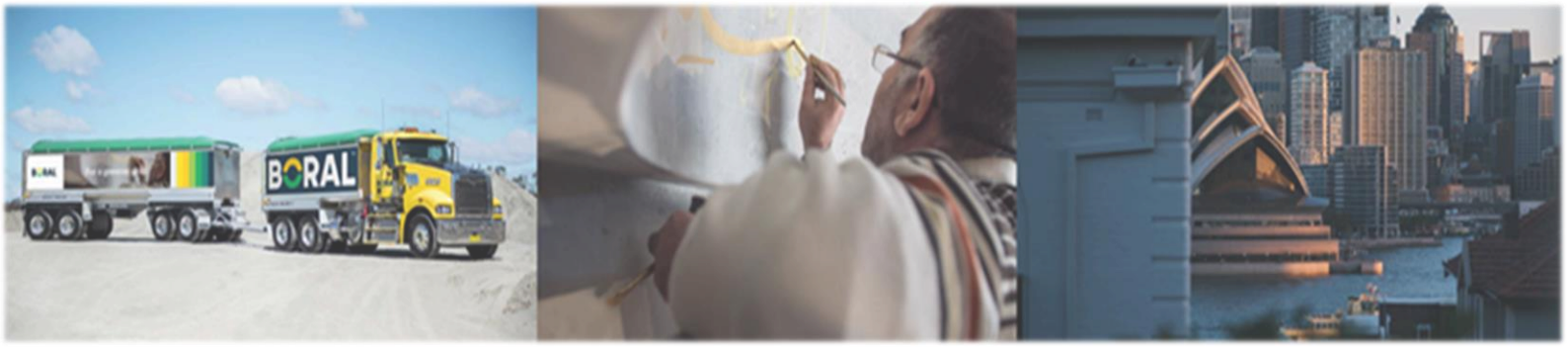
Environmental Monitoring Report –
Surface Water Monitoring Data

Johns River Quarry

October 2023

Date Published: 29/10/2023



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 4812 (EPL: 4812 –Boral Johns River Quarry).

Johns River Quarry Information	
Premise Details	Boral – Johns River Quarry
Address	Bulleys Road, Johns River NSW 2443
Licensee	Boral Resources (Country) Pty Ltd
EPL No	4812
EPL Location	https://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=129026&SYSUID=1&LICID=4812
Date of dataset update	06/10/2023

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

- Surface Water

Surface Water Monitoring

Water quality monitoring is conducted as per condition M2.1 of EPL 4812.

Qualifications related to Surface Water
Extracted from EPL:4812

EPA Identification No.	Type of Monitoring Point	Location Description
1	Discharge to Waters Discharge Quality Monitoring	Monitoring location "WD1" (Bulleys Dam) at coordinates -31.714481 152.698894
2	Discharge to Waters Discharge Quality Monitoring	Monitoring location "WD2" (discharge from Sediment Basin 2C) located at coordinates -31.71636874 152.703066
3	Discharge to Waters Discharge Quality Monitoring	Monitoring location "WD3" (discharge from Front Sediment Dam) located at coordinates -31.7184329 152.700726
4	Ambient Water Monitoring	Monitoring location "WUS" (Stewarts River at Bulleys Road Bridge), located at coordinates -31.71839372 152.699211
5	Ambient Water Monitoring	Monitoring location "Down Stream water (PAC HWY)", located at coordinates -31.718883, 152.702169
23	Discharge to Waters Discharge Quality Monitoring	Monitoring location "Water Discharge 23 (Pit Drop Cut)" at coordinates 31.7163874 152.703066
24	Ambient Water Monitoring	Monitoring location "Upstream Water #2 (above Bulleys)" located at coordinates -31.71944105 152.6985582 as shown on plan titled "Johns River Quarry - Ambient Water Monitoring Locations" dated February 2022. EPA reference DOC22/127066.

M2.2 Water and/or Land Monitoring Requirements

Note: For the purpose of the above tables Special frequency 2 means :

a) prior to any controlled discharge; and

b) daily during any discharge

For the purpose of the above table Special frequency 3 means:

a) on the first day of any discharge from Points 1, 2 and/or 3

Note: For the purposes of Point 23, it is acceptable to monitor the waters that will be / are discharged from the drop cut of the quarry pit, rather than from the end of the discharge pipe, provided those sample(s) are representative of the waters discharged.

POINT 1,2,3,23

Pollutant	Units of measure	Frequency	Sampling Method
Oil and Grease	Visible	Special Frequency 2	Inspection
pH	pH	Special Frequency 2	Probe
Total suspended solids	milligrams per litre	Special Frequency 2	Grab sample

POINT 4,5,24

Pollutant	Units of measure	Frequency	Sampling Method
Oil and Grease	Visible	Special Frequency 3	Visual Inspection
pH	pH	Special Frequency 3	Probe
Turbidity	nephelometric turbidity units	Special Frequency 3	Probe

L1.2 Exceedance of a quality limit specified in this licence for the discharge of total suspended solids from Point 1, 2 or 3 is permitted if the discharge from Point 1, 2 or 3 occurs solely as a result of rainfall at the premises exceeding a total of 55.9 millimetres over any consecutive 5 day period

L2.4 Water and/or Land Concentration Limits (In force as of 31/05/2023)

POINT 1,2,3,23

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				5 &/or none visible
pH	pH				6.5 - 8.5

POINT 2

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
TSS	milligrams per litre				50

Note: Points 4, 5 & 24 are Ambient Water Quality Monitoring Points only, hence no limits apply.

Johns River Quarry: EPL 4812 Surface Water Monitoring Results

Date	EPL ID 1			EPL ID 2			EPL ID 3			EPL ID 23			EPL ID 4			EPL ID 5			EPL ID 24		
	TSS	pH	O&G	TSS	pH	O&G	TSS	pH	O&G	TSS	pH	O&G	NTU	pH	O&G	NTU	pH	O&G	NTU	pH	O&G
18/07/2022				<3	5.05	NV															
15/07/2022				5	4.64	NV															
14/07/2022				7	4.67	NV															
13/07/2022				9	4.5	NV															
12/07/2022				8	4.61	NV															
11/07/2022				13	7.8	NV							32	6.4	NV	33	6.4	NV			
08/07/2022				34	4.27	NV				29	4.83	NV									
07/07/2022				44	7.8	NV				45	7.8	NV									
14/04/2022										<2	4.6	NV									
13/04/2022										<2	5.65	NV	24		NV	35		NV			
12/04/2022										<2	4.24	NV									
11/04/2022										<2	5.03	NV									
08/04/2022										<2	4.38	NV									
07/04/2022										<2	4.74	NV									
06/04/2022										12	6.26	NV									
05/04/2022										21	4.42	NV									
16/04/2021				4	7.56	NV				3	7.83	NV									
15/04/2021				3	7.58	NV				3	7.66	NV									
14/04/2021				7	7.62	NV				5	7.54	NV									
13/04/2021				26	7.64	NV				10	7.85	NV									
12/04/2021				9	7.83	NV				11	8.35	NV									
9/04/2021				22	7.64	NV				17	8.05	NV									
8/04/2021				23	7.66	NV				22	8.64	NV									
7/04/2021				17	7.44	NV	6	7.82	NV	45	8.16	NV									
23/02/2021							16	7.65	NV												
22/12/2020										7	7.35	NV									
18/12/2020										25	7.41	NV									
17/12/2020							23	7.25	NV												
16/12/2020							48	7.41	NV												
28/10/2020													10.8	7.8	NV	18.6	7.25	NV			
24/06/2020													7.2	8.04	NV	7.6	7.16	NV			
12/06/2020							18	7.4	NV												
11/06/2020							26	7.6	NV												
18/03/2020							15	7.6	NV												

Johns River Quarry: EPL 4812 Surface Water Monitoring Results

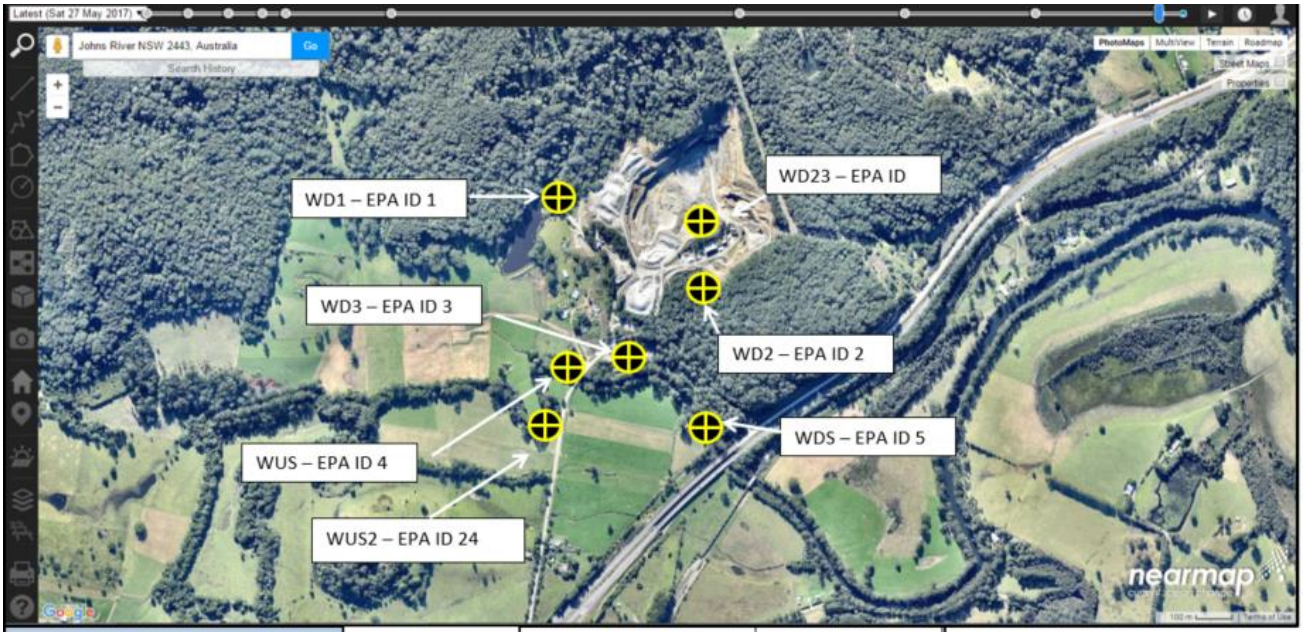
Date	EPL ID 1			EPL ID 2			EPL ID 3			EPL ID 23			EPL ID 4			EPL ID 5			EPL ID 24		
	TSS	pH	O&G	TSS	pH	O&G	TSS	pH	O&G	TSS	pH	O&G	NTU	pH	O&G	NTU	pH	O&G	NTU	pH	O&G
17/03/2020							15	7.5	NV												
4/03/2020							6	7.4	NV												
20/02/2020										27	7.6	NV									
18/02/2020										6	7.3	NV									
17/02/2020										17	7.2	NV									
14/02/2020										13	7.3	NV									
13/02/2020							18	7.6	NV	20	7.4	NV									
12/02/2020							16	7.5	NV	11	7.4	NV									
11/02/2020							13	7.3	NV	10	7.6	NV									
10/02/2020							29	7.3	NV	11	7.5	NV									
20/01/2020							5	7.2	NV												
21/03/2019							25	7.2	NV												
24/07/2018							6	6.7	NV				4.97	6.5	NV	6.14	6.5	NV			
29/06/2018										9	7.1	NV									
26/06/2018										17	7.3	NV									
25/06/2018										18	7.2	NV									
22/06/2018										3	7.3	NV									
20/06/2018							29	7.31	NV												
14/06/2018							18	6.75	NV												
13/06/2018				22	7.56	NV															
12/06/2018										3	7.49	NV									
7/06/2018										6	7.27	NV									
6/06/2018										11	7.2	NV									
4/06/2018				13	8.02	NV				3	7.28	NV									
30/05/2018										6	7.19	NV									
10/05/2018							38	7.11	NV												
9/05/2018							28	7.07	NV												
7/05/2018										7	7.05	NV									
3/05/2018							30	6.95	NV												
1/05/2018										6	7.82	NV									
24/04/2018				16	7.93	NV				3	7.35	NV									
16/04/2018										6	8.32	NV									
13/04/2018										8	8.17	NV									
10/04/2018							23	7.07	NV	3	7.94	NV	4.58	6.2	NV	6.5	6.5	NV			
9/04/2018										3	7.8	NV									
29/03/2018							15	6.87	NV												
28/03/2018							37	6.88	NV												
26/03/2018							44	7	NV												

Johns River Quarry: EPL 4812 Surface Water Monitoring Results																				
Date	EPL ID 1			EPL ID 2			EPL ID 3			EPL ID 23			EPL ID 4			EPL ID 5			EPL ID 24		
	TSS	pH	O&G	TSS	pH	O&G	TSS	pH	O&G	TSS	pH	O&G	NTU	pH	O&G	NTU	pH	O&G	NTU	pH	O&G
25/03/2018							64	6.7	NV												
24/03/2018							130	7.1	NV												
23/03/2018							90	7.35	NV												
14/03/2018				9	7.2	NV	23	6.9	NV												
13/03/2018				9	8.07	NV	31	7.24	NV												
6/03/2018							15	7.2	NV												
5/03/2018				14	7.9	NV	22	7.3	NV												
1/03/2018							30	6.99	NV												
28/02/2018							5	6.9	NV												
27/02/2018							8	7.2	NV												
16/02/2018				11	8.18	NV							24.8	6.86	NV	7.3	7.06	NV			
15/02/2018				11	8.13	NV															
23/01/2018										3	7.6	NV									
22/01/2018										1.6	7.5	NV									
19/01/2018										13	7.5	NV									
18/01/2018										12	7.2	NV									
17/01/2018							40	7.1	NV												
29/11/2017				10	8.17	NV															
28/11/2017				11	8.17	NV															
15/11/2017							33	7.22	NV												
9/11/2017				31	7.86	NV							5.56	6.93	NV	12.3	6.86	NV			
11/10/2017				2	8	NV				0.8	7.5	NV									
29/08/2017				50	8.28	NV				9.2	8.21	NV	8.77	7.58	NV	4.39	7.6	NV			

Comments:

Values shaded in grey have been attributed to a faulty water probe sued when field sampling. This was reported in the 2022 Annual Returns. Where lab results for pH were available, they have been substituted for the faulty probe pH readings. As a corrective action, the site has added pH to the lab analysis suite for all monitoring points and sent the probe for repair.

Johns River Quarry Monitoring Locations



Description of water monitoring locations;

EPA ID 1	Water Discharge 1 (Bulleys Dam)	-31.71448100	152.698894
EPA ID 2	Water Discharge 2 (Sediment Basin 2C)	-31.71636874	152.703066
EPA ID 3	Water Discharge 3 (Front Sediment Basin)	-31.71843290	152.700726
EPA ID 23	Water Discharge 23 (Pumped from Pit Drop Cut	-31.71636874	152.703066
EPA ID 4	Upstream Water (Bulleys Bridge)	-31.71839372	152.699211
EPA ID 5	Downstream Water 1 (Pacific Hwy)	-31.71888300	152.702169
EPA ID 24	Upstream Water 2 (Above Bulleys)	-31.71944105	152.6985582

Surface Water Monitoring Results - Corrections Log

Details of corrections made to published data due to incorrect or misleading data[3.7.7]

Date of data (sample date)	Old published data	Correct updated data	Reason for Update/Correction	Update Person	Date corrected data published	Comments