



# 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 Report - October 2017</b>
<b>Prepared by:</b>	<b>Wade Covey</b>
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<b>Distribution:</b>	<b>Chain Valley Colliery website</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 October 2017 to 31 October 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 October 2017 - Work Order ES1728499

ALS Water - Report of Analysis (WN1704544)

Steel River Testing - Dust Deposition Report October 2017 (Report 14581-0)

Development Consent SSD-5465 (as modified)

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

### Monitoring Results

Water – Quality

October 2017			
EPL	1770		
Licensee	LakeCoal Pty Ltd		
Premises	Chain Valley Colliery		
Date Sampled	10-Oct-17		
Date Obtained	17-Oct-17		
Date Reported	Refer report date		
Sampling Point	1		
Parameter	Units	Limit	Result
Biochem. Oxygen Demand	mg/L	-	<2
Enterococci	col/100mL	-	150
Faecal Coliforms	CFU/100mL	200	~29
pH	pH	6.5-8.5	7.78
Total Sus. Solids	mg/L	50	8

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

### Water – Volume

October 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

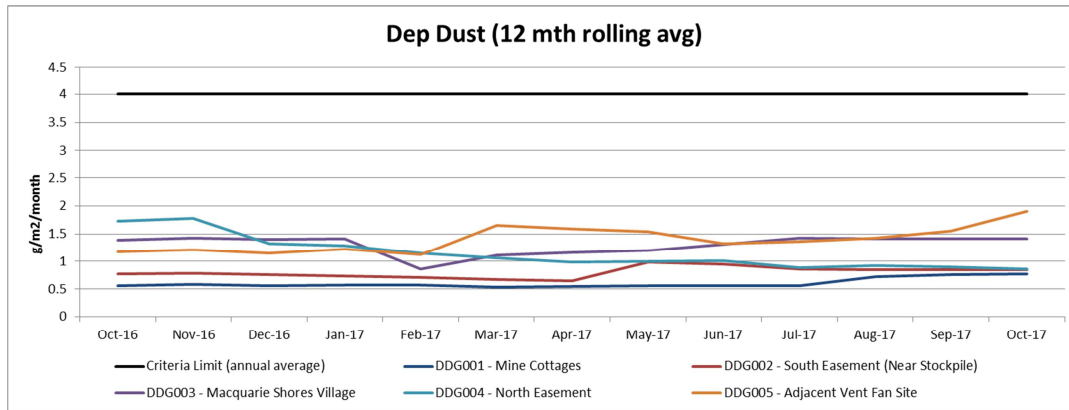
Date (24 hour period)	Unit	Volume
01/10/2017	kL	9951
02/10/2017	kL	8038
03/10/2017	kL	6588
04/10/2017	kL	6069
05/10/2017	kL	6275
06/10/2017	kL	6268
07/10/2017	kL	6467
08/10/2017	kL	6536
09/10/2017	kL	6828
10/10/2017	kL	6905
11/10/2017	kL	6972
12/10/2017	kL	6367
13/10/2017	kL	5731
14/10/2017	kL	6951
15/10/2017	kL	7580
16/10/2017	kL	7058
17/10/2017	kL	6764
18/10/2017	kL	6767
19/10/2017	kL	6852
20/10/2017	kL	4047
21/10/2017	kL	6067
22/10/2017	kL	6849
23/10/2017	kL	7964
24/10/2017	kL	7235
25/10/2017	kL	7147
26/10/2017	kL	6895
27/10/2017	kL	7472
28/10/2017	kL	7149
29/10/2017	kL	7342
30/10/2017	kL	7362
31/10/2017	kL	7493

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

### Depositional Dust

October 2017			
Sampling Date	14/09/2017	to	13/10/2017
Site	Insoluble Matter (g/m <sup>2</sup> /month)		
DDG001	0.6		
DDG002	1.2		
DDG003	0.3		
DDG004	0.7		
DDG005	1.5		

Notes:  
- For site locations refer to Air Quality Management Plan



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

### Operational Noise

There was a 1dB exceedance reported at ATN007 (Summerland Point) during the Q3 monitoring for Chain Valley Colliery. The exceedance was a result of a 5dB low frequency penalty applied to the real time monitoring result. The exceedance was reported to the relevant authorities. The finalised monitoring results will be provided once the report has been finalised.

Location	Start Date and Time	CVC only L <sub>Aeq</sub> (dB)	CVC only with INP penalty L <sub>Aeq</sub> (dB) <sup>1</sup>	CVC only with Broner penalty L <sub>Aeq</sub> (dB)	CVC only with dING penalty L <sub>Aeq</sub> (dB)
ATN007	24/10/2017 17:20	42	47	47	47

### 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			
<b>2017</b>			
EPL	191		
Licensee	LakeCoal Pty Ltd		
Premises	Mannering Colliery		
Location	W1 (on-site weather station)		
Date published:	Refer report date		
Date sampled:	Daily		
Date obtained:	15/11/2017		
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			
Dec-17			