Township of Southgate

Dundalk Waterworks

2024 Annual Report

9.7 Public Works Department

9.7.1 PW2025-005 Dundalk Drinking Water 2024 Annual Report

No. 2025-102

Moved By Deputy Mayor Dobreen
Seconded By Councillor Ferguson

Be it resolved that Staff Report PW2025-005 be received for information; and
That; and that Council approve the Dundalk Drinking Water 2024 Annual Report.

Carried

Cory Henry
Public Works Water Supervisor

Dundalk Waterworks 2024 Annual Report

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Dundalk Waterworks - Township of Southgate

2023 Annual Water Report

Site:	Village of Dundalk
Operations Address:	75 Dundalk Street, Dundalk, Ontario N0C 1B0
Waterworks #:	220001753
Municipal Drinking Water Licence:	110-101, Issue No. 5
Drinking Water Works Permit:	110-201, Issue No. 5
Period of this Report:	January 1- December 31 **Year:** 2024

Description of System

The water system known as Dundalk Water Works is a ground water source consisting of three production wells, one monitoring well and a distribution system. The system is monitored by a SCADA system installed in 2006 which communicates through RF towers and PLC's in the wells to record data and monitor operations.

Well D3 is equipped with a submersible pump, flow meter, two ultra violet sterilization chambers and a chemical feed pump for sodium hypochlorite and is connected to a 1365 m^3 baffled storage tank with 2 pax mixers. Two turbine high lift pumps pump from storage through a flow meter into a distribution system and a booster chemical feed pump are connected after the reservoir and starts automatically if the chlorine residual begins to fall. This well has a capacity of 1182 m^3/day. This pump house is equipped with two chlorine analyzers, one prior to the reservoir and the second installed prior to entering the distribution system. The entire system is under the control of a PLC system and any failures alarm a dial out system to alert operators. Well D3 is equipped with an 80 kW diesel generator that starts automatically in the event of a power outage and is capable of providing power to maintain this water supply.

Well D4 was constructed in 2004 and is equipped with a submersible pump, flow meter and a chemical feed pump for sodium hypochlorite and is connected to a 187.7 m^3 baffled reservoir. Two turbine high lift pumps pump from storage through a flow meter into a distribution system and a booster chemical feed pump is connected after the reservoir that automatically starts if the chlorine residual begins to fall. This well has a 1637 m^3/day capacity. This pump house is equipped with two chlorine analyzers, one prior to the reservoir and the second installed prior to entering the distribution system. The entire system is under the control of a PLC system and any failures alarm a dial out system to alert operators. Well D4 is equipped with a 100 kW diesel generator with automatic transfer switch for standby power.

Well D5 was drilled in 2017 with the well house and reservoir built in 2019. It is equipped with a 15hp submersible pump that fills a rectangular baffled reservoir with a capacity of 536 cubic meters. Two turbine high lift pumps pump from storage through a flow meter into a distribution system and a booster chemical feed pump is connected after the reservoir that automatically starts if the chlorine residual begins to fall. This well has a 1961 m3/day capacity. This pump house is equipped with two chlorine analysers, one prior to the reservoir and the second installed prior to entering the distribution system. The entire system is under the control of a PLC system and any failures alarm a dial out system to alert operators. Well D5 is equipped with a 150 kW diesel generator with automatic transfer switch for standby power.

In September of 2023, the water tower was added to the system. It is located next to Well 4, which supplies the back up power for the tower. The tower can hold 4000 cubic meters of water. There is a recirculation pump that can be used to cycle the water and also boost chlorine levels if needed.

The distribution system is made up of a network of water mains of varying size with 1,602 service connections.

Summary of all Test Results

Treated Water Recap:

No. of Distribution Samples taken	265
No. of Treated Water Well Samples taken	159
No. of samples with Total Coliform	0
No. of samples with E Coli	0
No. of treated samples with Heterotrophic Plate Count >500	0

Raw Water Recap:

No. of Raw Water Well Samples taken	159
No. of Raw samples with Total Coliform	13
No. of Raw samples with E Coli	2
No. of Raw samples with Heterotrophic Plate Count > 500	0

Heterotrophic Plate Counts are conducted on some treated and distribution system samples. The HPC test is used as a tool to monitor overall quality, but the results are not indicators of water safety. There is not a Drinking Water Quality Standard for HPC.

Summary of Adverse Test Results Reported: -

There was one incident of Adverse Drinking Water:

- March 04, 2024 – Sodium
  On March 04, 2024, the Township received adverse sodium from Well D3 and Well D4. The sodium level for Well D3 was 30.2 mg/L and for

well D4 was 30.3 mg/L with the MAC (Maximum Allowable Concentration) being 20 mg/L.

Description of action taken:

- Reported to the MECP Spills Action Centre (SAC) and the Grey Bruce Public Health Unit – AWQI#161472 on March 13, 2023. Users were notified and the sodium fact sheet was sent with the following water bills. This is reportable every 57 months.

Description of Major Equipment Expenses:

- Debt/ Water Tower engineering and construction = $69.228.00
- Ida Street construction= $9,330.00
- Victoria Street construction = $1,618,433.00
- Debt Well D5/ Main St E = $342,473.00
- Water System review, engineering = $7,992.00
- Bulk Water Station = $78,994.00

New Equipment Installed:

September 2024 – New bulk water station installed.

Equipment Replaced:

01/31/2024 – D4 pressure transmitter replaced - $4,900.00

10/23/2024 - D5 Turbidity analyser replaced - $7,000.00

Repairs to Equipment:

09/17/2024- D3 generator repairs. New battery, terminals and cables. Replaced leaking lift pump.

Frozen Water:

Nothing to report.

Township of Southgate - Dundalk Waterworks
Average Day Well Consumption vs. Maximum Flow/Day Allowed Report 2024

Month	Average Day Water Consumption Well #3	Maximum Flow Rate Allowed Well #3/Day	Average Day Water Consumption Well #4	Maximum Flow Rate Allowed Well #4/Day	Average Day Water Consumption Well #5	Maximum Flow Rate Allowed Well #5/Day	Average Day Water Consumption All Wells	Maximum Flow Rate Allowed All Wells/Day
January	259	1,182	278	1,637	275	1,961	812	2,817
February	266	1,182	291	1,637	339	1,961	896	2,817
March	274	1,182	279	1,637	413	1,961	966	2,817
April	289	1,182	306	1,637	406	1,961	1,001	2,817
May	307	1,182	323	1,637	409	1,961	1,039	2,817
June	332	1,182	365	1,637	350	1,961	1,047	2,817
July	348	1,182	356	1,637	333	1,961	1,037	2,817
August	347	1,182	352	1,637	300	1,961	999	2,817
September	355	1,182	352	1,637	274	1,961	981	2,817
October	348	1,182	387	1,637	219	1,961	954	2,817
November	364	1,182	361	1,637	230	1,961	955	2,817
December	357	1,182	346	1,637	266	1,961	969	2,817
Annual Monthly Average in M_3	321	1,182	333	1,637	318	1,961	971	2,817

Note: Flow in above chart is in Cubic Meters

Certificate of Approval Well Pumping Maximum Flow Rate per Day

Well	Maximum Pump Rate in Liters/Min.	Maximum Pump Rate in Liters/Day	Maximum Pump Rate in m_3/Day	Maximum Pump Rate in Gallons/Day
Well #3	820	1,180,800	1181	259,985
Well #4	1137	1,637,280	1636	360,149
Well #5	1362	1,961,280	1961	431,695
Total			2817	620,134

Township of Southgate - Dundalk Waterworks
Maximum One Day Well Consumption vs. Maximum Flow Allowed Report 2024

Month	Maximum One Day Consumption Well #3	Maximum Flow Allowed/Day Well #3	Maximum One Day Consumption Well #4	Maximum Flow Allowed/Day Well #4	Maximum One Day Consumption Well #5	Maximum Flow Allowed/Day Well #5	Maximum One Day Flow All Wells	Maximum Flow Allowed/Day All Wells
January	304	1,182	442	1,637	721	1,961	1,228	2,817
February	458	1,182	411	1,637	538	1,961	1,201	2,817
March	392	1,182	374	1,637	638	1,961	1,164	2,817
April	407	1,182	390	1,637	684	1,961	1,239	2,817
May	374	1,182	425	1,637	907	1,961	1,538	2,817
June	379	1,182	518	1,637	778	1,961	1,576	2,817
July	397	1,182	415	1,637	527	1,961	1,230	2,817
August	596	1,182	404	1,637	611	1,961	1,178	2,817
September	402	1,182	460	1,637	417	1,961	1,168	2,817
October	676	1,182	683	1,637	611	1,961	1,517	2,817
November	457	1,182	427	1,637	465	1,961	1,195	2,817
December	410	1,182	435	1,637	437	1,961	1,140	2,817
Annual Maximum for One Day - m_3	676	1182	683	1637	907	1961	1576	2817
Annual Maximum for One Day - Gal	148,815	260,205	150,356	360,369	199,667	431,695	346,941	620,134

Note: Flow in above chart is in Cubic Meters

Certificate of Approval Well Pumping Maximum Capacity per Day

Well	Maximum Pump Rate in Liters/Min.	Maximum Pump Rate in Liters/Day	Maximum Pump Rate in m_3/Day	Maximum Pump Rate in Gallons/Day
Well #3	822	1,183,680	1181	259,985
Well #4	1134	1,632,960	1636	360,149
Well #5	1362	1,961,280	1961	431,695
Total			2817	620,134

Township of Southgate - Dundalk Waterworks
Total Well Consumption vs. Maximum Flow Allowed Report 2024

Month	Water Consumption Well #3	Monthly Flow Allowed Well #3	Water Consumption Well #4	Monthly Flow Allowed Well #4	Water Consumption Well #5	Monthly Flow Allowed Well #5	# of Days in Month
January	8,024	36,611	8,621	50,716	8,514	60,791	31
February	7,711	34,249	8,445	47,444	9,833	56,869	29
March	8,489	36,611	8,657	50,716	12,800	60,791	31
April	8,661	35,430	9,174	49,080	12,174	58,830	30
May	9,516	36,611	10,000	50,716	12,677	60,791	31
June	9,949	35,430	10,949	49,080	10,492	58,830	30
July	10,796	36,611	11,049	50,716	10,319	60,791	31
August	10,763	36,611	10,902	50,716	9,303	60,791	31
September	10,652	35,430	10,570	49,080	8,227	58,830	30
October	10,785	36,611	12,008	50,716	6,803	60,791	31
November	10,932	35,430	10,815	49,080	6,896	58,830	30
December	11,074	36,611	10,722	50,716	8,261	60,791	31
Annual Flow in m3	117,352	432,246	121,912	598,776	116,299	717,726	

Certificate of Approval Well Pumping Maximum Flow Rate per Day

Well	Maximum Pump Rate in Liters/Min.	Maximum Pump Rate in Liters/Day	Maximum Pump Rate in m_3/Day	Maximum Pump Rate in Gallons/Day	Water Consumption in m3 by Well in 2023	Annual Flow Allowed at each Wells
Well #3	822	1,183,680	1181	259,985	117,352	432,246
Well #4	1134	1,632,960	1636	360,149	121,912	598,776
Well #5	1362	1,961,280	1961	431,695	116,299	717,726
Total			2817	620,134	355,563	1,748,748

OPTIONAL ANNUAL REPORT TEMPLATE

Drinking-Water System Number:	**220001753**
Drinking-Water System Name:	Dundalk Waterworks
Drinking-Water System Owner:	Township of Southgate
Drinking-Water System Category:	Large Municipal – Residential
Period being reported:	January 1 to December 31, 2024

Complete if your Category is Large Municipal Residential or Small Municipal Residential

Does your Drinking-Water System serve more than 10,000 people? Yes [ ] No [x]

Is your annual report available to the public at no charge on a web site on the Internet? Yes [x] No [ ]

Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.

- Southgate Municipal Office (near Hopeville) 185667 Grey Road 9, RR 1 Dundalk ON N0C 1B0
- Dundalk Works Depot 75 Dundalk St Dundalk ON N0C 1B0
- Dundalk Library 80 Proton Street North

Complete for all other Categories.

Number of Designated Facilities served: 3

Did you provide a copy of your annual report to all Designated Facilities you serve?
Yes [x] No [ ]

Number of Interested Authorities you report to: 3

Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?
Yes [x] No [ ]

Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report

List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?
Yes [ ] No [x]

Indicate how you notified system users that your annual report is available, and is free of charge.

[x] Public access/notice via the web
[x] Public access/notice via Government Office
[x] Public access/notice via a newspaper
[x] Public access/notice via Public Request
[x] Public access/notice via a Public Library
[ ] Public access/notice via other method _____

Describe your Drinking-Water System

Dundalk Waterworks has three operational wells. The Township has a 1306 m^3 of storage in an above ground baffled reservoir at Well 3, a 187.7 m^3 baffled reservoir at Well D4 and a 536 m3 baffled reservoir at Well D5. The water is pumped by high lift pumps into the distribution and fills the Dundalk Water Tower adjacent to Well D4. Well pumping and tower refilling are programmed for off peak hydro rates savings. All wells, and the water tower communicate by fiber-& wireless-connections to control which well is in the lead and all other operating parameters and alarms are monitored by SCADA through the same communications system.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite

Were any significant expenses incurred to?

[ ] Install required equipment
[ ] Repair required equipment
[ ] Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred

- Debt/ Water Tower engineering and construction = $69.228.00
- Ida Street construction= $9,330.00
- Victoria Street construction = $1,618,433.00
- Debt Well D5/ Main St E = $342,473.00
- Water System review, engineering = $7,992.00
- Bulk Water Station = $78,994.00

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
4/3/24	Sodium	30.3	Mg/L	N/R	N/A
4/3/24	Sodium	30.2	Mg/L	N/R	N/A
4/7/23	Sodium	28.1	Mg/L	N/R	N/A
4/7/23	Sodium	24.9	Mg/L	N/R	N/A
7/3/23	Sodium	28.9	Mg/L	N/R	N/A
7/3/23	Sodium	26.6	Mg/L	N/R	N/A
19/7/22	Sodium	27.6	Mg/L	N/R	N/A
19/7/22	Sodium	30.2	Mg/L	N/R	N/A
8/2/22	Sodium	27.5	Mg/L	N/R	N/A
8/3/22	Sodium	29.9	Mg/L	N/R	N/A
12/7/21	Sodium	28.5	Mg/L	N/R	N/A
12/7/21	Sodium	30.0	Mg/L	N/R	N/A
1/3/21	Sodium	31.6	Mg/L	N/R	N/A
1/3/21	Sodium	30.2	Mg/L	N/R	N/A
7/6/20	Sodium	31.6	Mg/L	N/R	N/A
7/6/20	Sodium	27.6	Mg/L	N/R	N/A
3/9/20	Sodium	29.5	Mg/L	N/R	N/A
3/9/20	Sodium	30.2	Mg/L	N/R	N/A
7/2/19	Sodium	26.7	Mg/L	N/R	N/A
7/2/19	Sodium	25.0	Mg/L	N/R	N/A
3/4/19	Sodium	23.5	Mg/L	N/R	N/A
3/4/19	Sodium	22.8	Mg/L	N/R	N/A
3/9/18	Sodium	36.3	Mg/l	Re-sampled	3/13/18
3/9/18	Sodium	31.9	Mg/l	Re-sampled	3/13/18
3/5/18	Sodium	36.3	mg/l		
3/6/17	Sodium	28.2	mg/l	N/R	N/A
7/5/16	Sodium	28	mg/l	N/R	N/A
3/10/16	Sodium	28.8	mg/l	Re-sampled	7/5/16

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

	Number of Samples	Range of E.Coli Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	159	0-35	0-52	159	0-310
Treated	159	0-0	0-0	159	0-60
Distribution	265	0-0	0-0	265	0-1270

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results (min #)-(max #)
Turbidity	**36**	**0.02 - 0.15**
Chlorine	**577** **8760 – D3** **8760 – D4** **8760 – D5**	**Distribution Free 0.32 – 1.40** **Treated Free 0.66 – 1.50** **Treated Free 0.56 – 1.31** **Treated Free 0.84 – 1.24**
Fluoride (If the DWS provides fluoridation)		

***NOTE**: For continuous monitors use 8760 as the number of samples.*

***NOTE**: Record the unit of measure if it is **not** milligrams per litre.*

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
Drinking Water License 110-101 Issue Number 5 (01/28/2021), Permit 110-201 Issue Number 5 (01/28/2021),	**Sodium**	**4/3/24**	**D3-30.2** **D4-30.3** **D5-13.3**	Mg/L
	Sodium	**4/7/23** **7/3/23**	**D3-28.1** **D4-24.9** **D5-12.7** **D3-28.9** **D4-26.6** **D5-13.2**	Mg/L
	Sodium	**19/7/22** **8/3/22**	**D3-30.2** **D4-27.6** **D5-15.1** **D3-29.9** **D4-27.5** **D5-14.4**	Mg/L
“	**Radionuclides**	**4/3/24**		
“	**D3 Gross Alpha**	**“**	**<0.10**	Bq/L
“	**D3 Gross Beta**	**“**	**0.13**	Bq/L
“	**D3 Tritium**	**“**	**<15**	Bq/L
“	**D4 Gross Alpha**	**“**	**<0.13**	Bq/L
“	**D4 Gross Beta**	**“**	**<0.10**	Bq/L
“	**D4 Tritium**	**“**	**<15**	Bq/L

“	**D5 Gross Alpha**	“	**<0.16**	Bg/L
“	**D5 Gross Beta**	“	**<0.10**	Bg/L
“	**D5 Tritium**	“	**<15**	Bg/L
Drinking Water License 110-101 Issue Number 5 (01/28/2021), Permit 110-201 Issue Number 5 (01/28/2021),	**Sodium**	**3/9/20** **7/6/20**	**D3-29.5** **D4-30.2** **D5-16.3** **D3-31.6** **D4-27.6** **D5-15.7**	
“	**Sodium**	**3/8/19**	**D3-22.8** **D4-23.5**	mg/l
“	**Sodium**	**3/6/17**	**D3-28.2** **D4-26.3**	mg/l
Drinking Water License 110-101(01/02/2016), Permit 110-201(02/02/2016)	**Sodium**	**July 5/16**	**D3-27.9** **D4-28**	mg/l
“	**Sodium**	**March 8/16**	**D3-28.8** **D4-27.7**	mg/l
“	**Sodium**	**March 9/15**	**D3-28.7**	mg/l
“	**Sodium**	”	**D4 – 18.1**	mg/l

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	**March/4/24**	**D3-<0.0001** **D4-<0.0001** **D5-<0.0001**	mg/l	
Arsenic	**March/4/24**	**D3-0.0012** **D4-0.0004** **D5-0.0007**	“	
Barium	**March/4/24**	**D3-0.107** **D4-0.099** **D5-0.104**	“	
Boron	**March/4/24**	**D3-0.047** **D4-0.039** **D5-0.043**	“	
Cadmium	**March/4/24**	**D3-<0.000015** **D4-<0.000015** **D5-<0.000015**	“	
Chromium	**March/4/24**	**D3-<0.0010** **D4-<0.0010** **D5-<0.0010**	“	
***Lead**	**March 12/24** **September 10/24**	**Low-0.00016** **High-0.00030** **Low-0.00035** **High-0.00048**	mg/l	
Mercury	**March/4/24**	**D3-<0.00002** **D4-<0.00002** **D5-<0.00002**	“	
Selenium	**March/4/24**	**D3-<0.001**	“	

		D4-<0.001 **D5-<0.001**		
Sodium	**March/4/24**	**D3-30.2** **D4-30.3** **D5-13.3**	mg/l	
Uranium	**March/4/24**	**D3-0.00210** **D4-0.00174** **D5-0.00035**	mg/l	
Fluoride	**April/4/23**	**D3-0.5** **D4-0.7** **D5-2.1**	mg/l	
Nitrite	**October 1/24**	**D3-0.08** **D4-<0.05** **D5-<0.05**	"	
Nitrate	**October 1/24**	**D3-0.61** **D4-1.85** **D5-<0.05**	"	

*Only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

Summary of lead testing under Schedule 15.1 during this reporting period

(Applicable to the following drinking water systems; large municipal residential systems**,** small municipal residential systems, and non-municipal year-round residential systems)

*Note: Municipality is on reduced sampling schedule currently.

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Number of Exceedances
Residential	**Exempt from sampling**		
Non-Residential	**Exempt from sampling**		
Distribution	**Alkalinity only**	0.00016mg/L to 0.00048 mg/L	0

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	March 4/24	**D3-<0.3** **D4-<0.3** **D5-<0.3**	**ug/l**	
Aldicarb	March 9/15	**0.01**	"	
Aldrin + Dieldrin	March 9/15	**0.01**	"	
Atrazine + N-dealkylated metabolites	March 4/24	**D3-<0.5** **D4-<0.5** **D5-<0.5**	"	

Azinphos-methyl	March 4/24	**D3-<1 D4-<1 D5-<1**	**ug/l**	
Bendiocarb	March 9/15	**0.01**	**“**	
Benzene	March 4/24	**D3-<0.5 D4-<0.5 D5-<0.5**	**“**	
Benzo(a)pyrene	March 4/24	**D3-<0.006 D4-<0.006 D5-<0.006**	“	
Bromoxynil	March 4/24	**D3-<0.5 D4-<0.5 D5-<0.5**	“	
Carbaryl	March 4/24	**D3-<3 D4-<3 D5-<3**	“	
Carbofuran	March 4/24	**D3-<1 D4-<1 D5-<1**	“	
Carbon Tetrachloride	March 4/24	**D3-<0.2 D4-<0.2 D5-<0.2**	“	
Chlordane (Total)	March 9/15	**0.01**	“	
Chlorpyrifos	March 4/24	**D3-<0.5 D4-<0.5 D5-<0.5**	“	
Cyanazine	March 9/15	**0.03**	“	
Diazinon	March 4/24	**D3-<1 D4-<1 D5-<1**	“	
Dicamba	March 4/24	**D3-<1 D4-<1 D5-<1**	“	
1,2-Dichlorobenzene	March 4/24	**D3-<0.5 D4-<0.5 D5-<0.5**	“	
1,4-Dichlorobenzene	March 4/24	**D3-<0.5 D4-<0.5 D5-<0.5**	“	
Dichlorodiphenyltrichloroethane (DDT) + metabolites	March 9/15	**0.01**	“	
1,2-Dichloroethane	March 4/24	**D3-<0.5 D4-<0.5 D5-<0.5**	“	
1,1-Dichloroethylene (vinylidene chloride)	March 4/24	**D3-<0.5 D4-<0.5 D5-<0.5**	“	
Dichloromethane	March 4/24	**D3-<5 D4-<5 D5-<5**	“	
2-4 Dichlorophenol	March 4/24	**D3-<0.2 D4-<0.2 D5-<0.2**	“	

2,4-Dichlorophenoxy acetic acid (2,4-D)	March 4/24	**D3-<1 D4-<1 D5-<1**	"	
Diclofop-methyl	March 4/24	**D3-<0.9 D4-<0.9 D5-<0.9**	"	
Dimethoate	March 4/24	**D3-<1 D4-<1 D5-<1**	"	
Dinoseb	March 9/15	**0.36**	"	
Diquat	March 4/24	**D3-<5 D4-<5 D5-<5**	"	
Diuron	March 4/24	**D3-<5 D4-<5 D5-<5**	"	
Glyphosate	March 4/24	**D3-<25 D4-<25 D5-<25**	"	
Heptachlor + Heptachlor Epoxide	March 9/15	**0.01**	"	
Haloacetic Acids (Bromoacetic Acid, Chloroacetic Acid, Dichloroacetic Acid, Dibromoacetic Acid, and Trichloroacetic Acid)	October 1/24	**5.3**	"	
Lindane (Total)	March 9/15	**0.01**	"	
Malathion	March 4/24	**D3-<5 D4-<5 D5-<5**	"	
Methoxychlor	March 5/18	**0.03**	"	
2-methyl-4-chlorophenoxyacetuc acid	March 5/18	**0.00012**	mg/l	
Metolachlor	March 4/24	**D3-<3 D4-<3 D5-<3**	ug/l	
Metribuzin	March 4/24	**D3-<3 D4-<3 D5-<3**	"	
Monochlorobenzene	March 1/21	**<0.5**	"	
Paraquat	March 4/24	**D3-<1 D4-<1 D5-<1**	"	
Parathion	March 9/15	**0.02**	"	
Pentachlorophenol	March 4/24	**D3-<0.2 D4-<0.2 D5-<0.2**	"	
Phorate	March 4/24	**D3-<0.3 D4-<0.3 D5-<0.3**	"	
Picloram	March 4/24	**D3-<5 D4-<5 D5-<5**	"	
Polychlorinated Biphenyls(PCB)	March 4/24	**D3-<0.5 D4-<0.5 D5-<0.5**	"	

Prometryne	March 4/24	**D3-<0.1** **D4-<0.1** **D5-<0.1**	"	
Simazine	March 5/18	**0.01**	"	
THM **(**NOTE**:** show latest running annual average**)**	October 1/24	**18.5**	ug/l	
Temephos	March 9/15	**0.01**	"	
Terbufos	March 4/24	**D3-<0.5** **D4-<0.5** **D5-<0.5**	"	
Tetrachloroethylene	March 4/24	**D3-<0.5** **D4-<0.5** **D5-<0.5**	"	
2,3,4,6-Tetrachlorophenol	March 4/24	**D3-<0.2** **D4-<0.2** **D5-<0.2**	"	
Triallate	March 4/24	**D3-<10** **D4-<10** **D5-<10**	"	
Trichloroethylene	March 4/24	**D3-<0.5** **D4-<0.5** **D5-<0.5**	"	
2,4,6-Trichlorophenol	March 4/24	**D3-<0.2** **D4-<0.2** **D5-<0.2**	"	
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	March 9/15	**0.22**	"	
Trifluralin	March 4/24	**D3-<0.5** **D4-<0.5** **D5-<0.5**	"	
Vinyl Chloride	March 4/24	**D3-<0.2** **D4-<0.2** **D5-<0.2**	"	

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample

Annual Sampling Results 2024

Year: 2024

Parameter	Ecoli						Total Coliform						HPC						Background		Raw Water Turbidity		Treated Chlorine Free		Treated Turbidity		Distribution Chlorine Free		Distribution Turbidity	
	Raw		Treated		Distribution		Raw		Treated		Distribution		RW-Raw		TW-Treated		DW-Distribution													
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
January	0	0	0	0	0	0	0	2	0	0	0	0	<10	<10	<10	10	<10	40			0.11	0.11	0.66	1.39	0.01	0.42	0.68	1.40	0.07	0.35
February	0	0	0	0	0	0	0	2	0	0	0	0	<10	100	<10	<10	<10	90			0.08	0.15	0.69	1.27	0.04	0.37	0.70	1.37	0.06	0.26
March	0	0	0	0	0	0	0	1	0	0	0	0	<10	20	<10	10	<10	10			0.05	0.08	0.56	1.36	0.04	0.70	0.87	1.34	0.08	0.79
April	0	0	0	0	0	0	0	1	0	0	0	0	<10	40	<10	60	<10	40			0.06	0.07	0.71	1.35	0.05	0.34	0.78	1.21	0.07	0.28
May	0	0	0	0	0	0	0	0	0	0	0	0	<10	40	<10	10	<10	70			0.06	0.09	0.95	1.50	0.05	0.33	0.75	1.19	0.09	0.27
June	0	35	0	0	0	0	0	52	0	0	0	0	<10	310	<10	10	<10	60			0.05	0.07	0.98	1.31	0.02	0.39	0.58	1.24	0.08	0.31
July	0	0	0	0	0	0	0	3	0	0	0	0	<10	80	<10	10	<10	1270			0.02	0.05	0.82	1.23	0.01	0.34	0.32	1.20	0.02	0.32
August	0	0	0	0	0	0	0	3	0	0	0	0	<10	100	<10	10	<10	20			0.02	0.04	0.84	1.28	0.01	0.39	0.52	1.16	0.08	0.49
September	0	0	0	0	0	0	0	0	0	0	0	0	<10	10	<10	10	<10	50			0.07	0.07	0.78	1.25	0.01	0.35	0.66	1.16	0.12	0.56
October	0	0	0	0	0	0	0	0	0	0	0	0	<10	140	<10	20	<10	50			0.06	0.09	0.80	1.44	0.05	0.39	0.57	1.18	0.09	0.36
November	0	0	0	0	0	0	0	0	0	0	0	0	<10	30	<10	30	<10	130			0.05	0.08	0.86	1.44	0.05	0.38	0.58	1.22	0.10	0.33
December	0	0	0	0	0	0	0	0	0	0	0	0	<10	40	<10	10	<10	100			0.05	0.07	0.75	1.29	0.04	0.36	0.56	1.20	0.09	0.46
Recap for Year	0	35	0	0	0	0	0	52	0	0	0	0	0	310	0	60	0	1270	-	-	0.02	0.15	0.56	1.50	0.01	0.70	0.32	1.40	0.02	0.79

Lab Reports

Annual Summary - Distribution System Bacteriological Data

Water Works Name: Dundalk Water Works
Year: 2024
Serviced Population: 2803
Laboratories Which Performed Analyses: Caduceon Labs

Distribution System

Month	Total Coliform			Fecal Coliform/Escherichia Coli			HPC or MF		
	No. of Samples Collected	No. of Samples "Safe"	No. of Samples "Unsafe"	No. of Samples Collected	No. of Samples "Safe"	No. of Samples "Unsafe"	No. of Samples Collected	No. of Samples "Safe"	No. of Samples "Unsafe"
January	25	25	0	25	25	0	25	25	0
February	20	20	0	20	20	0	20	20	0
March	20	20	0	20	20	0	20	20	0
April	25	25	0	25	25	0	25	25	0
May	20	20	0	20	20	0	20	20	0
June	20	20	0	20	20	0	20	20	0
July	25	25	0	25	25	0	25	25	0
August	20	20	0	20	20	0	20	20	0
September	20	20	0	20	20	0	20	20	0
October	25	25	0	25	25	0	25	25	0
November	20	20	0	20	20	0	20	20	0
December	25	25	0	25	25	0	25	25	0
Total	265	265	0	265	265	0	265	265	0

Input into the Distribution System Bacteriological Data

Water Works Name: Dundalk Water Works
Well No. (If applicable) Well #3
Year: 2024
Serviced Population: 2803
Laboratories Which Performed Analyses: Caduceon Labs

Treated Water

Month	Total Coliform			Fecal Coliform/Escherichia Coli			HPC or MF		
	No. of Samples	No. of Samples "Safe"	No. of Samples "Unsafe"	No. of Samples Collected	No. of Samples "Safe"	No. of Samples "Unsafe"	No. of Samples Collected	No. of Samples "Safe"	No. of Samples "Unsafe"
January	5	5	0	5	5	0	5	5	0
February	4	4	0	4	4	0	4	4	0
March	4	4	0	4	4	0	4	4	0
April	5	5	0	5	5	0	5	5	0
May	4	4	0	4	4	0	4	4	0
June	4	4	0	4	4	0	4	4	0
July	5	5	0	5	5	0	5	5	0
August	4	4	0	4	4	0	4	4	0
September	4	4	0	4	4	0	4	4	0
October	5	5	0	5	5	0	5	5	0
November	4	4	0	4	4	0	4	4	0
December	5	5	0	5	5	0	5	5	0
Total	53	53	0	53	53	0	53	53	0

Input into the Distribution System Bacteriological Data

Water Works Name: Dundalk Water Works
Well No. (If applicable) Well # 4
Year: 2024
Serviced Population: 2803
Laboratories Which Performed Analyses: Caduceon Labs

Treated Water

Month	Total Coliform			Fecal Coliform/Escherichia Coli			HPC or MF		
	No. of Samples	No. of Samples "Safe"	No. of Samples "Unsafe"	No. of Samples Collected	No. of Samples "Safe"	No. of Samples "Unsafe"	No. of Samples Collected	No. of Samples "Safe"	No. of Samples "Unsafe"
January	5	5	0	5	5	0	5	5	0
February	4	4	0	4	4	0	4	4	0
March	4	4	0	4	4	0	4	4	0
April	5	5	0	5	5	0	5	5	0
May	4	4	0	4	4	0	4	4	0
June	4	4	0	4	4	0	4	4	0
July	5	5	0	5	5	0	5	5	0
August	4	4	0	4	4	0	4	4	0
September	4	4	0	4	4	0	4	4	0
October	5	5	0	5	5	0	5	5	0
November	4	4	0	4	4	0	4	4	0
December	5	5	0	5	5	0	5	5	0
Total	53	53	0	53	53	0	53	53	0

Input into the Distribution System Bacteriological Data

Water Works Name: Dundalk Water Works
Well No. (If applicable) Well # 5
Year: 2024
Serviced Population: 2803
Laboratories Which Performed Analyses: Caduceon Labs

Treated Water

Month	Total Coliform			Fecal Coliform/Escherichia Coli			HPC or MF		
	No. of Samples	No. of Samples "Safe"	No. of Samples "Unsafe"	No. of Samples Collected	No. of Samples "Safe"	No. of Samples "Unsafe"	No. of Samples Collected	No. of Samples "Safe"	No. of Samples "Unsafe"
January	5	5	0	5	5	0	5	5	0
February	4	4	0	4	4	0	4	4	0
March	4	4	0	4	4	0	4	4	0
April	5	5	0	5	5	0	5	5	0
May	4	4	0	4	4	0	4	4	0
June	4	4	0	4	4	0	4	4	0
July	5	5	0	5	5	0	5	5	0
August	4	4	0	4	4	0	4	4	0
September	4	4	0	4	4	0	4	4	0
October	5	5	0	5	5	0	5	5	0
November	4	4	0	4	4	0	4	4	0
December	5	5	0	5	5	0	5	5	0
Total	53	53	0	53	53	0	53	53	0

Annual Summary - Raw Water (A Separate Sheet Should Be Completed For Each Raw Water Input To The Treatment Works) Bacteriological Data

Water Works Name: Dundalk Water Works
Well No. (If applicable) Well # 3
Year: 2024
Serviced Population: 2803
Laboratories Which Performed Analyses: Caduceon Labs

Raw Water

Month	Total Coliform			Fecal Coliform/Escherichia Coli		
	No. of Samples	No. of Samples 0 Organisms/100 ml	No. of Samples > 0 Organisms/100ml	No. of Samples Collected	No. of Samples 0 Org./100 ml	No. of Samples > 0 Organisms/100ml
January	5	5	0	5	5	0
February	4	4	0	4	4	0
March	4	4	0	4	4	0
April	5	4	1	5	5	0
May	4	4	0	4	4	0
June	4	3	1	4	3	1
July	5	4	1	5	5	0
August	4	3	1	4	4	0
September	4	4	0	4	4	0
October	5	5	0	5	5	0
November	4	4	0	4	4	0
December	5	5	0	5	5	0
Total	53	49	4	53	52	1

Annual Summary - Raw Water (A Separate Sheet Should Be Completed For Each Raw Water Input To The Treatment Works) Bacteriological Data

Water Works Name: Dundalk Water Works
Well No. (If applicable) Well # 4
Year: 2024
Serviced Population: 2803
Laboratories Which Performed Analyses: Caduceon Labs

Raw Water

Month	Total Coliform			Fecal Coliform/Escherichia Coli		
	No. of Samples	No. of Samples 0 Organisms/100 ml	No. of Samples > 0 Organisms/100ml	No. of Samples Collected	No. of Samples 0 Org./100 ml	No. of Samples > 0 Organisms/100ml
January	5	3	2	5	5	0
February	4	2	2	4	4	0
March	4	2	2	4	4	0
April	5	5	0	5	5	0
May	4	4	0	4	4	0
June	4	3	1	4	3	1
July	5	4	1	5	5	0
August	4	4	0	4	4	0
September	4	4	0	4	4	0
October	5	5	0	5	5	0
November	4	4	0	4	4	0
December	5	5	0	5	5	0
Total	53	45	8	53	52	1

Annual Summary - Raw Water (A Separate Sheet Should Be Completed For Each Raw Water Input To The Treatment Works) Bacteriological Data

Water Works Name: Dundalk Water Works
Well No. (If applicable) Well # 5
Year: 2024
Serviced Population: 2803
Laboratories Which Performed Analyses: Caduceon Labs

Raw Water

Month	Total Coliform			Fecal Coliform/Escherichia Coli		
	No. of Samples	No. of Samples 0 Organisms/100 ml	No. of Samples > 0 Organisms/100ml	No. of Samples Collected	No. of Samples 0 Org./100 ml	No. of Samples > 0 Organisms/100ml
January	5	5	0	5	5	0
February	4	4	0	4	4	0
March	4	4	0	4	4	0
April	5	5	0	5	5	0
May	4	4	0	4	4	0
June	4	4	0	4	4	0
July	5	5	0	5	5	0
August	4	4	0	4	4	0
September	4	4	0	4	4	0
October	5	5	0	5	5	0
November	4	4	0	4	4	0
December	5	5	0	5	5	0
Total	53	53	0	53	53	0

Input into the Distribution System Bacteriological Data

Water Works Name: Dundalk Water Works
Well No. (If applicable) Well # 3
Year: 2024
Serviced Population: 2803
Design Capacity: 1181 m3/Day
Laboratories Which Performed Analyses: Caduceon Labs

Treated Water

Month	Treated Water Flow			Influent	Treated Water Turbidity			Treated Disinfectant		Dist. System Disinfectant	
	Average m3	Maximum Day m3	Monthly Total m3	Wastewater Monthly Total m3	No. of Samples Collected	No. of Samples > 1 NTU	Average Turbidity NTU	No. of Treated Samples Collected	Average Free Residual (mg/L)	No. of Dist. Samples	No. of Samples without Required Chlorine Residual
January	254	317	7874	47422	31	0	0.36	31	1.05	31	0
February	271	467	7862	49695	28	0	0.3	28	0.97	28	0
March	281	431	8698	63590	31	0	0.29	31	1.18	31	0
April	295	420	8840	74745	30	0	0.29	30	1.04	30	0
May	314	379	9748	49617	31	0	0.29	31	1.24	31	0
June	339	373	10160	35214	30	0	0.31	30	1.15	30	0
July	358	409	11096	31054	31	0	0.27	31	1.05	31	0
August	354	551	10982	32408	31	0	0.31	31	1.12	31	0
September	366	547	10973	25505	30	0	0.31	30	1.07	30	0
October	226	538	7013	24853	31	0	0.33	31	1.09	31	0
November	380	458	11396	31866	30	0	0.34	30	1.20	30	0
December	373	416	11558	50778	31	0	0.33	31	0.95	31	0
Total			116200	516747	365	0		365		365	0
Average	317.583						0.31		1.09		
Maximum		551.000									

Disinfectant Compound Used:
(eg. Chlorine Gas, NaOCl, Etc.) **NaOCl**

Form of Residual Displayed on Above Table:
(I. E. Free, Combined, or Total) **Free**

Distribution System Target Residual (mg./L): **> 0.2 Free**

Recap for Month
Recap for Month

Input into the Distribution System Bacteriological Data

Water Works Name: Dundalk Water Works
Well No. (If applicable) Well # 4
Year: 2024
Serviced Population: 2803
Design Capacity: 1636 m3/Day
Laboratories Which Performed Analyses: Caduceon Labs

Treated Water

Month	Treated Water Flow			Influent	Treated Water Turbidity			Treated Disinfectant		Dist. System Disinfectant	
	Average m3	Maximum Day m3	Monthly Total m3	Wastewater Monthly Total m3	No. of Samples Collected	No. of Samples > 1 NTU	Average Turbidity NTU	No. of Treated Samples Collected	Average Free Residual (mg/L)	No. of Dist. Samples Collected	No. of Samples without Required Chlorine Residual
January	279	446	8664	47422	31	0	0.13	31	1.02	31	0
February	293	414	8486	49695	28	0	0.08	28	1.07	28	0
March	279	368	8661	63590	31	0	0.10	31	1.08	31	0
April	307	404	9209	74745	30	0	0.08	30	1.03	30	0
May	325	432	10066	49617	31	0	0.08	31	1.13	31	0
June	367	520	10995	35214	30	0	0.08	30	1.14	30	0
July	358	416	11113	31054	31	0	0.05	31	1.03	31	0
August	354	406	10967	32408	31	0	0.07	31	1.00	31	0
September	353	455	10582	25505	30	0	0.07	30	0.99	30	0
October	389	679	12047	24853	31	0	0.08	31	0.97	31	0
November	363	441	10891	31866	30	0	0.07	30	1.11	30	0
December	348	426	10794	50778	31	0	0.09	31	1.07	31	0
Total			122475	516747	365	0		365		365	0
Average	334.583						0.08		1.05		
Maximum		679.000									

Disinfectant Compound Used:
(eg. Chlorine Gas, NaOCl, Etc.) **NaOCl**

Form of Residual Displayed on Above Table:
(I. E. Free, Combined, or Total) **Free**

Distribution System Target Residual (mg./L): **> 0.2 Free**

Water Consumption Report
Recap for Month

Input into the Distribution System Bacteriological Data

Water Works Name: Dundalk Water Works
Well No. (If applicable) Well # 5
Year: 2024
Serviced Population: 2803
Design Capacity: 1961 m3/Day
Laboratories Which Performed Analyses: Caduceon Labs

Treated Water

Month	Treated Water Flow			Influent	Treated Water Turbidity			Treated Disinfectant		Dist. System Disinfectant	
	Average m3	Maximum Day m3	Monthly Total m3	Wastewater Monthly Total m3	No. of Samples Collected	No. of Samples > 1 NTU	Average Turbidity NTU	No. of Treated Samples Collected	Average Free Residual (mg/L)	No. of Dist. Samples Collected	No. of Samples without Required Chlorine Residual
January	290	739	9000	47422	31	0	0.13	31	1.03	31	0
February	358	599	10394	49695	28	0	0.09	28	1.05	28	0
March	438	730	13572	63590	31	0	0.08	31	1.09	31	0
April	436	620	13088	74745	30	0	0.08	30	1.05	30	0
May	433	819	13427	49617	31	0	0.08	31	1.09	31	0
June	380	821	11386	35214	30	0	0.08	30	1.10	30	0
July	365	660	11326	31054	31	0	0.05	31	1.03	31	0
August	332	674	10293	32408	31	0	0.07	31	1.06	31	0
September	307	542	9212	25505	30	0	0.08	30	1.03	30	0
October	245	606	7608	24853	31	0	0.09	31	1.03	31	0
November	258	781	7742	31866	30	0	0.08	30	1.05	30	0
December	301	632	9332	50778	31	0	0.09	31	1.10	31	0
Total			126380	516747	365	0		365		365	0
Average	345.250						0.08		1.06		
Maximum		821.000									

Disinfectant Compound Used:
(eg. Chlorine Gas, NaOCl, Etc.) **NaOCl**

Form of Residual Displayed on Above Table:
(I. E. Free, Combined, or Total) **Free**

Distribution System Target Residual (mg./L): **> 0.2 Free**

Water Consumption Report
Recap for Month

Annual Report - Flouride, Nitrite, Nitrate, and Colour

(A Separate Sheet Should Be Completed for Each Input into the Distribution System)

Water Works Name: Dundalk Water Works
Well No. (If applicable) Well # 3
Year: 2024
Serviced Population: 2803
Design Capacity: 1181 m3/Day
Laboratories Which Performed Analyses: Caduceon Labs

Month	Treated Water Fluoride			Treated Water Nitrite			Treated Water Nitrate			Colour	
	No. of Samples Collected	Average Residual (mg/L)	Maximum Residual (mg/L)	No. of Samples Collected	Average Nitrite (mg/L)	Maximum Nitrite (mg/L)	No. of Samples Collected	Average Nitrate (mg/L)	Maximum Nitrate (mg/L)	Average Raw (TCU)	Average Treated (TCU)
January				1	<0.05	<0.05	1	<0.05	<0.05		
February											
March											
April				1	<0.05	<0.05	1	0.81	0.81		
May											
June											
July				1	<0.05	<0.05	1	0.70	0.70		
August											
September											
October				1	0.08	0.08	1	0.61	0.61		
November											
December											
Total	0			4			4				
Average		#DIV/0!			0.020			0.530			
Maximum			0.000			0.080			0.810		
ODWO			1.5		0.1	1		1	10		

Where Nitrate and Nitrite are present, the total of the two should not exceed 10mg/L.

Flouride levels above 1.5mg/L should be reported to the Medical Officer of Health.

Annual Report - Flouride, Nitrite, Nitrate, and Colour

(A Separate Sheet Should Be Completed for Each Input into the Distribution System)

Water Works Name:	Dundalk Water Works
Well No. (If applicable)	Well # 4
Year:	2024
Serviced Population:	2803
Design Capacity:	1636 m3/Day
Laboratories Which Performed Analyses:	Caduceon Labs

Month	Treated Water Fluoride			Treated Water Nitrite			Treated Water Nitrate			Colour	
	No. of Samples Collected	Average Residual (mg/L)	Maximum Residual (mg/L)	No. of Samples Collected	Average Nitrite (mg/L)	Maximum Nitrite (mg/L)	No. of Samples Collected	Average Nitrate (mg/L)	Maximum Nitrate (mg/L)	Average Raw (TCU)	Average Treated (TCU)
January				1	<0.05	<0.05	1	2.01	2.01		
February											
March											
April				1	<0.05	<0.05	1	2.46	2.46		
May											
June											
July				1	<0.05	<0.05	1	2.19	2.19		
August											
September											
October				1	<0.05	<0.05	1	1.85	1.85		
November											
December											
Total	0			4			4				
Average		#DIV/0!			0.000			2.128			
Maximum			0			0			2.46		
ODWO			1.5		0.1	1		1	10		

Where Nitrate and Nitrite are present, the total of the two should not exceed 10mg/L.

Flouride levels above 1.5mg/L should be reported to the Medical Officer of Health.

Annual Report - Flouride, Nitrite, Nitrate, and Colour

(A Separate Sheet Should Be Completed for Each Input into the Distribution System)

Water Works Name:	Dundalk Water Works
Well No. (If applicable)	Well # 5
Year:	2024
Serviced Population:	2803
Design Capacity:	1961 m3/Day
Laboratories Which Performed Analyses:	Caduceon Labs

Month	Treated Water Fluoride			Treated Water Nitrite			Treated Water Nitrate			Colour	
	No. of Samples Collected	Average Residual (mg/L)	Maximum Residual (mg/L)	No. of Samples Collected	Average Nitrite (mg/L)	Maximum Nitrite (mg/L)	No. of Samples Collected	Average Nitrate (mg/L)	Maximum Nitrate (mg/L)	Average Raw (TCU)	Average Treated (TCU)
January				1	<0.05	<0.05	1	0.820	0.820		
February											
March											
April				1	<0.05	<0.05	1	<0.05	<0.05		
May											
June											
July				1	<0.05	<0.05	1	<0.05	<0.05		
August											
September											
October				1	<0.05	<0.05	1	<0.05	<0.05		
November											
December											
Total	0			4			4				
Average		0.000			0.000			0.205			
Maximum			0			0			0.82		
ODWO			1.5		0.1	1		1	10		

Where Nitrate and Nitrite are present, the total of the two should not exceed 10mg/L.

Flouride levels above 1.5mg/L should be reported to the Medical Officer of Health.

Annual Data Summary - Treated Water Volatile Organic & Inorganic Data

(A Separate Sheet Should Be Completed for Each Input into the Distribution System)

Water Works Name: Dundalk Water Works

Well No. (If applicable) Well #3

Year: 2024

Serviced Population: 2803

Design Capacity: 1181 m3/Day

Laboratories Which Performed Analyses: Caduceon Labs

Treated Water (except for Lead, THM's and HAA's which should be sampled for in the distribution system)

Parameters	Analysis No. 1		Analysis No. 2		Analysis No. 3		Analysis No. 4		Sampling Frequency	Last Date Parameter Tested	ODWO MAC/IMAC/AO (ug/L)
TABLE B VOLATILE ORGANICS	Date	Results (ug/L)	Date (DD/MMM/YY)	Results (ug/L)	Date (DD/MMM/YY)	Results (ug/L)	Date (DD/MMM/YY)	Results (ug/L)	<<<<<<<	<<<<<<<	<<<<<<<<<<<
Benzene	4-Mar-24	<0.5	1-Mar-21	<0.5	5-Mar-18	0.32	9-Mar-15	0.32	3 years	4-Mar-24	1
Carbon Tetrachloride	4-Mar-24	<0.2	1-Mar-21	<0.2	5-Mar-18	0.16	9-Mar-15	0.16	3 years	4-Mar-24	2
1, 2 - Dichlorobenzene	4-Mar-24	<0.5	1-Mar-21	<0.5	5-Mar-18	0.41	9-Mar-15	0.41	3 years	4-Mar-24	200
1, 4 - Dichlorobenzene	4-Mar-24	<0.5	1-Mar-21	<0.5	5-Mar-18	0.36	9-Mar-15	0.36	3 years	4-Mar-24	5
1, 2 - Dichloroethane	4-Mar-24	<0.5	1-Mar-21	<0.5	5-Mar-18	0.35	9-Mar-15	0.35	3 years	4-Mar-24	5
1, 1 - Dichloroethylene	4-Mar-24	<0.5	1-Mar-21	<0.5	5-Mar-18	0.33	9-Mar-15	0.33	3 years	4-Mar-24	14
Dichloromethane	4-Mar-24	<5	1-Mar-21	<5	5-Mar-18	0.35	9-Mar-15	0.35	3 years	4-Mar-24	50
Ethybenzene	1-Nov-00	<0.0024							Aesthetic Objective	1-Nov-00	140
Monochlorobenzene	4-Mar-24	<0.5	1-Mar-21	<0.5	5-Mar-18	0.3	9-Mar-15	0.3	3 years	4-Mar-24	80
Tetrachloroethylene	4-Mar-24	<0.5	1-Mar-21	<0.5	5-Mar-18	0.35	9-Mar-15	0.35	3 years	4-Mar-24	10
ToluneneTrichloroethylene	4-Mar-24	<0.5	1-Mar-21	<0.5	5-Mar-18	0.44	9-Mar-15	0.44	3 years	4-Mar-24	60
Vinyl Chloride	4-Mar-24	<0.2	1-Mar-21	<0.2	5-Mar-18	0.17	9-Mar-15	0.17	3 years	4-Mar-24	1
Xylene	1-Nov-00	0.005							Aesthetic Objective	1-Nov-00	90
TABLE C - INORGANICS	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<		<<<<<<<<<<<
Arsenic	4-Mar-24	0.001	1-Mar-21	0.00120	5-Mar-18	2.6	9-Mar-15	2.2	3 years	4-Mar-24	10
Barium	4-Mar-24	0.107	1-Mar-21	0.10500	5-Mar-18	126	9-Mar-15	116	3 years	4-Mar-24	1000
Boron	4-Mar-24	0.047	1-Mar-21	0.05400	5-Mar-18	55	9-Mar-15	57.6	3 years	4-Mar-24	5000
Cadmium	4-Mar-24	<0.000015	1-Mar-21	<0.000015	5-Mar-18	0.003	9-Mar-15	0.005	3 years	4-Mar-24	5
Chromium	4-Mar-24	<0.0010	1-Mar-21	<0.002	5-Mar-18	0.21	9-Mar-15	0.03	3 years	4-Mar-24	50
Copper	1-Nov-00	<0.005							Aesthetic Objective	1-Nov-00	1000
Iron	13-Jan-13	15	20-Dec-12	10	10-Sep-12	8	18-Jul-12	10	Aesthetic Objective	13-Jan-13	300
Lead	20-Sep-17	1.33	14-Mar-17	0.43	15-Sep-16	0.33	17-Mar-16	3.68		20-Sep-17	10
Manganese	13-Jan-13	5.6	20-Dec-12	6	12-Apr-08	7.0			Aesthetic Objective	13-Jan-13	20
Mercury	4-Mar-24	<0.00002	1-Mar-21	<0.00002	5-Mar-18	0.01	9-Mar-15	0.01	3 years	4-Mar-24	1
Selenium	4-Mar-24	<0.001	1-Mar-21	<0.001	5-Mar-18	0.07	9-Mar-15	1	3 years	4-Mar-24	50
Uranium	4-Mar-24	0.0021	1-Mar-21	0.001930	5-Mar-18	1.53	9-Mar-15	2.1	3 years	4-Mar-24	20
Zinc	1-Jan-01	<0.01							Aesthetic Objective	23-Jan-01	5000

Annual Data Summary - Treated Water Volatile Organic & Inorganic Data

(A Separate Sheet Should Be Completed for Each Input into the Distribution System)

Water Works Name: Dundalk Water Works

Well No. (If applicable) Well # 4

Year: 2023

Serviced Population: 2803

Design Capacity: 1636 m3/Day

Laboratories Which Performed Analyses: Caduceon Labs

Treated Water (except for lead, THM's and HAA's which should be sampled for in the distribution system)

Parameters	Analysis No. 1		Analysis No. 2		Analysis No. 3		Analysis No. 4		Sampling Frequency	Last Date Parameter Tested (year)	ODWO MAC/IMAC/AO (ug/L)
TABLE B VOLATILE ORGANICS	Date	Results (ug/L)	Date (DD/MMM/YY)	Results (ug/L)	Date (DD/MMM/YY)	Results (ug/L)	Date (DD/MMM/YY)	Results (ug/L)	<<<<<<<	<<<<<<<	<<<<<<<<<<<
Benzene	4-Mar-24	<0.5	1-Mar-21	<0.5	5-Mar-18	0.32	9-Mar-15	0.32	3 years	4-Mar-24	1
Carbon Tetrachloride	4-Mar-24	<0.2	1-Mar-21	<0.2	5-Mar-18	0.16	9-Mar-15	0.16	3 years	4-Mar-24	2
1, 2 - Dichlorobenzene	4-Mar-24	<0.5	1-Mar-21	<0.5	5-Mar-18	0.41	9-Mar-15	0.41	3 years	4-Mar-24	200
1, 4 - Dichlorobenzene	4-Mar-24	<0.5	1-Mar-21	<0.5	5-Mar-18	0.36	9-Mar-15	0.36	3 years	4-Mar-24	5
1, 2 - Dichloroethane	4-Mar-24	<0.5	1-Mar-21	<0.5	5-Mar-18	0.35	9-Mar-15	0.35	3 years	4-Mar-24	5
1, 1 - Dichloroethylene	4-Mar-24	<0.5	1-Mar-21	<0.5	5-Mar-18	0.33	9-Mar-15	0.33	3 years	4-Mar-24	14
Dichloromethane	4-Mar-24	<5	1-Mar-21	<5	5-Mar-18	0.35	9-Mar-15	0.35	3 years	4-Mar-24	50
Ethybenzene	22-Dec-04	0.47	1-Jun-02	<0.0005					Aesthetic Objective	22-Dec-04	140
Monochlorobenzene	4-Mar-24	<0.5	1-Mar-21	<0.5	5-Mar-18	0.3	9-Mar-15	0.3	3 years	4-Mar-24	80
Tetrachloroethylene	4-Mar-24	<0.5	1-Mar-21	<0.5	5-Mar-18	0.35	9-Mar-15	0.35	3 years	4-Mar-24	10
ToluneneTrichloroethylene	4-Mar-24	<0.5	1-Mar-21	<0.5	5-Mar-18	0.44	9-Mar-15	0.44	3 years	4-Mar-24	60
Vinyl Chloride	4-Mar-24	<0.2	1-Mar-21	<0.2	5-Mar-18	0.17	9-Mar-15	0.17	3 years	4-Mar-24	1
Xylene	1-Jun-02	<0.0015							Aesthetic Objective	1-Jun-02	90
TABLE C - INORGANICS	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<	<<<<<<<<<<<	<<<<<<<<<<<
Arsenic	4-Mar-24	0.0004	1-Mar-21	0.00030	5-Mar-18	0.5	9-Mar-15	0.6	3 years	4-Mar-24	10
Barium	4-Mar-24	0.099	1-Mar-21	0.09600	5-Mar-18	113	9-Mar-15	103	3 years	4-Mar-24	1000
Boron	4-Mar-24	0.039	1-Mar-21	0.04000	5-Mar-18	40	9-Mar-15	44.7	3 years	4-Mar-24	5000
Cadmium	4-Mar-24	<0.000015	1-Mar-21	<0.000015	5-Mar-18	0.006	9-Mar-15	0.007	3 years	4-Mar-24	5
Chromium	4-Mar-24	<0.0010	1-Mar-21	<0.002	5-Mar-18	0.14	9-Mar-15	0.03	3 years	4-Mar-24	50
Copper	22-Dec-04	1.2	1-Jun-02	<0.001					Aesthetic Objective	22-Dec-04	1000
Iron	22-Dec-04	<10							Aesthetic Objective	22-Dec-04	300
Lead	20-Sep-17	0.77	14-Mar-17	0.57	14-Sep-16	1.34	17-Mar-16	4.72		20-Sep-17	10
Manganese	22-Dec-04	22							Aesthetic Objective	22-Dec-04	20
Mercury	4-Mar-24	<0.00002	1-Mar-21	<0.00002	5-Mar-18	0.01	9-Mar-15	0.01	3 years	4-Mar-24	1
Selenium	4-Mar-24	<0.001	1-Mar-21	<0.001	5-Mar-18	0.26	9-Mar-15	1	3 years	4-Mar-24	50
Uranium	4-Mar-24	0.00174	1-Mar-21	0.001750	5-Mar-18	1.52	9-Mar-15	1.39	3 years	4-Mar-24	20
Zinc	22-Dec-04	3	1-Jun-02	0.006					Aesthetic Objective	22-Dec-04	5000

Annual Data Summary - Treated Water Volatile Organic & Inorganic Data

(A Separate Sheet Should Be Completed for Each Input into the Distribution System)

Water Works Name: Dundalk Water Works
Well No. (If applicable) Well # 5
Year: 2023
Serviced Population: 2803
Design Capacity: 1961 m3/Day
Laboratories Which Performed Analyses: Caduceon Labs

Treated Water (except for lead, THM's and HAA's which should be sampled for in the distribution system)

Parameters	Analysis No. 1		Analysis No. 2		Analysis No. 3		Analysis No. 4		Sampling Frequency	Last Date Parameter Tested (year)	ODWO MAC/IMAC/AO (ug/L)
TABLE B VOLATILE ORGANICS	Date	Results (ug/L)	Date (DD/MMM/YY)	Results (ug/L)	Date (DD/MMM/YY)	Results (ug/L)	Date (DD/MMM/YY)	Results (ug/L)	<<<<<<<	<<<<<<<	<<<<<<<<<<<
Benzene	4-Mar-24	<0.5	1-Mar-21	<0.5	22-Jan-20	<0.5	27-Jan-17	<0.5	3 years	4-Mar-24	1
Carbon Tetrachloride	4-Mar-24	<0.2	1-Mar-21	<0.2	22-Jan-20	<0.2	27-Jan-17	<0.5	3 years	4-Mar-24	2
1, 2 - Dichlorobenzene	4-Mar-24	<0.5	1-Mar-21	<0.5	22-Jan-20	<0.5	27-Jan-17	<0.5	3 years	4-Mar-24	200
1, 4 - Dichlorobenzene	4-Mar-24	<0.5	1-Mar-21	<0.5	22-Jan-20	<0.5	27-Jan-17	<0.5	3 years	4-Mar-24	5
1, 2 - Dichloroethane	4-Mar-24	<0.5	1-Mar-21	<0.5	22-Jan-20	<0.5	27-Jan-17	<0.5	3 years	4-Mar-24	5
1, 1 - Dichloroethylene	4-Mar-24	<0.5	1-Mar-21	<0.5	22-Jan-20	<0.5	27-Jan-17	<0.5	3 years	4-Mar-24	14
Dichloromethane	4-Mar-24	<5	1-Mar-21	<5	22-Jan-20	<5	27-Jan-17	<2.0	3 years	4-Mar-24	50
Ethybenzene	27-Jan-17	<0.5	17-Oct-16	<0.5					Aesthetic Objective	27-Jan-17	140
Monochlorobenzene	4-Mar-24	<0.5	1-Mar-21	<0.5	22-Jan-20	<0.5	27-Jan-17	<0.5	3 years	4-Mar-24	80
Tetrachloroethylene	4-Mar-24	<0.5	1-Mar-21	<0.5	22-Jan-20	<0.5	27-Jan-17	<0.5	3 years	4-Mar-24	10
ToluneneTrichloroethylene	4-Mar-24	<0.5	1-Mar-21	<0.5	22-Jan-20	<0.5	27-Jan-17	<0.5	3 years	4-Mar-24	60
Vinyl Chloride	4-Mar-24	<0.2	1-Mar-21	<0.2	22-Jan-20	<0.2	27-Jan-17	<0.5	3 years	4-Mar-24	1
Xylene	27-Jan-17	<1.1	17-Oct-16	<1.1					Aesthetic Objective	27-Jan-17	90
TABLE C - INORGANICS	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<<<<<	<<<<<<<	<<<<<<<<<<<	<<<<<<<<<<<
Arsenic	4-Mar-24	0.0007	1-Mar-21	0.00080	21-Jan-20	0.0004	27-Jan-17	<0.0010	3 years	4-Mar-24	10
Barium	4-Mar-24	0.104	1-Mar-21	0.10500	21-Jan-20	0.098	27-Jan-17	0.095	3 years	4-Mar-24	1000
Boron	4-Mar-24	0.043	1-Mar-21	0.04800	21-Jan-20	0.048	27-Jan-17	<0.050	3 years	4-Mar-24	5000
Cadmium	4-Mar-24	<0.000015	1-Mar-21	<0.000015	21-Jan-20	<0.000015	27-Jan-17	<0.00010	3 years	4-Mar-24	5
Chromium	4-Mar-24	<0.0010	1-Mar-21	<0.002	21-Jan-20	<0.002	27-Jan-17	<0.0010	3 years	4-Mar-24	50
Copper	27-Jan-17	<0.0010	17-Oct-16	<0.0010					Aesthetic Objective	27-Jan-17	1000
Iron	27-Jan-17	0.051	17-Oct-16	0.062					Aesthetic Objective	27-Jan-17	300
Lead	27-Jan-17	<0.00050	17-Oct-16	<0.00062						27-Jan-17	10
Manganese	27-Jan-17	0.001	17-Oct-16	0.0023					Aesthetic Objective	27-Jan-17	20
Mercury	4-Mar-24	<0.00002	1-Mar-21	<0.00002	23-Jan-20	<0.00002	27-Jan-17	<0.10	3 years	4-Mar-24	1
Selenium	4-Mar-24	<0.001	1-Mar-21	<0.001	21-Jan-20	<0.001	27-Jan-17	<0.0050	3 years	4-Mar-24	50
Uranium	4-Mar-24	0.00035	1-Mar-21	0.000350	21-Jan-20	0.00016	27-Jan-17	<0.0050	3 years	4-Mar-24	20
Zinc	27-Jan-17	<0.0030	17-Oct-16	0.0102					Aesthetic Objective	27-Jan-17	5000

Annual Data Summary - Parameters Not Listed in the Minimum Sampling Program

(A Separate Sheet Should Be Completed for Each Input into the Distribution System)

Water Works Name: Dundalk Water Works
Well No. (If applicable) Well # 3
Year: 2024
Serviced Population: 2803
Design Capacity: 1181 m_3/Day
Laboratories Which Performed Analyses: Caduceon Labs

Treated Water (Except for Lead Which Should Be Sampled For in the Distribution System)

Parameters	Analysis No. 1		Analysis No. 2		Analysis No. 3		Analysis No. 4		Sampling Frequency	Last Date Parameter Tested	ODWO MAC/IMAC/AO (mg/L)
	Date	Results (mg/L)	Date (DD/MMM/YY)	Results (mg/L)	Date (DD/MMM/YY)	Results (mg/L)	Date (DD/MMM/YY)	Results (mg/L)			
OTHER PARAMETERS (List as Required)		<<<<<<<<<<< <<<<<<<<<<<	<<<<<<<<<<< <<<<<<<<<<<	<<<<<<<<<<< <<<<<<<<<<<	<<<<<<<<<<< <<<<<<<<<<<	<<<<<<<<<<< <<<<<<<<<<<	<<<<<<<<<<< <<<<<<<<<<<	<<<<<<<<<<< <<<<<<<<<<<	<<<<<<< <<<<<<<	<<<<<<< <<<<<<<	<<<<<<<<<<< <<<<<<<<<<<
Hardness	13-Jan-13	281	20-Dec-12	288	12-Apr-08	268			Operational Objective	13-Jan-13	80 - 100
Sodium	4-Mar-24	30.2	4-Jul-23	28.1	7-Mar-23	28.9	19-Jul-22	30.2	Annually	4-Mar-24	20
Fluoride	4-Apr-23	0.5	8-Mar-22	0.4	6-Mar-17	0.86	5-Mar-12	0.06	5 years	4-Apr-23	1.5
Hydrogen Sulphide									Aesthetic Objective		0.05
Alkalinity as Ca CO_3	7-Mar-23	245	7-Mar-23	259	13-Jan-13	251	20-Dec-12	264	Operational Objective	7-Mar-23	30 - 500
Chloride	9-Jul-24	41.5	9-Jan-24	42.7	10-Jan-23	42.9	19-Jul-22	39.1	Operational Objective	9-Jan-24	250
Sulphate	13-Jan-13	17	20-Dec-12	17					Aesthetic Objective	13-Jan-13	500
Organic Nitrogen 6	13-Jan-13	0.14	20-Dec-12	0.05					Operational Objective	13-Jan-13	0.15
Dissolved Organic C	12-Apr-08	0.8							Aesthetic Objective	12-Apr-08	5
Nitrilotriacetic Acid	23-Jan-01	<0.3								23-Jan-01	0.4
Total Dissolved Solids	13-Jan-13	409	12-Apr-08	334					Aesthetic Objective	13-Jan-13	500
Total Cynanide	10-Jan-01	0.2								10-Jan-01	0.2
Benzo (a) Pyrenene	4-Mar-24	<0.006	1-Mar-21	<0.006	5-Mar-18	0.004	11-Mar-15	0.004	3 years	4-Mar-24	0.01 ug/l
N-Nitrosodimethylamine	23-Jan-01	<.000007								23-Jan-01	0.000009
Ammonia	8-Oct-24	0.41	9-Jan-24	0.36	10-Oct-23	0.33	14-Oct-22	0.47		8-Oct-24	
Nitrates	1-Oct-24	0.61	2-Jul-24	0.7	2-Apr-24	0.81	2-Jan-24	<0.05	Quarterly	1-Oct-24	10
Nitrites	1-Oct-24	0.08	2-Jul-24	0.05	2-Apr-24	<0.05	2-Jan-24	<0.05	Quarterly	1-Oct-24	1
Pesticides & PCB's	4-Mar-24	<0.05	1-Mar-21	<0.05	9-Mar-15	0.04	5-Mar-12	0.04		4-Mar-24	3
pH	31-Dec-15	7.58	13-Jan-13	7.98	20-Dec-12	8.01			Operational Objective	31-Dec-15	6.5 - 8.5
Radionuclides-Gross Alpha	4-Mar-24	<0.10	7-Mar-23	<0.10	8-Mar-22	0.19	1-Mar-21	<0.10	Annually	4-Mar-24	0.1 bq/l
Radionuclides-Gross Beta	4-Mar-24	0.13	7-Mar-23	<0.10	8-Mar-22	0.12	1-Mar-21	0.15	Annually	4-Mar-24	0.5 bq/l
Radionuclides-Tritium	4-Mar-24	<15	7-Mar-23	<15	8-Mar-22	<15	1-Mar-21	<15	Annually	4-Mar-24	7000 bq/l
True Colour (TCU)									Aesthetic Objective		5 TCU

Annual Data Summary - Parameters Not Listed in the Minimum Sampling Program

(A Separate Sheet Should Be Completed for Each Input into the Distribution System)

Water Works Name:	Dundalk Water Works
Well No. (If applicable)	Well # 4
Year:	2024
Serviced Population:	2803
Design Capacity:	1636 m_3/Day
Laboratories Which Performed Analyses:	Caduceon Labs

Treated Water (Except for Lead Which Should Be Sampled For in the Distribution System)

Parameters	Analysis No. 1		Analysis No. 2		Analysis No. 3		Analysis No. 4		Sampling Frequency	Last Date Parameter Tested	ODWO MAC/IMAC/AO (mg/L)
	Date	Results (mg/L)	Date (MM/DD/YY)	Results (mg/L)	Date (MM/DD/YY)	Results (mg/L)	Date (MM/DD/YY)	Results (mg/L)			
OTHER PARAMETERS (List as Required)		<<<<<<<<<<< <<<<<<<<<<<	<<<<<<<<<<< <<<<<<<<<<<	<<<<<<<<<<< <<<<<<<<<<<	<<<<<<<<<<< <<<<<<<<<<<	<<<<<<<<<<< <<<<<<<<<<<	<<<<<<<<<<< <<<<<<<<<<<	<<<<<<<<<<< <<<<<<<<<<<	<<<<<<< <<<<<<<	<<<<<<< <<<<<<<	<<<<<<<<<<< <<<<<<<<<<<
Hardness	22-Dec-04	236							Operational Objective	22-Dec-04	80 - 100
Sodium	4-Mar-24	30.3	4-Jul-23	24.9	7-Mar-23	26.6	19-Jul-22	27.6	Annually	4-Mar-24	20
Fluoride	4-Apr-23	0.7	8-Mar-22	0.5	6-Mar-17	0.75	5-Mar-12	0.71	5 years	4-Apr-23	1.5
Hydrogen Sulphide									Aesthetic Objective		0.05
Alkalinity as Ca CO_3	7-Mar-23	245	7-Mar-23	259	4-Dec-22	247			Operational Objective	7-Mar-23	30 - 500
Chloride	9-Jul-24	41	9-Jan-24	45.6	10-Jan-23	41.1	19-Jul-22	38.6	Operational Objective	9-Jan-24	250
Sulphate	22-Dec-04	9.8							Aesthetic Objective	22-Dec-04	500
Organic Nitrogen 6	22-Dec-04	0.05							Operational Objective	22-Dec-04	0.15
Dissolved Organic C	22-Dec-04	0.2							Aesthetic Objective	22-Dec-04	5
Nitrilotriacetic Acid	22-Dec-04	0.03								22-Dec-04	0.4
Total Dissolved Solids	22-Dec-04	303							Aesthetic Objective	22-Dec-04	500
Total Cynanide	22-Dec-04	0.2								22-Dec-04	0.2
Benzo (a) Pyrenene	4-Mar-24	<0.006	1-Mar-21	<0.006	5-Mar-18	0.004	11-Mar-15	0.004	3 years	4-Mar-24	0.01 ug/l
N-Nitrosodimethylamine	22-Dec-04	0.0012								22-Dec-04	0.000009
Ammonia	22-Dec-04	0.06								22-Dec-04	
Nitrates	1-Oct-24	1.85	2-Jul-24	2.19	2-Apr-24	2.46	2-Jan-24	2.01	Quarterly	1-Oct-24	10
Nitrites	1-Oct-24	<0.05	2-Jul-24	<0.05	2-Apr-24	<0.05	2-Jan-24	<0.05	Quarterly	1-Oct-24	1
Pesticides & PCB's	4-Mar-24	<0.05	1-Mar-21	<0.05	9-Mar-15	0.04	5-Mar-12	0.004		4-Mar-24	3
pH	31-Dec-15	7.5							Operational Objective	31-Dec-15	6.5 - 8.5
Radionuclides-Gross Alpha	4-Mar-24	<0.13	7-Mar-23	<0.10	8-Mar-22	<0.10	1-Mar-21	0.12	Annually	4-Mar-24	0.1 bq/l
Radionuclides-Gross Beta	4-Mar-24	<0.10	7-Mar-23	<0.10	8-Mar-22	0.13	1-Mar-21	0.11	Annually	4-Mar-24	0.5 bq/l
Radionuclides-Tritium	4-Mar-24	<15	7-Mar-23	<15	8-Mar-22	<15	1-Mar-21	<15	Annually	4-Mar-24	7000 bq/l
True Colour (TCU)	22-Dec-04	3							Aesthetic Objective	22-Dec-04	5 TCU

Annual Data Summary - Parameters Not Listed in the Minimum Sampling Program

(A Separate Sheet Should Be Completed for Each Input into the Distribution System)

Water Works Name: Dundalk Water Works
Well No. (If applicable) Well # 5
Year: 2024
Serviced Population: 2803
Design Capacity: 1961 m_3/Day
Laboratories Which Performed Analyses: Caduceon Labs

Treated Water (Except for Lead Which Should Be Sampled For in the Distribution System)

Parameters	Analysis No. 1		Analysis No. 2		Analysis No. 3		Analysis No. 4		Sampling Frequency	Last Date Parameter Tested	ODWO MAC/IMAC/AO (mg/L)
	Date	Results (mg/L)	Date (MM/DD/YY)	Results (mg/L)	Date (MM/DD/YY)	Results (mg/L)	Date (MM/DD/YY)	Results (mg/L)			
OTHER PARAMETERS (List as Required)		<<<<<<<<<<< <<<<<<<<<<<	<<<<<<<<<<< <<<<<<<<<<<	<<<<<<<<<<< <<<<<<<<<<<	<<<<<<<<<<< <<<<<<<<<<<	<<<<<<<<<<< <<<<<<<<<<<	<<<<<<<<<<< <<<<<<<<<<<	<<<<<<<<<<< <<<<<<<<<<<	<<<<<<< <<<<<<<	<<<<<<< <<<<<<<	<<<<<<<<<<< <<<<<<<<<<<
Hardness	27-Jan-17	231000	17-Oct-16	265000					Operational Objective	27-Jan-17	80000-100000
Sodium	4-Mar-24	13.3	4-Jul-23	12.7	7-Mar-23	13.2	19-Jul-22	15.1	Annually	4-Mar-24	20
Fluoride	10-Oct-23	2.1	4-Jul-23	2.2	4-Apr-23	1.7	23-Jan-20	2.5	5 years	10-Oct-23	1.5
Hydrogen Sulphide	27-Jan-17	<0.21	17-Oct-16	0.22					Aesthetic Objective	27-Jan-17	0.05
Alkalinity as Ca CO_3	7-Mar-23	245	7-Mar-23	259	27-Jan-17	243	17-Oct-16	248	Operational Objective	7-Mar-23	30 - 500
Chloride	9-Jul-24	14.7	9-Jan-24	14.4	10-Jan-23	15.4	19-Jul-22	15.7	Operational Objective	9-Jan-24	250
Sulphate	27-Jan-17	<0.020	17-Oct-16	0.021					Aesthetic Objective	27-Jan-17	500
Organic Nitrogen 6	27-Jan-17	<0.15							Operational Objective	27-Jan-17	0.15
Dissolved Organic C	27-Jan-17	1.4	17-Oct-16	1.7					Aesthetic Objective	27-Jan-17	5
Nitrilotriacetic Acid	27-Jan-17	<0.20	17-Oct-16	<0.20						27-Jan-17	0.4
Total Dissolved Solids	27-Jan-17	279	17-Oct-16	281					Aesthetic Objective	27-Jan-17	500
Total Cynanide	27-Jan-17	<0.0020	17-Oct-16	<0.0020						27-Jan-17	0.2
Benzo (a) Pyrenene	4-Mar-24	<0.006	1-Mar-21	<0.006	27-Jan-17	<0.010	17-Oct-16	<0.010	3 years	4-Mar-24	0.01 ug/l
N-Nitrosodimethylamine	27-Jan-17	1.8	17-Oct-16	0.71						27-Jan-17	9
Ammonia	27-Jan-17	0.056	17-Oct-16	0.051						27-Jan-17	
Nitrates	1-Oct-24	<0.05	2-Jul-24	<0.05	2-Apr-24	<0.05	2-Jan-24	0.82	Quarterly	1-Oct-24	10
Nitrites	1-Oct-24	<0.05	2-Jul-24	<0.05	2-Apr-24	<0.05	2-Jan-24	<0.05	Quarterly	1-Oct-24	1
Pesticides & PCB's	4-Mar-24	<0.05	1-Mar-21	<0.05						4-Mar-24	3
pH	27-Jan-17	7.4	17-Oct-16	8					Operational Objective	27-Jan-17	6.5 - 8.5
Radionuclides-Gross Alpha	4-Mar-24	<0.16	7-Mar-23	<0.10	8-Mar-22	0.13	1-Mar-21	0.11	Annually	4-Mar-24	0.5 bq/l
Radionuclides-Gross Beta	4-Mar-24	<0.10	7-Mar-23	<0.10	8-Mar-22	<0.10	1-Mar-21	0.1	Annually	4-Mar-24	1.0 bq/l
Radionuclides-Tritium	4-Mar-24	<15	7-Mar-23	<15	8-Mar-22	<15	1-Mar-21	<15	Annually	4-Mar-24	7000 bq/l
True Colour (TCU)	27-Jan-17	<2.0	17-Oct-16	<2.0					Aesthetic Objective	27-Jan-17	5 TCU

Annual Data Summary - Distribution System Volatile Organic Compounds Data

Total Haloacetic (HAA) Annual Average Results

Quarter	Quarter Dates	Sample 1	Sample 2	Sample 3	Sample 4	Quarterly Average (ug/L)	**MAC** (maximum allowable concentration)
1-2023	02-Jan-24	5.5	5.4			5.45	
2-2023	02-Apr-24	5.3	5.3			5.3	
3-2023	02-Jul-24	5.3	5.3			5.3	
4-2023	01-Oct-24	5.3	5.3			5.3	
					(RAA) Running Annual Average	5.3375	80 ug/L

Total Trihalmethane (THM) Annual Average Results

Quarter	Quarter Dates	Sample 1	Sample 2	Sample 3	Sample 4	Quarterly Average (ug/L)	**MAC** (Maximum allowable concentration)
1-2023	02-Jan-24	18	7			12.5	
2-2023	02-Apr-24	24	17			20.5	
3-2023	02-Jul-24	48	23			35.5	
4-2023	01-Oct-24	18	19			18.5	
					(RAA) Running Annual Average	21.75	100 ug/L