

# LDO GROUP Report



<b>SITE:</b>	<b>Chain Valley Colliery</b>
<b>Department:</b>	<b>HSEC</b>
<b>REPORT TITLE:</b>	<b>Monthly Environmental Report – February 2014</b>
<b>Prepared by:</b>	<b>Ben Johnston</b>
<b>Report Date:</b>	<b>12 / 03 / 2014</b>
<b>Distribution:</b>	<b>Chain Valley Colliery Website</b>

## TABLE OF CONTENTS

Introduction .....	3
Scope .....	3
Definitions .....	4
References .....	4
Monitoring Results .....	5
Water – Quality .....	5
Water – Volume .....	6
Depositional 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-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 provides environmental monitoring data from Chain Valley Colliery for the period 1<sup>st</sup> February 2014 to 28<sup>th</sup> February 2014.

Details of the Chain Valley Colliery and 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=32911&amp;SYSUID=1&amp;LICID=1770">http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=32911&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 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 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/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 (February 2014 - Work Order ES1403600)

Hunter Water Laboratories - Report of Analysis (HWA-14/01457)

Steel River Testing - Dust Deposition Report February 2014 (Report 6005-0)

Development Consent SSD-5465

Project Approval 10\_0161 (as modified)

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

## Monitoring Results

### Water – Quality

February 2014	
EPL	1770
Licensee	LakeCoal Pty Ltd
Premises	Chain Valley Colliery
Date Sampled	20-Feb-14
Date Obtained	28-Feb-14
Date Reported	Refer report date
Sampling Point	1

Parameter	Units	Limit	Result
Aluminium (total)	mg/L		0.09
Aluminium (dissolved)	mg/L		0.03
Ammonia as N	mg/L		0.05
Arsenic (total)	mg/L		<0.001
Arsenic (dissolved)	mg/L		0.001
Beryllium (total)	mg/L		<0.001
Beryllium (dissolved)	mg/L		<0.001
Cadmium (total)	mg/L		<0.0001
Cadmium (dissolved)	mg/L		<0.0001
Chromium (total)	mg/L		<0.001
Chromium (dissolved)	mg/L		<0.001
Cobalt (total)	mg/L		<0.001
Cobalt (dissolved)	mg/L		<0.001
Conductivity	µs/cm		27600
Copper (total)	mg/L		<0.001
Copper (dissolved)	mg/L		<0.001
Faecal Coliforms	CFU/100mL	200	440
Lead (total)	mg/L		<0.001
Lead (dissolved)	mg/L		<0.001
Mercury (total)	mg/L		<0.0001
Mercury (dissolved)	mg/L		<0.0001
Molybdenum (total)	mg/L		0.01
Molybdenum (dissolved)	mg/L		0.007
Nickel (total)	mg/L		0.001
Nickel (dissolved)	mg/L		0.002
pH	pH	6.5-8.5	7.81
Selenium (total)	mg/L		<0.01
Selenium (dissolved)	mg/L		<0.01
Silver (total)	mg/L		<0.005
Silver (dissolved)	mg/L		<0.005
Total Sus. Solids	mg/L	50	<5
Vanadium (total)	mg/L		<0.01
Vanadium (dissolved)	mg/L		<0.01
Zinc (total)	mg/L		0.038
Zinc (dissolved)	mg/L		0.035

An exceedance of the faecal coliform criteria occurred during February, on receipt of the results (Friday 28<sup>th</sup> February) additional sampling was commissioned, which occurred the following

# Report



**Title:** CVC Monthly Environmental Report – February 2014

Monday, 3<sup>rd</sup> March. The faecal coliform result from the additional sampling was <91 CFU/100mL, which is less than half of the limit. LakeCoal is not aware of any reasons why the faecal coliform result was elevated, but elevated levels were noted at all monitoring locations, including the upstream monitoring point.

## Water – Volume

February 2014	
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
01/02/2014	kL	5369
02/02/2014	kL	5346
03/02/2014	kL	5345
04/02/2014	kL	5343
05/02/2014	kL	5343
06/02/2014	kL	5341
07/02/2014	kL	5342
08/02/2014	kL	5341
09/02/2014	kL	5343
10/02/2014	kL	5342
11/02/2014	kL	5341
12/02/2014	kL	5340
13/02/2014	kL	5341
14/02/2014	kL	5333
15/02/2014	kL	5329
16/02/2014	kL	5328
17/02/2014	kL	7394
18/02/2014	kL	11705
19/02/2014	kL	6892
20/02/2014	kL	11043
21/02/2014	kL	11686
22/02/2014	kL	10311
23/02/2014	kL	10456
24/02/2014	kL	4769
25/02/2014	kL	5340
26/02/2014	kL	6311
27/02/2014	kL	10578
28/02/2014	kL	6204

## Depositional Dust

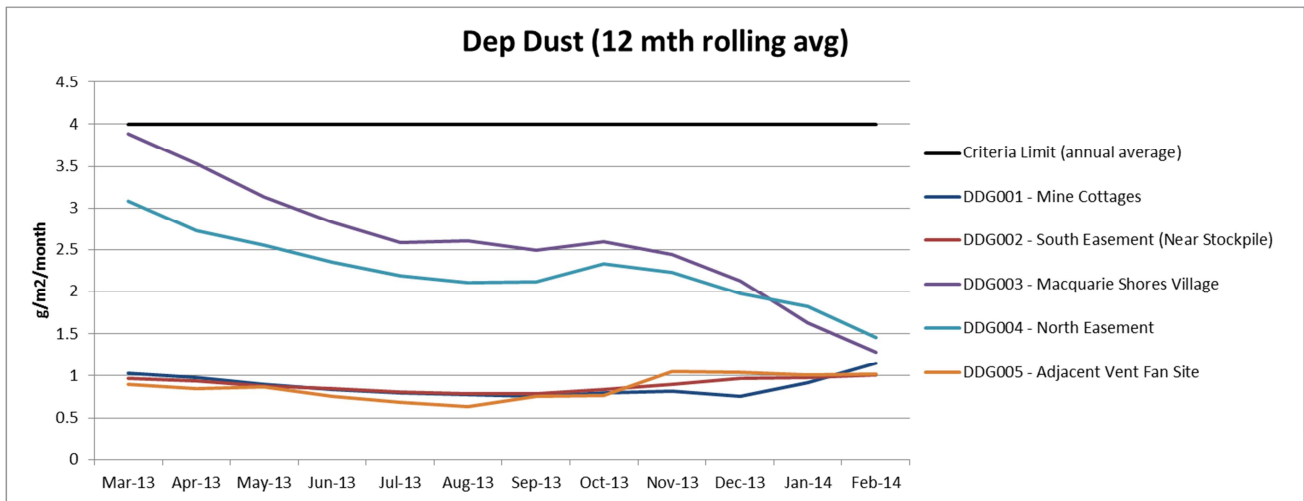
### February 2014

Sampling Date 17/01/2014 to 18/02/2014

Site	Insoluble Matter (g/m <sup>2</sup> /month)
DDG001	3.5
DDG002	1.5
DDG003	1.2
DDG004	0.6
DDG005	1.1

**Notes:**

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



## Operational Noise

The Q1 2014 noise monitoring has been undertaken, awaiting report to be completed and provided. Following receipt of the monitoring report results will be provided in the subsequent monthly report.