



# Report

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<b>Site:</b>	<b>Chain Valley Colliery</b>
<b>Department:</b>	<b>Technical Services</b>
<b>Report Title:</b>	<b>Monthly Environmental Website Report - December 2019</b>
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### 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 2018 to 31 December 2018.

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 December 2018

ALS Water - Report of Analysis

Steel River Testing - Dust Deposition Report December 2018

Development Consent SSD-5465 (as modified)

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

## Monitoring Results

Water – Quality

December 2018	
EPL	1770
Licensee	LakeCoal Pty Ltd
Premises	Chain Valley Colliery
Date Sampled	17-Dec-18
Date Obtained	24-Dec-18
Date Reported	Refer report date
Sampling Point	1

  

Parameter	Units	Limit	Result
Biochem. Oxygen Demand	mg/L	-	<2
Enterococci	col/100mL	-	85
Faecal Coliforms	CFU/100mL	200	2
pH	pH	6.5-8.5	7.72
Total Sus. Solids	mg/L	50	19

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

## Water – Volume

<b>December 2018</b>	
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

<b>Date (24 hour period)</b>	<b>Unit</b>	<b>Volume</b>
01/12/2018	kL	5416
02/12/2018	kL	5358
03/12/2018	kL	6251
04/12/2018	kL	6701
05/12/2018	kL	6764
06/12/2018	kL	6754
07/12/2018	kL	4818
08/12/2018	kL	5284
09/12/2018	kL	6594
10/12/2018	kL	6558
11/12/2018	kL	6809
12/12/2018	kL	6854
13/12/2018	kL	6825
14/12/2018	kL	4377
15/12/2018	kL	5757
16/12/2018	kL	6538
17/12/2018	kL	2784
18/12/2018	kL	6498
19/12/2018	kL	10268
20/12/2018	kL	7789
21/12/2018	kL	6028
22/12/2018	kL	6286
23/12/2018	kL	8710
24/12/2018	kL	7119
25/12/2018	kL	3808
26/12/2018	kL	2910
27/12/2018	kL	6314
28/12/2018	kL	7540
29/12/2018	kL	7619
30/12/2018	kL	7225
31/12/2018	kL	7788
<b>Average</b>	kL	6334
<b>Minimum</b>	kL	2784
<b>Maximum</b>	kL	10268

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

### Depositional Dust

December 2018			
Sampling Date	09/11/2018	to	10/12/2018
Site	Insoluble Matter (g/m <sup>2</sup> /month)		
DDG001	0.5		
DDG002	0.8		
DDG003	1.6		
DDG004	1.4		
DDG005	1.5		
Notes:			

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

### Operational Noise

No monitoring undertaken in December.

### 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			
2018			
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:	04/01/2019		
Month	Total Rainfall / Month (mm)	Minimum Temperature (c°)	Maximum Temperature (c°)
Jan-18	23.4	13.8	42.5
Feb-18	124.2	14.1	38.0
Mar-18	55.6	10.5	38.1
Apr-18	70.6	11.7	33.8
May-18	18.6	7.3	27.6
Jun-18	289.0	5.1	19.7
Jul-18	6.4	2.3	24.7
Aug-18	56.8	3.9	24.5
Sep-18	65.6	6.3	32.2
Oct-18	259.2	8.2	29.5
Nov-18	115.4	10.7	35.9
Dec-18	73.6	13.6	36.4
	<b>1158.4</b>	<b>2.3</b>	<b>42.5</b>