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# Teven Quarry

## 2023 Annual Review





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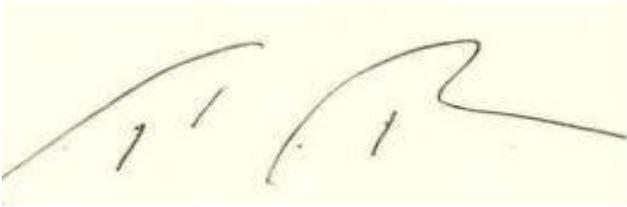
**Document Control Sheet**

Reference	Prepared By	Approved By	Date	Distribution
v1.0	Glenn Cook	Greg Johnson	3/05/2024	CCC, Ballina Council
v2.0				



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**Teven Quarry Annual Review Title Block**

Name of Operation	Boral Teven Quarry
Name of Operator	Boral Resources (Country) Pty Ltd
<b>Development Consent</b>	DA1995/292
<b>Name of holder of Development Consent</b>	Boral Resources (Country) Pty Ltd
<b>Environment Protection Licence</b>	EPL 2281
<b>Annual Review Start Date</b>	1 January 2023
<b>Annual Review End Date</b>	31 December 2023
<b>I, Phillip Pallisier, certify that this report is a true and accurate record of the compliance status of the Teven Quarry for the period of the 2023 calendar year and that I am authorised to make this statement on behalf of Boral Resources (Country) Pty Ltd.</b>	
<b>Name of Reporting Officer</b>	Phillip Pallisier
<b>Title of Reporting Officer</b>	Quarry Manager
<b>Signature</b> 	
<b>Date</b> 3.05.2024	



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## 1. Purpose and Scope

This 2023 Annual Report aims to fulfil the requirements of Boral's Teven Quarry Development Consent (1995/292) Condition No 4 which states;

*An annual report shall be prepared and submitted by the applicant to the Community Consultative Committee which will include the following:*

- details of tree and regenerative plantings;
- details of how the applicant has acted on, complied with or otherwise dealt with or responded to each condition of development consent within the period up to each annual report;
- results of all monitoring, as required by the EPA Licence conditions or otherwise by the EPA or other regulatory authorities, of water discharges, dust emissions and noise and blasting operations;
- alterations to the Plan of Management; and
- the applicant shall, if requested to do so in writing by the consultative committee or its authorised representative, provide to the members of the committee, reasonable access to the site for the purpose of allowing the committee to determine compliance with these conditions of consent; and
- records of ground vibration and peak air overpressure from blasting

The format of this document is set out in order of the above dot points and covers the period from 1 January 2023 to the 31 December 2023.

The CCC as well as members of the community and Council have been shown around the site on multiple occasions in recent years and the above condition relating to allowing access to the CCC for the purposes of an inspection is still current and available.

The information required above has mostly been provided in the presentations presented to the Boral Teven Quarry Community Consultative Committee (CCC) over the previous few years. Copies of previous presentations given at the CCC meetings since 2014 can be viewed online at [Boral Quarries Teven | Boral](#)



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### 1.1 Contacts Relevant to Teven Quarry Operations

Key contacts associated with the management of the Quarry operations, environment, safety and stakeholder relationships are provided in Table 1.

Table 1: Contacts Relevant to Teven Quarry Operations

Contact	Position	Contact Details
Phillip Pallisier	Teven Quarry Manager	Tel: (02) 66 878 360 Email: Phillip.Pallisier@boral.com.au
Nick White	Quarry Operations Manager NSW/ACT	Email: Nick.White@boral.com.au
Glenn Cook	Environment Business Partner NNSW	Email: Glenn.Cook@boral.com.au
Kate Woodbridge	Stakeholder Relations Manager	Email: Kate.Woodbridge@boral.com.au



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## **2. Tree and Regenerative Plantings**

Where possible Teven Quarry has continued to utilise the services of East Coast Bush Regeneration (ECBR) throughout the reporting period. Some difficulty in securing services during the reporting period have been experienced, and as such the site is pursuing alternative suppliers.

The weed control activities have ensured the ongoing health and vitality of revegetated areas including the earth bunds in the basalt pits, shown in figure 2 and the Vegetation Corridor, shown in figure 3.

Teven Quarry also engaged the services of Melaleuca Group to develop a weed management plan for the site. The main focus of works will be areas along the property boundary, including Beacons Road, and also on top of the Quarry hill with three native trees on the hill identified for further assessment. Figure 4.

A work plan is currently being developed to re-establish a vegetation corridor along the eastern boundary of the property. Work will continue to focus on targeted weeds as well as maintenance to prevent returning weed growth. An area in the south of the vegetation corridor has been identified as suitable area for regenerative plantings once the area is re-established and prepared.



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### 3. Compliance with Development Consent Conditions

During 2023 Boral generally remained compliant with all development consent conditions. Although there was no external audit from Ballina Shire Council during the reporting period, compliance with the consent conditions was internally reviewed with the findings of the internal review provided in **Appendix 1**.

### 4. Monitoring Results

The site holds an Environmental Protection Licence (No 2261) with the NSW EPA. Under the conditions of this licence, the following parameters are required to be monitored;

- Surface water discharge from Point 1 (main dam overflow), and
- Ground vibration and overpressure associated with blasting activities.

In addition to the above required monitoring, Boral voluntarily undertakes Deposited Dust monitoring at four locations around the site. The results of the depositional dust monitoring are provided in this report.

#### 4.1 Surface Water Monitoring Results

Surface water is monitored at EPL Monitoring Point 1 and is a requirement of EPL 2261, as below.

The site visually assesses the water for Oil and Grease and monitors for pH and Total Suspended Solids of the discharged water.

#### POINT 1

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Oil and Grease	Visible				Nil
pH	pH				6.5 - 8.5
Total suspended solids	milligrams per litre				50mg/L

The concentration limits in the above table do not apply to any discharge from the final sediment basin arising from rainfall exceeding 63.2mm in total falling over any consecutive five day period

During 2023, the site only discharged when rainfall exceeded the 63.2 mm, as such no water samples were required to be taken.



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## 4.2 Blast Monitoring Results

Blast monitoring on the site is conducted in accordance with EPL 2261 and is undertaken at the nearest affected residence not associated with the quarry. Teven Quarry currently undertake blast monitoring at 2 locations being:

- 54 Beacons Road, Teven
- 660 Teven Road, Teven

### 4.2.1 Airblast Overpressure

EPL: 2261 - Condition L5.3.

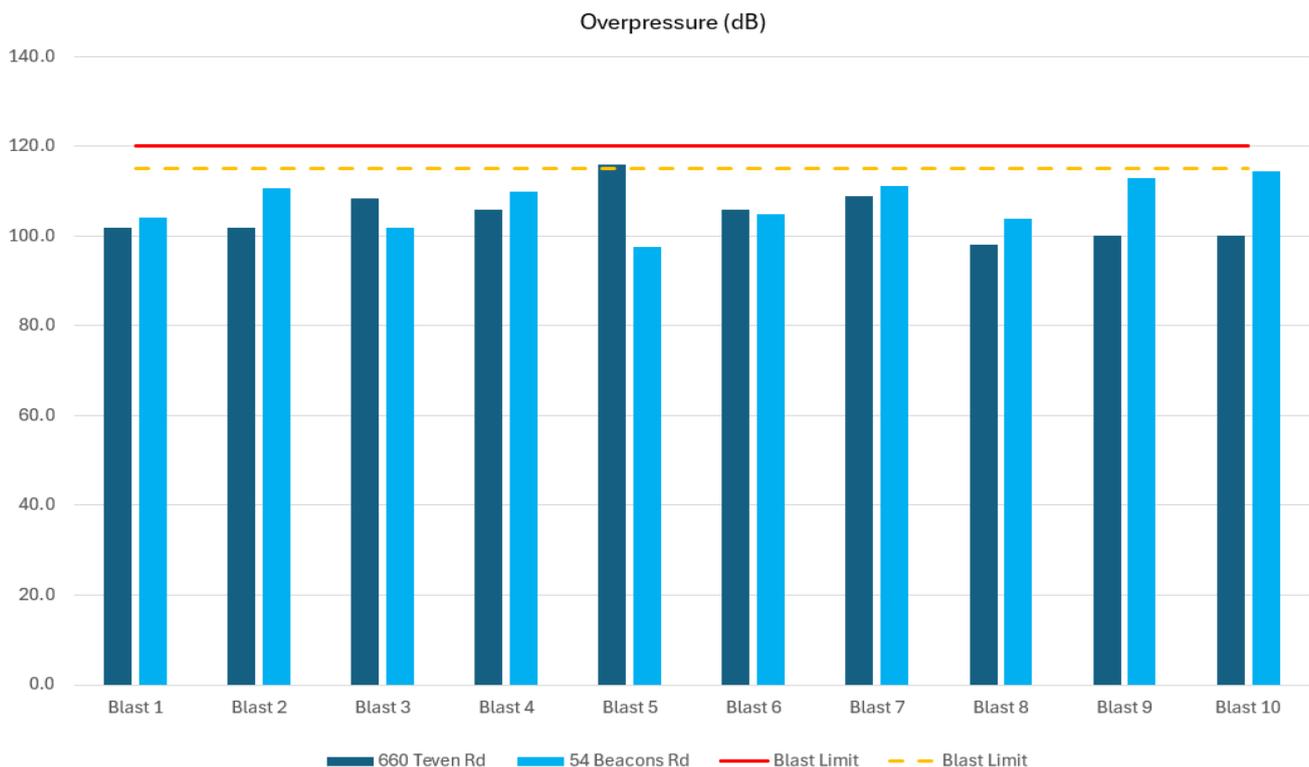
The airblast overpressure level from blasting operations in or on the premises must not exceed:

- 115 dB (Lin Peak) for more than 5% of the total number of blasts during each reporting period or no more than one blast; and
- 120 dB (Lin Peak) at any time.

At most affected residence or noise sensitive location that is not owned by the licensee or subject to a private agreement between the owner of the residence or noise sensitive location and the licensee as to an alternative overpressure level.

During the reporting period, Teven recorded one blast that exceeded the lower limit of 115dB. The blast occurred on Tuesday 9 May 2023 and recorded an overpressure result of 115.9dB at 660 Teven Road, Teven. The blast remained compliant with the conditions of the Environment Protection Licence that permits up to 1 blast per annum to exceed the lower limits. No blasts exceeded the maximum overpressure limit during the reporting period. Results of the overpressure blast monitoring for 2023 are provided in the graph below.

Figure 1 Airblast Overpressure Results for Teven Quarry for 2023





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#### 4.2.2 Ground Vibration

EPL:2261 - Condition L5.4.

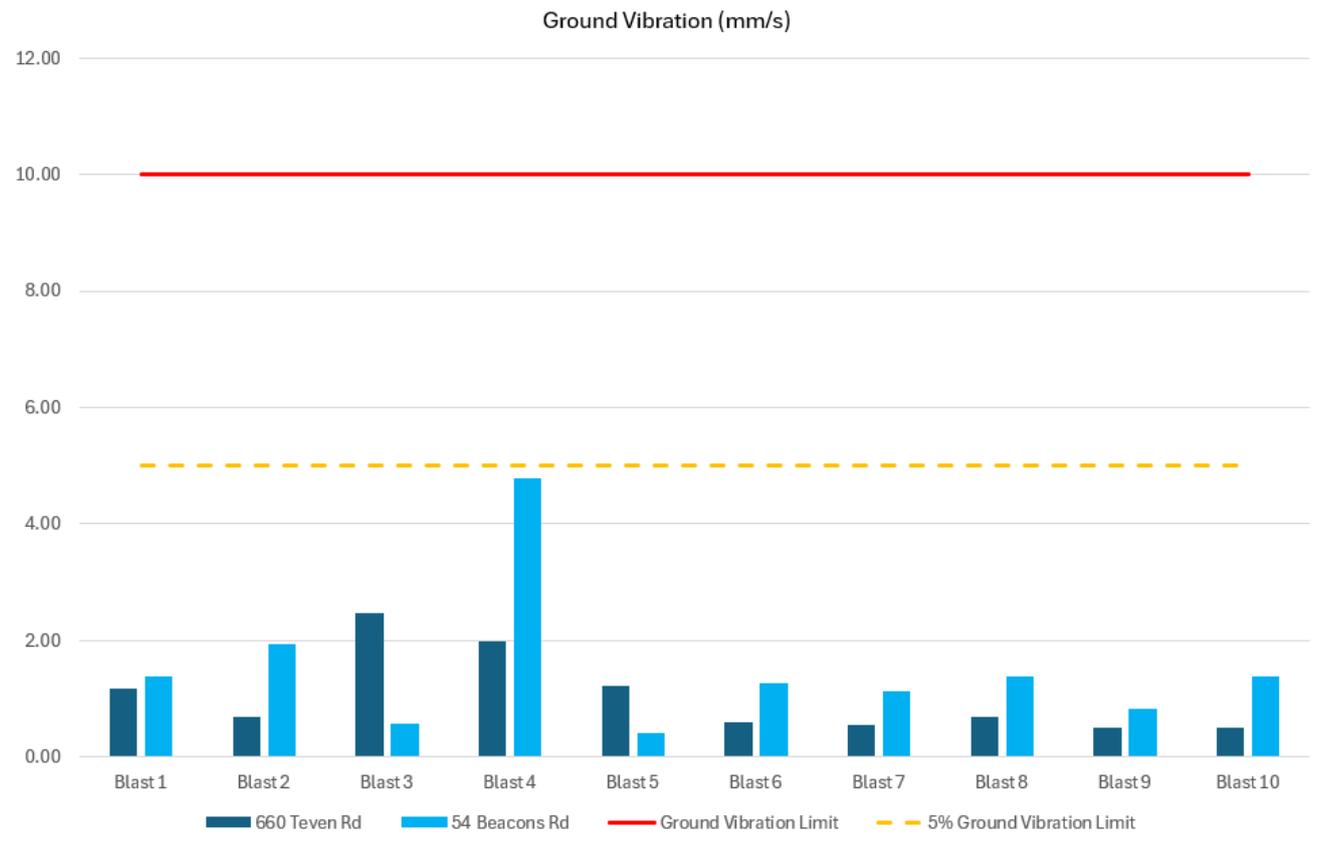
The ground vibration peak particle velocity from blasting operations carried out in or on the premises must not exceed:

- a) 5mm/s for more than 5% of the total number of blasts carried out on the premises during each reporting period; and
- b) 10 mm/s at any time.

At most affected residence or noise sensitive location that is not owned by the licensee or subject to a private agreement between the owner of the residence or noise sensitive location and the licensee as to an alternative overpressure level.

Results of the ground vibration for blasts during 2023 are provided in the graph below. All blasts remained within the licence limits for 2023.

Figure 2: Ground Vibration Results for Teven Quarry for 2023





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### 4.3 Depositional Dust

The Boral Teven quarry site currently has four depositional dust monitors which are used to monitor the dust levels around the Boral Teven Quarry site, these locations are identified in Figure 6 below.

Depositional dust is measured by determining the amount of insoluble solids collected in the monitoring stations during the sampling period, with the results averaged over a period of 12 months in accordance with EPA guidelines. The Dust Deposition gauges are not a requirement under the development consent or EPL and as such are only used for information purposes.



Figure 3 Depositional Dust Gauge Locations

Results for the depositional dust monitoring for 2023 are provided in



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Table 2 below.



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Table 2: Annual Summary of Depositional Dust Monitoring

	Site 1 g/m <sup>2</sup> /month		Site 2 g/m <sup>2</sup> /month		Site 3 g/m <sup>2</sup> /month		Site 4 g/m <sup>2</sup> /month	
	Insoluble Solids	Ash						
12-month (2023) Results	0.9	0.6	0.9	0.5	4.1	3.6	1.9	0.28
Criterion	4	-	4	-	4	-	4	-

The deposited dust data from the above graphs indicates that the site is expected to be compliant with deposited dust levels experienced at adjoining residential premises apart from Site 3. Site 3 recorded an annual average of 4.1 against the Target of 4. This was primarily due to the November 2023 result which recorded 17.9 g/m<sup>2</sup>. Excluding this spurious result, the annual average would have been less than 3. The graphs below provide a visual representation of the data displayed in *Table 2* above.

Teven Quarry Dust  
Site 1 - Opposite Shale Quarry

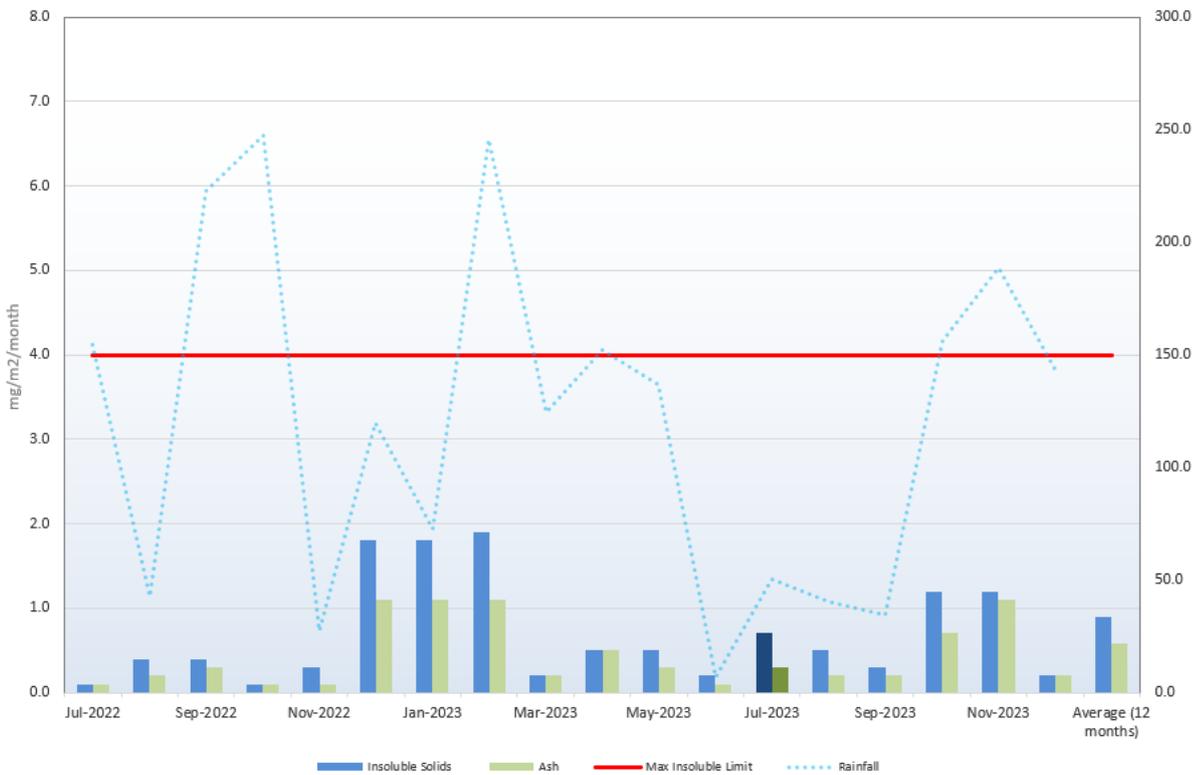


Figure 4: Teven Quarry 2023 Dust Results for the site opposite Shale Quarry



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Teven Quarry Dust  
Site 2 - Managers Cottage

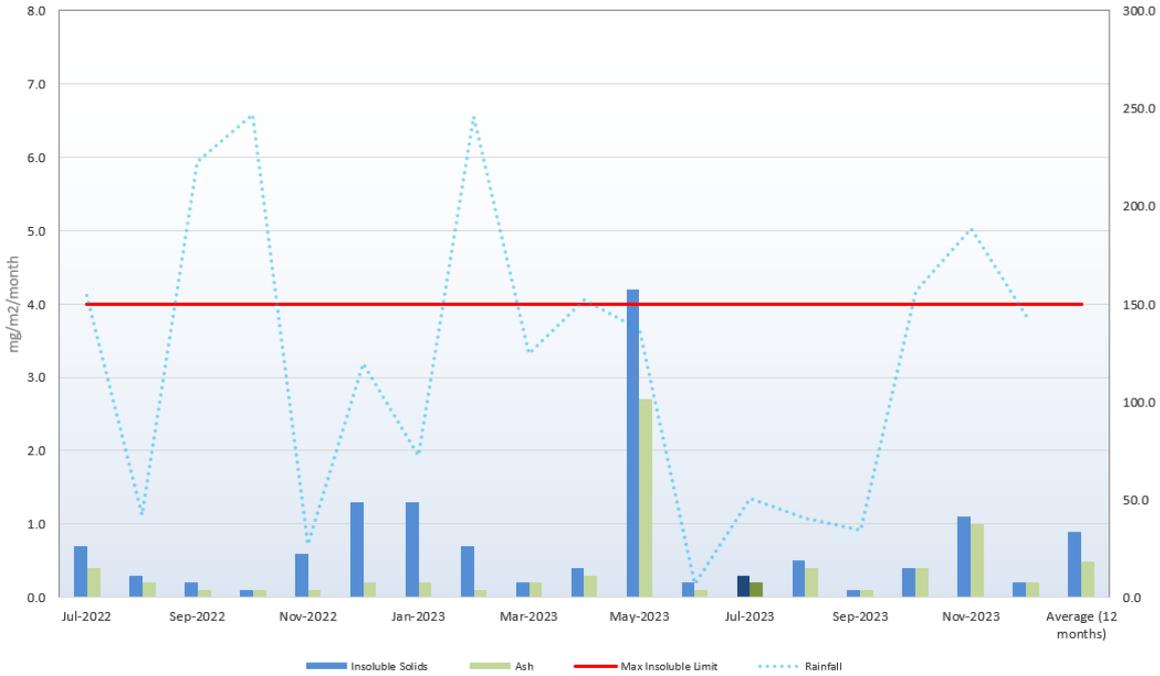


Figure 5: Teven Quarry 2023 Dust Results for the Quarry Managers Cottage

Teven Quarry Dust  
Site 3 - Quarry Office





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Figure 6: Teven Quarry 2023 Dust Results for the Quarry Office Location

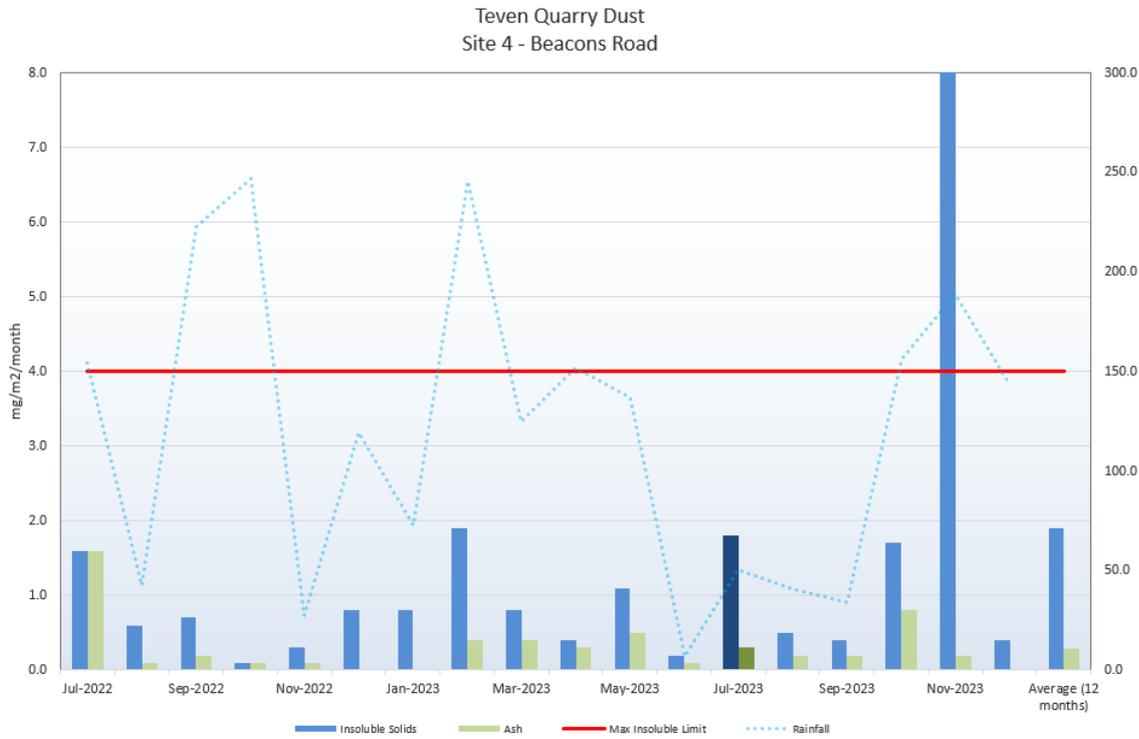


Figure 7: Teven Quarry 2023 Dust Results for Beacons Road Location

## 5. Plan of Management

There have been no alterations in the reporting period to the Environmental Management Plan (EMP) dated September 2012, the original Plan of Management dated April 1996 or the Statement of Environment Effects dated April 2016. A copy of the EMP is available on the Boral Teven Website.

Any changes to the Plan of Management or Environmental Management Plan will be communicated to the Community Consultative Committee.



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## Appendix 1: Compliance to Consent Conditions DA 1995/292.3

Condition	DA1995/292 Consent Conditions	Compliance	Comments and Action Required
1 Deferred	Arrangements are to be made with Council's Engineering Department concerning the design, funding and construction of road works in North Teven Road...	Compliant	Condition has been satisfied
1	Development of the site shall be undertaken generally in accordance with the plans and associated documentation lodged with the Development Application...	Compliant	Condition has been satisfied
2	Within 6 months from the date of consent, the applicant prepare and submit to council for approval and Environmental Management Plan (EPM)	Compliant	Condition has been satisfied. Teven Quarry EMP dated September 2012.
3	Any changes or amendments to the PPOM shall be lodged with the Community Consultative Committee.	Compliant	Meetings with CCC are held twice per year and details any changes to the PPOM
4	An annual report shall be prepared and submitted by the applicant to the Community Consultative Committee which includes the following: <ul style="list-style-type: none"> <li>• Tree and regenerative plantings</li> <li>• Compliance with Development Consent Conditions</li> <li>• Environmental Monitoring Results</li> <li>• Plan of Management updates</li> </ul>	Compliant	This report satisfies this condition
5	All operations within the quarry shall be conducted in accordance with the requirements of the NSW Environment Protection Authority	Compliant	Condition has been satisfied
6	The applicant shall make application to the NSW Department of Land and Water for closure and purchase of the crown public road that traverses the quarry	Compliant	Condition has been satisfied
7	The applicant shall consult with the Department of Land and Water Conservation to ascertain the need for a licence under the Water Act 1912 with respect to the spring to the north of the quarry site.	Compliant	Condition has been satisfied



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Condition	DA1995/292 Consent Conditions	Compliance	Comments and Action Required
8	The normal hours of operation for the various components of the quarry outlined in the Development Consent are to be adhered to	Compliant	Condition has been satisfied
9	The applicant shall ensure the area adjacent to the quarry access remains clear of material spillages which may otherwise present a hazard to motorists.	Compliant	No issues identified during site inspection
10	The applicant shall pay to Council a Road Maintenance Levy calculated in accordance with the Ballina Shire Council Section 94 Contributions Plan: Heavy Vehicle Traffic Generating Development - Maintenance and Construction of Roads,	Compliant	Condition has been satisfied
11	The applicant shall be responsible for the placement of improved road signage on Emigrant Creek Bridge, including the installation of a "give-way" sign facing south bound traffic.	Compliant	Condition has been satisfied
12	The applicant shall install Hinged Truck Warning signs in North Teven Road on either side of the quarry entrance and these signs shall be to the satisfaction of Council's Engineering Department.	Compliant	Condition has been satisfied
13	All site rehabilitation and landscaping works shall be designed to ensure the maximum reasonable visual screening of quarry operations	Compliant	Rehabilitation was assessed during the site inspection and no issues identified
14	All loading and unloading of goods shall be undertaken wholly within the site	Compliant	No loading or unloading of goods occurs outside of the premises
15	The construction of Beacon Road shall be completed in accordance with design plans approved by Council's Engineering Department.	Compliant	Condition has been satisfied



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Condition	DA1995/292 Consent Conditions	Compliance	Comments and Action Required
16	The relocation of dwellings and connection of household services shall not be undertaken without obtaining prior building permits from Council.	Compliant	Condition has been satisfied
17	A plan of subdivision which incorporates a consolidation of the respective parcels of land within the site, the closure of the crown public road and the realigned Beacon Road	Compliant	Condition has been satisfied
18	All trade waste fluids and materials generated within the site shall be treated and disposed of correctly	Compliant	Licenced waste contractors utilised to dispose of waste products generated on site.
19	A person or persons employed by the applicant shall be appointed to accept responsibility for compliance with the consent conditions	Compliant	Quarry Manager and Environmental Business Partner have responsibility for compliance with consent conditions
20	The total amount of material which can be removed from the site shall not exceed 500,000 tonnes in any calendar year.	Compliant	Total amount of material removed from site in 2023 was 190929 tonnes, which is below the consent limit.
21	All fuel and bituminous products storage facilities are to be properly banded in accordance with the relevant Australian Standard.	Requires further review	Audit in 2024 will assess compliance with AS1940.
22	The applicant shall maintain its truck education and training procedures, and shall require an equal standard of courtesy form all drivers accessing material from the North Teven Quarry	Compliant	Induction process covers this consent condition. No complaints were received in relation to this condition.
23	A roadside bus shelter shall be constructed by the applicant with Council approval at the intersection of North Teven Road and Teven Road adjacent to Emigrant Creek Bridge	Compliant	Condition has been satisfied
24	The final date for termination of the consent is 27 June 2026.	Compliant	The consent remains valid at the time of the inspection



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Condition	DA1995/292 Consent Conditions	Compliance	Comments and Action Required
25	A Community Consultative Committee shall be formed	Compliant	CCC meets twice per year
26	After the noise reduction measures set out in the POM and EMP have been carried out, the applicant shall have a noise compliance check carried out by a qualified acoustic consultant.	Compliant	CM17/54656 - complies
27	Quarry operations and monitoring must comply with the Approved Methods for Modelling and Assessment of Air Pollutants in NSW,	Compliant	Compliance with EPL conditions. No air quality issues / complaints recorded in 2023
28	If liquid contaminants and other possible pollutants are stored on site they shall be stored within an impermeable bunded and roofed on site storage area.	Compliant	No issues identified during site inspection
29	In the event of a pollution incident on the premises, that has caused, is causing, or is likely to cause harm to the environment, the incident shall be reported in accordance with the requirements of Section 148 of the Protection of the Environment Operations Act 1997.	Compliant	No incidents requiring this response were recorded at Teven Quarry in 2023
30	When replacing mobile equipment (haul trucks and front end loaders) they must be replaced with equipment that has a lower sound power level to reduce noise levels and potential impacts on nearby sensitive receivers.	Compliant	No new equipment purchased in 2023



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Condition	DA1995/292 Consent Conditions	Compliance	Comments and Action Required
31	shall engage a suitably qualified and experienced person to undertake attended noise monitoring at nearby sensitive receivers in accordance with the abovementioned requirements.	Compliant	December – 2021 Noise Survey Results. 6 Conclusion Muller Acoustic Consulting Pty Ltd (MAC) has completed a Noise Monitoring Assessment (NMA) for Boral Resources (Country) Pty Limited at the Teven Quarry, Teven, NSW. The assessment was completed to assess the quarry's compliance with the relevant noise criteria as set out in the Teven quarry EPL (2261). Attended noise monitoring was undertaken on Thursday 2 December 2021 at four representative monitoring locations. The assessment has identified that noise emissions generated by Teven Quarry were generally audible at all locations, however quarry noise emissions were below the relevant noise criteria, satisfying the applicable noise criteria throughout the survey period
32	The Applicant shall update the Water Management Plan and Environmental Management Plan in accordance with the requirements of the Pollution Reduction Program incorporating conditions U1 - U3 of Environment Protection Licence 2261.	Compliant	Condition has been satisfied
33	The following must be carried out prior to using the mobile crusher: <ul style="list-style-type: none"> <li>a) Low tonal broadband alarms</li> <li>b) 4.8 m Bund on the Southern boundary to shield noise and visual aspects</li> <li>c) 10 m high bund between the basalt pit and Beacons Road to minimise noise for receivers to the east</li> </ul>	Compliant	Condition has been satisfied. No records of noise complaints for 2023
34	Waste arising from the construction and operational activities must be stored, transported and disposed of in accordance with the requirements of NSW EPA	Compliant	Licensed contractors used to dispose of waste



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Condition	DA1995/292 Consent Conditions	Compliance	Comments and Action Required
35	If drinking water is supplied from an independent source such as a creek, dam, bore or rainwater tank, a private water supply quality assurance program must be submitted to and approved by NSW Health. T	Compliant	Bottles water used on site. No potable water supplied from tanks
36	The use and occupation of the proposed development, including all plant and equipment installed thereon, and the undertaking of operational activities must comply with the Protection of the Environment Operations Act 1997 and NSW Industrial Noise Policy or current equivalent requirements	Compliant	No issues identified during site inspection
37	Shielding must be provided to the western side of the proposed mobile crusher prior to use. This shall include a barrier constructed as near as possible to the mobile crusher to interrupt line of site between the noisiest part of the crusher and nearby residences.	Compliant	Shielding in place encompassing crusher
38	The mobile crusher must only be used under the following circumstances: a) for the purpose of project work and in the event of fixed plant failures; (b) for no more than 150 working days per calendar year; (c) operated between the hours of 7am and 6pm Monday to Friday; (d) not to be operated between Christmas and New Year; (e) fitted with water dust suppression; (f) a maximum operational sound power level of 114 dB (A); and (g) located within the argillite pit	Compliant	Crusher only operated within these conditons.



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Condition	DA1995/292 Consent Conditions	Compliance	Comments and Action Required
39	The existing NSW Environmental Protection Authority Environmental Protection Licence 2261 is to be separately amended to reflect the modified terms and conditions of this consent.	Compliant	Condition has been satisfied