

# CULLEN VALLEY MINE

## Monthly Environmental Monitoring Data

### for

## Castlereagh Coal

### 1 INTRODUCTION

Castlereagh Coal owns and operates Cullen Valley Mine located near Cullen Bullen in the Central West district of New South Wales. This report has been prepared pursuant to Chapter 2, Part 3.5, Condition 66(6) of the Protection of the Environment operations Act 1997 for the publication of results of monitoring and the NSW Environmental Protection Authority guideline titled Requirements for publishing pollution monitoring data (2013).

### 2 ENVIRONMENTAL PROTECTION LICENCE DETAILS

#### Cullen Valley Mine (EPL 10341)

**Licensee:** Shoalhaven Coal Pty Ltd

**Address:** Cullen Valley Mine, Portland Road, Cullen Bullen, NSW 2790

**Link:** <https://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=50797&SYSUID=1&LICID=10341>

### 3 ENVIRONMENTAL PROTECTION LICENCE DETAILS

#### 3.1 DEPOSITIONAL DUST

All depositional dust sampling locations were in compliance with the rolling annual average limit (4 g/m<sup>2</sup> /month) for the period January 2025 to December 2025. Maximum annual increase in deposited dust levels is below the criteria limit of 2 g/m<sup>2</sup> /month. Depositional dust monitoring results are presented in **Table 1**.

Table 1: Depositional Dust Monitoring Results: December 2025

<b>Obtained:</b> 14/01/2026		<b>Premises:</b> Cullen Valley Mine		
<b>Published:</b> 25/02/2026		<b>Licensee:</b> Shoalhaven Coal Pty Ltd		
		<b>EPL Number:</b> 10341		
		<b>Exposure</b>		<b>Period:</b> 32 days
Sampling Point	Start Date	End Date	Insoluble Solids (g/m <sup>2</sup> /month)	Rolling Annual Average (g/m <sup>2</sup> /month)
CDD1 (Railway)	04/12/2025	05/01/2026	1.1	0.6
CDD2 (Hillcroft)	04/12/2025	05/01/2026	0.8	0.4
CDD3 (Office)	04/12/2025	05/01/2026	1.2	0.6
CDD4 (Cranes)	04/12/2025	05/01/2026	1.8	0.7
CDD5 (Doble)	04/12/2025	05/01/2026	1.2	0.5
<b>Annual Average Limit</b>				<b>4.0</b>

Required Frequency: Monthly - exposure period 30 ± 2 days

Rolling annual average calculation period from January 2025 to December 2025

### 3.2 PM<sub>10</sub>, PM<sub>2.5</sub> AND TSP

The 24-hour maximum PM<sub>10</sub> particulate matter concentration less than 10 microns (PM<sub>10</sub>) criterion of 50 µg/m<sup>3</sup> was not exceeded during December 2025. The PM<sub>10</sub>, PM<sub>2.5</sub> and total suspended particulate (TSP) annual average results were in compliance with the annual average limit for the period January 2025 to December 2025.

PM<sub>10</sub>, PM<sub>2.5</sub> and TSP results for December 2025 are presented in **Table 2**.

Table 2: High Volume Air Sampler Monitoring Results: December 2025

<b>Obtained:</b> 12/02/2026		<b>Premises:</b> Cullen Valley Mine		
<b>Published:</b> 25/02/2026		<b>Licensee:</b> Shoalhaven Coal Pty Ltd		
		<b>EPL Number:</b> 10341		
Sampling Point	Run Date	PM <sub>10</sub> (µg/m <sup>3</sup> )	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	TSP (µg/m <sup>3</sup> ) ^
HVAS1	01/12/2025	4.0	2.0	10.0
	08/12/2025	16.0	8.0	40.0
	15/12/2025	6.0	3.0	15.0
	17/12/2025	19.0	9.5	47.5
	22/12/2025	16.0	8.0	40.0
	30/12/2025	18.0	9.0	45.0
<b>Rolling Annual Average (Calculation period January 2025 to December 2025)</b>		9.1	4.6	22.8
<b>24 Hour Limit</b>		<b>50</b>	<b>25</b>	--
<b>Annual Average Limit</b>		<b>25</b>	<b>8</b>	<b>90</b>

^TSP and PM<sub>2.5</sub> calculated from an estimate of PM<sub>10</sub>

Required Frequency: Weekly – High Volume Air Sample run events occur every six days for 24 hours.

-- No Limit

#### 4 SURFACE WATER QUALITY

A discharge event is deemed to occur when water leaves the site either through the overflow channel or as a result of actively pumping water. Site did not discharge from Dam 3 (EPA Point 1) in December 2025, samples were collected from Dam 3 for due diligence purposes only. Discharge was observed at Dam 4 (EPA Point 4) throughout December 2025 and was sampled weekly.

Water quality results are presented in **Table 3**.

**Table 3: Discharge Water Quality Results – December 2025**

<b>Obtained:</b> 17/12/26		<b>Premises:</b> Cullen Valley Mine			
<b>Published:</b> 25/02/26		<b>Licensee:</b> Shoalhaven Coal Pty Ltd			
		<b>EPL Number:</b> 10341			
<b>Sampling Point Frequency</b>	<b>Frequency</b>	<b>Pollutant</b>	<b>Limit</b>	<b>Date</b>	<b>Measurement</b>
Dam 3  Due Diligence Sample (Non-Discharge) <sup>1</sup>	Monthly	pH (pH unit)	6.5 – 8.5	04/12/2025	6.6
		Conductivity (µS/cm)	650		200
		TSS (mg/L)	50		5
		Oil & Grease (mg/L)	10		<5
		Total Iron (mg/L)	0.3		0.4
		Total Manganese (mg/L)	1.9		0.06
Discharge Point 1 (Dam 3) (EPA Point 1)	Weekly during discharge	pH (pH unit)	6.5 – 8.5	--	N/A
		Conductivity (µS/cm)	650	--	N/A
		TSS (mg/L)	50	--	N/A
		Oil & Grease (mg/L)	10	--	N/A
		Total Boron (mg/L)	0.94	--	N/A
		Total Cobalt (mg/L)	0.0014	--	N/A
		Total Copper (mg/L)	0.0014	--	N/A
		Total Nickel (mg/L)	0.011	--	N/A

**MONTHLY ENVIRONMENTAL MONITORING DATA**  
**December 2025**



Sampling Point Frequency	Frequency	Pollutant	Limit	Date	Measurement
Discharge Point 1 (Dam 3) (EPA Point 1)	Weekly during discharge	Total Zinc (mg/L)	0.008	--	N/A
		Total Iron (mg/L)	0.3	--	N/A
		Total Manganese (mg/L)	1.9	--	N/A
Dam 4 (EPA Point 4)	Weekly during discharge	pH (pH unit)	6.5 – 8.5	03/12/2025	7.5
				10/12/2025	7.3
				17/12/2025	7.3
				23/12/2025	6.8
				30/12/2025	7.2
		Conductivity (µS/cm)	-- 650	03/12/2025	429
				10/12/2025	445
				17/12/2025	393
				23/12/2025	410
				30/12/2025	1,141
TSS (mg/L)	50	03/12/2025	6		
		10/12/2025	13		
		17/12/2025	11		
		23/12/2025	8		
		30/12/2025	108		
Oil & Grease (mg/L)	10	03/12/2025	<5		
		10/12/2025	<5		
		17/12/2025	<5		
		23/12/2025	<5		
		30/12/2025	<5		
Total Boron (mg/L)	-- 0.94	03/12/2025	<0.05		
		10/12/2025	0.22		
		17/12/2025	<0.05		
		23/12/2025	<0.05		
		30/12/2025	<0.05		
Total Cobalt (mg/L)	- 0.0014	03/12/2025	0.002		
		10/12/2025	0.005		
		17/12/2025	<0.001		
		23/12/2025	<0.001		
		30/12/2025	0.002		
Total Copper (mg/L)	- 0.0014	03/12/2025	<0.001		
		10/12/2025	<0.001		
		17/12/2025	0.002		
		23/12/2025	<0.001		
		30/12/2025	<0.001		
Total Nickel (mg/L)	- 0.011	03/12/2025	0.005		
		10/12/2025	0.012		
		17/12/2025	0.004		
		23/12/2025	0.004		
		30/12/2025	0.008		

Sampling Point Frequency	Frequency	Pollutant	Limit	Date	Measurement
Dam 4 (EPA Point 4)	Weekly during discharge	Total Zinc (mg/L)	- 0.008	03/12/2025	<0.005
				10/12/2025	0.009
				17/12/2025	<0.005
				23/12/2025	<0.005
				30/12/2025	<0.005
		Total Iron (mg/L)	- 0.3	05/11/2025	0.57
				12/11/2025	0.95
				19/11/2025	0.44
				26/11/2025	1.06
		Total Manganese (mg/L)	- 1.9	05/11/2025	0.247
				12/11/2025	0.374
				19/11/2025	0.260
26/11/2025	0.368				

1 – sample collected for due diligence purposes only.

A variation to analyte concentration limits was received by the EPA as part of the variation to EPL10341 on 8 August 2025. The concentrations for pH, oil and grease, manganese and boron at Dam 4 were compliant with the updated concentration limits for all weeks during discharge in December. TSS, EC, Copper, Nickel and Zinc concentrations limits were exceeded in one week, Cobalt concentration limits were exceeded over two weeks and Iron concentration limits were exceeded in all five weeks in December.

Dam 3 was sampled for due diligence purposes only as there was no discharge conducted throughout the reporting period.

## 5 NOISE LIMITS

Attended noise monitoring is required to be undertaken on a quarterly frequency. Noise Monitoring reports for previous quarters are available on the Castlereagh Coal website: <https://ccoal.com.au/environmental-reporting-compliance/>

## 6 BLASTING

No blasting was undertaken during December 2025.

## 7 DISCLAIMER

This report is considered accurate at the date of issue with regard to current environmental conditions. Monitoring results may vary from those presented in this report following further assessment. This report must not be reproduced except in full. Results or figures from this report must not be used without acknowledgment.

Yours Faithfully,

**CASTLEREAGH COAL**