



Report

Site:	Chain Valley Colliery
Department:	Technical Services
Report Title:	Monthly Environmental Report - August 2017
Prepared by:	Wade Covey
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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 August 2017 to 31 August 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	http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=50980&SYSUID=1&LICID=1770

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/m²/month – grams per square metre per month

kL– kilolitres

L_{Aeq}–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 August 2017 - Work Order ES1720244)

ALS Water - Report of Analysis (WN1703654)

Steel River Testing - Dust Deposition Report August 2017 (Report 14171-0)

Development Consent SSD-5465 (as modified)

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

Monitoring Results

Water – Quality

August 2017			
EPL	1770		
Licensee	LakeCoal Pty Ltd		
Premises	Chain Valley Colliery		
Date Sampled	15-Aug-17		
Date Obtained	22-Aug-17		
Date Reported	Refer report date		
Sampling Point	1		
Parameter	Units	Limit	Result
Biochem. Oxygen Demand	mg/L	-	<2
Enterococci	col/100mL	-	76
Faecal Coliforms	CFU/100mL	200	15
pH	pH	6.5-8.5	7.61
Total Sus. Solids	mg/L	50	29

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

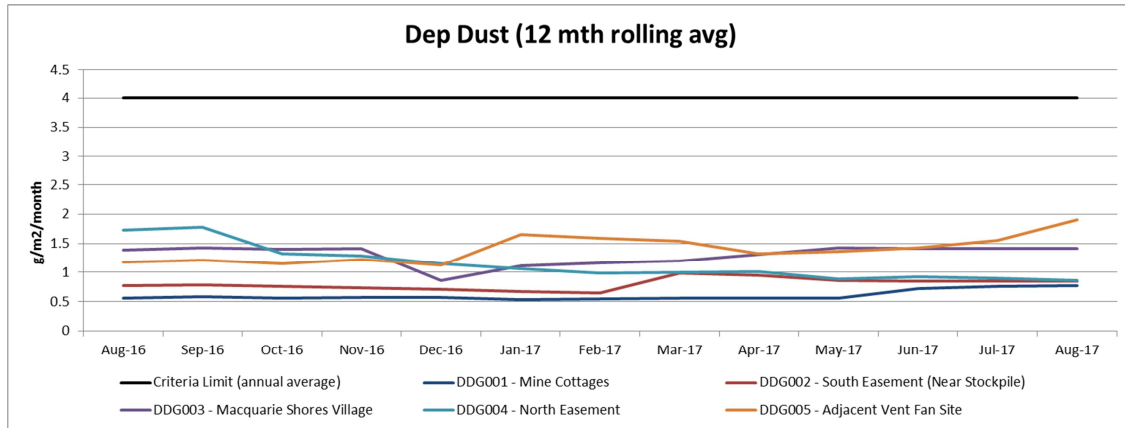
Water – Volume

August 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
01/08/2017	kL	6269
02/08/2017	kL	1281
03/08/2017	kL	24
04/08/2017	kL	1637
05/08/2017	kL	6176
06/08/2017	kL	6848
07/08/2017	kL	6282
08/08/2017	kL	6347
09/08/2017	kL	6777
10/08/2017	kL	6840
11/08/2017	kL	6810
12/08/2017	kL	6726
13/08/2017	kL	5957
14/08/2017	kL	6144
15/08/2017	kL	6501
16/08/2017	kL	5726
17/08/2017	kL	5900
18/08/2017	kL	5594
19/08/2017	kL	6467
20/08/2017	kL	6707
21/08/2017	kL	6378
22/08/2017	kL	5929
23/08/2017	kL	6364
24/08/2017	kL	6080
25/08/2017	kL	5826
26/08/2017	kL	5635
27/08/2017	kL	6589
28/08/2017	kL	6812
29/08/2017	kL	5223
30/08/2017	kL	5034
31/08/2017	kL	5904

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

Depositional Dust



Operational Noise

There was no noise monitoring undertaken during the month. Results from the June monitoring are provided below.

Table 4.2: $L_{Aeq,15minute}$ GENERATED BY CVC AGAINST IMPACT ASSESSMENT CRITERIA – QUARTER 2 2017

Location	Start Date and Time	Wind Speed (m/s)	VTG ($^{\circ}\text{C per } 100\text{m}$) ¹	L_{Aeq} Criterion (dB)	Criterion Applies? ²	CVC L_{Aeq} (dB) ^{3,4,5}	Exceedance (dB) ^{6,7}
Day							
ATN001	27/06/2017 14:47	1.7	-1.8	35	Yes	NM	Nil
ATN002	27/06/2017 13:57	1.1	-2.0	49	Yes	NM	Nil
ATN003	27/06/2017 13:14	1.8	-2.0	36	Yes	IA	Nil
ATN004	27/06/2017 12:52	1.9	-2.0	35	Yes	IA	Nil
ATN005	27/06/2017 12:25	1.3	-2.0	35	Yes	NM	Nil
ATN006	27/06/2017 12:02	1.9	-2.0	37	Yes	IA	Nil
ATN007	27/06/2017 11:33	2.4	-1.6	46	Yes	41	Nil
R13	27/06/2017 14:18	1.2	-2.0	43	Yes	IA	Nil
Evening							
ATN001	26/06/2017 18:48	0.7	3.0	35	Yes	IA	Nil
ATN002	26/06/2017 20:30	0.5	-1.0	49	Yes	NM	Nil
ATN003	26/06/2017 19:38	0.3	0.5	36	Yes	NM	Nil
ATN004	26/06/2017 21:26	0.9	0.5	35	Yes	NM	Nil
ATN005	28/06/2017 20:01	0.6	3.0	35	Yes	NM	Nil
ATN006	28/06/2017 19:36	0.7	3.0	37	Yes	NM	Nil
ATN007	28/06/2017 19:08	1.3	0.5	46	Yes	36	Nil
R13	26/06/2017 21:00	0.6	-1.0	43	Yes	NM	Nil
Night							
ATN001	29/06/2017 01:12	0.6	3.0	35	Yes	IA	Nil
ATN002	29/06/2017 02:06	1.1	0.5	49	Yes	NM	Nil
ATN003	29/06/2017 01:43	1.2	-1.0	36	Yes	NM	Nil
ATN004	26/06/2017 22:00	0.6	3.0	35	Yes	NM	Nil
ATN005	26/06/2017 23:12	0.2	3.0	35	Yes	NM	Nil
ATN006	29/06/2017 03:01	1.2	3.0	37	Yes	NM	Nil
ATN007	29/06/2017 03:27	1.1	3.0	46	Yes	42	Nil
R13	29/06/2017 02:25	1.6	0.5	43	Yes	NM	Nil

Table 4.3: L_{A1min} GENERATED BY CVC AGAINST IMPACT ASSESSMENT CRITERIA – QUARTER 2 2017

Location	Start Date and Time	Wind Speed (m/s)	VTG ($^{\circ}\text{C} / 100\text{m}$) ¹	L_{Aeq} Criterion (dB)	Criterion Applies? ²	CVC L_{Aeq} (dB) ^{3,4,5}	Exceedance (dB) ^{4,5}
ATN001	29/06/2017 01:12	0.6	3.0	45	Yes	IA	Nil
ATN002	29/06/2017 02:06	1.1	0.5	53	Yes	NM	Nil
ATN003	29/06/2017 01:43	1.2	-1.0	45	Yes	NM	Nil
ATN004	26/06/2017 22:00	0.6	3.0	45	Yes	NM	Nil
ATN005	26/06/2017 23:12	0.2	3.0	45	Yes	NM	Nil
ATN006	29/06/2017 03:01	1.2	3.0	45	Yes	NM	Nil
ATN007	29/06/2017 03:27	1.1	3.0	46	Yes	45	Nil
R13	29/06/2017 02:25	1.6	0.5	49	Yes	NM	Nil

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	Mannering Colliery		
Location	W1 (on-site weather station)		
Date published:	Refer report date		
Date sampled:	Daily		
Date obtained:	11/09/2017		
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			
Oct-17			
Nov-17			
Dec-17			