

LDO GROUP Report



SITE:	Chain Valley Colliery
Department:	HSEC
REPORT TITLE:	Monthly Environmental Report – January 2014
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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) 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 1st January 2013 to 31st January 2013.

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	http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=32911&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 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/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 (January 2014 - Work Order ES1400937)

Hunter Water Laboratories - Report of Analysis (HWA-14/00507)

Steel River Testing - Dust Deposition Report January 2014 (Report 5842-0)

Development Consent SSD-5465

Project Approval 10_0161 (as modified)

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

Global Acoustics - Chain Valley Colliery – Environmental Noise Monitoring Quarter 4 2013

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Monitoring Results

Water – Quality

January 2014			
EPL	1770		
Licensee	LakeCoal Pty Ltd		
Premises	Chain Valley Colliery		
Date Sampled	20-Jan-14		
Date Obtained	28-Jan-14		
Date Reported	Refer report date		
Sampling Point	1		
Parameter	Units	Limit	Result
Aluminium (total)	mg/L		0.94
Aluminium (dissolved)	mg/L		0.03
Ammonia as N	mg/L		0.06
Arsenic (total)	mg/L		0.002
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		12400
Copper (total)	mg/L		0.005
Copper (dissolved)	mg/L		<0.001
Faecal Coliforms	CFU/100mL	200	~110
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		0.003
Molybdenum (dissolved)	mg/L		0.003
Nickel (total)	mg/L		0.002
Nickel (dissolved)	mg/L		0.002
pH	pH	6.5-8.5	7.15
Selenium (total)	mg/L		<0.01
Selenium (dissolved)	mg/L		<0.01
Silver (total)	mg/L		<0.001
Silver (dissolved)	mg/L		<0.001
Total Sus. Solids	mg/L	50	<5
Vanadium (total)	mg/L		<0.01
Vanadium (dissolved)	mg/L		<0.01
Zinc (total)	mg/L		0.012
Zinc (dissolved)	mg/L		0.136

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Water – Volume

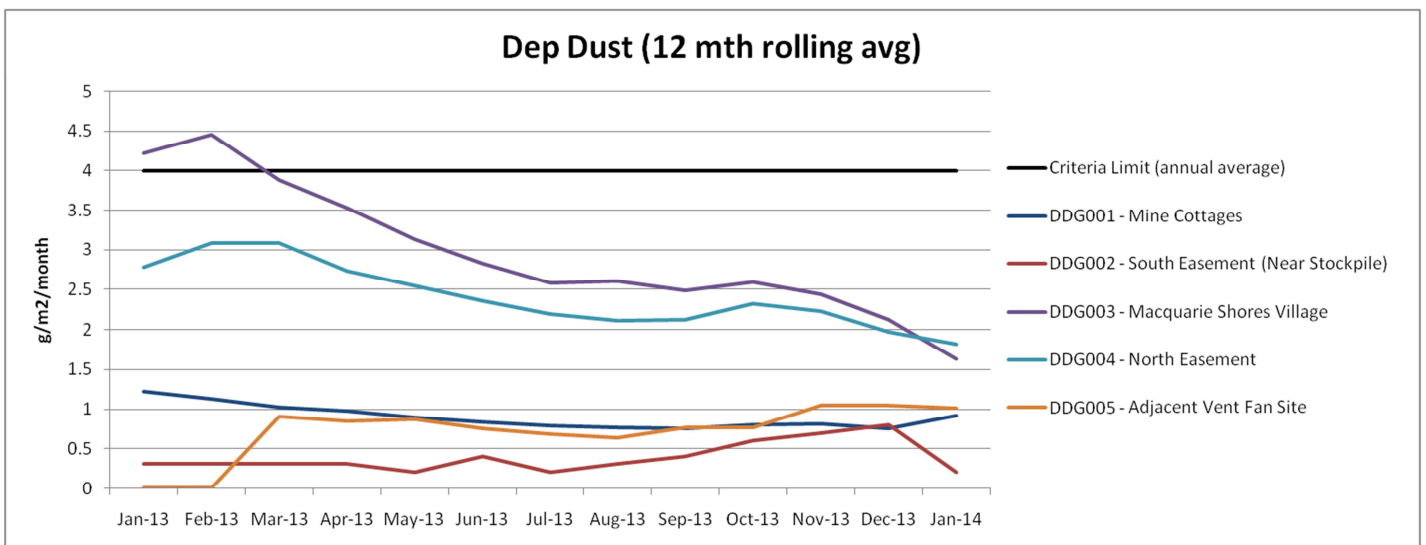
January 2014	
EPL	1770
Licensee	LakeCoal Pty Ltd
Premises	Chain Valley Colliery
Date Sampled	Daily
Date Reported	Refer report date
Discharge volume limit	12161 kilolitres per day
Sampling Point	1

Date (24 hour period)	Unit	Volume
01/01/2014	kL	5349
02/01/2014	kL	5349
03/01/2014	kL	5345
04/01/2014	kL	5335
05/01/2014	kL	9626
06/01/2014	kL	11677
07/01/2014	kL	9044
08/01/2014	kL	8461
09/01/2014	kL	5830
10/01/2014	kL	5454
11/01/2014	kL	11691
12/01/2014	kL	10315
13/01/2014	kL	11665
14/01/2014	kL	10605
15/01/2014	kL	11671
16/01/2014	kL	8358
17/01/2014	kL	5301
18/01/2014	kL	5324
19/01/2014	kL	5298
20/01/2014	kL	5305
21/01/2014	kL	5020
22/01/2014	kL	5339
23/01/2014	kL	5342
24/01/2014	kL	5340
25/01/2014	kL	5154
26/01/2014	kL	5343
27/01/2014	kL	5344
28/01/2014	kL	4136
29/01/2014	kL	5358
30/01/2014	kL	4728
31/01/2014	kL	4098

Depositional Dust

January 2014	
Sampling Date	16/12/2013 to 17/01/2014
Site	Insoluble Matter (g/m ² /month)
DDG001	3.2
DDG002	1.0
DDG003	0.4
DDG004	1.2
DDG005	0.7

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



Operational Noise

Quarter 4 2013 attended noise monitoring has been undertaken, with the results shown below.

A one decibel exceedances of the LA_{eq (15min)} criteria occurred within in the reporting period during evening and night monitoring periods at receiver ATN007, as a result of noise from the Colliery ventilation fans.

LAeq (15 min) attended noise monitoring results – Quarter 4 2013			
Location	Date / Time	Criteria LAeq dB	LAeq dB (from Colliery)
Day			
ATN001	20/11/2013 16:45	35	Inaudible
ATN002	20/11/2013 15:10	51	Inaudible
ATN003	20/11/2013 16:10	37	Inaudible
ATN004	20/11/2013 14:38	36	Inaudible
ATN005	20/11/2013 14:03	36	Inaudible
ATN006	20/11/2013 13:34	40	Inaudible
ATN007	20/11/2013 12:46	40	38
Evening			
ATN001	27/11/2013 20:37	35	Inaudible
ATN002	27/11/2013 20:08	50	30
ATN003	20/11/2013 18:27	37	Inaudible
ATN004	27/11/2013 19:44	36	Inaudible
ATN005	27/11/2013 19:15	36	Inaudible
ATN006	27/11/2013 18:51	40	NM
ATN007	27/11/2013 18:22	40	41
Night			
ATN001	28/11/2013 1:22	35	Inaudible
ATN002	28/11/2013 0:07	50	35
ATN003	28/11/2013 0:55	37	34
ATN004	27/11/2013 23:44	36	26
ATN005	27/11/2013 23:16	36	Inaudible
ATN006	27/11/2013 22:52	40	Inaudible
ATN007	27/11/2013 22:21	40	41
Notes: For monitoring locations refer to Noise Management Plan			

LA1 (1min) attended noise monitoring results – Quarter 4 2013			
Location	Date / Time	Criteria LA1 dB	LA1 dB (from Colliery)
Night			
ATN001	28/11/2013 1:22	45	Inaudible
ATN002	28/11/2013 0:07	54	35
ATN003	28/11/2013 0:55	45	35
ATN004	27/11/2013 23:44	45	27
ATN005	27/11/2013 23:16	45	Inaudible
ATN006	27/11/2013 22:52	45	Inaudible
ATN007	27/11/2013 22:21	45	41
Notes: For monitoring locations refer to Noise Management Plan			