

Permit Number: EPR/PP3993VS

Operator: Atlantic Recycling

Facility: Atlantic Recycling

Form Number: Surfacewater1

### Reporting of surface water monitoring for monthly monitoring in July 2017

| Monitoring Point | Substance / Parameter    | Trigger level                                                                                       | Reference Period | Result <sup>(1)</sup> | Test Method <sup>(2)</sup> | Sample Date and Times <sup>(3)</sup> | Uncertainty <sup>(4)</sup>                                                                 |
|------------------|--------------------------|-----------------------------------------------------------------------------------------------------|------------------|-----------------------|----------------------------|--------------------------------------|--------------------------------------------------------------------------------------------|
| Outfall          | Suspended Solids, Total  | >250 mg/l (1 occasion)<br>>100 mg/l (3 consecutive occasions)<br>>60 mg/l (4 consecutive occasions) | Monthly          | 13.1 mg/l             | TM022                      | 24/07/2017<br>09:00                  | Lab: Precision 1.1%, Bias -1.5%,<br>Expanded Uncertainty 3.6%.<br>Sampling: Immeasurable   |
| Outfall          | BOD, unfiltered          | >18 mg/l (1 occasion)<br>>10 mg/l (3 consecutive occasions)                                         | Monthly          | 4.59 mg/l             | TM045                      | 24/07/2017<br>09:00                  | Lab: Precision 10.7%, Bias -4.4%,<br>Expanded Uncertainty 25.8%.<br>Sampling: Immeasurable |
| Outfall          | Ammoniacal Nitrogen as N | >1 mg/l (1 occasion)<br>>0.5 mg/l (4 consecutive occasions)                                         | Monthly          | 0.518 mg/l            | TM099                      | 24/07/2017<br>09:00                  | Lab: Precision 2.2%, Bias 2.3%,<br>Expanded Uncertainty 6.6%.<br>Sampling: Immeasurable    |
| Outfall          | Conductivity             | >2000 µS/cm                                                                                         | Monthly          | 0.75 mS/cm            | TM120                      | 24/07/2017<br>09:00                  | Lab: Precision 1.2%, Bias 2.8%,<br>Expanded Uncertainty 5.2%.<br>Sampling: Immeasurable    |

| Monitoring Point | Substance / Parameter   | Trigger level | Reference Period | Result <sup>(1)</sup> | Test Method <sup>(2)</sup> | Sample Date and Times <sup>(3)</sup> | Uncertainty <sup>(4)</sup>                                                           |
|------------------|-------------------------|---------------|------------------|-----------------------|----------------------------|--------------------------------------|--------------------------------------------------------------------------------------|
| Outfall          | Lead (diss.filt)        | >0.25 mg/l    | Monthly          | <0.2 µg/l             | TM152                      | 24/07/2017 09:00                     | Lab: Precision 1.1%, Bias -1.5%, Expanded Uncertainty 3.6%. Sampling: Immeasurable   |
| Outfall          | Nickel (diss.filt)      | >0.1 mg/l     | Monthly          | 1.83 µg/l             | TM152                      | 24/07/2017 09:00                     | Lab: Precision 3.9%, Bias 2.3%, Expanded Uncertainty 10.1%. Sampling: Immeasurable   |
| Outfall          | EPH Range >C10-C40 (aq) | >2 mg/l       | Monthly          | 92.7 µg/l             | TM172                      | 24/07/2017 09:00                     | Lab: Precision 7.0%, Bias -10.7%, Expanded Uncertainty 24.6%. Sampling: Immeasurable |
| Outfall          | EPH Range >C10-C20 (aq) | >2 mg/l       | Monthly          | 30.5 µg/l             | TM172                      | 24/07/2017 09:00                     | Lab: Precision 7.0%, Bias -10.7%, Expanded Uncertainty 24.6%. Sampling: Immeasurable |
| Outfall          | EPH Range >C20-C30 (aq) | >2 mg/l       | Monthly          | 32.2 µg/l             | TM172                      | 24/07/2017 09:00                     | Lab: Precision 7.0%, Bias -10.7%, Expanded Uncertainty 24.6%. Sampling: Immeasurable |
| Outfall          | EPH Range >C30-C40 (aq) | >2 mg/l       | Monthly          | 30 µg/l               | TM172                      | 24/07/2017 09:00                     | Lab: Precision 7.0%, Bias -10.7%, Expanded Uncertainty 24.6%. Sampling: Immeasurable |
| Outfall          | Sulphate                | >300 mg/l     | Monthly          | 156 mg/l              | TM184                      | 24/07/2017 09:00                     | Lab: Precision 2.4%, Bias 3.5%, Expanded Uncertainty 8.4%. Sampling: Immeasurable    |

| Monitoring Point | Substance / Parameter                | Trigger level                                             | Reference Period | Result <sup>(1)</sup> | Test Method <sup>(2)</sup> | Sample Date and Times <sup>(3)</sup> | Uncertainty <sup>(4)</sup>                                                                |
|------------------|--------------------------------------|-----------------------------------------------------------|------------------|-----------------------|----------------------------|--------------------------------------|-------------------------------------------------------------------------------------------|
| Outfall          | Chloride                             | >300 mg/l                                                 | Monthly          | 55.4 mg/l             | TM184                      | 24/07/2017<br>09:00                  | Lab: Precision 2.5%, Bias 5.7%,<br>Expanded Uncertainty 10.8%.<br>Sampling: Immeasurable  |
| Outfall          | Nitrite as N                         | >1 mg/l                                                   | Monthly          | 0.0292 mg/l           | TM184                      | 24/07/2017<br>09:00                  | Lab: Precision 1.8%, Bias 1.0%,<br>Expanded Uncertainty 4.6%.<br>Sampling: Immeasurable   |
| Outfall          | Phosphate (ortho) as PO <sub>4</sub> | >1 mg/l                                                   | Monthly          | 0.269 mg/l            | TM184                      | 24/07/2017<br>09:00                  | Lab: Precision 1.6%, Bias 1.8%,<br>Expanded Uncertainty 5.1%.<br>Sampling: Immeasurable   |
| Outfall          | Nitrate as N                         | >1 mg/l                                                   | Monthly          | 0.225 mg/l            | TM184                      | 24/07/2017<br>09:00                  | Lab: Unknown. Sampling:<br>Immeasurable                                                   |
| Outfall          | Total Oxidised Nitrogen as N         | >2 mg/l                                                   | Monthly          | 0.255 mg/l            | TM184                      | 24/07/2017<br>09:00                  | Lab: Precision 1.6%, Bias 5.2%,<br>Expanded Uncertainty 9.8%.<br>Sampling: Immeasurable   |
| Outfall          | Oxygen, dissolved                    | <2 mg/l (1 occasion)<br><5 mg/l (3 consecutive occasions) | Monthly          | 6.12 mg/l             | TM046                      | 24/07/2017<br>09:00                  | Lab: Unknown. Sampling:<br>Immeasurable                                                   |
| Outfall          | Cadmium (tot.unfilt)                 | >0.005 mg/l                                               | Monthly          | <0.5 µg/l             | TM191                      | 24/07/2017<br>09:00                  | Lab: Precision 6.0%, Bias -7.0%,<br>Expanded Uncertainty 19.1%.<br>Sampling: Immeasurable |

| Monitoring Point | Substance / Parameter | Trigger level | Reference Period | Result <sup>(1)</sup> | Test Method <sup>(2)</sup> | Sample Date and Times <sup>(3)</sup> | Uncertainty <sup>(4)</sup>                                                          |
|------------------|-----------------------|---------------|------------------|-----------------------|----------------------------|--------------------------------------|-------------------------------------------------------------------------------------|
| Outfall          | Zinc (tot.unfilt)     | >1 mg/l       | Monthly          | 13.8 µg/l             | TM191                      | 24/07/2017 09:00                     | Lab: Precision 6.2%, Bias -6.8%, Expanded Uncertainty 19.3%. Sampling: Immeasurable |
| Outfall          | Calcium (tot.unfilt)  | >300 mg/l     | Monthly          | 99 mg/l               | TM228                      | 24/07/2017 09:00                     | Lab: Precision 4.8%, Bias -1.8%, Expanded Uncertainty 11.4%. Sampling: Immeasurable |
| Outfall          | pH                    | 6.8 – 8.5     | Monthly          | 7.78 pH Units         | TM256                      | 24/07/2017 09:00                     | Lab: Precision 0.4%, Bias 1.0%, Expanded Uncertainty 1.8%. Sampling: Immeasurable   |
| Outfall          | GRO >C5-C12           | >2 mg/l       | Monthly          | <50 µg/l              | TM245                      | 24/07/2017 09:00                     | Lab: Precision 9.2%, Bias -4.4%, Expanded Uncertainty 22.7%. Sampling: Immeasurable |
| Outfall          | GRO >C7-C8            | >2 mg/l       | Monthly          | <10 µg/l              | TM245                      | 24/07/2017 09:00                     | Lab: Precision 9.2%, Bias -4.4%, Expanded Uncertainty 22.7%. Sampling: Immeasurable |
| Outfall          | GRO >C5-C6            | >2 mg/l       | Monthly          | <10 µg/l              | TM245                      | 24/07/2017 09:00                     | Lab: Precision 9.2%, Bias -4.4%, Expanded Uncertainty 22.7%. Sampling: Immeasurable |

| Monitoring Point | Substance / Parameter   | Trigger level                                                                                       | Reference Period | Result <sup>(1)</sup> | Test Method <sup>(2)</sup> | Sample Date and Times <sup>(3)</sup> | Uncertainty <sup>(4)</sup>                                                                |
|------------------|-------------------------|-----------------------------------------------------------------------------------------------------|------------------|-----------------------|----------------------------|--------------------------------------|-------------------------------------------------------------------------------------------|
| Outfall          | GRO<br>>C6-C7           | >2 mg/l                                                                                             | Monthly          | <10 µg/l              | TM245                      | 24/07/2017<br>09:00                  | Lab: Precision 9.2%, Bias -4.4%,<br>Expanded Uncertainty 22.7%.<br>Sampling: Immeasurable |
| Outfall          | GRO<br>>C8-C10          | >2 mg/l                                                                                             | Monthly          | <10 µg/l              | TM245                      | 24/07/2017<br>09:00                  | Lab: Precision 9.2%, Bias -4.4%,<br>Expanded Uncertainty 22.7%.<br>Sampling: Immeasurable |
| Outfall          | GRO<br>>C10-C12         | >2 mg/l                                                                                             | Monthly          | <10 µg/l              | TM245                      | 24/07/2017<br>09:00                  | Lab: Precision 9.2%, Bias -4.4%,<br>Expanded Uncertainty 22.7%.<br>Sampling: Immeasurable |
| Outfall          | GRO<br>>C5-C10          | >2 mg/l                                                                                             | Monthly          | <10 µg/l              | TM245                      | 24/07/2017<br>09:00                  | Lab: Precision 9.2%, Bias -4.4%,<br>Expanded Uncertainty 22.7%.<br>Sampling: Immeasurable |
| SW 9             | Suspended Solids, Total | >250 mg/l (1 occasion)<br>>100 mg/l (3 consecutive occasions)<br>>60 mg/l (4 consecutive occasions) | Monthly          | 2.5 mg/l              | TM022                      | 24/07/2017<br>09:15                  | Lab: Precision 1.1%, Bias -1.5%,<br>Expanded Uncertainty 3.6%.<br>Sampling: Immeasurable  |

| Monitoring Point | Substance / Parameter    | Trigger level                                               | Reference Period | Result <sup>(1)</sup> | Test Method <sup>(2)</sup> | Sample Date and Times <sup>(3)</sup> | Uncertainty <sup>(4)</sup>                                                                 |
|------------------|--------------------------|-------------------------------------------------------------|------------------|-----------------------|----------------------------|--------------------------------------|--------------------------------------------------------------------------------------------|
| SW 9             | BOD, unfiltered          | >18 mg/l (1 occasion)<br>>10 mg/l (3 consecutive occasions) | Monthly          | 70.6 mg/l             | TM045                      | 24/07/2017<br>09:15                  | Lab: Precision 10.7%, Bias -4.4%,<br>Expanded Uncertainty 25.8%.<br>Sampling: Immeasurable |
| SW 9             | Ammoniacal Nitrogen as N | >1 mg/l (1 occasion)<br>>0.5 mg/l (4 consecutive occasions) | Monthly          | 0.202 mg/l            | TM099                      | 24/07/2017<br>09:15                  | Lab: Precision 2.2%, Bias 2.3%,<br>Expanded Uncertainty 6.6%.<br>Sampling: Immeasurable    |
| SW 9             | Conductivity             | >2000 µS/cm                                                 | Monthly          | 0.596 mS/cm           | TM120                      | 24/07/2017<br>09:15                  | Lab: Precision 1.2%, Bias 2.8%,<br>Expanded Uncertainty 5.2%.<br>Sampling: Immeasurable    |
| SW 9             | Lead (diss.filt)         | >0.25 mg/l                                                  | Monthly          | <0.2 µg/l             | TM152                      | 24/07/2017<br>09:15                  | Lab: Precision 1.1%, Bias -1.5%,<br>Expanded Uncertainty 3.6%.<br>Sampling: Immeasurable   |
| SW 9             | Nickel (diss.filt)       | >0.1 mg/l                                                   | Monthly          | 2.52 µg/l             | TM152                      | 24/07/2017<br>09:15                  | Lab: Precision 3.9%, Bias 2.3%,<br>Expanded Uncertainty 10.1%.<br>Sampling: Immeasurable   |
| SW 9             | EPH Range >C10-C40 (aq)  | >2 mg/l                                                     | Monthly          | 66.6 µg/l             | TM172                      | 24/07/2017<br>09:15                  | Lab: Precision 7.0%, Bias -10.7%,<br>Expanded Uncertainty 24.6%.<br>Sampling: Immeasurable |

| Monitoring Point | Substance / Parameter   | Trigger level | Reference Period | Result <sup>(1)</sup> | Test Method <sup>(2)</sup> | Sample Date and Times <sup>(3)</sup> | Uncertainty <sup>(4)</sup>                                                           |
|------------------|-------------------------|---------------|------------------|-----------------------|----------------------------|--------------------------------------|--------------------------------------------------------------------------------------|
| SW 9             | EPH Range >C10-C20 (aq) | >2 mg/l       | Monthly          | 16.5 µg/l             | TM172                      | 24/07/2017 09:15                     | Lab: Precision 7.0%, Bias -10.7%, Expanded Uncertainty 24.6%. Sampling: Immeasurable |
| SW 9             | EPH Range >C20-C30 (aq) | >2 mg/l       | Monthly          | 27.7 µg/l             | TM172                      | 24/07/2017 09:15                     | Lab: Precision 7.0%, Bias -10.7%, Expanded Uncertainty 24.6%. Sampling: Immeasurable |
| SW 9             | EPH Range >C30-C40 (aq) | >2 mg/l       | Monthly          | 22.3 µg/l             | TM172                      | 24/07/2017 09:15                     | Lab: Precision 7.0%, Bias -10.7%, Expanded Uncertainty 24.6%. Sampling: Immeasurable |
| SW 9             | Sulphate                | >300 mg/l     | Monthly          | 96.4 mg/l             | TM184                      | 24/07/2017 09:15                     | Lab: Precision 2.4%, Bias 3.5%, Expanded Uncertainty 8.4%. Sampling: Immeasurable    |
| SW 9             | Chloride                | >300 mg/l     | Monthly          | 44.5 mg/l             | TM184                      | 24/07/2017 09:15                     | Lab: Precision 2.5%, Bias 5.7%, Expanded Uncertainty 10.8%. Sampling: Immeasurable   |
| SW 9             | Nitrite as N            | >1 mg/l       | Monthly          | <0.0152 mg/l          | TM184                      | 24/07/2017 09:15                     | Lab: Precision 1.8%, Bias 1.0%, Expanded Uncertainty 4.6%. Sampling: Immeasurable    |

| Monitoring Point | Substance / Parameter                | Trigger level                                             | Reference Period | Result <sup>(1)</sup> | Test Method <sup>(2)</sup> | Sample Date and Times <sup>(3)</sup> | Uncertainty <sup>(4)</sup>                                                          |
|------------------|--------------------------------------|-----------------------------------------------------------|------------------|-----------------------|----------------------------|--------------------------------------|-------------------------------------------------------------------------------------|
| SW 9             | Phosphate (ortho) as PO <sub>4</sub> | >1 mg/l                                                   | Monthly          | 0.551 mg/l            | TM184                      | 24/07/2017 09:15                     | Lab: Precision 1.6%, Bias 1.8%, Expanded Uncertainty 5.1%. Sampling: Immeasurable   |
| SW 9             | Nitrate as N                         | >1 mg/l                                                   | Monthly          | 0.0944 mg/l           | TM184                      | 24/07/2017 09:15                     | Lab: Unknown. Sampling: Immeasurable                                                |
| SW 9             | Total Oxidised Nitrogen as N         | >2 mg/l                                                   | Monthly          | 0.105 mg/l            | TM184                      | 24/07/2017 09:15                     | Lab: Precision 1.6%, Bias 5.2%, Expanded Uncertainty 9.8%. Sampling: Immeasurable   |
| SW 9             | Oxygen, dissolved                    | <2 mg/l (1 occasion)<br><5 mg/l (3 consecutive occasions) | Monthly          | 7.72 mg/l             | TM046                      | 24/07/2017 09:15                     | Lab: Unknown. Sampling: Immeasurable                                                |
| SW 9             | Cadmium (tot.unfilt)                 | >0.005 mg/l                                               | Monthly          | <0.5 µg/l             | TM191                      | 24/07/2017 09:15                     | Lab: Precision 6.0%, Bias -7.0%, Expanded Uncertainty 19.1%. Sampling: Immeasurable |
| SW 9             | Zinc (tot.unfilt)                    | >1 mg/l                                                   | Monthly          | 6.04 µg/l             | TM191                      | 24/07/2017 09:15                     | Lab: Precision 6.2%, Bias -6.8%, Expanded Uncertainty 19.3%. Sampling: Immeasurable |



| Monitoring Point | Substance / Parameter | Trigger level | Reference Period | Result <sup>(1)</sup> | Test Method <sup>(2)</sup> | Sample Date and Times <sup>(3)</sup> | Uncertainty <sup>(4)</sup>                                                          |
|------------------|-----------------------|---------------|------------------|-----------------------|----------------------------|--------------------------------------|-------------------------------------------------------------------------------------|
| SW 9             | Calcium (tot.unfilt)  | >300 mg/l     | Monthly          | 77.3 mg/l             | TM228                      | 24/07/2017 09:15                     | Lab: Precision 4.8%, Bias -1.8%, Expanded Uncertainty 11.4%. Sampling: Immeasurable |
| SW 9             | pH                    | 6.8 – 8.5     | Monthly          | 7.78 pH Units         | TM256                      | 24/07/2017 09:15                     | Lab: Precision 0.4%, Bias 1.0%, Expanded Uncertainty 1.8%. Sampling: Immeasurable   |
| SW 9             | GRO>C5-12             | >2 mg/l       | Monthly          | <50 µg/l              | TM245                      | 24/07/2017 09:15                     | Lab: Precision 9.2%, Bias -4.4%, Expanded Uncertainty 22.7%. Sampling: Immeasurable |
| SW 9             | GRO >C7-C8            | >2 mg/l       | Monthly          | <10 µg/l              | TM245                      | 24/07/2017 09:15                     | Lab: Precision 9.2%, Bias -4.4%, Expanded Uncertainty 22.7%. Sampling: Immeasurable |
| SW 9             | GRO >C5-C6            | >2 mg/l       | Monthly          | <10 µg/l              | TM245                      | 24/07/2017 09:15                     | Lab: Precision 9.2%, Bias -4.4%, Expanded Uncertainty 22.7%. Sampling: Immeasurable |
| SW 9             | GRO >C6-C7            | >2 mg/l       | Monthly          | <10 µg/l              | TM245                      | 24/07/2017 09:15                     | Lab: Precision 9.2%, Bias -4.4%, Expanded Uncertainty 22.7%. Sampling: Immeasurable |

| Monitoring Point | Substance / Parameter | Trigger level | Reference Period | Result <sup>(1)</sup> | Test Method <sup>(2)</sup> | Sample Date and Times <sup>(3)</sup> | Uncertainty <sup>(4)</sup>                                                                |
|------------------|-----------------------|---------------|------------------|-----------------------|----------------------------|--------------------------------------|-------------------------------------------------------------------------------------------|
| SW 9             | GRO >C8-C10           | >2 mg/l       | Monthly          | <10 µg/l              | TM245                      | 24/07/2017<br>09:15                  | Lab: Precision 9.2%, Bias -4.4%,<br>Expanded Uncertainty 22.7%.<br>Sampling: Immeasurable |
| SW 9             | GRO >C10-C12          | >2 mg/l       | Monthly          | <10 µg/l              | TM245                      | 24/07/2017<br>09:15                  | Lab: Precision 9.2%, Bias -4.4%,<br>Expanded Uncertainty 22.7%.<br>Sampling: Immeasurable |
| SW 9             | GRO >C5-C10           | >2 mg/l       | Monthly          | <10 µg/l              | TM245                      | 24/07/2017<br>09:15                  | Lab: Precision 9.2%, Bias -4.4%,<br>Expanded Uncertainty 22.7%.<br>Sampling: Immeasurable |

- [1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum - maximum' measured values.
- [2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.
- [3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
- [4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.



Signed.....

Date: August 2017

(Authorised to sign as representative of Operator)

Ahlim Hashm on behalf of Atlantic Recycling  
Permit Number: EPR/PP3993VS