



# Byrock Quarry

## Environmental Monitoring Report

May 2021

Published: June 2021



## Byrock Quarry Environmental Monitoring Report

This monitoring report is to satisfy the requirements of Section 66 (6) of the Protection of the Environment and Operations Act 1997, to make available, within 14 days of obtaining any monitoring data that relates to pollution under an Environment Protection Licence.

The monitoring of pollutants provided in this report is undertaken as per the requirements of Environment Protection Licence 21022 (EPL 21022 – Boral Byrock Quarry)

This report provides environmental monitoring data for Byrock Quarry for the period February 2019 to March 2021.

| Byrock Quarry Information |   |
|---------------------------|---|
| Premise Details           | Boral – Byrock Quarry   |
| Address                   | Cobar St, Byrock NSW 2831   |
| Licensee                  | Boral Resources (Country) Pty Ltd   |
| EPL No                    | 21022   |
| EPL Location              | <a href="https://apps.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=159518&amp;SYSUID=1&amp;LICID=21022">https://apps.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=159518&amp;SYSUID=1&amp;LICID=21022</a> |

Monitoring data in this report relates to the monitoring undertaken for the following environmental pollutants:

- Blasting,
- Surface Water.

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## Blasting

Blast monitoring is conducted as per condition L5 of EPL 21022. The blasting monitoring results are summarised below.

Sample Period: May 2021  
Licensee: Byrock Quarry  
Licensee Address: Cobar St, Byrock NSW 2831  
EPL No: 21022

### Qualifications related to blasting:

L5.1 The air blast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

L5.2 The air blast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

L5.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

L5.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

Note: 1. The air blast overpressure and ground vibration levels in conditions L5.1 to L5.4 do not apply at noise sensitive locations that are owned by the licensee or are subject to a private agreement, relating to air blast overpressure and ground vibration levels, between the licensee and the landowner. 2. "Noise sensitive locations" includes buildings used as a residence, hospital, school, child care centres, places of worship and nursing homes. A noise sensitive location includes the land within 30m of the building.

L5.5 Blasting operations on the premises must only take place: (i) between 9am and 4pm Monday to Saturday inclusive; and (ii) at other times as approved by the EPA.

L5.6 Blasting at the premises is limited to 1 blast each day on which blasting is permitted.

| Results – Monitoring Location (A), shown on Page 6 of this report. |       |                       |                         |              |                     |              |
|--|-------|-----------------------|-------------------------|--------------|---------------------|--------------|
| Blast Date   | Time  | Date Results Received | Ground Vibration Result | GV Compliant | Overpressure Result | OP Compliant |
| 29/8/2016  | 13:00 | 29/6/2016             | No trigger              | Yes          | No trigger          | Yes          |
| 21/2/2017  | 13:00 | 21/2/2017             | No trigger              | Yes          | No trigger          | Yes          |
| 27/6/2017  | 3:32  | 27/6/2017             | No trigger              | Yes          | No trigger          | Yes          |
| 28/2/2018  | 11:00 | 28/2/2018             | No trigger              | Yes          | No trigger          | Yes          |
| 4/7/2018   | 10:00 | 4/7/2018              | No trigger              | Yes          | No trigger          | Yes          |
| 27/11/2018   | 10:43 | 27/11/2018            | 0.64mm/s                | Yes          | 113 dBL             | Yes          |
| 29/7/2019  | 10:41 | 31/7/2019             | 0.51mm/s                | Yes          | <115dBL             | Yes          |
| 30/6/2020  | 15:33 | 30/6/2020             | 0.51mm/s                | Yes          | 101dBL              | Yes          |

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|          |       |          |          |     |         |     |
|----------|-------|----------|----------|-----|---------|-----|
| 1/7/2020 | 10:39 | 1/7/2020 | 0.51mm/s | Yes | 108.8dB | Yes |
|----------|-------|----------|----------|-----|---------|-----|

### Surface Water

Surface water monitoring is conducted as per condition L1.1 of EPL 21022. The surface water monitoring results are summaries below.

Sample Period: May 2021  
 Licensee: Byrock Quarry  
 Licensee Address: Cobar St, Byrock NSW 2831  
 EPL No: 21022

### Qualifications related to Surface Water

#### L2.4 Water and/or Land Concentration Limits

##### POINT 1

| Pollutant              | Units of Measure     | 50 Percentile concentration limit | 90 Percentile concentration limit | 3DGM concentration limit | 100 percentile concentration limit |
|------------------------|----------------------|-----------------------------------|-----------------------------------|--------------------------|------------------------------------|
| Oil and Grease         | milligrams per litre |                                   |                                   |                          | 10                                 |
| pH                     | pH                   |                                   |                                   |                          | 6.5-8.5                            |
| Total suspended solids | milligrams per litre |                                   |                                   |                          | 50                                 |

L2.5 The limits specified under Condition L2.4 for the sediment pond identified as EPA licence discharge point 2 do not apply when the discharge occurs solely as a result of a rainfall event measured at the premises which exceeds; - a total of 44.5 millimetres of rainfall over any consecutive 5 day period.

Note: A 44.5 mm rainfall depth is defined by the publication Managing Urban Stormwater: Soils and Construction (Landcom 2004) as the rainfall depth in millimetres for a 95th percentile 5 day rainfall event for the Northwestern, Southwestern and Far West Plains (Bourke) consistent with the storage capacity (recommended minimum design criteria) for Type D sediment retention basins for mines and quarries (Vol 2E of Landcom 2004).

L2.6 The concentration limit for total suspended solids stipulated by condition L2.4 for EPA identification point 2 is deemed not to have been breached where:

- a) the water discharged is covered by condition L2.5; or
- b) when not covered by condition L2.5, the water discharged (in accordance with licence conditions O4.1 and O4.2) is within the pH range 6.5-8.5 and has a turbidity of no more than 40 NTU at the time of the discharge; and
- c) the EPA is advised within 3 working days of the completion of the sample testing and analysis as required by condition M2.2 of any results above the licence limit.

Note: The purpose of condition L2.6 is to expediate the assessment and subsequent discharge of the clarified water from the stormwater control structures (sediment ponds).

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| Results – Point 1 (Outlet of Dam 1 – West of Stockpile Area) |                  |               |               |                     |                         |                               |                                   |
|--|------------------|---------------|---------------|---------------------|-------------------------|-------------------------------|-----------------------------------|
| Sampling Date  | Results Received | pH (pH Units) | pH Compliant? | Oil & Grease (mg/L) | Oil & Grease Compliant? | Total Suspended Solids (mg/L) | Total Suspended Solids Compliant? |
| None   | None             | -             | -             | -                   | -                       | -                             | -                                 |

### Byrock Quarry Reference Map

