



# Report

---

<b>Site:</b>	<b>Chain Valley Colliery</b>
<b>Department:</b>	<b>Technical Services</b>
<b>Report Title:</b>	<b>Monthly Environmental Report - December 2017</b>
<b>Prepared by:</b>	<b>Wade Covey</b>
<b>Report Date:</b>	<b>14/01/18</b>
<b>Distribution:</b>	<b>Chain Valley Colliery website</b>

## Table of Contents

Introduction .....	3
Scope.....	4
Definitions .....	4
References .....	5
Monitoring Results.....	5
Water – Quality .....	5
Water – Volume.....	6
Depositional Dust .....	7
Operational Noise.....	7
Weather Data .....	8

### Introduction

LakeCoal Pty Ltd (LakeCoal) 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;

- A Development Consent, SSD-5465 (as modified) issued under the Environmental Planning and Assessment Act, 1979.
- An Environment Protection Licence (1770) issued under the Protection of the Environment Operations Act, 1997.
- A groundwater bore licence (20BL173107) issued under the Water Act, 1912.

The above development consent/approval and licences require various monitoring and reporting to be undertaken by LakeCoal for Chain Valley Colliery.

This report provides environmental monitoring data from Chain Valley Colliery for the period 1 December 2017 to 31 December 2017.

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	LakeCoal Pty Ltd
EPL #	1770
EPL location	<a href="http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=50980&amp;SYSUID=1&amp;LICID=1770">http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=50980&amp;SYSUID=1&amp;LICID=1770</a>

The overall purpose of this 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 in this report are typically only a single month of data, which is due to a legislative requirement introduced by the *Protection of the Environment Legislation Amendment Act 2011*, which requires publishing data publically within 14 days. As LakeCoal is required to undertake monitoring on a monthly basis, each report generally cover a single month of environmental monitoring data.

Where applicable, the results of the monitoring programs are compared with the relevant criteria (from the EPL or Development Consent) to determine compliance.

Monitoring results presented include;

- Water – quality
- Water – volume
- Depositional dust
- Operational noise
- Weather data

### Definitions

dB– decibels

dB(A) – noise level measurement units are decibels (dB). The A-weighting scale is used to approximate human perception of noise

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

kL– kilolitres

L<sub>Aeq</sub>–the average A-weighted noise energy (in dB) for a measurement period

mg/L – milligrams per litre

µg/L – micrograms per litre

µS/cm – microSiemens per centimetre

### References

ALS Group - Monthly Water Monitoring Results November 2017 - Work Order ES1728499

ALS Water - Report of Analysis (WN1705130)

Steel River Testing - Dust Deposition Report November 2017 (Report 14773-0)

Development Consent SSD-5465 (as modified)

Environment Protection Licence 1770 (Licence version date: 8 June 2016)

### Monitoring Results

Water – Quality

December 2017			
EPL	1770		
Licensee	LakeCoal Pty Ltd		
Premises	Chain Valley Colliery		
Date Sampled	13-Dec-17		
Date Obtained	15-Dec-17		
Date Reported	Refer report date		
Sampling Point	1		
Parameter	Units	Limit	Result
Biochem. Oxygen Dem	mg/L	-	<2
Enterococci	col/100mL	-	20
Faecal Coliforms	CFU/100mL	200	2
pH	pH	6.5-8.5	7.86
Total Sus. Solids	mg/L	50	6

There was no exceedance of water quality criteria during the month.

## CVC Monthly Environmental Report

### Water – Volume

---

November 2017		
EPL	1770	
Licensee	LakeCoal Pty Ltd	
Premises	Chain Valley Colliery	
Date Sampled	Daily	
Date Reported	Refer report date	
Discharge volume limit	12161 kilolitres per day	
Sampling Point	1	

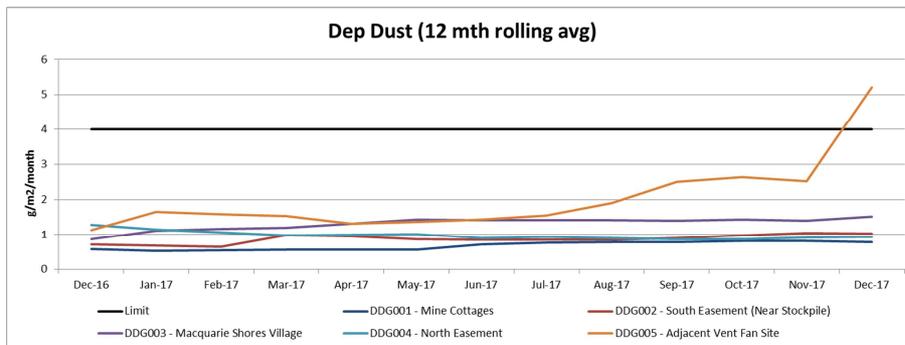
Date (24 hour period)	Unit	Volume
01/12/2017	kL	6893
02/12/2017	kL	7248
03/12/2017	kL	7424
04/12/2017	kL	6760
05/12/2017	kL	6392
06/12/2017	kL	6623
07/12/2017	kL	5347
08/12/2017	kL	1511
09/12/2017	kL	5999
10/12/2017	kL	7021
11/12/2017	kL	7221
12/12/2017	kL	7044
13/12/2017	kL	7003
14/12/2017	kL	6753
15/12/2017	kL	6914
16/12/2017	kL	7054
17/12/2017	kL	7019
18/12/2017	kL	6953
19/12/2017	kL	6904
20/12/2017	kL	6964
21/12/2017	kL	7062
22/12/2017	kL	6778
23/12/2017	kL	6623
24/12/2017	kL	6569
25/12/2017	kL	6731
26/12/2017	kL	6708
27/12/2017	kL	6630
28/12/2017	kL	6599
29/12/2017	kL	6574
30/12/2017	kL	6639
31/12/2017	kL	6661

There were no exceedances of the volumetric limits at the Licenced Discharge Point during the month.

### Depositional Dust

December 2017			
Sampling Date	13/11/2017	to	15/12/2017
Site	Insoluble Matter (g/m <sup>2</sup> /month)		
DDG001	0.6		
DDG002	0.7		
DDG003	1.0		
DDG004	0.9		
DDG005	7.7		
Notes:			
- For site locations refer to Air Quality Management Plan			

There was one elevated air quality result during the month at DDG005. Following an investigation it was determined that the elevated result was a direct result of earthworks undertaken in close proximity to the gauge by the landowner. LakeCoal has requested an audit of the DDG005 location to determine if there is a more suitable location.



There were no exceedances of the annual average air quality limits during the reporting period.

### Operational Noise

There was no noise monitoring undertaken during the month.

### Weather Data

A summary of weather data recorded by an adjacent site meteorological monitoring station at the Colliery is presented below for the year to date.

Monthly Weather Data				
2017				
EPL	191			
Licensee	LakeCoal Pty Ltd			
Premises	Manning Colliery			
Location	W1 (on-site weather station)			
Date published:	Refer report date			
Date sampled:	Daily			
Date obtained:	14/01/2018			
Month	Total Rainfall / Month (mm)	Minimum Temperature (oC)	Maximum Temperature (oC)	
Jan-17	68.6	17.4	40.1	
Feb-17	141.2	13.1	39	
Mar-17	404	14.5	31.9	
Apr-17	85.6	17.4	24.8	
May-17	34.8	11.5	24.8	
Jun-17	169.2	5.1	19.9	
Jul-17	5.6	3.9	24	
Aug-17	14	4.7	28.2	
Sep-17	12.6	4.9	33.6	
Oct-17	92.4	12.6	36.4	
Nov-17	46	10.3	30.1	
Dec-17	48.6	15.6	41.4	