



# Chain Valley Colliery Monthly Website Report – March 2025

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<b>Site:</b>	Chain Valley Colliery
<b>Department:</b>	Health Safety and Environment
<b>Report Title:</b>	Monthly Environmental Website Report – March 2025
<b>Report Date:</b>	10 <sup>th</sup> April 2025
<b>Distribution:</b>	Delta Coal Website

# Monthly Website Report

CVC Monthly Environmental Report – March 2025

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## Summary

Environmental monitoring results are presented in this report for monitoring undertaken during the period of March 2025.

## Introduction

Great Southern Energy Pty Ltd (trading as Delta Coal) operates the Chain Valley Colliery, an underground coal mine at the southern end of Lake Macquarie.

Chain Valley Colliery operates under the following regulatory instruments:

- Section 66(6) of the *Protection of the Environment Operations Act 1997*, to make monitoring data related to an Environment Protection Licence (EPL) publicly available;
- Development Consent SSD-5465 (as modified), issued under the *Environmental Planning and Assessment Act 1979* to provide details of monitoring results and environmental performance;
- An Environment Protection Licence (EPL 1770) issued under the *Protection of the Environment Operations Act 1997*; and
- A Water Access Licence (WAL41508), Aquifer (Sydney Basin – North Coast Groundwater Source) for 4,443 unit shares (megalitres).

The above development consent and licences require various monitoring and reporting requirements to be undertaken by Delta Coal for Chain Valley Colliery.

This report provides environmental monitoring data from Chain Valley Colliery for the month of March 2025.

Details of the Chain Valley Colliery EPL 1770 are provided below.

Chain Valley Colliery Information	
Premises name	Chain Valley Colliery
Address	Construction Road, Chain Valley Bay, NSW, 2259
Licensee	Great Southern Energy Pty Ltd
EPL #	1770
EPL location	<a href="#">EPL 1770 – November 2024</a>

The overall purpose of this monthly report is to keep stakeholders informed of the environmental monitoring results at Chain Valley Colliery and maintain a transparent and accountable reporting system.

### Scope

This report presents the results from the various environmental monitoring programs undertaken for Chain Valley Colliery. Results are presented monthly with annual data and averages.

Where applicable, the results of the monitoring programs are compared with the relevant criteria (from the EPL or Development Consent) to assess compliance. Monitoring results presented in this report include:

- Water – quality;
- Water – volume;
- Air Quality – Depositional Dust
- Air Quality – PM<sub>10</sub>
- Air Quality – PM<sub>2.5</sub>; and
- Meteorological data.

### Definitions

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

kL – kilolitre;

ML – megalitre;

mg/L – milligrams per litre;

TSS – total suspended solids;

µg/L – micrograms per litre; and

µS/cm – microSiemens per centimetre.

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## References

ALS Group - Monthly Water Monitoring Results **March 2025**

ALS Group - Dust Deposition Report **March 2025**

Development Consent SSD-5465 (as modified)

Environment Protection Licence (EPL) 1770 (Licence version date: 9 April 2025)

## Monitoring Results

### Water – Quality

Water quality results for March 2025 monthly surface water sampling at Chain Valley Colliery, Licensed Discharge Point (LDP 1) are presented below.

March 2025			
EPL	1770		
Licensee	Great Southern Energy Pty Ltd		
Premises	Chain Valley Colliery		
Date Sampled	11-02-2025		
Date Obtained	24-02-2025		
Sampling Point	LDP 1		
Parameter	Units	Limit	Result
Biochem. Oxygen Demand	mg/L	-	<2
pH	pH	6.5-8.5	7.72
Total Sus. Solids (TSS)	mg/L	50	<5
Electrical Conductivity	µS/cm	-	31600

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### Water – Volume

Monthly water volumes discharged from the site are summarised below. There was no exceedance of volumetric discharge recorded at CVC for the period of March 2025.

<b>EPL</b>	<b>1770</b>
<b>Licensee</b>	<b>Great Southern Energy Pty Ltd</b>
<b>Premises</b>	<b>Chain Valley Colliery</b>
<b>Date Sampled</b>	<b>Daily</b>
<b>Date Reported</b>	<b>Refer report date</b>
<b>Discharge volume limit</b>	<b>12,161 kilolitres per day</b>
<b>Sampling Point</b>	<b>1</b>

<b>Date (24 hour period)</b>	<b>LDP 1 Volume (kL)</b>	<b>Rainfall (mm)</b>
01/03/2025	5387	0
02/03/2025	3008	0
03/03/2025	7376	3.8
04/03/2025	6640	10.6
05/03/2025	8340	1
06/03/2025	6027	0.2
07/03/2025	4225	7.6
08/03/2025	8080	21.2
09/03/2025	9105	0.4
10/03/2025	4873	1.2
11/03/2025	2162	4.6
12/03/2025	6127	0.2
13/03/2025	8528	0
14/03/2025	8019	0
15/03/2025	4879	0
16/03/2025	6284	0
17/03/2025	4414	0
18/03/2025	3185	0
19/03/2025	9245	0
20/03/2025	8419	0
21/03/2025	3910	6.4
22/03/2025	4672	0.6
23/03/2025	6259	12
24/03/2025	6216	1
25/03/2025	6169	0
26/03/2025	5939	0
27/03/2025	6152	1.8
28/03/2025	5086	1.2
29/03/2025	4709	51.8
30/03/2025	3618	5
31/03/2025	6407	6.8

Average	5918	4
Minimum	2162	0
Maximum	9245	52

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### Water – Groundwater Discharge

Groundwater discharged from underground workings to the CVC sedimentation ponds within the surface operational area has been detailed below. Chain Valley Colliery operates Water Access License (WAL 41508) permitting the extraction of 4,443 megalitres per water year (financial year calendar) with a roll-over entitlement up to a maximum of 8,886 megalitres.

CVC Groundwater to Surface Totals FY2024-2025		
Date (month)	GW Discharge (ML/Month)	GW Discharge (Cumulative ML YTD)
July 2024	207	207
August 2024	210	416
September 2024	193	609
October 2024	197	806
November 2024	182	988
December 2024	198	1186
January 2025	192	1378
February 2025	186	1564
March 2025	192	1756

### Air Quality - Depositional Dust

Monthly depositional dust results are shown below. Dust deposition gauges were sampled and analysed in accordance with Development Consent SSD-5465 (as modified), Delta Coal Air Quality and Greenhouse Gas Management Plan, and relevant Australian Standards.

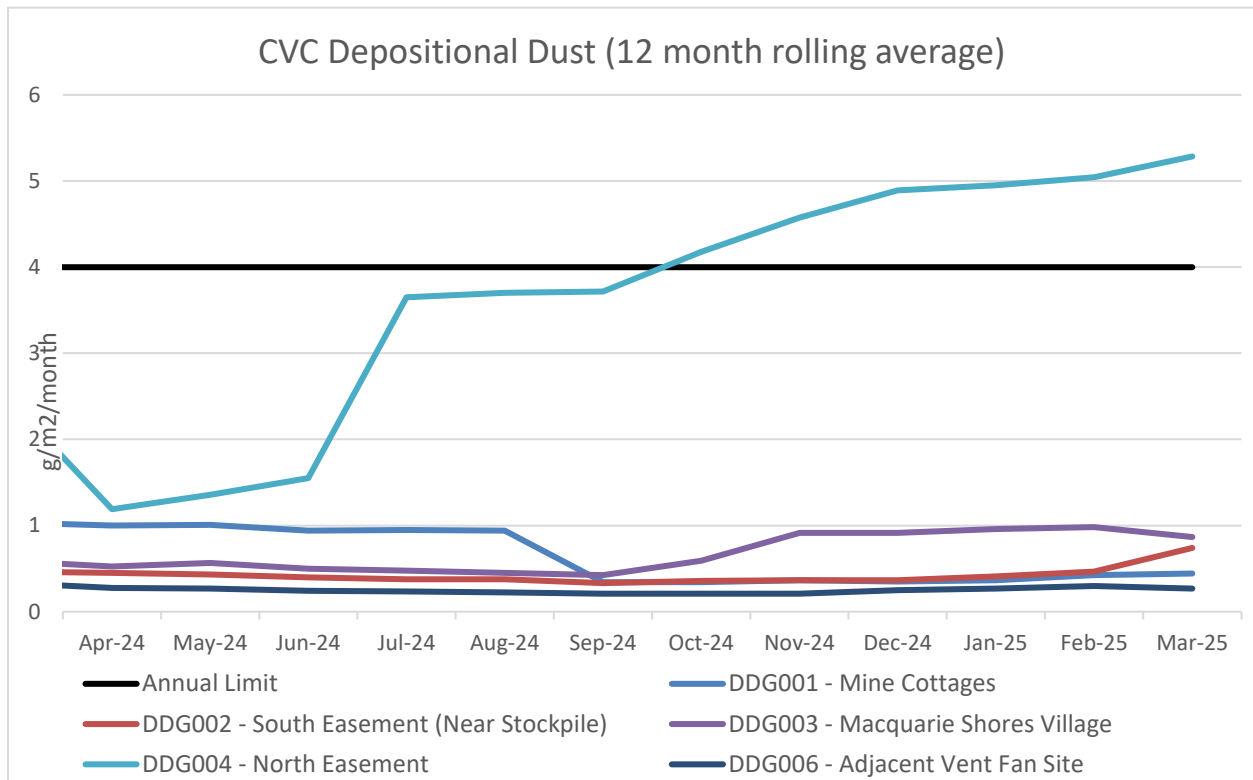
March 2025	
<b>EPL</b>	1770
<b>Limit</b>	4g/m <sup>2</sup> /month / Annum 2g/m <sup>2</sup> /month increase from previous result
<b>Sampling Date</b>	03/02/2025 – 05/03/2025
Site	Insoluble Matter (g/m2/month)
DDG001	0.6
DDG002	3.9
DDG003	0.1
DDG004	3.8
DDG006	0.1
Notes: For site locations refer to the Delta Coal Air Quality and Greenhouse Gas Management Plan.	

The March DDG002 result increased by more than 2g/m2/month from the previous month. DDG002 was 3.94g/m2/month, compared to 0.9g/m2/month the previous month.

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The 12 month rolling average results for DDG001, DDG002, DDG003 and DDG006 remain within the depositional dust limit of 4g/m<sup>2</sup>/month (annual average). The 12 month rolling average result for DDG004 was 5.28g/m<sup>2</sup> /month against the limit of 4g/m<sup>2</sup> /month.



A 12-month rolling average of depositional dust concentrations has been presented above. Dust Gauges DDG001, DDG002, DDG003 and DDG004 are located within a closer proximity to Chain Valley Colliery and DDG006 is positioned in a location representative of the Chain Valley Colliery ventilation fan site at Summerland Point.

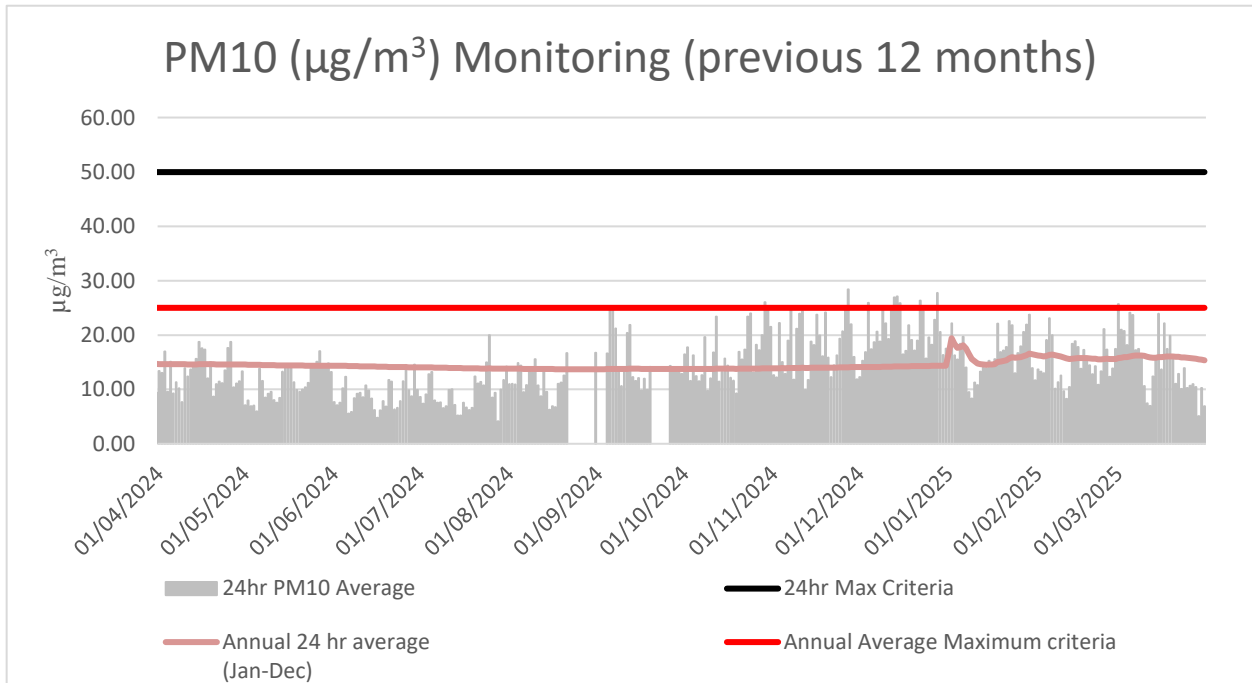


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### Air Quality – PM<sub>10</sub>

The 24hr PM<sub>10</sub> average from Delta Coal's Tapered Element Oscillating Microbalance (TEOM), located at the Mannering Park Sewage Treatment Plant, is presented below for the previous 12 months.



Annual 24hr PM<sub>10</sub> average maximum criteria for March 2025 was below the annual average maximum criteria limit. A summary of data availability for Delta Coal's TEOM is presented below for the reporting period. Delta Coals TEOM had a data availability of 100% for the month of March 2025.

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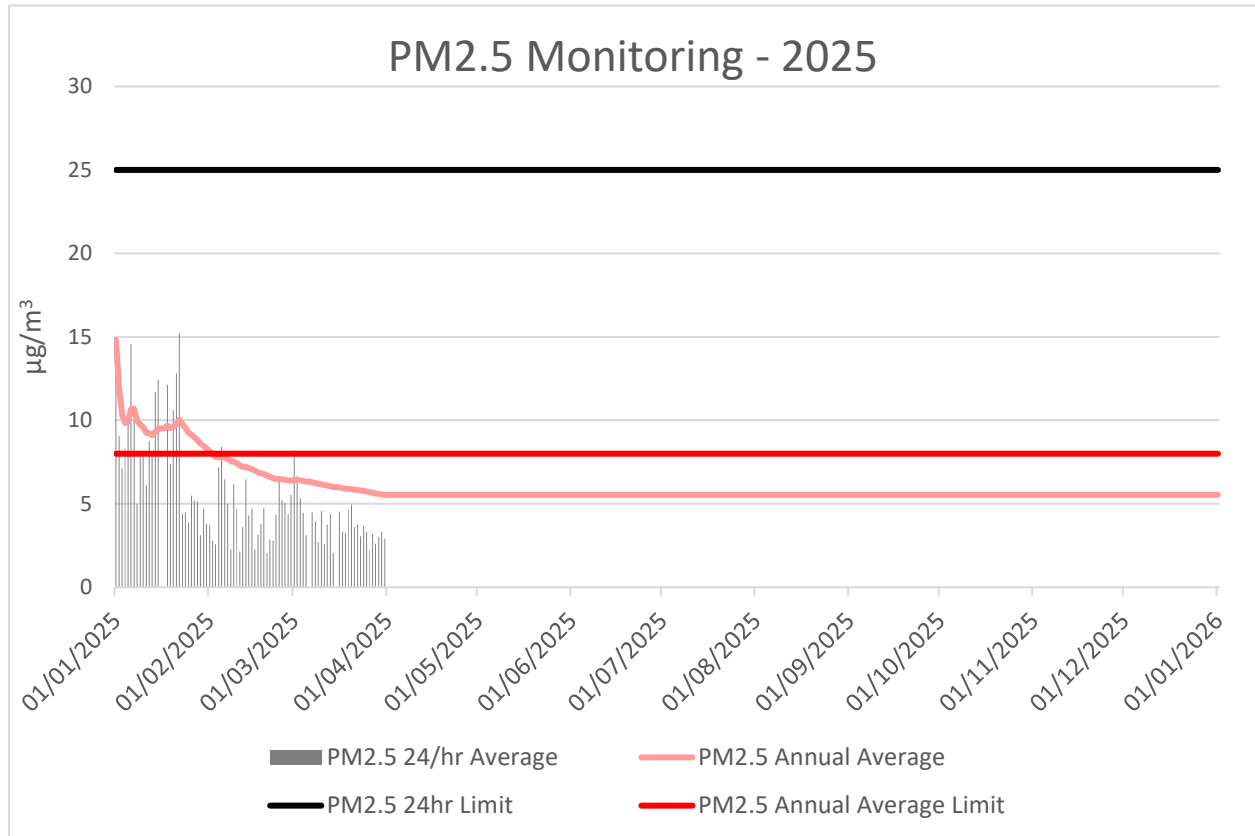
Variable	March	Total	Valid
A/C Temp	100%	8928	8928
A1_Scaled	100%	8928	8928
Band	100%	8928	8928
Bypass Flow	100%	8928	8928
Cap Temp	100%	8928	8928
Case Temp	100%	8928	8928
Config	100%	8928	8928
Dew Point	100%	8928	8928
Dig-In	100%	8928	8928
Dig-Latch	100%	8928	8928
ESN	100%	8928	8928
Filter Freq	100%	8928	8928
Filter Load	100%	8928	8928
Humidity	100%	8928	8928
MC	100%	8928	8928
MC 12Hr	100%	8928	8928
MC 1Hr	100%	8928	8928
MC 24Hr	100%	8928	8928
MC 30min	100%	8928	8928
MC 8Hr	100%	8928	8928
MC Total	100%	8928	8928
Mobile Signal	100%	8928	8928
Noise	100%	8928	8928
PM10 Flow	100%	8928	8928
Pressure	100%	8928	8928
Site	0.0%	8928	0
Temperature	100%	8928	8928
Tube Temp	100%	8928	8928
Vac Pressure	100%	8928	8928
Volts	100%	8928	8928

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### Air Quality – PM2.5Aw

Delta Coal utilises PM<sub>2.5</sub> data obtained from Delta Electricity owned and operated beta attenuation monitor (BAM). The PM<sub>2.5</sub> monitor is located on Tingley Road, Wyee.



There were no exceedances of the PM<sub>2.5</sub> daily average limit in March 2025. The 12-month rolling average PM<sub>2.5</sub> value on 31 March was 5.53 µg/m<sup>3</sup>. PM<sub>2.5</sub> data availability in March was 84%. The 2025 year to date PM<sub>2.5</sub> data availability is 89.1%.

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### Weather Data

A summary of weather data recorded by a meteorological monitoring station at the adjacent Mannering Colliery is presented below for the year to date. (EPA ID no. 26).

Monthly Weather Data 2025			
Licensee	Great Southern Energy Pty Ltd		
Location	Mannering Colliery Meteorological station		
Date published	Refer report date		
Date sampled	Daily		
Date obtained	10 March 2025		
Month	Total Rainfall/Month (mm)	Min Temp	Max Temp
Jan-25	237	11.9	41.3
Feb-25	31	12.5	33.8
Mar-25	138	15.4	36.3

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Variable	March	Total	Valid
Baro (Corrected)	100%	2976	2976
10m Temp	100%	2976	2976
2m Temp	100%	2976	2976
A1	100%	2976	2976
A1_Scaled	100%	2976	2976
Assumed Temp	100%	2976	2976
Barometric	100%	2976	2976
Config	100%	2976	2976
Daily Evap	100%	2976	2976
Daily Rain	100%	2976	2976
Delta T	100%	2976	2976
Dew Point	100%	2976	2976
Dig-In	100%	2976	2976
Dig-Latch	100%	2976	2976
ESN	100%	2976	2976
FDI	100%	2976	2976
Heat Index	100%	2976	2976
Humidity	100%	2976	2976
Mobile Signal	100%	2976	2976
Rain	100%	2976	2976
Raw Evap	100%	2976	2976
S Class	100%	2976	2976
Scalar WS	100%	2976	2976
Sigma	100%	2976	2976
Site	0.0%	2976	0
Solar Radiation	100%	2976	2976
Vector WD	100%	2976	2976
Vector WS	100%	2976	2976
Volts	100%	2976	2976
Wind Chill	100%	2976	2976
Wind Direction	100%	2976	2976
Wind Speed	100%	2976	2976
WS Avg	100%	2976	2976
WS Gust	100%	2976	2976