



DEW - Department of Environment and Water
ATTN: Claire Sims
81-95 Waymouth Street

SA 5000 AUSTRALIA

03/01/2023

Dear Claire

Please find attached the Final Analytical Report for

Customer Service Request: 143419-2022-CSR-3

Account: 143419

Project:

AWQC-176361 DEW - Healthy Coorong Healthy Basin - Non Routine Event 1- 22/23

AWQC Sample Receipt hours are Monday and Tuesday 8:30am to 8pm and Wednesday, Thursday and Friday 8:30am to 4:30pm.

Yours sincerely,

Scott Kraft
Customer Services Officer
Scott.Kraft@sawater.com.au
+61 8 7424 1250





FINAL REPORT: 353301

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Report Information

Project Name	AWQC-176361
Customer	DEW - Department of Environment and Water
CSR_ID	143419-2022-CSR-3

Analytical Results

Sampling Point	31528-EPA - Salt Creek Outlet
Sampled Date	8/11/2022 11:30:00AM
Sample Received Date	9/11/2022 3:17:19PM
Sample Analysis Completed	2/12/2022 9:07:03AM
Sample ID	*2022-008-6109
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

GREEN ALGAE

Phytoflagellates	37700 cells/mL
Chlorella	462000 cells/mL
Unicellular green algae	14000 cells/mL

Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

08/11/2022

GREEN ALGAE

Chlorella	20.8 mm3/L
# Algal Biovolume Comment	Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.
# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.00 mm3/L
# Total Diatom Biovolume	0.00 mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

08/11/2022

Algae - Total	514000 cells/mL
Blue Green Algae - Total	0 cells/mL



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Analytical Results

Sampling Point	31528-EPA - Salt Creek Outlet
Sampled Date	8/11/2022 11:30:00AM
Sample Received Date	9/11/2022 3:17:19PM
Sample Analysis Completed	2/12/2022 9:07:03AM
Sample ID	*2022-008-6109
Status	Endorsed
Collection Type	Customer Collected

Algal Count - Total T0393(ADEL)

08/11/2022

Diatoms - Total	0 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	514000 cells/mL
Toxin producing BGA - Total	0 cells/mL

Sample temperature at time of receipt 19.6°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

09/11/2022

Chlorophyll a	0.1	15.9 µg/L
Phaeophytin a	0.1	7.15 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Ammonia as N (ADEL)			28/11/2022
# Ammonia as N	1	24 µg/L	
Chloride T0104-02(ADEL)			22/11/2022
Chloride	4.0	35800 mg/L	
Nitrate + Nitrite as N (ADEL)			28/11/2022
# Nitrate + Nitrite as N	0.5	2.5 µg/L	
# Nitrate + Nitrite as NO3	2.3	11.1 µg/L	
# Nitrate as Nitrogen		false µg/L	
Nitrogen - Total TMZ-M06(ADEL)			09/11/2022
Nitrogen - Total		<0.05 mg/L	
Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022
# Phosphorus -Filterable Reactive as PO4	1.5	<1.5 µg/L	
Phosphorus-Filterable Reactive as P	0.5	<0.5 µg/L	
Phosphorus - Total T0109-44(ADEL)			16/11/2022
Phosphorus - Total	0.005	0.310 mg/L	
Silica - Reactive T0111-01(ADEL)			22/11/2022
Silica - Reactive	0.05	1.56 mg/L	
TKN as N T0112-01(ADEL)			16/11/2022
TKN as Nitrogen	0.05	<0.05 mg/L	



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Analytical Results

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Sample Analysis Completed	2/12/2022 9:07:03AM
Sample ID	*2022-008-6109
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Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022
Dissolved Organic Carbon	1	20.2 mg/L	
Total Organic Carbon T0158-07(ADEL)			18/11/2022
Total Organic Carbon	1	22.4 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
Alkalinity as Calcium Carbonate		218 mg/L	
Bicarbonate		266 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
Conductivity & Total Dissolved Solids T0016-01(ADEL)			10/11/2022
Conductivity	2	83100 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	66600 mg/L	
pH T0010-01(ADEL)			10/11/2022
pH		8.1 pH units	
Temperature at which pH is measured		22.4 °C	
Turbidity T0018-01(ADEL)			09/11/2022
Turbidity	0.1	6.8 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Suspended Solids T0160-01(ADEL)			15/11/2022
Suspended Solids	1.0	<1 mg/L	



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Analytical Results

Sampling Point	31528-EPA - Salt Creek Outlet
Sampled Date	8/11/2022 11:30:00AM
Sample Received Date	9/11/2022 3:17:19PM
Sample Analysis Completed	2/12/2022 9:07:03AM
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Analytical Results

Sampling Point	31517-EPA - 1.8km West Salt Creek
Sampled Date	8/11/2022 1:15:00PM
Sample Received Date	9/11/2022 3:15:18PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6098
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

GREEN ALGAE

Chlorella	484000 cells/mL
Phytoflagellates	80000 cells/mL
Unicellular green algae	32300 cells/mL

Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

08/11/2022

GREEN ALGAE

Chlorella	21.8 mm3/L
# Algal Biovolume Comment	Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.
# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.00 mm3/L
# Total Diatom Biovolume	0.00 mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

08/11/2022

Algae - Total	596000 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	0 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	596000 cells/mL
Toxin producing BGA - Total	0 cells/mL



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Analytical Results

Sampling Point	31517-EPA - 1.8km West Salt Creek
Sampled Date	8/11/2022 1:15:00PM
Sample Received Date	9/11/2022 3:15:18PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6098
Status	Endorsed
Collection Type	Customer Collected

Sample temperature at time of receipt 19.6°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

09/11/2022

Chlorophyll a	0.1	16.4 µg/L
Phaeophytin a	0.1	4.57 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Ammonia as N (ADEL)			28/11/2022
# Ammonia as N	1	49 µg/L	
Chloride T0104-02(ADEL)			22/11/2022
Chloride	4.0	34700 mg/L	
Nitrate + Nitrite as N (ADEL)			28/11/2022
# Nitrate + Nitrite as N	0.5	3.4 µg/L	
# Nitrate + Nitrite as NO3	2.3	15.1 µg/L	
# Nitrate as Nitrogen		false µg/L	
Nitrogen - Total TMZ-M06(ADEL)			09/11/2022
Nitrogen - Total		3.58 mg/L	
Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022
# Phosphorus -Filterable Reactive as PO4	1.5	2.093 µg/L	
Phosphorus-Filterable Reactive as P	0.5	0.7 µg/L	
Phosphorus - Total T0109-44(ADEL)			30/11/2022
Phosphorus - Total	0.005	0.090 mg/L	
Silica - Reactive T0111-01(ADEL)			22/11/2022
Silica - Reactive	0.05	1.34 mg/L	
TKN as N T0112-01(ADEL)			30/11/2022
TKN as Nitrogen	0.05	3.58 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022



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Analytical Results

Sampling Point	31517-EPA - 1.8km West Salt Creek
Sampled Date	8/11/2022 1:15:00PM
Sample Received Date	9/11/2022 3:15:18PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6098
Status	Endorsed
Collection Type	Customer Collected

Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022
Dissolved Organic Carbon	1	20.3 mg/L	
Total Organic Carbon T0158-07(ADEL)			18/11/2022
Total Organic Carbon	1	24.1 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
Alkalinity as Calcium Carbonate		217 mg/L	
Bicarbonate		265 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
Conductivity & Total Dissolved Solids T0016-01(ADEL)			10/11/2022
Conductivity	2	83400 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	66900 mg/L	
pH T0010-01(ADEL)			10/11/2022
pH		8.1 pH units	
Temperature at which pH is measured		22.4 °C	
Turbidity T0018-01(ADEL)			09/11/2022
Turbidity	0.1	6.5 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Suspended Solids T0160-01(ADEL)			15/11/2022
Suspended Solids	1.0	7 mg/L	



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Analytical Results

Sampling Point	31511-EPA - 3.2km South Salt Creek
Sampled Date	8/11/2022 1:20:00PM
Sample Received Date	9/11/2022 3:14:02PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6097
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

GREEN ALGAE

Chlorella	773000 cells/mL
Unicellular green algae	419000 cells/mL
Phytoflagellates	19300 cells/mL

Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

08/11/2022

GREEN ALGAE

Chlorella	34.8 mm3/L
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Algal Biovolume Comment

Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.

# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.00 mm3/L
# Total Diatom Biovolume	0.00 mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

08/11/2022

Algae - Total	1210000 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	0 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	1210000 cells/mL
Toxin producing BGA - Total	0 cells/mL



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Analytical Results

Sampling Point	31511-EPA - 3.2km South Salt Creek
Sampled Date	8/11/2022 1:20:00PM
Sample Received Date	9/11/2022 3:14:02PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6097
Status	Endorsed
Collection Type	Customer Collected

Sample temperature at time of receipt 19.6°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

09/11/2022

Chlorophyll a	0.1	12.3 µg/L
Phaeophytin a	0.1	1.84 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Ammonia as N T0100-01(ADEL)			01/12/2022
Ammonia as N	0.005	0.216 mg/L	
Chloride T0104-02(ADEL)			22/11/2022
Chloride	4.0	35800 mg/L	
Nitrate + Nitrite as N (ADEL)			28/11/2022
# Nitrate + Nitrite as N	0.5	78.2 µg/L	
# Nitrate + Nitrite as NO3	2.3	346 µg/L	
# Nitrate as Nitrogen		false µg/L	
Nitrogen - Total TMZ-M06(ADEL)			09/11/2022
Nitrogen - Total		3.69 mg/L	
Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022
# Phosphorus -Filterable Reactive as PO4	1.5	17.043 µg/L	
Phosphorus-Filterable Reactive as P	0.5	5.7 µg/L	
Phosphorus - Total T0109-44(ADEL)			30/11/2022
Phosphorus - Total	0.005	0.070 mg/L	
Silica - Reactive T0111-01(ADEL)			22/11/2022
Silica - Reactive	0.05	1.16 mg/L	
TKN as N T0112-01(ADEL)			30/11/2022
TKN as Nitrogen	0.05	3.61 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022



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Analytical Results

Sampling Point	31511-EPA - 3.2km South Salt Creek
Sampled Date	8/11/2022 1:20:00PM
Sample Received Date	9/11/2022 3:14:02PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6097
Status	Endorsed
Collection Type	Customer Collected

Dissolved Organic Carbon T0158-07(ADEL)		18/11/2022
Dissolved Organic Carbon	1	17.5 mg/L
Total Organic Carbon T0158-07(ADEL)		18/11/2022
Total Organic Carbon	1	22.6 mg/L

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
Alkalinity as Calcium Carbonate		213 mg/L	
Bicarbonate		260 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
Conductivity & Total Dissolved Solids T0016-01(ADEL)			10/11/2022
Conductivity	2	86000 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	69600 mg/L	
pH T0010-01(ADEL)			10/11/2022
pH		8.2 pH units	
Temperature at which pH is measured		22.6 °C	
Turbidity T0018-01(ADEL)			09/11/2022
Turbidity	0.1	6.2 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Suspended Solids T0160-01(ADEL)			15/11/2022
Suspended Solids	1.0	<1 mg/L	



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Analytical Results

Sampling Point	31515-EPA - Snipe Point
Sampled Date	8/11/2022 1:30:00PM
Sample Received Date	9/11/2022 3:15:02PM
Sample Analysis Completed	2/12/2022 9:07:04AM
Sample ID	*2022-008-6095
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

GREEN ALGAE

Unicellular green algae	454000 cells/mL
Phytoflagellates	7000 cells/mL
Chlorella	635000 cells/mL

Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

08/11/2022

GREEN ALGAE

Chlorella	28.6 mm3/L
# Algal Biovolume Comment	Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.
# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.00 mm3/L
# Total Diatom Biovolume	0.00 mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

08/11/2022

Algae - Total	1100000 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	0 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	1100000 cells/mL
Toxin producing BGA - Total	0 cells/mL



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Sample Received Date	9/11/2022 3:15:02PM
Sample Analysis Completed	2/12/2022 9:07:04AM
Sample ID	*2022-008-6095
Status	Endorsed
Collection Type	Customer Collected

Sample temperature at time of receipt 19.6°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

09/11/2022

Chlorophyll a	0.1	18.6 µg/L
Phaeophytin a	0.1	3.68 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Ammonia as N (ADEL)			28/11/2022
# Ammonia as N	1	31 µg/L	
Chloride T0104-02(ADEL)			22/11/2022
Chloride	4.0	37300 mg/L	
Nitrate + Nitrite as N (ADEL)			28/11/2022
# Nitrate + Nitrite as N	0.5	2.3 µg/L	
# Nitrate + Nitrite as NO3	2.3	10.2 µg/L	
# Nitrate as Nitrogen		false µg/L	
Nitrogen - Total TMZ-M06(ADEL)			09/11/2022
Nitrogen - Total		<0.05 mg/L	
Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022
# Phosphorus -Filterable Reactive as PO4	1.5	<1.5 µg/L	
Phosphorus-Filterable Reactive as P	0.5	<0.5 µg/L	
Phosphorus - Total T0109-44(ADEL)			16/11/2022
Phosphorus - Total	0.005	0.141 mg/L	
Silica - Reactive T0111-01(ADEL)			22/11/2022
Silica - Reactive	0.05	1.21 mg/L	
TKN as N T0112-01(ADEL)			16/11/2022
TKN as Nitrogen	0.05	<0.05 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022



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Sample Received Date	9/11/2022 3:15:02PM
Sample Analysis Completed	2/12/2022 9:07:04AM
Sample ID	*2022-008-6095
Status	Endorsed
Collection Type	Customer Collected

Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022
Dissolved Organic Carbon	1	20.2 mg/L	
Total Organic Carbon T0158-07(ADEL)			18/11/2022
Total Organic Carbon	1	23.1 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
Alkalinity as Calcium Carbonate		216 mg/L	
Bicarbonate		263 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
Conductivity & Total Dissolved Solids T0016-01(ADEL)			10/11/2022
Conductivity	2	83600 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	67100 mg/L	
pH T0010-01(ADEL)			10/11/2022
pH		8.1 pH units	
Temperature at which pH is measured		22.3 °C	
Turbidity T0018-01(ADEL)			09/11/2022
Turbidity	0.1	7.1 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Suspended Solids T0160-01(ADEL)			15/11/2022
Suspended Solids	1.0	<1 mg/L	



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Analytical Results

Sampling Point	315191-EPA - Morella Creek @ guage
Sampled Date	8/11/2022 1:45:00PM
Sample Received Date	9/11/2022 3:15:47PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6102
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

Other Organisms	410 cells/mL
DIATOMS	
Synedra	240 cells/mL
Nitzschia	10 cells/mL
PENNALES	6 cells/mL
GREEN ALGAE	
Chlorella	205000 cells/mL
Monoraphidium sp_2_(short)	8400 cells/mL
Phytoflagellates	700 cells/mL
Oocystis sp_1_(small_cells)	450 cells/mL

Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

08/11/2022

DIATOMS	
Synedra	0.17 mm3/L
Nitzschia	0.01 mm3/L
PENNALES	<0.01 mm3/L
GREEN ALGAE	
Chlorella	9.22 mm3/L
Monoraphidium sp_2_(short)	0.44 mm3/L
Oocystis sp_1_(small_cells)	0.08 mm3/L
# Algal Biovolume Comment	Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.
# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.00 mm3/L
# Total Diatom Biovolume	0.18 mm3/L



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Analytical Results

Sampling Point	315191-EPA - Morella Creek @ guage
Sampled Date	8/11/2022 1:45:00PM
Sample Received Date	9/11/2022 3:15:47PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6102
Status	Endorsed
Collection Type	Customer Collected

Algal Biovolume T0393(ADEL)

08/11/2022

# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

08/11/2022

Algae - Total	215000 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	256 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	215000 cells/mL
Toxin producing BGA - Total	0 cells/mL

Sample temperature at time of receipt 19.6°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

09/11/2022

Chlorophyll a	0.1	4.04 µg/L
Phaeophytin a	0.1	1.35 µg/L

Inorganic Chemistry - Nutrients

LOR

Result

Test Start Date

Sample temperature at time of receipt 19.6°C

Ammonia as N (ADEL)

28/11/2022

# Ammonia as N	1	49 µg/L
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Chloride T0104-02(ADEL)

22/11/2022

Chloride	4.0	4200 mg/L
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Nitrate + Nitrite as N (ADEL)

28/11/2022

# Nitrate + Nitrite as N	0.5	47.7 µg/L
# Nitrate + Nitrite as NO3	2.3	211 µg/L
# Nitrate as Nitrogen		false µg/L

Nitrogen - Total TMZ-M06(ADEL)

09/11/2022

Nitrogen - Total		0.77 mg/L
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Phosphorus - Filterable Reactive as P (ADEL)

28/11/2022

# Phosphorus -Filterable Reactive as PO4	1.5	22.724 µg/L
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Analytical Results

Sampling Point	315191-EPA - Morella Creek @ guage
Sampled Date	8/11/2022 1:45:00PM
Sample Received Date	9/11/2022 3:15:47PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6102
Status	Endorsed
Collection Type	Customer Collected

Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022
Phosphorus-Filterable Reactive as P	0.5	7.6 µg/L	
Phosphorus - Total T0109-44(ADEL)			30/11/2022
Phosphorus - Total	0.005	0.018 mg/L	
Silica - Reactive T0111-01(ADEL)			22/11/2022
Silica - Reactive	0.05	16.6 mg/L	
TKN as N T0112-01(ADEL)			30/11/2022
TKN as Nitrogen	0.05	0.72 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022
Dissolved Organic Carbon	1	11.4 mg/L	
Total Organic Carbon T0158-07(ADEL)			18/11/2022
Total Organic Carbon	1	11.4 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
Alkalinity as Calcium Carbonate		383 mg/L	
Bicarbonate		374 mg/L	
Carbonate		46 mg/L	
Hydroxide		0 mg/L	
Conductivity & Total Dissolved Solids T0016-01(ADEL)			10/11/2022
Conductivity	2	13800 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	8180 mg/L	
pH T0010-01(ADEL)			10/11/2022
pH		8.8 pH units	
Temperature at which pH is measured		22.6 °C	



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Analytical Results

Sampling Point	315191-EPA - Morella Creek @ guage
Sampled Date	8/11/2022 1:45:00PM
Sample Received Date	9/11/2022 3:15:47PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6102
Status	Endorsed
Collection Type	Customer Collected

Turbidity T0018-01(ADEL)			09/11/2022
Turbidity	0.1	1.6 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<hr/>			
<i>Sample temperature at time of receipt 19.6°C</i>			
Suspended Solids T0160-01(ADEL)			15/11/2022
Suspended Solids	1.0	<1 mg/L	



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Analytical Results

Sampling Point	531012-EPA - Sth Policeman Point
Sampled Date	8/11/2022 1:50:00PM
Sample Received Date	9/11/2022 3:18:36PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-7748
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

CRYPTOPHYTES

Chroomonas	20 cells/mL
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GREEN ALGAE

Phytoflagellates	58000 cells/mL
Chlorella	501000 cells/mL
Unicellular green algae	40000 cells/mL

Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

08/11/2022

CRYPTOPHYTES

Chroomonas	<0.01 mm3/L
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GREEN ALGAE

Chlorella	22.5 mm3/L
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# Algal Biovolume Comment	Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.
# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.00 mm3/L
# Total Diatom Biovolume	0.00 mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

08/11/2022

Algae - Total	599000 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	0 cells/mL



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Analytical Results

Sampling Point	531012-EPA - Sth Policeman Point
Sampled Date	8/11/2022 1:50:00PM
Sample Received Date	9/11/2022 3:18:36PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-7748
Status	Endorsed
Collection Type	Customer Collected

Algal Count - Total T0393(ADEL)

08/11/2022

Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	599000 cells/mL
Toxin producing BGA - Total	0 cells/mL

Sample temperature at time of receipt 19.6°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

09/11/2022

Chlorophyll a	0.1	10.5 µg/L
Phaeophytin a	0.1	4.15 µg/L

Inorganic Chemistry - Nutrients

LOR

Result

Test Start Date

Sample temperature at time of receipt 19.6°C

Ammonia as N (ADEL)

28/11/2022

# Ammonia as N	1	40 µg/L
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Chloride T0104-02(ADEL)

22/11/2022

Chloride	4.0	35200 mg/L
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Nitrate + Nitrite as N (ADEL)

28/11/2022

# Nitrate + Nitrite as N	0.5	3.4 µg/L
# Nitrate + Nitrite as NO3	2.3	15.1 µg/L
# Nitrate as Nitrogen		false µg/L

Nitrogen - Total TMZ-M06(ADEL)

09/11/2022

Nitrogen - Total		3.65 mg/L
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Phosphorus - Filterable Reactive as P (ADEL)

28/11/2022

# Phosphorus -Filterable Reactive as PO4	1.5	5.083 µg/L
Phosphorus-Filterable Reactive as P	0.5	1.7 µg/L

Phosphorus - Total T0109-44(ADEL)

30/11/2022

Phosphorus - Total	0.005	0.116 mg/L
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Silica - Reactive T0111-01(ADEL)

22/11/2022

Silica - Reactive	0.05	1.12 mg/L
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TKN as N T0112-01(ADEL)

30/11/2022

TKN as Nitrogen	0.05	3.65 mg/L
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Analytical Results

Sampling Point	531012-EPA - Sth Policeman Point
Sampled Date	8/11/2022 1:50:00PM
Sample Received Date	9/11/2022 3:18:36PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-7748
Status	Endorsed
Collection Type	Customer Collected

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022
Dissolved Organic Carbon	1	19.3 mg/L	
Total Organic Carbon T0158-07(ADEL)			18/11/2022
Total Organic Carbon	1	23.4 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
Alkalinity as Calcium Carbonate		221 mg/L	
Bicarbonate		269 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
Conductivity & Total Dissolved Solids T0016-01(ADEL)			10/11/2022
Conductivity	2	83100 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	66600 mg/L	
pH T0010-01(ADEL)			10/11/2022
pH		8.1 pH units	
Temperature at which pH is measured		22.6 °C	
Turbidity T0018-01(ADEL)			09/11/2022
Turbidity	0.1	7.2 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Suspended Solids T0160-01(ADEL)			15/11/2022
Suspended Solids	1.0	<1 mg/L	



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Analytical Results

Sampling Point	31519-EPA - Morella Basin at Outlet Regulator
Sampled Date	8/11/2022 2:03:00PM
Sample Received Date	9/11/2022 3:15:33PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6101
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

Other Organisms	110 cells/mL
BLUE GREEN ALGAE	
Merismopedia	160 cells/mL
DIATOMS	
Synedra	10 cells/mL
GREEN ALGAE	
Oocystis sp_1_(small_cells)	2420 cells/mL
Colonial green algae	510 cells/mL
Chlorella	214000 cells/mL
Monoraphidium sp_2_(short)	11800 cells/mL
Phytoflagellates	400 cells/mL

Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

08/11/2022

BLUE GREEN ALGAE	
Merismopedia	<0.01 mm3/L
DIATOMS	
Synedra	<0.01 mm3/L
GREEN ALGAE	
Oocystis sp_1_(small_cells)	0.42 mm3/L
Colonial green algae	0.06 mm3/L
Chlorella	9.63 mm3/L
Monoraphidium sp_2_(short)	0.62 mm3/L
# Algal Biovolume Comment	Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.
# Total Algae Biovolume	Not Calculated mm3/L



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Analytical Results

Sampling Point	31519-EPA - Morella Basin at Outlet Regulator
Sampled Date	8/11/2022 2:03:00PM
Sample Received Date	9/11/2022 3:15:33PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6101
Status	Endorsed
Collection Type	Customer Collected

Algal Biovolume T0393(ADEL)

08/11/2022

# Total Blue_Green Algae Biovolume	<0.01 mm3/L
# Total Diatom Biovolume	<0.01 mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

08/11/2022

Algae - Total	229000 cells/mL
Blue Green Algae - Total	160 cells/mL
Diatoms - Total	10 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	229000 cells/mL
Toxin producing BGA - Total	0 cells/mL

Sample temperature at time of receipt 19.6°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

09/11/2022

Chlorophyll a	0.1	3.59 µg/L
Phaeophytin a	0.1	0.62 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Ammonia as N (ADEL)			28/11/2022
# Ammonia as N	1	21 µg/L	
Chloride T0104-02(ADEL)			22/11/2022
Chloride	4.0	4100 mg/L	
Nitrate + Nitrite as N (ADEL)			28/11/2022
# Nitrate + Nitrite as N	0.5	<0.5 µg/L	
# Nitrate + Nitrite as NO3	2.3	<2.3 µg/L	
# Nitrate as Nitrogen		false µg/L	
Nitrogen - Total TMZ-M06(ADEL)			09/11/2022
Nitrogen - Total		0.48 mg/L	



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Analytical Results

Sampling Point	31519-EPA - Morella Basin at Outlet Regulator
Sampled Date	8/11/2022 2:03:00PM
Sample Received Date	9/11/2022 3:15:33PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6101
Status	Endorsed
Collection Type	Customer Collected

Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022
# Phosphorus -Filterable Reactive as PO ₄	1.5	11.362 µg/L	
Phosphorus-Filterable Reactive as P	0.5	3.8 µg/L	
Phosphorus - Total T0109-44(ADEL)			30/11/2022
Phosphorus - Total	0.005	<0.005 mg/L	
Silica - Reactive T0111-01(ADEL)			22/11/2022
Silica - Reactive	0.05	16.9 mg/L	
TKN as N T0112-01(ADEL)			30/11/2022
TKN as Nitrogen	0.05	0.48 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022
Dissolved Organic Carbon	1	9.1 mg/L	
Total Organic Carbon T0158-07(ADEL)			18/11/2022
Total Organic Carbon	1	10.8 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
Alkalinity as Calcium Carbonate		386 mg/L	
Bicarbonate		391 mg/L	
Carbonate		39 mg/L	
Hydroxide		0 mg/L	
Conductivity & Total Dissolved Solids T0016-01(ADEL)			10/11/2022
Conductivity	2	13700 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	8120 mg/L	
pH T0010-01(ADEL)			10/11/2022
pH		8.7 pH units	



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Analytical Results

Sampling Point	31519-EPA - Morella Basin at Outlet Regulator
Sampled Date	8/11/2022 2:03:00PM
Sample Received Date	9/11/2022 3:15:33PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6101
Status	Endorsed
Collection Type	Customer Collected

pH T0010-01(ADEL)			10/11/2022
Temperature at which pH is measured		22.4 °C	
Turbidity T0018-01(ADEL)			09/11/2022
Turbidity	0.1	1.6 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Suspended Solids T0160-01(ADEL)			15/11/2022
Suspended Solids	1.0	<1 mg/L	



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Analytical Results

Sampling Point	31526-EPA - Nth Jack Point
Sampled Date	8/11/2022 2:15:00PM
Sample Received Date	9/11/2022 3:17:03PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6094
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

DINOFLAGELLATES

Heterocapsa	110 cells/mL
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GREEN ALGAE

Chlorella	423000 cells/mL
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Unicellular green algae	523000 cells/mL
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Phytoflagellates	12300 cells/mL
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Organism - Comment	Heterocapsa - The identification for this organism is tentative only.
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Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

08/11/2022

GREEN ALGAE

Chlorella	19.0 mm3/L
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# Algal Biovolume Comment	Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.
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# Total Algae Biovolume	Not Calculated mm3/L
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# Total Blue_Green Algae Biovolume	0.00 mm3/L
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# Total Diatom Biovolume	0.00 mm3/L
--------------------------	------------

# Total Green Algae Biovolume	Not Calculated mm3/L
-------------------------------	----------------------

Total Toxic BGA Biovolume	0.00 mm3/L
---------------------------	------------

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

08/11/2022

Algae - Total	958000 cells/mL
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Blue Green Algae - Total	0 cells/mL
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Diatoms - Total	0 cells/mL
-----------------	------------



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Analytical Results

Sampling Point	31526-EPA - Nth Jack Point
Sampled Date	8/11/2022 2:15:00PM
Sample Received Date	9/11/2022 3:17:03PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6094
Status	Endorsed
Collection Type	Customer Collected

Algal Count - Total T0393(ADEL)	08/11/2022
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	958000 cells/mL
Toxin producing BGA - Total	0 cells/mL

Sample temperature at time of receipt 19.6°C	
Chlorophyll a & Phaeophytin a T0380-02(ADEL)	09/11/2022
Chlorophyll a	0.1 31.6 µg/L
Phaeophytin a	0.1 7.02 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Ammonia as N (ADEL)			28/11/2022
# Ammonia as N	1	42 µg/L	
Chloride T0104-02(ADEL)			22/11/2022
Chloride	4.0	33100 mg/L	
Nitrate + Nitrite as N (ADEL)			28/11/2022
# Nitrate + Nitrite as N	0.5	2.8 µg/L	
# Nitrate + Nitrite as NO3	2.3	12.4 µg/L	
# Nitrate as Nitrogen		false µg/L	
Nitrogen - Total TMZ-M06(ADEL)			09/11/2022
Nitrogen - Total		3.56 mg/L	
Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022
# Phosphorus -Filterable Reactive as PO4	1.5	3.588 µg/L	
Phosphorus-Filterable Reactive as P	0.5	1.2 µg/L	
Phosphorus - Total T0109-44(ADEL)			30/11/2022
Phosphorus - Total	0.005	0.141 mg/L	
Silica - Reactive T0111-01(ADEL)			22/11/2022
Silica - Reactive	0.05	1.03 mg/L	
TKN as N T0112-01(ADEL)			30/11/2022
TKN as Nitrogen	0.05	3.56 mg/L	



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Analytical Results

Sampling Point	31526-EPA - Nth Jack Point
Sampled Date	8/11/2022 2:15:00PM
Sample Received Date	9/11/2022 3:17:03PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6094
Status	Endorsed
Collection Type	Customer Collected

Organic Chemistry	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022
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Dissolved Organic Carbon	1	18.6 mg/L
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Total Organic Carbon T0158-07(ADEL)			18/11/2022
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Total Organic Carbon	1	23.4 mg/L
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Inorganic Chemistry - Physical	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
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Alkalinity as Calcium Carbonate		229 mg/L
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Bicarbonate		279 mg/L
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Carbonate		0 mg/L
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Hydroxide		0 mg/L
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Conductivity & Total Dissolved Solids T0016-01(ADEL)			10/11/2022
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Conductivity	2	79900 µS/cm
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Note		Conductivity measurement is corrected to 25°C
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Total Dissolved Solids (by EC)	1	63200 mg/L
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pH T0010-01(ADEL)			10/11/2022
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pH		8.2 pH units
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Temperature at which pH is measured		22.6 °C
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Turbidity T0018-01(ADEL)			09/11/2022
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Turbidity	0.1	8.0 NTU
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Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Suspended Solids T0160-01(ADEL)			15/11/2022
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Suspended Solids	1.0	<1 mg/L
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Analytical Results

Sampling Point	31514-EPA - Stoney Well
Sampled Date	8/11/2022 2:45:00PM
Sample Received Date	9/11/2022 3:14:46PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6099
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

DIATOMS

Chaetoceros	18 cells/mL
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DINOFLAGELLATES

Heterocapsa	100 cells/mL
-------------	--------------

GREEN ALGAE

Pyramimonas	60 cells/mL
Unicellular green algae	501000 cells/mL
Phytoflagellates	13300 cells/mL
Chlorella	665000 cells/mL

Organism - Comment Heterocapsa - The identification for this organism is tentative only.

Organism - Comment Pyramimonas - The identification for this organism is tentative only.

Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

08/11/2022

GREEN ALGAE

Chlorella	29.9 mm3/L
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Algal Biovolume Comment Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.

Total Algae Biovolume Not Calculated mm3/L

Total Blue_Green Algae Biovolume 0.00 mm3/L

Total Diatom Biovolume Not Calculated mm3/L

Total Green Algae Biovolume Not Calculated mm3/L

Total Toxic BGA Biovolume 0.00 mm3/L



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Analytical Results

Sampling Point	31514-EPA - Stoney Well
Sampled Date	8/11/2022 2:45:00PM
Sample Received Date	9/11/2022 3:14:46PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6099
Status	Endorsed
Collection Type	Customer Collected

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

08/11/2022

Algae - Total	1180000 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	18 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	1180000 cells/mL
Toxin producing BGA - Total	0 cells/mL

Sample temperature at time of receipt 19.6°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

09/11/2022

Chlorophyll a	0.1	29.7 µg/L
Phaeophytin a	0.1	10.5 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Ammonia as N (ADEL)			28/11/2022
# Ammonia as N	1	38 µg/L	
Chloride T0104-02(ADEL)			22/11/2022
Chloride	4.0	30100 mg/L	
Nitrate + Nitrite as N (ADEL)			28/11/2022
# Nitrate + Nitrite as N	0.5	2.4 µg/L	
# Nitrate + Nitrite as NO3	2.3	10.6 µg/L	
# Nitrate as Nitrogen		false µg/L	
Nitrogen - Total TMZ-M06(ADEL)			09/11/2022
Nitrogen - Total		3.58 mg/L	
Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022
# Phosphorus -Filterable Reactive as PO4	1.5	5.681 µg/L	
Phosphorus-Filterable Reactive as P	0.5	1.9 µg/L	
Phosphorus - Total T0109-44(ADEL)			30/11/2022
Phosphorus - Total	0.005	0.142 mg/L	
Silica - Reactive T0111-01(ADEL)			22/11/2022



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Analytical Results

Sampling Point	31514-EPA - Stoney Well
Sampled Date	8/11/2022 2:45:00PM
Sample Received Date	9/11/2022 3:14:46PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6099
Status	Endorsed
Collection Type	Customer Collected

Silica - Reactive T0111-01(ADEL)			22/11/2022
Silica - Reactive	0.05	0.82 mg/L	
TKN as N T0112-01(ADEL)			30/11/2022
TKN as Nitrogen	0.05	3.58 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022
Dissolved Organic Carbon	1	17.4 mg/L	
Total Organic Carbon T0158-07(ADEL)			18/11/2022
Total Organic Carbon	1	22.9 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
Alkalinity as Calcium Carbonate		222 mg/L	
Bicarbonate		271 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
Conductivity & Total Dissolved Solids T0016-01(ADEL)			10/11/2022
Conductivity	2	73600 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	56900 mg/L	
pH T0010-01(ADEL)			10/11/2022
pH		8.2 pH units	
Temperature at which pH is measured		22.4 °C	
Turbidity T0018-01(ADEL)			09/11/2022
Turbidity	0.1	7.0 NTU	



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Analytical Results

Sampling Point	31514-EPA - Stoney Well
Sampled Date	8/11/2022 2:45:00PM
Sample Received Date	9/11/2022 3:14:46PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6099
Status	Endorsed
Collection Type	Customer Collected

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Suspended Solids T0160-01(ADEL)			15/11/2022
Suspended Solids	1.0	<1 mg/L	



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Analytical Results

Sampling Point	300712-Tilley Swamp Watercourse Outlet Channel
Sampled Date	8/11/2022 3:05:00PM
Sample Received Date	9/11/2022 3:13:32PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6105
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

DIATOMS

Cyclotella	10 cells/mL
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DINOFLAGELLATES

Oxyrrhis	70 cells/mL
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PERIDINIALES	800 cells/mL
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Heterocapsa	10 cells/mL
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PERIDINIALES	325 cells/mL
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GREEN ALGAE

Chlorella	7600 cells/mL
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Monoraphidium sp_2_(short)	1400 cells/mL
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Phytoflagellates	600 cells/mL
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Organism - Comment	PERIDINIALES - The organism was identified as Ensiculifera sp.
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Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

08/11/2022

DIATOMS

Cyclotella	<0.01 mm3/L
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GREEN ALGAE

Chlorella	0.34 mm3/L
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Monoraphidium sp_2_(short)	0.07 mm3/L
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# Algal Biovolume Comment	Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.
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# Total Algae Biovolume	Not Calculated mm3/L
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# Total Blue_Green Algae Biovolume	0.00 mm3/L
------------------------------------	------------

# Total Diatom Biovolume	<0.01 mm3/L
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Analytical Results

Sampling Point	300712-Tilley Swamp Watercourse Outlet Channel
Sampled Date	8/11/2022 3:05:00PM
Sample Received Date	9/11/2022 3:13:32PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6105
Status	Endorsed
Collection Type	Customer Collected

Algal Biovolume T0393(ADEL)

08/11/2022

# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

08/11/2022

Algae - Total	10800 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	10 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	9600 cells/mL
Toxin producing BGA - Total	0 cells/mL

Sample temperature at time of receipt 19.6°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

09/11/2022

Chlorophyll a	0.1	5.82 µg/L
Phaeophytin a	0.1	0.99 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Ammonia as N (ADEL)			28/11/2022
# Ammonia as N	1	62 µg/L	
Chloride T0104-02(ADEL)			22/11/2022
Chloride	4.0	7240 mg/L	
Nitrate + Nitrite as N (ADEL)			28/11/2022
# Nitrate + Nitrite as N	0.5	14.6 µg/L	
# Nitrate + Nitrite as NO3	2.3	64.7 µg/L	
# Nitrate as Nitrogen		false µg/L	
Nitrogen - Total TMZ-M06(ADEL)			09/11/2022
Nitrogen - Total		0.42 mg/L	
Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022
# Phosphorus -Filterable Reactive as PO4	1.5	12.558 µg/L	



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Analytical Results

Sampling Point	300712-Tilley Swamp Watercourse Outlet Channel
Sampled Date	8/11/2022 3:05:00PM
Sample Received Date	9/11/2022 3:13:32PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6105
Status	Endorsed
Collection Type	Customer Collected

Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022
Phosphorus-Filterable Reactive as P	0.5	4.2 µg/L	
Phosphorus - Total T0109-44(ADEL)			30/11/2022
Phosphorus - Total	0.005	0.010 mg/L	
Silica - Reactive T0111-01(ADEL)			22/11/2022
Silica - Reactive	0.05	7.85 mg/L	
TKN as N T0112-01(ADEL)			30/11/2022
TKN as Nitrogen	0.05	0.41 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022
Dissolved Organic Carbon	1	8.6 mg/L	
Total Organic Carbon T0158-07(ADEL)			18/11/2022
Total Organic Carbon	1	8.9 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
Alkalinity as Calcium Carbonate		372 mg/L	
Bicarbonate		453 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
Conductivity & Total Dissolved Solids T0016-01(ADEL)			10/11/2022
Conductivity	2	20300 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	12400 mg/L	
pH T0010-01(ADEL)			10/11/2022
pH		8.3 pH units	
Temperature at which pH is measured		22.9 °C	



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Analytical Results

Sampling Point	300712-Tilley Swamp Watercourse Outlet Channel
Sampled Date	8/11/2022 3:05:00PM
Sample Received Date	9/11/2022 3:13:32PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6105
Status	Endorsed
Collection Type	Customer Collected

Turbidity T0018-01(ADEL)			09/11/2022
Turbidity	0.1	1.4 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Suspended Solids T0160-01(ADEL)			15/11/2022
Suspended Solids	1.0	2 mg/L	





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Analytical Results

Sampling Point	31525-EPA - Villa de Yumpa
Sampled Date	8/11/2022 3:10:00PM
Sample Received Date	9/11/2022 3:16:44PM
Sample Analysis Completed	5/12/2022 4:22:36PM
Sample ID	*2022-008-6092
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

DIATOMS

Pennate diatoms	2 cells/mL
Gyrosigma	2 cells/mL

GREEN ALGAE

Chlorella	406000 cells/mL
Unicellular green algae	106000 cells/mL
Phytoplankton	18500 cells/mL

Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

08/11/2022

DIATOMS

Gyrosigma	<0.01 mm ³ /L
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GREEN ALGAE

Chlorella	18.3 mm ³ /L
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Algal Biovolume Comment

Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.

# Total Algae Biovolume	Not Calculated mm ³ /L
# Total Blue_Green Algae Biovolume	0.00 mm ³ /L
# Total Diatom Biovolume	Not Calculated mm ³ /L
# Total Green Algae Biovolume	Not Calculated mm ³ /L
Total Toxic BGA Biovolume	0.00 mm ³ /L

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

08/11/2022

Algae - Total	531000 cells/mL
Blue Green Algae - Total	0 cells/mL



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Analytical Results

Sampling Point	31525-EPA - Villa de Yumpa
Sampled Date	8/11/2022 3:10:00PM
Sample Received Date	9/11/2022 3:16:44PM
Sample Analysis Completed	5/12/2022 4:22:36PM
Sample ID	*2022-008-6092
Status	Endorsed
Collection Type	Customer Collected

Algal Count - Total T0393(ADEL) 08/11/2022

Diatoms - Total	4 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	530000 cells/mL
Toxin producing BGA - Total	0 cells/mL

Sample temperature at time of receipt 19.6°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL) 09/11/2022

Chlorophyll a	0.1	27.1 µg/L
Phaeophytin a	0.1	7.91 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Ammonia as N (ADEL) 28/11/2022

# Ammonia as N	1	32 µg/L
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Chloride T0104-02(ADEL) 22/11/2022

Chloride	4.0	29200 mg/L
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Nitrate + Nitrite as N (ADEL) 28/11/2022

# Nitrate + Nitrite as N	0.5	2.4 µg/L
# Nitrate + Nitrite as NO3	2.3	10.6 µg/L
# Nitrate as Nitrogen		false µg/L

Phosphorus - Filterable Reactive as P (ADEL) 28/11/2022

# Phosphorus -Filterable Reactive as PO4	1.5	2.093 µg/L
Phosphorus-Filterable Reactive as P	0.5	0.7 µg/L

Phosphorus - Total T0109-44(ADEL) 30/11/2022

Phosphorus - Total	0.005	0.009 mg/L
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Organic Chemistry	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Dissolved Organic Carbon T0158-07(ADEL) 18/11/2022



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Analytical Results

Sampling Point	31525-EPA - Villa de Yumpa
Sampled Date	8/11/2022 3:10:00PM
Sample Received Date	9/11/2022 3:16:44PM
Sample Analysis Completed	5/12/2022 4:22:36PM
Sample ID	*2022-008-6092
Status	Endorsed
Collection Type	Customer Collected

Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022
Dissolved Organic Carbon	1	16.6 mg/L	
Total Organic Carbon T0158-07(ADEL)			18/11/2022
Total Organic Carbon	1	21.1 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
Alkalinity as Calcium Carbonate		208 mg/L	
Bicarbonate		254 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
Conductivity & Total Dissolved Solids T0016-01(ADEL)			10/11/2022
Conductivity	2	72200 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	55500 mg/L	
pH T0010-01(ADEL)			10/11/2022
pH		8.3 pH units	
Temperature at which pH is measured		22.6 °C	
Turbidity T0018-01(ADEL)			09/11/2022
Turbidity	0.1	6.8 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Suspended Solids T0160-01(ADEL)			15/11/2022
Suspended Solids	1.0	<1 mg/L	



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Analytical Results

Sampling Point	300713-Tilley Swamp Drain D/S Northern Outlet
Sampled Date	8/11/2022 3:25:00PM
Sample Received Date	9/11/2022 3:13:48PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6103
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

CRYPTOPHYTES

Chroomonas 10 cells/mL

DIATOMS

Pennate diatoms 50 cells/mL

DINOFLAGELLATES

Oxyrrhis 30 cells/mL

PERIDINIALES 400 cells/mL

PERIDINIALES 130 cells/mL

GREEN ALGAE

Phytoflagellates 1380 cells/mL

Monoraphidium sp_2_(short) 2380 cells/mL

Chlorella 7500 cells/mL

Organism - Comment PERIDINIALES - The organism was identified as
Ensiculifera sp.

Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

08/11/2022

CRYPTOPHYTES

Chroomonas <0.01 mm3/L

GREEN ALGAE

Monoraphidium sp_2_(short) 0.13 mm3/L

Chlorella 0.34 mm3/L

Algal Biovolume Comment Biovolumes for taxa reported at genus level are
approximate values. Reported taxa and
calculated biovolume includes only those with
taxon cell volume and associated cell count data.
Biovolume totals have specific criteria around
how they calculate.

Total Algae Biovolume Not Calculated mm3/L

Total Blue_Green Algae Biovolume 0.00 mm3/L



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Analytical Results

Sampling Point	300713-Tilley Swamp Drain D/S Northern Outlet
Sampled Date	8/11/2022 3:25:00PM
Sample Received Date	9/11/2022 3:13:48PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6103
Status	Endorsed
Collection Type	Customer Collected

Algal Biovolume T0393(ADEL)

08/11/2022

# Total Diatom Biovolume	Not Calculated mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

08/11/2022

Algae - Total	11900 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	50 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	11300 cells/mL
Toxin producing BGA - Total	0 cells/mL

Sample temperature at time of receipt 19.6°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

09/11/2022

Chlorophyll a	0.1	2.62 µg/L
Phaeophytin a	0.1	0.95 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Ammonia as N (ADEL)			28/11/2022
# Ammonia as N	1	45 µg/L	
Chloride T0104-02(ADEL)			22/11/2022
Chloride	4.0	7110 mg/L	
Nitrate + Nitrite as N (ADEL)			28/11/2022
# Nitrate + Nitrite as N	0.5	14.3 µg/L	
# Nitrate + Nitrite as NO3	2.3	63.3 µg/L	
# Nitrate as Nitrogen		false µg/L	
Nitrogen - Total TMZ-M06(ADEL)			09/11/2022
Nitrogen - Total		0.64 mg/L	
Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022



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Analytical Results

Sampling Point	300713-Tilley Swamp Drain D/S Northern Outlet
Sampled Date	8/11/2022 3:25:00PM
Sample Received Date	9/11/2022 3:13:48PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6103
Status	Endorsed
Collection Type	Customer Collected

Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022
# Phosphorus -Filterable Reactive as PO ₄	1.5	11.96 µg/L	
Phosphorus-Filterable Reactive as P	0.5	4.0 µg/L	
Phosphorus - Total T0109-44(ADEL)			30/11/2022
Phosphorus - Total	0.005	0.008 mg/L	
Silica - Reactive T0111-01(ADEL)			22/11/2022
Silica - Reactive	0.05	7.93 mg/L	
TKN as N T0112-01(ADEL)			30/11/2022
TKN as Nitrogen	0.05	0.63 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022
Dissolved Organic Carbon	1	7.7 mg/L	
Total Organic Carbon T0158-07(ADEL)			18/11/2022
Total Organic Carbon	1	9.0 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
Alkalinity as Calcium Carbonate		369 mg/L	
Bicarbonate		450 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
Conductivity & Total Dissolved Solids T0016-01(ADEL)			10/11/2022
Conductivity	2	19900 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	12200 mg/L	
pH T0010-01(ADEL)			10/11/2022
pH		8.3 pH units	



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Analytical Results

Sampling Point	300713-Tilley Swamp Drain D/S Northern Outlet
Sampled Date	8/11/2022 3:25:00PM
Sample Received Date	9/11/2022 3:13:48PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6103
Status	Endorsed
Collection Type	Customer Collected

pH T0010-01(ADEL)			10/11/2022
Temperature at which pH is measured	23.0 °C		
Turbidity T0018-01(ADEL)			09/11/2022
Turbidity	0.1	1.2 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Suspended Solids T0160-01(ADEL)			15/11/2022
Suspended Solids	1.0	<1 mg/L	



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Analytical Results

Sampling Point	31513-EPA - Parnka Point Boat Ramp
Sampled Date	8/11/2022 3:30:00PM
Sample Received Date	9/11/2022 3:14:32PM
Sample Analysis Completed	2/12/2022 9:07:00AM
Sample ID	*2022-008-6096
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

DIATOMS

Chaetoceros	6 cells/mL
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GREEN ALGAE

Chlorella	203000 cells/mL
Unicellular green algae	255000 cells/mL
Phytoplankton	8330 cells/mL

Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

08/11/2022

GREEN ALGAE

Chlorella	9.14 mm3/L
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Algal Biovolume Comment

Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.

# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.00 mm3/L
# Total Diatom Biovolume	Not Calculated mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

08/11/2022

Algae - Total	466000 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	6 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	466000 cells/mL



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Analytical Results

Sampling Point	31513-EPA - Parnka Point Boat Ramp
Sampled Date	8/11/2022 3:30:00PM
Sample Received Date	9/11/2022 3:14:32PM
Sample Analysis Completed	2/12/2022 9:07:00AM
Sample ID	*2022-008-6096
Status	Endorsed
Collection Type	Customer Collected

Algal Count - Total T0393(ADEL)	08/11/2022
Toxin producing BGA - Total	0 cells/mL

Sample temperature at time of receipt 19.6°C	
Chlorophyll a & Phaeophytin a T0380-02(ADEL)	09/11/2022
Chlorophyll a	0.1 8.64 µg/L
Phaeophytin a	0.1 2.42 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Ammonia as N (ADEL)			28/11/2022
# Ammonia as N	1	33 µg/L	
Chloride T0104-02(ADEL)			22/11/2022
Chloride	4.0	28500 mg/L	
Nitrate + Nitrite as N (ADEL)			28/11/2022
# Nitrate + Nitrite as N	0.5	30.9 µg/L	
# Nitrate + Nitrite as NO3	2.3	137 µg/L	
# Nitrate as Nitrogen		false µg/L	
Nitrogen - Total TMZ-M06(ADEL)			09/11/2022
Nitrogen - Total		2.07 mg/L	
Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022
# Phosphorus -Filterable Reactive as PO4	1.5	2.093 µg/L	
Phosphorus-Filterable Reactive as P	0.5	0.7 µg/L	
Phosphorus - Total T0109-44(ADEL)			16/11/2022
Phosphorus - Total	0.005	0.131 mg/L	
Silica - Reactive T0111-01(ADEL)			22/11/2022
Silica - Reactive	0.05	<0.05 mg/L	
TKN as N T0112-01(ADEL)			16/11/2022
TKN as Nitrogen	0.05	2.04 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
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Analytical Results

Sampling Point	31513-EPA - Parnka Point Boat Ramp
Sampled Date	8/11/2022 3:30:00PM
Sample Received Date	9/11/2022 3:14:32PM
Sample Analysis Completed	2/12/2022 9:07:00AM
Sample ID	*2022-008-6096
Status	Endorsed
Collection Type	Customer Collected

Sample temperature at time of receipt 19.6°C

Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022
Dissolved Organic Carbon	1	16.4 mg/L	
Total Organic Carbon T0158-07(ADEL)			18/11/2022
Total Organic Carbon	1	18.6 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
Alkalinity as Calcium Carbonate		186 mg/L	
Bicarbonate		207 mg/L	
Carbonate		10 mg/L	
Hydroxide		0 mg/L	
Conductivity & Total Dissolved Solids T0016-01(ADEL)			10/11/2022
Conductivity	2	66100 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	49600 mg/L	
pH T0010-01(ADEL)			10/11/2022
pH		8.4 pH units	
Temperature at which pH is measured		22.6 °C	
Turbidity T0018-01(ADEL)			09/11/2022
Turbidity	0.1	4.3 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Suspended Solids T0160-01(ADEL)			15/11/2022
Suspended Solids	1.0	<1 mg/L	



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Analytical Results

Sampling Point	31512-EPA - McGrath Flat North
Sampled Date	8/11/2022 5:33:00PM
Sample Received Date	9/11/2022 3:14:17PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6100
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

DIATOMS

Chaetoceros	390 cells/mL
Pennate diatoms	4 cells/mL
Nitzschia	2 cells/mL

DINOFLAGELLATES

Protoperidinium	10 cells/mL
Oxyrrhis	4 cells/mL
Heterocapsa	10 cells/mL

GREEN ALGAE

Chlorella	21600 cells/mL
Unicellular green algae	64500 cells/mL
Phytoflagellates	3000 cells/mL

Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

08/11/2022

DIATOMS

Nitzschia	<0.01 mm ³ /L
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GREEN ALGAE

Chlorella	0.97 mm ³ /L
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Algal Biovolume Comment

Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.

# Total Algae Biovolume	Not Calculated mm ³ /L
# Total Blue_Green Algae Biovolume	0.00 mm ³ /L
# Total Diatom Biovolume	Not Calculated mm ³ /L
# Total Green Algae Biovolume	Not Calculated mm ³ /L
Total Toxic BGA Biovolume	0.00 mm ³ /L



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Analytical Results

Sampling Point	31512-EPA - McGrath Flat North
Sampled Date	8/11/2022 5:33:00PM
Sample Received Date	9/11/2022 3:14:17PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6100
Status	Endorsed
Collection Type	Customer Collected

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

08/11/2022

Algae - Total	89500 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	396 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	89100 cells/mL
Toxin producing BGA - Total	0 cells/mL

Sample temperature at time of receipt 19.6°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

09/11/2022

Chlorophyll a	0.1	2.62 µg/L
Phaeophytin a	0.1	1.10 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Chloride T0104-02(ADEL)			22/11/2022
Chloride	4.0	23300 mg/L	
Nitrate + Nitrite as N (ADEL)			28/11/2022
# Nitrate + Nitrite as N	0.5	2.0 µg/L	
# Nitrate + Nitrite as NO3	2.3	8.86 µg/L	
# Nitrate as Nitrogen		false µg/L	
Nitrogen - Total TMZ-M06(ADEL)			09/11/2022
Nitrogen - Total		2.55 mg/L	
Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022
# Phosphorus -Filterable Reactive as PO4	1.5	2.093 µg/L	
Phosphorus-Filterable Reactive as P	0.5	0.7 µg/L	
Phosphorus - Total T0109-44(ADEL)			30/11/2022
Phosphorus - Total	0.005	0.056 mg/L	
Silica - Reactive T0111-01(ADEL)			22/11/2022
Silica - Reactive	0.05	0.06 mg/L	



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Analytical Results

Sampling Point	31512-EPA - McGrath Flat North
Sampled Date	8/11/2022 5:33:00PM
Sample Received Date	9/11/2022 3:14:17PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6100
Status	Endorsed
Collection Type	Customer Collected

TKN as N T0112-01(ADEL)			30/11/2022
TKN as Nitrogen	0.05	2.55 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022
Dissolved Organic Carbon	1	17.2 mg/L	
Total Organic Carbon T0158-07(ADEL)			18/11/2022
Total Organic Carbon	1	18.7 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
Alkalinity as Calcium Carbonate		173 mg/L	
Bicarbonate		187 mg/L	
Carbonate		12 mg/L	
Hydroxide		0 mg/L	
Conductivity & Total Dissolved Solids T0016-01(ADEL)			10/11/2022
Conductivity	2	57400 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	41600 mg/L	
pH T0010-01(ADEL)			10/11/2022
pH		8.4 pH units	
Temperature at which pH is measured		22.6 °C	
Turbidity T0018-01(ADEL)			09/11/2022
Turbidity	0.1	3.1 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			



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Analytical Results

Sampling Point	31512-EPA - McGrath Flat North
Sampled Date	8/11/2022 5:33:00PM
Sample Received Date	9/11/2022 3:14:17PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6100
Status	Endorsed
Collection Type	Customer Collected

Suspended Solids T0160-01(ADEL)

16/11/2022

Suspended Solids	1.0	<1 mg/L
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Analytical Results

Sampling Point	31524-EPA - Bonneys
Sampled Date	9/11/2022 7:15:00AM
Sample Received Date	9/11/2022 3:16:31PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6108
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

DIATOMS

Chaetoceros	300 cells/mL
Pennate diatoms	10 cells/mL

GREEN ALGAE

Phytoplankton	40 cells/mL
Chlorella	8600 cells/mL

Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

09/11/2022

GREEN ALGAE

Chlorella	0.39 mm3/L
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Algal Biovolume Comment

Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.

# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.00 mm3/L
# Total Diatom Biovolume	Not Calculated mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

09/11/2022

Algae - Total	8950 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	310 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	8640 cells/mL



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Analytical Results

Sampling Point	31524-EPA - Bonneys
Sampled Date	9/11/2022 7:15:00AM
Sample Received Date	9/11/2022 3:16:31PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6108
Status	Endorsed
Collection Type	Customer Collected

Algal Count - Total T0393(ADEL)	09/11/2022
Toxin producing BGA - Total	0 cells/mL

Sample temperature at time of receipt 19.6°C	
Chlorophyll a & Phaeophytin a T0380-02(ADEL)	09/11/2022
Chlorophyll a	0.1 1.75 µg/L
Phaeophytin a	0.1 1.11 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Ammonia as N (ADEL)			28/11/2022
# Ammonia as N	1	14 µg/L	
Chloride T0104-02(ADEL)			22/11/2022
Chloride	4.0	18300 mg/L	
Nitrate + Nitrite as N (ADEL)			28/11/2022
# Nitrate + Nitrite as N	0.5	6.0 µg/L	
# Nitrate + Nitrite as NO3	2.3	26.6 µg/L	
# Nitrate as Nitrogen		false µg/L	
Nitrogen - Total TMZ-M06(ADEL)			09/11/2022
Nitrogen - Total		1.68 mg/L	
Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022
# Phosphorus -Filterable Reactive as PO4	1.5	8.97 µg/L	
Phosphorus-Filterable Reactive as P	0.5	3.0 µg/L	
Phosphorus - Total T0109-44(ADEL)			30/11/2022
Phosphorus - Total	0.005	0.030 mg/L	
Silica - Reactive T0111-01(ADEL)			22/11/2022
Silica - Reactive	0.05	0.63 mg/L	
TKN as N T0112-01(ADEL)			30/11/2022
TKN as Nitrogen	0.05	1.67 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
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Analytical Results

Sampling Point	31524-EPA - Bonneys
Sampled Date	9/11/2022 7:15:00AM
Sample Received Date	9/11/2022 3:16:31PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6108
Status	Endorsed
Collection Type	Customer Collected

Sample temperature at time of receipt 19.6°C

Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022
Dissolved Organic Carbon	1	12.6 mg/L	
Total Organic Carbon T0158-07(ADEL)			18/11/2022
Total Organic Carbon	1	13.0 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
Alkalinity as Calcium Carbonate		135 mg/L	
Bicarbonate		164 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
Conductivity & Total Dissolved Solids T0016-01(ADEL)			10/11/2022
Conductivity	2	46000 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	31700 mg/L	
pH T0010-01(ADEL)			10/11/2022
pH		8.0 pH units	
Temperature at which pH is measured		22.6 °C	
Turbidity T0018-01(ADEL)			09/11/2022
Turbidity	0.1	2.3 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Suspended Solids T0160-01(ADEL)			16/11/2022
Suspended Solids	1.0	<1 mg/L	



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Analytical Results

Sampling Point	53032-EPA - Nooneameena
Sampled Date	9/11/2022 7:40:00AM
Sample Received Date	9/11/2022 3:18:19PM
Sample Analysis Completed	2/12/2022 9:27:09AM
Sample ID	*2022-008-7749
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

CRYPTOPHYTES

Cryptomonads	60 cells/mL
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DIATOMS

Gyrosigma	2 cells/mL
Chaetoceros	425 cells/mL
Tabellaria	30 cells/mL
Pennate diatoms	10 cells/mL

DINOFLAGELLATES

Protoperidinium	90 cells/mL
PERIDINIALES	20 cells/mL
Oxyrrhis	20 cells/mL

Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

09/11/2022

CRYPTOPHYTES

Cryptomonads	0.01 mm3/L
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DIATOMS

Gyrosigma	<0.01 mm3/L
Tabellaria	0.06 mm3/L

Algal Biovolume Comment

Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.

# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.00 mm3/L
# Total Diatom Biovolume	Not Calculated mm3/L
# Total Green Algae Biovolume	0.00 mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L



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Analytical Results

Sampling Point	53032-EPA - Nooneameena
Sampled Date	9/11/2022 7:40:00AM
Sample Received Date	9/11/2022 3:18:19PM
Sample Analysis Completed	2/12/2022 9:27:09AM
Sample ID	*2022-008-7749
Status	Endorsed
Collection Type	Customer Collected

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

09/11/2022

Algae - Total	657 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	467 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	0 cells/mL
Toxin producing BGA - Total	0 cells/mL

Sample temperature at time of receipt 19.6°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

09/11/2022

Chlorophyll a	0.1	1.22 µg/L
Phaeophytin a	0.1	2.94 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Ammonia as N T0100-01(ADEL)			01/12/2022
Ammonia as N	0.005	0.244 mg/L	
Chloride T0104-02(ADEL)			22/11/2022
Chloride	4.0	12400 mg/L	
Nitrate + Nitrite as N (ADEL)			28/11/2022
# Nitrate + Nitrite as N	0.5	23.3 µg/L	
# Nitrate + Nitrite as NO3	2.3	103 µg/L	
# Nitrate as Nitrogen		false µg/L	
Nitrogen - Total TMZ-M06(ADEL)			09/11/2022
Nitrogen - Total		2.34 mg/L	
Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022
# Phosphorus -Filterable Reactive as PO4	1.5	13.156 µg/L	
Phosphorus-Filterable Reactive as P	0.5	4.4 µg/L	
Phosphorus - Total T0109-44(ADEL)			16/11/2022
Phosphorus - Total	0.005	0.134 mg/L	



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Analytical Results

Sampling Point	53032-EPA - Nooneameena
Sampled Date	9/11/2022 7:40:00AM
Sample Received Date	9/11/2022 3:18:19PM
Sample Analysis Completed	2/12/2022 9:27:09AM
Sample ID	*2022-008-7749
Status	Endorsed
Collection Type	Customer Collected

Silica - Reactive T0111-01(ADEL)			22/11/2022
Silica - Reactive	0.05	1.14 mg/L	
TKN as N T0112-01(ADEL)			16/11/2022
TKN as Nitrogen	0.05	2.32 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022
Dissolved Organic Carbon	1	10.3 mg/L	
Total Organic Carbon T0158-07(ADEL)			18/11/2022
Total Organic Carbon	1	12.1 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
Alkalinity as Calcium Carbonate		126 mg/L	
Bicarbonate		153 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
Conductivity & Total Dissolved Solids T0016-01(ADEL)			10/11/2022
Conductivity	2	34400 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	22500 mg/L	
pH T0010-01(ADEL)			10/11/2022
pH		7.8 pH units	
Temperature at which pH is measured		22.6 °C	
Turbidity T0018-01(ADEL)			09/11/2022
Turbidity	0.1	5.4 NTU	



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Analytical Results

Sampling Point	53032-EPA - Nooanmeena
Sampled Date	9/11/2022 7:40:00AM
Sample Received Date	9/11/2022 3:18:19PM
Sample Analysis Completed	2/12/2022 9:27:09AM
Sample ID	*2022-008-7749
Status	Endorsed
Collection Type	Customer Collected

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Suspended Solids T0160-01(ADEL)			16/11/2022
Suspended Solids	1.0	5 mg/L	



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Analytical Results

Sampling Point	31523-EPA - Long Point
Sampled Date	9/11/2022 8:23:00AM
Sample Received Date	9/11/2022 3:16:16PM
Sample Analysis Completed	2/12/2022 9:07:02AM
Sample ID	*2022-008-6093
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

DIATOMS

Nitzschia	20 cells/mL
Pennate diatoms	10 cells/mL
Chaetoceros	1250 cells/mL

DINOFLAGELLATES

Oxyrrhis	30 cells/mL
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GREEN ALGAE

Colonial green algae	90 cells/mL
Phytoflagellates	40 cells/mL
Monoraphidium	20 cells/mL
Chodatella_(Lagerheimia)	40 cells/mL
Tetrastrum	80 cells/mL
Chlorella	10800 cells/mL
Crucigenia	40 cells/mL
Organism - Comment	Chlorella - The identification for this organism is tentative only.

Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

09/11/2022

DIATOMS

Nitzschia	0.03 mm3/L
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GREEN ALGAE

Crucigenia	<0.01 mm3/L
Monoraphidium	0.02 mm3/L
Colonial green algae	0.01 mm3/L
Chlorella	0.49 mm3/L



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Analytical Results

Sampling Point	31523-EPA - Long Point
Sampled Date	9/11/2022 8:23:00AM
Sample Received Date	9/11/2022 3:16:16PM
Sample Analysis Completed	2/12/2022 9:07:02AM
Sample ID	*2022-008-6093
Status	Endorsed
Collection Type	Customer Collected

Algal Biovolume T0393(ADEL)

09/11/2022

Algal Biovolume Comment

Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.

# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.00 mm3/L
# Total Diatom Biovolume	Not Calculated mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

09/11/2022

Algae - Total	12400 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	1280 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	11100 cells/mL
Test - Comment 1	Ciliates were present within this sample
Toxin producing BGA - Total	0 cells/mL

Sample temperature at time of receipt 19.6°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

09/11/2022

Chlorophyll a	0.1	8.15 µg/L
Phaeophytin a	0.1	2.76 µg/L

Inorganic Chemistry - Nutrients

LOR

Result

Test Start Date

Sample temperature at time of receipt 19.6°C

Ammonia as N (ADEL)

28/11/2022

# Ammonia as N	1	41 µg/L
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Chloride T0104-02(ADEL)

22/11/2022



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Analytical Results

Sampling Point	31523-EPA - Long Point
Sampled Date	9/11/2022 8:23:00AM
Sample Received Date	9/11/2022 3:16:16PM
Sample Analysis Completed	2/12/2022 9:07:02AM
Sample ID	*2022-008-6093
Status	Endorsed
Collection Type	Customer Collected

Chloride T0104-02(ADEL)			22/11/2022
Chloride	4.0	4030 mg/L	
Nitrate + Nitrite as N (ADEL)			28/11/2022
# Nitrate + Nitrite as N	0.5	3.0 µg/L	
# Nitrate + Nitrite as NO3	2.3	13.3 µg/L	
# Nitrate as Nitrogen		false µg/L	
Nitrogen - Total TMZ-M06(ADEL)			09/11/2022
Nitrogen - Total		<0.05 mg/L	
Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022
# Phosphorus -Filterable Reactive as PO4	1.5	8.97 µg/L	
Phosphorus-Filterable Reactive as P	0.5	3.0 µg/L	
Phosphorus - Total T0109-44(ADEL)			16/11/2022
Phosphorus - Total	0.005	0.007 mg/L	
Silica - Reactive T0111-01(ADEL)			22/11/2022
Silica - Reactive	0.05	3.17 mg/L	
TKN as N T0112-01(ADEL)			16/11/2022
TKN as Nitrogen	0.05	<0.05 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022
Dissolved Organic Carbon	1	8.2 mg/L	
Total Organic Carbon T0158-07(ADEL)			18/11/2022
Total Organic Carbon	1	8.8 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
Alkalinity as Calcium Carbonate		92 mg/L	
Bicarbonate		113 mg/L	



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Analytical Results

Sampling Point	31523-EPA - Long Point
Sampled Date	9/11/2022 8:23:00AM
Sample Received Date	9/11/2022 3:16:16PM
Sample Analysis Completed	2/12/2022 9:07:02AM
Sample ID	*2022-008-6093
Status	Endorsed
Collection Type	Customer Collected

Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) 10/11/2022

Carbonate	0 mg/L
Hydroxide	0 mg/L

Conductivity & Total Dissolved Solids T0016-01(ADEL) 10/11/2022

Conductivity	2	13000 µS/cm
Note		Conductivity measurement is corrected to 25°C
Total Dissolved Solids (by EC)	1	7680 mg/L

pH T0010-01(ADEL) 10/11/2022

pH	8.2 pH units
Temperature at which pH is measured	22.6 °C

Turbidity T0018-01(ADEL) 09/11/2022

Turbidity	0.1	2.0 NTU
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Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Suspended Solids T0160-01(ADEL) 16/11/2022

Suspended Solids	1.0	<1 mg/L
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Analytical Results

Sampling Point	31522-EPA - Mark Point
Sampled Date	9/11/2022 9:00:00AM
Sample Received Date	9/11/2022 3:16:01PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6106
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

CRYPTOPHYTES

Cryptomonads	250 cells/mL
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DIATOMS

Cyclotella	188 cells/mL
Nitzschia	90 cells/mL
Navicula	20 cells/mL

GREEN ALGAE

Stichococcus	1150 cells/mL
Tetrastrum	150 cells/mL
Crucigenia	288 cells/mL
Monoraphidium	425 cells/mL
Schroederia	40 cells/mL
Chodatella_(Lagerheimia)	40 cells/mL
Scenedesmus	400 cells/mL
Filamentous green algae	80 cells/mL
Chlorella	6400 cells/mL

Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

09/11/2022

CRYPTOPHYTES

Cryptomonads	0.05 mm3/L
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DIATOMS

Cyclotella	0.10 mm3/L
Nitzschia	0.12 mm3/L
Navicula	0.02 mm3/L

GREEN ALGAE

Crucigenia	<0.01 mm3/L
Monoraphidium	0.38 mm3/L
Schroederia	<0.01 mm3/L



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Analytical Results

Sampling Point	31522-EPA - Mark Point
Sampled Date	9/11/2022 9:00:00AM
Sample Received Date	9/11/2022 3:16:01PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6106
Status	Endorsed
Collection Type	Customer Collected

Algal Biovolume T0393(ADEL)

09/11/2022

Scenedesmus	0.10 mm3/L
Chlorella	0.29 mm3/L
# Algal Biovolume Comment	Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.
# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.00 mm3/L
# Total Diatom Biovolume	0.24 mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

09/11/2022

Algae - Total	9520 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	298 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	8970 cells/mL
Toxin producing BGA - Total	0 cells/mL

Sample temperature at time of receipt 19.6°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

09/11/2022

Chlorophyll a	0.1	3.18 µg/L
Phaeophytin a	0.1	4.57 µg/L

Inorganic Chemistry - Nutrients

LOR

Result

Test Start Date

Sample temperature at time of receipt 19.6°C

Ammonia as N (ADEL)

28/11/2022

# Ammonia as N	1	48 µg/L
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Analytical Results

Sampling Point	31522-EPA - Mark Point
Sampled Date	9/11/2022 9:00:00AM
Sample Received Date	9/11/2022 3:16:01PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6106
Status	Endorsed
Collection Type	Customer Collected

Chloride T0104-02(ADEL)			22/11/2022
Chloride	4.0	1120 mg/L	
Nitrate + Nitrite as N (ADEL)			28/11/2022
# Nitrate + Nitrite as N	0.5	31.7 µg/L	
# Nitrate + Nitrite as NO3	2.3	140 µg/L	
# Nitrate as Nitrogen		false µg/L	
Nitrogen - Total TMZ-M06(ADEL)			09/11/2022
Nitrogen - Total		<0.08 mg/L	
Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022
# Phosphorus -Filterable Reactive as PO4	1.5	16.146 µg/L	
Phosphorus-Filterable Reactive as P	0.5	5.4 µg/L	
Phosphorus - Total T0109-44(ADEL)			30/11/2022
Phosphorus - Total	0.005	<0.005 mg/L	
Silica - Reactive T0111-01(ADEL)			22/11/2022
Silica - Reactive	0.05	3.13 mg/L	
TKN as N T0112-01(ADEL)			30/11/2022
TKN as Nitrogen	0.05	<0.05 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022
Dissolved Organic Carbon	1	8.1 mg/L	
Total Organic Carbon T0158-07(ADEL)			18/11/2022
Total Organic Carbon	1	8.8 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
Alkalinity as Calcium Carbonate		78 mg/L	
Bicarbonate		89 mg/L	



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Analytical Results

Sampling Point	31522-EPA - Mark Point
Sampled Date	9/11/2022 9:00:00AM
Sample Received Date	9/11/2022 3:16:01PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6106
Status	Endorsed
Collection Type	Customer Collected

Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)	10/11/2022
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Carbonate	3 mg/L
Hydroxide	0 mg/L

Conductivity & Total Dissolved Solids T0016-01(ADEL)	10/11/2022
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Conductivity	2	4060 µS/cm
Note		Conductivity measurement is corrected to 25°C
Total Dissolved Solids (by EC)	1	2290 mg/L

pH T0010-01(ADEL)	10/11/2022
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pH	8.6 pH units
Temperature at which pH is measured	22.6 °C

Turbidity T0018-01(ADEL)	09/11/2022
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Turbidity	0.1	6.8 NTU
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Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Suspended Solids T0160-01(ADEL)	16/11/2022
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Suspended Solids	1.0	<1 mg/L
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Analytical Results

Sampling Point	353179-EPA - Tauwichee Barrage Upstream
Sampled Date	9/11/2022 9:36:00AM
Sample Received Date	9/11/2022 3:18:04PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6110
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

Other Organisms	375 cells/mL
BLUE GREEN ALGAE	
Dolichospermum (coiled)	28 cells/mL
Planktolyngbya	24400 cells/mL
Cyanodictyon	26500 cells/mL
CRYPTOPHYTES	
Chroomonas	10 cells/mL
DIATOMS	
Aulacoseira	1800 cells/mL
Staurosira	300 cells/mL
Fragilaria	1100 cells/mL
Nitzschia	60 cells/mL
GREEN ALGAE	
Gonatozygon	8 cells/mL
Schroederia	40 cells/mL
Scenedesmus	1400 cells/mL
Closterium	10 cells/mL
Oocystis	300 cells/mL
Monoraphidium	90 cells/mL
Planctonema	4990 cells/mL

Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

09/11/2022

BLUE GREEN ALGAE	
Dolichospermum (coiled)	<0.01 mm3/L
Planktolyngbya	0.12 mm3/L
Cyanodictyon	0.01 mm3/L
CRYPTOPHYTES	
Chroomonas	<0.01 mm3/L



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Analytical Results

Sampling Point	353179-EPA - Tauwichee Barrage Upstream
Sampled Date	9/11/2022 9:36:00AM
Sample Received Date	9/11/2022 3:18:04PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6110
Status	Endorsed
Collection Type	Customer Collected

Algal Biovolume T0393(ADEL)

09/11/2022

DIATOMS

Aulacoseira	5.15 mm3/L
Staurosira	0.06 mm3/L
Fragilaria	0.70 mm3/L
Nitzschia	0.08 mm3/L

GREEN ALGAE

Gonatozygon	0.03 mm3/L
Schroederia	<0.01 mm3/L
Scenedesmus	0.35 mm3/L
Closterium	0.05 mm3/L
Oocystis	0.09 mm3/L
Monoraphidium	0.08 mm3/L

Algal Biovolume Comment

Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.

# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.13 mm3/L
# Total Diatom Biovolume	5.99 mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

09/11/2022

Algae - Total	61000 cells/mL
Blue Green Algae - Total	50900 cells/mL
Diatoms - Total	3260 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	6840 cells/mL
Toxin producing BGA - Total	0 cells/mL



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Analytical Results

Sampling Point	353179-EPA - Tauwichee Barrage Upstream
Sampled Date	9/11/2022 9:36:00AM
Sample Received Date	9/11/2022 3:18:04PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6110
Status	Endorsed
Collection Type	Customer Collected

Sample temperature at time of receipt 19.6°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

09/11/2022

Chlorophyll a	0.1	44.8 µg/L
Phaeophytin a	0.1	24.6 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Ammonia as N (ADEL)			28/11/2022
# Ammonia as N	1	5 µg/L	
Chloride T0104-02(ADEL)			22/11/2022
Chloride	4.0	65 mg/L	
Nitrate + Nitrite as N (ADEL)			28/11/2022
# Nitrate + Nitrite as N	0.5	3.0 µg/L	
# Nitrate + Nitrite as NO3	2.3	13.3 µg/L	
# Nitrate as Nitrogen		false µg/L	
Nitrogen - Total TMZ-M06(ADEL)			09/11/2022
Nitrogen - Total		2.26 mg/L	
Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022
# Phosphorus -Filterable Reactive as PO4	1.5	29.302 µg/L	
Phosphorus-Filterable Reactive as P	0.5	9.8 µg/L	
Phosphorus - Total T0109-44(ADEL)			30/11/2022
Phosphorus - Total	0.005	0.243 mg/L	
Silica - Reactive T0111-01(ADEL)			22/11/2022
Silica - Reactive	0.05	1.76 mg/L	
TKN as N T0112-01(ADEL)			30/11/2022
TKN as Nitrogen	0.05	2.26 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022



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Analytical Results

Sampling Point	353179-EPA - Tauwitschere Barrage Upstream
Sampled Date	9/11/2022 9:36:00AM
Sample Received Date	9/11/2022 3:18:04PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6110
Status	Endorsed
Collection Type	Customer Collected

Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022
Dissolved Organic Carbon	1	7.9 mg/L	
Total Organic Carbon T0158-07(ADEL)			18/11/2022
Total Organic Carbon	1	18.7 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
Alkalinity as Calcium Carbonate		65 mg/L	
Bicarbonate		80 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
Conductivity & Total Dissolved Solids T0016-01(ADEL)			10/11/2022
Conductivity	2	381 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	211 mg/L	
pH T0010-01(ADEL)			10/11/2022
pH		7.7 pH units	
Temperature at which pH is measured		22.3 °C	
Turbidity T0018-01(ADEL)			09/11/2022
Turbidity	0.1	140 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Suspended Solids T0160-01(ADEL)			16/11/2022
Suspended Solids	1.0	166 mg/L	



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Analytical Results

Sampling Point	353177-EPA - Tauwichee Barrage DS
Sampled Date	9/11/2022 9:36:00AM
Sample Received Date	9/11/2022 3:17:48PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6111
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

BLUE GREEN ALGAE

Planktolyngbya	2760 cells/mL
Cyanodictyon	12000 cells/mL

CRYPTOPHYTES

Chroomonas	28 cells/mL
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DIATOMS

Aulacoseira	274 cells/mL
Nitzschia	10 cells/mL
Staurosira	475 cells/mL
Fragilaria	76 cells/mL
Cyclotella	10 cells/mL

GREEN ALGAE

Planctonema	1390 cells/mL
Dictyosphaerium	323 cells/mL
Scenedesmus	475 cells/mL
Tetrastrum	570 cells/mL
Crucigenia	1330 cells/mL
Monoraphidium	104 cells/mL
Oocystis	10 cells/mL
Closterium	28 cells/mL
Staurastrum	10 cells/mL
Chodatella_(Lagerheimia)	19 cells/mL
Schroederia	10 cells/mL

Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

09/11/2022

BLUE GREEN ALGAE

Planktolyngbya	0.01 mm3/L
Cyanodictyon	<0.01 mm3/L



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Analytical Results

Sampling Point	353177-EPA - Tauwichee Barrage DS
Sampled Date	9/11/2022 9:36:00AM
Sample Received Date	9/11/2022 3:17:48PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6111
Status	Endorsed
Collection Type	Customer Collected

Algal Biovolume T0393(ADEL)

09/11/2022

CRYPTOPHYTES

Chroomonas <0.01 mm3/L

DIATOMS

Aulacoseira 0.78 mm3/L
Nitzschia 0.01 mm3/L
Staurosira 0.09 mm3/L
Fragilaria 0.05 mm3/L
Cyclotella <0.01 mm3/L

GREEN ALGAE

Dictyosphaerium <0.01 mm3/L
Scenedesmus 0.12 mm3/L
Crucigenia 0.04 mm3/L
Monoraphidium 0.09 mm3/L
Oocystis <0.01 mm3/L
Closterium 0.15 mm3/L
Staurostrum 0.02 mm3/L
Schroederia <0.01 mm3/L

Algal Biovolume Comment

Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.

Total Algae Biovolume Not Calculated mm3/L
Total Blue_Green Algae Biovolume <0.02 mm3/L
Total Diatom Biovolume 0.93 mm3/L
Total Green Algae Biovolume Not Calculated mm3/L
Total Toxic BGA Biovolume 0.00 mm3/L

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

09/11/2022

Algae - Total 19900 cells/mL
Blue Green Algae - Total 14800 cells/mL



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Analytical Results

Sampling Point	353177-EPA - Tauwitschere Barrage DS
Sampled Date	9/11/2022 9:36:00AM
Sample Received Date	9/11/2022 3:17:48PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6111
Status	Endorsed
Collection Type	Customer Collected

Algal Count - Total T0393(ADEL) 09/11/2022

Diatoms - Total	845 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	4270 cells/mL
Toxin producing BGA - Total	0 cells/mL

Sample temperature at time of receipt 19.6°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL) 09/11/2022

Chlorophyll a	0.1	13.7 µg/L
Phaeophytin a	0.1	10.2 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Ammonia as N (ADEL)			28/11/2022
# Ammonia as N	1	4 µg/L	
Chloride T0104-02(ADEL)			22/11/2022
Chloride	4.0	69 mg/L	
Nitrate + Nitrite as N (ADEL)			28/11/2022
# Nitrate + Nitrite as N	0.5	39.5 µg/L	
# Nitrate + Nitrite as NO3	2.3	175 µg/L	
# Nitrate as Nitrogen		false µg/L	
Nitrogen - Total TMZ-M06(ADEL)			09/11/2022
Nitrogen - Total		1.67 mg/L	
Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022
# Phosphorus -Filterable Reactive as PO4	1.5	46.644 µg/L	
Phosphorus-Filterable Reactive as P	0.5	15.6 µg/L	
Phosphorus - Total T0109-44(ADEL)			30/11/2022
Phosphorus - Total	0.005	0.256 mg/L	
Silica - Reactive T0111-01(ADEL)			22/11/2022
Silica - Reactive	0.05	2.23 mg/L	
TKN as N T0112-01(ADEL)			30/11/2022
TKN as Nitrogen	0.05	1.63 mg/L	



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Analytical Results

Sampling Point	353177-EPA - Tauwitschere Barrage DS
Sampled Date	9/11/2022 9:36:00AM
Sample Received Date	9/11/2022 3:17:48PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6111
Status	Endorsed
Collection Type	Customer Collected

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022
Dissolved Organic Carbon	1	7.5 mg/L	
Total Organic Carbon T0158-07(ADEL)			18/11/2022
Total Organic Carbon	1	8.0 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
Alkalinity as Calcium Carbonate		66 mg/L	
Bicarbonate		80 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
Conductivity & Total Dissolved Solids T0016-01(ADEL)			10/11/2022
Conductivity	2	373 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	206 mg/L	
pH T0010-01(ADEL)			10/11/2022
pH		7.6 pH units	
Temperature at which pH is measured		22.3 °C	
Turbidity T0018-01(ADEL)			09/11/2022
Turbidity	0.1	110 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.6°C</i>			
Suspended Solids T0160-01(ADEL)			16/11/2022
Suspended Solids	1.0	72 mg/L	



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Analytical Results

Sampling Point	353177-EPA - Tauwitchere Barrage DS
Sampled Date	9/11/2022 9:36:00AM
Sample Received Date	9/11/2022 3:17:48PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6111
Status	Endorsed
Collection Type	Customer Collected



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Analytical Results

Sampling Point	351213-EPA - Murray Mouth
Sampled Date	9/11/2022 10:50:00AM
Sample Received Date	9/11/2022 3:17:34PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6107
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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Sample temperature at time of receipt 19.6°C

Algal Identification T0393(ADEL)

Other Organisms	19 cells/mL
BLUE GREEN ALGAE	
Planktolyngbya	2520 cells/mL
Cyanodictyon	4800 cells/mL
CRYPTOPHYTES	
Chroomonas	95 cells/mL
Cryptomonas	19 cells/mL
DIATOMS	
Aulacoseira	177 cells/mL
Staurosira	133 cells/mL
Fragilaria	228 cells/mL
Cyclotella	28 cells/mL
GREEN ALGAE	
Planctonema	871 cells/mL
Crucigenia	1900 cells/mL
Scenedesmus	238 cells/mL
Oocystis sp_1_(small_cells)	180 cells/mL
Tetrastrum	285 cells/mL
Monoraphidium	76 cells/mL
Pteromonas	10 cells/mL
Actinastrum	76 cells/mL
Closterium	10 cells/mL

Sample temperature at time of receipt 19.6°C

Algal Biovolume T0393(ADEL)

09/11/2022

BLUE GREEN ALGAE	
Planktolyngbya	0.01 mm3/L
Cyanodictyon	<0.01 mm3/L
CRYPTOPHYTES	



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Analytical Results

Sampling Point	351213-EPA - Murray Mouth
Sampled Date	9/11/2022 10:50:00AM
Sample Received Date	9/11/2022 3:17:34PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6107
Status	Endorsed
Collection Type	Customer Collected

Algal Biovolume T0393(ADEL)

09/11/2022

Chroomonas	<0.01 mm3/L
Cryptomonas	0.02 mm3/L

DIATOMS

Aulacoseira	0.51 mm3/L
Staurosira	0.03 mm3/L
Fragilaria	0.15 mm3/L
Cyclotella	0.01 mm3/L

GREEN ALGAE

Crucigenia	0.06 mm3/L
Scenedesmus	0.06 mm3/L
Oocystis sp_1_(small_cells)	0.03 mm3/L
Monoraphidium	0.07 mm3/L
Actinastrum	<0.01 mm3/L
Closterium	0.05 mm3/L

Algal Biovolume Comment

Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.

# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	<0.02 mm3/L
# Total Diatom Biovolume	0.70 mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

Sample temperature at time of receipt 19.6°C

Algal Count - Total T0393(ADEL)

09/11/2022

Algae - Total	11600 cells/mL
Blue Green Algae - Total	7320 cells/mL
Diatoms - Total	566 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	3650 cells/mL



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Analytical Results

Sampling Point	351213-EPA - Murray Mouth
Sampled Date	9/11/2022 10:50:00AM
Sample Received Date	9/11/2022 3:17:34PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6107
Status	Endorsed
Collection Type	Customer Collected

Algal Count - Total T0393(ADEL)	09/11/2022
Toxin producing BGA - Total	0 cells/mL

Sample temperature at time of receipt 19.6°C	
Chlorophyll a & Phaeophytin a T0380-02(ADEL)	09/11/2022
Chlorophyll a	0.1 14.6 µg/L
Phaeophytin a	0.1 15.0 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Ammonia as N (ADEL)			28/11/2022
# Ammonia as N	1	98 µg/L	
Chloride T0104-02(ADEL)			22/11/2022
Chloride	4.0	152 mg/L	
Nitrate + Nitrite as N (ADEL)			28/11/2022
# Nitrate + Nitrite as N	0.5	57.5 µg/L	
# Nitrate + Nitrite as NO3	2.3	255 µg/L	
# Nitrate as Nitrogen		false µg/L	
Nitrogen - Total TMZ-M06(ADEL)			09/11/2022
Nitrogen - Total		2.40 mg/L	
Phosphorus - Filterable Reactive as P (ADEL)			28/11/2022
# Phosphorus -Filterable Reactive as PO4	1.5	180.297 µg/L	
Phosphorus-Filterable Reactive as P	0.5	60.3 µg/L	
Phosphorus - Total T0109-44(ADEL)			30/11/2022
Phosphorus - Total	0.005	0.450 mg/L	
Silica - Reactive T0111-01(ADEL)			22/11/2022
Silica - Reactive	0.05	3.67 mg/L	
TKN as N T0112-01(ADEL)			30/11/2022
TKN as Nitrogen	0.05	2.34 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
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Analytical Results

Sampling Point	351213-EPA - Murray Mouth
Sampled Date	9/11/2022 10:50:00AM
Sample Received Date	9/11/2022 3:17:34PM
Sample Analysis Completed	6/12/2022 9:41:38AM
Sample ID	*2022-008-6107
Status	Endorsed
Collection Type	Customer Collected

Sample temperature at time of receipt 19.6°C

Dissolved Organic Carbon T0158-07(ADEL)			18/11/2022
Dissolved Organic Carbon	1	8.6 mg/L	
Total Organic Carbon T0158-07(ADEL)			18/11/2022
Total Organic Carbon	1	15.6 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)			10/11/2022
Alkalinity as Calcium Carbonate		75 mg/L	
Bicarbonate		92 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
Conductivity & Total Dissolved Solids T0016-01(ADEL)			10/11/2022
Conductivity	2	718 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	398 mg/L	
pH T0010-01(ADEL)			10/11/2022
pH		7.8 pH units	
Temperature at which pH is measured		22.3 °C	
Turbidity T0018-01(ADEL)			09/11/2022
Turbidity	0.1	110 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
Sample temperature at time of receipt 19.6°C			
Suspended Solids T0160-01(ADEL)			16/11/2022
Suspended Solids	1.0	36 mg/L	



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AWQC Signatories

Dzung Bui - Supervisor Metals and Physical

Thuy Diep - Technical Officer Chemistry

David Evans - Technical Officer Chemistry

Kerrie Jooste - Manager Chemistry Services

Aji John - Technical Officer Chemistry

Dean Newman - Senior Technical Officer Biology

Melissa Phillips - Technical Officer Chemistry

Gayle Polley - Supervisor Nutrients and Waste

Kamilla Springer - Senior Technical Officer Chemistry



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Incidents

Sample ID	S.Point	Description	Sampled Date	Analysis (where Applicable)	Incident Description
2022-008-6092	31525	EPA - Villa de Yumpa	8/11/2022	pH	Test not processed within holding time
2022-008-6092	31525	EPA - Villa de Yumpa	8/11/2022	Dissolved Organic Carbon	Test not processed within holding time
2022-008-6092	31525	EPA - Villa de Yumpa	8/11/2022	Total Organic Carbon	Test not processed within holding time
2022-008-6093	31523	EPA - Long Point	9/11/2022	pH	Test not processed within holding time
2022-008-6093	31523	EPA - Long Point	9/11/2022	Suspended Solids	Test not processed within holding time
2022-008-6093	31523	EPA - Long Point	9/11/2022	Silica - Reactive	Test not processed within holding time
2022-008-6094	31526	EPA - Nth Jack Point	8/11/2022	pH	Test not processed within holding time
2022-008-6094	31526	EPA - Nth Jack Point	8/11/2022	Silica - Reactive	Test not processed within holding time
2022-008-6094	31526	EPA - Nth Jack Point	8/11/2022	Dissolved Organic Carbon	Test not processed within holding time
2022-008-6094	31526	EPA - Nth Jack Point	8/11/2022	Total Organic Carbon	Test not processed within holding time
2022-008-6095	31515	EPA - Snipe Point	8/11/2022	pH	Test not processed within holding time
2022-008-6095	31515	EPA - Snipe Point	8/11/2022	Silica - Reactive	Test not processed within holding time
2022-008-6095	31515	EPA - Snipe Point	8/11/2022	Dissolved Organic Carbon	Test not processed within holding time
2022-008-6095	31515	EPA - Snipe Point	8/11/2022	Total Organic Carbon	Test not processed within holding time
2022-008-6096	31513	EPA - Parnka Point Boat Ramp	8/11/2022	pH	Test not processed within holding time
2022-008-6096	31513	EPA - Parnka Point Boat Ramp	8/11/2022	Silica - Reactive	Test not processed within holding time
2022-008-6096	31513	EPA - Parnka Point Boat Ramp	8/11/2022	Dissolved Organic Carbon	Test not processed within holding time
2022-008-6096	31513	EPA - Parnka Point Boat Ramp	8/11/2022	Total Organic Carbon	Test not processed within holding time
2022-008-6097	31511	EPA - 3.2km South Salt Creek	8/11/2022	pH	Test not processed within holding time
2022-008-6097	31511	EPA - 3.2km South Salt Creek	8/11/2022	Silica - Reactive	Test not processed within holding time



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Incidents

Sample ID	S.Point	Description	Sampled Date	Analysis (where Applicable)	Incident Description
2022-008-6097	31511	EPA - 3.2km South Salt Creek	8/11/2022	Dissolved Organic Carbon	Test not processed within holding time
2022-008-6097	31511	EPA - 3.2km South Salt Creek	8/11/2022	Total Organic Carbon	Test not processed within holding time
2022-008-6098	31517	EPA - 1.8km West Salt Creek	8/11/2022	pH	Test not processed within holding time
2022-008-6098	31517	EPA - 1.8km West Salt Creek	8/11/2022	Silica - Reactive	Test not processed within holding time
2022-008-6098	31517	EPA - 1.8km West Salt Creek	8/11/2022	Dissolved Organic Carbon	Test not processed within holding time
2022-008-6098	31517	EPA - 1.8km West Salt Creek	8/11/2022	Total Organic Carbon	Test not processed within holding time
2022-008-6099	31514	EPA - Stoney Well	8/11/2022	pH	Test not processed within holding time
2022-008-6099	31514	EPA - Stoney Well	8/11/2022	Silica - Reactive	Test not processed within holding time
2022-008-6099	31514	EPA - Stoney Well	8/11/2022	Dissolved Organic Carbon	Test not processed within holding time
2022-008-6099	31514	EPA - Stoney Well	8/11/2022	Total Organic Carbon	Test not processed within holding time
2022-008-6100	31512	EPA - McGrath Flat North	8/11/2022	pH	Test not processed within holding time
2022-008-6100	31512	EPA - McGrath Flat North	8/11/2022	Suspended Solids	Test not processed within holding time
2022-008-6100	31512	EPA - McGrath Flat North	8/11/2022	Silica - Reactive	Test not processed within holding time
2022-008-6101	31519	EPA - Morella Basin at Outlet Regulator	8/11/2022	pH	Test not processed within holding time
2022-008-6101	31519	EPA - Morella Basin at Outlet Regulator	8/11/2022	Silica - Reactive	Test not processed within holding time
2022-008-6101	31519	EPA - Morella Basin at Outlet Regulator	8/11/2022	Dissolved Organic Carbon	Test not processed within holding time
2022-008-6101	31519	EPA - Morella Basin at Outlet Regulator	8/11/2022	Total Organic Carbon	Test not processed within holding time
2022-008-6102	315191	EPA - Morella Creek @ guage	8/11/2022	pH	Test not processed within holding time
2022-008-6102	315191	EPA - Morella Creek @ guage	8/11/2022	Silica - Reactive	Test not processed within holding time
2022-008-6102	315191	EPA - Morella Creek @ guage	8/11/2022	Dissolved Organic Carbon	Test not processed within holding time



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Incidents

Sample ID	S.Point	Description	Sampled Date	Analysis (where Applicable)	Incident Description
2022-008-6102	315191	EPA - Morella Creek @ guage	8/11/2022	Total Organic Carbon	Test not processed within holding time
2022-008-6103	300713	Tilley Swamp Drain D/S Northern Outlet	8/11/2022	pH	Test not processed within holding time
2022-008-6103	300713	Tilley Swamp Drain D/S Northern Outlet	8/11/2022	Silica - Reactive	Test not processed within holding time
2022-008-6103	300713	Tilley Swamp Drain D/S Northern Outlet	8/11/2022	Dissolved Organic Carbon	Test not processed within holding time
2022-008-6103	300713	Tilley Swamp Drain D/S Northern Outlet	8/11/2022	Total Organic Carbon	Test not processed within holding time
2022-008-6105	300712	Tilley Swamp Watercourse Outlet Channel	8/11/2022	pH	Test not processed within holding time
2022-008-6105	300712	Tilley Swamp Watercourse Outlet Channel	8/11/2022	Silica - Reactive	Test not processed within holding time
2022-008-6105	300712	Tilley Swamp Watercourse Outlet Channel	8/11/2022	Dissolved Organic Carbon	Test not processed within holding time
2022-008-6105	300712	Tilley Swamp Watercourse Outlet Channel	8/11/2022	Total Organic Carbon	Test not processed within holding time
2022-008-6106	31522	EPA - Mark Point	9/11/2022	pH	Test not processed within holding time
2022-008-6106	31522	EPA - Mark Point	9/11/2022	Silica - Reactive	Test not processed within holding time
2022-008-6107	351213	EPA - Murray Mouth	9/11/2022	pH	Test not processed within holding time
2022-008-6107	351213	EPA - Murray Mouth	9/11/2022	Silica - Reactive	Test not processed within holding time
2022-008-6108	31524	EPA - Bonneys	9/11/2022	pH	Test not processed within holding time
2022-008-6108	31524	EPA - Bonneys	9/11/2022	Suspended Solids	Test not processed within holding time
2022-008-6108	31524	EPA - Bonneys	9/11/2022	Silica - Reactive	Test not processed within holding time
2022-008-6109	31528	EPA - Salt Creek Outlet	8/11/2022	pH	Test not processed within holding time
2022-008-6109	31528	EPA - Salt Creek Outlet	8/11/2022	Silica - Reactive	Test not processed within holding time
2022-008-6109	31528	EPA - Salt Creek Outlet	8/11/2022	Dissolved Organic Carbon	Test not processed within holding time
2022-008-6109	31528	EPA - Salt Creek Outlet	8/11/2022	Total Organic Carbon	Test not processed within holding time



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Incidents

Sample ID	S.Point	Description	Sampled Date	Analysis (where Applicable)	Incident Description
2022-008-6110	353179	EPA - Tauwitschere Barrage Upstream	9/11/2022	pH	Test not processed within holding time
2022-008-6110	353179	EPA - Tauwitschere Barrage Upstream	9/11/2022	Silica - Reactive	Test not processed within holding time
2022-008-6111	353177	EPA - Tauwitschere Barrage DS	9/11/2022	pH	Test not processed within holding time
2022-008-6111	353177	EPA - Tauwitschere Barrage DS	9/11/2022	Silica - Reactive	Test not processed within holding time
2022-008-7748	531012	EPA - Sth Policeman Point	8/11/2022	pH	Test not processed within holding time
2022-008-7748	531012	EPA - Sth Policeman Point	8/11/2022	Silica - Reactive	Test not processed within holding time
2022-008-7748	531012	EPA - Sth Policeman Point	8/11/2022	Dissolved Organic Carbon	Test not processed within holding time
2022-008-7748	531012	EPA - Sth Policeman Point	8/11/2022	Total Organic Carbon	Test not processed within holding time
2022-008-7749	53032	EPA - Noonaameena	9/11/2022	pH	Test not processed within holding time
2022-008-7749	53032	EPA - Noonaameena	9/11/2022	Suspended Solids	Test not processed within holding time
2022-008-7749	53032	EPA - Noonaameena	9/11/2022	Silica - Reactive	Test not processed within holding time

Samples Not Collected

Sample ID	S.Point	Description	Sampled Date	Non Collect Reason
2022-008-6104	300711	Tilley Swamp Drain U/S Morella	19/10/2022	Sampling point inaccessible



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Analytical Method

Analytical Method Code	Description	Reference Method
T0010-01	Determination of pH	AP4500HB
T0016-01	Determination of Conductivity - Corrected to 25C	AP2510B
T0018-01	Turbidity - Nephelometric Measurement	APAWWA-WEF
T0100-01	Ammonia/Ammonium - Automated Flow Colorimetry	AP4500NH3G
T0101-01	Alkalinity - Automated Acidimetric Titration	AP2320B
T0104-02	Chloride - Discrete Analyser	AP4500CLE
T0109-44	Phosphorous -total Kjeldahl for seawater by automated flow colorimetry	AP4500PF
T0111-01	Silica by automated fow colorimetry	AP4500SI02
T0112-01	Nitrogen- Total Kjeldahl by discrete analyser	AP4500NORGA
T0158-07	Total and Dissolved Organic Carbon (OI Analytical)	SM5310C
T0160-01	Suspended Solids 103C to 105C	AP4500
T0380-02	Chlorophyll a & b and phaeophytin	ISO10260
T0393	Microalgae & Cyanobacteria - Scan & Identification	
T0393	Microalgae & Cyanobacteria - Scan & Identification	Hotzel1999
TMZ-M06	Derived Results and Data Checks	AP4500NORGA

Laboratory Information

Laboratory	NATA accreditation ID
Inorganic Chemistry - Physical	1115
Inorganic Chemistry - Waste Water	1115
Inorganic Chemistry - Nutrients	1115
Organic Chemistry	1115
Biology Operations	1115



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- Notes
1. The last figure of the result value is a significant figure.
 2. # determination of the component is not covered by NATA Accreditation.
 3. ^ indicates result is out of specification according to the reference guideline. Refer to report footer.
 4. * indicates an incident has been recorded against the sample. Refer to report footer.
 5. & Indicates the results have changed since the last issued report.
 6. Where a result is required to meet compliance limits the associated measurement uncertainty must be considered. Measurement uncertainty is available at <https://www.awqc.com.au/our-services/Water-quality-testing-and-analysis/measurement-uncertainty>
 7. Uncertainty of Measurement is reported with a coverage factor of 2 providing approximately 95% confidence interval
 8. The Limit of Reporting (LOR) is the lowest concentration of analyte which is reported at the AWQC and is based on the LOQ rounded up to a more readily used value. The Limit of Quantitation (LOQ) is the lowest concentration of analyte for which quantitative results may be obtained within a specified degree of confidence.
 9. Where collection type is AWQC Collect, NATA has confirmed that due to a robust system in place for maintaining the temperature integrity for samples collected by AWQC's Field Laboratory Services, the recording of temperature when samples arrive at the AWQC is out of scope.
 10. If pH has been tested then the pH will be outside of its holding time unless measured in the field.
 11. (ADEL) indicates analysed in Adelaide, (MELB) indicates analysed in Melbourne.