

LDO GROUP Report



SITE:	Chain Valley Colliery
Department:	HSEC
REPORT TITLE:	Monthly Environmental Report – December 2013
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TABLE OF CONTENTS

Introduction	3
Scope	3
Definitions	4
References	4
Monitoring Results	5
Water – Quality	5
Water – Volume	6
Dispositional Dust	7
Operational Noise	7

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 12_5465) and a Project Approval (MP 10_0161) 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 legislation, licence and approval require various monitoring and reporting to be undertaken by LakeCoal for Chain Valley Colliery.

This report covers the requirements of the above and attempts to make the data as understandable and easy to interpret as possible for the general public.

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 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 of receipt. 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 Project Approval) to determine compliance.

Monitoring results presented include;

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

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 (December 2013 - Work Order ES1327970)

Hunter Water Laboratories - Report of Analysis (HWA-13/09745)

Steel River Testing - Dust Deposition Report December 2013 – Report 5657-0)

Development Consent SSD 12_5465

Project Approval 10_0161 (as modified)

Environment Protection Licence 1770 (Licence version date: 20 August 2013)

Monitoring Results

Water – Quality

December 2013			
EPL	1770		
Licensee	LakeCoal Pty Ltd		
Premises	Chain Valley Colliery		
Date Sampled	20-Dec-13		
Date Obtained	04-Jan-14		
Date Reported	Refer report date		
Sampling Point	1		
Parameter	Units	Limit	Result
Aluminium (total)	µg/L		20
Aluminium (soluble)	µg/L		10
Ammonia as N	mg/L		0.06
Arsenic (total)	µg/L		2
Arsenic (soluble)	µg/L		1
Beryllium (total)	µg/L		<1
Beryllium (soluble)	µg/L		<1
Cadmium (total)	µg/L		<0.1
Cadmium (soluble)	µg/L		<0.1
Chromium (total)	µg/L		<1
Chromium (soluble)	µg/L		<1
Cobalt (total)	µg/L		<1
Cobalt (soluble)	µg/L		<1
Conductivity	µs/cm		33400
Copper (total)	µg/L		<1
Copper (soluble)	µg/L		1
Faecal Coliforms	CFU/100mL	200	~15
Lead (total)	µg/L		<1
Lead (soluble)	µg/L		<1
Mercury (total)	mg/L		<0.0001
Mercury (soluble)	mg/L		<0.0001
Molybdenum (total)	µg/L		4
Molybdenum (soluble)	µg/L		3
Nickel (total)	µg/L		<1
Nickel (soluble)	µg/L		<1
pH	pH	6.5-8.5	7.82
Selenium (total)	µg/L		20
Selenium (soluble)	µg/L		20
Silver (total)	µg/L		<10
Silver (soluble)	µg/L		<10
Total Sus. Solids	mg/L	50	<5
Vanadium (total)	µg/L		<10
Vanadium (soluble)	µg/L		<10
Zinc (total)	µg/L		44
Zinc (soluble)	µg/L		75

Title: Monthly Environmental Report – December 2013

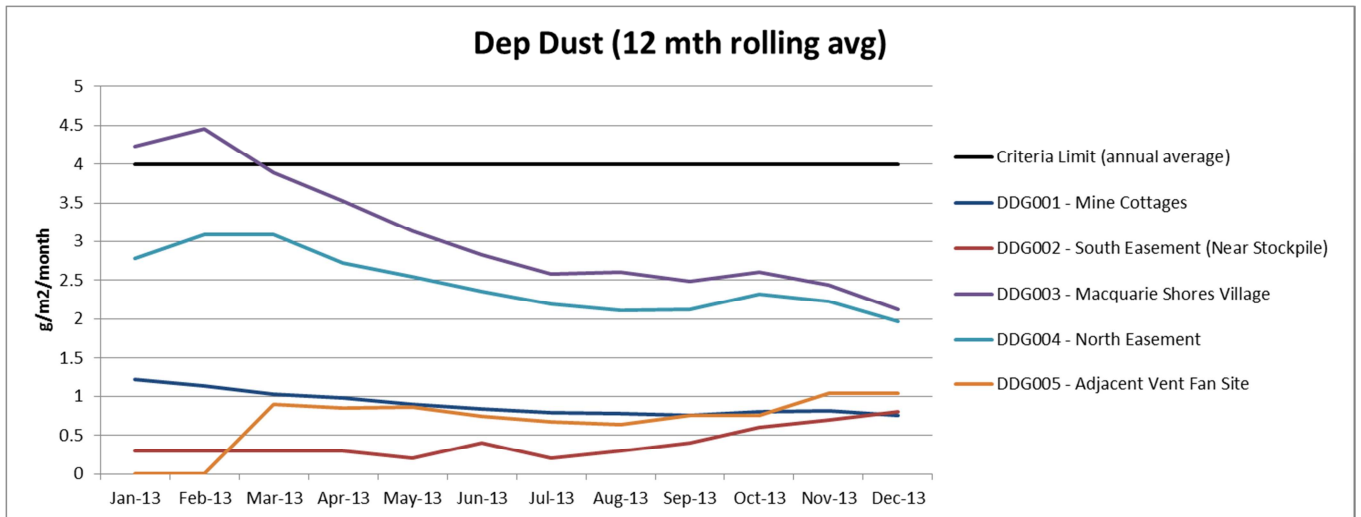
Water – Volume

December 2013		
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
01/12/2013	kL	6107
02/12/2013	kL	5469
03/12/2013	kL	6069
04/12/2013	kL	6035
05/12/2013	kL	6003
06/12/2013	kL	3949
07/12/2013	kL	5322
08/12/2013	kL	4885
09/12/2013	kL	2859
10/12/2013	kL	5845
11/12/2013	kL	5840
12/12/2013	kL	5794
13/12/2013	kL	5765
14/12/2013	kL	5718
15/12/2013	kL	2204
16/12/2013	kL	4416
17/12/2013	kL	5603
18/12/2013	kL	5582
19/12/2013	kL	5522
20/12/2013	kL	5502
21/12/2013	kL	5379
22/12/2013	kL	4923
23/12/2013	kL	5791
24/12/2013	kL	8300
25/12/2013	kL	5433
26/12/2013	kL	4789
27/12/2013	kL	3414
28/12/2013	kL	5456
29/12/2013	kL	5359
30/12/2013	kL	5351
31/12/2013	kL	5349

Dispositional Dust

December 2013	
Sampling Date	15/11/2013 to 16/12/2013
Site	Insoluble Matter (g/m ² /month)
DDG001	0.9
DDG002	2.0
DDG003	0.9
DDG004	2.1
DDG005	1.0

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



Operational Noise

Quarter 4 2013 attended noise monitoring has been undertaken, however the noise monitoring report is yet to be provided by the external consultants. Results will be included in the next monthly report.