

Permit Number: JP3239ST

Operator: The County council of the City and County of Cardiff

Installation: Lamby Way Landfill Site

Form Number: ... ..

**Reporting of .....Ground Water..... monitoring for the period for ... December 2022**

| Monitoring Point | Substance/<br>Parameter | Trigger Level | Reference<br>Period | Result [1] | Test Method [2] | Sample Date &<br>Times [3] | Uncertainty [4] |
|------------------|-------------------------|---------------|---------------------|------------|-----------------|----------------------------|-----------------|
| C1               | Am Nitrogen             | TBA           | Dec - 22            | <0.01      | INORG-L12       | 08th Dec 2022              | 12.69           |
| C1               | Cadmium                 | 1 ug/l        | Dec - 22            | Not tested | 1450            | 08th Dec 2022              | 3.93            |
| C1               | Nickel                  | 0.22 ug/l     | Dec - 22            | Not tested | METALS-L        | 08th Dec 2022              | 5.23            |
| C1               | Chloride                | TBA           | Dec - 22            | 27.2       | INORG-L13       | 08th Dec 2022              | 6.71            |
| C1               | MP Xylene               | 1 ug/l        | Dec - 22            | Not tested | ORG-LO5         | 08th Dec 2022              | 7.66            |
| C1               | Mecoprop                | 0.1 ug/l      | Dec - 22            | Not tested | ORG-L17         | 08th Dec 2022              | 8.27            |

| Monitoring Point | Substance/<br>Parameter | Trigger Level | Reference<br>Period | Result [1] | Test Method [2] | Sample Date &<br>Times [3] | Uncertainty [4] |
|------------------|-------------------------|---------------|---------------------|------------|-----------------|----------------------------|-----------------|
| C2               | Am Nitrogen             | TBA           | Dec - 22            | <0.01      | INORG-L12       | 08th Dec 2022              | 12.69           |
| C2               | Cadmium                 | 1 ug/l        | Dec - 22            | Not tested | 1450            | 08th Dec 2022              | 3.93            |
| C2               | Nickel                  | 0.22 ug/l     | Dec - 22            | Not tested | METALS-L        | 08th Dec 2022              | 5.23            |
| C2               | Chloride                | TBA           | Dec - 22            | 39.7       | INORG-L13       | 08th Dec 2022              | 6.71            |
| C2               | MP Xylene               | 1 ug/l        | Dec - 22            | Not tested | ORG-LO5         | 08th Dec 2022              | 7.66            |
| C2               | Mecoprop                | 0.1 ug/l      | Dec - 22            | Not tested | ORG-L17         | 08th Dec 2022              | 8.27            |

| Monitoring Point | Substance/<br>Parameter | Trigger Level | Reference<br>Period | Result [1] | Test Method [2] | Sample Date &<br>Times [3] | Uncertainty [4] |
|------------------|-------------------------|---------------|---------------------|------------|-----------------|----------------------------|-----------------|
| C3               | Am Nitrogen             | TBA           | Dec - 22            | 2.2        | INORG-L12       | 08th Dec 2022              | 12.69           |
| C3               | Cadmium                 | 1 ug/l        | Dec - 22            | Not tested | 1450            | 08th Dec 2022              | 3.93            |
| C3               | Nickel                  | 0.22 ug/l     | Dec - 22            | Not tested | METALS-L        | 08th Dec 2022              | 5.23            |
| C3               | Chloride                | TBA           | Dec - 22            | 145        | INORG-L13       | 08th Dec 2022              | 6.71            |
| C3               | MP Xylene               | 1 ug/l        | Dec - 22            | Not tested | ORG-LO5         | 08th Dec 2022              | 7.66            |
| C3               | Mecoprop                | 0.1 ug/l      | Dec - 22            | Not tested | ORG-L17         | 08th Dec 2022              | 8.27            |

| Monitoring Point | Substance/<br>Parameter | Trigger Level | Reference<br>Period | Result [1] | Test Method [2] | Sample Date &<br>Times [3] | Uncertainty [4] |
|------------------|-------------------------|---------------|---------------------|------------|-----------------|----------------------------|-----------------|
| C4               | Am Nitrogen             | TBA           | Dec - 22            | DNR        | INORG-L12       | 08th Dec 2022              | 12.69           |
| C4               | Cadmium                 | 1 ug/l        | Dec - 22            | Not tested | 1450            | 08th Dec 2022              | 3.93            |
| C4               | Nickel                  | 0.22 ug/l     | Dec - 22            | Not tested | METALS-L        | 08th Dec 2022              | 5.23            |
| C4               | Chloride                | TBA           | Dec - 22            | DNR        | INORG-L13       | 08th Dec 2022              | 6.71            |
| C4               | MP Xylene               | 1 ug/l        | Dec - 22            | Not tested | ORG-LO5         | 08th Dec 2022              | 7.66            |
| C4               | Mecoprop                | 0.1 ug/l      | Dec - 22            | Not tested | ORG-L17         | 08th Dec 2022              | 8.27            |

| Monitoring Point | Substance/<br>Parameter | Trigger Level | Reference<br>Period | Result [1] | Test Method [2] | Sample Date &<br>Times [3] | Uncertainty [4] |
|------------------|-------------------------|---------------|---------------------|------------|-----------------|----------------------------|-----------------|
| C5               | Am Nitrogen             | TBA           | Dec - 22            | 4.6        | INORG-L12       | 08th Dec 2022              | 12.69           |
| C5               | Cadmium                 | 1 ug/l        | Dec - 22            | Not tested | 1450            | 08th Dec 2022              | 3.93            |
| C5               | Nickel                  | 0.22 ug/l     | Dec - 22            | Not tested | METALS-L        | 08th Dec 2022              | 5.23            |
| C5               | Chloride                | TBA           | Dec - 22            | 3100       | INORG-L13       | 08th Dec 2022              | 6.71            |
| C5               | MP Xylene               | 1 ug/l        | Dec - 22            | Not tested | ORG-LO5         | 08th Dec 2022              | 7.66            |
| C5               | Mecoprop                | 0.1 ug/l      | Dec - 22            | Not tested | ORG-L17         | 08th Dec 2022              | 8.27            |

| Monitoring Point | Substance/<br>Parameter | Trigger Level | Reference<br>Period | Result [1] | Test Method [2] | Sample Date &<br>Times [3] | Uncertainty [4] |
|------------------|-------------------------|---------------|---------------------|------------|-----------------|----------------------------|-----------------|
| C6               | Am Nitrogen             | TBA           | Dec - 22            | 1.6        | INORG-L12       | 08th Dec 2022              | 12.69           |
| C6               | Cadmium                 | 1 ug/l        | Dec - 22            | Not tested | 1450            | 08th Dec 2022              | 3.93            |
| C6               | Nickel                  | 0.22 ug/l     | Dec - 22            | Not tested | METALS-L        | 08th Dec 2022              | 5.23            |
| C6               | Chloride                | TBA           | Dec - 22            | 5700       | INORG-L13       | 08th Dec 2022              | 6.71            |
| C6               | MP Xylene               | 1 ug/l        | Dec - 22            | Not tested | ORG-LO5         | 08th Dec 2022              | 7.66            |
| C6               | Mecoprop                | 0.1 ug/l      | Dec - 22            | Not tested | ORG-L17         | 08th Dec 2022              | 8.27            |

| Monitoring Point | Substance/<br>Parameter | Trigger Level | Reference<br>Period | Result [1] | Test Method [2] | Sample Date &<br>Times [3] | Uncertainty [4] |
|------------------|-------------------------|---------------|---------------------|------------|-----------------|----------------------------|-----------------|
| C8               | Am Nitrogen             | TBA           | Dec - 22            | 4.3        | INORG-L12       | 08th Dec 2022              | 12.69           |
| C8               | Cadmium                 | 1 ug/l        | Dec - 22            | Not tested | 1450            | 08th Dec 2022              | 3.93            |
| C8               | Nickel                  | 0.22 ug/l     | Dec - 22            | Not tested | METALS-L        | 08th Dec 2022              | 5.23            |
| C8               | Chloride                | TBA           | Dec - 22            | 6500       | INORG-L13       | 08th Dec 2022              | 6.71            |
| C8               | MP Xylene               | 1 ug/l        | Dec - 22            | Not tested | ORG-LO5         | 08th Dec 2022              | 7.66            |
| C8               | Mecoprop                | 0.1 ug/l      | Dec - 22            | Not tested | ORG-L17         | 08th Dec 2022              | 8.27            |

| Monitoring Point | Substance/<br>Parameter | Trigger Level | Reference<br>Period | Result [1] | Test Method [2] | Sample Date &<br>Times [3] | Uncertainty [4] |
|------------------|-------------------------|---------------|---------------------|------------|-----------------|----------------------------|-----------------|
| C10              | Am Nitrogen             | TBA           | Dec - 22            | DNR        | INORG-L12       | 08th Dec 2022              | 12.69           |
| C10              | Cadmium                 | 1 ug/l        | Dec - 22            | Not tested | 1450            | 08th Dec 2022              | 3.93            |
| C10              | Nickel                  | 0.22 ug/l     | Dec - 22            | Not tested | METALS-L        | 08th Dec 2022              | 5.23            |
| C10              | Chloride                | TBA           | Dec - 22            | DNR        | INORG-L13       | 08th Dec 2022              | 6.71            |
| C10              | MP Xylene               | 1 ug/l        | Dec - 22            | Not tested | ORG-LO5         | 08th Dec 2022              | 7.66            |
| C10              | Mecoprop                | 0.1 ug/l      | Dec - 22            | Not tested | ORG-L17         | 08th Dec 2022              | 8.27            |

| Monitoring Point | Substance/<br>Parameter | Trigger Level | Reference<br>Period | Result [1] | Test Method [2] | Sample Date &<br>Times [3] | Uncertainty [4] |
|------------------|-------------------------|---------------|---------------------|------------|-----------------|----------------------------|-----------------|
| C12              | Am Nitrogen             | TBA           | Dec - 22            | 20.0       | INORG-L12       | 08th Dec 2022              | 12.69           |
| C12              | Cadmium                 | 1 ug/l        | Dec - 22            | Not tested | 1450            | 08th Dec 2022              | 3.93            |
| C12              | Nickel                  | 0.22 ug/l     | Dec - 22            | Not tested | METALS-L        | 08th Dec 2022              | 5.23            |
| C12              | Chloride                | TBA           | Dec - 22            | 9700       | INORG-L13       | 08th Dec 2022              | 6.71            |
| C12              | MP Xylene               | 1 ug/l        | Dec - 22            | Not tested | ORG-LO5         | 08th Dec 2022              | 7.66            |
| C12              | Mecoprop                | 0.1 ug/l      | Dec - 22            | Not tested | ORG-L17         | 08th Dec 2022              | 8.27            |

| Monitoring Point | Substance/<br>Parameter | Trigger Level | Reference<br>Period | Result [1] | Test Method [2] | Sample Date &<br>Times [3] | Uncertainty [4] |
|------------------|-------------------------|---------------|---------------------|------------|-----------------|----------------------------|-----------------|
| C13              | Am Nitrogen             | TBA           | Dec - 22            | 8.0        | INORG-L12       | 08th Dec 2022              | 12.69           |
| C13              | Cadmium                 | 1 ug/l        | Dec - 22            | Not tested | 1450            | 08th Dec 2022              | 3.93            |
| C13              | Nickel                  | 0.22 ug/l     | Dec - 22            | Not tested | METALS-L        | 08th Dec 2022              | 5.23            |
| C13              | Chloride                | TBA           | Dec - 22            | 4100       | INORG-L13       | 08th Dec 2022              | 6.71            |
| C13              | MP Xylene               | 1 ug/l        | Dec - 22            | Not tested | ORG-LO5         | 08th Dec 2022              | 7.66            |
| C13              | Mecoprop                | 0.1 ug/l      | Dec - 22            | Not tested | ORG-L17         | 08th Dec 2022              | 8.27            |

| Monitoring Point | Substance/<br>Parameter | Trigger Level | Reference<br>Period | Result [1] | Test Method [2] | Sample Date &<br>Times [3] | Uncertainty [4] |
|------------------|-------------------------|---------------|---------------------|------------|-----------------|----------------------------|-----------------|
| C14              | Am Nitrogen             | TBA           | Dec - 22            | 19.4       | INORG-L12       | 08th Dec 2022              | 12.69           |
| C14              | Cadmium                 | 1 ug/l        | Dec - 22            | Not tested | 1450            | 08th Dec 2022              | 3.93            |
| C14              | Nickel                  | 0.22 ug/l     | Dec - 22            | Not tested | METALS-L        | 08th Dec 2022              | 5.23            |
| C14              | Chloride                | TBA           | Dec - 22            | 6800       | INORG-L13       | 08th Dec 2022              | 6.71            |
| C14              | MP Xylene               | 1 ug/l        | Dec - 22            | Not tested | ORG-LO5         | 08th Dec 2022              | 7.66            |
| C14              | Mecoprop                | 0.1 ug/l      | Dec - 22            | Not tested | ORG-L17         | 08th Dec 2022              | 8.27            |

| Monitoring Point | Substance/<br>Parameter | Trigger Level | Reference<br>Period | Result [1] | Test Method [2] | Sample Date &<br>Times [3] | Uncertainty [4] |
|------------------|-------------------------|---------------|---------------------|------------|-----------------|----------------------------|-----------------|
| C16              | Am Nitrogen             | TBA           | Dec - 22            | DNR        | INORG-L12       | 08th Dec 2022              | 12.69           |
| C16              | Cadmium                 | 1 ug/l        | Dec - 22            | Not tested | 1450            | 08th Dec 2022              | 3.93            |
| C16              | Nickel                  | 0.22 ug/l     | Dec - 22            | Not tested | METALS-L        | 08th Dec 2022              | 5.23            |
| C16              | Chloride                | TBA           | Dec - 22            | DNR        | INORG-L13       | 08th Dec 2022              | 6.71            |
| C16              | MP Xylene               | 1 ug/l        | Dec - 22            | Not tested | ORG-LO5         | 08th Dec 2022              | 7.66            |
| C16              | Mecoprop                | 0.1 ug/l      | Dec - 22            | Not tested | ORG-L17         | 08th Dec 2022              | 8.27            |

| Monitoring Point | Substance/<br>Parameter | Trigger Level | Reference<br>Period | Result [1] | Test Method [2] | Sample Date &<br>Times [3] | Uncertainty [4] |
|------------------|-------------------------|---------------|---------------------|------------|-----------------|----------------------------|-----------------|
| C17              | Am Nitrogen             | TBA           | Dec - 22            | DNR        | INORG-L12       | 08th Dec 2022              | 12.69           |
| C17              | Cadmium                 | 1 ug/l        | Dec - 22            | Not tested | 1450            | 08th Dec 2022              | 3.93            |
| C17              | Nickel                  | 0.22 ug/l     | Dec - 22            | Not tested | METALS-L        | 08th Dec 2022              | 5.23            |
| C17              | Chloride                | TBA           | Dec - 22            | DNR        | INORG-L13       | 08th Dec 2022              | 6.71            |
| C17              | MP Xylene               | 1 ug/l        | Dec - 22            | Not tested | ORG-LO5         | 08th Dec 2022              | 7.66            |
| C17              | Mecoprop                | 0.1 ug/l      | Dec - 22            | Not tested | ORG-L17         | 08th Dec 2022              | 8.27            |

| Monitoring Point | Substance/<br>Parameter | Trigger Level | Reference<br>Period | Result [1] | Test Method [2] | Sample Date &<br>Times [3] | Uncertainty [4] |
|------------------|-------------------------|---------------|---------------------|------------|-----------------|----------------------------|-----------------|
| C18              | Am Nitrogen             | TBA           | Dec - 22            | 0.19       | INORG-L12       | 08th Dec 2022              | 12.69           |
| C18              | Cadmium                 | 1 ug/l        | Dec - 22            | Not tested | 1450            | 08th Dec 2022              | 3.93            |
| C18              | Nickel                  | 0.22 ug/l     | Dec - 22            | Not tested | METALS-L        | 08th Dec 2022              | 5.23            |
| C18              | Chloride                | TBA           | Dec - 22            | 159        | INORG-L13       | 08th Dec 2022              | 6.71            |
| C18              | MP Xylene               | 1 ug/l        | Dec - 22            | Not tested | ORG-LO5         | 08th Dec 2022              | 7.66            |
| C18              | Mecoprop                | 0.1 ug/l      | Dec - 22            | Not tested | ORG-L17         | 08th Dec 2022              | 8.27            |

| Monitoring Point | Substance/<br>Parameter | Trigger Level | Reference<br>Period | Result [1] | Test Method [2] | Sample Date &<br>Times [3] | Uncertainty [4] |
|------------------|-------------------------|---------------|---------------------|------------|-----------------|----------------------------|-----------------|
| C19              | Am Nitrogen             | TBA           | Dec - 22            | <0.01      | INORG-L12       | 08th Dec 2022              | 12.69           |
| C19              | Cadmium                 | 1 ug/l        | Dec - 22            | Not tested | 1450            | 08th Dec 2022              | 3.93            |
| C19              | Nickel                  | 0.22 ug/l     | Dec - 22            | Not tested | METALS-L        | 08th Dec 2022              | 5.23            |
| C19              | Chloride                | TBA           | Dec - 22            | 810        | INORG-L13       | 08th Dec 2022              | 6.71            |
| C19              | MP Xylene               | 1 ug/l        | Dec - 22            | Not tested | ORG-LO5         | 08th Dec 2022              | 7.66            |
| C19              | Mecoprop                | 0.1 ug/l      | Dec - 22            | Not tested | ORG-L17         | 08th Dec 2022              | 8.27            |

| Monitoring Point | Substance/<br>Parameter | Trigger Level | Reference<br>Period | Result [1] | Test Method [2] | Sample Date &<br>Times [3] | Uncertainty [4] |
|------------------|-------------------------|---------------|---------------------|------------|-----------------|----------------------------|-----------------|
| C20              | Am Nitrogen             | TBA           | Dec - 22            | DNR        | INORG-L12       | 08th Dec 2022              | 12.69           |
| C20              | Cadmium                 | 1 ug/l        | Dec - 22            | Not tested | 1450            | 08th Dec 2022              | 3.93            |
| C20              | Nickel                  | 0.22 ug/l     | Dec - 22            | Not tested | METALS-L        | 08th Dec 2022              | 5.23            |
| C20              | Chloride                | TBA           | Dec - 22            | DNR        | INORG-L13       | 08th Dec 2022              | 6.71            |
| C20              | MP Xylene               | 1 ug/l        | Dec - 22            | Not tested | ORG-LO5         | 08th Dec 2022              | 7.66            |
| C20              | Mecoprop                | 0.1 ug/l      | Dec - 22            | Not tested | ORG-L17         | 08th Dec 2022              | 8.27            |

| Monitoring Point | Substance/<br>Parameter | Trigger Level | Reference<br>Period | Result [1] | Test Method [2] | Sample Date &<br>Times [3] | Uncertainty [4] |
|------------------|-------------------------|---------------|---------------------|------------|-----------------|----------------------------|-----------------|
| C21              | Am Nitrogen             | TBA           | Dec - 22            | 0.01       | INORG-L12       | 08th Dec 2022              | 12.69           |
| C21              | Cadmium                 | 1 ug/l        | Dec - 22            | Not tested | 1450            | 08th Dec 2022              | 3.93            |
| C21              | Nickel                  | 0.22 ug/l     | Dec - 22            | Not tested | METALS-L        | 08th Dec 2022              | 5.23            |
| C21              | Chloride                | TBA           | Dec - 22            | 2500       | INORG-L13       | 08th Dec 2022              | 6.71            |
| C21              | MP Xylene               | 1 ug/l        | Dec - 22            | Not tested | ORG-LO5         | 08th Dec 2022              | 7.66            |
| C21              | Mecoprop                | 0.1 ug/l      | Dec - 22            | Not tested | ORG-L17         | 08th Dec 2022              | 8.27            |

| Monitoring Point | Substance/<br>Parameter | Trigger Level | Reference<br>Period | Result [1] | Test Method [2] | Sample Date &<br>Times [3] | Uncertainty [4] |
|------------------|-------------------------|---------------|---------------------|------------|-----------------|----------------------------|-----------------|
| C22              | Am Nitrogen             | TBA           | Dec - 22            | 0.77       | INORG-L12       | 08th Dec 2022              | 12.69           |
| C22              | Cadmium                 | 1 ug/l        | Dec - 22            | Not tested | 1450            | 08th Dec 2022              | 3.93            |
| C22              | Nickel                  | 0.22 ug/l     | Dec - 22            | Not tested | METALS-L        | 08th Dec 2022              | 5.23            |
| C22              | Chloride                | TBA           | Dec - 22            | 8900       | INORG-L13       | 08th Dec 2022              | 6.71            |
| C22              | MP Xylene               | 1 ug/l        | Dec - 22            | Not tested | ORG-LO5         | 08th Dec 2022              | 7.66            |
| C22              | Mecoprop                | 0.1 ug/l      | Dec - 22            | Not tested | ORG-L17         | 08th Dec 2022              | 8.27            |

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 Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. 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...31<sup>st</sup> January 2023

(Authorised to sign as representative of Operator)