a	E745P-T/WT	1.0	%		106	162 SUR-ND	----	----	----
Methyl perfluorooctanesulfonamidoethanol, n-D7 [D7-NMeFOSE]	n/a	E745P-T/WT	1.0	%		42.7	39.4	----	----	----
Perfluorobutanesulfonic acid-13C3 [13C3-PFBS]	n/a	E745P-T/WT	1.0	%		89.9	124	----	----	----
Perfluorobutanoic acid-13C4 [13C4-PFBA]	n/a	E745P-T/WT	1.0	%		49.0	105	----	----	----
Perfluorodecanoic acid-13C6 [13C6-PFDA]	n/a	E745P-T/WT	1.0	%		89.6	114	----	----	----
Perfluorododecanoic acid-13C2 [13C2-PFDoA]	n/a	E745P-T/WT	1.0	%		122	94.4	----	----	----
Perfluoroheptanoic acid-13C4 [13C4-PFHpA]	n/a	E745P-T/WT	1.0	%		103	117	----	----	----
Perfluorohexane sulfonic acid-13C3 [13C3-PFHxS]	n/a	E745P-T/WT	1.0	%		94.5	122	----	----	----
Perfluorohexanoic acid-13C5 [13C5-PFHxA]	n/a	E745P-T/WT	1.0	%		103	123	----	----	----
Perfluorononanoic acid-13C9 [13C9-PFNA]	n/a	E745P-T/WT	1.0	%		119	135 SUR-ND	----	----	----
Perfluorooctanesulfonamide-13C8 [13C8-PFOSA]	n/a	E745P-T/WT	1.0	%		72.1 DLM	103	----	----	----
Perfluorooctanesulfonic acid [13C8-PFOS]	2265893-05-6	E745P-T/WT	1.0	%		92.1	105	----	----	----
Perfluorooctanesulfonic acid-13C8 [13C8-PFOS]	n/a	E745P-T/WT	1.0	%		97.7 DLM	----	----	----	----
Perfluorooctanoic acid-13C8 [13C8-PFOA]	n/a	E745P-T/WT	1.0	%		95.9	114	----	----	----
Perfluoropentanoic acid-13C5 [13C5-PFPeA]	n/a	E745P-T/WT	1.0	%		64.4	108	----	----	----
Perfluorotetradecanoic acid-13C2 [13C2-PFTeDA]	n/a	E745P-T/WT	1.0	%		69.0	116	----	----	----

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	Biosolids E231763	Fermenter Sludge	----	----	----
					Client sampling date / time	12-May-2025 08:55	12-May-2025 09:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25B1171-003	VA25B1171-004	----	----	----
						Result	Result	----	----	----
Extracted Internal Standards (EIS) [PFAS]										
Perfluoroundecanoic acid-13C7 [13C7-PFUnA]	n/a	E745P-T/WT	1.0	%		89.6	103	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Composite Effluent (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Outfall Comp E104954	----	----	----	----
					Client sampling date / time: 04-Jun-2025 07:05	----	----	----	----
					VA25B3379-001	----	----	----	----
					Result	----	----	----	----
Physical Tests									
pH	----	E108/VA	0.10	pH units	7.82	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L	1.5	----	----	----	----
Anions and Nutrients									
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	1.62	----	----	----	----
Aggregate Organics									
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/VA	2.0	mg/L	<2.0	----	----	----	----
Chemical oxygen demand [COD]	----	E559-L/VA	10	mg/L	38	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Composite Influent (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Raw Influent Comp E222796	----	----	----	----
					Client sampling date / time: 04-Jun-2025 06:45	----	----	----	----
					VA25B3379-002	----	----	----	----
					Result	----	----	----	----
Anions and Nutrients									
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	45.6	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	Primary Influent Grab	----	----	----	----
					Client sampling date / time	04-Jun-2025 06:55	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25B3379-003	----	----	----	----
						Result	----	----	----	----
Anions and Nutrients										
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L		49.6	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Composite Effluent
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Outfall Comp E104954	Outfall Comp E104954	----	----	----
					Client sampling date / time	18-Jun-2025 00:00	11-Jun-2025 08:30	----	----	----
						VA25B4726-001	VA25B4726-010	----	----	----
						Result	Result	----	----	----
Physical Tests										
pH	----	E108/VA	0.10	pH units		8.01	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L		<1.0	----	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L		0.0943	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L		1.47	1.59	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L		4.25	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L		0.0277	----	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L		0.0256	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L		0.0895	----	----	----	----
Microbiological Tests										
Coliforms, thermotolerant [fecal]	----	E010.FC/VA	1	MPN/100 mL		<1	----	----	----	----
Coliforms, Escherichia coli [E. coli]	----	E010/VA	1	MPN/100 mL		<1	----	----	----	----
Aggregate Organics										
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/VA	2.0	mg/L		<2.0	----	----	----	----
Chemical oxygen demand [COD]	----	E559-L/VA	10	mg/L		33	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Composite Influent (Matrix: Water)

					Client sample ID	Raw Influent Comp E222796	Raw Influent Comp E222796	----	----	----
					Client sampling date / time	18-Jun-2025 00:00	11-Jun-2025 08:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25B4726-002	VA25B4726-009	----	----	----
						Result	Result	----	----	----
Physical Tests										
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L		357	----	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L		36.4	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L		54.9	54.0	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L		<0.0250 DLDS	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L		<0.0050 DLDS	----	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L		3.66	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L		7.36	----	----	----	----
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/VA	2.0	mg/L		270	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Grab Effluent (Matrix: Water)

					Client sample ID	Bioreactor	Fermenter Supernatant	Primary Effluent Grab	Primary Effluent Grab	----
					Client sampling date / time	18-Jun-2025 00:00	18-Jun-2025 00:00	18-Jun-2025 07:15	11-Jun-2025 08:15	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25B4726-003	VA25B4726-005	VA25B4726-006	VA25B4726-008	----
						Result	Result	Result	Result	----
Physical Tests										
Alkalinity, total (as CaCO3)	----	E290/VA	1.0	mg/L		210	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L		307	----	----	----	----
Anions and Nutrients										
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L		----	----	51.9	46.4	----

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Bioreactor	Fermenter Supernatant	Primary Effluent Grab	Primary Effluent Grab	----
					Client sampling date / time	18-Jun-2025 00:00	18-Jun-2025 00:00	18-Jun-2025 07:15	11-Jun-2025 08:15	----
						VA25B4726-003	VA25B4726-005	VA25B4726-006	VA25B4726-008	----
						Result	Result	Result	Result	----
Total Metals										
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L		35.8	----	----	----	----
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L		0.00303	----	----	----	----
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L		0.00576	----	----	----	----
Barium, total	7440-39-3	E420/VA	0.00010	mg/L		0.314	----	----	----	----
Beryllium, total	7440-41-7	E420/VA	0.000100	mg/L		0.000134	----	----	----	----
Bismuth, total	7440-69-9	E420/VA	0.000050	mg/L		0.0564	----	----	----	----
Boron, total	7440-42-8	E420/VA	0.010	mg/L		0.207	----	----	----	----
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L		0.00168	----	----	----	----
Calcium, total	7440-70-2	E420/VA	0.050	mg/L		68.6	----	----	----	----
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L		0.000708	----	----	----	----
Chromium, total	7440-47-3	E420/VA	0.00050	mg/L		0.0161	----	----	----	----
Cobalt, total	7440-48-4	E420/VA	0.00010	mg/L		0.00399	----	----	----	----
Copper, total	7440-50-8	E420/VA	0.00050	mg/L		1.01	----	----	----	----
Iron, total	7439-89-6	E420/VA	0.010	mg/L		3.74	----	----	----	----
Lead, total	7439-92-1	E420/VA	0.000050	mg/L		0.00995	----	----	----	----
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L		0.0064	----	----	----	----
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L		32.9	----	----	----	----
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L		0.281	----	----	----	----
Mercury, total	7439-97-6	E508/VA	0.0000050	mg/L		<0.000250 DLM	----	----	----	----
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L		0.0741 RRV	----	----	----	----
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L		0.0221	----	----	----	----

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Bioreactor	Fermenter Supernatant	Primary Effluent Grab	Primary Effluent Grab	----
					Client sampling date / time	18-Jun-2025 00:00	18-Jun-2025 00:00	18-Jun-2025 07:15	11-Jun-2025 08:15	----
						VA25B4726-003	VA25B4726-005	VA25B4726-006	VA25B4726-008	----
						Result	Result	Result	Result	----
Total Metals										
Phosphorus, total	7723-14-0	E420/VA	0.050	mg/L		121	----	----	----	----
Potassium, total	7440-09-7	E420/VA	0.050	mg/L		53.7	----	----	----	----
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L		0.0288	----	----	----	----
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L		0.00989	----	----	----	----
Silicon, total	7440-21-3	E420/VA	0.10	mg/L		12.6	----	----	----	----
Silver, total	7440-22-4	E420/VA	0.000010	mg/L		0.00323	----	----	----	----
Sodium, total	7440-23-5	E420/VA	0.050	mg/L		60.0	----	----	----	----
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L		0.545	----	----	----	----
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L		31.9	----	----	----	----
Tellurium, total	13494-80-9	E420/VA	0.00020	mg/L		<0.00040 DLA	----	----	----	----
Thallium, total	7440-28-0	E420/VA	0.000010	mg/L		0.000063	----	----	----	----
Thorium, total	7440-29-1	E420/VA	0.00010	mg/L		<0.00020 DLA	----	----	----	----
Tin, total	7440-31-5	E420/VA	0.00010	mg/L		0.00359	----	----	----	----
Titanium, total	7440-32-6	E420/VA	0.00030	mg/L		0.0248	----	----	----	----
Tungsten, total	7440-33-7	E420/VA	0.00010	mg/L		0.00273	----	----	----	----
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L		0.0216	----	----	----	----
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L		0.0152	----	----	----	----
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L		0.904	----	----	----	----
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L		0.00629	----	----	----	----
Fatty Acids										
Acetic Acid	64-19-7	E676/WP	10	mg/L		----	86	----	----	----

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

				Client sample ID	Bioreactor	Fermenter Supernatant	Primary Effluent Grab	Primary Effluent Grab	----
				Client sampling date / time	18-Jun-2025 00:00	18-Jun-2025 00:00	18-Jun-2025 07:15	11-Jun-2025 08:15	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25B4726-003	VA25B4726-005	VA25B4726-006	VA25B4726-008	----
					Result	Result	Result	Result	----
Fatty Acids									
Butyric Acid	107-92-6	E676/WP	1.0	mg/L	----	13.1	----	----	----
Formic Acid	64-18-6	E676/WP	30	mg/L	----	<30	----	----	----
Hexanoic acid	142-62-1	E676/WP	1.0	mg/L	----	1.4	----	----	----
Isobutyric acid	79-31-2	E676/WP	1.0	mg/L	----	<1.0	----	----	----
Isovaleric acid	503-74-2	E676/WP	1.0	mg/L	----	<1.0	----	----	----
Propanoic acid	79-09-4	E676/WP	5.0	mg/L	----	60.8	----	----	----
Valeric acid	109-52-4	E676/WP	1.0	mg/L	----	7.8	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

				Client sample ID	Biosolids E231763	----	----	----	----
				Client sampling date / time	18-Jun-2025 00:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25B4726-004	----	----	----	----
					Result	----	----	----	----
Physical Tests									
Moisture	----	E144/VA	0.25	%	79.1	----	----	----	----
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	6.49 FR10	----	----	----	----
Solids, fixed [FS]	----	E169/WT	0.10	%	13.7	----	----	----	----
Solids, total [TS]	----	E157/WT	0.10	%	22.1	----	----	----	----
Solids, volatile [VS]	----	EC165/WT	0.10	%	86.3	----	----	----	----
Microbiological Tests									
Coliforms, Escherichia coli [E. coli]	----	E014.EC/VA	2	MPN/g	>7610000	----	----	----	----

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Biosolids E231763	----	----	----	----
					Client sampling date / time: 18-Jun-2025 00:00	----	----	----	----
					VA25B4726-004	----	----	----	----
					Result	----	----	----	----
Microbiological Tests									
Coliforms, thermotolerant [fecal]	----	E014.FC/VA	2	MPN/g	>7610000	----	----	----	----
Metals									
Aluminum	7429-90-5	E440/VA	50	mg/kg	15200	----	----	----	----
Antimony	7440-36-0	E440/VA	0.10	mg/kg	0.99	----	----	----	----
Arsenic	7440-38-2	E440/VA	0.10	mg/kg	1.47	----	----	----	----
Barium	7440-39-3	E440/VA	0.50	mg/kg	70.6	----	----	----	----
Beryllium	7440-41-7	E440/VA	0.10	mg/kg	<0.10	----	----	----	----
Bismuth	7440-69-9	E440/VA	0.20	mg/kg	15.4	----	----	----	----
Boron	7440-42-8	E440/VA	5.0	mg/kg	14.0	----	----	----	----
Cadmium	7440-43-9	E440/VA	0.020	mg/kg	0.451	----	----	----	----
Calcium	7440-70-2	E440/VA	50	mg/kg	7160	----	----	----	----
Chromium	7440-47-3	E440/VA	0.50	mg/kg	7.04	----	----	----	----
Cobalt	7440-48-4	E440/VA	0.10	mg/kg	1.00	----	----	----	----
Copper	7440-50-8	E440/VA	0.50	mg/kg	250	----	----	----	----
Iron	7439-89-6	E440/VA	50	mg/kg	1440	----	----	----	----
Lead	7439-92-1	E440/VA	0.50	mg/kg	3.34	----	----	----	----
Lithium	7439-93-2	E440/VA	2.0	mg/kg	<2.0	----	----	----	----
Magnesium	7439-95-4	E440/VA	20	mg/kg	3760	----	----	----	----
Manganese	7439-96-5	E440/VA	1.0	mg/kg	52.9	----	----	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.178	----	----	----	----
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg	12.8 RRV	----	----	----	----

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Biosolids E231763	----	----	----	----
					Client sampling date / time: 18-Jun-2025 00:00	----	----	----	----
					VA25B4726-004	----	----	----	----
					Result	----	----	----	----
Metals									
Nickel	7440-02-0	E440/VA	0.50	mg/kg	6.10	----	----	----	----
Phosphorus	7723-14-0	E440/VA	50	mg/kg	20300	----	----	----	----
Potassium	7440-09-7	E440/VA	100	mg/kg	4520	----	----	----	----
Selenium	7782-49-2	E440/VA	0.20	mg/kg	2.26	----	----	----	----
Silver	7440-22-4	E440/VA	0.10	mg/kg	1.07	----	----	----	----
Sodium	7440-23-5	E440/VA	50	mg/kg	386	----	----	----	----
Strontium	7440-24-6	E440/VA	0.50	mg/kg	57.1	----	----	----	----
Sulfur	7704-34-9	E440/VA	1000	mg/kg	3700	----	----	----	----
Thallium	7440-28-0	E440/VA	0.050	mg/kg	<0.050	----	----	----	----
Tin	7440-31-5	E440/VA	2.0	mg/kg	10.6	----	----	----	----
Titanium	7440-32-6	E440/VA	1.0	mg/kg	30.4	----	----	----	----
Tungsten	7440-33-7	E440/VA	0.50	mg/kg	0.52	----	----	----	----
Uranium	7440-61-1	E440/VA	0.050	mg/kg	5.01	----	----	----	----
Vanadium	7440-62-2	E440/VA	0.20	mg/kg	5.94	----	----	----	----
Zinc	7440-66-6	E440/VA	2.0	mg/kg	289	----	----	----	----
Zirconium	7440-67-7	E440/VA	1.0	mg/kg	17.4	----	----	----	----
Leachable Anions & Nutrients									
Kjeldahl nitrogen, total [TKN]	----	E319/SK	0.020	%	3.52	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Travel Blank	----	----	----	----
Client sampling date / time					18-Jun-2025 00:00	----	----	----	----
					VA25B4726-007	----	----	----	----
					Result	----	----	----	----
Physical Tests									
pH	----	E108/VA	0.10	pH units	5.33	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L	<1.0	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	<0.0050	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	<0.050	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L	<0.0050	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L	<0.0010	----	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	<0.0010	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	<0.0020	----	----	----	----
Aggregate Organics									
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/VA	2.0	mg/L	<2.0	----	----	----	----
Chemical oxygen demand [COD]	----	E559-L/VA	10	mg/L	<10	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Composite Effluent
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Outfall Comp E104954 ----	----	----	----	----
					Client sampling date / time: 01-Oct-2025 08:00	----	----	----	----
					VA25C6005-001	----	----	----	----
					Result	----	----	----	----
Physical Tests									
pH	----	E108/VA	0.10	pH units	7.85	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L	1.9	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	0.961	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	2.75	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L	3.98	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L	0.144	----	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	0.0416	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	0.131	----	----	----	----
Microbiological Tests									
Coliforms, thermotolerant [fecal]	----	E010.FC/VA	1	MPN/100 mL	1	----	----	----	----
Coliforms, Escherichia coli [E. coli]	----	E010/VA	1	MPN/100 mL	<1	----	----	----	----
Aggregate Organics									
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/VA	2.0	mg/L	<2.0	----	----	----	----
Chemical oxygen demand [COD]	----	E559-L/VA	10	mg/L	42	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Composite Influent
(Matrix: Water)

					Client sample ID	Raw Influent Comp E222796 ----	----	----	----	----
					Client sampling date / time	01-Oct-2025 07:50	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25C6005-002	----	----	----	----
						Result	----	----	----	----
Physical Tests										
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L		279	----	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L		37.0	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L		62.0	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L		<0.0250 DLDS	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L		<0.0050 DLDS	----	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L		3.75	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L		6.62	----	----	----	----
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/VA	2.0	mg/L		280	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

					Client sample ID	Bioreactor ----	Fermenter Supernatant ----	----	----	----
					Client sampling date / time	01-Oct-2025 08:15	01-Oct-2025 08:10	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25C6005-003	VA25C6005-005	----	----	----
						Result	Result	----	----	----
Physical Tests										
Alkalinity, total (as CaCO3)	----	E290/VA	1.0	mg/L		125	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L		258	----	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L		15.3	----	----	----	----

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Bioreactor ----	Fermenter Supernatant ----	----	----	----
					Client sampling date / time: 01-Oct-2025 08:15	01-Oct-2025 08:10	----	----	----
					VA25C6005-003	VA25C6005-005	----	----	----
					Result	Result	----	----	----
Total Metals									
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L	0.00248	----	----	----	----
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L	0.00362	----	----	----	----
Barium, total	7440-39-3	E420/VA	0.00010	mg/L	0.184	----	----	----	----
Beryllium, total	7440-41-7	E420/VA	0.000100	mg/L	0.000121	----	----	----	----
Bismuth, total	7440-69-9	E420/VA	0.000050	mg/L	0.0427	----	----	----	----
Boron, total	7440-42-8	E420/VA	0.010	mg/L	0.229	----	----	----	----
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L	0.00120	----	----	----	----
Calcium, total	7440-70-2	E420/VA	0.050	mg/L	58.4	----	----	----	----
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L	0.000217	----	----	----	----
Chromium, total	7440-47-3	E420/VA	0.00050	mg/L	0.0139	----	----	----	----
Cobalt, total	7440-48-4	E420/VA	0.00010	mg/L	0.00316	----	----	----	----
Copper, total	7440-50-8	E420/VA	0.00050	mg/L	0.796	----	----	----	----
Iron, total	7439-89-6	E420/VA	0.010	mg/L	3.49	----	----	----	----
Lead, total	7439-92-1	E420/VA	0.000050	mg/L	0.00857	----	----	----	----
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L	0.0066	----	----	----	----
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L	27.2	----	----	----	----
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L	0.397	----	----	----	----
Mercury, total	7439-97-6	E508/VA	0.0000050	mg/L	<0.000100 DLM	----	----	----	----
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L	0.0200	----	----	----	----
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L	0.0172	----	----	----	----
Phosphorus, total	7723-14-0	E420/VA	0.050	mg/L	90.0	----	----	----	----

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Bioreactor ----	Fermenter Supernatant ----	----	----	----
					Client sampling date / time	01-Oct-2025 08:15	01-Oct-2025 08:10	----	----	----
						VA25C6005-003	VA25C6005-005	----	----	----
						Result	Result	----	----	----
Total Metals										
Potassium, total	7440-09-7	E420/VA	0.050	mg/L		45.5	----	----	----	----
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L		0.0253	----	----	----	----
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L		0.00609	----	----	----	----
Silicon, total	7440-21-3	E420/VA	0.10	mg/L		10.4	----	----	----	----
Silver, total	7440-22-4	E420/VA	0.000010	mg/L		0.00325	----	----	----	----
Sodium, total	7440-23-5	E420/VA	0.050	mg/L		71.6	----	----	----	----
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L		0.395	----	----	----	----
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L		28.2	----	----	----	----
Tellurium, total	13494-80-9	E420/VA	0.00020	mg/L		<0.00040 DLA	----	----	----	----
Thallium, total	7440-28-0	E420/VA	0.000010	mg/L		0.000050	----	----	----	----
Thorium, total	7440-29-1	E420/VA	0.00010	mg/L		<0.00020 DLA	----	----	----	----
Tin, total	7440-31-5	E420/VA	0.00010	mg/L		0.00523	----	----	----	----
Titanium, total	7440-32-6	E420/VA	0.00030	mg/L		0.0168	----	----	----	----
Tungsten, total	7440-33-7	E420/VA	0.00010	mg/L		0.00096	----	----	----	----
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L		0.0100	----	----	----	----
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L		0.00762	----	----	----	----
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L		0.718	----	----	----	----
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L		0.00812	----	----	----	----
Fatty Acids										
Acetic Acid	64-19-7	E676/WP	10	mg/L		----	137 DLHC	----	----	----
Butyric Acid	107-92-6	E676/WP	1.0	mg/L		----	16.9	----	----	----

Analytical Results

Sub-Matrix: Grab Effluent
(Matrix: Water)

					Client sample ID	Bioreactor ----	Fermenter Supernatant ----	----	----	----
					Client sampling date / time	01-Oct-2025 08:15	01-Oct-2025 08:10	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25C6005-003	VA25C6005-005	----	----	----
						Result	Result	----	----	----
Fatty Acids										
Formic Acid	64-18-6	E676/WP	30	mg/L		----	<30	----	----	----
Hexanoic acid	142-62-1	E676/WP	1.0	mg/L		----	1.6	----	----	----
Isobutyric acid	79-31-2	E676/WP	1.0	mg/L		----	<1.0	----	----	----
Isovaleric acid	503-74-2	E676/WP	1.0	mg/L		----	<1.0	----	----	----
Propanoic acid	79-09-4	E676/WP	5.0	mg/L		----	87.8	----	----	----
Valeric acid	109-52-4	E676/WP	1.0	mg/L		----	8.5	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

					Client sample ID	Biosolids E231763 ----	----	----	----	----
					Client sampling date / time	01-Oct-2025 09:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25C6005-004	----	----	----	----
						Result	----	----	----	----
Physical Tests										
Moisture	----	E144/VA	0.25	%		79.9	----	----	----	----
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		6.00 FR10	----	----	----	----
Solids, fixed [FS]	----	E169/WT	0.10	%		12.5	----	----	----	----
Solids, total [TS]	----	E157/WT	0.10	%		20.8	----	----	----	----
Solids, volatile [VS]	----	EC165/WT	0.10	%		87.5	----	----	----	----
Microbiological Tests										
Coliforms, Escherichia coli [E. coli]	----	E014.EC/VA	2	MPN/g		7860000	----	----	----	----
Coliforms, thermotolerant [fecal]	----	E014.FC/VA	2	MPN/g		7860000	----	----	----	----

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Biosolids E231763 ----	----	----	----	----
					Client sampling date / time	01-Oct-2025 09:00	----	----	----	----
					VA25C6005-004	----	----	----	----	----
					Result	----	----	----	----	----
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg	5720	----	----	----	----	
Antimony	7440-36-0	E440/VA	0.10	mg/kg	0.99	----	----	----	----	
Arsenic	7440-38-2	E440/VA	0.10	mg/kg	1.12	----	----	----	----	
Barium	7440-39-3	E440/VA	0.50	mg/kg	68.0	----	----	----	----	
Beryllium	7440-41-7	E440/VA	0.10	mg/kg	<0.10	----	----	----	----	
Bismuth	7440-69-9	E440/VA	0.20	mg/kg	17.9	----	----	----	----	
Boron	7440-42-8	E440/VA	5.0	mg/kg	15.6	----	----	----	----	
Cadmium	7440-43-9	E440/VA	0.020	mg/kg	0.489	----	----	----	----	
Calcium	7440-70-2	E440/VA	50	mg/kg	8910	----	----	----	----	
Chromium	7440-47-3	E440/VA	0.50	mg/kg	8.13	----	----	----	----	
Cobalt	7440-48-4	E440/VA	0.10	mg/kg	1.13	----	----	----	----	
Copper	7440-50-8	E440/VA	0.50	mg/kg	305	----	----	----	----	
Iron	7439-89-6	E440/VA	50	mg/kg	1880	----	----	----	----	
Lead	7439-92-1	E440/VA	0.50	mg/kg	3.84	----	----	----	----	
Lithium	7439-93-2	E440/VA	2.0	mg/kg	<2.0	----	----	----	----	
Magnesium	7439-95-4	E440/VA	20	mg/kg	4790	----	----	----	----	
Manganese	7439-96-5	E440/VA	1.0	mg/kg	103	----	----	----	----	
Mercury	7439-97-6	E510/VA	0.0050	mg/kg	0.152	----	----	----	----	
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg	6.22	----	----	----	----	
Nickel	7440-02-0	E440/VA	0.50	mg/kg	6.38	----	----	----	----	
Phosphorus	7723-14-0	E440/VA	50	mg/kg	20900	----	----	----	----	

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Biosolids E231763 ----	----	----	----	----
					Client sampling date / time: 01-Oct-2025 09:00	----	----	----	----
					VA25C6005-004	----	----	----	----
					Result	----	----	----	----
Metals									
Potassium	7440-09-7	E440/VA	100	mg/kg	5280	----	----	----	----
Selenium	7782-49-2	E440/VA	0.20	mg/kg	2.69	----	----	----	----
Silver	7440-22-4	E440/VA	0.10	mg/kg	1.05	----	----	----	----
Sodium	7440-23-5	E440/VA	50	mg/kg	450	----	----	----	----
Strontium	7440-24-6	E440/VA	0.50	mg/kg	57.4	----	----	----	----
Sulfur	7704-34-9	E440/VA	1000	mg/kg	4700	----	----	----	----
Thallium	7440-28-0	E440/VA	0.050	mg/kg	<0.050	----	----	----	----
Tin	7440-31-5	E440/VA	2.0	mg/kg	12.0	----	----	----	----
Titanium	7440-32-6	E440/VA	1.0	mg/kg	27.8	----	----	----	----
Tungsten	7440-33-7	E440/VA	0.50	mg/kg	0.56	----	----	----	----
Uranium	7440-61-1	E440/VA	0.050	mg/kg	3.48	----	----	----	----
Vanadium	7440-62-2	E440/VA	0.20	mg/kg	3.53	----	----	----	----
Zinc	7440-66-6	E440/VA	2.0	mg/kg	330	----	----	----	----
Zirconium	7440-67-7	E440/VA	1.0	mg/kg	10.2	----	----	----	----
Leachable Anions & Nutrients									
Kjeldahl nitrogen, total [TKN]	----	E319/SK	0.020	%	5.67	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Primary Effluent Grab ----	Travel Blank ----	----	----	----
					Client sampling date / time	01-Oct-2025 08:05	01-Oct-2025 00:00	----	----	----
						VA25C6005-006	VA25C6005-007	----	----	----
						Result	Result	----	----	----
Physical Tests										
pH	----	E108/VA	0.10	pH units	----	5.39		----	----	----
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L	----	<1.0		----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	----	<0.0050		----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	72.6	<0.050		----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L	----	<0.0050		----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L	----	<0.0010		----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/VA	0.0010	mg/L	----	<0.0010		----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	----	<0.0020		----	----	----
Aggregate Organics										
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/VA	2.0	mg/L	----	<2.0		----	----	----
Chemical oxygen demand [COD]	----	E559-L/VA	10	mg/L	----	<10		----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Composite Effluent (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Outfall Comp E104954 ----	----	----	----	----
					Client sampling date / time: 15-Oct-2025 08:30	----	----	----	----
					VA25C7540-001	----	----	----	----
					Result	----	----	----	----
Physical Tests									
pH	----	E108/VA	0.10	pH units	7.77	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/VA	1.0	mg/L	1.8	----	----	----	----
Anions and Nutrients									
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	2.54	----	----	----	----
Aggregate Organics									
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/VA	2.0	mg/L	<2.0	----	----	----	----
Chemical oxygen demand [COD]	----	E559-L/VA	10	mg/L	43	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Composite Influent (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Raw Influent Comp E222796 ----	----	----	----	----
					Client sampling date / time: 15-Oct-2025 08:45	----	----	----	----
					VA25C7540-002	----	----	----	----
					Result	----	----	----	----
Anions and Nutrients									
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L	61.6	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Primary Influent Grab ----	Outfall Comp E104954 ----	Raw Influent Comp E222796 ----	Primary Influent Grab ----	----
					Client sampling date / time	15-Oct-2025 08:40	08-Oct-2025 07:15	08-Oct-2025 06:45	08-Oct-2025 07:00	----
						VA25C7540-003	VA25C7540-004	VA25C7540-005	VA25C7540-006	----
						Result	Result	Result	Result	----
Anions and Nutrients										
Kjeldahl nitrogen, total [TKN]	----	E318/VA	0.050	mg/L		138	2.11	111	84.3	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: DWL619-Fermenter Supernatant ----	----	----	----	----
					Client sampling date / time: 05-Nov-2025 07:45	----	----	----	----
					EO2510306-001	----	----	----	----
					Result	----	----	----	----
Fatty Acids									
Acetic Acid	64-19-7	E676/WP	10	mg/L	110	----	----	----	----
Butyric Acid	107-92-6	E676/WP	1.0	mg/L	15.5	----	----	----	----
Formic Acid	64-18-6	E676/WP	30	mg/L	<30	----	----	----	----
Hexanoic acid	142-62-1	E676/WP	1.0	mg/L	<1.0	----	----	----	----
Isobutyric acid	79-31-2	E676/WP	1.0	mg/L	<1.0	----	----	----	----
Isovaleric acid	503-74-2	E676/WP	1.0	mg/L	<1.0	----	----	----	----
Propanoic acid	79-09-4	E676/WP	5.0	mg/L	73.2	----	----	----	----
Valeric acid	109-52-4	E676/WP	1.0	mg/L	8.0	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: DWL619-Fermenter Supernatant ----	----	----	----	----
					Client sampling date / time: 05-Nov-2025 07:45	----	----	----	----
					EO2510306-001	----	----	----	----
					Result	----	----	----	----
Fatty Acids									
Acetic Acid	64-19-7	E676/WP	10	mg/L	110	----	----	----	----
Butyric Acid	107-92-6	E676/WP	1.0	mg/L	15.5	----	----	----	----
Formic Acid	64-18-6	E676/WP	30	mg/L	<30	----	----	----	----
Hexanoic acid	142-62-1	E676/WP	1.0	mg/L	<1.0	----	----	----	----
Isobutyric acid	79-31-2	E676/WP	1.0	mg/L	<1.0	----	----	----	----
Isovaleric acid	503-74-2	E676/WP	1.0	mg/L	<1.0	----	----	----	----
Propanoic acid	79-09-4	E676/WP	5.0	mg/L	73.2	----	----	----	----
Valeric acid	109-52-4	E676/WP	1.0	mg/L	8.0	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25A0709
PROJECT	Westside STP - Cake	**REPORTED**	2025-01-15 15:23

Analyte	Result	RL	Units	Analyzed	Qualifier
BIOSOLIDS, E231763 (25A0709-01) | Matrix: Soil | Sampled: 2025-01-08 09:15					
General Parameters					
Moisture	**78.8**	1.0	% wet	2025-01-09	
Nitrogen, Total Kjeldahl	**7.79**	0.0004	% dry	2025-01-10	
pH (1:2 H2O Solution)	**5.66**	0.10	pH units	2025-01-14	
Solids, Total	**21.2**	0.1	% wet	2025-01-09	
Solids, Volatile	**88.1**	0.1	% dry	2025-01-09	
Microbiological Parameters					
Coliforms, Fecal	**2200000**	3.0	MPN/g dry	2025-01-09	
E. coli	**710000**	3.0	MPN/g dry	2025-01-09	
Strong Acid Leachable Metals					
Aluminum	**2750**	40	mg/kg dry	2025-01-13	
Antimony	**0.87**	0.10	mg/kg dry	2025-01-13	
Arsenic	**0.79**	0.30	mg/kg dry	2025-01-13	
Barium	**54.5**	1.0	mg/kg dry	2025-01-13	
Beryllium	< 0.10	0.10	mg/kg dry	2025-01-13	
Bismuth	**15.3**	0.10	mg/kg dry	2025-01-13	
Boron	**7.4**	2.0	mg/kg dry	2025-01-13	
Cadmium	**0.379**	0.040	mg/kg dry	2025-01-13	
Calcium	**7950**	100	mg/kg dry	2025-01-13	
Chromium	**10.9**	1.0	mg/kg dry	2025-01-13	
Cobalt	**1.07**	0.10	mg/kg dry	2025-01-13	
Copper	**213**	0.40	mg/kg dry	2025-01-13	
Iron	**1790**	20.0	mg/kg dry	2025-01-13	
Lead	**4.25**	0.20	mg/kg dry	2025-01-13	
Lithium	**0.88**	0.10	mg/kg dry	2025-01-13	
Magnesium	**4220**	10	mg/kg dry	2025-01-13	
Manganese	**41.9**	0.40	mg/kg dry	2025-01-13	
Mercury	**0.114**	0.040	mg/kg dry	2025-01-13	
Molybdenum	**4.20**	0.10	mg/kg dry	2025-01-13	
Nickel	**7.69**	0.60	mg/kg dry	2025-01-13	
Phosphorus	**17300**	10	mg/kg dry	2025-01-13	
Potassium	**5120**	40	mg/kg dry	2025-01-13	
Selenium	**1.95**	0.20	mg/kg dry	2025-01-13	
Silver	**0.83**	0.10	mg/kg dry	2025-01-13	
Sodium	**355**	50	mg/kg dry	2025-01-13	
Strontium	**42.0**	0.20	mg/kg dry	2025-01-13	
Sulfur	**3720**	1000	mg/kg dry	2025-01-13	
Tellurium	< 0.10	0.10	mg/kg dry	2025-01-13	
Thallium	< 0.10	0.10	mg/kg dry	2025-01-13	
Thorium	< 0.50	0.50	mg/kg dry	2025-01-13	
Tin	**12.7**	0.20	mg/kg dry	2025-01-13	
Titanium	**26.6**	1.0	mg/kg dry	2025-01-13	
Tungsten	**0.97**	0.20	mg/kg dry	2025-01-13	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25A0709
PROJECT	Westside STP - Cake	**REPORTED**	2025-01-15 15:23

Analyte	Result	RL	Units	Analyzed	Qualifier
BIOSOLIDS, E231763 (25A0709-01) | Matrix: Soil | Sampled: 2025-01-08 09:15, Continued					
Strong Acid Leachable Metals, Continued					
Uranium	**3.28**	0.050	mg/kg dry	2025-01-13	
Vanadium	**3.8**	1.0	mg/kg dry	2025-01-13	
Zinc	**233**	2.0	mg/kg dry	2025-01-13	
Zirconium	**3.3**	2.0	mg/kg dry	2025-01-13	

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25C0617
PROJECT	Westside STP - Cake	**REPORTED**	2025-03-12 15:58

Analyte	Result	RL	Units	Analyzed	Qualifier
BIOSOLIDS, E231763 (25C0617-01) | Matrix: Biosolids | Sampled: 2025-03-05 07:30					
General Parameters					
Moisture	**77.9**	1.0	% wet	2025-03-10	
Nitrogen, Total Kjeldahl	**5.73**	0.0004	% dry	2025-03-07	
pH (1:2 H2O Solution)	**5.97**	0.10	pH units	2025-03-12	PH1
Solids, Total	**22.1**	0.1	% wet	2025-03-10	
Solids, Volatile	**85.8**	0.1	% dry	2025-03-10	
Microbiological Parameters					
Coliforms, Fecal	**5000000**	3.0	MPN/g dry	2025-03-06	
E. coli	**5000000**	3.0	MPN/g dry	2025-03-06	
Strong Acid Leachable Metals					
Aluminum	**4810**	40	mg/kg dry	2025-03-10	
Antimony	**1.05**	0.10	mg/kg dry	2025-03-10	
Arsenic	**0.91**	0.30	mg/kg dry	2025-03-10	
Barium	**64.0**	1.0	mg/kg dry	2025-03-10	
Beryllium	< 0.10	0.10	mg/kg dry	2025-03-10	
Bismuth	**15.6**	0.10	mg/kg dry	2025-03-10	
Boron	**12.3**	2.0	mg/kg dry	2025-03-10	
Cadmium	**0.449**	0.040	mg/kg dry	2025-03-10	
Calcium	**10000**	100	mg/kg dry	2025-03-10	
Chromium	**8.6**	1.0	mg/kg dry	2025-03-10	
Cobalt	**1.18**	0.10	mg/kg dry	2025-03-10	
Copper	**234**	0.40	mg/kg dry	2025-03-10	
Iron	**2160**	20.0	mg/kg dry	2025-03-10	
Lead	**3.22**	0.20	mg/kg dry	2025-03-10	
Lithium	**1.12**	0.10	mg/kg dry	2025-03-10	
Magnesium	**4860**	10	mg/kg dry	2025-03-10	
Manganese	**50.7**	0.40	mg/kg dry	2025-03-10	
Mercury	**0.186**	0.040	mg/kg dry	2025-03-10	
Molybdenum	**4.34**	0.10	mg/kg dry	2025-03-10	
Nickel	**6.46**	0.60	mg/kg dry	2025-03-10	
Phosphorus	**20300**	10	mg/kg dry	2025-03-10	
Potassium	**5880**	40	mg/kg dry	2025-03-10	
Selenium	**2.29**	0.20	mg/kg dry	2025-03-10	
Silver	**0.85**	0.10	mg/kg dry	2025-03-10	
Sodium	**412**	50	mg/kg dry	2025-03-10	
Strontium	**60.5**	0.20	mg/kg dry	2025-03-10	
Sulfur	**3840**	1000	mg/kg dry	2025-03-10	
Tellurium	< 0.10	0.10	mg/kg dry	2025-03-10	
Thallium	< 0.10	0.10	mg/kg dry	2025-03-10	
Thorium	< 0.50	0.50	mg/kg dry	2025-03-10	
Tin	**10.4**	0.20	mg/kg dry	2025-03-10	
Titanium	**53.3**	1.0	mg/kg dry	2025-03-10	
Tungsten	**1.02**	0.20	mg/kg dry	2025-03-10	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25C0617
PROJECT	Westside STP - Cake	**REPORTED**	2025-03-12 15:58

Analyte	Result	RL	Units	Analyzed	Qualifier
BIOSOLIDS, E231763 (25C0617-01) | Matrix: Biosolids | Sampled: 2025-03-05 07:30, Continued					
Strong Acid Leachable Metals, Continued					
Uranium	**3.71**	0.050	mg/kg dry	2025-03-10	
Vanadium	**4.5**	1.0	mg/kg dry	2025-03-10	
Zinc	**239**	2.0	mg/kg dry	2025-03-10	
Zirconium	**5.2**	2.0	mg/kg dry	2025-03-11	
BIOSOLIDS, E231763 (25C0617-01RE1) | Matrix: Biosolids | Sampled: 2025-03-05 07:30					
General Parameters					
Nitrogen, Total Kjeldahl	**5.76**	0.0004	% dry	2025-03-07	

Sample Qualifiers:

PH1 The ratio of water to soil was greater than 2:1 due to limited sample volume or matrix

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E1067
PROJECT	Westside STP - Biosolids E231763	**REPORTED**	2025-05-14 14:39

Analyte	Result	RL	Units	Analyzed	Qualifier
BIOSOLIDS, E231763 (25E1067-01) | Matrix: Biosolids | Sampled: 2025-05-07 08:30					
General Parameters					
Moisture	**76.9**	1.0	% wet	2025-05-12	
Nitrogen, Total Kjeldahl	**5.25**	0.0004	% dry	2025-05-14	
pH (1:2 H2O Solution)	**5.80**	0.10	pH units	2025-05-14	
Solids, Total	**23.1**	0.1	% wet	2025-05-12	
Solids, Volatile	**87.6**	0.1	% dry	2025-05-12	
Microbiological Parameters					
Coliforms, Fecal	**1700000**	3.0	MPN/g dry	2025-05-08	
E. coli	**1700000**	3.0	MPN/g dry	2025-05-08	
Strong Acid Leachable Metals					
Aluminum	**8350**	40	mg/kg dry	2025-05-14	
Antimony	**0.71**	0.10	mg/kg dry	2025-05-14	
Arsenic	**0.86**	0.30	mg/kg dry	2025-05-14	
Barium	**58.8**	1.0	mg/kg dry	2025-05-14	
Beryllium	< 0.10	0.10	mg/kg dry	2025-05-14	
Bismuth	**12.3**	0.10	mg/kg dry	2025-05-14	
Boron	**8.8**	2.0	mg/kg dry	2025-05-14	
Cadmium	**0.361**	0.040	mg/kg dry	2025-05-14	
Calcium	**7680**	100	mg/kg dry	2025-05-14	
Chromium	**7.3**	1.0	mg/kg dry	2025-05-14	
Cobalt	**0.98**	0.10	mg/kg dry	2025-05-14	
Copper	**176**	0.40	mg/kg dry	2025-05-14	
Iron	**1580**	20.0	mg/kg dry	2025-05-14	
Lead	**3.37**	0.20	mg/kg dry	2025-05-14	
Lithium	**0.64**	0.10	mg/kg dry	2025-05-14	
Magnesium	**2910**	10	mg/kg dry	2025-05-14	
Manganese	**41.7**	0.40	mg/kg dry	2025-05-14	
Mercury	**0.225**	0.040	mg/kg dry	2025-05-14	
Molybdenum	**3.84**	0.10	mg/kg dry	2025-05-14	
Nickel	**5.72**	0.60	mg/kg dry	2025-05-14	
Phosphorus	**15500**	10	mg/kg dry	2025-05-14	
Potassium	**3330**	40	mg/kg dry	2025-05-14	
Selenium	**2.06**	0.20	mg/kg dry	2025-05-14	
Silver	**0.92**	0.10	mg/kg dry	2025-05-14	
Sodium	**323**	50	mg/kg dry	2025-05-14	
Strontium	**54.7**	0.20	mg/kg dry	2025-05-14	
Sulfur	**3310**	1000	mg/kg dry	2025-05-14	
Tellurium	< 0.10	0.10	mg/kg dry	2025-05-14	
Thallium	< 0.10	0.10	mg/kg dry	2025-05-14	
Thorium	< 0.50	0.50	mg/kg dry	2025-05-14	
Tin	**9.18**	0.20	mg/kg dry	2025-05-14	
Titanium	**35.0**	1.0	mg/kg dry	2025-05-14	
Tungsten	**0.41**	0.20	mg/kg dry	2025-05-14	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E1067
PROJECT	Westside STP - Biosolids E231763	**REPORTED**	2025-05-14 14:39

Analyte	Result	RL	Units	Analyzed	Qualifier
BIOSOLIDS, E231763 (25E1067-01) | Matrix: Biosolids | Sampled: 2025-05-07 08:30, Continued					
Strong Acid Leachable Metals, Continued					
Uranium	**3.52**	0.050	mg/kg dry	2025-05-14	
Vanadium	**4.2**	1.0	mg/kg dry	2025-05-14	
Zinc	**232**	2.0	mg/kg dry	2025-05-14	
Zirconium	**9.6**	2.0	mg/kg dry	2025-05-14	

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25G2540
PROJECT	Westside STP - Biosolids E231763	**REPORTED**	2025-07-23 15:12

Analyte	Result	RL	Units	Analyzed	Qualifier
BIOSOLIDS, E231763 (25G2540-01) | Matrix: Biosolids | Sampled: 2025-07-16 10:40					
General Parameters					
Moisture	**48.9**	1.0	% wet	2025-07-21	
Nitrogen, Total Kjeldahl	**2.89**	0.0004	% dry	2025-07-21	
pH (1:2 H2O Solution)	**5.70**	0.10	pH units	2025-07-23	
Solids, Total	**19.7**	0.1	% wet	2025-07-23	
Solids, Volatile	**86.3**	0.1	% dry	2025-07-23	
Microbiological Parameters					
Coliforms, Fecal	**22000000**	3.0	MPN/g dry	2025-07-18	HT1
E. coli	**22000000**	3.0	MPN/g dry	2025-07-18	HT1
Strong Acid Leachable Metals					
Aluminum	**13200**	40	mg/kg dry	2025-07-21	
Antimony	**1.00**	0.10	mg/kg dry	2025-07-21	
Arsenic	**4.50**	0.30	mg/kg dry	2025-07-21	
Barium	**80.3**	1.0	mg/kg dry	2025-07-21	
Beryllium	< 0.10	0.10	mg/kg dry	2025-07-21	
Bismuth	**20.7**	0.10	mg/kg dry	2025-07-21	
Boron	**12.9**	2.0	mg/kg dry	2025-07-21	
Cadmium	**0.519**	0.040	mg/kg dry	2025-07-21	
Calcium	**9070**	100	mg/kg dry	2025-07-21	
Chromium	**10.8**	1.0	mg/kg dry	2025-07-22	
Cobalt	**1.19**	0.10	mg/kg dry	2025-07-21	
Copper	**300**	0.40	mg/kg dry	2025-07-22	
Iron	**1710**	20.0	mg/kg dry	2025-07-21	
Lead	**4.30**	0.20	mg/kg dry	2025-07-21	
Lithium	**0.62**	0.10	mg/kg dry	2025-07-21	
Magnesium	**4360**	10	mg/kg dry	2025-07-21	
Manganese	**113**	0.40	mg/kg dry	2025-07-21	
Mercury	**0.228**	0.040	mg/kg dry	2025-07-21	
Molybdenum	**6.93**	0.10	mg/kg dry	2025-07-21	
Nickel	**8.25**	0.60	mg/kg dry	2025-07-21	
Phosphorus	**23700**	10	mg/kg dry	2025-07-21	
Potassium	**4530**	40	mg/kg dry	2025-07-21	
Selenium	**2.90**	0.20	mg/kg dry	2025-07-21	
Silver	**1.14**	0.10	mg/kg dry	2025-07-21	
Sodium	**420**	50	mg/kg dry	2025-07-21	
Strontium	**64.5**	0.20	mg/kg dry	2025-07-21	
Sulfur	**5420**	1000	mg/kg dry	2025-07-21	
Tellurium	< 0.10	0.10	mg/kg dry	2025-07-21	
Thallium	< 0.10	0.10	mg/kg dry	2025-07-21	
Thorium	< 0.50	0.50	mg/kg dry	2025-07-21	
Tin	**14.4**	0.20	mg/kg dry	2025-07-21	
Titanium	**41.6**	1.0	mg/kg dry	2025-07-21	
Tungsten	**0.64**	0.20	mg/kg dry	2025-07-21	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25G2540
PROJECT	Westside STP - Biosolids E231763	**REPORTED**	2025-07-23 15:12

Analyte	Result	RL	Units	Analyzed	Qualifier
BIOSOLIDS, E231763 (25G2540-01) | Matrix: Biosolids | Sampled: 2025-07-16 10:40, Continued					
Strong Acid Leachable Metals, Continued					
Uranium	**5.57**	0.050	mg/kg dry	2025-07-21	
Vanadium	**5.8**	1.0	mg/kg dry	2025-07-21	
Zinc	**423**	2.0	mg/kg dry	2025-07-21	
Zirconium	**20.8**	2.0	mg/kg dry	2025-07-21	

Sample Qualifiers:

HT1 The sample was prepared and/or analyzed past the recommended holding time.

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25I0565
PROJECT	Westside STP - Biosolids E231763	**REPORTED**	2025-09-11 15:39

Analyte	Result	RL	Units	Analyzed	Qualifier
BIOSOLIDS (25I0565-01) | Matrix: Biosolids | Sampled: 2025-09-03 09:00					
Calculated Parameters					
Nitrogen, Total	**6.59**	0.0100	%	N/A	
General Parameters					
Moisture	**77.4**	1.0	% wet	2025-09-05	
Nitrate, Water-Soluble (as N)	**2010**	0.050	mg/kg dry	2025-09-08	
Nitrite, Water-Soluble (as N)	**4.17**	0.050	mg/kg dry	2025-09-08	
Nitrogen, Total Kjeldahl	**6.59**	0.0004	% dry	2025-09-10	
pH (1:2 H2O Solution)	**5.28**	0.10	pH units	2025-09-11	PH1
Solids, Total	**22.6**	0.1	% wet	2025-09-05	
Solids, Volatile	**88.5**	0.1	% dry	2025-09-05	
Microbiological Parameters					
Coliforms, Fecal	**4900000**	3.0	MPN/g dry	2025-09-04	
E. coli	**4900000**	3.0	MPN/g dry	2025-09-04	
Strong Acid Leachable Metals					
Aluminum	**4060**	40	mg/kg dry	2025-09-11	
Antimony	**0.74**	0.10	mg/kg dry	2025-09-11	
Arsenic	**0.88**	0.30	mg/kg dry	2025-09-11	
Barium	**47.3**	1.0	mg/kg dry	2025-09-11	
Beryllium	< 0.10	0.10	mg/kg dry	2025-09-11	
Bismuth	**13.5**	0.10	mg/kg dry	2025-09-11	
Boron	**17.9**	2.0	mg/kg dry	2025-09-11	
Cadmium	**0.369**	0.040	mg/kg dry	2025-09-11	
Calcium	**15600**	100	mg/kg dry	2025-09-11	
Chromium	**6.8**	1.0	mg/kg dry	2025-09-11	
Cobalt	**0.83**	0.10	mg/kg dry	2025-09-11	
Copper	**210**	0.40	mg/kg dry	2025-09-11	
Iron	**1130**	20.0	mg/kg dry	2025-09-11	
Lead	**3.22**	0.20	mg/kg dry	2025-09-11	
Lithium	**0.40**	0.10	mg/kg dry	2025-09-11	
Magnesium	**3420**	10	mg/kg dry	2025-09-11	
Manganese	**46.7**	0.40	mg/kg dry	2025-09-11	
Mercury	**0.188**	0.040	mg/kg dry	2025-09-11	
Molybdenum	**4.47**	0.10	mg/kg dry	2025-09-11	
Nickel	**4.62**	0.60	mg/kg dry	2025-09-11	
Phosphorus	**14900**	10	mg/kg dry	2025-09-11	
Potassium	**3480**	40	mg/kg dry	2025-09-11	
Selenium	**2.01**	0.20	mg/kg dry	2025-09-11	
Silver	**0.83**	0.10	mg/kg dry	2025-09-11	
Sodium	**287**	50	mg/kg dry	2025-09-11	
Strontium	**71.1**	0.20	mg/kg dry	2025-09-11	
Sulfur	**3660**	1000	mg/kg dry	2025-09-11	
Tellurium	< 0.10	0.10	mg/kg dry	2025-09-11	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25I0565
PROJECT	Westside STP - Biosolids E231763	**REPORTED**	2025-09-11 15:39

Analyte	Result	RL	Units	Analyzed	Qualifier
BIOSOLIDS (25I0565-01) | Matrix: Biosolids | Sampled: 2025-09-03 09:00, Continued					
Strong Acid Leachable Metals, Continued					
Thallium	< 0.10	0.10	mg/kg dry	2025-09-11	
Thorium	< 0.50	0.50	mg/kg dry	2025-09-11	
Tin	**10.5**	0.20	mg/kg dry	2025-09-11	
Titanium	**31.1**	1.0	mg/kg dry	2025-09-11	
Tungsten	**0.39**	0.20	mg/kg dry	2025-09-11	
Uranium	**2.68**	0.050	mg/kg dry	2025-09-11	
Vanadium	**2.9**	1.0	mg/kg dry	2025-09-11	
Zinc	**296**	2.0	mg/kg dry	2025-09-11	
Zirconium	**6.7**	2.0	mg/kg dry	2025-09-11	

Sample Qualifiers:

PH1 The ratio of water to soil was greater than 2:1 due to limited sample volume or matrix

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25A2218
PROJECT	Westside STP - DAF Sludge	**REPORTED**	2025-01-29 13:38

Analyte	Result	RL	Units	Analyzed	Qualifier
DAF SLUDGE (25A2218-01) | Matrix: Soil | Sampled: 2025-01-22 08:45					
General Parameters					
Moisture	**95.8**	1.0	% wet	2025-01-27	
Nitrogen, Total Kjeldahl	**7.34**	0.0004	% dry	2025-01-27	
pH (1:2 H2O Solution)	**6.38**	0.10	pH units	2025-01-29	pH1
Solids, Total	**4.2**	0.1	% wet	2025-01-27	
Solids, Volatile	**78.9**	0.1	% dry	2025-01-27	
Strong Acid Leachable Metals					
Aluminum	**9750**	40	mg/kg dry	2025-01-29	
Antimony	**0.92**	0.10	mg/kg dry	2025-01-29	
Arsenic	**1.21**	0.30	mg/kg dry	2025-01-29	
Barium	**84.6**	1.0	mg/kg dry	2025-01-29	
Beryllium	< 0.10	0.10	mg/kg dry	2025-01-29	
Bismuth	**17.8**	0.10	mg/kg dry	2025-01-29	
Boron	**15.4**	2.0	mg/kg dry	2025-01-29	
Cadmium	**0.530**	0.040	mg/kg dry	2025-01-29	
Calcium	**8920**	100	mg/kg dry	2025-01-29	
Chromium	**7.5**	1.0	mg/kg dry	2025-01-29	
Cobalt	**1.22**	0.10	mg/kg dry	2025-01-29	
Copper	**332**	0.40	mg/kg dry	2025-01-29	
Iron	**1820**	20.0	mg/kg dry	2025-01-29	
Lead	**2.79**	0.20	mg/kg dry	2025-01-29	
Lithium	**0.85**	0.10	mg/kg dry	2025-01-29	
Magnesium	**7370**	10	mg/kg dry	2025-01-29	
Manganese	**47.9**	0.40	mg/kg dry	2025-01-29	
Mercury	**0.113**	0.040	mg/kg dry	2025-01-29	
Molybdenum	**6.05**	0.10	mg/kg dry	2025-01-29	
Nickel	**6.58**	0.60	mg/kg dry	2025-01-29	
Phosphorus	**37000**	10	mg/kg dry	2025-01-29	
Potassium	**11100**	40	mg/kg dry	2025-01-29	
Selenium	**2.89**	0.20	mg/kg dry	2025-01-29	
Silver	**0.99**	0.10	mg/kg dry	2025-01-29	
Sodium	**1580**	50	mg/kg dry	2025-01-29	
Strontium	**80.1**	0.20	mg/kg dry	2025-01-29	
Sulfur	**5300**	1000	mg/kg dry	2025-01-29	
Tellurium	< 0.10	0.10	mg/kg dry	2025-01-29	
Thallium	< 0.10	0.10	mg/kg dry	2025-01-29	
Thorium	< 0.50	0.50	mg/kg dry	2025-01-29	
Tin	**11.8**	0.20	mg/kg dry	2025-01-29	
Titanium	**50.2**	1.0	mg/kg dry	2025-01-29	
Tungsten	**0.96**	0.20	mg/kg dry	2025-01-29	
Uranium	**5.52**	0.050	mg/kg dry	2025-01-29	
Vanadium	**3.8**	1.0	mg/kg dry	2025-01-29	
Zinc	**220**	2.0	mg/kg dry	2025-01-29	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25A2218
PROJECT	Westside STP - DAF Sludge	**REPORTED**	2025-01-29 13:38

Analyte	Result	RL	Units	Analyzed	Qualifier
DAF SLUDGE (25A2218-01) | Matrix: Soil | Sampled: 2025-01-22 08:45, Continued					
Strong Acid Leachable Metals, Continued					
Zirconium	**24.0**	2.0	mg/kg dry	2025-01-29	

Sample Qualifiers:

pH1 The ratio of water to soil was greater than 2:1 due to limited sample volume or matrix

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25A2220
PROJECT	Westside STP - Fermenter Sludge	**REPORTED**	2025-01-29 13:39

Analyte	Result	RL	Units	Analyzed	Qualifier
FERMENTER SLUDGE (25A2220-01) | Matrix: Soil | Sampled: 2025-01-22 08:35					
General Parameters					
Moisture	**89.3**	1.0	% wet	2025-01-27	
Nitrogen, Total Kjeldahl	**2.69**	0.0004	% dry	2025-01-27	
pH (1:2 H2O Solution)	**5.67**	0.10	pH units	2025-01-29	pH1
Solids, Total	**10.7**	0.1	% wet	2025-01-27	
Solids, Volatile	**92.5**	0.1	% dry	2025-01-27	
Strong Acid Leachable Metals					
Aluminum	**2010**	40	mg/kg dry	2025-01-29	
Antimony	**0.88**	0.10	mg/kg dry	2025-01-29	
Arsenic	**0.54**	0.30	mg/kg dry	2025-01-29	
Barium	**49.0**	1.0	mg/kg dry	2025-01-29	
Beryllium	< 0.10	0.10	mg/kg dry	2025-01-29	
Bismuth	**11.2**	0.10	mg/kg dry	2025-01-29	
Boron	**5.7**	2.0	mg/kg dry	2025-01-29	
Cadmium	**0.297**	0.040	mg/kg dry	2025-01-29	
Calcium	**7850**	100	mg/kg dry	2025-01-29	
Chromium	**11.9**	1.0	mg/kg dry	2025-01-29	
Cobalt	**1.05**	0.10	mg/kg dry	2025-01-29	
Copper	**131**	0.40	mg/kg dry	2025-01-29	
Iron	**4720**	20.0	mg/kg dry	2025-01-29	
Lead	**3.88**	0.20	mg/kg dry	2025-01-29	
Lithium	**1.01**	0.10	mg/kg dry	2025-01-29	
Magnesium	**1280**	10	mg/kg dry	2025-01-29	
Manganese	**47.2**	0.40	mg/kg dry	2025-01-29	
Mercury	**0.210**	0.040	mg/kg dry	2025-01-29	
Molybdenum	**2.92**	0.10	mg/kg dry	2025-01-29	
Nickel	**7.83**	0.60	mg/kg dry	2025-01-29	
Phosphorus	**5010**	10	mg/kg dry	2025-01-29	
Potassium	**1230**	40	mg/kg dry	2025-01-29	
Selenium	**1.43**	0.20	mg/kg dry	2025-01-29	
Silver	**0.78**	0.10	mg/kg dry	2025-01-29	
Sodium	**819**	50	mg/kg dry	2025-01-29	
Strontium	**28.0**	0.20	mg/kg dry	2025-01-29	
Sulfur	**1960**	1000	mg/kg dry	2025-01-29	
Tellurium	< 0.10	0.10	mg/kg dry	2025-01-29	
Thallium	< 0.10	0.10	mg/kg dry	2025-01-29	
Thorium	< 0.50	0.50	mg/kg dry	2025-01-29	
Tin	**9.44**	0.20	mg/kg dry	2025-01-29	
Titanium	**44.4**	1.0	mg/kg dry	2025-01-29	
Tungsten	**1.13**	0.20	mg/kg dry	2025-01-29	
Uranium	**1.28**	0.050	mg/kg dry	2025-01-29	
Vanadium	**4.6**	1.0	mg/kg dry	2025-01-29	
Zinc	**249**	2.0	mg/kg dry	2025-01-29	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25A2220
PROJECT	Westside STP - Fermenter Sludge	**REPORTED**	2025-01-29 13:39

Analyte	Result	RL	Units	Analyzed	Qualifier
FERMENTER SLUDGE (25A2220-01) | Matrix: Soil | Sampled: 2025-01-22 08:35, Continued					
Strong Acid Leachable Metals, Continued					
Zirconium	< 2.0	2.0	mg/kg dry	2025-01-29	

Sample Qualifiers:

pH1 The ratio of water to soil was greater than 2:1 due to limited sample volume or matrix

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25G2582
PROJECT	Westside STP - DAF Sludge	**REPORTED**	2025-07-23 15:13

Analyte	Result	RL	Units	Analyzed	Qualifier
DAF SLUDGE (25G2582-01) | Matrix: Soil | Sampled: 2025-07-16 10:20					
General Parameters					
Moisture	**97.3**	1.0	% wet	2025-07-22	
Nitrogen, Total Kjeldahl	**16.2**	0.0004	% dry	2025-07-21	
pH (1:2 H2O Solution)	**6.71**	0.10	pH units	2025-07-23	
Solids, Total	**4.6**	0.1	% wet	2025-07-23	
Solids, Volatile	**81.2**	0.1	% dry	2025-07-23	
Strong Acid Leachable Metals					
Aluminum	**11900**	40	mg/kg dry	2025-07-23	
Antimony	**0.94**	0.10	mg/kg dry	2025-07-23	
Arsenic	**1.63**	0.30	mg/kg dry	2025-07-23	
Barium	**96.1**	1.0	mg/kg dry	2025-07-23	
Beryllium	< 0.10	0.10	mg/kg dry	2025-07-23	
Bismuth	**21.4**	0.10	mg/kg dry	2025-07-23	
Boron	**19.8**	2.0	mg/kg dry	2025-07-23	
Cadmium	**0.551**	0.040	mg/kg dry	2025-07-23	
Calcium	**12100**	100	mg/kg dry	2025-07-23	
Chromium	**7.6**	1.0	mg/kg dry	2025-07-23	
Cobalt	**1.27**	0.10	mg/kg dry	2025-07-23	
Copper	**348**	0.40	mg/kg dry	2025-07-23	
Iron	**1820**	20.0	mg/kg dry	2025-07-23	
Lead	**3.89**	0.20	mg/kg dry	2025-07-23	
Lithium	**0.62**	0.10	mg/kg dry	2025-07-23	
Magnesium	**8180**	10	mg/kg dry	2025-07-23	
Manganese	**180**	0.40	mg/kg dry	2025-07-23	
Mercury	**0.177**	0.040	mg/kg dry	2025-07-23	
Molybdenum	**7.90**	0.10	mg/kg dry	2025-07-23	
Nickel	**7.28**	0.60	mg/kg dry	2025-07-23	
Phosphorus	**39100**	10	mg/kg dry	2025-07-23	
Potassium	**12000**	40	mg/kg dry	2025-07-23	
Selenium	**3.11**	0.20	mg/kg dry	2025-07-23	
Silver	**1.17**	0.10	mg/kg dry	2025-07-23	
Sodium	**1800**	50	mg/kg dry	2025-07-23	
Strontium	**92.3**	0.20	mg/kg dry	2025-07-23	
Sulfur	**5770**	1000	mg/kg dry	2025-07-23	
Tellurium	< 0.10	0.10	mg/kg dry	2025-07-23	
Thallium	< 0.10	0.10	mg/kg dry	2025-07-23	
Thorium	< 0.50	0.50	mg/kg dry	2025-07-23	
Tin	**14.1**	0.20	mg/kg dry	2025-07-23	
Titanium	**39.4**	1.0	mg/kg dry	2025-07-23	
Tungsten	**0.58**	0.20	mg/kg dry	2025-07-23	
Uranium	**6.55**	0.050	mg/kg dry	2025-07-23	
Vanadium	**4.9**	1.0	mg/kg dry	2025-07-23	
Zinc	**377**	2.0	mg/kg dry	2025-07-23	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25G2582
PROJECT	Westside STP - DAF Sludge	**REPORTED**	2025-07-23 15:13

Analyte	Result	RL	Units	Analyzed	Qualifier
DAF SLUDGE (25G2582-01) | Matrix: Soil | Sampled: 2025-07-16 10:20, Continued					
Strong Acid Leachable Metals, Continued					
Zirconium	**24.6**	2.0	mg/kg dry	2025-07-23	

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25G2583
PROJECT	Westside STP - Fermenter Sludge	**REPORTED**	2025-07-23 15:13

Analyte	Result	RL	Units	Analyzed	Qualifier
FERMENTER SLUDGE (25G2583-01) | Matrix: Soil | Sampled: 2025-07-16 10:30					
General Parameters					
Moisture	**96.1**	1.0	% wet	2025-07-22	
Nitrogen, Total Kjeldahl	**12.3**	0.0004	% dry	2025-07-21	
pH (1:2 H2O Solution)	**5.43**	0.10	pH units	2025-07-23	
Solids, Total	**7.6**	0.1	% wet	2025-07-23	
Solids, Volatile	**88.9**	0.1	% dry	2025-07-23	
Strong Acid Leachable Metals					
Aluminum	**13600**	40	mg/kg dry	2025-07-23	
Antimony	**1.11**	0.10	mg/kg dry	2025-07-23	
Arsenic	**2.46**	0.30	mg/kg dry	2025-07-23	
Barium	**61.5**	1.0	mg/kg dry	2025-07-23	
Beryllium	< 0.10	0.10	mg/kg dry	2025-07-23	
Bismuth	**18.8**	0.10	mg/kg dry	2025-07-23	
Boron	**12.1**	2.0	mg/kg dry	2025-07-23	
Cadmium	**0.516**	0.040	mg/kg dry	2025-07-23	
Calcium	**11900**	100	mg/kg dry	2025-07-23	
Chromium	**20.8**	1.0	mg/kg dry	2025-07-23	
Cobalt	**1.37**	0.10	mg/kg dry	2025-07-23	
Copper	**258**	0.40	mg/kg dry	2025-07-23	
Iron	**1760**	20.0	mg/kg dry	2025-07-23	
Lead	**7.22**	0.20	mg/kg dry	2025-07-23	
Lithium	**0.91**	0.10	mg/kg dry	2025-07-23	
Magnesium	**2000**	10	mg/kg dry	2025-07-23	
Manganese	**52.8**	0.40	mg/kg dry	2025-07-23	
Mercury	**0.250**	0.040	mg/kg dry	2025-07-23	
Molybdenum	**6.88**	0.10	mg/kg dry	2025-07-23	
Nickel	**14.1**	0.60	mg/kg dry	2025-07-23	
Phosphorus	**12100**	10	mg/kg dry	2025-07-23	
Potassium	**2030**	40	mg/kg dry	2025-07-23	
Selenium	**2.40**	0.20	mg/kg dry	2025-07-23	
Silver	**1.07**	0.10	mg/kg dry	2025-07-23	
Sodium	**1690**	50	mg/kg dry	2025-07-23	
Strontium	**48.5**	0.20	mg/kg dry	2025-07-23	
Sulfur	**4800**	1000	mg/kg dry	2025-07-23	
Tellurium	< 0.10	0.10	mg/kg dry	2025-07-23	
Thallium	< 0.10	0.10	mg/kg dry	2025-07-23	
Thorium	< 0.50	0.50	mg/kg dry	2025-07-23	
Tin	**15.6**	0.20	mg/kg dry	2025-07-23	
Titanium	**44.9**	1.0	mg/kg dry	2025-07-23	
Tungsten	**0.96**	0.20	mg/kg dry	2025-07-23	
Uranium	**4.45**	0.050	mg/kg dry	2025-07-23	
Vanadium	**6.7**	1.0	mg/kg dry	2025-07-23	
Zinc	**447**	2.0	mg/kg dry	2025-07-23	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25G2583
PROJECT	Westside STP - Fermenter Sludge	**REPORTED**	2025-07-23 15:13

Analyte	Result	RL	Units	Analyzed	Qualifier
FERMENTER SLUDGE (25G2583-01) | Matrix: Soil | Sampled: 2025-07-16 10:30, Continued					
Strong Acid Leachable Metals, Continued					
Zirconium	**14.6**	2.0	mg/kg dry	2025-07-23	

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25A0656
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-01-15 15:07

Analyte	Result	RL	Units	Analyzed	Qualifier
OUTFALL comp, E104954 (25A0656-01) | Matrix: Wastewater | Sampled: 2025-01-08 08:00					
Anions					
Nitrate (as N)	**7.78**	0.010	mg/L	2025-01-09	
Nitrite (as N)	**0.448**	0.010	mg/L	2025-01-09	
Calculated Parameters					
Nitrate+Nitrite (as N)	**8.23**	0.0100	mg/L	N/A	
General Parameters					
Ammonia, Total (as N)	**0.575**	0.050	mg/L	2025-01-13	
BOD, 5-day Carbonaceous	**1.7**	2.0	mg/L	2025-01-14	
Chemical Oxygen Demand	**22**	20	mg/L	2025-01-10	
Nitrogen, Total Kjeldahl	**2.32**	0.050	mg/L	2025-01-13	
pH	**7.82**	0.10	pH units	2025-01-09	HT2
Phosphorus, Total (as P)	**0.162**	0.0050	mg/L	2025-01-13	
Phosphorus, Dissolved Reactive	**0.0500**	0.0050	mg/L	2025-01-09	
Solids, Total Suspended	< 2.0	2.0	mg/L	2025-01-09	
Microbiological Parameters					
Coliforms, Fecal (Q-Tray)	**3**	1	MPN/100 mL	2025-01-09	
E. coli (Q-Tray)	**1**	1	MPN/100 mL	2025-01-09	

Sample Qualifiers:

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

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25A2224
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-01-28 12:19

Analyte	Result	RL	Units	Analyzed	Qualifier
OUTFALL COMP (25A2224-01) | Matrix: Wastewater | Sampled: 2025-01-22 08:00					
General Parameters					
BOD, 5-day Carbonaceous	**2.5**	2.0	mg/L	2025-01-28	
Chemical Oxygen Demand	**36**	20	mg/L	2025-01-24	
Nitrogen, Total Kjeldahl	**1.92**	0.050	mg/L	2025-01-27	
pH	**7.57**	0.10	pH units	2025-01-23	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2025-01-27	

Sample Qualifiers:

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

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25C0604
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-03-12 15:41

Analyte	Result	RL	Units	Analyzed	Qualifier
OUTFALL comp, E104954 (25C0604-01) | Matrix: Wastewater | Sampled: 2025-03-05 07:15					
Anions					
Nitrate (as N)	**6.01**	0.010	mg/L	2025-03-06	
Nitrite (as N)	**0.739**	0.010	mg/L	2025-03-06	
Calculated Parameters					
Nitrate+Nitrite (as N)	**6.75**	0.0100	mg/L	N/A	
General Parameters					
Ammonia, Total (as N)	**0.858**	0.050	mg/L	2025-03-12	
BOD, 5-day Carbonaceous	**2.0**	8.0	mg/L	2025-03-12	
Chemical Oxygen Demand	**42**	20	mg/L	2025-03-12	
Nitrogen, Total Kjeldahl	**2.58**	0.050	mg/L	2025-03-11	
Phosphorus, Total (as P)	**0.416**	0.0050	mg/L	2025-03-07	
Phosphorus, Dissolved Reactive	**0.220**	0.0050	mg/L	2025-03-07	
Solids, Total Suspended	**2.6**	2.0	mg/L	2025-03-10	
Microbiological Parameters					
Coliforms, Fecal (Q-Tray)	**1**	1	MPN/100 mL	2025-03-06	
E. coli (Q-Tray)	**1**	1	MPN/100 mL	2025-03-06	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25C2432
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-03-26 13:31

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall comp (25C2432-01) | Matrix: Wastewater | Sampled: 2025-03-19 07:30					
General Parameters					
BOD, 5-day Carbonaceous	**3.6**	8.0	mg/L	2025-03-26	
Chemical Oxygen Demand	**48**	20	mg/L	2025-03-21	
Nitrogen, Total Kjeldahl	**2.15**	0.050	mg/L	2025-03-25	
pH	**7.68**	0.10	pH units	2025-03-20	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2025-03-25	

Sample Qualifiers:

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

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E1073
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-05-14 13:31

Analyte	Result	RL	Units	Analyzed	Qualifier
OUTFALL comp, E104954 (25E1073-01) | Matrix: Wastewater | Sampled: 2025-05-07 07:30					
Anions					
Nitrate (as N)	**4.91**	0.010	mg/L	2025-05-09	
Nitrite (as N)	**0.121**	0.010	mg/L	2025-05-09	
Calculated Parameters					
Nitrate+Nitrite (as N)	**5.04**	0.0100	mg/L	N/A	
General Parameters					
Ammonia, Total (as N)	**0.825**	0.050	mg/L	2025-05-09	
BOD, 5-day Carbonaceous	< 2.0	8.0	mg/L	2025-05-13	
Chemical Oxygen Demand	**33**	20	mg/L	2025-05-10	
Nitrogen, Total Kjeldahl	**2.24**	0.050	mg/L	2025-05-12	
Phosphorus, Total (as P)	**0.170**	0.0050	mg/L	2025-05-12	
Phosphorus, Dissolved Reactive	**0.0106**	0.0050	mg/L	2025-05-10	
Solids, Total Suspended	< 2.0	2.0	mg/L	2025-05-12	
Microbiological Parameters					
Coliforms, Fecal (Q-Tray)	< 1	1	MPN/100 mL	2025-05-08	
E. coli (Q-Tray)	< 1	1	MPN/100 mL	2025-05-08	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E2503
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-05-27 12:54

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25E2503-01) | Matrix: Wastewater | Sampled: 2025-05-20 08:00					PRES
General Parameters					
BOD, 5-day Carbonaceous	< 2.0	8.0	mg/L	2025-05-27	
Chemical Oxygen Demand	**37**	20	mg/L	2025-05-23	
Nitrogen, Total Kjeldahl	**1.64**	0.050	mg/L	2025-05-27	
pH	**7.80**	0.10	pH units	2025-05-23	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2025-05-26	

Sample Qualifiers:

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

PRES Sample has been preserved for TKN and COD in the laboratory and the holding time has been extended.

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25G0424
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-07-09 13:21

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25G0424-01) | Matrix: Wastewater | Sampled: 2025-07-02 07:15					
General Parameters					
BOD, 5-day Carbonaceous	< 2.0	8.0	mg/L	2025-07-09	
Chemical Oxygen Demand	**28**	20	mg/L	2025-07-05	
Nitrogen, Total Kjeldahl	**2.85**	0.050	mg/L	2025-07-08	
pH	**7.82**	0.10	pH units	2025-07-05	HT2
Solids, Total Suspended	< 2.0	2.0	mg/L	2025-07-04	

Sample Qualifiers:

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

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25G2508
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-07-23 15:42

Analyte	Result	RL	Units	Analyzed	Qualifier
OUTFALL comp, E104954 (25G2508-01) | Matrix: Wastewater | Sampled: 2025-07-16 07:15					
Anions					
Nitrate (as N)	**3.57**	0.010	mg/L	2025-07-18	
Nitrite (as N)	**0.083**	0.010	mg/L	2025-07-18	
Calculated Parameters					
Nitrate+Nitrite (as N)	**3.65**	0.0100	mg/L	N/A	
General Parameters					
Ammonia, Total (as N)	**0.221**	0.050	mg/L	2025-07-23	
BOD, 5-day Carbonaceous	**2.3**	8.0	mg/L	2025-07-23	
Chemical Oxygen Demand	**27**	20	mg/L	2025-07-22	
Nitrogen, Total Kjeldahl	**1.96**	0.050	mg/L	2025-07-22	
Phosphorus, Total (as P)	**0.179**	0.0050	mg/L	2025-07-23	
Phosphorus, Dissolved Reactive	**0.0680**	0.0050	mg/L	2025-07-18	
Solids, Total Suspended	**2.8**	2.0	mg/L	2025-07-18	
Microbiological Parameters					
Coliforms, Fecal (Q-Tray)	< 1	1	MPN/100 mL	2025-07-17	
E. coli (Q-Tray)	< 1	1	MPN/100 mL	2025-07-17	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25I0482
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-09-11 14:28

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25I0482-01) | Matrix: Wastewater | Sampled: 2025-09-03					F2, F3
Anions					
Nitrate (as N)	**3.23**	0.010	mg/L	2025-09-04	
Nitrite (as N)	**0.066**	0.010	mg/L	2025-09-04	
Calculated Parameters					
Nitrate+Nitrite (as N)	**3.30**	0.0100	mg/L	N/A	
General Parameters					
Ammonia, Total (as N)	**0.282**	0.050	mg/L	2025-09-06	
BOD, 5-day Carbonaceous	< 2.0	8.0	mg/L	2025-09-10	
Chemical Oxygen Demand	**53**	20	mg/L	2025-09-10	
Nitrogen, Total Kjeldahl	**1.67**	0.050	mg/L	2025-09-10	
pH	**7.48**	0.10	pH units	2025-09-06	HT2
Phosphorus, Total (as P)	**0.153**	0.0050	mg/L	2025-09-05	
Phosphorus, Dissolved Reactive	**0.0681**	0.0050	mg/L	2025-09-05	
Solids, Total Suspended	< 2.0	2.0	mg/L	2025-09-10	
Microbiological Parameters					
Coliforms, Fecal (Q-Tray)	< 1	1	MPN/100 mL	2025-09-04	HT4
E. coli (Q-Tray)	< 1	1	MPN/100 mL	2025-09-04	HT4
Total Metals					
Mercury, total	< 0.000040	0.000040	mg/L	2025-09-08	HG1

Sample Qualifiers:

F2	The sample was not field-preserved with HNO3 and was therefore preserved in the laboratory and held for at least 16 hours prior to analysis for total metals.
F3	Results may be biased low due to sub-sampling from general container.
HG1	Sample bottle and preservation submitted is not suitable for Mercury analysis and analyte stability may be affected.
HT2	The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.
HT4	The collection date and/or time was not provided. Therefore holding time exceedances cannot be properly identified.

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25I2559
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-09-25 16:55

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25I2559-01) | Matrix: Wastewater | Sampled: 2025-09-17 08:00					
General Parameters					
BOD, 5-day Carbonaceous	< 2.0	8.0	mg/L	2025-09-24	
Chemical Oxygen Demand	**21**	20	mg/L	2025-09-23	
Nitrogen, Total Kjeldahl	**1.44**	0.050	mg/L	2025-09-23	
pH	**7.15**	0.10	pH units	2025-09-25	HT2
Solids, Total Suspended	**2.4**	1.8	mg/L	2025-09-23	

Sample Qualifiers:

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

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25A0157
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-01-07 08:42

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall comp (25A0157-01) | Matrix: Wastewater | Sampled: 2025-01-03 08:00					
General Parameters					
Nitrogen, Total Kjeldahl	**2.98**	0.050	mg/L	2025-01-06	
Outfall comp (25A0157-02) | Matrix: Wastewater | Sampled: 2024-12-25 08:00					
General Parameters					
Nitrogen, Total Kjeldahl	**2.40**	0.050	mg/L	2025-01-06	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25A1533
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-01-21 10:38

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25A1533-01) | Matrix: Wastewater | Sampled: 2025-01-15					
General Parameters					
Nitrogen, Total Kjeldahl	**1.91**	0.050	mg/L	2025-01-20	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25A3167
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-02-05 10:47

Analyte	Result	RL	Units	Analyzed	Qualifier
OUTFALL COMP (25A3167-01) | Matrix: Wastewater | Sampled: 2025-01-28 08:00					
General Parameters					
Nitrogen, Total Kjeldahl	**2.25**	0.050	mg/L	2025-02-05	
OUTFALL COMP (25A3167-02) | Matrix: Wastewater | Sampled: 2025-01-29 07:15					
General Parameters					
Nitrogen, Total Kjeldahl	**2.39**	0.050	mg/L	2025-02-05	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25B1538
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-02-20 11:40

Analyte	Result	RL	Units	Analyzed	Qualifier
Final Effluent Comp (25B1538-01) | Matrix: Wastewater | Sampled: 2025-02-12 08:00					
General Parameters					
Nitrogen, Total Kjeldahl	**1.98**	0.050	mg/L	2025-02-20	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25B2705
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-03-04 09:56

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25B2705-01) | Matrix: Wastewater | Sampled: 2025-02-26 07:30					
General Parameters					
Nitrogen, Total Kjeldahl	**2.26**	0.050	mg/L	2025-03-04	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25C1615
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-03-18 10:18

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall comp (25C1615-01) | Matrix: Wastewater | Sampled: 2025-03-12 07:00					
General Parameters					
Nitrogen, Total Kjeldahl	**2.26**	0.050	mg/L	2025-03-18	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25C3221
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-04-02 10:21

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall comp (25C3221-01) | Matrix: Wastewater | Sampled: 2025-03-26 08:00					
General Parameters					
Nitrogen, Total Kjeldahl	**2.34**	0.050	mg/L	2025-04-02	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25D2451
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-04-24 10:17

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall comp (25D2451-01) | Matrix: Wastewater | Sampled: 2025-04-10 08:00					
General Parameters					
Nitrogen, Total Kjeldahl	**2.20**	0.050	mg/L	2025-04-24	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25D3433
PROJECT	WRWWTP	**REPORTED**	2025-05-03 13:25

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25D3433-01) | Matrix: Water | Sampled: 2025-04-24 11:00					
General Parameters					
Nitrogen, Total Kjeldahl	**2.19**	0.050	mg/L	2025-05-03	
Raw Influent Comp (25D3433-02) | Matrix: Water | Sampled: 2025-04-24 11:10					
General Parameters					
Nitrogen, Total Kjeldahl	**54.0**	0.050	mg/L	2025-05-03	
Primary Effluent Grab (25D3433-03) | Matrix: Water | Sampled: 2025-04-24 11:05					
General Parameters					
Nitrogen, Total Kjeldahl	**60.9**	0.050	mg/L	2025-05-03	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0132
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-05-08 17:04

Analyte	Result	RL	Units	Analyzed	Qualifier
OUTFALL COMP (25E0132-01) | Matrix: Wastewater | Sampled: 2025-04-28 08:10					
General Parameters					
Nitrogen, Total Kjeldahl	**2.59**	0.050	mg/L	2025-05-06	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E1967
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-05-21 10:36

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25E1967-01) | Matrix: Wastewater | Sampled: 2025-05-14 08:07					
General Parameters					
Nitrogen, Total Kjeldahl	**2.01**	0.050	mg/L	2025-05-17	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E3982
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-06-05 12:11

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25E3982-01) | Matrix: Wastewater | Sampled: 2025-05-28 08:30					
General Parameters					
Nitrogen, Total Kjeldahl	**1.42**	0.050	mg/L	2025-06-05	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25F3927
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-07-04 16:34

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25F3927-01) | Matrix: Wastewater | Sampled: 2025-06-25 08:00					
General Parameters					
Nitrogen, Total Kjeldahl	**1.55**	0.050	mg/L	2025-07-04	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25G1703
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-07-17 10:04

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25G1703-01) | Matrix: Wastewater | Sampled: 2025-07-07 08:15					
General Parameters					
Nitrogen, Total Kjeldahl	**2.73**	0.050	mg/L	2025-07-17	
Outfall Comp (25G1703-02) | Matrix: Wastewater | Sampled: 2025-07-08 08:05					
General Parameters					
Nitrogen, Total Kjeldahl	**2.17**	0.050	mg/L	2025-07-17	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25G3584
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-07-29 13:57

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25G3584-01) | Matrix: Wastewater | Sampled: 2025-07-23 08:10					
General Parameters					
Nitrogen, Total Kjeldahl	**1.86**	0.050	mg/L	2025-07-29	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25G4283
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-08-06 16:43

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25G4283-01) | Matrix: Wastewater | Sampled: 2025-07-30 07:15					
General Parameters					
Nitrogen, Total Kjeldahl	**1.57**	0.050	mg/L	2025-08-06	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25H2176
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-08-22 11:11

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25H2176-01) | Matrix: Wastewater | Sampled: 2025-08-11 08:00					
General Parameters					
Nitrogen, Total Kjeldahl	**1.39**	0.050	mg/L	2025-08-22	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25H4235
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-09-08 10:39

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25H4235-01) | Matrix: Wastewater | Sampled: 2025-08-27 07:15					
General Parameters					
Nitrogen, Total Kjeldahl	**1.84**	0.050	mg/L	2025-09-06	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25I1626
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-09-16 12:47

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25I1626-01) | Matrix: Wastewater | Sampled: 2025-09-10 07:10					
General Parameters					
Nitrogen, Total Kjeldahl	**1.62**	0.050	mg/L	2025-09-16	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25I3904
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-10-07 16:58

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25I3904-01) | Matrix: Wastewater | Sampled: 2025-09-24 06:55					
General Parameters					
Nitrogen, Total Kjeldahl	**1.84**	0.050	mg/L	2025-10-04	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25J3211
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-10-29 17:26

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25J3211-01) | Matrix: Wastewater | Sampled: 2025-10-22 07:15					
General Parameters					
Nitrogen, Total Kjeldahl	**2.31**	0.050	mg/L	2025-10-25	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25J4102
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-11-05 17:04

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25J4102-01) | Matrix: Wastewater | Sampled: 2025-10-23 08:15					
General Parameters					
Nitrogen, Total Kjeldahl	**2.50**	0.050	mg/L	2025-11-04	
Outfall Comp (25J4102-02) | Matrix: Wastewater | Sampled: 2025-10-24 08:15					
General Parameters					
Nitrogen, Total Kjeldahl	**2.36**	0.050	mg/L	2025-11-04	
Outfall Comp (25J4102-03) | Matrix: Wastewater | Sampled: 2025-10-29 08:15					
General Parameters					
Nitrogen, Total Kjeldahl	**3.03**	0.050	mg/L	2025-11-04	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K2369
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-11-25 11:43

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25K2369-01) | Matrix: Wastewater | Sampled: 2025-11-13 11:19					
General Parameters					
Nitrogen, Total Kjeldahl	**1.76**	0.050	mg/L	2025-11-25	
Outfall Comp (25K2369-02) | Matrix: Wastewater | Sampled: 2025-11-14 08:15					
General Parameters					
Nitrogen, Total Kjeldahl	**1.92**	0.050	mg/L	2025-11-25	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K2369
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-11-25 11:43

Analysis Description	Method Ref.	Technique	Accredited	Location
Nitrogen, Total Kjeldahl in Water	SM 4500-Norg D* (2021)	Block Digestion and Flow Injection Analysis	✓	Kelowna

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

Glossary of Terms:

RL	Reporting Limit (default)
mg/L	Milligrams per litre
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to samples received by CARO and analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety and must not be modified. CARO is not responsible for losses or damages resulting directly or indirectly from errors or omissions in the conduct of the testing. Any liability is limited to the cost of analysis. CARO will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: {@Email}

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K3233
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-12-03 14:42

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25K3233-01) | Matrix: Wastewater | Sampled: 2025-11-25 07:45					
General Parameters					
Nitrogen, Total Kjeldahl	**1.73**	0.050	mg/L	2025-12-02	
Outfall Comp (25K3233-02) | Matrix: Wastewater | Sampled: 2025-11-26 08:00					
General Parameters					
Nitrogen, Total Kjeldahl	**3.24**	0.050	mg/L	2025-12-02	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25L1471
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-12-17 16:18

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall comp (25L1471-01) | Matrix: Wastewater | Sampled: 2025-12-08 08:00					
General Parameters					
Nitrogen, Total Kjeldahl	**2.36**	0.050	mg/L	2025-12-15	
Outfall comp (25L1471-02) | Matrix: Wastewater | Sampled: 2025-12-09 08:15					
General Parameters					
Nitrogen, Total Kjeldahl	**1.88**	0.050	mg/L	2025-12-15	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25L1859
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-12-22 17:10

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25L1859-01) | Matrix: Wastewater | Sampled: 2025-12-11 10:52					
General Parameters					
Nitrogen, Total Kjeldahl	**1.88**	0.050	mg/L	2025-12-18	
Outfall Comp (25L1859-02) | Matrix: Wastewater | Sampled: 2025-12-12 07:15					
General Parameters					
Nitrogen, Total Kjeldahl	**1.72**	0.050	mg/L	2025-12-18	
Outfall Comp (25L1859-03) | Matrix: Wastewater | Sampled: 2025-12-15 08:00					
General Parameters					
Nitrogen, Total Kjeldahl	**2.43**	0.050	mg/L	2025-12-18	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25L2665
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2025-12-31 12:48

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25L2665-01) | Matrix: Wastewater | Sampled: 2025-12-17 07:15					
General Parameters					
Nitrogen, Total Kjeldahl	**1.82**	0.050	mg/L	2025-12-24	
Outfall Comp (25L2665-02) | Matrix: Wastewater | Sampled: 2025-12-18 10:30					
General Parameters					
Nitrogen, Total Kjeldahl	**1.80**	0.050	mg/L	2025-12-24	
Outfall Comp (25L2665-03) | Matrix: Wastewater | Sampled: 2025-12-19 07:00					
General Parameters					
Nitrogen, Total Kjeldahl	**1.85**	0.050	mg/L	2025-12-24	
Outfall Comp (25L2665-04) | Matrix: Wastewater | Sampled: 2025-12-22 08:15					
General Parameters					
Nitrogen, Total Kjeldahl	**3.37**	0.050	mg/L	2025-12-24	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25L3117
PROJECT	Westside STP - Outfall Comp.- PE11652	**REPORTED**	2026-01-07 16:54

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25L3117-01) | Matrix: Wastewater | Sampled: 2025-12-23 07:15					
General Parameters					
Nitrogen, Total Kjeldahl	**1.79**	0.050	mg/L	2026-01-05	
Outfall Comp (25L3117-02) | Matrix: Wastewater | Sampled: 2025-12-25 09:30					
General Parameters					
Nitrogen, Total Kjeldahl	**2.71**	0.050	mg/L	2026-01-05	
Outfall Comp (25L3117-03) | Matrix: Wastewater | Sampled: 2025-12-29 07:15					
General Parameters					
Nitrogen, Total Kjeldahl	**3.67**	0.050	mg/L	2026-01-05	
Outfall Comp (25L3117-04) | Matrix: Wastewater | Sampled: 2025-12-30 08:15					
General Parameters					
Nitrogen, Total Kjeldahl	**2.98**	0.050	mg/L	2026-01-05	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0866
PROJECT	WRWTP - Toxicity	**REPORTED**	2025-05-14 13:44

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WWTP Effluent (25E0866-01) | Matrix: Water | Sampled: 2025-05-05 08:00						
Oncorhynchus mykiss Bioassay						
LC50, 96 h Trout	**>100**	N/A	0.0001	% v/v	2025-05-11	TOX

Sample Qualifiers:

TOX Please refer to the Appendix for the full Toxicity Report

CARO Edmonton
Trout MD Bioassay Final Report

Work Order: 25E0866-01

Client:	Regional District of Central Okanagan
Project:	WRWTP - Toxicity
Attention:	Angela Lambrecht

1. SAMPLE INFORMATION

Sample Origin:	Regional District of Central Okanagan KELOWNA, BC
Sample Type:	Effluent
Sample Description:	WWTP Effluent
Sampling Date & Time:	5-May-2025 @ 8:00
Sampling Method:	Grab
Sampled by:	Client

2.TEST INFORMATION

Laboratory Name:	CARO Analytical Services
Address:	17225 109 Avenue NW Edmonton, AB T5S 1H7
Test Organism:	Oncorhynchus mykiss
Test Description:	Acute, 96-Hour, Static, Multi-concentration
Test Method:	CE-TM-027
Reference Method:	Biological Test Method : Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout, 2000. Environment Canada, EPS 1/RM/13, 2nd Ed., (Including May 2007 ammendments)
Analyst Name:	Moses Durowoju
Start of Test Date:	7-May-2025
Dilution Water:	Dechlorinated City of Edmonton tap water, acclimated to test conditions
Test Container:	25 L, Disposable Polyethylene Liner
Test Volume (L):	20
Test Depth:	33 cm
Test Organisms per Container:	10
Aeration of Test Solutions:	6.5 ± 1 mL/min per L
pH Adjustment:	The sample was not filtered or pH adjusted
Lighting	Full Spectrum Fluorescent Lights; 100-500 lux at the surface
Photoperiod:	16 Hours Light : 8 Hours Dark
Deviations from Reference Method:	None

CARO Edmonton

Trout MD Bioassay Final Report

Work Order: 25E0866-01

3. RECEIPT CONDITION

Container Description:	20 L HDPE carboy	Qty:	2	Volume (L):	60
Receipt Date & Time:	7-May-2025	@	9:00		
Transit Irregularities:	None				

Observations:

Colour:	Pale Yellow
Odour:	None
Turbidity:	Low
Settleable Solids:	None

Measured Parameters:			Meter AINs	Probe AINs
Temperature:	16.1	°C	CE-359	CE-358
pH:	7.01		CE-359	CE-357
Conductivity:	541	µmhos/cm	CE-359	CE-358
Dissolved Oxygen:	8.45	mg/L	CE-359	CE-356
Dissolved Oxygen:	97.6	%Sat	CE-359	CE-356
Hardness:	N/A	mg/L $CaCO_3$	N/A	N/A

4. PRE-AERATION

Duration at 6.5 ± 1 mL/min/L:	30	mins		
Test Concentration (V/V):	100%		0%	
Before Pre-Aeration:				
Dissolved Oxygen:	8.45	mg/L	8.74	mg/L
Air Saturation:	98	%	97	%
After Pre-Aeration:				
Dissolved Oxygen:	8.84	mg/L	9.02	mg/L
Air Saturation:	99	%	99	%

5. TEST ORGANISM DATA

Lot Number:	OM-250416
Weekly Mortality:	0.00
Organism/Container:	10
Loading Density:	0.22
Average Wet Weight (g)	0.44
StDev Wet Weight (g)	0.13
Average Fork Length (cm)	3.8
StDev Fork Length (cm)	0.4

Fish #	Wet Weight (g)	Fork Length (cm)
1	0.70	4.5
2	0.28	3.5
3	0.31	3.5
4	0.46	4.0
5	0.56	4.2
6	0.39	3.8
7	0.39	3.5
8	0.38	3.5
9	0.37	3.5
10	0.52	4.2

CARO ANALYTICAL SERVICES

CARO Edmonton

Trout MD Bioassay Final Report

Work Order: 25E0866-01

6. TEST DATA

Sample Concentration (% V/V)	100	50	25	12.5	6.25	0
0 Hours Time: 13:39 Analyst: MD						
Temperature (°C)	16	16	16	16	16	16
pH	7.2	7.3	7.4	7.5	7.6	7.6
Conductivity (µmhos/cm)	525	439	397	375	362	354
Dissolved Oxygen (mg/L)	8.8	8.9	9.1	9.1	9.4	9.0
24 Hours Time: 13:47 Analyst: MD						
Stressed (Qty)	0	0	0	0	0	0
Mortality (Qty)	0	0	0	0	0	0
48 Hours Time: 14:10 Analyst: MD						
Stressed (Qty)	0	0	0	0	0	0
Mortality (Qty)	0	0	0	0	0	0
72 Hours Time: 12:45 Analyst: RM						
Stressed (Qty)	0	0	0	0	0	0
Mortality (Qty)	0	0	0	0	0	0
96 Hours Time: 13:52 Analyst: QHZ						
Stressed (Qty)	0	0	0	0	0	0
Mortality (Qty)	0	0	0	0	0	0
Temperature (°C)	16	15	15	15	15	15
pH	7.9	8.0	8.1	8.0	8.1	8.1
Conductivity (µmhos/cm)	519	437	396	372	363	357
Dissolved Oxygen (mg/L)	9.5	9.7	9.8	9.8	10.2	10.3

7. SUBLETHAL BIOLOGICAL EFFECTS

Sample Concentration (%)	Time Observed (Hours)	Effect(s) Observed
		None

8. OBSERVATIONS & COMMENTS

None

CARO Edmonton

Trout MD Bioassay Final Report

Work Order: 25E0866-01

9. RESULTS

96- Hour LC_{50} V/V (%):	>100	%
95% Lower Confidence Interval:	N/A	%
95% Upper Confidence Interval:	N/A	%
Method of Calculation:	N/A	
Confirmed by Graph:	N/A	

10. LABORATORY QC DATA

Reference Toxicant:	Phenol
Test Starting Date:	30-Apr-2025
96 Hour LC_{50} (mg/L):	9.62
95% Lower Confidence Interval:	8.53
95% Upper Confidence Interval:	10.85
Method of Calculation:	Untrimmed Spearman-Karber
Confirmed by Graph:	Yes
Historical Mean LC_{50} (mg/L):	8.41
95% Lower Confidence Interval:	6.74
95% Upper Confidence Interval:	10.50

Data Reviewed by: CDA Date: 14-May-2025

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25A0164
PROJECT	Westside STP - Raw Influent- PE11652	**REPORTED**	2025-01-07 09:27

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25A0164-01) | Matrix: Water | Sampled: 2025-01-03 08:15					
General Parameters					
Nitrogen, Total Kjeldahl	**52.6**	0.050	mg/L	2025-01-07	

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25A0657
PROJECT	Westside STP - Raw Influent- PE11652	**REPORTED**	2025-01-15 13:10

Analyte	Result	RL	Units	Analyzed	Qualifier
RAW INFL COMP, E222796 (25A0657-01) | Matrix: Water | Sampled: 2025-01-08 08:10					
Anions					
Nitrate+Nitrite (as N)	**0.0094**	0.0050	mg/L	2025-01-10	
Nitrite (as N)	**0.0138**	0.0050	mg/L	2025-01-10	
Calculated Parameters					
Nitrate (as N)	< 0.0100	0.0100	mg/L	N/A	
General Parameters					
Ammonia, Total (as N)	**43.5**	0.050	mg/L	2025-01-13	
BOD, 5-day	**275**	2.0	mg/L	2025-01-15	
Nitrogen, Total Kjeldahl	**63.1**	0.050	mg/L	2025-01-13	
Phosphorus, Total (as P)	**6.84**	0.0050	mg/L	2025-01-13	
Phosphorus, Dissolved Reactive	**3.03**	0.0050	mg/L	2025-01-09	
Solids, Total Suspended	**312**	2.0	mg/L	2025-01-09	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25A1500
PROJECT	Westside STP - Raw Influent- PE11652	**REPORTED**	2025-01-17 11:32

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25A1500-01) | Matrix: Wastewater | Sampled: 2025-01-15 07:30					
General Parameters					
Nitrogen, Total Kjeldahl	**57.6**	0.050	mg/L	2025-01-17	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25A2226
PROJECT	Westside STP - Raw Influent- PE11652	**REPORTED**	2025-01-28 08:12

Analyte	Result	RL	Units	Analyzed	Qualifier
RAW INFLUENT COMP (25A2226-01) | Matrix: Water | Sampled: 2025-01-22 08:05					
General Parameters					
Nitrogen, Total Kjeldahl	**57.4**	0.050	mg/L	2025-01-27	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25A3168
PROJECT	Westside STP - Raw Influent- PE11652	**REPORTED**	2025-02-05 10:48

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25A3168-01) | Matrix: Water | Sampled: 2025-01-29 06:45					
General Parameters					
Nitrogen, Total Kjeldahl	**58.2**	0.050	mg/L	2025-02-05	

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25B1539
PROJECT	Westside STP - Raw Influent- PE11652	**REPORTED**	2025-02-20 11:41

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25B1539-01) | Matrix: Wastewater | Sampled: 2025-02-08 08:00					
General Parameters					
Nitrogen, Total Kjeldahl	**51.7**	0.050	mg/L	2025-02-20	
Raw Influent Comp (25B1539-02) | Matrix: Wastewater | Sampled: 2025-02-12 08:00					
General Parameters					
Nitrogen, Total Kjeldahl	**49.0**	0.050	mg/L	2025-02-20	
Primary Effluent Grab (25B1539-03) | Matrix: Wastewater | Sampled: 2025-02-12 08:00					
General Parameters					
Nitrogen, Total Kjeldahl	**41.5**	0.050	mg/L	2025-02-20	

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25B2707
PROJECT	Westside STP - Raw Influent- PE11652	**REPORTED**	2025-03-04 09:55

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25B2707-01) | Matrix: Wastewater | Sampled: 2025-02-25 07:45					
General Parameters					
Nitrogen, Total Kjeldahl	**55.8**	0.050	mg/L	2025-03-04	
Primary Effluent Grab (25B2707-02) | Matrix: Wastewater | Sampled: 2025-02-26 07:00					
General Parameters					
Nitrogen, Total Kjeldahl	**47.4**	0.050	mg/L	2025-03-04	

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25C0609
PROJECT	Westside STP - Raw Influent- PE11652	**REPORTED**	2025-03-13 08:25

Analyte	Result	RL	Units	Analyzed	Qualifier
RAW INFL COMP, E222796 (25C0609-01) | Matrix: Water | Sampled: 2025-03-05 07:00					
Anions					
Nitrate+Nitrite (as N)	**0.0190**	0.0050	mg/L	2025-03-12	
Nitrite (as N)	**0.0534**	0.0050	mg/L	2025-03-10	HT1
Calculated Parameters					
Nitrate (as N)	< 0.0100	0.0100	mg/L	N/A	
General Parameters					
Ammonia, Total (as N)	**37.2**	0.050	mg/L	2025-03-12	
BOD, 5-day	**197**	8.0	mg/L	2025-03-12	
Nitrogen, Total Kjeldahl	**51.6**	0.050	mg/L	2025-03-11	
Phosphorus, Total (as P)	**6.62**	0.0050	mg/L	2025-03-07	
Phosphorus, Dissolved Reactive	**3.39**	0.0050	mg/L	2025-03-08	
Solids, Total Suspended	**122**	2.0	mg/L	2025-03-10	

Sample Qualifiers:

HT1 The sample was prepared and/or analyzed past the recommended holding time.

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25C1616
PROJECT	Westside STP - Raw Influent- PE11652	**REPORTED**	2025-03-18 10:20

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25C1616-01) | Matrix: Wastewater | Sampled: 2025-03-12 06:45					
General Parameters					
Nitrogen, Total Kjeldahl	**55.8**	0.050	mg/L	2025-03-18	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25C2433
PROJECT	Westside STP - Raw Influent- PE11652	**REPORTED**	2025-03-25 15:08

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25C2433-01) | Matrix: Wastewater | Sampled: 2025-03-19 08:00					
General Parameters					
Nitrogen, Total Kjeldahl	**55.4**	0.050	mg/L	2025-03-25	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25C3222
PROJECT	Westside STP - Raw Influent- PE11652	**REPORTED**	2025-04-02 10:21

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25C3222-01) | Matrix: Wastewater | Sampled: 2025-03-26 08:05					
General Parameters					
Nitrogen, Total Kjeldahl	**114**	0.050	mg/L	2025-04-02	
Primary Effluent Grab (25C3222-02) | Matrix: Wastewater | Sampled: 2025-03-26 08:10					
General Parameters					
Nitrogen, Total Kjeldahl	**98.0**	0.050	mg/L	2025-04-02	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25C3222
PROJECT	Westside STP - Raw Influent- PE11652	**REPORTED**	2025-04-07 12:42

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25C3222-01) | Matrix: Wastewater | Sampled: 2025-03-26 08:05					
General Parameters					
Nitrogen, Total Kjeldahl	**114**	0.050	mg/L	2025-04-02	
Raw Influent Comp (25C3222-01RE1) | Matrix: Wastewater | Sampled: 2025-03-26 08:05					
General Parameters					
Nitrogen, Total Kjeldahl	**55.3**	0.050	mg/L	2025-04-05	
Primary Effluent Grab (25C3222-02) | Matrix: Wastewater | Sampled: 2025-03-26 08:10					
General Parameters					
Nitrogen, Total Kjeldahl	**98.0**	0.050	mg/L	2025-04-02	
Primary Effluent Grab (25C3222-02RE1) | Matrix: Wastewater | Sampled: 2025-03-26 08:10					
General Parameters					
Nitrogen, Total Kjeldahl	**71.7**	0.050	mg/L	2025-04-05	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25D2454
PROJECT	Westside STP - Raw Influent- PE11652	**REPORTED**	2025-04-24 10:18

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25D2454-01) | Matrix: Wastewater | Sampled: 2025-04-10 08:15					
General Parameters					
Nitrogen, Total Kjeldahl	**61.5**	0.050	mg/L	2025-04-24	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25D3433
PROJECT	WRWWTP	**REPORTED**	2025-05-03 13:25

Analyte	Result	RL	Units	Analyzed	Qualifier
Outfall Comp (25D3433-01) | Matrix: Water | Sampled: 2025-04-24 11:00					
General Parameters					
Nitrogen, Total Kjeldahl	**2.19**	0.050	mg/L	2025-05-03	
Raw Influent Comp (25D3433-02) | Matrix: Water | Sampled: 2025-04-24 11:10					
General Parameters					
Nitrogen, Total Kjeldahl	**54.0**	0.050	mg/L	2025-05-03	
Primary Effluent Grab (25D3433-03) | Matrix: Water | Sampled: 2025-04-24 11:05					
General Parameters					
Nitrogen, Total Kjeldahl	**60.9**	0.050	mg/L	2025-05-03	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0775
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-05-12 17:05

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25E0775-01) | Matrix: Water | Sampled: 2025-04-28 08:00					
General Parameters					
Nitrogen, Total Kjeldahl	**48.4**	0.050	mg/L	2025-05-07	

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E1076
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-05-14 15:03

Analyte	Result	RL	Units	Analyzed	Qualifier
RAW INFL COMP, E222796 (25E1076-01) | Matrix: Water | Sampled: 2025-05-07 07:40					
Anions					
Nitrate+Nitrite (as N)	**0.350**	0.0050	mg/L	2025-05-14	
Nitrite (as N)	**0.0161**	0.0050	mg/L	2025-05-14	
Calculated Parameters					
Nitrate (as N)	**0.333**	0.0100	mg/L	N/A	
General Parameters					
Ammonia, Total (as N)	**40.2**	0.050	mg/L	2025-05-09	
BOD, 5-day	**542**	8.0	mg/L	2025-05-13	
Nitrogen, Total Kjeldahl	**56.7**	0.050	mg/L	2025-05-12	
Phosphorus, Total (as P)	**7.37**	0.0050	mg/L	2025-05-12	
Phosphorus, Dissolved Reactive	**1.62**	0.0050	mg/L	2025-05-10	RE2
Solids, Total Suspended	**324**	2.0	mg/L	2025-05-12	

Sample Qualifiers:

RE2 Result was confirmed by re-analysis prior to reporting.

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E1966
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-05-21 10:32

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent comp (25E1966-01) | Matrix: Water | Sampled: 2025-05-14 08:05					
General Parameters					
Nitrogen, Total Kjeldahl	**58.2**	0.050	mg/L	2025-05-17	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E2504
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-05-27 09:46

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25E2504-01) | Matrix: Wastewater | Sampled: 2025-05-20 08:05					
General Parameters					
Nitrogen, Total Kjeldahl	**59.5**	0.050	mg/L	2025-05-27	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E3981
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-06-05 12:20

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25E3981-01) | Matrix: Wastewater | Sampled: 2025-05-28 08:00					
General Parameters					
Nitrogen, Total Kjeldahl	**60.4**	0.050	mg/L	2025-06-05	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25F3928
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-07-04 16:35

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25F3928-01) | Matrix: Wastewater | Sampled: 2025-06-25 08:00					
General Parameters					
Nitrogen, Total Kjeldahl	**61.3**	0.050	mg/L	2025-07-04	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25G0425
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-07-08 12:33

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25G0425-01) | Matrix: Wastewater | Sampled: 2025-07-03 07:00					
General Parameters					
Nitrogen, Total Kjeldahl	**68.7**	0.050	mg/L	2025-07-08	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25G1705
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-07-17 10:05

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25G1705-01) | Matrix: Wastewater | Sampled: 2025-07-07 08:00					
General Parameters					
Nitrogen, Total Kjeldahl	**64.6**	0.050	mg/L	2025-07-17	

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25G2532
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-07-23 15:40

Analyte	Result	RL	Units	Analyzed	Qualifier
RAW INFL COMP, E222796 (25G2532-01) | Matrix: Water | Sampled: 2025-07-16 06:50					
Anions					
Nitrate+Nitrite (as N)	**0.0368**	0.0050	mg/L	2025-07-21	
Nitrite (as N)	**0.0147**	0.0050	mg/L	2025-07-21	HT1
Calculated Parameters					
Nitrate (as N)	**0.0221**	0.0100	mg/L	N/A	
General Parameters					
Ammonia, Total (as N)	**37.1**	0.050	mg/L	2025-07-23	
BOD, 5-day	**364**	8.0	mg/L	2025-07-23	
Nitrogen, Total Kjeldahl	**63.1**	0.050	mg/L	2025-07-22	
Phosphorus, Total (as P)	**7.04**	0.0050	mg/L	2025-07-23	
Phosphorus, Dissolved Reactive	**3.19**	0.0050	mg/L	2025-07-18	
Solids, Total Suspended	**255**	2.0	mg/L	2025-07-18	

Sample Qualifiers:

HT1 The sample was prepared and/or analyzed past the recommended holding time.

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25G3585
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-07-29 14:01

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25G3585-01) | Matrix: Wastewater | Sampled: 2025-07-23 07:55					
General Parameters					
Nitrogen, Total Kjeldahl	**70.7**	0.050	mg/L	2025-07-29	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25G4281
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-08-06 16:41

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25G4281-01) | Matrix: Wastewater | Sampled: 2025-07-30 06:55					
General Parameters					
Nitrogen, Total Kjeldahl	**54.4**	0.050	mg/L	2025-08-06	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25H2178
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-08-22 11:10

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25H2178-01) | Matrix: Wastewater | Sampled: 2025-08-11 08:15					
General Parameters					
Nitrogen, Total Kjeldahl	**60.5**	0.050	mg/L	2025-08-22	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25H4237
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-09-08 10:37

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25H4237-01) | Matrix: Wastewater | Sampled: 2025-08-27 07:00					
General Parameters					
Nitrogen, Total Kjeldahl	**58.4**	0.050	mg/L	2025-09-06	

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25I0544
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-09-11 14:28

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25I0544-01) | Matrix: Wastewater | Sampled: 2025-09-03 08:10					F2, F3
Anions					
Nitrate+Nitrite (as N)	**0.0201**	0.0050	mg/L	2025-09-09	
Nitrite (as N)	**0.0110**	0.0050	mg/L	2025-09-09	HT1
Calculated Parameters					
Nitrate (as N)	< 0.0100	0.0100	mg/L	N/A	
General Parameters					
Ammonia, Total (as N)	**40.1**	0.050	mg/L	2025-09-06	
BOD, 5-day	**252**	8.0	mg/L	2025-09-10	
Chemical Oxygen Demand	**536**	20	mg/L	2025-09-10	
Nitrogen, Total Kjeldahl	**57.2**	0.050	mg/L	2025-09-10	
Phosphorus, Total (as P)	**6.93**	0.0050	mg/L	2025-09-05	
Phosphorus, Dissolved Reactive	**3.06**	0.0050	mg/L	2025-09-05	
Solids, Total Suspended	**151**	2.0	mg/L	2025-09-09	
Total Metals					
Mercury, total	< 0.000040	0.000040	mg/L	2025-09-08	HG1

Sample Qualifiers:

F2	The sample was not field-preserved with HNO3 and was therefore preserved in the laboratory and held for at least 16 hours prior to analysis for total metals.
F3	Results may be biased low due to sub-sampling from general container.
HG1	Sample bottle and preservation submitted is not suitable for Mercury analysis and analyte stability may be affected.
HT1	The sample was prepared and/or analyzed past the recommended holding time.

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25I1629
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-09-17 12:00

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25I1629-01) | Matrix: Wastewater | Sampled: 2025-09-10 06:50					
General Parameters					
Nitrogen, Total Kjeldahl	**51.1**	0.050	mg/L	2025-09-16	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25I2560
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-09-25 17:01

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25I2560-01) | Matrix: Wastewater | Sampled: 2025-09-17 08:05					
General Parameters					
Nitrogen, Total Kjeldahl	**55.3**	0.050	mg/L	2025-09-23	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25I3905
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-10-07 15:28

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25I3905-01) | Matrix: Wastewater | Sampled: 2025-09-24 06:45					
General Parameters					
Nitrogen, Total Kjeldahl	**52.8**	0.050	mg/L	2025-10-04	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25J3209
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-10-29 17:25

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25J3209-01) | Matrix: Wastewater | Sampled: 2025-10-22 06:55					
General Parameters					
Nitrogen, Total Kjeldahl	**54.0**	0.050	mg/L	2025-10-25	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25J4104
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-11-05 17:03

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25J4104-01) | Matrix: Wastewater | Sampled: 2025-10-29 08:05					
General Parameters					
Nitrogen, Total Kjeldahl	**61.9**	0.050	mg/L	2025-11-04	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K2367
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-11-25 11:43

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25K2367-01) | Matrix: Wastewater | Sampled: 2025-11-13 11:12					
General Parameters					
Nitrogen, Total Kjeldahl	**58.4**	0.050	mg/L	2025-11-25	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K3281
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2025-12-03 14:44

Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25K3281-01) | Matrix: Wastewater | Sampled: 2025-11-26 07:15					
General Parameters					
Nitrogen, Total Kjeldahl	**59.9**	0.050	mg/L	2025-12-02	

TEST RESULTS

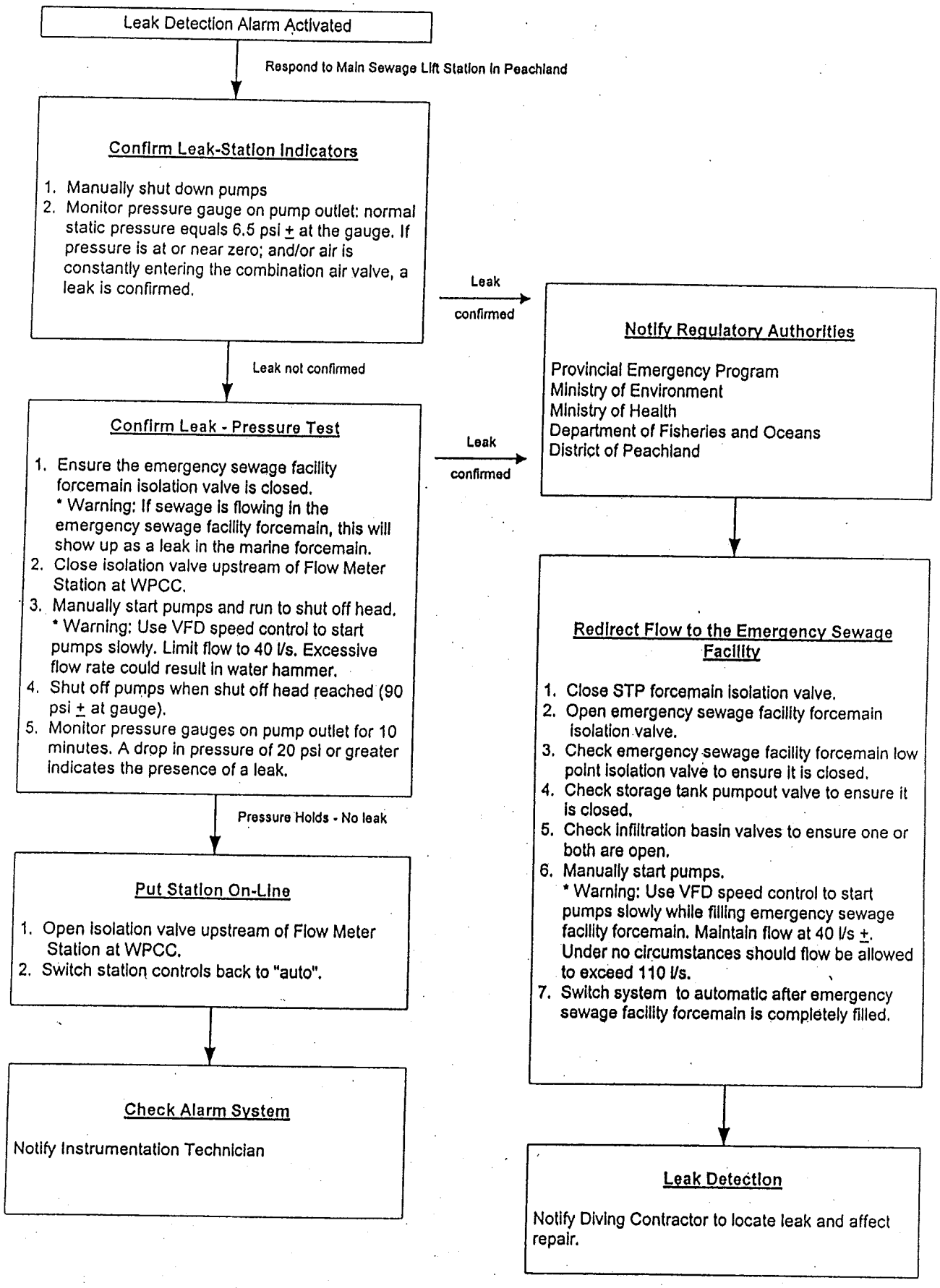
REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25L3122
PROJECT	Westside STP - Raw influent comp- PE11652	**REPORTED**	2026-01-07 16:53

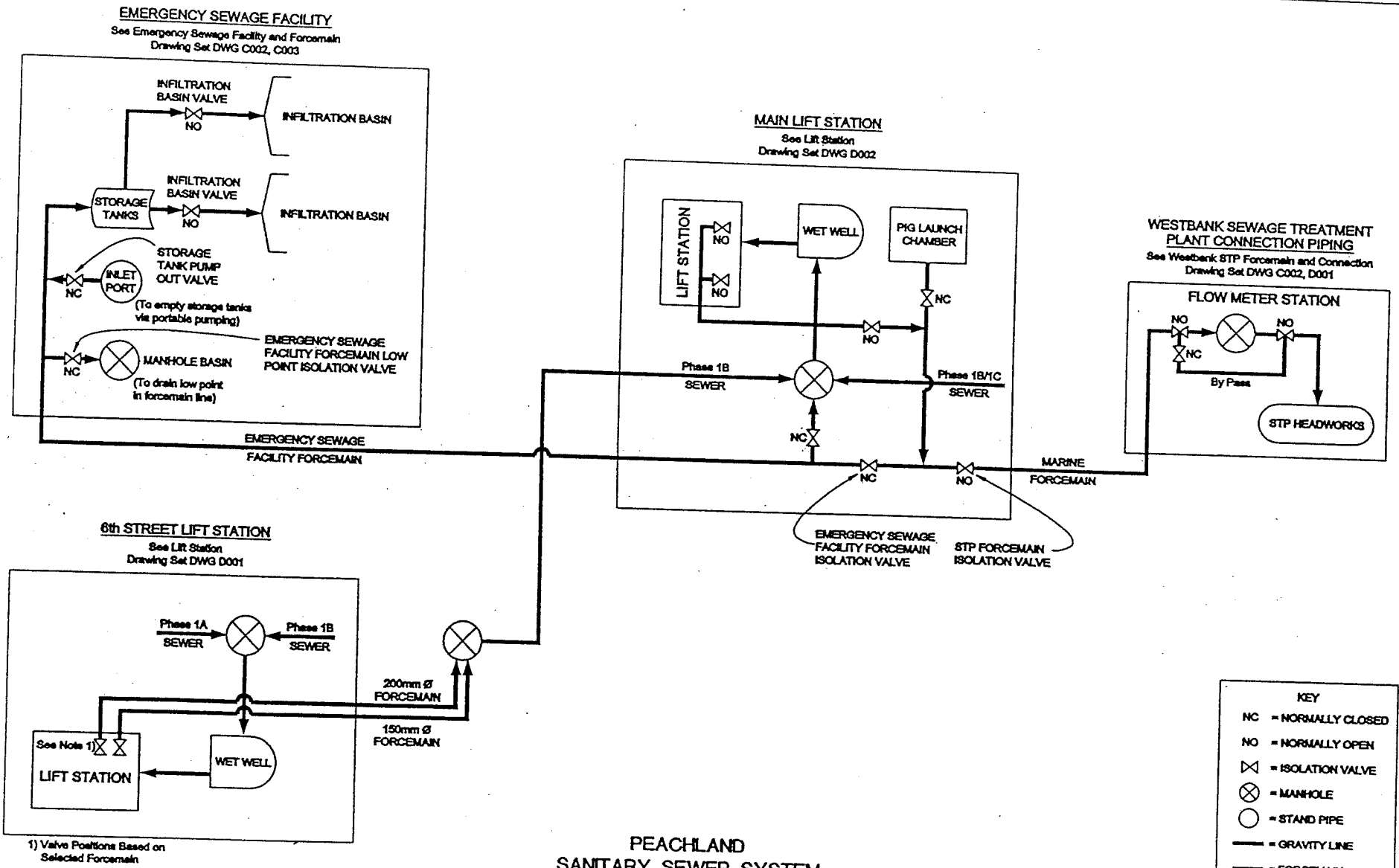
Analyte	Result	RL	Units	Analyzed	Qualifier
Raw Influent Comp (25L3122-01) | Matrix: Wastewater | Sampled: 2025-12-23 06:45					
General Parameters					
Nitrogen, Total Kjeldahl	**68.7**	0.050	mg/L	2026-01-05	

Appendix B

Peachland Leak Preparedness Plan

Peachland Main Lift Station
Marine Forcemain
Emergency Response Plan Flow Chart





PEACHLAND
SANITARY SEWER SYSTEM
SCHEMATIC PLAN

SEPTEMBER 1998

URBAN SYSTEMS

File No. 1.0655.64.3

Appendix C

RDCO Sewer Bylaw 1315, Consolidated April 2025

RDCO Ticket Information and Utilization Bylaw 1537, Consolidated April 2025

CONSOLIDATED FOR CONVENIENCE TO INCLUDE

BYLAW NO. 1565, 2025

REGIONAL DISTRICT OF CENTRAL OKANAGAN
WESTSIDE SEWER SYSTEMS
BYLAW NO. 1315

A bylaw to establish regulations under which sanitary sewer trunk collection and treatment will be provided and to establish fees and charges for the service, within the service area boundary of the Westside Regional Wastewater Treatment Plant

TABLE OF CONTENTS

WHEREAS it is deemed necessary to establish regulations and fees and charges for the administration, sustainability, operation, and maintenance of the Westside sewer systems and the terms and conditions upon which sewer will be provided;

NOW THEREFORE, THE REGIONAL BOARD OF THE REGIONAL DISTRICT OF CENTRAL OKANAGAN, IN OPEN MEETING ASSEMBLED, ENACTS AS FOLLOWS:

SECTION 1 TITLE

1.1 This bylaw may be cited as the "Regional District of Central Okanagan Westside Sewer Systems Bylaw No. 1315, 2012".

SECTION 2 PURPOSE

2.1 The purpose of this Bylaw is to establish regulations, fees and charges for the administration, operation and maintenance of the Westside Regional Sanitary Sewer Service, inclusive of the Westside Regional Wastewater Treatment Plant and Regional District Trunks Sewer Collection System and direct or indirect Sanitary Sewer connections to it. The intent and objective of this Bylaw is to:

BL1565

(a) Protect the sewer collection system from corrosion, other damage and obstruction,

(b) Protect the wastewater treatment process from upset,

(c) Protect the public, Regional District workers, and property from hazardous conditions,

(d) Assist optimum wastewater system efficiency by preventing uncontaminated water from entering the system,

(e) Protect wastewater sludge quality,

(f) Protect the environment from contaminants that are not removed by the public treatment system(s),

(g) Assist the Regional District in maintaining compliance with the operating conditions established by the Province of British Columbia.

SECTION 3 APPLICATION

3.1 This bylaw shall apply to all service recipients of the Westside Regional Wastewater Treatment Plant.

SECTION 4 INTERPRETATION

4.1 Severability

4.1.1 If any section, subsection, sentence, clause or phrase of this bylaw is deemed to be invalid by the decision of any court of competent jurisdiction, the invalid portion shall be severed and the decision that it is invalid shall not affect the validity of the remainder of the bylaw.

4.2 Masculine / Singular

4.2.1 Wherever the masculine is used throughout this bylaw, it shall also mean the feminine, and wherever the singular is used throughout this bylaw, it shall also mean the plural.

4.3 Schedules / Appendices

4.3.1 SCHEDULES A and B and APPENDIX I are attached to and form part of this bylaw.

4.4 Headings

4.4.1 Headings are for reference purposes and shall not affect in any way the meaning or interpretation of the provisions of this bylaw.

4.5 Other Legislated Requirements

4.5.1 No person shall enter into or work upon the sanitary sewer system without meeting the applicable confined space entry, street regulations, or other safety requirements, required by the *Workers' Compensation Act*.

4.5.2 Nothing in this bylaw relieves any person or organization from complying with any provision of any Federal or Provincial legislation, or any other bylaw of the Regional District. Where there is a conflict of regulations, the more stringent shall apply.

SECTION 5 DEFINITIONS

5.1 In this bylaw:

"*B.O.D.*" stands for "biochemical oxygen demand" and means the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory conditions in five (5) days at 20° C, expressed in milligrams per liter as determined by the appropriate procedure in Standard Methods.

"*C.O.D.*" stands for "chemical oxygen demand" and means the measure of the oxygen consuming capacity of inorganic and organic matter present in domestic or industrial wastewater as determined by the appropriate procedure described in Standard Methods.

"*community sewer system*" means any sewerage works or appurtenances thereto which are owned and operated by the local governing authority.

"*cooling water*" means untreated water originating from heat exchangers or similar type units.

"*design flow*" means the sewage flow as calculated, in accordance with the *Health Act*, by the Owner's consultant and as approved by the Regional District.

"*domestic wastewater*" means the wastewater resulting from normal human living processes and not from commercial or industrial activities.

"*engineer*" means a person who is registered, or duly licensed as such, under the *Engineers and Geoscientists Act of British Columbia*.

"*extraneous flows*" means water originating from rainwater, snow melt, ground water, roof drain water, foundation drain water, subsurface drainage, surface water, single pass cooling water, condensate, or storm water.

"*flammable liquid*" means any liquid having a flash point below 38 ° C and having a vapour pressure not exceeding 280 kPa at 38 ° C.

"*garbage*" means solid wastes from domestic or commercial preparation, cooking, and dispensing of food, and from the handling, storage, and sale of produce.

"*grab sample*" means a single sample of a wastewater stream or discharge that represents the composition of the wastewater at the particular time and location at which the sample was collected.

"*grease*" means an organic substance recoverable by procedures set forth in Standard Methods and includes but is not limited to hydrocarbons, esters, fats, oils, waxes, and high molecular weight carboxylic acids.

"*industrial wastewater*" means any wastewater except domestic wastewater.

"*Manager*" means the *Regional District's* Manager of Public Works, or designate, who oversee the day-to-day operation of the sanitary sewer system, and administer this bylaw.

"*offal*" means waste portions of food, animals, fowl, or fish.

"*one day composite sample*" means a composite sample comprised of flow proportioned samples collected at one hour intervals over the duration of one operating day.

"*Owner*" shall be interpreted as defined in the *Local Government Act* as amended from time to time.

"*parcel*" means any lot, block, or other area in which land is held or into which land is subdivided but does not include a highway.

"*premises*" means any residence, building, or structure located on a property.

"*pesticide*" means an organism or material that is represented, sold, used, or intended to be used, to prevent, destroy, repel, or mitigate a pest and includes:

(a) a plant growth regulator, plant defoliator, or plant desiccant; and

(b) a control product, other than a device that is a control product under the *Pest Control Products Act (Canada)*.

"*pH*" means logarithm, to the base 10, of the reciprocal of the concentration of Hydrogen ions in moles per liter of solution.

"*Plumbing Code*" means any regulation made by the Lieutenant Governor of the Province of British Columbia, in accordance with the *Local Government Act*.

"*pre-treatment*" means the use of any physical and/or chemical process to ensure the composition of the effluent conforms to the minimum requirements of this bylaw.

"*Regional Board*" means the elected Board of the Regional District of Central Okanagan.

"*Regional District*" means the Regional District of Central Okanagan as described in Letters Patent and amendments thereto.

"*sanitary sewer system*" means any sewerage works or appurtenances thereto which are owned and operated by the Regional District.

"*septic tank*" means any device or structure designed for the temporary storage of wastewater.

"*service connection*" means the pipe which is located at the property line of a parcel, or at the edge of a statutory right of way and is provided to connect the wastewater drainage system to the sanitary sewer system.

"*sewage treatment plant*" means any arrangement of devices and structures used for treating wastewater.

"*Special Waste*" means a substance that is defined as Special Waste as interpreted by the *Waste Management Act*.

"*Standard Methods*" means the Standard Methods of Water and Wastewater Analysis (most current edition) as published by the American Public Health Association, the American Water Works Association, the Canadian Standards Association, and the Water Pollution Control Federation.

"*Subdivision Bylaw*" means a bylaw adopted by the Regional District under Section 938 of the *Local Government Act*.

"*suspended solids*" means the solid matter according to particle size, expressed in milligrams per liter, in a liquid as determined according to Standard Methods.

"*two hour composite sample*" means a composite sample consisting of equal portions of 8 Grab Samples collected at 15 minute intervals.

"*uncontaminated wastewater*" means water such as spent cooling water, de-chlorinated water discharged from a swimming pool, and water used in street cleaning.

"*user fee*" means a fee imposed for the use of the sanitary sewage system.

"*wastewater*" means the water-borne wastes of the Regional District derived from human or industrial sources including domestic wastewater and industrial wastewater but does not include storm water and uncontaminated wastewater.

"*wastewater drainage system*" means an assembly of pipes, fittings, fixtures, traps, and appurtenances, not owned by the Regional District, that is used to convey wastewater to a service connection.

"*watercourse*" means:

(a) the bed and shore of a river, stream, lake, creek, lagoon, swamp, marsh or other natural body of water; or

(b) a channel, ditch, reservoir or other man-made surface feature, whether containing or conveying water continuously or intermittently.

5.2 Unless otherwise defined herein, all words or expressions used in this bylaw shall have the same meaning assigned to them as like words or expressions contained in the *Local Government Act*, *Interpretation Act*, Building Bylaw, Zoning Bylaw, Subdivision Bylaw, Water Systems Bylaw, and the Plumbing Code.

SECTION 6 GENERAL TERMS AND CONDITIONS

6.1 Compliance with Bylaw

6.1.1 Except in accordance with the provisions of this bylaw, no person shall:

(a) connect a wastewater drainage system to the sanitary sewer system, or

(b) permit any direct or indirect discharge of any wastewater into the sanitary sewer system.

6.1.2 Should any person contravene the provisions of this bylaw, and in such contravention causes or may cause damage to the sanitary sewer system, the Regional District shall make any repairs and take whatever remedial action necessary to limit the extent of the damage and shall recover the cost from the owner pursuant to this bylaw.

6.2 Ownership of the System

6.2.1 The sanitary sewer system, its operation, maintenance, repair and replacement shall be under the direction and control of the Manager.

6.2.2 All sewer pipes, connections, appurtenances, or facilities required to operate the sanitary sewer system servicing more than one community sewer system shall be owned by the Regional District. This includes but is not limited to, all works that are located within a highway or a statutory right of way, regardless whether the works were constructed at the expense of the Owner or the Regional District.

6.3 Duty of Care and Cause of Action

6.3.1 This bylaw does not create any duty at law on the part of the Regional District, its Board, officers, employees, or other representatives concerning anything contained in this bylaw. All works, services, improvements, and all matters required pursuant to this bylaw are the responsibility of the Owner and Applicant and all persons acting on their behalf. No approval of any kind, certificate, permit, review, inspection, or other act or omission by the Regional District or any of its representatives, including any enforcement or lack of enforcement of the provisions of this bylaw, shall relieve the Owner and Applicant and all persons acting on their behalf from this duty pursuant to this bylaw and shall not create any cause of action in favour of any person.

6.4 Limitation of Liability

6.4.1 Sanitary sewer service is provided on the condition that the Owner make no claim against the Regional District, its Board or its officers, agents, and employees acting within the scope of their employment. It is further a condition that the Owner shall make no claim for any indirect, incidental, or consequential damage.

6.5 Indemnification

6.5.1 Sanitary sewer service is provided on the condition that the Owner indemnify and save harmless the Regional District, its Board or its officers, agents, and employees in respect of all claims arising from the provision of the sanitary sewer service.

6.6 Owner's Liability

6.6.1 The Owner shall ensure that the terms and conditions, under which connection to the sanitary sewer system is provided, are not breached. The Owner shall be liable:

(a) to pay all costs, rates, charges, fees, and penalties that may be imposed pursuant to this bylaw; and

(b) for any breach of this bylaw arising on the parcel to which sanitary sewer service is provided, whether the breach is actually committed by the Owner or by a third party renting, leasing, or having access to the property.

SECTION 7 SANITARY SEWER CONNECTIONS

7.1 Applications and Permits

7.1.1 No Person shall construct or install any manner of connection, whether on a permanent or temporary basis, to any part of the sanitary sewer system without first having obtained a permit to connect from the Local Government office serving their community.

7.2 Non-Domestic Connections

7.2.1 The Owner or Occupier of a commercial or industrial place of business where Non-Domestic waste may be discharged into the sanitary sewer system must supply to the Regional District information regarding his type of business and the characteristics of wastewater produced, using Form 1 - Non-Domestic Wastewater Information Report (APPENDIX I).

SECTION 8 FEES & CHARGES

8.1 Every owner or occupier of all parcels located within a sanitary sewer system service area or the owner or occupier of all parcels connected to a community sewer system within the service area boundary of the Westside Regional Wastewater Treatment Plant shall pay to their local government office the rates and charges as prescribed by that jurisdiction. The fees and charges established in this Bylaw shall apply to the owners and operators of the community sewer systems serviced by the Regional District, as prescribed in SCHEDULE A.

SECTION 9 PROHIBITIONS, RESTRICTIONS AND INTERRUPTION OF SERVICE

9.1 No person shall release, or permit the release of, any prohibited substance or any restricted substance which exceeds the respective concentrations listed in SCHEDULE B of this bylaw.

9.2 Sewer service may be limited, interrupted, terminated, or refused:

(a) in circumstances where the discharge of wastewater may interfere with works being undertaken on the sanitary sewer system; or

(b) where a person contravenes the provisions of this bylaw.

SECTION 10 TERMS AND CONDITIONS OF USE

10.1 Interference with the Sanitary Sewer System

10.1.1 The sanitary sewer system, its operation, maintenance, repair, and replacement shall be under the direction and control of the Manager. No person other than the Manager, a Regional District employee acting in the course of his duties or a contractor authorized by the Regional District shall:

(a) enter into or work upon the sanitary sewer system;

(b) make or terminate a service connection to the sanitary sewer system;

(c) uncover or tamper with the sanitary sewer system; or

(d) attach or detach any line, pipe, or other appurtenance to the sanitary sewer system.

10.2 Accidental Discharges

10.2.1 Any person responsible for, or aware of, the accidental discharge of restricted of prohibited substances into the sanitary sewer system shall report the same forthwith to the Regional District in order that the necessary precautions can be taken to minimize the deleterious effects of the discharge.

10.3 Non Compliance

10.3.1 Should any person contravene the provisions of this bylaw, and such contravention causes or may cause damage to the sanitary sewer system, the Regional District may make any repairs and take whatever remedial action necessary to limit the extent of the damage and shall recover the cost pursuant to this bylaw.

10.3.2 Should testing indicate that the components of the wastewater are not in compliance with the provisions of this bylaw, the Regional District shall notify the Owner, in writing, to cease and desist the discharge of wastewater.

10.3.3 The cease and desist order shall remain in effect until such time as:

(a) the Owner complies with all requirements of this bylaw, and

(b) the Regional District notifies the Owner, in writing, indicating that the Owner has complied with this bylaw and authorizing the Owner to resume the discharge of wastewater.

10.4 Wastewater Drainage System

10.4.1 Every wastewater drainage system connected to a regional trunk shall be constructed in accordance with the standards contained in the Subdivision Bylaw, the British Columbia Plumbing Code and the Building Bylaw.

10.4.2 The Owner shall ensure that the wastewater drainage system is installed such that it meets the elevation of the service connection. The Regional District is not obligated to meet the elevation of, nor connect to, any wastewater drainage system installed prior to the installation of the service connection.

10.4.3 The Owner must:

(a) maintain the wastewater drainage system and sanitary service connection in a state of good repair;

(b) protect the wastewater drainage system and sanitary service connection from freezing or damage of any other sort; and

(c) ensure that the plumbing fixtures, wastewater drainage system and sanitary service connection do not leak.

10.4.4 Notwithstanding subsection 10.4.3, the Regional District may construct, inspect, maintain or repair the wastewater drainage system and sanitary service connection. All costs associated with the referenced construction, inspection, maintenance or repair shall be at the expense of the Owner.

10.5 Inspection Chambers and Manholes

10.5.1 All wastewater must pass through an inspection chamber or a suitable manhole installed and maintained in good repair to allow observation and sampling and flow measurement of the sewage.

10.5.2 Inspection chambers and manholes must be:

(a) constructed and installed in accordance with the Subdivision Bylaw,

(b) located on the property of the owner, as close to the property line as possible, or at an alternate location approved by the Manager,

(c) accessible to the Manager at all times;

(d) constructed, installed, and maintained at the expense of the Owner.

10.5.3 Where there is more than one building on a parcel discharging non-domestic wastewater, each building must have a separate inspection chamber installed 1.0 meter outside the wall of the building where the building drain connects to the building sewer.

10.6 Septic Tanks / Portable Holding Tanks

10.6.1 No person shall permit any sludge, deposit, or material contained in, or originating from, any septic tanks, portable holding tanks, or recreational vehicles to enter into the sanitary sewer system.

10.6.2 Where a sewer connection is made to a parcel where a septic tank or tanks exist, the owner shall remove any sludge, deposit, or material contained in the existing septic tanks.

10.6.3 All sludge, deposit, or material originating from a septic tank, portable holding tank, or recreational vehicle must be deposited at the Regional District's disposal facility.

10.7 Pre-treatment

10.7.1 Pre-treatment is required where wastewater, or any component of the wastewater:

(a) does not meet the provisions of this bylaw;

(b) may damage or increase maintenance costs on the sanitary sewer system; or

(c) may detrimentally affect the operation of the sewage treatment plant.

10.7.2 The owner or operator shall ensure the design, operation and maintenance of the pre-treatment facility achieves the treatment objectives and is in accordance with the manufacturer's recommendations.

10.7.3 The owner or operator shall ensure any waste products from the pre-treatment facility are disposed of in a safe manner.

10.7.4 The maintenance records and waste disposal records shall be available to the Manager upon request.

10.7.5 The owner or operator shall keep documentation pertaining to the pre-treatment facility and waste disposal for three years. The Owner shall make these records available for examination by the Manager at his request.

10.8 Interceptors

10.8.1 The Owner of every parcel shall be required to provide an interceptor if the wastewater being discharged from the parcel contains, or will contain, grease, oil, grit, flammable liquids or gases, or other components which may interfere with or damage the sanitary sewer system. This includes but is not limited to:

(a) service stations, vehicle repair garages, and automobile wash bays

(b) dry-cleaning establishments

(c) milk plants, and creameries

(d) laboratories

(e) commercial kitchens

(f) concrete plants, and aggregate washing plants

10.8.2 All interceptors shall be:

(a) of sufficient capacity to perform the purpose for which it is intended,

(b) designed by an engineer or a pre-manufactured package designed for the specific purpose of trapping the deleterious components,

(c) located as to be readily and easily accessible for cleaning and inspection.

10.8.3 In support of the interceptor design, the Owner shall be required to submit detailed design drawings and calculations from the engineer or manufacturer's specifications and manuals to the Manager for approval prior to construction. In addition the Owner must submit operation and maintenance manuals.

10.8.4 No construction shall take place on the interceptor until such time as the Manager has reviewed the above information and approved construction. Approval to construct the interceptor by the Manager does not imply that the quality of the wastewater discharged after passing through the interceptor will meet the requirements of this bylaw. It is the Owner's responsibility to ensure that all the components of the wastewater will comply with the provisions of the bylaw after passing through the interceptor.

10.8.5 The design, construction, operation, and maintenance of the interceptor shall be the responsibility of the Owner and at the Owner's expense. The Owner shall maintain written records of all cleaning, repair, calibration, and maintenance and shall store said records at the place of business for a minimum of three (3) years. The Owner shall make these records available for examination by the Manager upon his request.

10.9 Volume Control

10.9.1 Where wastewater is discharged into the sanitary sewer system in volumes which may exceed the available downstream system capacity, the Manager may require the Owner or occupier of the premises to take measures to equalize the discharge volumes and strengths.

10.9.2 Equipment necessary to comply with this section shall be provided, maintained, and operated by the Owner or occupier of such premises in a manner satisfactory to the Manager.

10.10 Sampling and Analysis

10.10.1 Where sampling is required for the purposes of determining the concentration of constituents in the wastewater the sample may:

(a) be collected manually or by using an automatic sampling device; and

(b) contain additives for its preservation.

10.10.2 For the purpose of determining compliance with Schedule B, discrete wastewater streams within premises may be sampled, at the discretion of the Manager.

10.10.3 Any single grab sample may be used to determine compliance with Schedule B.

10.10.4 All tests, measurements, analyses and examinations of wastewater, its characteristics or contents pursuant to this Bylaw shall be carried out in accordance with "Standard Methods" and be performed by a laboratory accredited for analysis of the particular substance(s) using a method which is within the laboratory's scope of accreditation or to the satisfaction of the Manager as agreed in writing prior to sample analysis.

SECTION 11 ADMINISTRATION AND ENFORCEMENT

11.1 Authority of the Manager of Public Works

11.1.1 The Manager may:

(a) Place limits and restrictions on the quantity, composition, frequency and nature of the waste permitted to be discharged;

(b) Require the Owner to repair, alter, remove, or add to works or construct new works; and

(c) Shut down all non-compliant releases.

11.2 Right of Entry

11.2.1 Regional District officers, or their designates, are authorized to enter upon any property or premises at any reasonable time to inspect any building or premises to ensure compliance with, or prevent violation of, the provisions of this bylaw.

11.2.2 The Owner or occupant shall permit the Regional District officers or their designates to perform all actions required including inspection, observation, measurement, testing, and sampling in order to determine compliance with this bylaw.

11.3 Cease and Desist Order

11.3.1 Regional District officers may order the Owner or occupant who contravenes this bylaw to comply with the bylaw within a specified time. Where an Owner does not comply with a cease and desist order within the specified time, the Regional District officer may order the action contained in the order to be performed by Regional District employees, or others, at the expense of the Owner. All costs incurred as a result of such action shall be recovered pursuant to this bylaw.

11.4 Violation

11.4.1 Any person who:

(a) violates the provisions of this bylaw;

(b) causes or permits any act in contravention or violation of the provisions of this bylaw;

(c) neglects or omits bylaw requirements;

(d) tampers with, interferes with, or damages the sanitary sewer system;

(e) interferes with the operation or maintenance of the sanitary sewer system;

(f) fails to comply with bylaw orders, directions, or notices;

(g) prevents, obstructs or attempts to prevent or obstruct the authorized entry of any officer authorized under this bylaw;

will be guilty upon summary conviction of an offence under this bylaw. Each day's continuance of an offence under this section will constitute a new and distinct offence.

11.4.2 Any person who violates bylaw provisions may, on summary conviction, be liable to the maximum penalty under the *Local Government Act*, plus the cost of prosecution, for each offence. The penalties imposed under this section are a supplement and not a substitute for any other remedy to an infraction of this bylaw.

BL1565

SECTION 12 REPEAL OF PREVIOUS BYLAW

12.1 The Regional District of Central Okanagan Sewer Systems Bylaw No. 1171, 2006, as amended by Bylaw Nos. 1208-2007, 1226-2007, 1231-2008 and 1267-2009, 1281-2010, is hereby repealed.

SECTION 13 FORCE AND EFFECT

13.1 This bylaw comes into effect upon adoption.

READ A FIRST TIME THIS	26th	DAY OF	November	2012.
READ A SECOND TIME THIS	26th	DAY OF	November	2012.
READ A THIRD TIME THIS	26th	DAY OF	November	2012.
RECONSIDERED AND ADOPTED THIS	26th	DAY OF	November	2012.

SCHEDULE A - FEES & CHARGES

1. User fees for the Westside Regional Sewer System shall be charged based on wastewater flows to recover costs and contributions to capital / reserves, as follows:

   (1) District of West Kelowna

      (a) Wastewater Treatment Plant

      (b) Major collection trunks and lift stations

      (c) 30% Capital Recovery Rate

   (2) Westbank First Nation

      (a) Wastewater Treatment Plant

      (b) Major collection trunks and lift stations

      (c) 30% Capital Recovery Rate

   (3) District of Peachland

      (a) Wastewater Treatment Plant

      (b) Lake Force Main

      (c) 30% Capital Recovery Rate

SCHEDULE B - PROHIBITIONS & RESTRICTIONS

PROHIBITIONS – GENERAL

1. Hauled Wastewater

(1) No person shall discharge hauled wastewater to the wastewater works unless:

(a) The carrier of the hauled wastewater operating as a waste management system has a certificate of approval issued by the Manager, and

(b) The carrier meets all conditions for discharge that are or may be set from time to time with respect to the haulage of wastewater by the Regional District.

(2) No person shall discharge or permit the discharge of hauled wastewater:

(a) At a location other than a hauled wastewater discharge location approved by the Regional District.

(b) Without a manifest, in a form approved by the Manager, completed and signed by the carrier and deposited in an approved location at the time of discharge.

(c) Without the use of a discharge hose placed securely in the discharge portal at the approved location.

2. Hauled Waste

(1) No person shall discharge hauled waste to the wastewater works unless:

(a) The carrier of the hauled waste operating as a waste management system has a certificate of approval issued by the Manager, and

(b) Hauled waste meets all conditions for discharge that are set out in this Schedule, as amended from time to time;

(2) No person shall discharge or allow or cause hauled waste to be discharged into a Sewer, except at sites designated by the Manager.

3. Non-Contact Cooling Water

(1) The discharge of non-contact cooling water or uncontaminated water to a sanitary sewer from any residential property is prohibited.

4. Water Originating from a Source Other than the Community Water Supply

(1) The discharge of water originating from a source other than the community water supply, including storm water or groundwater, directly or indirectly to a sanitary sewer works is prohibited, unless:

(a) The discharge is in accordance with a Waste Discharge Permit; and

(b) The discharge does not exceed the limits set out under this Schedule, with respect to biochemical oxygen demand, total phosphorus or total suspended solids; or

(c) In the event the discharge does exceed the limits set out under this Schedule, with respect to any of biochemical oxygen demand, total phosphorus or total suspended solids, the discharge has been approved in writing by the Manager.

5. Prohibition of Dilution

(1) No person shall discharge directly or indirectly, or permit the discharge or deposit of wastewater into a sanitary sewer works where water has been added to the discharge for the purposes of dilution to achieve compliance with this Schedule.

PROHIBITED WASTES

A. No person shall discharge directly or indirectly or deposit or cause or permit the discharge or deposit of wastewater into a sanitary sewer or private sewer connection to any sanitary sewer works in circumstances where:

(1) To do so may cause or result in:

(a) A health or safety hazard to a person authorized by the Regional District to inspect, operate, maintain, repair or otherwise work on a wastewater works;

(b) An offence under the *Environmental Management Act*, as amended from time to time, or any regulation made thereunder from time to time;

(c) Wastewater sludge from the wastewater treatment facility works to which either wastewater discharges, directly or indirectly, to fail to meet the objectives and criteria as listed in the *Liquid Waste Management Act*, as amended from time to time;

(d) Interference with the operation or maintenance of a wastewater works, or which may impair or interfere with any wastewater treatment process;

(e) A hazard to any person, animal, property or vegetation;

(f) An offensive odour to emanate from wastewater works, and without limiting the generality of the foregoing, wastewater containing hydrogen sulphide, carbon disulphide, other reduced sulphur compounds, amines or ammonia in such quantity as may cause an offensive odour;

(g) Damage to wastewater works;

(h) An obstruction or restriction to the flow in wastewater works.

(2) The wastewater has two or more separate liquid layers.

(3) The wastewater contains:

(a) Hazardous substances;

(b) Combustible liquid; Biomedical waste, including any of the following categories: human anatomical waste, animal waste, untreated microbiological waste, waste sharps and untreated human blood and body fluids known to contain viruses and agents listed in “Risk Group4” as defined in “Laboratory Biosafety Guidelines” published by Health Canada, dated, 2004, as amended.

(c) Specified risk material for bovine spongiform encephalopathy as defined in the federal Fertilizers Regulations (C.R.C., c. 666), as amended from time to time, including material from the skull, brain, trigeminal ganglia, eyes, tonsils, spinal cord and dorsal root ganglia of cattle aged 30 months or older, or material from the distal ileum of cattle of all ages.

(d) Dyes or coloring materials which may or could pass through a wastewater works and discolor the wastewater works effluent;

(e) Fuel;

(f) Ignitable waste.

(g) Pathological waste.

(h) PCBs.

(i) Pesticides, insecticides, herbicides or fungicides.

(j) Reactive material – except within such limits as are permitted by license issued by the Atomic Energy Control Board of Canada.

(k) Toxic substances which are not otherwise regulated in this Bylaw.

(l) Waste radioactive substances in excess of concentrations greater than those specified for release to the environment under the *Nuclear Safety and Control Act and Regulations* or amended versions thereof.

(m) Solid or viscous substances in quantities or of such size to be capable of causing obstruction to the flow in a sewer, including but not limited to ashes, bones, cinders, sand, mud, soil, straw, shaving, metal, glass, rags, feathers, tar, plastics, wood, un- ground garbage, animal parts or tissues, and paunch manure.

(n) Any garbage that has been ground, comminuted or shredded by a garbage disposal unit.

(o) The wastewater contains a concentration, expressed in milligrams per litre, in excess of any one or more of the limits in Restricted Wastes section of this Schedule, unless the discharge is authorized in a Code of Practice approved by the Regional District.

STANDARDS FOR RESTRICTED WASTES

A. No person shall discharge directly or indirectly or deposit or cause or permit the discharge or deposit of wastewater into a sanitary sewer or private sewer connection to any sanitary sewer works in circumstances where:

(1) any non-domestic wastewater as analysed in the specified sample type which exceeds the limits for the following parameters, expressed in the total form as milligrams per litre and as shown in the following table:

Table A - CONVENTIONAL CONTAMINANTS and PHYSICAL PARAMETERS

	Concentration in Milligrams per Litre (mg/L)		
Parameter	**One Day Composite Sample**	**Two Hour Composite Sample**	**Grab Sample**
Biochemical Oxygen Demand (B.O.D.)	500	1000	2000
Chemical Oxygen Demand (C.O.D.)	750	1500	3000
Total Suspended Solids (TSS)	600	1200	2400
Oil and Grease (non petroleum)	150	300	600
Oil and Grease (petroleum source)	15	30	60
pH (non-domestic waste)	>6 and <9.5	>5 and <11	>5.5 and <10.5

(2) any non-domestic waste which, at the point of discharge into a sewer, contains any substance, in a combined or un-combined form, with a concentration in excess of the levels set out in the following tables. All concentrations are expressed as total concentrations, which include both the dissolved and un-dissolved substances.

Table B - ORGANIC CONTAMINANTS

Substance	Concentration Limit [mg/L, except as noted]
Benzene	0.01
Chloroform	0.04
Dichlorobenzene (1,2-)	0.05
Dichlorobenzene (1,4)	0.08
Ethylbenzene	0.06
Hexachlorobenzene	0.0001
**Methylene chloride (dichloromethane)	0.09
PCBs (chlorobiphenyls)	0.004
**Phenols, Total (or Phenolic compounds)	0.1
**Tetrachloroethane (1,1,2,2 -)	0.06
**Tetrachloroethylene	0.06
Toluene	0.02
Trichloroethylene	0.05
Xylenes, total	0.3

Table C - INORGANIC CONTAMINANTS

		Concentration in Milligrams per Litre		
Substance	**Abbreviation**	**One day composite sample**	**Two hour composite sample**	**Grab sample**
Aluminum	Al	50.0	100.0	200.0
Arsenic	As	0.5	1.0	2.0
Boron	B	50.0	100.0	200.0
Cadmium	Cd	0.2	0.4	0.8
Chromium	Cr	2.0	4.0	8.0
Cobalt	Co	5.0	10.0	20.0
Copper	Cu	2.0	4.0	8.0
Cyanide	Cn	0.5	1.0	2.0
Iron	Fe	10.0	20.0	40.0
Lead	Pb	1.0	2.0	4.0
Manganese	Mn	5.0	10.0	20.0
Mercury	Hg	0.025	0.05	0.1
Molybdenum	Mo	1.0	2.0	4.0
Nickel	Ni	2.0	4.0	8.0
Phenols	-	1.0	2.0	4.0
Phosphorus	P	12.5	25.0	50.0
Silver	Ag	1.0	2.0	4.0
Sulphate	SO^4	1500.0	3000.0	6000.0
Sulphide	S	1.0	2.0	4.0
Tin	Sn	5.0	10.0	20.0
Zinc	Zn	3.0	6.0	12.0

Note:
More restrictive guidelines may be required if the Manager considers there to be a detrimental effect on the sewage treatment plant, the sanitary sewer system, or the workers.

(3) any water or waste containing substances in such concentrations that are not amenable to treatment or reduction by the sewage treatment process employed, or are amenable to treatment only to such a degree that the sewage treatment plant effluent cannot, during normal operation, meet the requirement of any other agency having jurisdiction over discharges to the receiving waters.

(4) any material or substance (e.g. enzymes and/or bacteria) that alters the structure of the waste(s) but does not reduce the loading (C.O.D.).

(5) any water or wastewater contained in, but not limited to, a swimming pool, hot-tub, or artificial pond.

APPENDIX I - FORMS

Form 1 - Non-Domestic Wastewater Information Report

A. This Form is required where an Owner or occupier proposes to:
   (a) make application to connect an industrial or commercial activity to the sanitary sewer system; or
   (b) expand or change an industrial or commercial activity in such a way that it may affect the quality or quantity of the wastewater being discharged into the sanitary sewer system.

B. This form is to be filed with the Manager of Public Works at the Regional District of Central Okanagan, located at 1450 KLO Road, Kelowna BC, V1W 3Z4, immediately or within **90 days Prior** to the date to either connect, expand on, or change the industrial or commercial activity.

(1) This Application is: ❑ New Connection ❑ to Expand or Change Existing Connection

PART 1 – COMPANY / INDUSTRY INFORMATION

(2) Business Information:

Company Name:
Civic Address:
Telephone: Fax:
Legal Description: Lot: Plan: DL:
Primary Contact Person:
Mobile Phone:
Email Address:

(3) Hours & Days of Operation: Hours/day _____ Days/week _____

(4) Activity (type of)**:**

Pharmacy ❑	Dental / Health Services ❑	Greenhouses / Nurseries ❑
Laundromat ❑	Funeral Establishments ❑	Light Manufacturing ❑
Beauty Salons ❑	Restaurant / Food Preparation ❑	Heavy Manufacturing ❑
Winery / Cidery ❑	Pet Grooming / Kennels ❑	Painting ❑
Service Station ❑	Veterinary ❑	Printing / Publishing ❑
❑ OTHER _____	Abattoir ❑	Package House ❑

PART 2 – WASTEWATER CHARACTERISTICS

(5) Flow: Is the Discharge > 300 m³ in a 30 day period? ❑ Yes ❑ No ❑ Don't Know

Is the Discharge > 10 m³ in a 24 hour period? ❑ Yes ❑ No ❑ Don't Know

(6) Volumes: Maximum discharge flow rate: _____ m³/day

Average daily discharge flow rate: _____ m³/day

Method of flow rate determination: ❑ measured ❑ estimated

NOTE:
1 m³ = 220 imp gal
1 m³ = 264 US gal

(7) Temperature: _____ °C

(8) Acidity (pH) Min. _____ Max. _____

(9) Description: *Provide a brief description of waste generating process:*

_____

_____

_____

(10) Special Waste:

Does any process within the plant produce special waste as defined under the Special Waste Regulation of the *Waste Management Act BC*? ❑ Yes ❑ No ❑ Don't Know

(11) Quality: *Indicate whether any of the following types of wastes are discharged:*

Flammable or explosive waste	❑ Yes	❑ No			
Obstructive waste	❑ Yes	❑ No	Biomedical waste	❑ Yes	❑ No
Air contaminant waste	❑ Yes	❑ No	Corrosive waste	❑ Yes	❑ No
High temperature waste	❑ Yes	❑ No	Food waste	❑ Yes	❑ No
Radioactive waste	❑ Yes	❑ No	Seawater	❑ Yes	❑ No

(12) Contaminants and Physical Parameters

In the space provided below, check the appropriate box for each wastewater contaminant to dictate whether the contaminant listed is "known to be present", "suspected to be present", "suspected to be absent", or "known to be absent" in the wastewater discharge.

If a contaminant is "known to be present" or "suspected to be present", estimate the expected average and maximum daily contaminant concentrations in the spaces provided.

If the wastewater discharges have been sample and analyzed in the past, please attach examples of sampling data.

	ABSENT		PRESENT		Expected Concentration (mg/L (ppm)	
CONTAMINANTS	known	suspected	known	suspected	Ave.	Max.
Biochemical Oxygen Demand (B.O.D.)	❑	❑	❑	❑	____	____
Chemical Oxygen Demand (C.O.D.)	❑	❑	❑	❑	____	____
Total Suspended Solids (TSS)	❑	❑	❑	❑	____	____
Oil and Grease (non petroleum)	❑	❑	❑	❑	____	____
Oil and Grease (petroleum source)	❑	❑	❑	❑	____	____
Phenols, Total	❑	❑	❑	❑	____	____
Phenols, Chlorinated	❑	❑	❑	❑	____	____

Polynuclear Aromatic Hydrocarbons	❑	❑	❑	❑	____	____
PCBs	❑	❑	❑	❑	____	____
Pesticides	❑	❑	❑	❑	____	____
Tetrachloroethylene	❑	❑	❑	❑	____	____
Benzene	❑	❑	❑	❑	____	____
Ethylbenzene	❑	❑	❑	❑	____	____
Toluene	❑	❑	❑	❑	____	____
Xylenes	❑	❑	❑	❑	____	____
Solvents, *Specify:*						
_____	❑	❑	❑	❑	____	____
Aluminum	❑	❑	❑	❑	____	____
Arsenic	❑	❑	❑	❑	____	____
Boron	❑	❑	❑	❑	____	____
Cadmium	❑	❑	❑	❑	____	____
Chromium	❑	❑	❑	❑	____	____
Cobalt	❑	❑	❑	❑	____	____
Copper	❑	❑	❑	❑	____	____
Cyanide	❑	❑	❑	❑	____	____
Iron	❑	❑	❑	❑	____	____
Lead	❑	❑	❑	❑	____	____
Manganese	❑	❑	❑	❑	____	____
Mercury	❑	❑	❑	❑	____	____
Molybdenum	❑	❑	❑	❑	____	____
Nickel	❑	❑	❑	❑	____	____
Phenols	❑	❑	❑	❑	____	____
Phosphorus	❑	❑	❑	❑	____	____
Silver	❑	❑	❑	❑	____	____
Sulphate	❑	❑	❑	❑	____	____
Sulphide	❑	❑	❑	❑	____	____
Tin	❑	❑	❑	❑	____	____
Zinc	❑	❑	❑	❑	____	____

PART 4 – ATTACHMENTS

The Owner or occupant must provide any and all documentation for packaged pre-treatment systems, interceptors, control, monitoring, or sampling equipment.

PART 3 – SITE PLAN

The Owner or occupant must sketch a site plan in the area provided below (or attach a site plan to the application). The plan shall be dimensioned and must include:

(1) property lines, buildings, streets
(2) the location of sampling manhole,
(3) pre-treatment works,
(4) flow equalizing facilities, or other control works
(5) the monitoring points,
(6) sanitary & storm sewer lines and connections,

PART 5 – DECLARATION

I, _____, declare that the information given on this form is correct to the best of my knowledge.

_____
Signature

_____
Date

CONSOLIDATED FOR CONVENIENCE TO INCLUDE
BYLAW NO. 1557, 2024, BYLAW NO. 1561, 2024 and BYLAW NO. 1566, 2025

REGIONAL DISTRICT OF CENTRAL OKANAGAN

BYLAW NO. 1537

A bylaw to authorize the use of the ticketing information

WHEREAS the *Local Government Act* and the *Community Charter* authorize the Regional District of Central to enact a bylaw to provide for bylaw enforcement utilizing ticket offences.

AND WHEREAS the Regional Board deems it expedient to authorize the use of municipal ticket information for the enforcement of certain bylaws, to authorize the use of certain words or expressions to designate certain bylaw offences and to set certain fine amounts.

NOW THEREFORE THE REGIONAL DISTRICT OF CENTRAL OKANAGAN IN OPEN MEETING ASSEMBLED ENACTS AS FOLLOWS:

1. The bylaws listed in Column 2 of Schedule A to this Bylaw, as amended from time to time, may be enforced by means of a ticket in the form prescribed by the Lieutenant Governor in Council.

2. The persons appointed to the job positions or titles listed in Column 3 of Schedule A to this Bylaw are designated as bylaw enforcement officers for the purpose of enforcing the bylaws listed in Column 2 of Schedule A opposite the respective job positions.

3. The words or expressions set forth in Column 1 of (Schedule B, Appendix 1 through 29) to this Bylaw designate the offence committed under the bylaw section number appearing in Column 2 opposite the respective words or expression.

4. The amounts appearing in Column 3 of (Schedule B, Appendix 1 through 29) to this Bylaw are the fines set for the corresponding offences designated in Column 1.

5. This Bylaw may be cited as the "Regional District of Central Okanagan Ticket Information and Utilization Bylaw No. 1537, 2023".

6. Regional District of Central Okanagan Ticket Information Utilization Bylaw No. 435, 1990, and any amendments thereto are hereby repealed.

READ A FIRST, SECOND AND THIRD TIME THIS 05 DAY OF OCTOBER, 2023.

ADOPTED THIS 05 DAY OF OCTOBER, 2023.

SCHEDULE A

Designated Bylaws and Designated Bylaw Enforcement Officers for Regional District of Central Okanagan Ticket Information Utilization Bylaw No. 1537, 2023

APPX.	DESIGNATED BYLAWS	DESIGNATED BYLAW ENFORCEMENT OFFICERS
1	Responsible Dog Ownership Bylaw No. 1343	Bylaw Enforcement Officer Animal Control Officer Pound Keeper
2	Animal Control Bylaw No. 880, 2000	Bylaw Enforcement Officer
3	Prohibited Animal Bylaw No. 1028, 2003	Bylaw Enforcement Officer
4	Noise Control Bylaw No. 403, 1989	Parks Caretaker Bylaw Enforcement Officer Royal Canadian Mounted Police
5	Noxious Weed Control Bylaw No. 179, 1979	Bylaw Enforcement Officer Weed and Insect Inspector
6	Noxious Insect & Pest Control Bylaw No. 879, 2000	Bylaw Enforcement Officer Weed and Insect Inspector
7	Unsightly Premises and Visual Nuisance Bylaw No. 770, 1998	Bylaw Enforcement Officer
8	Smoke Control Regulatory Bylaw No. 773, 1998	Bylaw Enforcement Officer Local Assistant to Fire Commissioner Platoon Captain Captain Fire Chief Deputy Fire Chief Lieutenant Acting Lieutenant Royal Canadian Mounted Police
9	Building Bylaw No. 1482, 2023	Bylaw Enforcement Officer Building Inspector Director of Development Services Manager of Development Services
10	Building Numbering Bylaw No. 1185, 2005	Bylaw Enforcement Office Building Inspector Director of Development Services Manager of Development Services
11	Business Licensing and Regulations Bylaw No. 1555, 2024	Building Inspector Bylaw Enforcement Officer Royal Canadian Mounted Police
12	Sign Regulation Bylaw No. 885, 2000	Building Inspector Bylaw Enforcement Officer

BL1557

13	Zoning Bylaw No. 871, 2000	Bylaw Enforcement Officer Building Inspector Director of Development Services Manager of Development Services
14	Joe Rich Rural Land Use Bylaw No. 1195	Building Inspector Bylaw Enforcement Officer Director of Development Services Manager of Development Services Environmental Planner
15	Rural Westside Official Community Plan Bylaw No. 1274, 2014	Bylaw Enforcement Officer Building Inspector Environmental Planner
16	Brent Road / Trepanier Official Community Plan Bylaw No. 1303, 2012	Bylaw Enforcement Officer Building Inspector Environmental Planner
17	Ellison Official Community Plan Bylaw No. 1124, 2017	Bylaw Enforcement Officer Building Inspector Environmental Planner
18	South Slopes Official Community Plan Bylaw No. 1304, 2012	Bylaw Enforcement Officer Building Inspector Environmental Planner
19	Development Applications Procedure Bylaw No. 1527, 2023	Bylaw Enforcement Officer Building Inspector Director of Development Services Manager of Development Services Environmental Planner
20	Subdivision and Development Servicing Bylaw No. 1397, 2016	Bylaw Enforcement Officer Public Works Manager
21	Solid Waste Management Regulation Bylaw No. 1253	Bylaw Enforcement Officer Teller/Gate Operator Landfill Attendant
22	Water Systems Fees and Regulations Bylaw No. 1513, 2023	Bylaw Enforcement Officer Water Systems Operator
23	Central Okanagan East Sewer Systems Bylaw No. 1316, 2012	Bylaw Enforcement Officer Public Works Manager
24	Westside Sewer Systems Bylaw No. 1315, 2012	Bylaw Enforcement Officer Public Works Manager
25	Regional Parks Regulation Bylaw No. 1427, 2018	Director of Parks Services Manager of Parks Parks Team Lead Bylaw Enforcement Officer Royal Canadian Mounted Police Animal Control Officer

26	Community Parks Regulation Bylaw No. 1431, 2019	Director of Parks Services Manager of Parks Parks Team Lead Bylaw Enforcement Officer Royal Canadian Mounted Police Animal Control Officer
27	Fire Prevention and Regulation Bylaw No. 1066, 2004	Bylaw Enforcement Officer Local Assistant to Fire Commissioner Captain (Fire Department) Platoon Captain (Fire Department) Fire Chief Deputy Fire Chief Lieutenant (Fire Department) Royal Canadian Mounted Police
28	Control of Special Events Bylaw No. 80, 1974	Bylaw Enforcement Officer Building Inspector Director of Development Services Manager of Development Services
29	Fireworks Prohibition & Regulation Bylaw No. 53, 1972	Bylaw Enforcement Officer Local Assistant to Fire Commissioner Fire Chief Deputy Fire Chief Captain (Fire Department) Platoon Captain (Fire Department) Lieutenant (Fire Department) Royal Canadian Mounted Police

SCHEDULE B
APPENDIX 1

Responsible Dog Ownership Bylaw No. 1343

	SECTION	FINE 1st Offence	FINE 2nd Offence	FINE Subsequent Offences
Dog at large / Fail to Leash	25	$150.00	$200.00	$300.00
Fail to leash, in park	27	150.00	200.00	300.00

	SECTION	FINE
Obstruct Animal Control Officer	7 & 8	$500.00
No dog license	10 & 11	300.00
Dog without tag	12	100.00
Keep more than 3 dogs	14	100.00
Fail to keep dog in fence or pen	21	100.00
Fail to keep dog as required	21.1 & 21.2	100.00
Fail to fence/pen	22 & 62	100.00
Contravene tethering	23 & 24	200.00
Dog in prohibited area	26	100.00
Contravene off Leash Requirement in Off-Leash Parks and Areas	28 a,b,d,e,f	100.00
Contravene off Leash Requirement in Off-Leash Parks and Areas	28 c)	200.00
Noisy dog	29	100.00
Fail to remove dog feces	30 & 31	150.00
Fail to control - disease	32	100.00
Enclosed space or vehicle- ventilation	33	500.00
Nuisance (menacing) dog – charging or lunging at a fence	34	150.00
Aggressive Dog	35	300.00
Dangerous Dog	36	1,000.00
Dog in prohibited area, dangerous dog	37	1,000.00
Dog in prohibited area, aggressive dog	37	300.00
Fail to control/enclose dangerous dog	39, 39.1, 39.2	1,000.00
Fail to control/enclose aggressive dog	38, 38.1, 38.2	300.00
Fail to post signage, or microchip – dangerous dog	40 & 41	300.00
Contravene kennel requirements	42 a) b) c) 43 a) b), 44, 47	200.00
Unlawful release of a dog	66	500.00

SCHEDULE B
APPENDIX 2

Animal Control Bylaw No. 880, 2000

	SECTION	FINE 1st Offence	FINE 2nd Offence	FINE Subsequent Offences
Keep animals on undersize parcel	2.1.1	$250.00	$350.00	$500.00
Keep animals contrary to bylaw	2.1(2 to 7)	250.00	350.00	500.00
Allow animals to run at large	2.2	250.00	350.00	500.00
Fail to keep animals in fence/pen	2.3	250.00	350.00	500.00
Aviary on undersize parcel	2.6	250.00	350.00	500.00
Pigeons on undersize parcel	2.7	250.00	350.00	500.00
Keep too many pigeons	2.7(1 to 2)	250.00	350.00	500.00
Unauthorized loft/coop siting	2.7.5	250.00	350.00	500.00
Pigeons out of loft/coop	2.7.6	250.00	350.00	500.00
Exercise too many pigeons	2.7.6	250.00	350.00	500.00
Pigeons out of loft/coop	2.7.7	250.00	350.00	500.00
Fail to control pigeons	2.7.8	250.00	350.00	500.00
Keep animals on undersize parcel	2.8	250.00	350.00	500.00

SCHEDULE B
APPENDIX 3

Prohibited Animal Bylaw No. 1028, 2003

	SECTION	FINE
Keep prohibited animal	2.	$1,000.00
Fail to secure prohibited animal	2.2a	1,000.00
Display prohibited animal	2.2b	1,000.00
Allow prohibited animal to reproduce	2.2.c	1,000.00
Obstruct Bylaw Enforcement Officer	4.3	1,000.00

SCHEDULE B
APPENDIX 4

Noise Control Bylaw No. 403, 1989

	SECTION	FINE
Noise disturbing people	II 1	$500.00
Allow disturbing noise	II 2	500.00
Apparatus producing noise	II 3	500.00
Disturbing animal noise	II 4	500.00
Construction noise	II 5	500.00
Operate outdoor public address system	II 7	500.00
Inadequate exhaust system	III 1	500.00
Inadequate exhaust system	III 2	500.00
Prohibited exhaust system	III 3	500.00
Prohibited exhaust system	III 4	500.00
Cause disturbing noise	III 6	500.00

SCHEDULE B
APPENDIX 5

Noxious Weed Control Bylaw No. 179, 1979

	SECTION	FINE
Fail to prevent growth	2 (a); 2 (b)	$100.00
Fail to cut down/destroy and mulch or remove	3 (a); 3 (b)	100.00
Obstruct Inspector	5	1,000.00
Fail to comply with Notice requirement	6 (a); 6 (b)	100.00
Obstruct work from being carried out	8 (a)	500.00

SCHEDULE B
APPENDIX 6

Noxious Insect & Pest Control Bylaw No. 879, 2000

	SECTION	FINE
Failure to control the infestation	6	$100.00
Obstruct Inspector	9	1,000.00

SCHEDULE B
APPENDIX 7

Unsightly Premises and Visual Nuisance Bylaw No. 770, 1998

	SECTION	FINE
Permit accumulation of rubbish on premises	2.1	$1,000.00
Permit accumulation of noxious matter on premises	2.1	1,000.00
Permit accumulation of offensive matter on premises	2.1	1,000.00
Permit accumulation of unwholesome matter on premises	2.1	1,000.00
Permit accumulation of stagnant water on premises	2.1	500.00
Deposit rubbish in open place	2.2	1,000.00
Permit visual nuisance on premises	2.3	1,000.00
Place graffiti on property	2.4	500.00
Permit property to become/remain unsightly	2.5	1,000.00
Obstruct Bylaw Enforcement Officer	2.6	1,000.00

SCHEDULE B
APPENDIX 8

Smoke Control Regulatory Bylaw No. 773, 1998

	SECTION	FINE
Smoke from other's lands	2.2	$500.00
Smoke from undersized lot	2.3	500.00
Smoke from prohibited materials	2.4	500.00
Smoke from incinerator/burning barrel	2.5	500.00
Burn off-site material	2.6.b.	500.00
Burn outside of specified period	2.6.c	500.00
Insufficient separation	2.6.e	500.00
Fail to control/supervise	2.6.f	500.00
Cause/permit a nuisance	2.6.g	500.00
Burn prohibited material	3.1.a	500.00
Fail to control/supervise	3.1.b	500.00
Cause/permit a nuisance	3.1.c	500.00
Burn other than wood burning appliance fuel	4.1	500.00
Burn wood with excess moisture content	4.2	500.00
Burn wood that has been treated	4.2	500.00
Cause a nuisance	4.5	500.00
Obstruct an inspector	5.3	500.00
Fail to comply with an order	5.4	500.00

SCHEDULE B
APPENDIX 9

Building Bylaw No. 1482, 2023

	SECTION	FINE
Commencing work without permit	4.1	$1,000.00
Fail to obtain occupancy permission	4.2	1,000.00
Submit false/misleading information	4.3	1,000.00
Fail to amend permit	4.4	1,000.00
Remove/tamper with stop work order notice	4.5	1,000.00
Unauthorized variance	4.6	1,000.00
Obstruct Inspector	4.7	1,000.00
Failure to post civic address	4.8	1,000.00
Contravene administrative notice or permit conditions	4.9	1,000.00
Unauthorized change of occupancy	4.10	1,000.00
Fail to have documents at project site	7.3b	1,000.00
Fail to post permit card	7.3b	1,000.00
Fail to obtain inspection	10.30	1,000.00
Cover construction without authorization	10.34	1,000.00
Disobey stop work order	10.40	1,000.00
Expired Permit	10.45	1,000.00
Fail to provide Survey Certificate	10.6	1,000.00
Contravene permitted use of recreational vehicle	11.5	1,000.00
Fail to fence a swimming pool	15.3	1,000.00

SCHEDULE B
APPENDIX 10

Building Numbering Bylaw No. 1185, 2005

	SECTION	FINE
Fail to display building numbers	4	$1,000.00

BL1561

SCHEDULE B
APPENDIX 11

Business Licensing and Regulations Bylaw No. 1555, 2024

	SECTION	FINE
No business license	2. (a)	$1,000.00
No business license for each premise	2. (c)	1,000.00
Prohibit entry of authorized person	15.	1,000.00
Fail to display business license	22.	500.00
Transfer business license without approval	29-31.	1,000.00

SCHEDULE B
APPENDIX 12

Sign Regulation Bylaw No. 885, 2000

	SECTION	FINE
Use Prohibited Sign	4.2(a)-(d)	$250.00
Sign Causing Obstruction	5.2.	250.00
Sign on Utility Pole	5.3.	250.00
Off Premises Sign	5.4.	250.00
Unsafe Sign	5.5.	250.00
Unauthorized Lighting of Sign	5.6.	250.00
Unauthorized Real Estate Sign	5.7.	250.00
Fail to Remove Sign	5.8.	250.00
Fail to Repair Sign	5.9.	250.00
Unauthorized Changeable Sign	5.10.	250.00
Fail to Remove Temporary Sign	5.11.	250.00
Place Sign On/In Street	5.12.	250.00
No Sign Permit	6.1.	250.00

SCHEDULE B
APPENDIX 13

Zoning Bylaw No. 871

	SECTION	FINE
Obstruct Inspector	2.1	$1,000.00
Contravene setback rules	3.5.1	1,000.00
Fail to surface parking and loading areas	3.6	500.00
Exceed maximum parking area within setback	3.7	500.00
Over-height fence	3.10. (2 to 4)	200.00
Fail to screen	3.10. (7 to 9)	200.00
Prohibited fence material or design	3.10. (10 to 11)	500.00
Fail to fence pool as required	3.10.13 (a, b, c, d)	1,000.00
Over-height retaining wall	3.10. (5 to 6)	500.00
Fail to maintain buffer	3.11. (1 to 8)	500.00
Prohibited outdoor storage	3.13.1.a)	500.00
Prohibited parking	3.13.1.b) + 3.13.3	500.00
Prohibited use of recreational vehicle	3.13.2.a)	1,000.00
Prohibited storage	3.13.2.b)	500.00
Prohibited parking	3.14. (1 to 7c)	500.00
Contravene lighting rules	3.15(1 to 2)	500.00
Contravene mill rules	3.16 (1 to 2)	500.00
Contravene accessory building rules	3.17. (1 to 9)	500.00
Contravene accessory home rules	3.18. (1 to 10)	500.00
Contravene home business rules	3.19. (1 to 11)	500.00
Contravene home business rules	3.20. (1 to 12)	500.00
Contravene home business rules	3.21. (1 to 12)	500.00
Contravene home business rules	3.22. (1 to 8)	500.00
Contravene temporary agricultural dwelling rules	3.25 (1 to 2)	500.00
Contravene secondary suite rules	3.26 (1 to 10)	500.00
Contravene floodplain regulations	3.28 (1 to 5)	1,000.00
Contravene permitted uses	4.5.1	1,000.00
Contravene zone regulations table	4.5.4	1,000.00

SCHEDULE B
APPENDIX 14

Joe Rich Rural Land Use Bylaw No. 1195, 2007

	SECTION 2, PART 2	FINE
Obstruct an inspector	2.1.6	$1,000.00
	SECTION 2, PART 3	FINE
Contravene floodplain requirements	3.1	$1,000.00
Contravene panhandle lot requirements	3.2	500.00
Contravene home occupation requirements	3.5.	500.00
Contravene fencing regulations	3.6.1-3.6.2	500.00
Fail to fence pool as required	3.6.3	1,000.00
Contravene mill requirements	3.7	500.00
Prohibited storage/parking of vehicles	3.8.1	500.00
Prohibited parking/storage of equipment	3.8.2	500.00
Contravene storage area siting requirements	3.8.3	1,000.00
Contravene bed and breakfast requirements	3.9	500.00
Contravene animal shelter siting requirements	3.11	1,000.00
Exceed livestock keeping requirements	3.12	500.00
Contravene additional dwelling unit requirements	3.13	500.00
Undertaking prohibited uses	3.14	1,000.00
Contravene agri tourist accommodation requirements	3.15	1,000.00
	SECTION 2, PART 4	FINE
Contravene permitted uses	4.1.2	$1,000.00
Contravene siting, size or dimensions of structures	4.1.3	1,000.00
	SECTION 3, PART 1	FINE
Fail to obtain Development Permit	2.3; 3.3; 4.3; 5.3; 6.3	$1,000.00

SCHEDULE B
APPENDIX 15

Rural Westside Official Community Plan Bylaw No. 1274, 2010

	CHAPTER 13	FINE
Fail to obtain a Development Permit	13.2; 13.3; 13.4; 13.5; 13.6; 13.7; 13.8; 13.9	$1,000.00

SCHEDULE B
APPENDIX 16

Brent Road / Trepanier Official Community Plan Bylaw No. 1303, 2012

	PART III	FINE
Fail to obtain a Development Permit	Section 12.1 Appendix I-IV	$1,000.00

SCHEDULE B
APPENDIX 17

Ellison Official Community Plan Bylaw No. 1124, 2006

	SECTION 18	FINE
Fail to obtain a Development Permit	2.3; 3.3; 4.4; 5.3; 6.3; 7.3	$1,000.00

SCHEDULE B
APPENDIX 18

South Slopes Official Community Plan Bylaw No. 1304, 2012

	PART III	FINE
Fail to obtain a Development Permit	Section 12.1 Appendix I-IV	$1,000.00

SCHEDULE B
APPENDIX 19

Development Applications Procedure Bylaw No. 1527, 2023

	SECTION	FINE
Fail to apply for a Permit amendment	4.3	$1,000.00
Fail to apply for a Permit extension	4.4	500.00

SCHEDULE B
APPENDIX 20

Subdivision Servicing Bylaw No. 1397, 2016

	SECTION	FINE
Fail to meet Subdivision requirements	5.1.2	$1,000.00
Works not in a statutory right of way	5.2.1	1,000.00
Fail to register statutory right of way	5.2.2	1,000.00
Excavate of fill without certificate	5.8.1	1,000.00
Obstruct employee of the RDCO	8.1.1	1,000.00
Disobey Stop Work Order	8.5.1	1,000.00

SCHEDULE B
APPENDIX 21

Solid Waste Management Regulation Bylaw No. 1253, 2009

	SECTION	FINE
Put carts out prior to 7am	2.2.3	$500.00
Fail to place ashes in a non-combustible container	2.4.3	500.00
Fail to dispose of Biomedical Waste in prescribed manner	2.4.4	1,000.00
Fail to manage animal attractants	2.5.1	1,000.00
Fail to cover load	3.1.7	1,000.00
Unauthorized use of Transfer Station	3.1.8	1,000.00
Prohibited deposit of Garbage or Recyclable Material	4.1.1	1,000.00
Prohibited deposit of Garbage or Recyclable Material	4.1.2	1,000.00
Prohibited deposit of Garbage or Recyclable Material	4.1.3	1,000.00
Prohibited deposit of Mandatory Recyclable Material	4.1.4	500.00
Prohibited deposit of Garbage	4.1.5	500.00
Place Garbage for pick up with others	4.1.6	500.00
Deposit imported Materials without authorization	4.1.7	1,000.00
Use Landfill, Transfer Station or Recycling Depot after hours	4.1.8	500.00
Scavenge materials	4.1.10	500.00
Intentionally contaminate recyclable materials	4.1.14	1,000.00
Start a fire at a Waste Management Facility	Sch. E1.0 d)	1,000.00
Loiter at a Waste Management Facility	Sch. E 1.0 e)	500.00
Remove deposited Materials	Sch. E 1.0 h)	500.00

SCHEDULE B
APPENDIX 22

Water Systems Fees and Regulation Bylaw No. 1513, 2023

	SECTION	FINE
Interference with the water system	8.1	$1,000.00
Failed to install pressure reducing valve	9.5	1,000.00
Connection to the water system without a meter	13.1	1,000.00
Unauthorized meter bypass	13.3 (b)	1,000.00
Tampering with water meter	13.3 (d)	1,000.00
Booster pump without backflow prevention device	15.1	1,000.00
Sale of water from the water system	15.2	1,000.00
Introduction of contaminants into the water system	15.3	1,000.00
Risk of contaminants into the water system	15.4	1,000.00
Possible backflow into the water system	15.5	1,000.00
Demolition without water shut off	15.6	1,000.00
Sprinkling outside of permitted periods	16.2, 16.3	1,000.00
Fill a swimming pool, hot tub, garden pond, or fountain; or wash a vehicle, boat, driveway, sidewalk, or patio during Stage 3 restriction period	16.3 a)	1,000.00
Outdoor water use during stage 4 restriction period	16.3 b)	1,000.00
Wasteful use of water	16.6	1,000.00
Unauthorized hydrant use	17.6	1,000.00
RDCO Officer or designate refused access	22	1,000.00

SCHEDULE B
APPENDIX 23

Central Okanagan East Sewer Systems Bylaw No. 1316, 2012

	SECTION	FINE
Work without permit	7.3.1	$1,000.00
Allow prohibited or restricted materials into the sewer system	9.1	1,000.00
Interference with the sewer system	10.3	1,000.00
Fail to alert RDCO of deleterious discharges	10.4	1,000.00
Unmetered multi-family or non-domestic discharge	10.6	1,000.00
Fail to maintain wastewater system	10.7.3	1,000.00
Inspection chamber or Manhole not installed to prescribed standard	10.8.2, 10.8.3	1,000.00
Connect prohibited tanks to sewer system	10.9.1	1,000.00
Pre-treatment not installed where required	10.10.1	1,000.00
Pre-treatment not properly designed, maintained, or operated	10.10.2	1,000.00
Pre-treatment records not available for review	10.10.4	1,000.00
Pre-treatment records not retained for 3 years	10.10.5	1,000.00
Interceptor not installed where required	10.11	1,000.00
RDCO Officer or designate refused access	11.2	1,000.00

SCHEDULE B
APPENDIX 24

BL1566

Westside Sewer Systems Bylaw No. 1315, 2012

	SECTION	FINE
Work without permit	7.1	$3,000.00
Allow prohibited or restricted materials into the sewer system	9.1	3,000.00
Interference with the sewer system	10.1	3,000.00
Fail to maintain wastewater system	10.4	3,000.00
Connect prohibited tanks to sewer system	10.6	3,000.00
Pre-treatment not installed where required	10.7.1	3,000.00
Pre-treatment not properly designed, maintained, or operated	10.7.2	3,000.00
Pre-treatment records not available for review	10.7.4	3,000.00
Pre-treatment records not retained for 3 years	10.7.5	3,000.00
Interceptor not installed where required	10.8.1	3,000.00
RDCO Officer or designate refused access	11.2	3,000.00

SCHEDULE B
APPENDIX 25

Regional Parks Regulation Bylaw No.1427, 2018

	SECTION	FINE
Person in park closed for hazard	3 b)	$500.00
Obstruct Bylaw Officer	4 a)	1,000.00
Failure to obey posted sign or notice	4 c)	100.00
Possess or consume liquor	4 d)	200.00
Defecate or urinate in public	4 e)	100.00
Person in Park after park closure times	4 f)	100.00
Damage to natural landscape by motor vehicle	4 i) iii	500.00
Interfere with person lawfully using park	4 j)	100.00
Possess, use or ignite any combustible device	4 k)	250.00
Make a fire or open flame	4 l)	1,000.00
Smoking in park	4 o)	250.00
Violent, lewd or sexual conduct	4 p)	250.00
Operate unmanned, remote control or similar device	4 q)	100.00
Create nuisance, loiter, harass or accost park users	4 r)	150.00
Build or alter any trail	6 a) ii	250.00
Damage or remove any park feature	6 a) iii	500.00
Build, place or install temporary structure	6 a) iv	150.00
Deposit or release any dead or living plant or animal	6 a) vi	250.00
Interfere and/or feed wildlife	6 a) vii	200.00
Introduce any contaminate into a park or water body	6 a) ix	250.00
Litter not in waste receptacle	6 b)	250.00

SCHEDULE B
APPENDIX 25

Regional Parks Regulation Bylaw No.1427, 2018 (continued)

	SECTION	FINE
Dispose of domestic, commercial or industrial waste	6 c) i	$250.00
Cut, remove or damage tree(s)	6 d)	1,000.00
Dog off leash – 1st Offence	7 a)	150.00
Dog off leash – 2nd Offence	7 a)	200.00
Dog off leash – 3rd Offence and subsequent offences	7 a)	300.00
Failure to remove dog feces	7 b)	150.00
Dog in designated beach area	7 c)	100.00
Damage to park property by domestic animal	7 d)	100.00
Dog disturbing people or wildlife	7 e)	300.00
Dog in prohibited area	7 f)	100.00
Horse in prohibited area	7 h) i	100.00
Failure to remove horse feces from trail	7 h) ii	150.00
Possess or discharge firearm, firework or other without permit	8 a)	250.00
Motor vehicle off public roadway or parking lot	9 a)	100.00
Illegal Parking	9 c)	50.00
Park in disabled parking without permit	9 f)	100.00
Unsafe operation of vehicle	9 g)	100.00
Use of vessel in a designated swim area	9 j)	250.00
Endanger or interfere with a designated swim area	9 k)	150.00
Attach vessel to swim buoy	9 l)	150.00
Moor outside of designated area or boat launch	9 m)	200.00
Sell in Park	10 a) i	200.00
Conduct commercial or business activity	10 a) ii	1,000.00
Advertise in park	10 a) iv	100.00
Park Use Event or Special Event without Permit	11 c)	300.00
Breach of Park Use Permit	11 g)	150.00

SCHEDULE B
APPENDIX 26

Community Parks Regulation Bylaw No. 1431, 2019

	SECTION	FINE
Person in park closed for hazard	3 b)	$500.00
Obstruct Bylaw Officer	4 a)	1,000.00
Failure to obey posted sign or notice	4 c)	100.00
Possess or consume liquor	4 d)	200.00
Defecate or urinate in public	4 e)	100.00
Person in Park after park closure times	4 f)	100.00
Damage to natural landscape by motor vehicle	4 i) iii	500.00
Interfere with person lawfully using park	4 j)	100.00
Possess, use or ignite any combustible device	4 k)	250.00
Make a fire or open flame	4 l)	1,000.00
Smoking in park	4 o)	250.00
Violent, lewd or sexual conduct	4 p)	250.00
Operate unmanned, remote control or similar device	4 q)	100.00
Create nuisance, loiter, harass or accost park users	4 r)	150.00
Build or alter any trail	6 a) ii	250.00
Damage or remove any park feature	6 a) iii	500.00
Build, place or install temporary structure	6 a) iv	150.00
Deposit or release any dead or living plant or animal	6 a) vi	250.00
Interfere and/or feed wildlife	6 a) vii	200.00
Introduce any contaminate into a park or water body	6 a) ix	250.00
Litter not in waste receptacle	6 b)	250.00
Dispose of domestic, commercial or industrial waste	6 c) i	250.00
Cut, remove or damage tree(s)	6 d)	500.00
Dog off leash – 1st Offence	7 a)	150.00
Dog off leash – 2nd Offence	7 a)	200.00
Dog off leash - 3rd Offence and subsequent offences	7 a)	300.00
Failure to remove dog feces	7 b)	150.00
Dog in designated beach area	7 c)	100.00

SCHEDULE B
APPENDIX 26

Community Parks Regulation Bylaw No. 1431, 2019 (Continued)

Damage to park property by domestic animal	7 d)	100.00
Dog disturbing people or wildlife	7 e)	300.00
Dog in prohibited area	7 f)	100.00
Horse in prohibited area	7 h) i	100.00
Failure to remove horse feces from trail	7 h) ii	150.00
Possess or discharge firearm, firework or other without permit	8 a)	250.00
Motor vehicle off public roadway or parking lot	9 a)	100.00
Illegal Parking	9 c)	50.00
Park in disabled parking without permit	9 f)	100.00
Unsafe operation of vehicle	9 g)	100.00
Use of vessel in a designated swim area	9 j)	250.00
Endanger or interfere with a designated swim area	9 k)	150.00
Attach vessel to swim buoy	9 l)	150.00
Moor outside of designated area or boat launch	9 m)	200.00
Sell in Park	10 a) i	200.00
Conduct commercial or business activity	10 a) ii	1,000.00
Advertise in park	10 a) iv	100.00
Park Use Event or Special Event without Permit	11 c)	300.00
Breach of Park Use Permit	11 g	150.00

SCHEDULE B
APPENDIX 27

Fire Prevention and Regulation Bylaw No. 1066, 2004

	SECTION	FINE
Fail to keep in a safe condition	4)a)	$250.00
Increase the danger of fire	4)c)	250.00
Fail to maintain safety equipment/facility	4)d)	250.00
Allow accumulation of combustibles in alley/premises/sidewalk	4)e)	250.00
Fail to secure vacant building	4)f)	500.00
Fail to maintain fire alarm system	4)g)i	250.00
Fail to maintain emergency lighting system	4)g)ii	150.00
Fail to maintain fire department vehicle access	4)g)iii	300.00
Fail to maintain commercial cooking equipment	4)g)iv	250.00
Fail to supply/maintain portable fire extinguishers	4)g)v	250.00
Fail to maintain means of egress	4)g)vi	500.00
Fail to provide/maintain fire safety plan	4)g)vii	250.00
Fail to maintain automatic sprinkler /standpipe system	4)g)viii	250.00
Fail to maintain fire hydrant	4)g)ix	250.00
Fail to adhere to posted occupant loads	4)g)x	250.00
Fail to maintain specialized fire suppression system	4)g)xi	150.00
Make unauthorized connection to a hydrant	5)a)	150.00
Fail to maintain a clear area around hydrant	5)c)	150.00
Fail to install smoke alarm	6)a)	150.00
Fail to test smoke alarm	6)b)	150.00
Fail to install approved smoke alarm	6)c)	150.00
Burn without a permit	7)c)	150.00
Fail to manage fire	7)e)	250.00
Fail to maintain separation	7)f)	250.00
Burn imported material	7)g)	500.00
Fail to burn permitted materials only	7)h)	500.00
Fail to conclude burn	7)i)	250.00
Fail to conclude burn	7)j)	250.00
Burn land-clearing residue	7)k)	250.00
Burn when prohibited	7)l)	350.00
Burn when prohibited	7)m)	350.00
Fail to have competent person in charge of fire	7)n)	350.00

SCHEDULE B
APPENDIX 27

Fire Prevention and Regulation Bylaw No. 1066, 2004 (Continued)

Fail to control fire	7)o)	250.00
Burn prohibited materials	7)p)	500.00
Burn in domestic incinerator	7)q)	250.00
Burn campfire in prohibited period	7)r)	150.00
Improper air curtain burn	7)s)	250.00
Enter designated fire area	11)b)	150.00
Obstruct fire chief	11)c)	500.00
Initiate false alarm	11)e)	500.00

SCHEDULE B
APPENDIX 28

Control of Special Events Bylaw No. 80, 1974

	SECTION	FINE
Fail to apply for a special events permit	6	$500.00

SCHEDULE B
APPENDIX 29

Fireworks Prohibition & Regulation Bylaw No. 53, 1972

	SECTION	FINE
Sell/dispose/explode fireworks	2	$100.00