



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

SA 5000 AUSTRALIA

31/08/2023

Dear Claire

Please find attached the Final Analytical Report for

Customer Service Request: 143419-2023-CSR-2
Account: 143419
Project: AWQC-185653 DEW - Healthy Coorong Healthy Basin - NR Events JUL - 23/24

This report has also been sent to: Tim Branford

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

Yours sincerely,

Corrina Smith
Customer Service Officer
Corrina.Smith@sawater.com.au



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Testing



FINAL REPORT: 368984

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Report Information

| | |
|--------------|---|
| Project Name | AWQC-185653 |
| Customer | DEW - Department of Environment and Water |
| CSR_ID | 143419-2023-CSR-2 |

Analytical Results

| | |
|---------------------------|---------------------------|
| Sampling Point | 351213-EPA - Murray Mouth |
| Sampled Date | 15/08/2023 11:20:00AM |
| Sample Received Date | 16/08/2023 4:29:48PM |
| Sample Analysis Completed | 31/08/2023 9:07:51AM |
| Sample ID | *2023-006-2399 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--|-----|--|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Algal Identification T0393(ADEL) | | | |
| Other Organisms | | 1650 cells/mL | |
| BLUE GREEN ALGAE | | | |
| Planktolyngbya | | 7760 cells/mL | |
| Pseudanabaena | | 3340 cells/mL | |
| Dolichospermum planctonicum | | 14 cells/mL | |
| Limnothrix | | 250 cells/mL | |
| Anabaena | | 1660 cells/mL | |
| Phormidium narrow spp | | 402 cells/mL | |
| Cyanogranis | | 42700 cells/mL | |
| Cyanodictyon | | 461000 cells/mL | |
| DIATOMS | | | |
| Aulacoseira | | 100 cells/mL | |
| Cyclotella | | 20 cells/mL | |
| GREEN ALGAE | | | |
| Planctonema | | 7610 cells/mL | |
| Tetrastrum | | 900 cells/mL | |
| Oocystis sp_1_(small_cells) | | 1150 cells/mL | |
| Scenedesmus | | 800 cells/mL | |
| Monoraphidium | | 1050 cells/mL | |
| Actinastrum | | 4180 cells/mL | |
| Kirchneriella | | 1600 cells/mL | |
| Crucigenia | | 6380 cells/mL | |
| Organism - Comment | | Limnothrix - The identification for this organism is tentative only. | |



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Sample temperature at time of receipt 4.9°C

Algal Biovolume T0393(ADEL)

15/08/2023

BLUE GREEN ALGAE

| | |
|-----------------------------|-------------|
| Anabaena | 0.13 mm3/L |
| Phormidium narrow spp | 0.01 mm3/L |
| Dolichospermum planctonicum | <0.01 mm3/L |
| Limnithrix | <0.01 mm3/L |
| Planktolyngbya | 0.04 mm3/L |
| Pseudanabaena | 0.04 mm3/L |
| Cyanodictyon | 0.23 mm3/L |
| Cyanogranis | 0.02 mm3/L |

DIATOMS

| | |
|-------------|------------|
| Aulacoseira | 0.29 mm3/L |
| Cyclotella | 0.01 mm3/L |

GREEN ALGAE

| | |
|-----------------------------|------------|
| Oocystis sp_1_(small_cells) | 0.20 mm3/L |
| Scenedesmus | 0.20 mm3/L |
| Monoraphidium | 0.94 mm3/L |
| Actinastrum | 0.31 mm3/L |
| Crucigenia | 0.19 mm3/L |
| Kirchneriella | 0.04 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 | 0.47 mm3/L |
| # Total Diatom Biovolume | 0.30 mm3/L |
| # Total Green Algae Biovolume | Not Calculated mm3/L |
| Total Toxic BGA Biovolume | 0.00 mm3/L |

Sample temperature at time of receipt 4.9°C



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| Sample ID | *2023-006-2399 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Algal Count - Total T0393(ADEL)

15/08/2023

| | |
|-----------------------------------|-----------------|
| Algae - Total | 541000 cells/mL |
| Blue Green Algae - Total | 517000 cells/mL |
| Diatoms - Total | 120 cells/mL |
| Geosmin-MIB producing BGA - Total | 3760 cells/mL |
| Green Algae - Total | 23700 cells/mL |
| Toxin producing BGA - Total | 0 cells/mL |

Sample temperature at time of receipt 4.9°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

17/08/2023

| | | |
|---------------|-----|-----------|
| Chlorophyll a | 0.1 | 29.7 µg/L |
| Phaeophytin a | 0.1 | 10.3 µg/L |

| Inorganic Chemistry - Nutrients | LOR | Result | Test Start Date |
|---|-------|------------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Ammonia as N (ADEL) | | | 21/08/2023 |
| # Ammonia as N | 1 | 14 µg/L | |
| Chloride T0104-02(ADEL) | | | 22/08/2023 |
| Chloride | 4.0 | 264 mg/L | |
| Nitrate + Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrate + Nitrite as N | 0.5 | 4.6 µg/L | |
| # Nitrate + Nitrite as NO3 | 2.3 | 20.4 µg/L | |
| # Nitrate as Nitrogen | | 3.86 µg/L | |
| Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrite as N | 0.5 | 0.7 µg/L | |
| Nitrogen - Total TMZ-M06(ADEL) | | | 16/08/2023 |
| Nitrogen - Total | | 1.45 mg/L | |
| Phosphorus - Filterable Reactive as P (ADEL) | | | 21/08/2023 |
| # Phosphorus -Filterable Reactive as PO4 | 1.5 | 9.568 µg/L | |
| Phosphorus-Filterable Reactive as P | 0.5 | 3.2 µg/L | |
| Phosphorus - Total T0109-44(ADEL) | | | 22/08/2023 |
| Phosphorus - Total | 0.005 | 0.047 mg/L | |



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Analytical Results

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| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|---|------|-----------|------------|
| Silica - Reactive T0111-01(ADEL) | | | 22/08/2023 |
| Silica - Reactive | 0.05 | 0.34 mg/L | |
| TKN as N T0112-01(ADEL) | | | 22/08/2023 |
| TKN as Nitrogen | 0.05 | 1.45 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 9.5 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 12.0 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|---|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Alkalinity as Calcium Carbonate | | 115 mg/L | |
| Bicarbonate | | 131 mg/L | |
| Carbonate | | 5 mg/L | |
| Hydroxide | | 0 mg/L | |
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Conductivity | 2 | 1140 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 633 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.4 pH units | |
| Temperature at which pH is measured | | 21.2 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 19 NTU | |



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| Sample ID | *2023-006-2399 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|---------|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Suspended Solids T0160-01(ADEL) | | | |
| 21/08/2023 | | | |
| Suspended Solids | 1.0 | 26 mg/L | |





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Analytical Results

| | |
|---------------------------|-----------------------------|
| Sampling Point | 11504-DEW - Mundoo Upstream |
| Sampled Date | 15/08/2023 12:05:00PM |
| Sample Received Date | 16/08/2023 4:25:47PM |
| Sample Analysis Completed | 30/08/2023 12:45:42PM |
| Sample ID | *2023-006-2412 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--|-----|--|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Algal Identification T0393(ADEL) | | | |
| Other Organisms | | 900 cells/mL | |
| BLUE GREEN ALGAE | | | |
| Cyanogranis | | 64500 cells/mL | |
| Merismopedia | | 320 cells/mL | |
| Cyanodictyon | | 403000 cells/mL | |
| Romeria | | 110 cells/mL | |
| Limnothrix | | 580 cells/mL | |
| Cuspidothrix | | 144 cells/mL | |
| Phormidium narrow spp | | 844 cells/mL | |
| Anabaena | | 2060 cells/mL | |
| Pseudanabaena | | 5580 cells/mL | |
| Planktolynbya | | 13400 cells/mL | |
| Snowella | | 160 cells/mL | |
| DIATOMS | | | |
| Aulacoseira | | 502 cells/mL | |
| GREEN ALGAE | | | |
| Crucigenia | | 1630 cells/mL | |
| Chodatella_(Lagerheimia) | | 10 cells/mL | |
| Kirchneriella | | 430 cells/mL | |
| Tetrastrum | | 80 cells/mL | |
| Planctonema | | 13200 cells/mL | |
| Scenedesmus | | 460 cells/mL | |
| Actinastrum | | 1480 cells/mL | |
| Monoraphidium | | 350 cells/mL | |
| Organism - Comment | | Limnothrix - The identification for this organism is tentative only. | |

Sample temperature at time of receipt 4.9°C
Algal Biovolume T0393(ADEL)

15/08/2023





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Analytical Results

| | |
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| Sample Analysis Completed | 30/08/2023 12:45:42PM |
| Sample ID | *2023-006-2412 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Algal Biovolume T0393(ADEL)

15/08/2023

BLUE GREEN ALGAE

| | |
|-----------------------|-------------|
| Planktolyngbya | 0.07 mm3/L |
| Pseudanabaena | 0.07 mm3/L |
| Anabaena | 0.16 mm3/L |
| Phormidium narrow spp | 0.02 mm3/L |
| Cuspidothrix | <0.01 mm3/L |
| Cyanogranis | 0.03 mm3/L |
| Limnothrix | <0.01 mm3/L |
| Snowella | <0.01 mm3/L |
| Romeria | <0.01 mm3/L |
| Cyanodictyon | 0.20 mm3/L |
| Merismopedia | <0.01 mm3/L |

DIATOMS

| | |
|-------------|------------|
| Aulacoseira | 1.44 mm3/L |
|-------------|------------|

GREEN ALGAE

| | |
|---------------|-------------|
| Kirchneriella | <0.01 mm3/L |
| Monoraphidium | 0.32 mm3/L |
| Actinastrum | 0.11 mm3/L |
| Scenedesmus | 0.12 mm3/L |
| Crucigenia | 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 | 0.55 mm3/L |
| # Total Diatom Biovolume | 1.44 mm3/L |
| # Total Green Algae Biovolume | Not Calculated mm3/L |
| Total Toxic BGA Biovolume | 0.00 mm3/L |

Sample temperature at time of receipt 4.9°C



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Analytical Results

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| Sample ID | *2023-006-2412 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Algal Count - Total T0393(ADEL)

15/08/2023

| | |
|-----------------------------------|-----------------|
| Algae - Total | 509000 cells/mL |
| Blue Green Algae - Total | 491000 cells/mL |
| Diatoms - Total | 502 cells/mL |
| Geosmin-MIB producing BGA - Total | 6420 cells/mL |
| Green Algae - Total | 17600 cells/mL |
| Toxin producing BGA - Total | 0 cells/mL |

Sample temperature at time of receipt 4.9°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

17/08/2023

| | | |
|---------------|-----|-----------|
| Chlorophyll a | 0.1 | 28.7 µg/L |
| Phaeophytin a | 0.1 | 15.2 µg/L |

| Inorganic Chemistry - Nutrients | LOR | Result | Test Start Date |
|---|-------|-------------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Ammonia as N (ADEL) | | | 21/08/2023 |
| # Ammonia as N | 1 | 29 µg/L | |
| Chloride T0104-02(ADEL) | | | 22/08/2023 |
| Chloride | 4.0 | 80 mg/L | |
| Nitrate + Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrate + Nitrite as N | 0.5 | 6.7 µg/L | |
| # Nitrate + Nitrite as NO3 | 2.3 | 29.7 µg/L | |
| # Nitrate as Nitrogen | | 6.42 µg/L | |
| Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrite as N | 0.5 | <0.5 µg/L | |
| Nitrogen - Total TMZ-M06(ADEL) | | | 16/08/2023 |
| Nitrogen - Total | | 2.10 mg/L | |
| Phosphorus - Filterable Reactive as P (ADEL) | | | 21/08/2023 |
| # Phosphorus -Filterable Reactive as PO4 | 1.5 | 10.465 µg/L | |
| Phosphorus-Filterable Reactive as P | 0.5 | 3.5 µg/L | |
| Phosphorus - Total T0109-44(ADEL) | | | 22/08/2023 |
| Phosphorus - Total | 0.005 | 0.029 mg/L | |



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| Sample ID | *2023-006-2412 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|---|------|-----------|------------|
| Silica - Reactive T0111-01(ADEL) | | | 22/08/2023 |
| Silica - Reactive | 0.05 | 0.12 mg/L | |
| TKN as N T0112-01(ADEL) | | | 22/08/2023 |
| TKN as Nitrogen | 0.05 | 2.09 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 9.8 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 10.9 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|---|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Alkalinity as Calcium Carbonate | | 109 mg/L | |
| Bicarbonate | | 133 mg/L | |
| Carbonate | | 0 mg/L | |
| Hydroxide | | 0 mg/L | |
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Conductivity | 2 | 515 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 285 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.2 pH units | |
| Temperature at which pH is measured | | 21.2 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 18 NTU | |



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| Sample ID | *2023-006-2412 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|---------|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Suspended Solids T0160-01(ADEL) | | | |
| Suspended Solids | 1.0 | 20 mg/L | 22/08/2023 |





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Analytical Results

| | |
|---------------------------|-------------------------------|
| Sampling Point | 11505-DEW - Mundoo Downstream |
| Sampled Date | 15/08/2023 12:10:00PM |
| Sample Received Date | 16/08/2023 4:26:03PM |
| Sample Analysis Completed | 30/08/2023 12:45:42PM |
| Sample ID | *2023-006-2413 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--------------------|-----|--------|-----------------|
|--------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Algal Identification T0393(ADEL)

| | |
|--------------------------------|-----------------|
| Other Organisms | 1000 cells/mL |
| BLUE GREEN ALGAE | |
| Romeria | 210 cells/mL |
| Pseudanabaena | 8830 cells/mL |
| Planktolyngbya | 13300 cells/mL |
| Microcystis aeruginosa | 144 cells/mL |
| Cuspidothrix | 290 cells/mL |
| Aphanizomenon | 48 cells/mL |
| Cylindrospermopsis raciborskii | 58 cells/mL |
| Phormidium narrow spp | 958 cells/mL |
| Anabaena | 2500 cells/mL |
| Cyanodictyon | 355000 cells/mL |
| Cyanogranis | 84000 cells/mL |
| DIATOMS | |
| Asterionella | 8 cells/mL |
| Aulacoseira | 716 cells/mL |
| Acanthoceras_(=Attheya) | 10 cells/mL |
| GREEN ALGAE | |
| Crucigenia | 1960 cells/mL |
| Scenedesmus | 680 cells/mL |
| Monoraphidium | 1250 cells/mL |
| Kirchneriella | 830 cells/mL |
| Planctonema | 18700 cells/mL |
| Chodatella_(Lagerheimia) | 20 cells/mL |
| Actinastrum | 1790 cells/mL |

Sample temperature at time of receipt 4.9°C

Algal Biovolume T0393(ADEL)

15/08/2023

BLUE GREEN ALGAE





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| Sample ID | *2023-006-2413 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Algal Biovolume T0393(ADEL)

15/08/2023

| | |
|--------------------------------|-------------|
| Anabaena | 0.19 mm3/L |
| Phormidium narrow spp | 0.02 mm3/L |
| Cylindrospermopsis raciborskii | <0.01 mm3/L |
| Aphanizomenon | <0.01 mm3/L |
| Cuspidothrix | 0.02 mm3/L |
| Microcystis aeruginosa | 0.01 mm3/L |
| Planktolyngbya | 0.07 mm3/L |
| Pseudanabaena | 0.11 mm3/L |
| Romeria | <0.01 mm3/L |
| Cyanodictyon | 0.18 mm3/L |
| Cyanogranis | 0.04 mm3/L |

DIATOMS

| | |
|-------------------------|-------------|
| Aulacoseira | 2.05 mm3/L |
| Asterionella | <0.01 mm3/L |
| Acanthoceras_(=Attheya) | 0.06 mm3/L |

GREEN ALGAE

| | |
|---------------|------------|
| Kirchneriella | 0.02 mm3/L |
| Monoraphidium | 1.12 mm3/L |
| Scenedesmus | 0.17 mm3/L |
| Crucigenia | 0.06 mm3/L |
| Actinastrum | 0.13 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 | 0.64 mm3/L |
| # Total Diatom Biovolume | 2.11 mm3/L |
| # Total Green Algae Biovolume | Not Calculated mm3/L |
| Total Toxic BGA Biovolume | <0.02 mm3/L |



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Analytical Results

| | |
|---------------------------|-------------------------------|
| Sampling Point | 11505-DEW - Mundoo Downstream |
| Sampled Date | 15/08/2023 12:10:00PM |
| Sample Received Date | 16/08/2023 4:26:03PM |
| Sample Analysis Completed | 30/08/2023 12:45:42PM |
| Sample ID | *2023-006-2413 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Sample temperature at time of receipt 4.9°C

Algal Count - Total T0393(ADEL)

15/08/2023

| | |
|-----------------------------------|-----------------|
| Algae - Total | 491000 cells/mL |
| Blue Green Algae - Total | 465000 cells/mL |
| Diatoms - Total | 734 cells/mL |
| Geosmin-MIB producing BGA - Total | 9790 cells/mL |
| Green Algae - Total | 25200 cells/mL |
| Toxin producing BGA - Total | 202 cells/mL |

Sample temperature at time of receipt 4.9°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

17/08/2023

| | | |
|---------------|-----|-----------|
| Chlorophyll a | 0.1 | 30.6 µg/L |
| Phaeophytin a | 0.1 | 12.6 µg/L |

| Inorganic Chemistry - Nutrients | LOR | Result | Test Start Date |
|---|-----|-------------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Ammonia as N (ADEL) | | | 21/08/2023 |
| # Ammonia as N | 1 | 22 µg/L | |
| Chloride T0104-02(ADEL) | | | 22/08/2023 |
| Chloride | 4.0 | 88 mg/L | |
| Nitrate + Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrate + Nitrite as N | 0.5 | 3.2 µg/L | |
| # Nitrate + Nitrite as NO3 | 2.3 | 14.2 µg/L | |
| # Nitrate as Nitrogen | | 3.20 µg/L | |
| Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrite as N | 0.5 | <0.5 µg/L | |
| Nitrogen - Total TMZ-M06(ADEL) | | | 16/08/2023 |
| Nitrogen - Total | | 1.21 mg/L | |
| Phosphorus - Filterable Reactive as P (ADEL) | | | 21/08/2023 |
| # Phosphorus -Filterable Reactive as PO4 | 1.5 | 10.465 µg/L | |
| Phosphorus-Filterable Reactive as P | 0.5 | 3.5 µg/L | |
| Phosphorus - Total T0109-44(ADEL) | | | 17/08/2023 |



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Analytical Results

| | |
|---------------------------|-------------------------------|
| Sampling Point | 11505-DEW - Mundoo Downstream |
| Sampled Date | 15/08/2023 12:10:00PM |
| Sample Received Date | 16/08/2023 4:26:03PM |
| Sample Analysis Completed | 30/08/2023 12:45:42PM |
| Sample ID | *2023-006-2413 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|--|-------|------------|------------|
| Phosphorus - Total T0109-44(ADEL) | | | 17/08/2023 |
| Phosphorus - Total | 0.005 | 0.071 mg/L | |
| Silica - Reactive T0111-01(ADEL) | | | 22/08/2023 |
| Silica - Reactive | 0.05 | 0.18 mg/L | |
| TKN as N T0112-01(ADEL) | | | 17/08/2023 |
| TKN as Nitrogen | 0.05 | 1.21 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 9.1 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 10.6 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|---|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Alkalinity as Calcium Carbonate | | 109 mg/L | |
| Bicarbonate | | 124 mg/L | |
| Carbonate | | 4 mg/L | |
| Hydroxide | | 0 mg/L | |
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Conductivity | 2 | 506 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 280 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.4 pH units | |
| Temperature at which pH is measured | | 21.2 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 16 NTU | |



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Analytical Results

| | |
|---------------------------|-------------------------------|
| Sampling Point | 11505-DEW - Mundoo Downstream |
| Sampled Date | 15/08/2023 12:10:00PM |
| Sample Received Date | 16/08/2023 4:26:03PM |
| Sample Analysis Completed | 30/08/2023 12:45:42PM |
| Sample ID | *2023-006-2413 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|---------|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Suspended Solids T0160-01(ADEL) | | | 22/08/2023 |
| Suspended Solids | 1.0 | 15 mg/L | |





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Analytical Results

| | |
|---------------------------|--|
| Sampling Point | 353179-EPA - Tauwitschere Barrage Upstream |
| Sampled Date | 15/08/2023 12:14:00PM |
| Sample Received Date | 16/08/2023 4:30:16PM |
| Sample Analysis Completed | 30/08/2023 2:32:52PM |
| Sample ID | *2023-006-2420 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--------------------|-----|--------|-----------------|
|--------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Algal Identification T0393(ADEL)

| | |
|---------------------------------|--|
| Other Organisms | 2250 cells/mL |
| BLUE GREEN ALGAE | |
| Cuspidothrix | 70 cells/mL |
| Planktolynghya | 8490 cells/mL |
| Cyanogranis | 68200 cells/mL |
| Cyanodictyon | 198000 cells/mL |
| Romeria | 120 cells/mL |
| Pseudanabaena | 6580 cells/mL |
| Cylindrospermopsis raciborskii | 64 cells/mL |
| Phormidium narrow spp | 3160 cells/mL |
| Anabaena | 2780 cells/mL |
| Dolichospermum (straight small) | 188 cells/mL |
| Limnothrix | 340 cells/mL |
| CRYPTOPHYTES | |
| Chroomonas | 750 cells/mL |
| Cryptomonas | 90 cells/mL |
| DIATOMS | |
| Aulacoseira | 1010 cells/mL |
| GREEN ALGAE | |
| Actinastrum | 2350 cells/mL |
| Crucigenia | 1700 cells/mL |
| Monoraphidium | 1100 cells/mL |
| Gonatozygon | 14 cells/mL |
| Planctonema | 10800 cells/mL |
| Scenedesmus | 550 cells/mL |
| Organism - Comment | Limnothrix - The identification for this organism is tentative only. |

Sample temperature at time of receipt 4.9°C





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Analytical Results

| | |
|---------------------------|---|
| Sampling Point | 353179-EPA - Tauwichee Barrage Upstream |
| Sampled Date | 15/08/2023 12:14:00PM |
| Sample Received Date | 16/08/2023 4:30:16PM |
| Sample Analysis Completed | 30/08/2023 2:32:52PM |
| Sample ID | *2023-006-2420 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Algal Biovolume T0393(ADEL)

15/08/2023

BLUE GREEN ALGAE

| | |
|---------------------------------|-------------|
| Anabaena | 0.21 mm3/L |
| Phormidium narrow spp | 0.08 mm3/L |
| Cylindrospermopsis raciborskii | <0.01 mm3/L |
| Cuspidothrix | <0.01 mm3/L |
| Pseudanabaena | 0.09 mm3/L |
| Planktolingbya | 0.04 mm3/L |
| Romeria | <0.01 mm3/L |
| Cyanodictyon | 0.10 mm3/L |
| Cyanogranis | 0.03 mm3/L |
| Dolichospermum (straight small) | 0.02 mm3/L |
| Limnothrix | <0.01 mm3/L |

CRYPTOPHYTES

| | |
|-------------|------------|
| Chroomonas | 0.04 mm3/L |
| Cryptomonas | 0.10 mm3/L |

DIATOMS

| | |
|-------------|------------|
| Aulacoseira | 2.89 mm3/L |
|-------------|------------|

GREEN ALGAE

| | |
|---------------|------------|
| Gonatozygon | 0.06 mm3/L |
| Scenedesmus | 0.14 mm3/L |
| Monoraphidium | 0.99 mm3/L |
| Crucigenia | 0.05 mm3/L |
| Actinastrum | 0.17 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 | 0.57 mm3/L |
| # Total Diatom Biovolume | 2.89 mm3/L |
| # Total Green Algae Biovolume | Not Calculated mm3/L |



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Analytical Results

| | |
|---------------------------|--|
| Sampling Point | 353179-EPA - Tauwitschere Barrage Upstream |
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| Sample Received Date | 16/08/2023 4:30:16PM |
| Sample Analysis Completed | 30/08/2023 2:32:52PM |
| Sample ID | *2023-006-2420 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | |
|------------------------------------|-------------|
| Algal Biovolume T0393(ADEL) | 15/08/2023 |
| Total Toxic BGA Biovolume | <0.01 mm3/L |

Sample temperature at time of receipt 4.9°C

| | |
|--|-----------------|
| Algal Count - Total T0393(ADEL) | 15/08/2023 |
| Algae - Total | 306000 cells/mL |
| Blue Green Algae - Total | 288000 cells/mL |
| Diatoms - Total | 1010 cells/mL |
| Geosmin-MIB producing BGA - Total | 9740 cells/mL |
| Green Algae - Total | 16500 cells/mL |
| Toxin producing BGA - Total | 64 cells/mL |

Sample temperature at time of receipt 4.9°C

| | |
|---|---------------|
| Chlorophyll a & Phaeophytin a T0380-02(ADEL) | 17/08/2023 |
| Chlorophyll a | 0.1 34.3 µg/L |
| Phaeophytin a | 0.1 18.5 µg/L |

| Inorganic Chemistry - Nutrients | LOR | Result | Test Start Date |
|---|-----|-----------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Ammonia as N (ADEL) | | | 21/08/2023 |
| # Ammonia as N | 1 | 28 µg/L | |
| Chloride T0104-02(ADEL) | | | 24/08/2023 |
| Chloride | 4.0 | 91 mg/L | |
| Nitrate + Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrate + Nitrite as N | 0.5 | 11.6 µg/L | |
| # Nitrate + Nitrite as NO3 | 2.3 | 51.4 µg/L | |
| # Nitrate as Nitrogen | | 11.6 µg/L | |
| Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrite as N | 0.5 | <0.5 µg/L | |
| Nitrogen - Total TMZ-M06(ADEL) | | | 16/08/2023 |
| Nitrogen - Total | | 1.26 mg/L | |
| Phosphorus - Filterable Reactive as P (ADEL) | | | 21/08/2023 |



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Analytical Results

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| Sampling Point | 353179-EPA - Tauwitschere Barrage Upstream |
| Sampled Date | 15/08/2023 12:14:00PM |
| Sample Received Date | 16/08/2023 4:30:16PM |
| Sample Analysis Completed | 30/08/2023 2:32:52PM |
| Sample ID | *2023-006-2420 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|---|-------|-------------|------------|
| Phosphorus - Filterable Reactive as P (ADEL) | | | 21/08/2023 |
| # Phosphorus -Filterable Reactive as PO4 | 1.5 | 52.923 µg/L | |
| Phosphorus-Filterable Reactive as P | 0.5 | 17.7 µg/L | |
| Phosphorus - Total T0109-44(ADEL) | | | 17/08/2023 |
| Phosphorus - Total | 0.005 | 0.099 mg/L | |
| Silica - Reactive T0111-01(ADEL) | | | 24/08/2023 |
| Silica - Reactive | 0.05 | 0.14 mg/L | |
| TKN as N T0112-01(ADEL) | | | 17/08/2023 |
| TKN as Nitrogen | 0.05 | 1.25 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 8.5 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 10.1 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|---|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Alkalinity as Calcium Carbonate | | 96 mg/L | |
| Bicarbonate | | 111 mg/L | |
| Carbonate | | 3 mg/L | |
| Hydroxide | | 0 mg/L | |
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Conductivity | 2 | 462 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 256 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.3 pH units | |



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| Sampling Point | 353179-EPA - Tauwitschere Barrage Upstream |
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| Sample Received Date | 16/08/2023 4:30:16PM |
| Sample Analysis Completed | 30/08/2023 2:32:52PM |
| Sample ID | *2023-006-2420 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|-------------------------------------|-----|---------|------------|
| pH T0010-01(ADEL) | | | 18/08/2023 |
| Temperature at which pH is measured | | 21.2 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 23 NTU | |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|---------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Suspended Solids T0160-01(ADEL) | | | 22/08/2023 |
| Suspended Solids | 1.0 | 15 mg/L | |





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Analytical Results

| | |
|---------------------------|-----------------------------------|
| Sampling Point | 353177-EPA - Tauwichee Barrage DS |
| Sampled Date | 15/08/2023 12:31:00PM |
| Sample Received Date | 16/08/2023 4:30:02PM |
| Sample Analysis Completed | 31/08/2023 9:44:21AM |
| Sample ID | *2023-006-2416 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--------------------|-----|--------|-----------------|
|--------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Algal Identification T0393(ADEL)

| | |
|---------------------------------|-----------------|
| Other Organisms | 1050 cells/mL |
| BLUE GREEN ALGAE | |
| Romeria | 90 cells/mL |
| Cyanodictyon | 230000 cells/mL |
| Pseudanabaena | 7400 cells/mL |
| Limnothrix | 940 cells/mL |
| Cyanogranis | 17500 cells/mL |
| Anabaena | 2210 cells/mL |
| Phormidium narrow spp | 2390 cells/mL |
| Cylindrospermopsis raciborskii | 44 cells/mL |
| Cuspidothrix | 20 cells/mL |
| Dolichospermum (straight small) | 140 cells/mL |
| Dolichospermum circinale | 40 cells/mL |
| Dolichospermum planctonicum | 96 cells/mL |
| Planktolyngbya | 13200 cells/mL |
| Romeria | 80 cells/mL |
| CRYPTOPHYTES | |
| Cryptomonas | 70 cells/mL |
| Chroomonas | 80 cells/mL |
| DIATOMS | |
| Aulacoseira | 945 cells/mL |
| GREEN ALGAE | |
| Monoraphidium | 1700 cells/mL |
| Planctonema | 7150 cells/mL |
| Scenedesmus | 1200 cells/mL |
| Tetrastrum | 925 cells/mL |
| Crucigenia | 2880 cells/mL |
| Actinastrum | 3150 cells/mL |
| Kirchneriella | 900 cells/mL |



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Analytical Results

| | |
|---------------------------|--------------------------------------|
| Sampling Point | 353177-EPA - Tauwitschere Barrage DS |
| Sampled Date | 15/08/2023 12:31:00PM |
| Sample Received Date | 16/08/2023 4:30:02PM |
| Sample Analysis Completed | 31/08/2023 9:44:21AM |
| Sample ID | *2023-006-2416 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Algal Identification T0393(ADEL)

Organism - Comment

Limnothrix - The identification for this organism is tentative only.

Sample temperature at time of receipt 4.9°C

Algal Biovolume T0393(ADEL)

15/08/2023

BLUE GREEN ALGAE

| | |
|---------------------------------|-------------|
| Anabaena | 0.17 mm3/L |
| Phormidium narrow spp | 0.06 mm3/L |
| Cylindrospermopsis raciborskii | <0.01 mm3/L |
| Cuspidothrix | <0.01 mm3/L |
| Dolichospermum (straight small) | 0.01 mm3/L |
| Dolichospermum circinale | 0.01 mm3/L |
| Dolichospermum planctonicum | 0.04 mm3/L |
| Planktolyngbya | 0.07 mm3/L |
| Romeria | <0.01 mm3/L |
| Pseudanabaena | 0.10 mm3/L |
| Limnothrix | 0.01 mm3/L |
| Cyanodictyon | 0.12 mm3/L |
| Cyanogranis | <0.01 mm3/L |

CRYPTOPHYTES

| | |
|-------------|-------------|
| Cryptomonas | 0.08 mm3/L |
| Chroomonas | <0.01 mm3/L |

DIATOMS

| | |
|-------------|------------|
| Aulacoseira | 2.70 mm3/L |
|-------------|------------|

GREEN ALGAE

| | |
|---------------|------------|
| Monoraphidium | 1.53 mm3/L |
| Scenedesmus | 0.30 mm3/L |
| Crucigenia | 0.09 mm3/L |
| Actinastrum | 0.23 mm3/L |
| Kirchneriella | 0.02 mm3/L |



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| Sample Received Date | 16/08/2023 4:30:02PM |
| Sample Analysis Completed | 31/08/2023 9:44:21AM |
| Sample ID | *2023-006-2416 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Algal Biovolume T0393(ADEL)

15/08/2023

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 | 0.59 mm3/L |
| # Total Diatom Biovolume | 2.70 mm3/L |
| # Total Green Algae Biovolume | Not Calculated mm3/L |
| Total Toxic BGA Biovolume | <0.02 mm3/L |

Sample temperature at time of receipt 4.9°C

Algal Count - Total T0393(ADEL)

15/08/2023

| | |
|-----------------------------------|-----------------|
| Algae - Total | 293000 cells/mL |
| Blue Green Algae - Total | 274000 cells/mL |
| Diatoms - Total | 945 cells/mL |
| Geosmin-MIB producing BGA - Total | 9930 cells/mL |
| Green Algae - Total | 17900 cells/mL |
| Toxin producing BGA - Total | 84 cells/mL |

Sample temperature at time of receipt 4.9°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

17/08/2023

| | | |
|---------------|-----|-----------|
| Chlorophyll a | 0.1 | 36.7 µg/L |
| Phaeophytin a | 0.1 | 17.0 µg/L |

Inorganic Chemistry - Nutrients

LOR

Result

Test Start Date

Sample temperature at time of receipt 4.9°C

Ammonia as N (ADEL)

21/08/2023

| | | |
|----------------|---|---------|
| # Ammonia as N | 1 | 26 µg/L |
|----------------|---|---------|

Chloride T0104-02(ADEL)

24/08/2023

| | | |
|----------|-----|---------|
| Chloride | 4.0 | 80 mg/L |
|----------|-----|---------|



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Analytical Results

| | |
|---------------------------|--------------------------------------|
| Sampling Point | 353177-EPA - Tauwitschere Barrage DS |
| Sampled Date | 15/08/2023 12:31:00PM |
| Sample Received Date | 16/08/2023 4:30:02PM |
| Sample Analysis Completed | 31/08/2023 9:44:21AM |
| Sample ID | *2023-006-2416 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|---|-------|-------------|------------|
| Nitrate + Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrate + Nitrite as N | 0.5 | 30.8 µg/L | |
| # Nitrate + Nitrite as NO3 | 2.3 | 136 µg/L | |
| # Nitrate as Nitrogen | | 30.8 µg/L | |
| Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrite as N | 0.5 | <0.5 µg/L | |
| Nitrogen - Total TMZ-M06(ADEL) | | | 16/08/2023 |
| Nitrogen - Total | | 1.25 mg/L | |
| Phosphorus - Filterable Reactive as P (ADEL) | | | 21/08/2023 |
| # Phosphorus -Filterable Reactive as PO4 | 1.5 | 42.458 µg/L | |
| Phosphorus-Filterable Reactive as P | 0.5 | 14.2 µg/L | |
| Phosphorus - Total T0109-44(ADEL) | | | 17/08/2023 |
| Phosphorus - Total | 0.005 | 0.067 mg/L | |
| Silica - Reactive T0111-01(ADEL) | | | 24/08/2023 |
| Silica - Reactive | 0.05 | 0.10 mg/L | |
| TKN as N T0112-01(ADEL) | | | 17/08/2023 |
| TKN as Nitrogen | 0.05 | 1.22 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 8.6 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 10.1 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|----------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Alkalinity as Calcium Carbonate | | 101 mg/L | |
| Bicarbonate | | 123 mg/L | |



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Analytical Results

| | |
|---------------------------|--------------------------------------|
| Sampling Point | 353177-EPA - Tauwitschere Barrage DS |
| Sampled Date | 15/08/2023 12:31:00PM |
| Sample Received Date | 16/08/2023 4:30:02PM |
| Sample Analysis Completed | 31/08/2023 9:44:21AM |
| Sample ID | *2023-006-2416 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|--|-----|---|------------|
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Carbonate | | 0 mg/L | |
| Hydroxide | | 0 mg/L | |
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Conductivity | 2 | 457 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 253 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.2 pH units | |
| Temperature at which pH is measured | | 21.8 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 24 NTU | |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|---------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Suspended Solids T0160-01(ADEL) | | | 22/08/2023 |
| Suspended Solids | 1.0 | 45 mg/L | |



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Analytical Results

| | |
|---------------------------|-------------------------|
| Sampling Point | 31514-EPA - Stoney Well |
| Sampled Date | 15/08/2023 3:10:00PM |
| Sample Received Date | 16/08/2023 4:27:15PM |
| Sample Analysis Completed | 30/08/2023 12:27:18PM |
| Sample ID | *2023-006-2407 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--------------------|-----|--------|-----------------|
|--------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Algal Identification T0393(ADEL)

CRYPTOPHYTES

| | |
|-------------|-------------|
| Cryptomonas | 10 cells/mL |
|-------------|-------------|

GREEN ALGAE

| | |
|-----------|------------------|
| Chlorella | 1760000 cells/mL |
|-----------|------------------|

| | |
|-------------------------|-----------------|
| Unicellular green algae | 146000 cells/mL |
|-------------------------|-----------------|

| | |
|------------------|--------------|
| Phytoflagellates | 110 cells/mL |
|------------------|--------------|

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

Sample temperature at time of receipt 4.9°C

Algal Biovolume T0393(ADEL)

15/08/2023

CRYPTOPHYTES

| | |
|-------------|------------|
| Cryptomonas | 0.01 mm3/L |
|-------------|------------|

GREEN ALGAE

| | |
|-----------|------------|
| Chlorella | 79.2 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 4.9°C

Algal Count - Total T0393(ADEL)

15/08/2023

| | |
|---------------|------------------|
| Algae - Total | 1910000 cells/mL |
|---------------|------------------|



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Analytical Results

| | |
|---------------------------|-------------------------|
| Sampling Point | 31514-EPA - Stoney Well |
| Sampled Date | 15/08/2023 3:10:00PM |
| Sample Received Date | 16/08/2023 4:27:15PM |
| Sample Analysis Completed | 30/08/2023 12:27:18PM |
| Sample ID | *2023-006-2407 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | |
|--|------------------|
| Algal Count - Total T0393(ADEL) | 15/08/2023 |
| Blue Green Algae - Total | 0 cells/mL |
| Diatoms - Total | 0 cells/mL |
| Geosmin-MIB producing BGA - Total | 0 cells/mL |
| Green Algae - Total | 1910000 cells/mL |
| Toxin producing BGA - Total | 0 cells/mL |

| | |
|---|---------------|
| Sample temperature at time of receipt 4.9°C | |
| Chlorophyll a & Phaeophytin a T0380-02(ADEL) | 17/08/2023 |
| Chlorophyll a | 0.1 182 µg/L |
| Phaeophytin a | 0.1 55.9 µg/L |

| Inorganic Chemistry - Nutrients | LOR | Result | Test Start Date |
|---|-------|-------------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Ammonia as N (ADEL) | | | 21/08/2023 |
| # Ammonia as N | 1 | 24 µg/L | |
| Chloride T0104-02(ADEL) | | | 22/08/2023 |
| Chloride | 4.0 | 26100 mg/L | |
| Nitrate + Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrate + Nitrite as N | 0.5 | 1.8 µg/L | |
| # Nitrate + Nitrite as NO3 | 2.3 | 7.97 µg/L | |
| # Nitrate as Nitrogen | | 1.80 µg/L | |
| Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrite as N | 0.5 | <0.5 µg/L | |
| Nitrogen - Total TMZ-M06(ADEL) | | | 16/08/2023 |
| Nitrogen - Total | | 4.49 mg/L | |
| Phosphorus - Filterable Reactive as P (ADEL) | | | 21/08/2023 |
| # Phosphorus -Filterable Reactive as PO4 | 1.5 | 14.651 µg/L | |
| Phosphorus-Filterable Reactive as P | 0.5 | 4.9 µg/L | |
| Phosphorus - Total T0109-44(ADEL) | | | 22/08/2023 |
| Phosphorus - Total | 0.005 | 0.039 mg/L | |
| Silica - Reactive T0111-01(ADEL) | | | 22/08/2023 |





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| | |
|---------------------------|-------------------------|
| Sampling Point | 31514-EPA - Stoney Well |
| Sampled Date | 15/08/2023 3:10:00PM |
| Sample Received Date | 16/08/2023 4:27:15PM |
| Sample Analysis Completed | 30/08/2023 12:27:18PM |
| Sample ID | *2023-006-2407 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|---|------|-----------|------------|
| Silica - Reactive T0111-01(ADEL) | | | 22/08/2023 |
| Silica - Reactive | 0.05 | 5.78 mg/L | |
| TKN as N T0112-01(ADEL) | | | 22/08/2023 |
| TKN as Nitrogen | 0.05 | 4.49 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 20.8 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 25.6 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|---|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Alkalinity as Calcium Carbonate | | 212 mg/L | |
| Bicarbonate | | 259 mg/L | |
| Carbonate | | 0 mg/L | |
| Hydroxide | | 0 mg/L | |
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Conductivity | 2 | 68900 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 52300 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.2 pH units | |
| Temperature at which pH is measured | | 21.2 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 12 NTU | |



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Analytical Results

| | |
|---------------------------|-------------------------|
| Sampling Point | 31514-EPA - Stoney Well |
| Sampled Date | 15/08/2023 3:10:00PM |
| Sample Received Date | 16/08/2023 4:27:15PM |
| Sample Analysis Completed | 30/08/2023 12:27:18PM |
| Sample ID | *2023-006-2407 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|---------|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Suspended Solids T0160-01(ADEL) | | | 22/08/2023 |
| Suspended Solids | 1.0 | 30 mg/L | |





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Analytical Results

| | |
|---------------------------|----------------------------|
| Sampling Point | 31525-EPA - Villa de Yumpa |
| Sampled Date | 15/08/2023 3:30:00PM |
| Sample Received Date | 16/08/2023 4:29:07PM |
| Sample Analysis Completed | 30/08/2023 11:09:13AM |
| Sample ID | *2023-006-2400 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--------------------|-----|--------|-----------------|
|--------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Algal Identification T0393(ADEL)

| | |
|-------------------------|---|
| DINOFLAGELLATES | |
| Heterocapsa | 10 cells/mL |
| GREEN ALGAE | |
| Unicellular green algae | 148000 cells/mL |
| Phytoflagellates | 30 cells/mL |
| Chlorella | 1530000 cells/mL |
| Organism - Comment | Chlorella - The identification for this organism is tentative only. |

Sample temperature at time of receipt 4.9°C

Algal Biovolume T0393(ADEL)

15/08/2023

| | |
|------------------------------------|--|
| GREEN ALGAE | |
| Chlorella | 68.8 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 4.9°C

Algal Count - Total T0393(ADEL)

15/08/2023

| | |
|--------------------------|------------------|
| Algae - Total | 1680000 cells/mL |
| Blue Green Algae - Total | 0 cells/mL |
| Diatoms - Total | 0 cells/mL |





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Analytical Results

| | |
|---------------------------|----------------------------|
| Sampling Point | 31525-EPA - Villa de Yumpa |
| Sampled Date | 15/08/2023 3:30:00PM |
| Sample Received Date | 16/08/2023 4:29:07PM |
| Sample Analysis Completed | 30/08/2023 11:09:13AM |
| Sample ID | *2023-006-2400 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | |
|--|------------------|
| Algal Count - Total T0393(ADEL) | 15/08/2023 |
| Geosmin-MIB producing BGA - Total | 0 cells/mL |
| Green Algae - Total | 1680000 cells/mL |
| Toxin producing BGA - Total | 0 cells/mL |

| | |
|---|---------------|
| Sample temperature at time of receipt 4.9°C | |
| Chlorophyll a & Phaeophytin a T0380-02(ADEL) | 17/08/2023 |
| Chlorophyll a | 0.1 156 µg/L |
| Phaeophytin a | 0.1 50.0 µg/L |

| Inorganic Chemistry - Nutrients | LOR | Result | Test Start Date |
|---|-------|------------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Ammonia as N (ADEL) | | | 21/08/2023 |
| # Ammonia as N | 1 | 23 µg/L | |
| Chloride T0104-02(ADEL) | | | 22/08/2023 |
| Chloride | 4.0 | 26900 mg/L | |
| Nitrate + Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrate + Nitrite as N | 0.5 | 2.6 µg/L | |
| # Nitrate + Nitrite as NO3 | 2.3 | 11.5 µg/L | |
| # Nitrate as Nitrogen | | 2.60 µg/L | |
| Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrite as N | 0.5 | <0.5 µg/L | |
| Nitrogen - Total TMZ-M06(ADEL) | | | 16/08/2023 |
| Nitrogen - Total | | 4.06 mg/L | |
| Phosphorus - Filterable Reactive as P (ADEL) | | | 21/08/2023 |
| # Phosphorus -Filterable Reactive as PO4 | 1.5 | 9.867 µg/L | |
| Phosphorus-Filterable Reactive as P | 0.5 | 3.3 µg/L | |
| Phosphorus - Total T0109-44(ADEL) | | | 22/08/2023 |
| Phosphorus - Total | 0.005 | 0.052 mg/L | |
| Silica - Reactive T0111-01(ADEL) | | | 22/08/2023 |
| Silica - Reactive | 0.05 | 6.20 mg/L | |
| TKN as N T0112-01(ADEL) | | | 22/08/2023 |





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Analytical Results

| | |
|---------------------------|----------------------------|
| Sampling Point | 31525-EPA - Villa de Yumpa |
| Sampled Date | 15/08/2023 3:30:00PM |
| Sample Received Date | 16/08/2023 4:29:07PM |
| Sample Analysis Completed | 30/08/2023 11:09:13AM |
| Sample ID | *2023-006-2400 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|--------------------------------|------|-----------|------------|
| TKN as N T0112-01(ADEL) | | | 22/08/2023 |
| TKN as Nitrogen | 0.05 | 4.06 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 20.9 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 25.3 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|---|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| 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) | | | 18/08/2023 |
| Conductivity | 2 | 68600 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 52000 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.2 pH units | |
| Temperature at which pH is measured | | 21.2 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 11 NTU | |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|--------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |





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Analytical Results

| | |
|---------------------------|----------------------------|
| Sampling Point | 31525-EPA - Villa de Yumpa |
| Sampled Date | 15/08/2023 3:30:00PM |
| Sample Received Date | 16/08/2023 4:29:07PM |
| Sample Analysis Completed | 30/08/2023 11:09:13AM |
| Sample ID | *2023-006-2400 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Suspended Solids T0160-01(ADEL)

22/08/2023

| | | |
|------------------|-----|---------|
| Suspended Solids | 1.0 | 22 mg/L |
|------------------|-----|---------|





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Analytical Results

| | |
|---------------------------|------------------------|
| Sampling Point | 31522-EPA - Mark Point |
| Sampled Date | 15/08/2023 3:30:00PM |
| Sample Received Date | 16/08/2023 4:28:24PM |
| Sample Analysis Completed | 30/08/2023 2:32:52PM |
| Sample ID | *2023-006-2419 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--------------------|-----|--------|-----------------|
|--------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Algal Identification T0393(ADEL)

| | | | |
|--------------------------|--|---|--|
| CRYPTOPHYTES | | | |
| Cryptomonads | | 950 cells/mL | |
| DIATOMS | | | |
| Navicula | | 20 cells/mL | |
| Chaetoceros | | 10 cells/mL | |
| GREEN ALGAE | | | |
| Unicellular green algae | | 19800 cells/mL | |
| Chlorella | | 16200 cells/mL | |
| Phytoflagellates | | 8000 cells/mL | |
| Crucigenia | | 410 cells/mL | |
| Chodatella_(Lagerheimia) | | 10 cells/mL | |
| Organism - Comment | | Chlorella - The identification for this organism is tentative only. | |

Sample temperature at time of receipt 4.9°C

Algal Biovolume T0393(ADEL)

15/08/2023

| | | | |
|---------------------------|--|--|--|
| CRYPTOPHYTES | | | |
| Cryptomonads | | 0.20 mm3/L | |
| DIATOMS | | | |
| Navicula | | 0.02 mm3/L | |
| GREEN ALGAE | | | |
| Crucigenia | | 0.01 mm3/L | |
| Chlorella | | 0.73 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 | 31522-EPA - Mark Point |
| Sampled Date | 15/08/2023 3:30:00PM |
| Sample Received Date | 16/08/2023 4:28:24PM |
| Sample Analysis Completed | 30/08/2023 2:32:52PM |
| Sample ID | *2023-006-2419 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Algal Biovolume T0393(ADEL)

15/08/2023

| | |
|------------------------------------|----------------------|
| # 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 4.9°C

Algal Count - Total T0393(ADEL)

15/08/2023

| | |
|-----------------------------------|----------------|
| Algae - Total | 45400 cells/mL |
| Blue Green Algae - Total | 0 cells/mL |
| Diatoms - Total | 30 cells/mL |
| Geosmin-MIB producing BGA - Total | 0 cells/mL |
| Green Algae - Total | 44400 cells/mL |
| Toxin producing BGA - Total | 0 cells/mL |

Sample temperature at time of receipt 4.9°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

17/08/2023

| | | |
|---------------|-----|-----------|
| Chlorophyll a | 0.1 | 9.02 µg/L |
| Phaeophytin a | 0.1 | 5.42 µg/L |

| Inorganic Chemistry - Nutrients | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Ammonia as N (ADEL) | | | 21/08/2023 |
| # Ammonia as N | 1 | 45 µg/L | |
| Chloride T0104-02(ADEL) | | | 24/08/2023 |
| Chloride | 4.0 | 9440 mg/L | |
| Nitrate + Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrate + Nitrite as N | 0.5 | 6.7 µg/L | |
| # Nitrate + Nitrite as NO3 | 2.3 | 29.7 µg/L | |
| # Nitrate as Nitrogen | | 6.46 µg/L | |
| Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrite as N | 0.5 | <0.5 µg/L | |



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Analytical Results

| | |
|---------------------------|------------------------|
| Sampling Point | 31522-EPA - Mark Point |
| Sampled Date | 15/08/2023 3:30:00PM |
| Sample Received Date | 16/08/2023 4:28:24PM |
| Sample Analysis Completed | 30/08/2023 2:32:52PM |
| Sample ID | *2023-006-2419 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|---|-------|-------------|------------|
| Nitrogen - Total TMZ-M06(ADEL) | | | 16/08/2023 |
| Nitrogen - Total | | 1.41 mg/L | |
| Phosphorus - Filterable Reactive as P (ADEL) | | | 21/08/2023 |
| # Phosphorus -Filterable Reactive as PO4 | 1.5 | 12.259 µg/L | |
| Phosphorus-Filterable Reactive as P | 0.5 | 4.1 µg/L | |
| Phosphorus - Total T0109-44(ADEL) | | | 17/08/2023 |
| Phosphorus - Total | 0.005 | <0.005 mg/L | |
| Silica - Reactive T0111-01(ADEL) | | | 24/08/2023 |
| Silica - Reactive | 0.05 | 1.04 mg/L | |
| TKN as N T0112-01(ADEL) | | | 17/08/2023 |
| TKN as Nitrogen | 0.05 | 1.40 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 13.9 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 14.3 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|---|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Alkalinity as Calcium Carbonate | | 137 mg/L | |
| Bicarbonate | | 167 mg/L | |
| Carbonate | | 0 mg/L | |
| Hydroxide | | 0 mg/L | |
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Conductivity | 2 | 26400 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 16700 mg/L | |



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Analytical Results

| | |
|---------------------------|------------------------|
| Sampling Point | 31522-EPA - Mark Point |
| Sampled Date | 15/08/2023 3:30:00PM |
| Sample Received Date | 16/08/2023 4:28:24PM |
| Sample Analysis Completed | 30/08/2023 2:32:52PM |
| Sample ID | *2023-006-2419 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|-------------------------------------|-----|--------------|------------|
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.2 pH units | |
| Temperature at which pH is measured | | 21.2 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 2.2 NTU | |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|--------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Suspended Solids T0160-01(ADEL) | | | 22/08/2023 |
| Suspended Solids | 1.0 | 2 mg/L | |





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Analytical Results

| | |
|---------------------------|------------------------|
| Sampling Point | 31523-EPA - Long Point |
| Sampled Date | 15/08/2023 3:52:00PM |
| Sample Received Date | 16/08/2023 4:28:38PM |
| Sample Analysis Completed | 30/08/2023 11:09:13AM |
| Sample ID | *2023-006-2401 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--------------------|-----|--------|-----------------|
|--------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Algal Identification T0393(ADEL)

| | | | |
|---------------------|--|---|--|
| CRYPTOPHYTES | | | |
| Cryptomonads | | 1050 cells/mL | |
| GREEN ALGAE | | | |
| Chlorella | | 17000 cells/mL | |
| Phytoflagellates | | 3100 cells/mL | |
| Organism - Comment | | Chlorella - The identification for this organism is tentative only. | |

Sample temperature at time of receipt 4.9°C

Algal Biovolume T0393(ADEL)

15/08/2023

| | | | |
|------------------------------------|--|--|--|
| CRYPTOPHYTES | | | |
| Cryptomonads | | 0.22 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. | |
| # Identification | | CHLOROPHYTA_CHLOROPHYCEAE_CHLOROCO CCALES_OOCYSTACEAE_CHLORELLA | |
| # 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 4.9°C

Algal Count - Total T0393(ADEL)

15/08/2023

| | |
|--------------------------|----------------|
| Algae - Total | 21200 cells/mL |
| Blue Green Algae - Total | 0 cells/mL |





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Analytical Results

| | |
|---------------------------|------------------------|
| Sampling Point | 31523-EPA - Long Point |
| Sampled Date | 15/08/2023 3:52:00PM |
| Sample Received Date | 16/08/2023 4:28:38PM |
| Sample Analysis Completed | 30/08/2023 11:09:13AM |
| Sample ID | *2023-006-2401 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Algal Count - Total T0393(ADEL) 15/08/2023

| | |
|-----------------------------------|----------------|
| Diatoms - Total | 0 cells/mL |
| Geosmin-MIB producing BGA - Total | 0 cells/mL |
| Green Algae - Total | 20100 cells/mL |
| Toxin producing BGA - Total | 0 cells/mL |

Sample temperature at time of receipt 4.9°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL) 17/08/2023

| | | |
|---------------|-----|-----------|
| Chlorophyll a | 0.1 | 6.98 µg/L |
| Phaeophytin a | 0.1 | 3.38 µg/L |

| Inorganic Chemistry - Nutrients | LOR | Result | Test Start Date |
|---------------------------------|-----|--------|-----------------|
|---------------------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Ammonia as N (ADEL) 21/08/2023

| | | |
|----------------|---|---------|
| # Ammonia as N | 1 | 36 µg/L |
|----------------|---|---------|

Chloride T0104-02(ADEL) 22/08/2023

| | | |
|----------|-----|------------|
| Chloride | 4.0 | 15600 mg/L |
|----------|-----|------------|

Nitrate + Nitrite as N (ADEL) 21/08/2023

| | | |
|----------------------------|-----|-----------|
| # Nitrate + Nitrite as N | 0.5 | 7.0 µg/L |
| # Nitrate + Nitrite as NO3 | 2.3 | 31.0 µg/L |
| # Nitrate as Nitrogen | | 6.97 µg/L |

Nitrite as N (ADEL) 21/08/2023

| | | |
|----------------|-----|-----------|
| # Nitrite as N | 0.5 | <0.5 µg/L |
|----------------|-----|-----------|

Nitrogen - Total TMZ-M06(ADEL) 16/08/2023

| | | |
|------------------|--|-----------|
| Nitrogen - Total | | 1.73 mg/L |
|------------------|--|-----------|

Phosphorus - Filterable Reactive as P (ADEL) 21/08/2023

| | | |
|--|-----|-------------|
| # Phosphorus -Filterable Reactive as PO4 | 1.5 | 14.651 µg/L |
| Phosphorus-Filterable Reactive as P | 0.5 | 4.9 µg/L |

Phosphorus - Total T0109-44(ADEL) 22/08/2023

| | | |
|--------------------|-------|------------|
| Phosphorus - Total | 0.005 | 0.011 mg/L |
|--------------------|-------|------------|

Silica - Reactive T0111-01(ADEL) 22/08/2023

| | | |
|-------------------|------|-----------|
| Silica - Reactive | 0.05 | 1.49 mg/L |
|-------------------|------|-----------|





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Analytical Results

| | |
|---------------------------|------------------------|
| Sampling Point | 31523-EPA - Long Point |
| Sampled Date | 15/08/2023 3:52:00PM |
| Sample Received Date | 16/08/2023 4:28:38PM |
| Sample Analysis Completed | 30/08/2023 11:09:13AM |
| Sample ID | *2023-006-2401 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|--------------------------------|------|-----------|------------|
| TKN as N T0112-01(ADEL) | | | 22/08/2023 |
| TKN as Nitrogen | 0.05 | 1.72 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 16.0 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 15.9 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|---|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Alkalinity as Calcium Carbonate | | 155 mg/L | |
| Bicarbonate | | 189 mg/L | |
| Carbonate | | 0 mg/L | |
| Hydroxide | | 0 mg/L | |
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Conductivity | 2 | 44300 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 30300 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.1 pH units | |
| Temperature at which pH is measured | | 21.7 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 2.4 NTU | |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|--------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |



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| | |
|---------------------------|------------------------|
| Sampling Point | 31523-EPA - Long Point |
| Sampled Date | 15/08/2023 3:52:00PM |
| Sample Received Date | 16/08/2023 4:28:38PM |
| Sample Analysis Completed | 30/08/2023 11:09:13AM |
| Sample ID | *2023-006-2401 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Suspended Solids T0160-01(ADEL)

22/08/2023

| | | |
|------------------|-----|---------|
| Suspended Solids | 1.0 | 32 mg/L |
|------------------|-----|---------|





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Analytical Results

| | |
|---------------------------|-------------------------|
| Sampling Point | 53032-EPA - Nooneameena |
| Sampled Date | 15/08/2023 4:23:00PM |
| Sample Received Date | 16/08/2023 4:30:30PM |
| Sample Analysis Completed | 30/08/2023 2:19:29PM |
| Sample ID | *2023-006-2418 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--------------------|-----|--------|-----------------|
|--------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Algal Identification T0393(ADEL)

| | | | |
|---------------------|--|---|--|
| CRYPTOPHYTES | | | |
| Cryptomonads | | 20 cells/mL | |
| DIATOMS | | | |
| Naviculoids | | 2 cells/mL | |
| Pennate diatoms | | 10 cells/mL | |
| GREEN ALGAE | | | |
| Chlorella | | 3330 cells/mL | |
| Phytoflagellates | | 20 cells/mL | |
| Organism - Comment | | Chlorella - The identification for this organism is tentative only. | |

Sample temperature at time of receipt 4.9°C

Algal Biovolume T0393(ADEL)

15/08/2023

| | | | |
|------------------------------------|--|--|--|
| CRYPTOPHYTES | | | |
| Cryptomonads | | <0.01 mm3/L | |
| GREEN ALGAE | | | |
| Chlorella | | 0.15 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 | | Not Calculated mm3/L | |
| Total Toxic BGA Biovolume | | 0.00 mm3/L | |

Sample temperature at time of receipt 4.9°C





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Analytical Results

| | |
|---------------------------|-------------------------|
| Sampling Point | 53032-EPA - Nooneameena |
| Sampled Date | 15/08/2023 4:23:00PM |
| Sample Received Date | 16/08/2023 4:30:30PM |
| Sample Analysis Completed | 30/08/2023 2:19:29PM |
| Sample ID | *2023-006-2418 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Algal Count - Total T0393(ADEL)

15/08/2023

| | |
|-----------------------------------|---------------|
| Algae - Total | 3380 cells/mL |
| Blue Green Algae - Total | 0 cells/mL |
| Diatoms - Total | 12 cells/mL |
| Geosmin-MIB producing BGA - Total | 0 cells/mL |
| Green Algae - Total | 3350 cells/mL |
| Toxin producing BGA - Total | 0 cells/mL |

Sample temperature at time of receipt 4.9°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

17/08/2023

| | | |
|---------------|-----|-----------|
| Chlorophyll a | 0.1 | 0.93 µg/L |
| Phaeophytin a | 0.1 | 0.87 µg/L |

| Inorganic Chemistry - Nutrients | LOR | Result | Test Start Date |
|---|-------|-------------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Ammonia as N (ADEL) | | | 21/08/2023 |
| # Ammonia as N | 1 | 21 µg/L | |
| Chloride T0104-02(ADEL) | | | 24/08/2023 |
| Chloride | 4.0 | 20100 mg/L | |
| Nitrate + Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrate + Nitrite as N | 0.5 | 14.6 µg/L | |
| # Nitrate + Nitrite as NO3 | 2.3 | 64.7 µg/L | |
| # Nitrate as Nitrogen | | 12.3 µg/L | |
| Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrite as N | 0.5 | 2.3 µg/L | |
| Nitrogen - Total TMZ-M06(ADEL) | | | 16/08/2023 |
| Nitrogen - Total | | 1.90 mg/L | |
| Phosphorus - Filterable Reactive as P (ADEL) | | | 21/08/2023 |
| # 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) | | | 17/08/2023 |
| Phosphorus - Total | 0.005 | 0.052 mg/L | |



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Analytical Results

| | |
|---------------------------|-------------------------|
| Sampling Point | 53032-EPA - Nooneameena |
| Sampled Date | 15/08/2023 4:23:00PM |
| Sample Received Date | 16/08/2023 4:30:30PM |
| Sample Analysis Completed | 30/08/2023 2:19:29PM |
| Sample ID | *2023-006-2418 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|---|------|-----------|------------|
| Silica - Reactive T0111-01(ADEL) | | | 24/08/2023 |
| Silica - Reactive | 0.05 | 0.37 mg/L | |
| TKN as N T0112-01(ADEL) | | | 17/08/2023 |
| TKN as Nitrogen | 0.05 | 1.89 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 17.4 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 18.3 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|---|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Alkalinity as Calcium Carbonate | | 168 mg/L | |
| Bicarbonate | | 205 mg/L | |
| Carbonate | | 0 mg/L | |
| Hydroxide | | 0 mg/L | |
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Conductivity | 2 | 54900 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 39300 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.2 pH units | |
| Temperature at which pH is measured | | 21.7 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 1.6 NTU | |



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Analytical Results

| | |
|---------------------------|----------------------|
| Sampling Point | 53032-EPA - Noona |
| Sampled Date | 15/08/2023 4:23:00PM |
| Sample Received Date | 16/08/2023 4:30:30PM |
| Sample Analysis Completed | 30/08/2023 2:19:29PM |
| Sample ID | *2023-006-2418 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|---------|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Suspended Solids T0160-01(ADEL) | | | |
| 22/08/2023 | | | |
| Suspended Solids | 1.0 | 46 mg/L | |





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Analytical Results

| | |
|---------------------------|-------------------------|
| Sampling Point | 31515-EPA - Snipe Point |
| Sampled Date | 15/08/2023 4:25:00PM |
| Sample Received Date | 16/08/2023 4:27:29PM |
| Sample Analysis Completed | 30/08/2023 12:07:51PM |
| Sample ID | *2023-006-2403 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--------------------|-----|--------|-----------------|
|--------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Algal Identification T0393(ADEL)

| | |
|-------------------------|---|
| GREEN ALGAE | |
| Chlorella | 1280000 cells/mL |
| Unicellular green algae | 182000 cells/mL |
| Organism - Comment | Chlorella - The identification for this organism is tentative only. |

Sample temperature at time of receipt 4.9°C

Algal Biovolume T0393(ADEL)

15/08/2023

| | |
|------------------------------------|--|
| GREEN ALGAE | |
| Chlorella | 57.6 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 4.9°C

Algal Count - Total T0393(ADEL)

15/08/2023

| | |
|-----------------------------------|------------------|
| Algae - Total | 1460000 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 | 1460000 cells/mL |
| Toxin producing BGA - Total | 0 cells/mL |





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Analytical Results

| | |
|---------------------------|-------------------------|
| Sampling Point | 31515-EPA - Snipe Point |
| Sampled Date | 15/08/2023 4:25:00PM |
| Sample Received Date | 16/08/2023 4:27:29PM |
| Sample Analysis Completed | 30/08/2023 12:07:51PM |
| Sample ID | *2023-006-2403 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Sample temperature at time of receipt 4.9°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

17/08/2023

| | | |
|---------------|-----|-----------|
| Chlorophyll a | 0.1 | 117 µg/L |
| Phaeophytin a | 0.1 | 38.0 µg/L |

| Inorganic Chemistry - Nutrients | LOR | Result | Test Start Date |
|--|-------|-------------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Ammonia as N (ADEL) | | | 21/08/2023 |
| # Ammonia as N | 1 | 16 µg/L | |
| Chloride T0104-02(ADEL) | | | 22/08/2023 |
| Chloride | 4.0 | 25000 mg/L | |
| Nitrate + Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrate + Nitrite as N | 0.5 | 2.5 µg/L | |
| # Nitrate + Nitrite as NO ₃ | 2.3 | 11.1 µg/L | |
| # Nitrate as Nitrogen | | 2.50 µg/L | |
| Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrite as N | 0.5 | <0.5 µg/L | |
| Nitrogen - Total TMZ-M06(ADEL) | | | 16/08/2023 |
| Nitrogen - Total | | 3.86 mg/L | |
| Phosphorus - Filterable Reactive as P (ADEL) | | | 21/08/2023 |
| # Phosphorus -Filterable Reactive as PO ₄ | 1.5 | 17.342 µg/L | |
| Phosphorus-Filterable Reactive as P | 0.5 | 5.8 µg/L | |
| Phosphorus - Total T0109-44(ADEL) | | | 22/08/2023 |
| Phosphorus - Total | 0.005 | 0.081 mg/L | |
| Silica - Reactive T0111-01(ADEL) | | | 22/08/2023 |
| Silica - Reactive | 0.05 | 7.09 mg/L | |
| TKN as N T0112-01(ADEL) | | | 22/08/2023 |
| TKN as Nitrogen | 0.05 | 3.86 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|-------------------|-----|--------|-----------------|
|-------------------|-----|--------|-----------------|



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Analytical Results

| | |
|---------------------------|-------------------------|
| Sampling Point | 31515-EPA - Snipe Point |
| Sampled Date | 15/08/2023 4:25:00PM |
| Sample Received Date | 16/08/2023 4:27:29PM |
| Sample Analysis Completed | 30/08/2023 12:07:51PM |
| Sample ID | *2023-006-2403 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Sample temperature at time of receipt 4.9°C

| | | | |
|--|---|-----------|------------|
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 19.5 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 24.8 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|---|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Alkalinity as Calcium Carbonate | | 235 mg/L | |
| Bicarbonate | | 286 mg/L | |
| Carbonate | | 0 mg/L | |
| Hydroxide | | 0 mg/L | |
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Conductivity | 2 | 66300 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 49800 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.2 pH units | |
| Temperature at which pH is measured | | 21.2 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 9.9 NTU | |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|---------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Suspended Solids T0160-01(ADEL) | | | 22/08/2023 |
| Suspended Solids | 1.0 | 22 mg/L | |



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Analytical Results

| | |
|---------------------------|-----------------------|
| Sampling Point | 31524-EPA - Bonneys |
| Sampled Date | 15/08/2023 4:40:00PM |
| Sample Received Date | 16/08/2023 4:28:52PM |
| Sample Analysis Completed | 30/08/2023 12:45:42PM |
| Sample ID | *2023-006-2414 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--------------------|-----|--------|-----------------|
|--------------------|-----|--------|-----------------|

| | | | |
|--|--|--|------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Algal Identification T0393(ADEL) | | | 15/08/2023 |

| | | |
|-------------------------|--|---|
| DIATOMS | | |
| Pennate diatoms | | 10 cells/mL |
| Meridion | | 2 cells/mL |
| GREEN ALGAE | | |
| Chlorella | | 12600 cells/mL |
| Unicellular green algae | | 5200 cells/mL |
| Phytoflagellates | | 50 cells/mL |
| Organism - Comment | | Chlorella - The identification for this organism is tentative only. |

| | | | |
|--|--|--|------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Algal Biovolume T0393(ADEL) | | | 15/08/2023 |

| | | |
|------------------------------------|--|--|
| GREEN ALGAE | | |
| Chlorella | | 0.57 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 | | Not Calculated mm3/L |
| Total Toxic BGA Biovolume | | 0.00 mm3/L |

| | | | |
|--|--|--|------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Algal Count - Total T0393(ADEL) | | | 15/08/2023 |

| | |
|--------------------------|----------------|
| Algae - Total | 17900 cells/mL |
| Blue Green Algae - Total | 0 cells/mL |





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| Sample ID | *2023-006-2414 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Algal Count - Total T0393(ADEL) 15/08/2023

| | |
|-----------------------------------|----------------|
| Diatoms - Total | 12 cells/mL |
| Geosmin-MIB producing BGA - Total | 0 cells/mL |
| Green Algae - Total | 17800 cells/mL |
| Toxin producing BGA - Total | 0 cells/mL |

Sample temperature at time of receipt 4.9°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL) 17/08/2023

| | | |
|---------------|-----|-----------|
| Chlorophyll a | 0.1 | 1.79 µg/L |
| Phaeophytin a | 0.1 | 1.92 µg/L |

| Inorganic Chemistry - Nutrients | LOR | Result | Test Start Date |
|---------------------------------|-----|--------|-----------------|
|---------------------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Ammonia as N (ADEL) 21/08/2023

| | | |
|----------------|---|---------|
| # Ammonia as N | 1 | 24 µg/L |
|----------------|---|---------|

Chloride T0104-02(ADEL) 24/08/2023

| | | |
|----------|-----|------------|
| Chloride | 4.0 | 21800 mg/L |
|----------|-----|------------|

Nitrate + Nitrite as N (ADEL) 21/08/2023

| | | |
|----------------------------|-----|-----------|
| # Nitrate + Nitrite as N | 0.5 | 33.8 µg/L |
| # Nitrate + Nitrite as NO3 | 2.3 | 150 µg/L |
| # Nitrate as Nitrogen | | 31.4 µg/L |

Nitrite as N (ADEL) 21/08/2023

| | | |
|----------------|-----|----------|
| # Nitrite as N | 0.5 | 2.4 µg/L |
|----------------|-----|----------|

Nitrogen - Total TMZ-M06(ADEL) 16/08/2023

| | | |
|------------------|--|-----------|
| Nitrogen - Total | | 1.85 mg/L |
|------------------|--|-----------|

Phosphorus - Filterable Reactive as P (ADEL) 21/08/2023

| | | |
|--|-----|-------------|
| # Phosphorus -Filterable Reactive as PO4 | 1.5 | 20.332 µg/L |
| Phosphorus-Filterable Reactive as P | 0.5 | 6.8 µg/L |

Phosphorus - Total T0109-44(ADEL) 17/08/2023

| | | |
|--------------------|-------|------------|
| Phosphorus - Total | 0.005 | 0.012 mg/L |
|--------------------|-------|------------|

Silica - Reactive T0111-01(ADEL) 24/08/2023

| | | |
|-------------------|------|-----------|
| Silica - Reactive | 0.05 | 0.91 mg/L |
|-------------------|------|-----------|





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| Sample Received Date | 16/08/2023 4:28:52PM |
| Sample Analysis Completed | 30/08/2023 12:45:42PM |
| Sample ID | *2023-006-2414 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|--------------------------------|------|-----------|------------|
| TKN as N T0112-01(ADEL) | | | 17/08/2023 |
| TKN as Nitrogen | 0.05 | 1.82 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 19.1 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 19.3 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|---|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Alkalinity as Calcium Carbonate | | 185 mg/L | |
| Bicarbonate | | 212 mg/L | |
| Carbonate | | 6 mg/L | |
| Hydroxide | | 0 mg/L | |
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Conductivity | 2 | 59000 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 43000 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.3 pH units | |
| Temperature at which pH is measured | | 21.7 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 3.0 NTU | |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|--------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |





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| Sample Received Date | 16/08/2023 4:28:52PM |
| Sample Analysis Completed | 30/08/2023 12:45:42PM |
| Sample ID | *2023-006-2414 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Suspended Solids T0160-01(ADEL)

22/08/2023

| | | |
|------------------|-----|---------|
| Suspended Solids | 1.0 | 18 mg/L |
|------------------|-----|---------|





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Analytical Results

| | |
|---------------------------|--------------------------------|
| Sampling Point | 31512-EPA - McGrath Flat North |
| Sampled Date | 15/08/2023 5:16:00PM |
| Sample Received Date | 16/08/2023 4:26:47PM |
| Sample Analysis Completed | 30/08/2023 12:27:18PM |
| Sample ID | *2023-006-2408 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--------------------|-----|--------|-----------------|
|--------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Algal Identification T0393(ADEL)

| | | | |
|-------------------------|--|-----------------|--|
| DIATOMS | | | |
| Pennate diatoms | | 24 cells/mL | |
| Naviculoids | | 417 cells/mL | |
| GREEN ALGAE | | | |
| Unicellular green algae | | 111000 cells/mL | |
| Chlorella | | 484000 cells/mL | |

Sample temperature at time of receipt 4.9°C

Algal Biovolume T0393(ADEL)

15/08/2023

| | | | |
|------------------------------------|--|--|-------|
| 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 | | 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 4.9°C

Algal Count - Total T0393(ADEL)

15/08/2023

| | |
|-----------------------------------|-----------------|
| Algae - Total | 595000 cells/mL |
| Blue Green Algae - Total | 0 cells/mL |
| Diatoms - Total | 441 cells/mL |
| Geosmin-MIB producing BGA - Total | 0 cells/mL |
| Green Algae - Total | 595000 cells/mL |





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|---------------------------|--------------------------------|
| Sampling Point | 31512-EPA - McGrath Flat North |
| Sampled Date | 15/08/2023 5:16:00PM |
| Sample Received Date | 16/08/2023 4:26:47PM |
| Sample Analysis Completed | 30/08/2023 12:27:18PM |
| Sample ID | *2023-006-2408 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | |
|--|------------|
| Algal Count - Total T0393(ADEL) | 15/08/2023 |
| Toxin producing BGA - Total | 0 cells/mL |

| | |
|---|---------------|
| Sample temperature at time of receipt 4.9°C | |
| Chlorophyll a & Phaeophytin a T0380-02(ADEL) | 17/08/2023 |
| Chlorophyll a | 0.1 24.3 µg/L |
| Phaeophytin a | 0.1 12.9 µg/L |

| Inorganic Chemistry - Nutrients | LOR | Result | Test Start Date |
|---|-------|-------------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Ammonia as N (ADEL) | | | 21/08/2023 |
| # Ammonia as N | 1 | 50 µg/L | |
| Chloride T0104-02(ADEL) | | | 22/08/2023 |
| Chloride | 4.0 | 25500 mg/L | |
| Nitrate + Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrate + Nitrite as N | 0.5 | 9.7 µg/L | |
| # Nitrate + Nitrite as NO3 | 2.3 | 43.0 µg/L | |
| # Nitrate as Nitrogen | | 6.40 µg/L | |
| Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrite as N | 0.5 | 3.3 µg/L | |
| Nitrogen - Total TMZ-M06(ADEL) | | | 16/08/2023 |
| Nitrogen - Total | | 3.13 mg/L | |
| Phosphorus - Filterable Reactive as P (ADEL) | | | 21/08/2023 |
| # Phosphorus -Filterable Reactive as PO4 | 1.5 | 30.498 µg/L | |
| Phosphorus-Filterable Reactive as P | 0.5 | 10.2 µg/L | |
| Phosphorus - Total T0109-44(ADEL) | | | 22/08/2023 |
| Phosphorus - Total | 0.005 | <0.005 mg/L | |
| Silica - Reactive T0111-01(ADEL) | | | 22/08/2023 |
| Silica - Reactive | 0.05 | 0.58 mg/L | |
| TKN as N T0112-01(ADEL) | | | 22/08/2023 |
| TKN as Nitrogen | 0.05 | 3.12 mg/L | |



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Analytical Results

| | |
|---------------------------|--------------------------------|
| Sampling Point | 31512-EPA - McGrath Flat North |
| Sampled Date | 15/08/2023 5:16:00PM |
| Sample Received Date | 16/08/2023 4:26:47PM |
| Sample Analysis Completed | 30/08/2023 12:27:18PM |
| Sample ID | *2023-006-2408 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Organic Chemistry | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 22.4 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 24.7 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|---|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Alkalinity as Calcium Carbonate | | 187 mg/L | |
| Bicarbonate | | 193 mg/L | |
| Carbonate | | 17 mg/L | |
| Hydroxide | | 0 mg/L | |
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Conductivity | 2 | 68000 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 51400 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.4 pH units | |
| Temperature at which pH is measured | | 21.2 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 7.0 NTU | |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|--------|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Suspended Solids T0160-01(ADEL) | | | 22/08/2023 |
| Suspended Solids | 1.0 | 6 mg/L | |



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Analytical Results

| | |
|---------------------------|------------------------------------|
| Sampling Point | 315191-EPA - Morella Creek @ guage |
| Sampled Date | 16/08/2023 7:45:00AM |
| Sample Received Date | 16/08/2023 4:28:10PM |
| Sample Analysis Completed | 30/08/2023 12:27:19PM |
| Sample ID | *2023-006-2410 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--------------------|-----|--------|-----------------|
|--------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Algal Identification T0393(ADEL)

16/08/2023

DIATOMS

| | |
|-------------|-------------|
| Gyrosigma | 2 cells/mL |
| Synedra | 10 cells/mL |
| Naviculoids | 2 cells/mL |

GREEN ALGAE

| | |
|-----------------------------|---|
| Chlorella | 48000 cells/mL |
| Monoraphidium sp_2_(short) | 1300 cells/mL |
| Unicellular green algae | 1400 cells/mL |
| Phytoflagellates small_spp | 1300 cells/mL |
| Colonial green algae | 200 cells/mL |
| Oocystis sp_1_(small_cells) | 525 cells/mL |
| Organism - Comment | Chlorella - The identification for this organism is tentative only. |

Sample temperature at time of receipt 4.9°C

Algal Biovolume T0393(ADEL)

16/08/2023

DIATOMS

| | |
|---------|-------------|
| Synedra | <0.01 mm3/L |
|---------|-------------|

GREEN ALGAE

| | |
|-----------------------------|--|
| Oocystis sp_1_(small_cells) | <0.01 mm3/L |
| Chlorella | 0.09 mm3/L |
| Colonial green algae | 2.16 mm3/L |
| Phytoflagellates small_spp | 0.02 mm3/L |
| Monoraphidium sp_2_(short) | 0.10 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. |



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| Sample ID | *2023-006-2410 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Algal Biovolume T0393(ADEL)

16/08/2023

| | |
|------------------------------------|----------------------|
| # 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 4.9°C

Algal Count - Total T0393(ADEL)

16/08/2023

| | |
|-----------------------------------|----------------|
| Algae - Total | 52700 cells/mL |
| Blue Green Algae - Total | 0 cells/mL |
| Diatoms - Total | 14 cells/mL |
| Geosmin-MIB producing BGA - Total | 0 cells/mL |
| Green Algae - Total | 52700 cells/mL |
| Toxin producing BGA - Total | 0 cells/mL |

Sample temperature at time of receipt 4.9°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

17/08/2023

| | | |
|---------------|-----|-----------|
| Chlorophyll a | 0.1 | 1.75 µg/L |
| Phaeophytin a | 0.1 | 1.00 µg/L |

| Inorganic Chemistry - Nutrients | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Ammonia as N (ADEL) | | | 21/08/2023 |
| # Ammonia as N | 1 | 37 µg/L | |
| Chloride T0104-02(ADEL) | | | 22/08/2023 |
| Chloride | 4.0 | 3940 mg/L | |
| Nitrate + Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrate + Nitrite as N | 0.5 | 11.7 µg/L | |
| # Nitrate + Nitrite as NO3 | 2.3 | 51.8 µg/L | |
| # Nitrate as Nitrogen | | 10.5 µg/L | |
| Nitrite as N (ADEL) | | | 21/08/2023 |



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| Sample Analysis Completed | 30/08/2023 12:27:19PM |
| Sample ID | *2023-006-2410 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|---|-------|-------------|------------|
| Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrite as N | 0.5 | 1.2 µg/L | |
| Nitrogen - Total TMZ-M06(ADEL) | | | 16/08/2023 |
| Nitrogen - Total | | 1.19 mg/L | |
| Phosphorus - Filterable Reactive as P (ADEL) | | | 21/08/2023 |
| # Phosphorus -Filterable Reactive as PO4 | 1.5 | 12.558 µg/L | |
| Phosphorus-Filterable Reactive as P | 0.5 | 4.2 µg/L | |
| Phosphorus - Total T0109-44(ADEL) | | | 22/08/2023 |
| Phosphorus - Total | 0.005 | <0.005 mg/L | |
| Silica - Reactive T0111-01(ADEL) | | | 22/08/2023 |
| Silica - Reactive | 0.05 | 12.9 mg/L | |
| TKN as N T0112-01(ADEL) | | | 22/08/2023 |
| TKN as Nitrogen | 0.05 | 1.18 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 10.2 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 10.1 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|-------------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Alkalinity as Calcium Carbonate | | 363 mg/L | |
| Bicarbonate | | 391 mg/L | |
| Carbonate | | 26 mg/L | |
| Hydroxide | | 0 mg/L | |
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Conductivity | 2 | 12600 µS/cm | |



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| Sample ID | *2023-006-2410 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|---|-----|---|------------|
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 7430 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.6 pH units | |
| Temperature at which pH is measured | | 21.6 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 1.8 NTU | |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|---------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Suspended Solids T0160-01(ADEL) | | | 22/08/2023 |
| Suspended Solids | 1.0 | 11 mg/L | |





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Analytical Results

| | |
|---------------------------|---|
| Sampling Point | 31519-EPA - Morella Basin at Outlet Regulator |
| Sampled Date | 16/08/2023 8:00:00AM |
| Sample Received Date | 16/08/2023 4:27:56PM |
| Sample Analysis Completed | 30/08/2023 12:27:18PM |
| Sample ID | *2023-006-2409 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--------------------|-----|--------|-----------------|
|--------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Algal Identification T0393(ADEL)

| | | | |
|-----------------------------|--|---|--|
| BLUE GREEN ALGAE | | | |
| Merismopedia | | 80 cells/mL | |
| DIATOMS | | | |
| Navicula | | 10 cells/mL | |
| Pennate diatoms | | 30 cells/mL | |
| Thalassionema | | 4 cells/mL | |
| GREEN ALGAE | | | |
| Oocystis sp_1_(small_cells) | | 483 cells/mL | |
| Chlorella | | 103000 cells/mL | |
| Monoraphidium | | 10 cells/mL | |
| Phytoflagellates small_spp | | 40 cells/mL | |
| Unicellular green algae | | 7670 cells/mL | |
| Organism - Comment | | Chlorella - The identification for this organism is tentative only. | |

Sample temperature at time of receipt 4.9°C

Algal Biovolume T0393(ADEL)

16/08/2023

| | | | |
|-----------------------------|--|-------------|--|
| BLUE GREEN ALGAE | | | |
| Merismopedia | | <0.01 mm3/L | |
| DIATOMS | | | |
| Navicula | | 0.01 mm3/L | |
| GREEN ALGAE | | | |
| Phytoflagellates small_spp | | <0.01 mm3/L | |
| Monoraphidium | | <0.01 mm3/L | |
| Oocystis sp_1_(small_cells) | | 0.08 mm3/L | |
| Chlorella | | 4.64 mm3/L | |





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| | |
|---------------------------|---|
| Sampling Point | 31519-EPA - Morella Basin at Outlet Regulator |
| Sampled Date | 16/08/2023 8:00:00AM |
| Sample Received Date | 16/08/2023 4:27:56PM |
| Sample Analysis Completed | 30/08/2023 12:27:18PM |
| Sample ID | *2023-006-2409 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Algal Biovolume T0393(ADEL)

16/08/2023

| | |
|------------------------------------|--|
| # 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 | <0.01 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 4.9°C

Algal Count - Total T0393(ADEL)

16/08/2023

| | |
|-----------------------------------|-----------------|
| Algae - Total | 111000 cells/mL |
| Blue Green Algae - Total | 80 cells/mL |
| Diatoms - Total | 44 cells/mL |
| Geosmin-MIB producing BGA - Total | 0 cells/mL |
| Green Algae - Total | 111000 cells/mL |
| Toxin producing BGA - Total | 0 cells/mL |

Sample temperature at time of receipt 4.9°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

17/08/2023

| | | |
|---------------|-----|-----------|
| Chlorophyll a | 0.1 | 2.38 µg/L |
| Phaeophytin a | 0.1 | 1.16 µg/L |

Inorganic Chemistry - Nutrients

LOR

Result

Test Start Date

Sample temperature at time of receipt 4.9°C

Ammonia as N (ADEL)

21/08/2023

| | | |
|----------------|---|---------|
| # Ammonia as N | 1 | 57 µg/L |
|----------------|---|---------|

Chloride T0104-02(ADEL)

22/08/2023

| | | |
|----------|-----|-----------|
| Chloride | 4.0 | 3860 mg/L |
|----------|-----|-----------|



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Analytical Results

| | |
|---------------------------|---|
| Sampling Point | 31519-EPA - Morella Basin at Outlet Regulator |
| Sampled Date | 16/08/2023 8:00:00AM |
| Sample Received Date | 16/08/2023 4:27:56PM |
| Sample Analysis Completed | 30/08/2023 12:27:18PM |
| Sample ID | *2023-006-2409 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|---|-------|-------------|------------|
| Nitrate + Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrate + Nitrite as N | 0.5 | 13.1 µg/L | |
| # Nitrate + Nitrite as NO3 | 2.3 | 58.0 µg/L | |
| # Nitrate as Nitrogen | | 12.0 µg/L | |
| Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrite as N | 0.5 | 1.1 µg/L | |
| Nitrogen - Total TMZ-M06(ADEL) | | | 16/08/2023 |
| Nitrogen - Total | | 1.06 mg/L | |
| Phosphorus - Filterable Reactive as P (ADEL) | | | 21/08/2023 |
| # Phosphorus -Filterable Reactive as PO4 | 1.5 | 14.95 µg/L | |
| Phosphorus-Filterable Reactive as P | 0.5 | 5.0 µg/L | |
| Phosphorus - Total T0109-44(ADEL) | | | 22/08/2023 |
| Phosphorus - Total | 0.005 | <0.005 mg/L | |
| Silica - Reactive T0111-01(ADEL) | | | 22/08/2023 |
| Silica - Reactive | 0.05 | 12.9 mg/L | |
| TKN as N T0112-01(ADEL) | | | 22/08/2023 |
| TKN as Nitrogen | 0.05 | 1.05 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 10.0 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 10.6 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|----------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Alkalinity as Calcium Carbonate | | 360 mg/L | |
| Bicarbonate | | 385 mg/L | |





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| | |
|---------------------------|---|
| Sampling Point | 31519-EPA - Morella Basin at Outlet Regulator |
| Sampled Date | 16/08/2023 8:00:00AM |
| Sample Received Date | 16/08/2023 4:27:56PM |
| Sample Analysis Completed | 30/08/2023 12:27:18PM |
| Sample ID | *2023-006-2409 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|--|-----|---|------------|
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Carbonate | | 27 mg/L | |
| Hydroxide | | 0 mg/L | |
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Conductivity | 2 | 12500 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 7360 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.6 pH units | |
| Temperature at which pH is measured | | 21.7 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 2.3 NTU | |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|---------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Suspended Solids T0160-01(ADEL) | | | 22/08/2023 |
| Suspended Solids | 1.0 | 18 mg/L | |



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Analytical Results

| | |
|---------------------------|-------------------------------|
| Sampling Point | 31528-EPA - Salt Creek Outlet |
| Sampled Date | 16/08/2023 8:05:00AM |
| Sample Received Date | 16/08/2023 4:29:34PM |
| Sample Analysis Completed | 30/08/2023 2:19:29PM |
| Sample ID | *2023-006-2415 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--------------------|-----|--------|-----------------|
|--------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Algal Identification T0393(ADEL)

GREEN ALGAE

| | |
|-------------------------|---|
| Monoraphidium | 10 cells/mL |
| Unicellular green algae | 108000 cells/mL |
| Phytoflagellates | 20 cells/mL |
| Chlorella | 1320000 cells/mL |
| Organism - Comment | Chlorella - The identification for this organism is tentative only. |

Sample temperature at time of receipt 4.9°C

Algal Biovolume T0393(ADEL)

16/08/2023

GREEN ALGAE

| | |
|------------------------------------|--|
| Monoraphidium | <0.01 mm3/L |
| Chlorella | 59.4 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 4.9°C

Algal Count - Total T0393(ADEL)

16/08/2023

| | |
|--------------------------|------------------|
| Algae - Total | 1430000 cells/mL |
| Blue Green Algae - Total | 0 cells/mL |
| Diatoms - Total | 0 cells/mL |





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Analytical Results

| | |
|---------------------------|-------------------------------|
| Sampling Point | 31528-EPA - Salt Creek Outlet |
| Sampled Date | 16/08/2023 8:05:00AM |
| Sample Received Date | 16/08/2023 4:29:34PM |
| Sample Analysis Completed | 30/08/2023 2:19:29PM |
| Sample ID | *2023-006-2415 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | |
|--|------------------|
| Algal Count - Total T0393(ADEL) | 16/08/2023 |
| Geosmin-MIB producing BGA - Total | 0 cells/mL |
| Green Algae - Total | 1430000 cells/mL |
| Toxin producing BGA - Total | 0 cells/mL |

| | |
|---|---------------|
| Sample temperature at time of receipt 4.9°C | |
| Chlorophyll a & Phaeophytin a T0380-02(ADEL) | 17/08/2023 |
| Chlorophyll a | 0.1 132 µg/L |
| Phaeophytin a | 0.1 41.9 µg/L |

| Inorganic Chemistry - Nutrients | LOR | Result | Test Start Date |
|---|-------|-------------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Ammonia as N (ADEL) | | | 21/08/2023 |
| # Ammonia as N | 1 | 23 µg/L | |
| Chloride T0104-02(ADEL) | | | 24/08/2023 |
| Chloride | 4.0 | 24900 mg/L | |
| Nitrate + Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrate + Nitrite as N | 0.5 | 2.6 µg/L | |
| # Nitrate + Nitrite as NO3 | 2.3 | 11.5 µg/L | |
| # Nitrate as Nitrogen | | 2.58 µg/L | |
| Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrite as N | 0.5 | <0.5 µg/L | |
| Nitrogen - Total TMZ-M06(ADEL) | | | 16/08/2023 |
| Nitrogen - Total | | 3.79 mg/L | |
| Phosphorus - Filterable Reactive as P (ADEL) | | | 21/08/2023 |
| # Phosphorus -Filterable Reactive as PO4 | 1.5 | 21.528 µg/L | |
| Phosphorus-Filterable Reactive as P | 0.5 | 7.2 µg/L | |
| Phosphorus - Total T0109-44(ADEL) | | | 22/08/2023 |
| Phosphorus - Total | 0.005 | 0.053 mg/L | |
| Silica - Reactive T0111-01(ADEL) | | | 24/08/2023 |
| Silica - Reactive | 0.05 | 7.24 mg/L | |
| TKN as N T0112-01(ADEL) | | | 22/08/2023 |





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Analytical Results

| | |
|---------------------------|-------------------------------|
| Sampling Point | 31528-EPA - Salt Creek Outlet |
| Sampled Date | 16/08/2023 8:05:00AM |
| Sample Received Date | 16/08/2023 4:29:34PM |
| Sample Analysis Completed | 30/08/2023 2:19:29PM |
| Sample ID | *2023-006-2415 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|--------------------------------|------|-----------|------------|
| TKN as N T0112-01(ADEL) | | | 22/08/2023 |
| TKN as Nitrogen | 0.05 | 3.79 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 20.2 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 24.8 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|---|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Alkalinity as Calcium Carbonate | | 237 mg/L | |
| Bicarbonate | | 290 mg/L | |
| Carbonate | | 0 mg/L | |
| Hydroxide | | 0 mg/L | |
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Conductivity | 2 | 65900 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 49400 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.1 pH units | |
| Temperature at which pH is measured | | 21.2 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 8.5 NTU | |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|--------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |



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Analytical Results

| | |
|---------------------------|-------------------------------|
| Sampling Point | 31528-EPA - Salt Creek Outlet |
| Sampled Date | 16/08/2023 8:05:00AM |
| Sample Received Date | 16/08/2023 4:29:34PM |
| Sample Analysis Completed | 30/08/2023 2:19:29PM |
| Sample ID | *2023-006-2415 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Suspended Solids T0160-01(ADEL)

22/08/2023

| | | |
|------------------|-----|---------|
| Suspended Solids | 1.0 | 20 mg/L |
|------------------|-----|---------|





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Analytical Results

| | |
|---------------------------|-----------------------------------|
| Sampling Point | 31517-EPA - 1.8km West Salt Creek |
| Sampled Date | 16/08/2023 8:20:00AM |
| Sample Received Date | 16/08/2023 4:27:43PM |
| Sample Analysis Completed | 30/08/2023 12:07:51PM |
| Sample ID | *2023-006-2406 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--------------------|-----|--------|-----------------|
|--------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Algal Identification T0393(ADEL)

| | |
|-------------------------|---|
| GREEN ALGAE | |
| Unicellular green algae | 98000 cells/mL |
| Chlorella | 1470000 cells/mL |
| Organism - Comment | Chlorella - The identification for this organism is tentative only. |

Sample temperature at time of receipt 4.9°C

Algal Biovolume T0393(ADEL)

16/08/2023

| | |
|------------------------------------|--|
| GREEN ALGAE | |
| Chlorella | 66.2 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 4.9°C

Algal Count - Total T0393(ADEL)

16/08/2023

| | |
|-----------------------------------|------------------|
| Algae - Total | 1570000 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 | 1570000 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 | 16/08/2023 8:20:00AM |
| Sample Received Date | 16/08/2023 4:27:43PM |
| Sample Analysis Completed | 30/08/2023 12:07:51PM |
| Sample ID | *2023-006-2406 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Sample temperature at time of receipt 4.9°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

17/08/2023

| | | |
|---------------|-----|-----------|
| Chlorophyll a | 0.1 | 114 µg/L |
| Phaeophytin a | 0.1 | 38.0 µg/L |

| Inorganic Chemistry - Nutrients | LOR | Result | Test Start Date |
|---|-------|-------------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Ammonia as N (ADEL) | | | 21/08/2023 |
| # Ammonia as N | 1 | 17 µg/L | |
| Chloride T0104-02(ADEL) | | | 22/08/2023 |
| Chloride | 4.0 | 24500 mg/L | |
| Nitrate + Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrate + Nitrite as N | 0.5 | 3.6 µg/L | |
| # Nitrate + Nitrite as NO3 | 2.3 | 15.9 µg/L | |
| # Nitrate as Nitrogen | | 3.57 µg/L | |
| Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrite as N | 0.5 | <0.5 µg/L | |
| Nitrogen - Total TMZ-M06(ADEL) | | | 16/08/2023 |
| Nitrogen - Total | | 3.47 mg/L | |
| Phosphorus - Filterable Reactive as P (ADEL) | | | 21/08/2023 |
| # Phosphorus -Filterable Reactive as PO4 | 1.5 | 24.219 µg/L | |
| Phosphorus-Filterable Reactive as P | 0.5 | 8.1 µg/L | |
| Phosphorus - Total T0109-44(ADEL) | | | 22/08/2023 |
| Phosphorus - Total | 0.005 | <0.005 mg/L | |
| Silica - Reactive T0111-01(ADEL) | | | 22/08/2023 |
| Silica - Reactive | 0.05 | 7.35 mg/L | |
| TKN as N T0112-01(ADEL) | | | 22/08/2023 |
| TKN as Nitrogen | 0.05 | 3.47 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|-------------------|-----|--------|-----------------|
|-------------------|-----|--------|-----------------|



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Analytical Results

| | |
|---------------------------|-----------------------------------|
| Sampling Point | 31517-EPA - 1.8km West Salt Creek |
| Sampled Date | 16/08/2023 8:20:00AM |
| Sample Received Date | 16/08/2023 4:27:43PM |
| Sample Analysis Completed | 30/08/2023 12:07:51PM |
| Sample ID | *2023-006-2406 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Sample temperature at time of receipt 4.9°C

| | | | |
|--|---|-----------|------------|
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 20.5 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 25.8 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--------------------------------|-----|--------|-----------------|
|--------------------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

| | | | |
|--|-----|---|------------|
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Alkalinity as Calcium Carbonate | | 237 mg/L | |
| Bicarbonate | | 289 mg/L | |
| Carbonate | | 0 mg/L | |
| Hydroxide | | 0 mg/L | |
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Conductivity | 2 | 65700 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 49200 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.2 pH units | |
| Temperature at which pH is measured | | 21.2 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 9.0 NTU | |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|-----------------------------------|-----|--------|-----------------|
|-----------------------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

| | | | |
|--|-----|---------|------------|
| Suspended Solids T0160-01(ADEL) | | | 22/08/2023 |
| Suspended Solids | 1.0 | 23 mg/L | |



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Analytical Results

| | |
|---------------------------|---|
| Sampling Point | 300713-Tilley Swamp Drain D/S Northern Outlet |
| Sampled Date | 16/08/2023 8:37:00AM |
| Sample Received Date | 16/08/2023 4:26:19PM |
| Sample Analysis Completed | 30/08/2023 12:45:42PM |
| Sample ID | *2023-006-2411 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--------------------|-----|--------|-----------------|
|--------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Algal Identification T0393(ADEL)

| | | | |
|----------------------------|--|----------------|--|
| CRYPTOPHYTES | | | |
| Cryptomonads | | 50 cells/mL | |
| DIATOMS | | | |
| Pennate diatoms | | 246 cells/mL | |
| Gyrosigma | | 2 cells/mL | |
| Chaetoceros | | 10 cells/mL | |
| Naviculoids | | 1830 cells/mL | |
| DINOFLAGELLATES | | | |
| Peridinium | | 2 cells/mL | |
| GREEN ALGAE | | | |
| Monoraphidium | | 30 cells/mL | |
| Tetraselmis | | 183 cells/mL | |
| Unicellular green algae | | 3000 cells/mL | |
| Phytoflagellates small_spp | | 33300 cells/mL | |

Sample temperature at time of receipt 4.9°C

Algal Biovolume T0393(ADEL)

16/08/2023

| | | | |
|----------------------------|--|-------------|--|
| CRYPTOPHYTES | | | |
| Cryptomonads | | 0.01 mm3/L | |
| DIATOMS | | | |
| Gyrosigma | | <0.01 mm3/L | |
| DINOFLAGELLATES | | | |
| Peridinium | | 0.08 mm3/L | |
| GREEN ALGAE | | | |
| Monoraphidium | | 0.03 mm3/L | |
| Phytoflagellates small_spp | | 2.60 mm3/L | |





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Analytical Results

| | |
|---------------------------|---|
| Sampling Point | 300713-Tilley Swamp Drain D/S Northern Outlet |
| Sampled Date | 16/08/2023 8:37:00AM |
| Sample Received Date | 16/08/2023 4:26:19PM |
| Sample Analysis Completed | 30/08/2023 12:45:42PM |
| Sample ID | *2023-006-2411 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Algal Biovolume T0393(ADEL)

16/08/2023

| | |
|------------------------------------|--|
| # 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 4.9°C

Algal Count - Total T0393(ADEL)

16/08/2023

| | |
|-----------------------------------|----------------|
| Algae - Total | 38700 cells/mL |
| Blue Green Algae - Total | 0 cells/mL |
| Diatoms - Total | 2090 cells/mL |
| Geosmin-MIB producing BGA - Total | 0 cells/mL |
| Green Algae - Total | 36500 cells/mL |
| Toxin producing BGA - Total | 0 cells/mL |

Sample temperature at time of receipt 4.9°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

17/08/2023

| | | |
|---------------|-----|-----------|
| Chlorophyll a | 0.1 | 31.6 µg/L |
| Phaeophytin a | 0.1 | 5.39 µg/L |

| Inorganic Chemistry - Nutrients | LOR | Result | Test Start Date |
|---------------------------------|-----|--------|-----------------|
|---------------------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Ammonia as N (ADEL)

21/08/2023

| | | |
|----------------|---|---------|
| # Ammonia as N | 1 | 19 µg/L |
|----------------|---|---------|

Chloride T0104-02(ADEL)

22/08/2023

| | | |
|----------|-----|-----------|
| Chloride | 4.0 | 3130 mg/L |
|----------|-----|-----------|



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Analytical Results

| | |
|---------------------------|---|
| Sampling Point | 300713-Tilley Swamp Drain D/S Northern Outlet |
| Sampled Date | 16/08/2023 8:37:00AM |
| Sample Received Date | 16/08/2023 4:26:19PM |
| Sample Analysis Completed | 30/08/2023 12:45:42PM |
| Sample ID | *2023-006-2411 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|---|-------|-------------|------------|
| Nitrate + Nitrite as N T0161-01(ADEL) | | | 22/08/2023 |
| Nitrate + Nitrite as N | 0.003 | 0.138 mg/L | |
| Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrite as N | 0.5 | 15.4 µg/L | |
| Nitrogen - Total TMZ-M06(ADEL) | | | 16/08/2023 |
| Nitrogen - Total | | 0.93 mg/L | |
| Phosphorus - Filterable Reactive as P (ADEL) | | | 21/08/2023 |
| # 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) | | | 17/08/2023 |
| Phosphorus - Total | 0.005 | <0.005 mg/L | |
| Silica - Reactive T0111-01(ADEL) | | | 22/08/2023 |
| Silica - Reactive | 0.05 | 4.05 mg/L | |
| TKN as N T0112-01(ADEL) | | | 17/08/2023 |
| TKN as Nitrogen | 0.05 | 0.79 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|--|-----|----------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Dissolved Organic Carbon T0158-07(ADEL) | | | 28/08/2023 |
| Dissolved Organic Carbon | 1 | 8.0 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 28/08/2023 |
| Total Organic Carbon | 1 | 8.8 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|----------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Alkalinity as Calcium Carbonate | | 434 mg/L | |
| Bicarbonate | | 508 mg/L | |
| Carbonate | | 11 mg/L | |
| Hydroxide | | 0 mg/L | |



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Analytical Results

| | |
|---------------------------|---|
| Sampling Point | 300713-Tilley Swamp Drain D/S Northern Outlet |
| Sampled Date | 16/08/2023 8:37:00AM |
| Sample Received Date | 16/08/2023 4:26:19PM |
| Sample Analysis Completed | 30/08/2023 12:45:42PM |
| Sample ID | *2023-006-2411 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|---|-----|---|------------|
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Conductivity | 2 | 10300 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 6000 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.4 pH units | |
| Temperature at which pH is measured | | 21.3 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 1.6 NTU | |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|---------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Suspended Solids T0160-01(ADEL) | | | 22/08/2023 |
| Suspended Solids | 1.0 | 11 mg/L | |





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Analytical Results

| | |
|---------------------------|----------------------------------|
| Sampling Point | 531012-EPA - Sth Policeman Point |
| Sampled Date | 16/08/2023 8:45:00AM |
| Sample Received Date | 16/08/2023 4:30:44PM |
| Sample Analysis Completed | 30/08/2023 2:19:29PM |
| Sample ID | *2023-006-2417 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--------------------|-----|--------|-----------------|
|--------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Algal Identification T0393(ADEL)

| | | | |
|-------------------------|--|------------------|--|
| DIATOMS | | | |
| Cyclotella | | 10 cells/mL | |
| Nitzschia | | 10 cells/mL | |
| GREEN ALGAE | | | |
| Chlorella | | 1500000 cells/mL | |
| Unicellular green algae | | 161000 cells/mL | |
| Phytoflagellates | | 50 cells/mL | |

Sample temperature at time of receipt 4.9°C

Algal Biovolume T0393(ADEL)

16/08/2023

| | | | |
|------------------------------------|--|--|-------|
| DIATOMS | | | |
| Nitzschia | | 0.01 mm3/L | |
| Cyclotella | | <0.01 mm3/L | |
| GREEN ALGAE | | | |
| Chlorella | | 67.5 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 | | <0.02 | mm3/L |
| # Total Green Algae Biovolume | | Not Calculated | mm3/L |
| Total Toxic BGA Biovolume | | 0.00 | mm3/L |

Sample temperature at time of receipt 4.9°C

Algal Count - Total T0393(ADEL)

16/08/2023

| | |
|---------------|------------------|
| Algae - Total | 1660000 cells/mL |
|---------------|------------------|





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Analytical Results

| | |
|---------------------------|----------------------------------|
| Sampling Point | 531012-EPA - Sth Policeman Point |
| Sampled Date | 16/08/2023 8:45:00AM |
| Sample Received Date | 16/08/2023 4:30:44PM |
| Sample Analysis Completed | 30/08/2023 2:19:29PM |
| Sample ID | *2023-006-2417 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Algal Count - Total T0393(ADEL)

16/08/2023

| | |
|-----------------------------------|------------------|
| Blue Green Algae - Total | 0 cells/mL |
| Diatoms - Total | 20 cells/mL |
| Geosmin-MIB producing BGA - Total | 0 cells/mL |
| Green Algae - Total | 1660000 cells/mL |
| Toxin producing BGA - Total | 0 cells/mL |

Sample temperature at time of receipt 4.9°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

17/08/2023

| | | |
|---------------|-----|-----------|
| Chlorophyll a | 0.1 | 126 µg/L |
| Phaeophytin a | 0.1 | 43.1 µg/L |

| Inorganic Chemistry - Nutrients | LOR | Result | Test Start Date |
|---|-------|------------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Ammonia as N (ADEL) | | | 21/08/2023 |
| # Ammonia as N | 1 | 28 µg/L | |
| Chloride T0104-02(ADEL) | | | 24/08/2023 |
| Chloride | 4.0 | 25300 mg/L | |
| Nitrate + Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrate + Nitrite as N | 0.5 | 3.9 µg/L | |
| # Nitrate + Nitrite as NO3 | 2.3 | 17.3 µg/L | |
| # Nitrate as Nitrogen | | 3.90 µg/L | |
| Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrite as N | 0.5 | <0.5 µg/L | |
| Nitrogen - Total TMZ-M06(ADEL) | | | 16/08/2023 |
| Nitrogen - Total | | 3.91 mg/L | |
| Phosphorus - Filterable Reactive as P (ADEL) | | | 21/08/2023 |
| # Phosphorus -Filterable Reactive as PO4 | 1.5 | 14.95 µg/L | |
| Phosphorus-Filterable Reactive as P | 0.5 | 5.0 µg/L | |
| Phosphorus - Total T0109-44(ADEL) | | | 17/08/2023 |
| Phosphorus - Total | 0.005 | 0.029 mg/L | |
| Silica - Reactive T0111-01(ADEL) | | | 24/08/2023 |



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Analytical Results

| | |
|---------------------------|----------------------------------|
| Sampling Point | 531012-EPA - Sth Policeman Point |
| Sampled Date | 16/08/2023 8:45:00AM |
| Sample Received Date | 16/08/2023 4:30:44PM |
| Sample Analysis Completed | 30/08/2023 2:19:29PM |
| Sample ID | *2023-006-2417 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|---|------|-----------|------------|
| Silica - Reactive T0111-01(ADEL) | | | 24/08/2023 |
| Silica - Reactive | 0.05 | 7.19 mg/L | |
| TKN as N T0112-01(ADEL) | | | 17/08/2023 |
| TKN as Nitrogen | 0.05 | 3.91 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 20.3 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 25.4 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|---|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Alkalinity as Calcium Carbonate | | 233 mg/L | |
| Bicarbonate | | 285 mg/L | |
| Carbonate | | 0 mg/L | |
| Hydroxide | | 0 mg/L | |
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Conductivity | 2 | 67000 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 50400 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.2 pH units | |
| Temperature at which pH is measured | | 21.2 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 11 NTU | |



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Analytical Results

| | |
|---------------------------|----------------------------------|
| Sampling Point | 531012-EPA - Sth Policeman Point |
| Sampled Date | 16/08/2023 8:45:00AM |
| Sample Received Date | 16/08/2023 4:30:44PM |
| Sample Analysis Completed | 30/08/2023 2:19:29PM |
| Sample ID | *2023-006-2417 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|---------|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Suspended Solids T0160-01(ADEL) | | | 22/08/2023 |
| Suspended Solids | 1.0 | 15 mg/L | |





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Analytical Results

| | |
|---------------------------|----------------------------|
| Sampling Point | 31526-EPA - Nth Jack Point |
| Sampled Date | 16/08/2023 9:15:00AM |
| Sample Received Date | 16/08/2023 4:29:20PM |
| Sample Analysis Completed | 30/08/2023 11:09:13AM |
| Sample ID | *2023-006-2402 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--------------------|-----|--------|-----------------|
|--------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Algal Identification T0393(ADEL)

| | | | |
|-------------------------|--|---|--|
| DIATOMS | | | |
| Navicula | | 10 cells/mL | |
| Pennate diatoms | | 4 cells/mL | |
| Naviculoids | | 2 cells/mL | |
| DINOFLAGELLATES | | | |
| Heterocapsa | | 20 cells/mL | |
| GREEN ALGAE | | | |
| Phytoflagellates | | 20 cells/mL | |
| Unicellular green algae | | 194000 cells/mL | |
| Chlorella | | 1430000 cells/mL | |
| Organism - Comment | | Chlorella - The identification for this organism is tentative only. | |

Sample temperature at time of receipt 4.9°C

Algal Biovolume T0393(ADEL)

16/08/2023

| | | | |
|------------------------------------|--|--|--|
| DIATOMS | | | |
| Navicula | | 0.01 mm3/L | |
| GREEN ALGAE | | | |
| Chlorella | | 64.4 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 | | Not Calculated mm3/L | |
| Total Toxic BGA Biovolume | | 0.00 mm3/L | |





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Analytical Results

| | |
|---------------------------|----------------------------|
| Sampling Point | 31526-EPA - Nth Jack Point |
| Sampled Date | 16/08/2023 9:15:00AM |
| Sample Received Date | 16/08/2023 4:29:20PM |
| Sample Analysis Completed | 30/08/2023 11:09:13AM |
| Sample ID | *2023-006-2402 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Sample temperature at time of receipt 4.9°C

Algal Count - Total T0393(ADEL) 16/08/2023

| | |
|-----------------------------------|------------------|
| Algae - Total | 1620000 cells/mL |
| Blue Green Algae - Total | 0 cells/mL |
| Diatoms - Total | 16 cells/mL |
| Geosmin-MIB producing BGA - Total | 0 cells/mL |
| Green Algae - Total | 1620000 cells/mL |
| Toxin producing BGA - Total | 0 cells/mL |

Sample temperature at time of receipt 4.9°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL) 17/08/2023

| | | |
|---------------|-----|-----------|
| Chlorophyll a | 0.1 | 166 µg/L |
| Phaeophytin a | 0.1 | 70.6 µg/L |

| Inorganic Chemistry - Nutrients | LOR | Result | Test Start Date |
|---------------------------------|-----|--------|-----------------|
|---------------------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Ammonia as N (ADEL) 21/08/2023

| | | |
|----------------|---|---------|
| # Ammonia as N | 1 | 27 µg/L |
|----------------|---|---------|

Chloride T0104-02(ADEL) 22/08/2023

| | | |
|----------|-----|------------|
| Chloride | 4.0 | 26500 mg/L |
|----------|-----|------------|

Nitrate + Nitrite as N (ADEL) 21/08/2023

| | | |
|----------------------------|-----|-----------|
| # Nitrate + Nitrite as N | 0.5 | 3.2 µg/L |
| # Nitrate + Nitrite as NO3 | 2.3 | 14.2 µg/L |
| # Nitrate as Nitrogen | | 2.75 µg/L |

Nitrite as N (ADEL) 21/08/2023

| | | |
|----------------|-----|-----------|
| # Nitrite as N | 0.5 | <0.5 µg/L |
|----------------|-----|-----------|

Nitrogen - Total TMZ-M06(ADEL) 16/08/2023

| | | |
|------------------|--|-----------|
| Nitrogen - Total | | 4.72 mg/L |
|------------------|--|-----------|

Phosphorus - Filterable Reactive as P (ADEL) 21/08/2023

| | | |
|--|-----|-------------|
| # Phosphorus -Filterable Reactive as PO4 | 1.5 | 19.734 µg/L |
| Phosphorus-Filterable Reactive as P | 0.5 | 6.6 µg/L |





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Analytical Results

| | |
|---------------------------|----------------------------|
| Sampling Point | 31526-EPA - Nth Jack Point |
| Sampled Date | 16/08/2023 9:15:00AM |
| Sample Received Date | 16/08/2023 4:29:20PM |
| Sample Analysis Completed | 30/08/2023 11:09:13AM |
| Sample ID | *2023-006-2402 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|--|-------|------------|------------|
| Phosphorus - Total T0109-44(ADEL) | | | 22/08/2023 |
| Phosphorus - Total | 0.005 | 0.091 mg/L | |
| Silica - Reactive T0111-01(ADEL) | | | 22/08/2023 |
| Silica - Reactive | 0.05 | 6.22 mg/L | |
| TKN as N T0112-01(ADEL) | | | 22/08/2023 |
| TKN as Nitrogen | 0.05 | 4.72 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 21.5 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 30.2 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|---|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| 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) | | | 18/08/2023 |
| Conductivity | 2 | 69000 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 52400 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.2 pH units | |
| Temperature at which pH is measured | | 21.2 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 20 NTU | |



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Analytical Results

| | |
|---------------------------|----------------------------|
| Sampling Point | 31526-EPA - Nth Jack Point |
| Sampled Date | 16/08/2023 9:15:00AM |
| Sample Received Date | 16/08/2023 4:29:20PM |
| Sample Analysis Completed | 30/08/2023 11:09:13AM |
| Sample ID | *2023-006-2402 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|---------|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Suspended Solids T0160-01(ADEL) | | | 22/08/2023 |
| Suspended Solids | 1.0 | 57 mg/L | |





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Analytical Results

| | |
|---------------------------|------------------------------------|
| Sampling Point | 31511-EPA - 3.2km South Salt Creek |
| Sampled Date | 16/08/2023 9:30:00AM |
| Sample Received Date | 16/08/2023 4:26:33PM |
| Sample Analysis Completed | 30/08/2023 12:07:51PM |
| Sample ID | *2023-006-2405 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--------------------|-----|--------|-----------------|
|--------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Algal Identification T0393(ADEL)

| | | | |
|-------------------------|--|---|--|
| DIATOMS | | | |
| Naviculoids | | 4 cells/mL | |
| Pennate diatoms | | 20 cells/mL | |
| DINOFLAGELLATES | | | |
| Heterocapsa | | 10 cells/mL | |
| GREEN ALGAE | | | |
| Unicellular green algae | | 97000 cells/mL | |
| Chlorella | | 1780000 cells/mL | |
| Organism - Comment | | Chlorella - The identification for this organism is tentative only. | |

Sample temperature at time of receipt 4.9°C

Algal Biovolume T0393(ADEL)

16/08/2023

| | | | |
|------------------------------------|--|--|--|
| GREEN ALGAE | | | |
| Chlorella | | 80.1 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 | | Not Calculated mm3/L | |
| Total Toxic BGA Biovolume | | 0.00 mm3/L | |

Sample temperature at time of receipt 4.9°C

Algal Count - Total T0393(ADEL)

16/08/2023

| | |
|---------------|------------------|
| Algae - Total | 1880000 cells/mL |
|---------------|------------------|





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Analytical Results

| | |
|---------------------------|------------------------------------|
| Sampling Point | 31511-EPA - 3.2km South Salt Creek |
| Sampled Date | 16/08/2023 9:30:00AM |
| Sample Received Date | 16/08/2023 4:26:33PM |
| Sample Analysis Completed | 30/08/2023 12:07:51PM |
| Sample ID | *2023-006-2405 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Algal Count - Total T0393(ADEL)

16/08/2023

| | |
|-----------------------------------|------------------|
| Blue Green Algae - Total | 0 cells/mL |
| Diatoms - Total | 24 cells/mL |
| Geosmin-MIB producing BGA - Total | 0 cells/mL |
| Green Algae - Total | 1880000 cells/mL |
| Toxin producing BGA - Total | 0 cells/mL |

Sample temperature at time of receipt 4.9°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

17/08/2023

| | | |
|---------------|-----|-----------|
| Chlorophyll a | 0.1 | 94.9 µg/L |
| Phaeophytin a | 0.1 | 31.2 µg/L |

| Inorganic Chemistry - Nutrients | LOR | Result | Test Start Date |
|---|-------|------------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Ammonia as N (ADEL) | | | 21/08/2023 |
| # Ammonia as N | 1 | 26 µg/L | |
| Chloride T0104-02(ADEL) | | | 22/08/2023 |
| Chloride | 4.0 | 24300 mg/L | |
| Nitrate + Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrate + Nitrite as N | 0.5 | 6.6 µg/L | |
| # Nitrate + Nitrite as NO3 | 2.3 | 29.2 µg/L | |
| # Nitrate as Nitrogen | | 6.60 µg/L | |
| Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrite as N | 0.5 | <0.5 µg/L | |
| Nitrogen - Total TMZ-M06(ADEL) | | | 16/08/2023 |
| Nitrogen - Total | | 4.19 mg/L | |
| Phosphorus - Filterable Reactive as P (ADEL) | | | 21/08/2023 |
| # Phosphorus -Filterable Reactive as PO4 | 1.5 | 17.94 µg/L | |
| Phosphorus-Filterable Reactive as P | 0.5 | 6.0 µg/L | |
| Phosphorus - Total T0109-44(ADEL) | | | 22/08/2023 |
| Phosphorus - Total | 0.005 | 0.036 mg/L | |
| Silica - Reactive T0111-01(ADEL) | | | 22/08/2023 |



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Analytical Results

| | |
|---------------------------|------------------------------------|
| Sampling Point | 31511-EPA - 3.2km South Salt Creek |
| Sampled Date | 16/08/2023 9:30:00AM |
| Sample Received Date | 16/08/2023 4:26:33PM |
| Sample Analysis Completed | 30/08/2023 12:07:51PM |
| Sample ID | *2023-006-2405 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|---|------|-----------|------------|
| Silica - Reactive T0111-01(ADEL) | | | 22/08/2023 |
| Silica - Reactive | 0.05 | 7.34 mg/L | |
| TKN as N T0112-01(ADEL) | | | 22/08/2023 |
| TKN as Nitrogen | 0.05 | 4.18 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 20.3 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 25.6 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|---|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Alkalinity as Calcium Carbonate | | 253 mg/L | |
| Bicarbonate | | 309 mg/L | |
| Carbonate | | 0 mg/L | |
| Hydroxide | | 0 mg/L | |
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Conductivity | 2 | 65000 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 48500 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.1 pH units | |
| Temperature at which pH is measured | | 21.2 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 13 NTU | |



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Analytical Results

| | |
|---------------------------|------------------------------------|
| Sampling Point | 31511-EPA - 3.2km South Salt Creek |
| Sampled Date | 16/08/2023 9:30:00AM |
| Sample Received Date | 16/08/2023 4:26:33PM |
| Sample Analysis Completed | 30/08/2023 12:07:51PM |
| Sample ID | *2023-006-2405 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|---------|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Suspended Solids T0160-01(ADEL) | | | |
| 22/08/2023 | | | |
| Suspended Solids | 1.0 | 28 mg/L | |





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Analytical Results

| | |
|---------------------------|------------------------------------|
| Sampling Point | 31513-EPA - Parnka Point Boat Ramp |
| Sampled Date | 16/08/2023 10:17:00AM |
| Sample Received Date | 16/08/2023 4:27:01PM |
| Sample Analysis Completed | 30/08/2023 12:07:51PM |
| Sample ID | *2023-006-2404 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Biology Operations | LOR | Result | Test Start Date |
|--------------------|-----|--------|-----------------|
|--------------------|-----|--------|-----------------|

Sample temperature at time of receipt 4.9°C

Algal Identification T0393(ADEL)

| | | | |
|----------------------------|--|---|--|
| DIATOMS | | | |
| Naviculoids | | 495 cells/mL | |
| Amphiprora_(= _Entomoneis) | | 10 cells/mL | |
| Nitzschia | | 10 cells/mL | |
| Pennate diatoms | | 30 cells/mL | |
| GREEN ALGAE | | | |
| Unicellular green algae | | 81000 cells/mL | |
| Chlorella | | 1120000 cells/mL | |
| Phytoflagellates | | 10 cells/mL | |
| Organism - Comment | | Chlorella - The identification for this organism is tentative only. | |

Sample temperature at time of receipt 4.9°C

Algal Biovolume T0393(ADEL)

16/08/2023

| | | | |
|------------------------------------|--|--|--|
| DIATOMS | | | |
| Amphiprora_(= _Entomoneis) | | 0.15 mm3/L | |
| Nitzschia | | 0.01 mm3/L | |
| GREEN ALGAE | | | |
| Chlorella | | 50.4 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 | | Not Calculated mm3/L | |
| Total Toxic BGA Biovolume | | 0.00 mm3/L | |





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Analytical Results

| | |
|---------------------------|------------------------------------|
| Sampling Point | 31513-EPA - Parnka Point Boat Ramp |
| Sampled Date | 16/08/2023 10:17:00AM |
| Sample Received Date | 16/08/2023 4:27:01PM |
| Sample Analysis Completed | 30/08/2023 12:07:51PM |
| Sample ID | *2023-006-2404 |
| Status | Endorsed |
| Collection Type | Customer Collected |

Sample temperature at time of receipt 4.9°C

Algal Count - Total T0393(ADEL)

16/08/2023

| | |
|-----------------------------------|------------------|
| Algae - Total | 1200000 cells/mL |
| Blue Green Algae - Total | 0 cells/mL |
| Diatoms - Total | 545 cells/mL |
| Geosmin-MIB producing BGA - Total | 0 cells/mL |
| Green Algae - Total | 1200000 cells/mL |
| Toxin producing BGA - Total | 0 cells/mL |

Sample temperature at time of receipt 4.9°C

Chlorophyll a & Phaeophytin a T0380-02(ADEL)

17/08/2023

| | | |
|---------------|-----|-----------|
| Chlorophyll a | 0.1 | 112 µg/L |
| Phaeophytin a | 0.1 | 43.4 µg/L |

| Inorganic Chemistry - Nutrients | LOR | Result | Test Start Date |
|---|-----|-------------|-----------------|
| Sample temperature at time of receipt 4.9°C | | | |
| Ammonia as N (ADEL) | | | 21/08/2023 |
| # Ammonia as N | 1 | 23 µg/L | |
| Chloride T0104-02(ADEL) | | | 22/08/2023 |
| Chloride | 4.0 | 25400 mg/L | |
| Nitrate + Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrate + Nitrite as N | 0.5 | 3.9 µg/L | |
| # Nitrate + Nitrite as NO3 | 2.3 | 17.3 µg/L | |
| # Nitrate as Nitrogen | | 3.06 µg/L | |
| Nitrite as N (ADEL) | | | 21/08/2023 |
| # Nitrite as N | 0.5 | 0.8 µg/L | |
| Nitrogen - Total TMZ-M06(ADEL) | | | 16/08/2023 |
| Nitrogen - Total | | 3.95 mg/L | |
| Phosphorus - Filterable Reactive as P (ADEL) | | | 21/08/2023 |
| # Phosphorus -Filterable Reactive as PO4 | 1.5 | 16.146 µg/L | |
| Phosphorus-Filterable Reactive as P | 0.5 | 5.4 µg/L | |



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Analytical Results

| | |
|---------------------------|------------------------------------|
| Sampling Point | 31513-EPA - Parnka Point Boat Ramp |
| Sampled Date | 16/08/2023 10:17:00AM |
| Sample Received Date | 16/08/2023 4:27:01PM |
| Sample Analysis Completed | 30/08/2023 12:07:51PM |
| Sample ID | *2023-006-2404 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| | | | |
|--|-------|------------|------------|
| Phosphorus - Total T0109-44(ADEL) | | | 17/08/2023 |
| Phosphorus - Total | 0.005 | 0.108 mg/L | |
| Silica - Reactive T0111-01(ADEL) | | | 22/08/2023 |
| Silica - Reactive | 0.05 | 5.32 mg/L | |
| TKN as N T0112-01(ADEL) | | | 17/08/2023 |
| TKN as Nitrogen | 0.05 | 3.95 mg/L | |

| Organic Chemistry | LOR | Result | Test Start Date |
|--|-----|-----------|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Dissolved Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Dissolved Organic Carbon | 1 | 21.8 mg/L | |
| Total Organic Carbon T0158-07(ADEL) | | | 22/08/2023 |
| Total Organic Carbon | 1 | 26.4 mg/L | |

| Inorganic Chemistry - Physical | LOR | Result | Test Start Date |
|--|-----|---|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL) | | | 18/08/2023 |
| Alkalinity as Calcium Carbonate | | 204 mg/L | |
| Bicarbonate | | 249 mg/L | |
| Carbonate | | 0 mg/L | |
| Hydroxide | | 0 mg/L | |
| Conductivity & Total Dissolved Solids T0016-01(ADEL) | | | 18/08/2023 |
| Conductivity | 2 | 68700 µS/cm | |
| Note | | Conductivity measurement is corrected to 25°C | |
| Total Dissolved Solids (by EC) | 1 | 52100 mg/L | |
| pH T0010-01(ADEL) | | | 18/08/2023 |
| pH | | 8.1 pH units | |
| Temperature at which pH is measured | | 21.2 °C | |
| Turbidity T0018-01(ADEL) | | | 17/08/2023 |
| Turbidity | 0.1 | 11 NTU | |



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Analytical Results

| | |
|---------------------------|------------------------------------|
| Sampling Point | 31513-EPA - Parnka Point Boat Ramp |
| Sampled Date | 16/08/2023 10:17:00AM |
| Sample Received Date | 16/08/2023 4:27:01PM |
| Sample Analysis Completed | 30/08/2023 12:07:51PM |
| Sample ID | *2023-006-2404 |
| Status | Endorsed |
| Collection Type | Customer Collected |

| Inorganic Chemistry - Waste Water | LOR | Result | Test Start Date |
|--|-----|---------|-----------------|
| <i>Sample temperature at time of receipt 4.9°C</i> | | | |
| Suspended Solids T0160-01(ADEL) | | | 23/08/2023 |
| Suspended Solids | 1.0 | 98 mg/L | |





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AWQC Signatories

Dzung Bui - Supervisor Metals and Physical

Ivana Cech - Technical Officer Chemistry

Thuy Diep - Technical Officer Chemistry

Sharon Helgeson - Technical Officer Life Sciences

Kerrie Jooste - Manager Chemistry Services

John Martini - Method Development Specialist

Dean Newman - Senior Technical Officer Biology

Melissa Phillips - Technical Officer Chemistry

Gayle Polley - Supervisor Nutrients and Waste



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Incidents

| Sample ID | S.Point | Description | Sampled Date | Analysis (where Applicable) | Incident Description |
|---------------|---------|------------------------------|--------------|-----------------------------|---|
| 2023-006-2399 | 351213 | EPA - Murray Mouth | 15/08/2023 | pH | Test not processed within holding time |
| 2023-006-2399 | 351213 | EPA - Murray Mouth | 15/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2399 | 351213 | EPA - Murray Mouth | 15/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2400 | 31525 | EPA - Villa de Yumpa | 15/08/2023 | pH | Test not processed within holding time |
| 2023-006-2400 | 31525 | EPA - Villa de Yumpa | 15/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2400 | 31525 | EPA - Villa de Yumpa | 15/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2401 | 31523 | EPA - Long Point | 15/08/2023 | pH | Test not processed within holding time |
| 2023-006-2401 | 31523 | EPA - Long Point | 15/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2401 | 31523 | EPA - Long Point | 15/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2401 | 31523 | EPA - Long Point | 15/08/2023 | Dissolved Organic Carbon | DOC > TOC but within method uncertainty |
| 2023-006-2402 | 31526 | EPA - Nth Jack Point | 16/08/2023 | pH | Test not processed within holding time |
| 2023-006-2402 | 31526 | EPA - Nth Jack Point | 16/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2402 | 31526 | EPA - Nth Jack Point | 16/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2403 | 31515 | EPA - Snipe Point | 15/08/2023 | pH | Test not processed within holding time |
| 2023-006-2403 | 31515 | EPA - Snipe Point | 15/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2403 | 31515 | EPA - Snipe Point | 15/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2404 | 31513 | EPA - Parnka Point Boat Ramp | 16/08/2023 | pH | Test not processed within holding time |
| 2023-006-2404 | 31513 | EPA - Parnka Point Boat Ramp | 16/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2404 | 31513 | EPA - Parnka Point Boat Ramp | 16/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2404 | 31513 | EPA - Parnka Point Boat Ramp | 16/08/2023 | Suspended Solids | Test not processed within holding time |



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Incidents

| Sample ID | S.Point | Description | Sampled Date | Analysis (where Applicable) | Incident Description |
|---------------|---------|---|--------------|-----------------------------|---|
| 2023-006-2405 | 31511 | EPA - 3.2km South Salt Creek | 16/08/2023 | pH | Test not processed within holding time |
| 2023-006-2405 | 31511 | EPA - 3.2km South Salt Creek | 16/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2405 | 31511 | EPA - 3.2km South Salt Creek | 16/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2406 | 31517 | EPA - 1.8km West Salt Creek | 16/08/2023 | pH | Test not processed within holding time |
| 2023-006-2406 | 31517 | EPA - 1.8km West Salt Creek | 16/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2406 | 31517 | EPA - 1.8km West Salt Creek | 16/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2407 | 31514 | EPA - Stoney Well | 15/08/2023 | pH | Test not processed within holding time |
| 2023-006-2407 | 31514 | EPA - Stoney Well | 15/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2407 | 31514 | EPA - Stoney Well | 15/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2408 | 31512 | EPA - McGrath Flat North | 15/08/2023 | pH | Test not processed within holding time |
| 2023-006-2408 | 31512 | EPA - McGrath Flat North | 15/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2408 | 31512 | EPA - McGrath Flat North | 15/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2409 | 31519 | EPA - Morella Basin at Outlet Regulator | 16/08/2023 | pH | Test not processed within holding time |
| 2023-006-2409 | 31519 | EPA - Morella Basin at Outlet Regulator | 16/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2409 | 31519 | EPA - Morella Basin at Outlet Regulator | 16/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2410 | 315191 | EPA - Morella Creek @ guage | 16/08/2023 | pH | Test not processed within holding time |
| 2023-006-2410 | 315191 | EPA - Morella Creek @ guage | 16/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2410 | 315191 | EPA - Morella Creek @ guage | 16/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2410 | 315191 | EPA - Morella Creek @ guage | 16/08/2023 | Dissolved Organic Carbon | DOC > TOC but within method uncertainty |
| 2023-006-2411 | 300713 | Tilley Swamp Drain D/S Northern Outlet | 16/08/2023 | pH | Test not processed within holding time |



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Incidents

| Sample ID | S.Point | Description | Sampled Date | Analysis (where Applicable) | Incident Description |
|---------------|---------|--|--------------|-----------------------------|--|
| 2023-006-2411 | 300713 | Tilley Swamp Drain D/S Northern Outlet | 16/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2411 | 300713 | Tilley Swamp Drain D/S Northern Outlet | 16/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2411 | 300713 | Tilley Swamp Drain D/S Northern Outlet | 16/08/2023 | Total Organic Carbon | Test not processed within holding time |
| 2023-006-2411 | 300713 | Tilley Swamp Drain D/S Northern Outlet | 16/08/2023 | Dissolved Organic Carbon | Test not processed within holding time |
| 2023-006-2412 | 11504 | DEW - Mundoo Upstream | 15/08/2023 | pH | Test not processed within holding time |
| 2023-006-2412 | 11504 | DEW - Mundoo Upstream | 15/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2412 | 11504 | DEW - Mundoo Upstream | 15/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2413 | 11505 | DEW - Mundoo Downstream | 15/08/2023 | pH | Test not processed within holding time |
| 2023-006-2413 | 11505 | DEW - Mundoo Downstream | 15/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2413 | 11505 | DEW - Mundoo Downstream | 15/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2414 | 31524 | EPA - Bonneys | 15/08/2023 | pH | Test not processed within holding time |
| 2023-006-2414 | 31524 | EPA - Bonneys | 15/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2414 | 31524 | EPA - Bonneys | 15/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2415 | 31528 | EPA - Salt Creek Outlet | 16/08/2023 | pH | Test not processed within holding time |
| 2023-006-2415 | 31528 | EPA - Salt Creek Outlet | 16/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2415 | 31528 | EPA - Salt Creek Outlet | 16/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2416 | 353177 | EPA - Tauwichee Barrage DS | 15/08/2023 | pH | Test not processed within holding time |
| 2023-006-2416 | 353177 | EPA - Tauwichee Barrage DS | 15/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2416 | 353177 | EPA - Tauwichee Barrage DS | 15/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2417 | 531012 | EPA - Sth Policeman Point | 16/08/2023 | pH | Test not processed within holding time |



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Incidents

| Sample ID | S.Point | Description | Sampled Date | Analysis (where Applicable) | Incident Description |
|---------------|---------|----------------------------------|--------------|-----------------------------|--|
| 2023-006-2417 | 531012 | EPA - Sth Policeman Point | 16/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2417 | 531012 | EPA - Sth Policeman Point | 16/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2417 | 531012 | EPA - Sth Policeman Point | 16/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2418 | 53032 | EPA - Noonameena | 15/08/2023 | pH | Test not processed within holding time |
| 2023-006-2418 | 53032 | EPA - Noonameena | 15/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2418 | 53032 | EPA - Noonameena | 15/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2419 | 31522 | EPA - Mark Point | 15/08/2023 | pH | Test not processed within holding time |
| 2023-006-2419 | 31522 | EPA - Mark Point | 15/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2419 | 31522 | EPA - Mark Point | 15/08/2023 | Silica - Reactive | Test not processed within holding time |
| 2023-006-2420 | 353179 | EPA - Tauwichee Barrage Upstream | 15/08/2023 | pH | Test not processed within holding time |
| 2023-006-2420 | 353179 | EPA - Tauwichee Barrage Upstream | 15/08/2023 | Nitrite as N | Test not processed within holding time |
| 2023-006-2420 | 353179 | EPA - Tauwichee Barrage Upstream | 15/08/2023 | Silica - Reactive | Test not processed within holding time |



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FINAL REPORT: 368984

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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 |
| 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 flow 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 |
| T0161-01 | Nitrate + Nitrate (NOx) - Automated Flow Colorimetry | AP4500NO3I |
| 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 |

Sampling Method

| Sampling Method Code | Description |
|----------------------|--|
| W09-023 | Sampling Method for Chemical Analyses |
| W09-024 | Sampling Method for Biological Analyses |
| | Sampling point and date sampled are provided when collected by customers. Validity of results are based on information and samples supplied by customers. Unless it is reported that sampling has been performed by AWQC, the samples have been analysed as received. |

Laboratory Information

| Laboratory | NATA accreditation ID |
|-----------------------------------|-----------------------|
| Biology Operations | 1115 |
| Inorganic Chemistry - Nutrients | 1115 |
| Organic Chemistry | 1115 |
| Inorganic Chemistry - Physical | 1115 |
| Inorganic Chemistry - Waste Water | 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.
 12. AWQC Melbourne Laboratory are only NATA accredited for sampling of potable waters by inhouse method W 09-023.