



## Boral Marulan Works POELA Act 2011 Monitoring Data March 2022 Report

### Boral Cement Marulan, NSW

#### Environmental Protection Licence No. 944

Explanation of units of measure:

mg/m<sup>3</sup> = milligrams per cubic metre

g/m<sup>2</sup>/month = grams per square metre per month

µg/m<sup>3</sup> = micrograms per cubic metre

mg/L = milligrams per litre

*Marulan South Lime Plant and Limestone Mine's webpage became live in July 2015. The monitoring data has been uploaded to the internet for public use first time in July 2015. Data is updated monthly.*

Record updated on 01/03/2022

**Compliance Summary:** The site is currently compliant with the Licence limits.

### 1. Annual Stack Monitoring

Test date 18<sup>th</sup> November 2021 for EPA 11- Kiln Stack and 19<sup>th</sup> of November 2021 for EPA 12 – Lime Hydration Scrubber Stack.

| Assessable Parameter (mg/m <sup>3</sup> )                              | Licence Limit           | 2015-16 | 2016 -17 | 2017-18 |
|------------------------------------------------------------------------|-------------------------|---------|----------|---------|
| <b>Emission Source: Kiln Stack (EPA identification Number: 11)</b>     |                         |         |          |         |
| Solid Particulates                                                     | 100 mg/m <sup>3</sup>   | 45      | 17       | 30      |
| Nitrogen Oxides                                                        | 2,000 mg/m <sup>3</sup> | 270     | 250      | 330     |
| <b>Emission Source: Hydrator Stack (EPA identification Number: 12)</b> |                         |         |          |         |
| Solid Particles Particulates                                           | 100 mg/m <sup>3</sup>   | 7.4     | 2.8      | 3.5     |

| Assessable Parameter (mg/m <sup>3</sup> )                              | Licence Limit           | 2018-19 | 2019-20 | 2020-21 |
|------------------------------------------------------------------------|-------------------------|---------|---------|---------|
| <b>Emission Source: Kiln Stack (EPA identification Number: 11)</b>     |                         |         |         |         |
| Solid Particulates                                                     | 100 mg/m <sup>3</sup>   | 50      | 86      | 39      |
| Nitrogen Oxides                                                        | 2,000 mg/m <sup>3</sup> | 260     | 470     | 240     |
| <b>Emission Source: Hydrator Stack (EPA identification Number: 12)</b> |                         |         |         |         |
| Solid Particles Particulates                                           | 100 mg/m <sup>3</sup>   | <2.00   | 9.7     | <2.00   |



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| Assessable Parameter (mg/m <sup>3</sup> )                              | Licence Limit           | 2020-21 |  |  |
|------------------------------------------------------------------------|-------------------------|---------|--|--|
| <b>Emission Source: Kiln Stack (EPA identification Number: 11)</b>     |                         |         |  |  |
| Solid Particulates                                                     | 100 mg/m <sup>3</sup>   | 8.4     |  |  |
| Nitrogen Oxides                                                        | 2,000 mg/m <sup>3</sup> | 370     |  |  |
| <b>Emission Source: Hydrator Stack (EPA identification Number: 12)</b> |                         |         |  |  |
| Solid Particles Particulates                                           | 100 mg/m <sup>3</sup>   | <2.00   |  |  |

**Compliance summary:** Marulan plant is compliant with the Licence stack emission limits. The latest testing was done during Annual Stack Monitoring in October 2020

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## 2. Ambient air monitoring

### 2.1 Dust Deposition Gauges: Total Insoluble Matter (g/m<sup>2</sup>-month)

This test measures the levels of the coarse dust (generated mostly from unsealed roads, raw material handling, open stockpiles, etc.). It is a measure of dust *nuisance* (dust on cars, washing, window panes) in the immediate vicinity of the source, as the heavy dust settles quickly and doesn't travel far. It is not an indication of potential health problems as it doesn't penetrate into the respiratory system due to a large size of dust particles.

**Licence limit:** Not specified.

The NSW State guideline of 4 g/m<sup>2</sup>/month (presented as 12-month rolling average) was adopted as an internal indicator of site performance.

Date published: N/A

| Report received on | Month    | Report Published | Dust Deposition Gauges<br>(g/m <sup>2</sup> /month 12-month rolling average) |                                        |
|--------------------|----------|------------------|------------------------------------------------------------------------------|----------------------------------------|
|                    |          |                  | EPA ID No. 1<br>(Nearest Residence)                                          | EPA ID No. 16<br>(Stores Paddock Hill) |
| N/A                | Jan 2015 | N/A              | 1.72                                                                         | 3.72                                   |
| N/A                | Feb 2015 | N/A              | 1.61                                                                         | 3.38                                   |
| N/A                | Mar 2015 | N/A              | 1.81                                                                         | 3.33                                   |
| N/A                | Apr 2015 | N/A              | 1.83                                                                         | 3.40                                   |
| N/A                | May 2015 | N/A              | 1.96                                                                         | 3.44                                   |
| 17/07/15           | Jun 2015 | 10/08/15         | 2.16                                                                         | 3.59                                   |
| 21/08/15           | Jul 2015 | 07/09/15         | 2.20                                                                         | 3.56                                   |
| 22/09/15           | Aug 2015 | 06/10/15         | 2.15                                                                         | 3.34                                   |
| 23/10/15           | Sep 2015 | 09/11/15         | 2.11                                                                         | 3.32                                   |
| 20/11/15           | Oct 2015 | 10/12/15         | 2.30                                                                         | 3.33                                   |
| 21/12/15           | Nov 2015 | 11/01/16         | 2.15                                                                         | 3.38                                   |
| 21/01/16           | Dec 2015 | 08/02/16         | 2.53                                                                         | 3.95                                   |
| 19/02/16           | Jan 2016 | 02/03/16         | 2.53                                                                         | 3.7                                    |
| 18/03/16           | Feb 2016 | 29/03/16         | 2.50                                                                         | 2.88                                   |
| 22/04/16           | Mar 2016 | 22/04/16         | 2.51                                                                         | 3.82                                   |
| 20/05/16           | Apr 2016 | 20/05/16         | 2.43                                                                         | 3.7                                    |
| 24/06/16           | May 2016 | 24/06/16         | 2.25                                                                         | 3.9                                    |
| 27/07/16           | Jun 2016 | 27/07/16         | 2.07                                                                         | 3.8                                    |
| 23/08/16           | Jul 2016 | 23/08/16         | 2.12                                                                         | 3.8                                    |
| 02/09/16           | Aug 2016 | 02/09/16         | 2.23                                                                         | 4.14                                   |
| 28/10/16           | Sep 2016 | 28/10/16         | 2.33                                                                         | 4.3                                    |
| 23/11/16           | Oct 2016 | 23/11/16         | 2.21                                                                         | 4.2                                    |
| 21/12/16           | Nov 2016 | 21/12/16         | 2.4                                                                          | 4.5                                    |
| 25/01/17           | Dec 2016 | 25/01/17         | 2.5                                                                          | 7.50                                   |
| 21/02/17           | Jan 2017 | 21/02/17         | 2.77                                                                         | 7.52                                   |



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| Report received on | Month     | Report Published | Dust Deposition Gauges<br>(g/m <sup>2</sup> /month 12-month rolling average) |                                        |
|--------------------|-----------|------------------|------------------------------------------------------------------------------|----------------------------------------|
|                    |           |                  | EPA ID No. 1<br>(Nearest Residence)                                          | EPA ID No. 16<br>(Stores Paddock Hill) |
| 24/03/17           | Feb 2017  | 24/03/17         | 2.88                                                                         | 7.70                                   |
| 20/04/17           | Mar 2017  | 20/04/17         | 2.86                                                                         | 7.64                                   |
| 17/05/17           | Apr 2017  | 17/05/17         | 2.94                                                                         | 7.85                                   |
| 20/06/17           | May 2017  | 20/06/17         | 3.10                                                                         | 7.63                                   |
| 19/07/17           | Jun 2017  | 19/07/17         | 3.26                                                                         | 8.15                                   |
| 22/08/17           | Jul 2017  | 22/08/17         | 3.24                                                                         | 8.68                                   |
| 20/09/17           | Aug 2017  | 19/09/17         | 3.21                                                                         | 8.64                                   |
| 20/10/17           | Sep 2017  | 20/10/17         | 3.24                                                                         | 8.63                                   |
| 20/11/17           | Oct 2017  | 20/11/17         | 3.42                                                                         | 8.63                                   |
| 21/12/17           | Nov 2017  | 21/12/17         | 3.32                                                                         | 8.29                                   |
| 16/01/18           | Dec 2017  | 16/01/18         | 3.12                                                                         | 5.50                                   |
| 22/02/18           | Jan 2018  | 06/03/18         | 3.05                                                                         | 5.36                                   |
| 22/03/18           | Feb 2018  | 06/04/18         | 3.69                                                                         | 6.97                                   |
| 19/04/18           | Mar 2018  | 23/04/18         | 3.27                                                                         | 7.08                                   |
| 16/04/18           | Apr 2018  | 02/05/18         | 3.39                                                                         | 7.07                                   |
| 25/06/18           | May 2018  | 22/06/18         | 3.40                                                                         | 7.22                                   |
| 23/07/18           | Jun 2018  | 17/08/18         | 3.33                                                                         | 6.84                                   |
| 22/08/18           | Jul 2018  |                  | 5.13                                                                         | 6.86                                   |
| 25/09/18           | Aug 2018  |                  | 5.24                                                                         | 7.22                                   |
| 23/10/18           | Sep 2018  |                  | 5.23                                                                         | 9.88                                   |
| 13/11/18           | Oct 2018  |                  | 5.23                                                                         | 9.72                                   |
| 16/12/18           | Nov 2018  |                  | 5.51                                                                         | 12.26                                  |
| 25/01/19           | Dec 2018  |                  | 5.15                                                                         | 13.20                                  |
| 20/02/19           | Jan 2019  |                  | 5.45                                                                         | 13.81                                  |
| 18/03/19           | Feb 2019  |                  | 5.16                                                                         | 12.86                                  |
| 02/05/19           | Mar 2019  |                  | 4.94                                                                         | 13.37                                  |
| 29/05/19           | Apr 2019  |                  | 4.41                                                                         | 13.43                                  |
| 29/06/19           | May 2019  |                  | 4.38                                                                         | 14.40                                  |
| 26/7/19            | Jun 2019  |                  | 4.52                                                                         | 14.71                                  |
|                    | July 2019 |                  | 4.57                                                                         | 14.49                                  |
| 20/9/19            | Aug 2019  | 27/09/19         | 4.61                                                                         | 14.56                                  |
| 24/10/19           | Sep 2019  | 29/09/19         | 5.07                                                                         | 12.15                                  |
| 28/11/19           | Oct 2019  | 28/11/19         | 4.83                                                                         | 13.02                                  |
| 23/12/19           | Nov 2019  | 20/12/19         | 4.38                                                                         | 11.59                                  |
| 29/1/20            | Dec 2019  | 5/2/20           | 4.61                                                                         | 11.66                                  |
| 28/2/20            | Jan 2020  | 4/3/20           | 4.27                                                                         | 13.25                                  |
| 31/3/20            | Feb 2020  | 31/3/20          | 5.85                                                                         | 13.29                                  |



| Report received on | Month      | Report Published | Dust Deposition Gauges<br>(g/m2/month 12-month rolling average) |                                        |
|--------------------|------------|------------------|-----------------------------------------------------------------|----------------------------------------|
|                    |            |                  | EPA ID No. 1<br>(Nearest Residence)                             | EPA ID No. 16<br>(Stores Paddock Hill) |
| 29/4/20            | Mar2020    | 29/4/20          | 5.67                                                            | 12.75                                  |
| 27/5/20            | Apr 2020   | 27/5/20          | 5.87                                                            | 12.78                                  |
| 26/6/20            | May 2020   | 26/6/20          | 6.23                                                            | 11.94                                  |
| 26/6/20            | Jun 2020   | 5/8/20           | 7.23                                                            | 11.56                                  |
| 27/8/20            | Jul 2020   | 27/8/20          | 6.85                                                            | 11.31                                  |
| 27/9/20            | Aug 2020   | 27/9/20          | 6.55                                                            | 10.93                                  |
| 27/10/20           | Sep 2020   | 27/10/20         | 7.22                                                            | 10.73                                  |
| 30/11/20           | Oct 2020   | 30/11/20         | 7.56                                                            | 9.53                                   |
| 27/1/21            | Nov 2020   | 20/1/21          | 7.76                                                            | 11.07                                  |
| 10/2/21            | Dec 2020   | 10/2/21          | 7.32                                                            | 10.34                                  |
| 17/3/21            | Jan 2021   | 17/3/21          | 6.87                                                            | 8.33                                   |
| 21/4/21            | Feb 2021   | 21/4/21          | 6.54                                                            | 7.47                                   |
| 28/4/21            | March 2021 | 28/4/21          | 6.57                                                            | 7.34                                   |
| 21/6/21            | April 2021 | 21/6/21          | 6.56                                                            | 7.28                                   |
| 30/6/21            | May 2021   | 30/6/21          | 6.43                                                            | 6.91                                   |
| 11/8/21            | June 2021  | 10/8/21          | 5.71                                                            | 6.94                                   |
| 07/9/21            | July 2021  | 02/9/21          | 5.59                                                            | 6.88                                   |
| 22/9/21            | Aug 21     | 23/9/21          | 5.53                                                            | 6.88                                   |
| 12/11/21           | Sep 21     | 12/11/21         | 5.16                                                            | 6.93                                   |
| 26/11/21           | Oct 21     | 26/11/21         | 5.06                                                            | 6.97                                   |
| 22/12/21           | Nov 21     | 29/12/21         | 6.75                                                            | 4.40                                   |
| 25/1/22            | Dec 21     | 25/1/22          | 6.61                                                            | 4.09                                   |
| 1/3/22             | Jan 22     | 28/2/22          | 6.72                                                            | 3.72                                   |
|                    |            |                  |                                                                 |                                        |
|                    |            |                  |                                                                 |                                        |
|                    |            |                  |                                                                 |                                        |

**Compliance Summary:** The site does not have a compliance limit for dust deposition. Elevated results at the two licenced points is generally reflective of their proximity to operations or activities in the surrounding paddocks. The nearest residence monitoring point is now company owned.

The stores paddock hill gauge is located on the limestone premises and is used as an indicator to manage dust from operations. Further analysis of the dust has revealed that the majority of material was organic and likely to have been from windblown paddock grasses and bird depositions.

Nearest Residence monitoring station damaged in extreme weather on the 15/2/2020. No sample was taken for that month. Reading given in any month is an average of the prior 12 months where data available.



2.2 High Volume Air Sampling: PM<sub>10</sub> dust fraction

This test measures the levels of the fine dust suspended in the air (generated mostly from stack emissions). It is a measure of potential *health effects* (irritation of the respiratory tract) as the small particles can penetrate into the airways and the lungs. Fine dust can persist in the atmosphere for days or even months before it settles and can travel some distance.

**Licence limits:** Not specified.

In absence of licence limits, the following guideline value was adopted:

- 24hr mean for PM<sub>10</sub> of 50 µg/m<sup>3</sup>, as per *National Environment Protection (Air Quality) Measure 2003*.

Date published: Not applicable

|               |                     |                     |                     |                     |          |         |          |          |
|---------------|---------------------|---------------------|---------------------|---------------------|----------|---------|----------|----------|
| Sampling date | 3/01/15             | 9/01/15             | 15/01/15            | 21/01/15            | 27/01/15 | 2/02/15 | 08/02/15 | 14/02/15 |
| PM10 (µg/m3)  | Motherboard failure | Motherboard failure | Motherboard failure | Motherboard failure | 10.62    | 27.6    | 6.92     | 5.88     |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 20/02/15 | 26/02/15 | 04/03/15 | 10/03/15 | 16/03/15 | 22/03/15 | 28/03/15 | 03/04/15 |
| PM10 (µg/m3)  | 29.64    | 16.44    | 31.49    | 33.22    | 32.41    | 20.06    | 22.57    | 8.94     |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 09/04/15 | 15/04/15 | 21/04/15 | 27/04/15 | 03/05/15 | 09/05/15 | 15/05/15 | 21/05/15 |
| PM10 (µg/m3)  | 12.84    | 17.38    | 2.34     | 3.18     | 2.54     | 4.5      | 10.05    | 2.7      |

|               |          |          |
|---------------|----------|----------|
| Sampling date | 27/05/15 | 02/06/15 |
| PM10 (µg/m3)  | 11.42    | 4.38     |

Data received from July 2015:

|               |         |         |         |         |         |          |          |          |
|---------------|---------|---------|---------|---------|---------|----------|----------|----------|
| Sampling date | 8/6/15  | 14/6/15 | 20/6/15 | 26/6/15 | 2/7/15  | 8/7/15   | 14/7/15  | 20/7/15  |
| Report date   | 10/7/15 | 10/7/15 | 10/7/15 | 10/7/15 | 10/7/15 | 11/8/15  | 11/8/15  | 11/8/15  |
| Upload date   | 10/8/15 | 10/8/15 | 10/8/15 | 10/8/15 | 10/8/15 | 07/09/15 | 07/09/15 | 07/09/15 |
| PM10 (µg/m3)  | 4.51    | 19.19   | 2.35    | 4.98    | 3.02    | 152.41   | 42.03    | 4.40     |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 26/7/15  | 1/8/15   | 7/8/15   | 13/8/15  | 19/8/15  | 25/8/15  | 31/8/15  | 6/9/15   |
| Report date   | 11/8/15  | 11/8/15  | 11/9/15  | 11/9/15  | 11/9/15  | 11/9/15  | 11/9/15  | 20/10/15 |
| Upload date   | 07/09/15 | 07/09/15 | 06/10/15 | 06/10/15 | 06/10/15 | 06/10/15 | 06/10/15 | 07/09/15 |
| PM10 (µg/m3)  | 2.4      | 1.38     | 6.84     | 3.02     | 20.65    | 1.37     | 6.39     | 4.76     |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 12/9/15  | 18/9/15  | 24/9/15  | 30/9/15  | 6/10/15  | 12/10/15 | 18/10/15 | 24/10/15 |
| Report date   | 20/10/15 | 20/10/15 | 20/10/15 | 20/10/15 | 20/10/15 | 20/10/15 | 9/11/15  | 9/11/15  |
| Upload date   | 07/09/15 | 09/11/15 | 09/11/15 | 09/11/15 | 09/11/15 | 09/11/15 | 10/12/15 | 10/12/15 |
| PM10 (µg/m3)  | 10.08    | 8.89     | 10.68    | 20.47    | 22.53    | 8.98     | 21.32    | 23.79    |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 30/10/15 | 5/11/15  | 11/11/15 | 17/11/15 | 23/11/15 | 29/11/15 | 5/12/15  | 11/12/15 |
| Report date   | 9/11/15  | 21/12/15 | 21/12/15 | 21/12/15 | 21/12/15 | 21/12/15 | 21/12/15 | 15/01/16 |
| Upload date   | 10/12/15 | 11/01/16 | 11/01/16 | 11/01/16 | 11/01/16 | 11/01/16 | 11/01/16 | 08/02/16 |
| PM10 (µg/m3)  | 49.62    | 12.33    | 35.78    | 20.00    | 101.65   | 20.35    | 158.27   | 76.01    |

|               |          |          |          |          |         |         |         |         |
|---------------|----------|----------|----------|----------|---------|---------|---------|---------|
| Sampling date | 17/12/15 | 23/12/15 | 29/12/15 | 4/1/16   | 10/1/16 | 16/1/16 | 22/1/16 | 28/1/16 |
| Report date   | 15/01/16 | 15/01/16 | 15/01/16 | 15/01/16 | 9/2/16  | 9/2/16  | 9/2/16  | 9/2/16  |
| Upload date   | 08/02/16 | 08/02/16 | 08/02/16 | 08/02/16 | 10/3/16 | 10/3/16 | 10/3/16 | 10/3/16 |
| PM10 (µg/m3)  | 63.88    | 44.76    | 44.31    | 33.85    | 36.94   | 6.13    | 19.44   | 19.94   |



|               |         |         |         |         |         |         |         |         |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Sampling date | 3/2/16  | 9/2/16  | 15/2/16 | 21/2/16 | 27/2/16 | 4/3/16  | 10/3/16 | 16/3/16 |
| Report date   | 9/2/16  | 14/3/16 | 14/3/16 | 14/3/16 | 14/3/16 | 19/4/16 | 19/4/16 | 19/4/16 |
| Upload date   | 10/4/16 | 10/4/16 | 10/4/16 | 10/4/16 | 10/4/16 | 10/5/16 | 10/5/16 | 10/5/16 |
| PM10 (µg/m3)  | 25.18   | 34.7    | 38.28   | 16.97   | 9.83    | 34.41   | 49.13   | 10.48   |

|               |         |         |         |         |         |         |         |         |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Sampling date | 22/3/16 | 28/3/16 | 3/4/16  | 9/4/16  | 15/4/16 | 21/4/16 | 29/4/16 | 3/5/16  |
| Report date   | 19/4/16 | 19/4/16 | 19/4/16 | 19/4/16 | 13/5/16 | 13/5/16 | 13/5/16 | 13/5/16 |
| Upload date   | 10/5/16 | 10/5/16 | 10/5/16 | 10/5/16 | 10/6/16 | 10/6/16 | 10/6/16 | 10/6/16 |
| PM10 (µg/m3)  | 3.92    | 16.95   | 21.54   | 29.43   | 28.66   | 16.16   | 23.33   | 6.69    |

|               |         |         |         |         |         |         |         |         |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Sampling date | 9/5/16  | 15/5/16 | 21/5/16 | 27/5/16 | 2/6/16  | 8/6/16  | 14/6/16 | 20/6/16 |
| Report date   | 22/6/16 | 22/6/16 | 22/6/16 | 22/6/16 | 22/6/16 | 22/6/16 | 19/7/16 | 19/7/16 |
| Upload date   | 13/7/16 | 13/7/16 | 13/7/16 | 13/7/16 | 13/7/16 | 13/7/16 | 10/8/16 | 10/8/16 |
| PM10 (µg/m3)  | 2.96    | 9.68    | 58.18   | 2.28    | 5.66    | 1.01    | 15.04   | 1.86    |

|               |         |         |         |         |         |         |         |          |
|---------------|---------|---------|---------|---------|---------|---------|---------|----------|
| Sampling date | 26/6/16 | 2/7/16  | 8/7/16  | 14/7/16 | 20/7/16 | 26/7/16 | 1/8/16  | 7/8/16   |
| Report date   | 19/7/16 | 19/7/16 | 19/7/16 | 12/8/16 | 12/8/16 | 12/8/16 | 12/8/16 | 13/9/16  |
| Upload date   | 10/8/16 | 10/8/16 | 10/8/16 | 10/9/16 | 10/9/16 | 10/9/16 | 10/9/16 | 10/10/16 |
| PM10 (µg/m3)  | 10.05   | 4.61    | 10.50   | 3.41    | 1.75    | 2.78    | 1.83    | 15.59    |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 13/8/16  | 19/8/16  | 25/8/16  | 31/8/16  | 6/9/16   | 12/9/16  | 18/9/16  | 24/9/16  |
| Report date   | 13/9/16  | 13/9/16  | 13/9/16  | 13/9/16  | 13/9/16  | 28/10/16 | 28/10/16 | 28/10/16 |
| Upload date   | 10/10/16 | 10/10/16 | 10/10/16 | 10/10/16 | 10/10/16 | 10/11/16 | 10/11/16 | 10/11/16 |
| PM10 (µg/m3)  | 7.38     | 25.42    | 4.46     | 9.10     | 22.52    | 15.06    | 12.76    | 6.93     |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 30/9/16  | 6/10/16  | 12/10/16 | 18/10/16 | 24/10/16 | 30/10/16 | 5/11/16  | 11/11/16 |
| Report date   | 28/10/16 | 28/10/16 | 28/10/16 | 28/10/16 | 18/11/16 | 18/11/16 | 18/11/16 | 18/12/16 |
| Upload date   | 10/11/16 | 10/11/16 | 10/11/16 | 10/11/16 | 20/12/16 | 20/12/16 | 20/12/16 | 20/12/16 |
| PM10 (µg/m3)  | 3.34     | 7.61     | 2.23     | 3.96     | 9.09     | 15.24    | 16.36    | 23.98    |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 17/11/16 | 23/11/16 | 29/11/16 | 5/12/16  | 11/12/16 | 17/12/16 | 23/12/16 | 29/12/16 |
| Report date   | 18/12/16 | 18/12/16 | 18/12/16 | 18/12/16 | 20/1/17  | 20/1/17  | 20/1/17  | 20/1/17  |
| Upload date   | 20/12/16 | 20/12/16 | 20/12/16 | 20/12/16 | 10/2/17  | 10/2/17  | 10/2/17  | 10/2/17  |
| PM10 (µg/m3)  | 23.3     | 18.51    | 24.14    | 50.68    | 27.27    | 13.18    | 34.22    | 17.81    |

|               |         |         |         |         |         |         |         |         |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Sampling date | 4/1/17  | 10/1/17 | 16/1/17 | 22/1/17 | 28/1/17 | 3/2/17  | 9/2/17  | 15/2/17 |
| Report date   | 20/1/17 | 20/1/17 | 20/1/17 | 13/2/17 | 13/2/17 | 13/2/17 | 21/3/17 | 21/3/17 |
| Upload date   | 10/2/17 | 10/2/17 | 10/2/17 | 10/3/17 | 10/3/17 | 10/3/17 | 10/4/17 | 10/4/17 |
| PM10 (µg/m3)  | 12.44   | 20.87   | 51.24   | 27.25   | 32.54   | 33.17   | 43.81   | 64.66   |

|               |         |         |         |         |         |         |         |         |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Sampling date | 21/2/17 | 27/2/17 | 5/3/17  | 11/3/17 | 17/3/17 | 23/3/17 | 29/3/17 | 4/4/17  |
| Report date   | 21/3/17 | 21/3/17 | 21/3/17 | 21/3/17 | 11/4/17 | 11/4/17 | 11/4/17 | 11/4/17 |
| Upload date   | 10/4/17 | 10/4/17 | 10/4/17 | 10/4/17 | 10/5/17 | 10/5/17 | 10/5/17 | 10/5/17 |
| PM10 (µg/m3)  | 52.19   | 38.37   | 26.36   | 61.15   | 2.74    | 5.44    | 18.92   | 2.02    |

|               |         |         |         |         |         |         |         |         |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Sampling date | 10/4/17 | 16/4/17 | 22/4/17 | 28/4/17 | 4/5/17  | 10/5/17 | 16/5/17 | 22/5/17 |
| Report date   | 16/5/17 | 16/5/17 | 16/5/17 | 16/5/17 | 16/5/17 | 13/6/17 | 13/6/17 | 13/6/17 |
| Upload date   | 10/7/17 | 10/7/17 | 10/7/17 | 10/7/17 | 10/7/17 | 10/7/17 | 10/7/17 | 10/7/17 |



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|              |      |       |       |      |       |       |      |      |
|--------------|------|-------|-------|------|-------|-------|------|------|
| PM10 (µg/m3) | 4.77 | 12.83 | 20.70 | 5.22 | 20.45 | 47.86 | 8.90 | 7.26 |
|--------------|------|-------|-------|------|-------|-------|------|------|

|               |         |         |         |         |         |         |         |         |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Sampling date | 28/5/17 | 3/6/17  | 9/6/17  | 15/6/17 | 21/6/17 | 27/6/17 | 3/7/17  | 9/7/17  |
| Report date   | 13/6/17 | 13/6/17 | 12/7/17 | 12/7/17 | 12/7/17 | 12/7/17 | 12/7/17 | 14/8/17 |
| Upload date   | 10/7/17 | 10/7/17 | 10/8/17 | 10/8/17 | 10/8/17 | 10/8/17 | 10/8/17 | 10/9/17 |
| PM10 (µg/m3)  | 5.69    | 17.58   | 3.53    | 14.01   | 6.5     | 27.67   | 17.7    | 3.15    |

|               |         |         |         |         |         |         |         |         |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Sampling date | 15/7/17 | 21/7/17 | 27/7/17 | 2/8/17  | 8/8/17  | 14/8/17 | 20/8/17 | 26/8/17 |
| Report date   | 14/8/17 | 14/8/17 | 14/8/17 | 14/8/17 | 14/8/17 | note *1 | note *1 | note *1 |
| Upload date   | 10/9/17 | 10/9/17 | 10/9/17 | 10/9/17 | 10/9/17 |         |         |         |
| PM10 (µg/m3)  | 6.73    | 15.97   | 26.88   | 8.04    | 3.87    |         |         |         |

|               |          |                |               |          |               |          |          |          |
|---------------|----------|----------------|---------------|----------|---------------|----------|----------|----------|
| Sampling date | 1/9/2017 | 6/9/2017<br>*2 | 14/9/17<br>*1 | 19/9/17  | 22/9/17<br>*1 | 25/9/17  | 3/10/17  | 7/10/17  |
| Report date   | 12/9/17  | 12/9/17        | 11/10/17      | 11/10/17 | 11/10/17      | 11/10/17 | 11/10/17 | 11/10/17 |
| Upload date   | 10/10/17 | 10/10/17       | 10/11/17      | 10/11/17 | 10/11/17      | 10/11/17 | 10/11/17 | 10/11/17 |
| PM10 (µg/m3)  | 8.66     | 1.67           | 5.83          | 8.92     | 44.27         | 6.12     | 13.15    | 11.18    |

|               |            |                                                       |          |            |                                                  |           |                                                  |           |
|---------------|------------|-------------------------------------------------------|----------|------------|--------------------------------------------------|-----------|--------------------------------------------------|-----------|
| Sampling date | 13/10/17   | 16/10/17<br>(replace<br>ment run<br>for the<br>13/10) | 19/10/17 | 25/10/17   | 26/10/17<br>replace<br>ment run<br>for<br>25/10) | 31/10/17  | 3/11/17<br>(replace<br>ment run<br>for<br>31/10) | 6/11/17   |
| Report date   | failure *3 | 13/11/17                                              | 13/11/17 | failure *3 | 13/11/17                                         | failure*3 | 13/11/17                                         | failure*3 |
| Upload date   |            | 10/1/18                                               | 10/1/18  |            | 10/1/18                                          |           | 10/1/18                                          |           |
| PM10 (µg/m3)  |            | 25.40                                                 | 17.20    |            | 5.48                                             |           | 7.12                                             |           |

|               |          |          |            |           |           |          |          |          |
|---------------|----------|----------|------------|-----------|-----------|----------|----------|----------|
| Sampling date | 7/11/17  | 12/11/17 | 18/11/17   | 24/11/17  | 30/11/17  | 6/12/17  | 7/12/17  | 12/12/17 |
| Report date   | 14/12/17 | 14/12/17 | failure *3 | failure*3 | failure*3 | 14/12/17 | 14/12/17 |          |
| Upload date   | 10/1/18  | 10/1/18  |            |           |           | 10/1/18  | 10/1/18  |          |
| PM10 (µg/m3)  | 10.62    | 17.47    |            |           |           | 5.60     | 6.27     | 73.51    |

|               |          |          |          |         |          |          |          |          |
|---------------|----------|----------|----------|---------|----------|----------|----------|----------|
| Sampling date | 18/12/17 | 24/12/17 | 30/12/17 | 5/01/18 | 11/01/18 | 17/01/18 | 23/01/18 | 29/01/18 |
| Report date   |          |          |          |         |          |          |          |          |
| Upload date   | 6/03/18  | 6/03/18  | 6/03/18  | 6/03/18 | 6/03/18  | 6/03/18  | 6/03/18  | 6/03/18  |
| PM10 (µg/m3)  | 70.11    | 33.99    | 37.34    | 61.79   | 38.41    | 51.02    | 114.45   | 43.09    |

|               |         |          |          |          |          |          |          |                       |
|---------------|---------|----------|----------|----------|----------|----------|----------|-----------------------|
| Sampling date | 4/02/18 | 10/02/18 | 19/02/18 | 22/02/18 | 28/02/18 | 6/03/18  | 12/03/18 | 21/03/18 <sup>4</sup> |
| Report date   |         | 15/03/18 | 15/03/18 | 15/03/18 | 15/03/18 | 15/03/18 | 12/04/18 | 12/04/18              |
| Upload date   | 6/04/18 | 6/04/18  | 6/04/18  | 6/04/18  | 6/04/18  | 6/04/18  |          |                       |
| PM10 (µg/m3)  | 24.79   | 40.06    | 16.64    | 37.31    | 12.18    | 24.61    | 112.18   | 11.68                 |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 24/03/18 | 30/03/18 | 5/04/18  | 11/04/18 | 17/04/18 | 23/04/18 | 30/04/18 | 5/05/18  |
| Report date   | 12/04/18 | 12/04/18 | 11/05/18 | 11/05/18 | 11/05/18 | 11/05/18 | 11/05/18 | 11/05/18 |
| Upload date   | 28/05/18 | 28/05/18 | 28/05/18 | 28/05/18 | 28/05/18 | 28/05/18 | 28/05/18 | 28/05/18 |
| PM10 (µg/m3)  | 61.09    | 50.30    | 126.5    | 79.1     | 144.84   | 121.08   | 24.89    | 5.22     |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 11/05/18 | 17/05/18 | 22/05/18 | 23/05/18 | 29/05/18 | 04/06/18 | 10/06/18 | 04/06/18 |
| Report date   | 13/06/18 |          | 13/06/18 | 13/06/18 | 13/06/18 | 13/06/18 | 13/06/18 | 13/06/18 |





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|              |          |          |          |          |          |          |      |          |
|--------------|----------|----------|----------|----------|----------|----------|------|----------|
| Upload date  | 02/07/18 | 02/07/18 | 02/07/18 | 02/07/18 | 02/07/18 | 02/07/18 |      | 02/07/18 |
| PM10 (µg/m3) | 1.53     |          | 17.18    | 19.87    | 49.09    | 11.70    | 1.58 | 11.70    |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 10/06/18 | 16/06/18 | 22/06/18 | 28/06/18 | 04/07/18 | 10/07/18 | 16/07/18 | 22/07/18 |
| Report date   | 13/06/18 | 11/07/18 | 11/07/18 | 11/07/18 | 11/07/18 | 08/08/18 | 08/08/18 | 08/08/18 |
| Upload date   | 02/07/18 | 17/08/18 | 17/08/18 | 17/08/18 | 17/08/18 |          |          |          |
| PM10 (µg/m3)  | 1.58     | 0.13     | 6.90     | 10.81    | 13.79    | 7.09     | 4.77     |          |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 25/07/18 | 28/07/18 | 3/08/18  | 09/08/18 | 15/08/18 | 21/08/18 | 27/08/18 | 04/09/18 |
| Report date   | 08/08/18 | 08/08/18 | 08/08/18 | 19/09/18 | 19/09/18 | 19/09/18 | 19/09/18 | 19/09/18 |
| PM10 (µg/m3)  | 3.36     | 13.38    | 38.99    | 14.93    | 3.25     | 1.99     | 23.14    | 32.76    |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 08/09/18 | 15/09/18 | 20/09/18 | 26/09/18 | 02/10/18 | 08/10/18 | 14/10/18 | 20/10/18 |
| Report date   | 19/09/18 | 17/10/18 | 17/10/18 | 17/10/18 | 17/10/18 | 17/10/18 | 9/11/18  | 9/11/18  |
| PM10 (µg/m3)  | 7.00     | 18.30    | 27.02    | 9.35     | 50.98    | 13.00    | 5.39     | 17.74    |

|               |          |         |          |          |          |          |          |          |
|---------------|----------|---------|----------|----------|----------|----------|----------|----------|
| Sampling date | 26/10/18 | 1/11/18 | 7/11/18  | 13/11/18 | 19/11/18 | 25/11/18 | 1/12/18  | 7/12/18  |
| Report date   | 9/11/18  | 9/11/18 | 14/12/18 | 14/12/18 | 14/12/18 | 14/12/18 | 14/12/18 | 14/12/18 |
| PM10 (µg/m3)  | 19.43    | 35.33   | 38.23    | 86.01    | 35.31    | 10.23    | 14.75    | 37.08    |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 13/12/18 | 19/12/18 | 25/12/18 | 31/12/18 | 12/01/19 | 15/01/19 | 30/01/19 | 5/02/19  |
| Report date   | 14/01/18 | 14/01/18 | 14/01/18 | 14/01/18 | 12/02/19 | 12/02/19 | 12/02/19 | 12/02/19 |
| PM10 (µg/m3)  | 15.32    | 22.41    | 19.62    | 46.78    | 18.21    | 40.30    | 39.31    | 27.77    |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 11/02/19 | 13/02/19 | 17/02/19 | 23/02/19 | 1/03/19  | 7/03/19  | 13/03/19 | 19/03/19 |
| Report date   | 11/03/19 | 11/03/19 | 11/03/19 | 11/03/19 | 11/03/19 | 30/04/19 | 30/04/19 | 30/04/19 |
| PM10 (µg/m3)  | 9.60     | 20.23    | 32.06    | 76.20    | 18.30    | 56.73    | 53.22    | 6.86     |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 25/03/19 | 31/03/19 | 06/04/19 | 12/04/19 | 18/04/19 | 24/04/19 | 30/04/19 | 06/05/19 |
| Report date   | 30/04/19 | 30/04/19 | 30/04/19 | 20/05/19 | 20/05/19 | 20/05/19 | 20/05/19 | 20/05/19 |
| PM10 (µg/m3)  | 4.58     | 0.34     | 12.81    | 33.58    | 21.05    | 24.74    | 49.05    | 6.74     |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 12/04/19 | 18/04/19 | 24/04/19 | 30/04/19 | 05/06/19 | 11/06/19 | 17/06/19 | 23/06/19 |
| Report date   | 19/06/19 | 19/06/19 | 19/06/19 | 19/06/19 | 19/06/19 | 19/06/19 | 19/07/19 | 19/07/19 |
| PM10 (µg/m3)  | 1.18     | 19.92    | 11.27    | 1.42     | 3.36     | 16.75    | 70.1     | 8.87     |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 29/06/19 | 05/07/19 | 11/07/19 | 17/07/19 | 23/07/19 | 29/07/19 | 04/08/19 | 10/08/19 |
| Report date   | 19/07/19 | 19/07/19 | 29/09/19 | 29/09/19 | 29/09/19 | 29/09/19 | 29/09/19 | 29/09/19 |
| PM10 (µg/m3)  | 14.68    | 10.20    | 21.49    | 21.42    | 21.45    | 21.26    | 20.69    | 20.50    |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 16/08/19 | 22/08/19 | 28/08/19 | 03/09/19 | 09/09/19 | 15/09/19 | 21/09/19 | 27/09/19 |
| Report date   | 29/09/19 | 30/10/19 | 30/10/19 | 30/10/19 | 30/10/19 | 30/10/19 | 30/10/19 | 30/10/19 |
| PM10 (µg/m3)  | 22.03    | 22.04    | 21.72    | 21.51    | 21.43    | 21.36    | 21.80    | 21.84    |

|               |          |          |          |          |          |         |         |          |
|---------------|----------|----------|----------|----------|----------|---------|---------|----------|
| Sampling date | 03/10/19 | 09/10/19 | 15/10/19 | 21/10/19 | 27/10/19 | 2/11/19 | 8/11/19 | 14/11/19 |
| Report date   | 30/10/19 | 30/10/19 | 14/1/20  | 14/1/20  | 14/1/20  | 14/1/20 | 14/1/20 | 14/1/20  |
| PM10 (µg/m3)  | 21.52    | 21.35    | 21.93    | 21.85    | 21.81    | 21.39   | 20.94   | 19.69    |

|               |          |          |          |          |          |          |          |         |
|---------------|----------|----------|----------|----------|----------|----------|----------|---------|
| Sampling date | 20/11/19 | 26/11/19 | 02/12/19 | 08/12/19 | 14/12/19 | 20/12/19 | 26/12/19 | 1/1/20  |
| Report date   | 14/1/20  | 14/1/20  | 14/1/20  | 14/1/20  | 14/1/20  | 14/1/20  | 14/1/20  | 14/1/20 |
| PM10 (µg/m3)  | 19.61    | 20.80    | 20.75    | 20.56    | 21.35    | 23.04    | 24.64    | 29.38   |



|               |         |         |         |         |         |         |         |         |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Sampling date | 7/1/20  | 13/1/20 | 19/1/20 | 25/1/20 | 31/1/20 | 6/2/20  | 12/2/20 | 18/2/20 |
| Report date   | 12/2/20 | 12/2/20 | 12/2/20 | 12/2/20 | 12/2/20 | 24/3/20 | 24/3/20 | 24/3/20 |
| PM10 (µg/m3)  | 31.22   | 32.53   | 32.42   | 32.39   | 32.46   | 38.18   | 19.41   | 52.58   |

|               |         |         |         |         |         |         |         |         |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Sampling date | 24/2/20 | 1/3/20  | 7/3/20  | 13/3/20 | 19/3/20 | 24/3/20 | 31/3/20 | 6/4/20  |
| Report date   | 24/3/20 | 24/3/20 | 24/3/20 | 24/3/20 | 30/4/20 | 30/4/20 | 30/4/20 | 30/4/20 |
| PM10 (µg/m3)  | 47.42   | 54.44   | 48.15   | 104.76  | 15.18   | 34.91   | 8.22    | 7.86    |

|               |         |         |         |         |         |         |         |         |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Sampling date | 12/4/20 | 18/4/20 | 24/4/20 | 27/4/20 | 30/4/20 | 1/5/20  | 4/5/20  | 6/5/20  |
| Report date   | 30/4/20 | 30/4/20 | 25/5/20 | 25/5/20 | 25/5/20 | 25/5/20 | 25/5/20 | 22/6/20 |
| PM10 (µg/m3)  | 17.61   | 16.81   | 12.30   | 102.64  | 1.81    | 1.07    | 1.64    | 9.00    |

|               |         |         |         |         |         |         |         |         |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Sampling date | 12/5/20 | 18/5/20 | 24/5/20 | 30/5/20 | 5/6/20  | 11/6/20 | 17/6/20 | 23/6/20 |
| Report date   | 22/6/20 | 22/6/20 | 22/6/20 | 22/6/20 | 22/6/20 | 22/6/20 | 16/7/20 | 16/7/20 |
| PM10 (µg/m3)  | 13.33   | 15.51   | 0.13    | 3.45    | 4.68    | 3.72    | 8.11    | 0.50    |

|               |         |         |         |         |         |         |         |        |
|---------------|---------|---------|---------|---------|---------|---------|---------|--------|
| Sampling date | 29/6/20 | 5/7/20  | 11/7/20 | 20/7/20 | 21/7/20 | 23/7/20 | 29/7/20 | 4/8/20 |
| Report date   | 16/7/20 | 16/7/20 | 3/9/20  | 3/9/20  | 3/9/20  | 3/9/20  | 3/9/20  | 3/9/20 |
| PM10 (µg/m3)  | 6.51    | 1.12    | 31.05   | 10.14   | 26.53   | 8.32    | 1.88    | 9.21   |

|               |        |         |         |         |         |         |          |          |
|---------------|--------|---------|---------|---------|---------|---------|----------|----------|
| Sampling date | 5/8/20 | 10/8/20 | 16/8/20 | 22/8/20 | 28/8/20 | 3/9/20  | 9/9/20   | 15/9/20  |
| Report date   | 3/9/20 | 17/9/20 | 17/9/20 | 17/9/20 | 17/9/20 | 17/9/20 | 21/10/20 | 21/10/20 |
| PM10 (µg/m3)  | 2.56   | 4.31    | 2.50    | 2.20    | 7.19    | 22.77   | 9.64     | 10.82    |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 12/9/20  | 27/9/20  | 3/10/20  | 7/10/20  | 9/10/20  | 15/10/20 | 21/10/20 | 27/10/20 |
| Report date   | 21/10/20 | 21/10/20 | 21/10/20 | 21/10/20 | 27/11/20 | 27/11/20 | 27/11/20 | 27/11/20 |
| PM10 (µg/m3)  | 13.71    | 4.22     | 11.59    | 4.25     | 1.88     | 32.18    | 39.59    | 3.92     |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 2/11/20  | 8/11/20  | 14/11/20 | 20/11/20 | 26/11/20 | 2/12/20  | 4/12/20  | 8/12/20  |
| Report date   | 27/11/20 | 27/11/20 | 27/11/20 | 27/11/20 | 23/12/20 | 23/12/20 | 23/12/20 | 23/12/20 |
| PM10 (µg/m3)  | 8.22     | 7.18     | 8.97     | 15.71    | 26.56    | 20.13    | 5.79     | 3.69     |

|               |          |          |          |          |         |         |         |          |
|---------------|----------|----------|----------|----------|---------|---------|---------|----------|
| Sampling date | 14/12/20 | 20/12/20 | 22/12/20 | 26/12/20 | 1/01/21 | 5/01/21 | 7/01/21 | 13/01/21 |
| Report date   | 23/12/20 | 7/1/21   | 7/1/21   | 7/1/21   | 7/1/21  | 7/1/21  | 4/3/21  | 4/3/21   |
| PM10 (µg/m3)  | 4.13     | 9.46     | 7.08     | 9.96     | 6.33    | 8.65    | 5.23    | 15.66    |

|               |          |                                                                            |  |  |  |  |  |  |
|---------------|----------|----------------------------------------------------------------------------|--|--|--|--|--|--|
| Sampling date | 19/01/21 | 25/01/21 to 19/04/21 Results missing due to PM10 unit mechanical failure*. |  |  |  |  |  |  |
| Report date   | 4/3/21   |                                                                            |  |  |  |  |  |  |
| PM10 (µg/m3)  | 47.14    |                                                                            |  |  |  |  |  |  |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 25/04/21 | 1/05/21  | 7/05/21  | 13/05/21 | 19/05/21 | 25/05/21 | 31/05/21 | 6/6/21   |
| Report date   | 21/05/21 | 21/05/21 | 21/05/21 | 23/06/21 | 23/06/21 | 23/06/21 | 23/06/21 | 23/06/21 |
| PM10 (µg/m3)  | 11.54    | 27.07    | 3.86     | 4.89     | 13.65    | 14.99    | Failed*  | 4.78     |

|               |          |          |          |          |         |         |          |          |
|---------------|----------|----------|----------|----------|---------|---------|----------|----------|
| Sampling date | 12/06/21 | 18/06/21 | 24/06/21 | 30/06/21 | 2/07/21 | 6/07/21 | 12/07/21 | 18/07/21 |
| Report date   | 3/08/21  | 3/08/21  | 3/08/21  | 3/08/21  | 3/08/21 | 3/08/21 | 3/08/21  | 17/08/21 |
| PM10 (µg/m3)  | 1.32     | 2.26     | 3.33     | 7.46     | 2.14    | 1.19    | 4.72     | 1.48     |



|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 24/07/21 | 30/07/21 | 5/08/21  | 11/08/21 | 17/08/21 | 23/08/21 | 29/08/21 | 4/09/21  |
| Report date   | 17/08/21 | 17/08/21 | 17/08/21 | 21/09/21 | 21/09/21 | 21/09/21 | 21/09/21 | 21/09/21 |
| PM10 (µg/m3)  | 2.78     | 3.54     | 1.28     | 0.34     | 1.73     | 0.76     | 4.33     | 2.12     |

|               |          |          |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sampling date | 10/09/21 | 16/09/21 | 22/09/21 | 2/10/21  | 4/10/21  | 10/10/21 | 16/10/21 | 22/10/21 |
| Report date   | 26/10/21 | 26/10/21 | 26/10/21 | 26/10/21 | 26/10/21 | 12/11/21 | 12/11/21 | 12/11/21 |
| PM10 (µg/m3)  | 3.63     | 3.20     | 1.14     | 0.21     | 3.09     | 20.16    | 12.92    | 27.57    |

|               |          |          |          |          |          |          |          |         |
|---------------|----------|----------|----------|----------|----------|----------|----------|---------|
| Sampling date | 28/10/21 | 3/11/21  | 9/11/21  | 15/11/21 | 21/11/21 | 27/11/21 | 3/12/21  | 9/12/21 |
| Report date   | 12/11/21 | 12/11/21 | 15/12/21 | 15/12/21 | 15/12/21 | 15/12/21 | 15/12/21 | 5/1/22  |
| PM10 (µg/m3)  | 30.36    | 51.97    | 9.22     | 5.75     | 4.00     | 2.65     | 17.81    | 8.64    |

|               |          |          |         |         |         |         |         |         |
|---------------|----------|----------|---------|---------|---------|---------|---------|---------|
| Sampling date | 15/12/21 | 21/12/21 | 8/1/22  | 14/1/22 | 18/1/22 | 20/1/22 | 24/1/22 | 26/1/22 |
| Report date   | 5/1/22   | 5/1/22   | 17/2/22 | 17/2/22 | 17/2/22 | 17/2/22 | 17/2/22 | 17/2/22 |
| PM10 (µg/m3)  | 24.04    | 23.42    | 9.14    | 25.65   | 14.05   | 6.73    | 17.31   | 23.68   |

|               |         |         |  |  |  |  |  |  |
|---------------|---------|---------|--|--|--|--|--|--|
| Sampling date | 1/2/22  | 4/2/22  |  |  |  |  |  |  |
| Report date   | 17/2/22 | 17/2/22 |  |  |  |  |  |  |
| PM10 (µg/m3)  | 26.39   | 6.01    |  |  |  |  |  |  |

**Compliance Summary:** The plant does not have a Licence limit for air-suspended particulate. Sampling is programmed to run every six days, however on occasion the sampler can fail to run which is beyond the control of the site. Where reasonably practicable additional sample runs are undertaken to make up any missed samples. Elevated levels against guidelines are typically the result of adverse events such as dust storms and bushfires.

Note \*1 PM10 High Volume sampler failed to run on the 14, 20 and 26<sup>th</sup> August 2017. Technical assistance was sought and the mother board on the sampler changed. Additional samples have been taken during September.

Note \*2 sampling should have been conducted on the 7<sup>th</sup> September 2017; however an area wide power outage was planned. Monitoring was therefore undertaken on the 6<sup>th</sup> September 2017.

Note \*3 problems have continued with the running of the High Volume sampler. The battery pack has been replaced to determine whether this is the cause. Replacement samples have been undertaken where possible.

Note \*4. Replaces sample from 18.03.18 as no sample collected due to power outage and bushfire.

**April 2018 elevated results are in caused by fire reduction exercises at Wingello and Tarago.**

**May 2018 Comments as in the Clients COC: Field Sample No 2- HVAS failed to run on the 17/05/18.**

**Make up run on the 22/05/18**

**June / July Field sample No 3: Machine didn't run correctly on the due date (22/07/2018) full re-run on the 25/07/2018.**

**October & November 2018 site has experienced high winds/ & dryer conditions.**

**February 17/02/19 till 23/02/19 a large dust storm coming from a south westerly direction during the sampling period.**

**March 2019 first half of the month was affected by dust storms and drier conditions.**



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January 2021 Breakdown of Hi Volume PM10 monitoring station. First sample with new unit 21/5/2021. Samples for PM2.5 and TSP taken during this period.

31/5/21 Machine failed to operate. Frequency to be increased to make up average samples to in every 6 days.

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### 3. **Water monitoring:** North Pit Bore

Current Licence requirements cover quarterly monitoring of groundwater quality in the North Pit Bore until March 2020 and Then WM05 Bore, (both bores were/are now EPA Identification No. 13).

**Licence limits:** Not specified.

The NSW State guidelines: Typical discharge limits are as follows:

Oil and Grease: 10 milligrams per litre

Total Suspended Solids: 30-50 milligrams per litre.

| Sampling date                                                                                                                                                                                                                      | Report received on | Report published on | Oil and Grease (mg/L) | Total Suspended Solids (mg/L) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------|-----------------------|-------------------------------|
| 24/03/15                                                                                                                                                                                                                           | 01/04/15           | N/A                 | 6                     | 42                            |
| 23/06/15                                                                                                                                                                                                                           | 08/07/15           | 08/07/15            | <5                    | <5                            |
| 02/09/15                                                                                                                                                                                                                           | 28/09/15           | 06/10/15            | <5                    | <5                            |
| 01/12/15                                                                                                                                                                                                                           | 22/12/15           | 11/01/16            | <5                    | 14                            |
| 31/03/16                                                                                                                                                                                                                           | 14/04/16           | 10/05/16            | <5                    | <5                            |
| 30/06/16                                                                                                                                                                                                                           | 12/07/16           | 10/08/16            | <5                    | <5                            |
| 09/09/16                                                                                                                                                                                                                           | 28/09/16           | 28/09/16            | <5                    | <5                            |
| 13/12/16                                                                                                                                                                                                                           | 16/01/17           | 10/02/17            | <5                    | 15                            |
| 31/03/17                                                                                                                                                                                                                           | 21/04/17           | 10/05/17            | <1                    | 156                           |
| 26/06/17                                                                                                                                                                                                                           | 13/07/17           | 10/08/17            | <1                    | 99                            |
| 25/07/17                                                                                                                                                                                                                           | 18/10/17           | 20/11/17            | <1                    | 17                            |
| 15/01/18                                                                                                                                                                                                                           | 05/02/18           | 06/03/18            | <5                    | 30                            |
| 20/03/18                                                                                                                                                                                                                           | 11/04/18           | 11/04/18            | <5                    | 22                            |
| 05/06/18                                                                                                                                                                                                                           | 26/06/18           |                     | <1                    | 30                            |
| 05/09/18                                                                                                                                                                                                                           | 18/09/18           |                     | <1                    | 9                             |
| 03/12/18                                                                                                                                                                                                                           | 17/12/18           |                     | <1                    | 5                             |
| 12/03/19                                                                                                                                                                                                                           | 29/03/19           |                     | <1                    | 4                             |
| 26/06/19                                                                                                                                                                                                                           | 04/09/19           | 04/09/19            | <5                    | 21                            |
| 23/10/19                                                                                                                                                                                                                           | 12/11/19           | 04/11/19            | <5                    | 54                            |
| 17/12/19                                                                                                                                                                                                                           | 7/2/20             | 14/1/20             | <5                    | 28                            |
| 24/3/20                                                                                                                                                                                                                            | 7/4/20             | 7/4/20              | <5                    | 5                             |
| Note: North Pit Bore is no longer operational as of the 24/3/2020. Replaced in EPL by Ground Water Monitoring Point labelled "WM05" on map "EPL 944 Ground Water Monitoring Point Location Change – December 2020" (DOC20/1014984) |                    |                     |                       |                               |
| 29/9/20                                                                                                                                                                                                                            | 8/10/20            | 8/10/20             | <5                    | <5                            |
| 9/12/20                                                                                                                                                                                                                            | 18/12/20           | 18/12/20            | <5                    | 11                            |
| 31/3/21                                                                                                                                                                                                                            | 22/6/21            | 9/04/21             | <5                    | <5                            |
| 15/6/21                                                                                                                                                                                                                            | 5/7/21             | 5/7/21              | <5                    | 14                            |
| 30/9/21                                                                                                                                                                                                                            | 11/10/21           | 11/10/21            | <5                    | 11                            |
| 13/12/21                                                                                                                                                                                                                           | 10/1/22            | 23/12/21            | <5                    | 15                            |

**Compliance Summary:** The plant does not have Licence limits for water parameters. It is however compliant with the adopted NSW guideline values.

**REPORT ENDS**