



# Report

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<b>Site:</b>	<b>Chain Valley Colliery</b>
<b>Department:</b>	<b>HSEC</b>
<b>Report Title:</b>	<b>Monthly Environmental Report - September 2016</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 September 2016 to 30 September 2016.

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 September 2016 - Work Order ES1621149)

ALS Water - Report of Analysis (WN1603236)

Steel River Testing - Dust Deposition Report September 2016 (Report 12045-0)

Development Consent SSD-5465 (as modified)

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

## Monitoring Results

### Water – Quality

September 2016			
EPL	1770		
Licensee	LakeCoal Pty Ltd		
Premises	Chain Valley Colliery		
Date Sampled	21-Sep-16		
Date Obtained	23-Sep-16		
Date Reported	Refer report date		
Sampling Point	1		
Parameter	Units	Limit	Result
Biochem. Oxygen Demand	mg/L	-	<2
Enterococci	col/100mL	-	~180
Faecal Coliforms	CFU/100mL	200	24
pH	pH	6.5-8.5	7.53
Total Sus. Solids	mg/L	50	<5

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

### Water – Volume

September 2016		
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
1/09/2016	kL	7860
2/09/2016	kL	8395
3/09/2016	kL	8355
4/09/2016	kL	7067
5/09/2016	kL	6880
6/09/2016	kL	6993
7/09/2016	kL	7011
8/09/2016	kL	7036
9/09/2016	kL	7013
10/09/2016	kL	6872
11/09/2016	kL	5944
12/09/2016	kL	6711
13/09/2016	kL	6923
14/09/2016	kL	7244
15/09/2016	kL	6888
16/09/2016	kL	6948
17/09/2016	kL	6996
18/09/2016	kL	8070
19/09/2016	kL	7405
20/09/2016	kL	6846
21/09/2016	kL	6938
22/09/2016	kL	8805
23/09/2016	kL	7045
24/09/2016	kL	7345
25/09/2016	kL	8530
26/09/2016	kL	7609
27/09/2016	kL	6510
28/09/2016	kL	6757
29/09/2016	kL	7890
30/09/2016	kL	8377

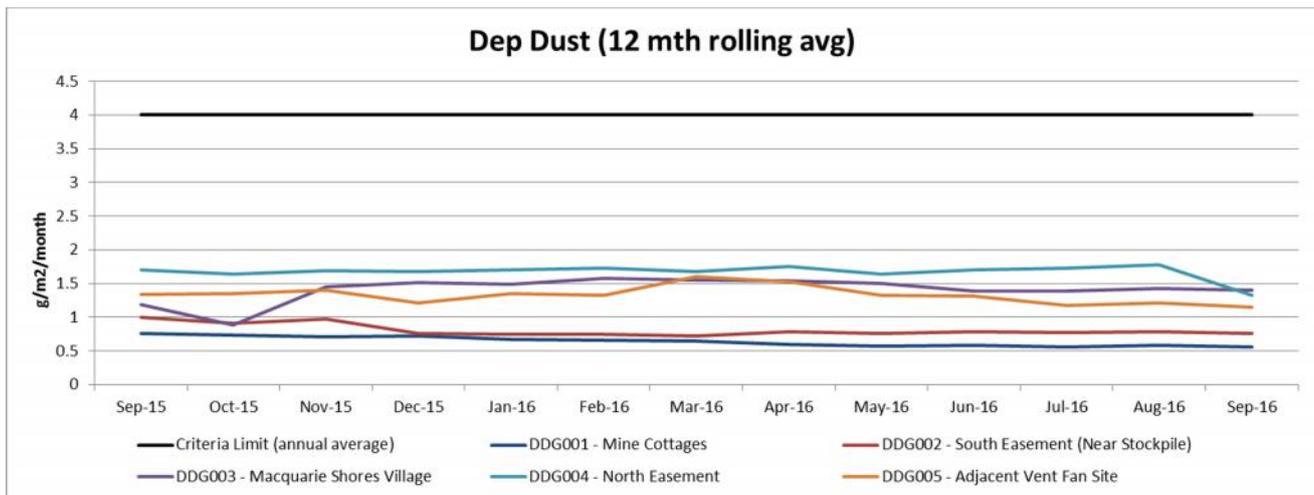
There were no exceedances of the volumetric limits at the Licenced Discharge Point during the month.

### Depositional Dust

September 2016		
Sampling Date	15/08/2016 to	12/09/2016
Site	Insoluble Matter (g/m <sup>2</sup> /month)	
DDG001	0.4	
DDG002	0.4	
DDG003	0.4	
DDG004	0.4	
DDG005	0.5	

**Notes:**

- For site locations refer to Air Quality Management Plan



### Operational Noise

Noise monitoring was undertaken in September. No exceedances were recorded. Attended noise monitoring results will be made available in the next website report. The next round of monitoring is scheduled for December 2016.

## 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			
2016			
<b>EPL</b>	191		
<b>Licensee</b>	LakeCoal Pty Ltd		
<b>Premises</b>	Mannering Colliery		
<b>Location</b>	W1 (on-site weather station)		
<b>Date published:</b>	Refer report date		
<b>Date sampled:</b>	Daily		
<b>Date obtained:</b>	14/10/2016		
Month	Total Rainfall / Month (mm)	Minimum Temperature (°C)	Maximum Temperature (°C)
Jan-16	329	14.3	36
Feb-16	17.4	16.4	37.7
Mar-16	92.2	14.3	30.1
Apr-16	36.2	12.1	33.5
May-16	46.6	5.3	27.8
Jun-16	248.2	3.4	21.4
Jul-16	73.2	2.5	25
Aug-16	115	4.5	24.3
Sep-16	68	7.4	24.2
Oct-16			
Nov-16			
Dec-16			