



CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY

**PO Box 100
Annapolis Royal, NS B0S1A0
(902) 532-3141**

ATTENTION TO: James Jenner

PROJECT: Margratsville WTP

AGAT WORK ORDER: 21X778056

FOOD CHEMISTRY REVIEWED BY: David Ohayon, Director of Laboratory Operations Quebec

MISCELLANEOUS ANALYSIS REVIEWED BY: Ashley Dussault, Report Writer

TRACE ORGANICS REVIEWED BY: Amy Hunter, Trace Organics Supervisor, B.Sc.

WATER ANALYSIS REVIEWED BY: Ashley Dussault, Report Writer

DATE REPORTED: Aug 18, 2021

PAGES (INCLUDING COVER): 28

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (902) 468-8718

***Notes**

Disclaimer:

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.
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- This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
- The test results reported herewith relate only to the samples as received by the laboratory.
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- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.



Certificate of Analysis

AGAT WORK ORDER: 21X778056

PROJECT: Margratsville WTP

11 Morris Drive, Unit 122
 Dartmouth, Nova Scotia
 CANADA B3B 1M2
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 FAX (902)468-8924
<http://www.agatlabs.com>

CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY

ATTENTION TO: James Jenner

SAMPLING SITE:

SAMPLED BY:

Glyphosate (Montreal) (ug/L)

DATE RECEIVED: 2021-07-22

DATE REPORTED: 2021-08-18

Parameter	Unit	G / S	RDL	Margratsville	Margratsville
				Raw	Treated
SAMPLE DESCRIPTION:				Raw	Treated
SAMPLE TYPE:				Water	Water
DATE SAMPLED:				2021-07-21 13:00	2021-07-21 13:00
				2767079	2767185
Glyphosate	ug/L		15	<15	<15

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard
 Analysis performed at AGAT Montréal (unless marked by *)

Certified By:





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CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY

ATTENTION TO: James Jenner

SAMPLING SITE:

SAMPLED BY:

Canadian Drinking Water MAC Package (Radiochemistry)

DATE RECEIVED: 2021-07-22

DATE REPORTED: 2021-08-18

Parameter	Unit	G / S	RDL	Margratsville	Margratsville
				Raw	Treated
SAMPLE DESCRIPTION:				Raw	Treated
SAMPLE TYPE:				Water	Water
DATE SAMPLED:				2021-07-21 13:00	2021-07-21 13:00
				2767079	2767185
Radionuclides - Gross Alpha*	Bq/L	0.5	0.1	Y	Y
Radionuclides - Gross Beta*	Bq/L	1.0	0.1	Y	Y

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Canadian Drinking Water Quality - updated 2021-03
 Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

2767079-2767185 *Analysis performed at subcontracted laboratory.

Analysis performed at AGAT Halifax (unless marked by *)

Certified By:



Certificate of Analysis

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CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY

ATTENTION TO: James Jenner

SAMPLING SITE:

SAMPLED BY:

Canadian Drinking Water MAC Package (Subcontracted)

DATE RECEIVED: 2021-07-22

DATE REPORTED: 2021-08-18

Parameter	Unit	G / S	RDL	Margrattsville	Margrattsville
				Raw	Treated
SAMPLE DESCRIPTION:				Raw	Treated
SAMPLE TYPE:				Water	Water
DATE SAMPLED:				2021-07-21 13:00	2021-07-21 13:00
				2767079	2767185
Nitriloacetic Acid (NTA)	mg/L	0.4	0.03	Y	Y
Lead-210 (Hfx 2012-05)	Bq/L	0.2	0.02	Y	Y

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Canadian Drinking Water Quality - updated 2021-03
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2767079-2767185 *Analysis performed at subcontracted laboratory.

Analysis performed at AGAT Halifax (unless marked by *)

Certified By:



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CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY

ATTENTION TO: James Jenner

SAMPLING SITE:

SAMPLED BY:

Canadian Drinking Water MAC Package (HAAs, VOCs)

DATE RECEIVED: 2021-07-22

DATE REPORTED: 2021-08-18

Parameter	Unit	G / S	RDL	Margratsville	
				Raw	Treated
				Water	Water
				DATE SAMPLED: 2021-07-21 13:00	DATE SAMPLED: 2021-07-21 13:00
				2767079	2767185
Chloroacetic Acid	ug/L		0.5	<0.5	0.6
Bromoacetic Acid	ug/L		0.5	<0.5	<0.5
Dichloroacetic Acid	ug/L		0.5	<0.5	20.7
Trichloroacetic Acid	ug/L		0.5	<0.5	14.2
Bromochloroacetic Acid	ug/L		0.5	<0.5	8.1
Dibromoacetic Acid	ug/L		0.5	<0.5	1.8
Haloacetic Acids	ug/L	80	4.0	<4.0	45.4
Vinyl Chloride	ug/L	2	0.6	<0.6	<0.6
Chloroethane	ug/L		5	<5	<5
1,1-Dichloroethylene	ug/L	14	2	<2	<2
Methylene Chloride (Dichloromethane)	ug/L	50	2	<2	<2
Methyl-t-Butyl-Ether (MTBE)	ug/L	15 AO	2	<2	<2
Chloroform	ug/L		1	<1	44
1,2-Dichloroethane	ug/L	5	2	<2	<2
Carbon Tetrachloride	ug/L	2	0.56	<0.56	<0.56
Benzene	ug/L	5	1	<1	<1
Trichloroethylene	ug/L	5	1	<1	<1
Bromodichloromethane	ug/L		1	<1	24
Toluene	ug/L	60, 24 AO	2	<2	<2
Dibromochloromethane	ug/L		1	<1	7
Tetrachloroethylene	µg/L		1	<1	<1
Chlorobenzene	ug/L	80, 30 AO	1	<1	<1
Ethylbenzene	ug/L	140.1.6 AO	2	<2	<2
Bromoform	ug/L		1	<1	<1
Xylenes (Total)	ug/L	300 AO	4	<4	<4
1,4-Dichlorobenzene	ug/L	5, 1 AO	1	<1	<1
1,2-Dichlorobenzene	ug/L	200, 3 AO	1	<1	<1
Total Trihalomethanes	ug/L	100	1	<1	75

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SAMPLING SITE:

SAMPLED BY:

Canadian Drinking Water MAC Package (HAAs, VOCs)

DATE RECEIVED: 2021-07-22

DATE REPORTED: 2021-08-18

Surrogate	Unit	Acceptable Limits	Margratsville	Margratsville
			Raw	Treated
SAMPLE DESCRIPTION:			Raw	Treated
SAMPLE TYPE:			Water	Water
DATE SAMPLED:			2021-07-21 13:00	2021-07-21 13:00
Acceptable Limits			2767079	2767185
2-Bromobutanoic acid	%	50-130	116	111
Toluene-d8	%	60-130	93	90
4-Bromofluorobenzene	%	60-130	102	96

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Canadian Drinking Water Quality - updated 2021-03
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Analysis performed at AGAT Halifax (unless marked by *)

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SAMPLING SITE:

SAMPLED BY:

Carbamate Pesticides (Water)

DATE RECEIVED: 2021-07-22

DATE REPORTED: 2021-08-18

Parameter	Unit	G / S	RDL	Margratsville	Margratsville
				Raw	Treated
SAMPLE DESCRIPTION:				Raw	Treated
SAMPLE TYPE:				Water	Water
DATE SAMPLED:				2021-07-21 13:00	2021-07-21 13:00
				2767079	2767185
Aldicarb	µg/L		2.	<2.0	<2.0
Bendiocarb	µg/L		2	<2	<2
Carbofuran	µg/L		5	<5	<5
Carbaryl	µg/L		5	<5	<5
Diuron	µg/L		10	<10	<10
Triallate	µg/L		1	<1	<1
Temephos	µg/L		10	<10	<10

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

2767079-2767185 Results relate only to the items tested.

Analysis performed at AGAT Toronto (unless marked by *)

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Certificate of Analysis

AGAT WORK ORDER: 21X778056

PROJECT: Margratsville WTP

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CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY

ATTENTION TO: James Jenner

SAMPLING SITE:

SAMPLED BY:

Diquat/Paraquat

DATE RECEIVED: 2021-07-22

DATE REPORTED: 2021-08-18

Parameter	Unit	G / S	RDL	Margratsville	Margratsville
				Raw	Treated
SAMPLE DESCRIPTION:				Raw	Treated
SAMPLE TYPE:				Water	Water
DATE SAMPLED:				2021-07-21 13:00	2021-07-21 13:00
				2767079	2767185
Diquat	µg/L		5	<5	<5
Paraquat	µg/L		1	<1	<1

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

Certified By:



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AGAT WORK ORDER: 21X778056

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CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY

ATTENTION TO: James Jenner

SAMPLING SITE:

SAMPLED BY:

OC Pesticides (Water) (for Halifax)

DATE RECEIVED: 2021-07-22

DATE REPORTED: 2021-08-18

Parameter	Unit	G / S	RDL	Margrattsville	Margrattsville
				Raw	Treated
				Water	Water
				DATE SAMPLED: 2021-07-21 13:00	DATE SAMPLED: 2021-07-21 13:00
				2767079	2767185
alpha-BHC	µg/L		0.01	<0.01	<0.01
Hexachlorobenzene	ug/L		0.01	<0.01	<0.01
beta-BHC	µg/L		0.05	<0.05	<0.05
Gamma-Hexachlorocyclohexane	µg/L		0.01	<0.01	<0.01
delta-BHC	µg/L		0.01	<0.01	<0.01
Heptachlor	µg/L		0.01	<0.01	<0.01
Aldrin	µg/L		0.01	<0.01	<0.01
Heptachlor Epoxide	µg/L		0.01	<0.01	<0.01
Oxychlordan	µg/L		0.05	<0.05	<0.05
gamma-Chlordane	µg/L		0.1	<0.1	<0.1
op'-DDE	µg/L		0.01	<0.01	<0.01
Endosulfan I	µg/L		0.002	<0.002	<0.002
alpha - chlordane	µg/L		0.05	<0.05	<0.05
pp'-DDE	µg/L		0.05	<0.05	<0.05
Dieldrin	µg/L		0.02	<0.02	<0.02
op'-DDD	µg/L		0.05	<0.05	<0.05
Endrin	µg/L		0.05	<0.05	<0.05
Endosulfan II	µg/L		0.002	<0.002	<0.002
pp'-DDD	µg/L		0.05	<0.05	<0.05
op'-DDT	µg/L		0.04	<0.04	<0.04
Endrin Aldehyde	µg/L		0.05	<0.05	<0.05
Endosulfan Sulfate	µg/L		0.05	<0.05	<0.05
pp'-DDT	µg/L		0.05	<0.05	<0.05
Endrin Ketone	µg/L		0.05	<0.05	<0.05
Methoxychlor	µg/L		0.04	<0.04	<0.04
Mirex	µg/L		0.05	<0.05	<0.05

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CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY

ATTENTION TO: James Jenner

SAMPLING SITE:

SAMPLED BY:

OC Pesticides (Water) (for Halifax)

DATE RECEIVED: 2021-07-22

DATE REPORTED: 2021-08-18

Surrogate	Unit	Acceptable Limits	Margratsville	Margratsville
			Raw	Treated
			Water	Water
			2021-07-21	2021-07-21
			13:00	13:00
			2767079	2767185
TCMX	%	50-140	82	101
Decachlorobiphenyl	%	50-140	84	105

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

2767079-2767185 DDT total is a calculated parameter. The calculated value is the sum of op'DDT and pp'DDT.
 DDD total is a calculated parameter. The calculated value is the sum of op'DDD and pp'DDD.
 DDE total is a calculated parameter. The calculated value is the sum of op'DDE and pp'DDE.
 Endosulfan total is a calculated parameter. The calculated value is the sum of Endosulfan I and Endosulfan II.
 Chlordane total is a calculated parameter. The calculated value is the sum of Alpha-Chlordane and Gamma-Chlordane.
 The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:



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CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY

ATTENTION TO: James Jenner

SAMPLING SITE:

SAMPLED BY:

OP Pesticides (Water)

DATE RECEIVED: 2021-07-22

DATE REPORTED: 2021-08-18

Parameter	Unit	G / S	RDL	Margratsville	Margratsville
				Raw	Treated
SAMPLE DESCRIPTION:				Raw	Treated
SAMPLE TYPE:				Water	Water
DATE SAMPLED:				2021-07-21 13:00	2021-07-21 13:00
				2767079	2767185
Phorate	µg/L		0.5	<0.5	<0.5
Dimethoate	µg/L		2.5	<2.5	<2.5
Terbufos	µg/L		0.5	<0.5	<0.5
Diazinon	µg/L		1	<1	<1
Malathion	µg/L		5	<5	<5
Chlorpyrifos	µg/L		1	<1	<1
Parathion	µg/L		1	<1	<1
Azinphos-methyl	µg/L		2	<2	<2
Surrogate	Unit	Acceptable Limits			
Triphenyl phosphate (surr)	%	50-140		86	97

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ODWS - Table D
 Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

2767079-2767185 Results relate only to the items tested.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 21X778056

PROJECT: Margratsville WTP

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CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY

ATTENTION TO: James Jenner

SAMPLING SITE:

SAMPLED BY:

Phenoxy Acid Herbicides (Water)

DATE RECEIVED: 2021-07-22

DATE REPORTED: 2021-08-18

Parameter	Unit	G / S	RDL	Margratsville	Margratsville
				Raw	Treated
SAMPLE DESCRIPTION:				Water	Water
SAMPLE TYPE:				Water	Water
DATE SAMPLED:				2021-07-21 13:00	2021-07-21 13:00
				2767079	2767185
2,4-D	µg/L		0.5	<0.5	<0.5
2,4,5-T	µg/L		0.5	<0.5	<0.5
2,4,5-TP	µg/L		0.5	<0.5	<0.5
Dicamba	µg/L		0.5	<0.5	<0.5
Dichlorprop	µg/L		0.5	<0.5	<0.5
Dinoseb	µg/L		0.5	<0.5	<0.5
Picloram	µg/L		0.5	<0.5	<0.5
Diclofop-methyl	µg/L		0.5	<0.5	<0.5
2,3,4,6-Tetrachlorophenol	µg/L		0.5	<0.5	<0.5
2,4-Dichlorophenol	µg/L		0.2	<0.2	<0.2
2,4,5-Trichlorophenol	µg/L		0.5	<0.5	<0.5
2,4,6-Trichlorophenol	µg/L		0.5	<0.5	<0.5
Bromoxynil	µg/L		0.3	<0.3	<0.3
MCPA	µg/L		5.0	<5.0	<5.0
MCPP	µg/L		5.0	<5.0	<5.0
Pentachlorophenol	µg/L		0.1	<0.1	<0.1
Surrogate	Unit	Acceptable Limits			
DCAA	%	50-140		76	70

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:



Certificate of Analysis

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CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY

ATTENTION TO: James Jenner

SAMPLING SITE:

SAMPLED BY:

Triazine Pesticides [water]

DATE RECEIVED: 2021-07-22

DATE REPORTED: 2021-08-18

Parameter	Unit	G / S	RDL	Margratsville	Margratsville
				Raw	Treated
SAMPLE DESCRIPTION:				Raw	Treated
SAMPLE TYPE:				Water	Water
DATE SAMPLED:				2021-07-21 13:00	2021-07-21 13:00
				2767079	2767185
Trifluralin	µg/L		1.0	<1.0	<1.0
Simazine	µg/L		1.0	<1.0	<1.0
Atrazine	µg/L		0.5	<0.5	<0.5
Metribuzin	µg/L		0.25	<0.25	<0.25
Prometryne	µg/L		0.25	<0.25	<0.25
Metolachlor	µg/L		0.11	<0.11	<0.11
Alachlor	µg/L		0.5	<0.5	<0.5
Cyanazine	µg/L		1.0	<1.0	<1.0
Surrogate		Unit		Acceptable Limits	
Triphenyl phosphate (surr)	%	30-130		78	93

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ODWS - Table D
 Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

2767079-2767185 Results relate only to the items tested.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:



Certificate of Analysis

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CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY

ATTENTION TO: James Jenner

SAMPLING SITE:

SAMPLED BY:

Trihalomethanes in Water

DATE RECEIVED: 2021-07-22

DATE REPORTED: 2021-08-18

Parameter	Unit	G / S	RDL	Margrattsville	Margrattsville
				Raw	Treated
SAMPLE DESCRIPTION:				Raw	Treated
SAMPLE TYPE:				Water	Water
DATE SAMPLED:				2021-07-21 13:00	2021-07-21 13:00
				2767079	2767185
Chloroform	ug/L		1	<1	44
Bromodichloromethane	ug/L		1	<1	24
Dibromochloromethane	ug/L		1	<1	7
Bromoform	ug/L		1	<1	<1
Total Trihalomethanes	ug/L		1	<1	75
Surrogate		Acceptable Limits			
Toluene-d8	%	60-140		93	90
4-Bromofluorobenzene	%	60-140		102	96

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard
 Analysis performed at AGAT Halifax (unless marked by *)

Certified By:



Certificate of Analysis

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CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY

ATTENTION TO: James Jenner

SAMPLING SITE:

SAMPLED BY:

Canadian Drinking Water MAC Package (Metals, Hg & Inorganics)

DATE RECEIVED: 2021-07-22

DATE REPORTED: 2021-08-18

Parameter	Unit	G / S	RDL	Margrattsville	Margrattsville
				Raw	Treated
				Water	Water
				2021-07-21 13:00 2767079	2021-07-21 13:00 2767185
Total Aluminum	ug/L	2900, 100	10	<10	<10
Total Antimony	ug/L	6	2	<2	<2
Total Arsenic	ug/L	10	2	<2	<2
Total Barium	ug/L	2000	5	10	10
Total Boron	ug/L	5000	5	8	9
Total Cadmium	ug/L	7	0.3	<0.3	<0.3
Total Chromium	ug/L	50	2	<2	<2
Total Copper	ug/L	2000, 1000	2	5	<2
Total Iron	ug/L	300 AO	50	<50	<50
Total Lead	ug/L	5	0.5	<0.5	<0.5
Total Manganese	ug/L	120, 20 AO	2	<2	<2
Total Selenium	ug/L	50	2	<2	<2
Total Strontium	ug/L	7000	5	33	32
Total Uranium	ug/L	20	0.2	<0.2	0.2
Total Zinc	ug/L	5000 AO	5	<5	<5
Total Sodium	mg/L	200 AO	0.1	12.3	16.2
Mercury	ug/L	1	0.05	<0.05	<0.05
pH		7.0-10.5		7.44	7.54
Turbidity	NTU	1.0	0.5	0.6	<0.5
True Color	TCU	15 AO	5.00	<5.00	<5.00
Chloride	mg/L	250 AO	1	11	10
Fluoride	mg/L	1.5	0.12	<0.12	<0.12
Nitrate as N	mg/L	10	0.05	2.38	1.63
Sulphate	mg/L	500 AO	2	4	3
Bromate	mg/L	0.01	0.01	<0.01	<0.01
Chlorate	mg/L	1	0.02	<0.02	0.24
Chlorite	mg/L	1	0.02	<0.02	<0.02

Certified By:



AGAT Laboratories

Certificate of Analysis

AGAT WORK ORDER: 21X778056

PROJECT: Margravesville WTP

11 Morris Drive, Unit 122
Dartmouth, Nova Scotia
CANADA B3B 1M2
TEL (902)468-8718
FAX (902)468-8924
<http://www.agatlabs.com>

CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY

ATTENTION TO: James Jenner

SAMPLING SITE:

SAMPLED BY:

Canadian Drinking Water MAC Package (Metals, Hg & Inorganics)

DATE RECEIVED: 2021-07-22

DATE REPORTED: 2021-08-18

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Canadian Drinking Water Quality - updated 2021-03
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

2767079-2767185 Chloramines is a calculated parameter. The calculated parameter is non-accredited. The component parameters of the calculation are accredited.
Analysis performed at AGAT Halifax (unless marked by *)

Certified By:

Quality Assurance

CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY

AGAT WORK ORDER: 21X778056

PROJECT: Margravesville WTP

ATTENTION TO: James Jenner

SAMPLING SITE:

SAMPLED BY:

Food Chemistry Analysis

RPT Date: Aug 18, 2021

DUPLICATE

REFERENCE MATERIAL

METHOD BLANK SPIKE

MATRIX SPIKE

PARAMETER	Batch	Sample Id	DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

Glyphosate (Montreal) (ug/L)

Glyphosate	728	NA	< 15	< 15	0.0%	< 15	105%	70%	130%	108%	70%	130%	94%	70%	130%
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Certified By:



Quality Assurance

CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY
AGAT WORK ORDER: 21X778056
PROJECT: Margravesville WTP
ATTENTION TO: James Jenner
SAMPLING SITE:
SAMPLED BY:

Trace Organics Analysis															
RPT Date: Aug 18, 2021			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE		MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

Canadian Drinking Water MAC Package (HAAs, VOCs)

Chloroacetic Acid	1	2774693	0.8	0.9	NA	< 0.5	107%	70%	130%	70%	60%	130%	64%	60%	130%
Bromoacetic Acid	1	2774693	< 0.5	< 0.5	NA	< 0.5	103%	70%	130%	80%	60%	130%	74%	60%	130%
Dichloroacetic Acid	1	2774693	30.9	29.4	5.0%	< 0.5	99%	70%	130%	101%	60%	130%	102%	60%	130%
Trichloroacetic Acid	1	2774693	33.5	30.4	9.7%	< 0.5	91%	70%	130%	78%	60%	130%	81%	60%	130%
Bromochloroacetic Acid	1	2774693	6.3	6.1	3.2%	< 0.5	87%	70%	130%	100%	60%	130%	97%	60%	130%
Dibromoacetic Acid	1	2774693	0.9	1.0	NA	< 0.5	89%	70%	130%	106%	60%	130%	105%	60%	130%
Vinyl Chloride	1	2769177	< 0.6	< 0.6	NA	< 0.6	133%	50%	140%	120%	60%	130%	127%	50%	140%
Chloroethane	1	2769177	< 5	< 5	NA	< 5	117%	50%	140%	112%	60%	130%	123%	50%	140%
1,1-Dichloroethylene	1	2769177	< 2	< 2	NA	< 2	140%	50%	140%	131%	60%	130%	133%	50%	140%
Methylene Chloride (Dichloromethane)	1	2769177	< 2	< 2	NA	< 2	128%	50%	140%	121%	60%	130%	133%	50%	140%
Methyl-t-Butyl-Ether (MTBE)	1	2769177	< 2	< 2	NA	< 2	120%	60%	140%	120%	60%	140%	124%	60%	140%
Chloroform	1	2769177	58	52	10.9%	< 1	132%	50%	140%	128%	60%	130%	200%	50%	140%
1,2-Dichloroethane	1	2769177	< 2	< 2	NA	< 2	120%	50%	140%	109%	60%	130%	124%	50%	140%
Carbon Tetrachloride	1	2769177	< 0.56	< 0.56	NA	< 0.56	135%	50%	140%	132%	60%	130%	131%	50%	140%
Benzene	1	2769177	< 1	< 1	NA	< 1	132%	70%	130%	123%	70%	130%	128%	70%	130%
Trichloroethylene	1	2769177	< 1	< 1	NA	< 1	131%	50%	140%	122%	60%	130%	133%	50%	140%
Bromodichloromethane	1	2769177	6	5	18.2%	< 1	119%	50%	140%	118%	60%	130%	132%	50%	140%
Toluene	1	2769177	3	2	NA	< 2	123%	70%	130%	113%	60%	140%	108%	60%	140%
Dibromochloromethane	1	2769177	< 1	< 1	NA	< 1	105%	50%	140%	98%	60%	130%	110%	50%	140%
Tetrachloroethylene	1	2769177	< 1	< 1	NA	< 1	123%	70%	130%	118%	60%	140%	115%	60%	140%
Chlorobenzene	1	2769177	< 1	< 1	NA	< 1	110%	50%	140%	110%	60%	130%	112%	50%	140%
Ethylbenzene	1	2769177	< 2	< 2	NA	< 2	122%	70%	130%	114%	60%	140%	116%	60%	140%
Bromoform	1	2769177	< 1	< 1	NA	< 1	107%	50%	140%	95%	60%	130%	97%	50%	140%
1,4-Dichlorobenzene	1	2769177	< 1	< 1	NA	< 1	116%	50%	140%	98%	60%	130%	101%	50%	140%
1,2-Dichlorobenzene	1	2769177	< 1	< 1	NA	< 1	118%	50%	140%	97%	60%	130%	114%	50%	140%

Comments: If Matrix spike value is NA, the spiked analyte concentration was lower than that of the matrix contribution.

If RPD value is NA, the results of the duplicates are less than 5x the RDL and the RPD will not be calculated.

VOC Matrix spike, Blank spike, Certified Reference Material : More than 90% of the elements met acceptance limits and overall data quality is acceptable for use. For a multi-element scan up to 10% of analytes may exceed the quoted limits.

Trihalomethanes in Water

Chloroform	1	2769177	58	52	10.9%	< 1	132%	50%	140%	128%	60%	130%	NA	50%	140%
Bromodichloromethane	1	2769177	6	5	18.2%	< 1	119%	50%	140%	118%	60%	130%	132%	50%	140%
Dibromochloromethane	1	2769177	< 1	< 1	NA	< 1	105%	50%	140%	98%	60%	130%	110%	50%	140%
Bromoform	1	2769177	< 1	< 1	NA	< 1	107%	50%	140%	95%	60%	130%	97%	50%	140%

Comments: If Matrix spike value is NA, the spiked analyte concentration was lower than that of the matrix contribution. Matrix spike performed on a different sample than the duplicate.

If RPD value is NA, the results of the duplicates are less than 5x the RDL and the RPD will not be calculated.

Diquat/Paraquat

Diquat		TW	< 5	< 5	NA	< 5	94%	50%	140%	91%	50%	140%	92%	50%	140%
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AGAT QUALITY ASSURANCE REPORT (V1)

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AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. RPDs calculated using raw data. The RPD may not be reflective of duplicate values shown, due to rounding of final results.

Results relate only to the items tested. Results apply to samples as received.

Quality Assurance

CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY

AGAT WORK ORDER: 21X778056

PROJECT: Margravesville WTP

ATTENTION TO: James Jenner

SAMPLING SITE:

SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: Aug 18, 2021			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	
Paraquat		TW	< 1	< 1	NA	< 1	88%	50%	140%	90%	50%	140%	92%	50%	140%	
OC Pesticides (Water) (for Halifax)																
alpha-BHC	2797080		< 0.01	< 0.01	NA	< 0.01	102%	50%	140%	86%	50%	140%	92%	50%	140%	
Hexachlorobenzene	2797080		< 0.01	< 0.01	NA	< 0.01	109%	50%	140%	96%	50%	140%	96%	50%	140%	
beta-BHC	2797080		< 0.05	< 0.05	NA	< 0.05	97%	50%	140%	85%	50%	140%	93%	50%	140%	
Gamma-Hexachlorocyclohexane	2797080		< 0.01	< 0.01	NA	< 0.01	98%	50%	140%	91%	50%	140%	105%	50%	140%	
delta-BHC	2797080		< 0.01	< 0.01	NA	< 0.01	106%	50%	140%	86%	50%	140%	102%	50%	140%	
Heptachlor	2797080		< 0.01	< 0.01	NA	< 0.01	93%	50%	140%	84%	50%	140%	105%	50%	140%	
Aldrin	2797080		< 0.01	< 0.01	NA	< 0.01	106%	50%	140%	96%	50%	140%	107%	50%	140%	
Heptachlor Epoxide	2797080		< 0.01	< 0.01	NA	< 0.01	113%	50%	140%	97%	50%	140%	102%	50%	140%	
Oxychlordan	2797080		< 0.05	< 0.05	NA	< 0.05	103%	50%	140%	89%	50%	140%	104%	50%	140%	
gamma-Chlordane	2797080		< 0.1	< 0.1	NA	< 0.1	114%	50%	140%	98%	50%	140%	104%	50%	140%	
op'-DDE	2797080		< 0.01	< 0.01	NA	< 0.01	94%	50%	140%	89%	50%	140%	98%	50%	140%	
Endosulfan I	2797080		< 0.002	< 0.002	NA	< 0.002	114%	50%	140%	100%	50%	140%	106%	50%	140%	
alpha - chlordane	2797080		< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	98%	50%	140%	104%	50%	140%	
pp'-DDE	2797080		< 0.05	< 0.05	NA	< 0.05	100%	50%	140%	100%	50%	140%	103%	50%	140%	
Dieldrin	2797080		< 0.02	< 0.02	NA	< 0.02	118%	50%	140%	99%	50%	140%	101%	50%	140%	
op'-DDD	2797080		< 0.05	< 0.05	NA	< 0.05	115%	50%	140%	107%	50%	140%	104%	50%	140%	
Endrin	2797080		< 0.05	< 0.05	NA	< 0.05	98%	50%	140%	103%	50%	140%	100%	50%	140%	
Endosulfan II	2797080		< 0.002	< 0.002	NA	< 0.002	118%	50%	140%	94%	50%	140%	107%	50%	140%	
pp'-DDD	2797080		< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	105%	50%	140%	102%	50%	140%	
op'-DDT	2797080		< 0.04	< 0.04	NA	< 0.04	102%	50%	140%	94%	50%	140%	102%	50%	140%	
Endrin Aldehyde	2797080		< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	89%	50%	140%	106%	50%	140%	
Endosulfan Sulfate	2797080		< 0.05	< 0.05	NA	< 0.05	103%	50%	140%	95%	50%	140%	108%	50%	140%	
pp'-DDT	2797080		< 0.05	< 0.05	NA	< 0.05	100%	50%	140%	96%	50%	140%	105%	50%	140%	
Endrin Ketone	2797080		< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	96%	50%	140%	109%	50%	140%	
Methoxychlor	2797080		< 0.04	< 0.04	NA	< 0.04	85%	50%	140%	101%	50%	140%	102%	50%	140%	
Mirex	2797080		< 0.05	< 0.05	NA	< 0.05	101%	50%	140%	92%	50%	140%	108%	50%	140%	
OP Pesticides (Water)																
Phorate	2767079	2767079	< 0.5	< 0.5	NA	< 0.5	97%	50%	140%	74%	50%	140%	72%	50%	140%	
Dimethoate	2767079	2767079	< 2.5	< 2.5	NA	< 2.5	105%	50%	140%	85%	50%	140%	94%	50%	140%	
Terbufos	2767079	2767079	< 0.5	< 0.5	NA	< 0.5	98%	50%	140%	93%	50%	140%	98%	50%	140%	
Diazinon	2767079	2767079	< 1	< 1	NA	< 1	86%	50%	140%	95%	50%	140%	98%	50%	140%	
Malathion	2767079	2767079	< 5	< 5	NA	< 5	98%	50%	140%	105%	50%	140%	93%	50%	140%	
Chlorpyrifos	2767079	2767079	< 1	< 1	NA	< 1	88%	50%	140%	98%	50%	140%	95%	50%	140%	
Parathion	2767079	2767079	< 1	< 1	NA	< 1	86%	50%	140%	86%	50%	140%	105%	50%	140%	
Azinphos-methyl	2767079	2767079	< 2	< 2	NA	< 2	95%	50%	140%	95%	50%	140%	98%	50%	140%	

Phenoxy Acid Herbicides (Water)

Quality Assurance

CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY
AGAT WORK ORDER: 21X778056
PROJECT: Margravesville WTP
ATTENTION TO: James Jenner
SAMPLING SITE:
SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: Aug 18, 2021			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	
2,4-D	2767079	2767079	< 0.5	< 0.5	NA	< 0.5	101%	50%	140%	115%	50%	140%	95%	50%	140%	
2,4,5-T	2767079	2767079	< 0.5	< 0.5	NA	< 0.5	92%	50%	140%	120%	50%	140%	102%	50%	140%	
2,4,5-TP	2767079	2767079	< 0.5	< 0.5	NA	< 0.5	90%	50%	140%	116%	50%	140%	100%	50%	140%	
Dicamba	2767079	2767079	< 0.5	< 0.5	NA	< 0.5	89%	50%	140%	108%	50%	140%	96%	50%	140%	
Dichlorprop	2767079	2767079	< 0.5	< 0.5	NA	< 0.5	90%	50%	140%	103%	50%	140%	90%	50%	140%	
Dinoseb	2767079	2767079	< 0.5	< 0.5	NA	< 0.5	80%	50%	140%	106%	50%	140%	95%	50%	140%	
Picloram	2767079	2767079	< 0.5	< 0.5	NA	< 0.5	95%	50%	140%	93%	50%	140%	83%	50%	140%	
Diclofop-methyl	2767079	2767079	< 0.5	< 0.5	NA	< 0.5	92%	50%	140%	79%	50%	140%	114%	50%	140%	
2,3,4,6-Tetrachlorophenol	2767079	2767079	< 0.5	< 0.5	NA	< 0.5	76%	50%	140%	82%	50%	140%	73%	50%	140%	
2,4-Dichlorophenol	2767079	2767079	< 0.2	< 0.2	NA	< 0.2	76%	50%	140%	94%	50%	140%	91%	50%	140%	
2,4,5-Trichlorophenol	2767079	2767079	< 0.5	< 0.5	NA	< 0.5	90%	50%	140%	84%	50%	140%	84%	50%	140%	
2,4,6-Trichlorophenol	2767079	2767079	< 0.5	< 0.5	NA	< 0.5	75%	50%	140%	86%	50%	140%	76%	50%	140%	
Bromoxynil	2767079	2767079	< 0.3	< 0.3	NA	< 0.3	98%	50%	140%	94%	50%	140%	93%	50%	140%	
MCPA	2767079	2767079	< 5.0	< 5.0	NA	< 5.0	96%	50%	140%	108%	50%	140%	86%	50%	140%	
MCPP	2767079	2767079	< 5.0	< 5.0	NA	< 5.0	98%	50%	140%	108%	50%	140%	92%	50%	140%	
Pentachlorophenol	2767079	2767079	< 0.1	< 0.1	NA	< 0.1	106%	50%	140%	91%	50%	140%	79%	50%	140%	
Triazine Pesticides [water]																
Trifluralin	2767079	2767079	< 1.0	< 1.0	NA	< 1.0	95%	50%	140%	72%	50%	140%	78%	50%	140%	
Simazine	2767079	2767079	< 1.0	< 1.0	NA	< 1.0	86%	50%	140%	95%	50%	140%	96%	50%	140%	
Atrazine	2767079	2767079	< 0.5	< 0.5	NA	< 0.5	94%	50%	140%	98%	50%	140%	95%	50%	140%	
Metribuzin	2767079	2767079	< 0.25	< 0.25	NA	< 0.25	105%	50%	140%	86%	50%	140%	73%	50%	140%	
Prometryne	2767079	2767079	< 0.25	< 0.25	NA	< 0.25	98%	50%	140%	93%	50%	140%	92%	50%	140%	
Metolachlor	2767079	2767079	< 0.11	< 0.11	NA	< 0.11	86%	50%	140%	95%	50%	140%	77%	50%	140%	
Alachlor	2767079	2767079	< 0.5	< 0.5	NA	< 0.5	95%	50%	140%	97%	50%	140%	78%	50%	140%	
Cyanazine	2767079	2767079	< 1.0	< 1.0	NA	< 1.0	88%	50%	140%	105%	50%	140%	79%	50%	140%	
Carbamate Pesticides (Water)																
Aldicarb	2767079	2767079	< 2.0	< 2.0	NA	< 2.0	98%	50%	140%	98%	50%	140%	106%	50%	140%	
Bendiocarb	2767079	2767079	< 2	< 2	NA	< 2	102%	50%	140%	99%	50%	140%	101%	50%	140%	
Carbofuran	2767079	2767079	< 5	< 5	NA	< 5	102%	50%	140%	99%	50%	140%	101%	50%	140%	
Carbaryl	2767079	2767079	< 5	< 5	NA	< 5	108%	50%	140%	114%	50%	140%	115%	50%	140%	
Diuron	2767079	2767079	< 10	< 10	NA	< 10	107%	50%	140%	103%	50%	140%	100%	50%	140%	
Triallate	2767079	2767079	< 1	< 1	NA	< 1	101%	50%	140%	99%	50%	140%	99%	50%	140%	
Temephos	2767079	2767079	< 10	< 10	NA	< 10	104%	60%	130%	104%	60%	130%	105%	60%	130%	

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By:



Quality Assurance

CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY

AGAT WORK ORDER: 21X778056

PROJECT: Margravesville WTP

ATTENTION TO: James Jenner

SAMPLING SITE:

SAMPLED BY:

Water Analysis

RPT Date: Aug 18, 2021			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

Canadian Drinking Water MAC Package (Metals, Hg & Inorganics)															
Total Aluminum	2767843		<10	<10	NA	< 10	103%	80%	120%	102%	80%	120%	106%	70%	130%
Total Antimony	2767843		<2	<2	NA	< 2	95%	80%	120%	99%	80%	120%	94%	70%	130%
Total Arsenic	2767843		<2	<2	NA	< 2	98%	80%	120%	98%	80%	120%	97%	70%	130%
Total Barium	2767843		68	69	0.6%	< 5	92%	80%	120%	96%	80%	120%	NA	70%	130%
Total Boron	2767843		<5	<5	NA	< 5	100%	80%	120%	102%	80%	120%	103%	70%	130%
Total Cadmium	2767843		<0.3	<0.3	NA	< 0.3	101%	80%	120%	99%	80%	120%	95%	70%	130%
Total Chromium	2767843		2	2	NA	< 2	97%	80%	120%	97%	80%	120%	104%	70%	130%
Total Copper	2767843		74	73	1.3%	< 2	101%	80%	120%	101%	80%	120%	NA	70%	130%
Total Iron	2767843		299	305	1.9%	< 50	98%	80%	120%	102%	80%	120%	NA	70%	130%
Total Lead	2767843		<0.5	<0.5	NA	< 0.5	94%	80%	120%	97%	80%	120%	93%	70%	130%
Total Manganese	2767843		6	7	NA	< 2	99%	80%	120%	98%	80%	120%	109%	70%	130%
Total Selenium	2767843		<2	<2	NA	< 2	98%	80%	120%	93%	80%	120%	84%	70%	130%
Total Strontium	2767843		34	34	0.5%	< 5	89%	80%	120%	92%	80%	120%	NA	70%	130%
Total Uranium	2767843		0.5	0.5	NA	< 0.2	91%	80%	120%	94%	80%	120%	95%	70%	130%
Total Zinc	2767843		25	25	NA	< 5	99%	80%	120%	99%	80%	120%	97%	70%	130%
Total Sodium	2767843		6.9	6.7	2.6%	< 0.1	106%	80%	120%	109%	80%	120%	NA	70%	130%
Mercury	2783599		<0.026	<0.026	NA	< 0.05	98%	80%	120%		80%	120%	100%	70%	130%
pH	2775452		8.49	8.56	0.8%	<	101%	80%	120%	NA	80%	120%	NA	80%	120%
Turbidity	2792437		2.0	2.0	NA	< 0.5	93%	80%	120%	NA			NA		
True Color	2766372		<5.00	<5.00	NA	< 5	92%	80%	120%	97%	80%	120%	NA		
Chloride	2785643		4	4	NA	< 1	96%	80%	120%	NA	80%	120%	86%	70%	130%
Fluoride	2785643		<0.12	<0.12	NA	< 0.12	108%	80%	120%	NA	80%	120%	91%	70%	130%
Nitrate as N	2785643		0.11	0.12	NA	< 0.05	91%	80%	120%	NA	80%	120%	90%	70%	130%
Sulphate	2785643		47	47	0.7%	< 2	99%	80%	120%	NA	80%	120%	NA	70%	130%
Bromate	2767079	2767079	<0.01	<0.01	NA	< 0.01	99%	70%	130%	NA	70%	130%	94%	70%	130%
Chlorate	2767079	2767079	<0.02	<0.02	NA	< 0.02	104%	70%	130%	NA	70%	130%	98%	70%	130%
Chlorite	2767079	2767079	<0.02	<0.02	NA	< 0.02	105%	70%	130%	NA	70%	130%	95%	70%	130%

Comments: If RPD value is NA, the results of the duplicates are less than 5x the RDL and the RPD will not be calculated.

Certified By: 

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. RPDs calculated using raw data. The RPD may not be reflective of duplicate values shown, due to rounding of final results.

Results relate only to the items tested. Results apply to samples as received.

QA Violation

CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY
AGAT WORK ORDER: 21X778056
PROJECT: Margratsville WTP
ATTENTION TO: James Jenner

RPT Date: Aug 18, 2021			REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Sample Id	Sample Description	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
				Lower	Upper		Lower	Upper		Lower	Upper
Canadian Drinking Water MAC Package (HAAs, VOCs)											
1,1-Dichloroethylene	2769177	Margratsville Raw	140%	50%	140%	131%	60%	130%	133%	50%	140%
Chloroform	2769177	Margratsville Raw	132%	50%	140%	128%	60%	130%	200%	50%	140%
Carbon Tetrachloride	2769177	Margratsville Raw	135%	50%	140%	132%	60%	130%	131%	50%	140%
Benzene	2769177	Margratsville Raw	132%	70%	130%	123%	70%	130%	128%	70%	130%

Comments: If Matrix spike value is NA, the spiked analyte concentration was lower than that of the matrix contribution.

If RPD value is NA, the results of the duplicates are less than 5x the RDL and the RPD will not be calculated.

VOC Matrix spike, Blank spike, Certified Reference Material : More than 90% of the elements met acceptance limits and overall data quality is acceptable for use. For a multi-element scan up to 10% of analytes may exceed the quoted limits.



Method Summary

CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY

AGAT WORK ORDER: 21X778056

PROJECT: Margravesville WTP

ATTENTION TO: James Jenner

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Food Chemistry Analysis			
Glyphosate	ORG-100-5115F	MA.403-GLYAMP 1.0 Modifiée	HPLC
Miscellaneous Analysis			
Radionuclides - Gross Alpha*			
Radionuclides - Gross Beta*			
Nitriloacetic Acid (NTA)			
Lead-210 (Hfx 2012-05)			INCUBATOR

Method Summary

CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY

AGAT WORK ORDER: 21X778056

PROJECT: Margratsville WTP

ATTENTION TO: James Jenner

SAMPLING SITE:
SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Chloroacetic Acid	ORG-120-5110	EPA 552.3	GC/ECD
Bromoacetic Acid	ORG-120-5110	EPA 552.3	GC/ECD
Dichloroacetic Acid	ORG-120-5110	EPA 552.3	GC/ECD
Trichloroacetic Acid	ORG-120-5110	EPA 552.3	GC/ECD
Bromochloroacetic Acid	ORG-120-5110	EPA 552.3	GC/ECD
Dibromoacetic Acid	ORG-120-5110	EPA 552.3	GC/ECD
Haloacetic Acids	ORG-120-5110	EPA 552.3	GC/ECD
2-Bromobutanoic acid	ORG-120-5110	EPA 552.3	GC/ECD
Vinyl Chloride	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Chloroethane	VOL-120-5001	EPA SW-846 5030B/8260B	GC/MS
1,1-Dichloroethylene	VOL-120-5001	EPA SW-846 5030B/8260B	GC/MS
Methylene Chloride (Dichloromethane)	VOL-120-5001	EPA SW-846 5030B/8260B	GC/MS
Methyl-t-Butyl-Ether (MTBE)	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Chloroform	VOL-120-5001	EPA SW-846 5030B/8260B	GC/MS
1,2-Dichloroethane	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Carbon Tetrachloride	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Benzene	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Trichloroethylene	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Bromodichloromethane	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Toluene	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Dibromochloromethane	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Tetrachloroethylene	VOL-120-5001	EPA SW-846 5230B/8260	GC/MS
Chlorobenzene	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Ethylbenzene	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Bromoform	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Xylenes (Total)	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
1,4-Dichlorobenzene	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
1,2-Dichlorobenzene	VOL-120-5001	EPA SW-846 5030B/8260B	GC/MS
Total Trihalomethanes	VOL-120-5001	EPA SW846 5230/8260	GC/MS
Toluene-d8	VOL-120-5001	EPA SW846 5030B/8260B	GC/MS
4-Bromofluorobenzene	VOL-120-5001	EPA SW846 5030B/8260B	GC/MS
Aldicarb	ORG-91-5101	EPA 632 531.1 & MOE E3158	HPLC
Bendiocarb	ORG-91-5101	EPA 632 531.1 & MOE E3158	HPLC
Carbofuran	ORG-91-5101	EPA 632 531.1 & MOE E3158	HPLC
Carbaryl	ORG-91-5101	EPA 632 531.1 & MOE E3158	HPLC
Diuron	ORG-91-5101	EPA 632 531.1 & MOE E3158	HPLC
Triallate	ORG-91-5101	EPA 632 531.1 & MOE E3158	HPLC
Temephos	ORG-91-5101	EPA 632 531.1 & MOE E3158	HPLC
Diquat	ORG-91-5102	EPA 549.1	HPLC
Paraquat	ORG-91-5102	EPA 549.1	HPLC
alpha-BHC	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
Hexachlorobenzene	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
beta-BHC	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
Gamma-Hexachlorocyclohexane	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
delta-BHC	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD

Method Summary

CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY
AGAT WORK ORDER: 21X778056
PROJECT: Margravesville WTP
ATTENTION TO: James Jenner
SAMPLING SITE:
SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Heptachlor	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
Aldrin	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
Heptachlor Epoxide	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
Oxychlordane	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
gamma-Chlordane	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
op'-DDE	ORG-91-5112	modified from EPA SW846 3510C & 8081B	GC/ECD
Endosulfan I	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
alpha - chlordane	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
pp'-DDE	ORG-91-5112	modified from EPA SW846 3510C & 8081B	GC/ECD
Dieldrin	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
op'-DDD	ORG-91-5112	modified from EPA SW846 3510C & 8081B	GC/ECD
Endrin	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
Endosulfan II	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
pp'-DDD	ORG-91-5112	modified from EPA SW846 3510C & 8081B	GC/ECD
op'-DDT	ORG-91-5112	modified from EPA SW846 3510C & 8081B	GC/ECD
Endrin Aldehyde	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
Endosulfan Sulfate	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
pp'-DDT	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
Endrin Ketone	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
Methoxychlor	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
Mirex	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
TCMX	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
Decachlorobiphenyl	ORG-91-5112	modified from EPA SW-846 3510C & 8081B	GC/ECD
Phorate	ORG-91-5103	modified from EPA SW-846 3510C, 8141B & 8270E	GC/MS
Dimethoate	ORG-91-5103	modified from EPA SW-846 3510C, 8141B & 8270E	GC/MS
Terbufos	ORG-91-5103	modified from EPA SW-846 3510C, 8141B & 8270E	GC/MS
Diazinon	ORG-91-5103	modified from EPA SW-846 3510C, 8141B & 8270E	GC/MS
Malathion	ORG-91-5103	modified from EPA SW-846 3510C, 8141B & 8270E	GC/MS

Method Summary

CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY
AGAT WORK ORDER: 21X778056
PROJECT: Margravesville WTP
ATTENTION TO: James Jenner
SAMPLING SITE:
SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Chlorpyrifos	ORG-91-5103	modified from EPA SW-846 3510C, 8141B & 8270E	GC/MS
Parathion	ORG-91-5103	modified from EPA SW-846 3510C, 8141B & 8270E	GC/MS
Azinphos-methyl	ORG-91-5103	modified from EPA SW-846 3510C, 8141B & 8270E	GC/MS
Triphenyl phosphate (surr)	ORG-91-5103	modified from EPA SW-846 3510C, 8141B & 8270E	GC/MS
2,4-D	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-T	ORG-91-5510	EPA SW846 8151A	GC/ECD
2,4,5-TP	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dicamba	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dichlorprop	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dinoseb	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Picloram	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Diclofop-methyl	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,3,4,6-Tetrachlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4-Dichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-Trichlorophenol	ORG-91-5100	EPA SW-846 8151A	GC/ECD
2,4,6-Trichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Bromoxynil	ORG-91-5110	EPA SW-846 8151A	GC/ECD
MCPA	ORG-91-5110	EPA SW-846 8151A	GC/ECD
MCPP	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Pentachlorophenol	ORG-91-5110	EPA SW-846 3510 & 8151	GC/ECD
DCAA	ORG-91-5110	EPA SW-846 8151	GC/ECD
Trifluralin	ORG-91-5104	EPA SW-846 3510C, 8270D & MOE E3121	GC/MS
Simazine	ORG-91-5104	EPA SW-846 3510C, 8270D & MOE E3121	GC/MS
Atrazine	ORG-91-5104	EPA SW-846 3510C, 8270D & MOE E3121	GC/MS
Metribuzin	ORG-91-5104	EPA SW-846 3510C, 8270D & MOE E3121	GC/MS
Prometryne	ORG-91-5104	EPA SW-846 3510C, 8270D & MOE E3121	GC/MS
Metolachlor	ORG-91-5104	EPA SW-846 3510C, 8270D & MOE E3121	GC/MS
Alachlor	ORG-91-5104	EPA SW-846 3510C, 8270D & MOE E3121	GC/MS
Cyanazine	ORG-91-5104	EPA SW-846 3510C, 8270D & MOE E3121	GC/MS
Triphenyl phosphate (surr)	ORG-91-5104	EPA SW-846 3510C, 8270D & MOE E3121	GC/MS



Method Summary

CLIENT NAME: MUNICIPALITY OF ANNAPOLIS COUNTY

AGAT WORK ORDER: 21X778056

PROJECT: Margravesville WTP

ATTENTION TO: James Jenner

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Total Aluminum	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Antimony	MET121-6104 & MET-121-6105	SM 3125	ICP-MS
Total Arsenic	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Barium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Boron	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Cadmium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Chromium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Copper	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Iron	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Lead	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Manganese	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Selenium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Strontium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Uranium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Zinc	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Sodium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Mercury	INOR-121-6100 & INOR-121-6107	SM 3112 B	CV/AA
pH	INOR-121-6001	SM 4500 H+B	PC TITRATE
Turbidity	INOR-121-6022	SM 2130 B	NEPHELOMETER
True Color	INOR-121-6008	SM 2120 B	LACHAT FIA
Chloride	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Fluoride	INOR-121-6005	SM 4110 B	ION CHROMATOGRAPH
Nitrate as N	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Sulphate	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Bromate	INOR-121-6005	SM 4110 B	ION CHROMATOGRAPH
Chlorate	INOR-121-6005	SM 4110 B	ION CHROMATOGRAPH
Chlorite	INOR-121-6005	SM 4110 B	ION CHROMATOGRAPH



AGAT Laboratories

Unit 122 • 11 Morris Drive
Dartmouth, NS
B3B 1M2

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Laboratory Use Only

Arrival Condition: Good Poor (see notes)
Arrival Temperature: 22.6, 22.8, 22.6
Hold Time: _____
AGAT Job Number: 21x778056

Notes: Cooler, no ice

Turnaround Time Required (TAT)

Regular TAT 5 to 7 working days
Rush TAT Same day 1 day
 2 days 3 days

Date Required: _____

Drinking Water Sample: Yes No Salt Water Sample Yes No
Reg. No.: _____

Chain of Custody Record

P: 902.468.8718 • F: 902.468.8924

Report Information

Company: County of Annapolis
Contact: James Jenner
Address: 9574 Hwy 10, Nictaux
Phone: _____ Fax: _____
Client Project #: Margratsville WTP
AGAT Quotation: _____
Please Note: If quotation number is not provided client will be billed full price for analysis.

Report Information (Please print):

1. Name: James Jenner
Email: jjenner@annapoliscounty.ca
2. Name: John webber
Email: jwebber@annapoliscounty.ca

Report Format

Single Sample per page
 Multiple Samples per page
 Excel Format Included
 Export

Regulatory Requirements (Check):

List Guidelines on Report Do not list Guidelines on Report
 PIRI
 Tier 1 Res Pot Coarse
 Tier 2 Com N/Pot Fine
 Gas Fuel Lube
 CCME CDWQ
 Industrial NSEQS-Cont Sites
 Commercial HRM 101
 Res/Park Storm Water
 Agricultural Waste Water
 FWAL
 Sediment Other _____

Invoice To Same Yes / No

Company: County of Annapolis
Contact: _____
Address: _____
Phone: _____ Fax: _____
PO/Credit Card#: _____

Sample Identification	Date/Time Sampled	Sample Matrix	# Containers	Comments - Site/Sample Info. Sample Containment	Herbicides - Miss	VOC	OP Pesticides - Miss	Diquat/Paraquat - Miss	Carbamate/Urea Pesticides - Miss	Various Inorganics	Glyphosate - Mtl	HAA	Total Metals	Mercury	NTA - SGS	Triazine Herbicides - Miss	THM	Gross Alpha/Beta - SRC	Lead 210 - SRC	OC Pesticides - Methoxychlor - Miss
Margratsville Raw	July 21/21 1pm	Water	3/1		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Margratsville Treated	July 21/21 1pm	Water	3/1		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Samples Relinquished By (Print Name): <u>John webber</u>	Date/Time: <u>July 21/21 1pm</u>	Samples Received By (Print Name): <u>[Signature]</u>	Date/Time:	Pink Copy - Client	Page <u>1</u> of <u>1</u> N ^o :
Samples Relinquished By (Sign): <u>[Signature]</u>	Date/Time: <u>July 21/21 1pm</u>	Samples Received By (Sign): <u>[Signature]</u>	Date/Time:	Yellow Copy - AGAT	
				White Copy - AGAT	

Revised: Mar 19, 2015