

LDO GROUP Report



SITE:	Mannering Colliery
Department:	HSEC
REPORT TITLE:	Monthly Environmental Report – April 2015
Prepared by:	Chris Ellis
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Distribution:	Mannering Colliery Website

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Summary

During April 2015 there were two exceedances of the total suspended solids (TSS) criteria detected during daily water sampling. These occurred on 5 April and 21 April in association with rainfall events on 4 April and 21 April, with over 100mm of rain recorded on each of these days. Daily rainfall records during April are provided within the Weather section of this report. In both instances the exceedances were reported to the EPA environment line and written reports on the events subsequently submitted to the EPA.

Introduction

LakeCoal Pty Ltd (LakeCoal) operates the Mannering Colliery, an underground coal mine at the southern end of Lake Macquarie.

This monthly report is to satisfy the requirements of;

- section 66(6) of the Protection of the Environment Operations Act, 1997, to make monitoring data related to an Environment Protection Licence publically available and
- condition 7 & 10, schedule 5, of Development Approval 06_0311 (as modified) to provide details of monitoring results and environmental performance.

This report provides environmental monitoring data from Mannering Colliery for the period 1 April 2015 to 30 April 2015.

Environmental monitoring data is collected as required under Environment Protection Licence 191 (EPL 191).

Details of the Mannering Colliery and EPL 191 are provided below.

Mannering Colliery Information	
Premises name	Mannering Colliery
Address	Rutleys Road, Doyalson, NSW, 2262
Licensee	LakeCoal Pty Ltd
EPL #	191
EPL location	http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33196&SYSUID=1&LICID=191

The overall purpose of this report is to keep stakeholders informed of the environmental monitoring results at Mannering Colliery and maintain a transparent and accountable reporting system.

Scope

This report presents the results from the various environmental monitoring undertaken for Mannering Colliery.

Results are presented for each specific month and annual data, averages and trends in data are shown to where relevant.

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;
- Air quality;
- Operational noise; and
- Weather data

Definitions

°C – degrees celsius

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

mm – millimetre

µS/cm – microsiemens per centimetre

References

Project Approval 06_0311 (as modified)

Environment Protection Licence 191 (Licence version date: 29 October 2013)

Steel River Testing - Dust Deposition Report – April 2015 (Report 8615-0)

ALS Environmental - Monthly Water Monitoring Results (April 2015)

Title: Monthly Environmental Report – April 2015

Monitoring Results

Water – Quality

Daily Water Quality Results

Apr-15			
EPL	191		
Licensee	LakeCoal Pty Ltd		
Premises	Manning Colliery		
Period	01-Apr-15	to	30-Apr-15
Location	LDPO01 (EPA ID # 1)		
Date sampled	Daily		
Date reported	Refer report date		
Monitoring requirement	Daily monitoring during discharge		
pH limit	6.5 - 8.5		
TSS limit (mg/L)	50		
Oil and grease limit (mg/L)	10		
Exceedance (Yes/No)	Yes		
Daily Water Quality Results			
Date	pH	TSS (mg/L)	Oil and grease (mg/L)
01/04/2015	7.9	7	<5
02/04/2015	7.7	9	<5
03/04/2015			
04/04/2015	8.4	33	<5
05/04/2015	7.6	56	<5
06/04/2015			
07/04/2015	7.8	37	<5
08/04/2015	7.8	6	<5
09/04/2015	7.8	15	<5
10/04/2015	7.8	10	<5
11/04/2015			
12/04/2015			
13/04/2015	7.8	10	<5
14/04/2015	7.8	8	<5
15/04/2015	7.6	1	<5
16/04/2015	7.9	6	<5
17/04/2015	7.9	<1	<5
18/04/2015			
19/04/2015			
20/04/2015	7.8	2	<5
21/04/2015	7.8	58	<5
22/04/2015	7.9	17	<5
23/04/2015	7.8	25	<5
24/04/2015	7.9	4	<5
25/04/2015			
26/04/2015			
27/04/2015	7.9	4	<5
28/04/2015	7.8	7	<5
29/04/2015	7.7	<1	<5
30/04/2015	7.8	14	<5
Notes:			
Monitoring undertaken daily during water discharges			
Refer comments on TSS exceedances in report summary			

Monthly Water Quality Results

April 2015	
EPL	191
Licensee	LakeCoal Pty Ltd
Premises	Mannering Colliery
Date Sampled	14-Apr-15
Date Obtained	24-Apr-15
Date Reported	Refer report date
Sampling Point	1

Parameter	Units	Limit	Result
Aluminium (Dissolved)	µg/L		<100
Aluminium (Total)	µg/L		<100
Antimony	µg/L		<10
Arsenic (Dissolved)	µg/L		<10
Arsenic (Total)	µg/L		<10
Barium	µg/L		288
Beryllium (Dissolved)	µg/L		<10
Beryllium (Total)	µg/L		<10
Boron	µg/L		<500
Cadmium (Dissolved)	µg/L		<1
Cadmium (Total)	µg/L		<1
Calcium	mg/L		140
Chromium (Dissolved)	µg/L		<10
Chromium (Total)	µg/L		<10
Cobalt (Dissolved)	µg/L		<10
Cobalt (Total)	µg/L		<10
Conductivity	µs/cm		27300
Copper (Dissolved)	µg/L		<10
Copper (Total)	µg/L		<10
Iron	µg/L		<500
Lead (Total)	µg/L		<10
Lead (dissolved)	µg/L		<10
Lithium	µg/L		612
Magnesium	mg/L		284
Manganese (dissolved)	µg/L		36
Mercury (Total)	µg/L		<0.1
Mercury (dissolved)	µg/L		<0.1
Molybdenum (Dissolved)	µg/L		12
Molybdenum (Total)	µg/L		15
Nickel (Dissolved)	µg/L		<10
Nickel (Total)	µg/L		<10
Nitrogen (Ammonia)	mg/L		1.03
Phosphorous (Total)	mg/L		<0.02
Potassium	mg/L		39
Selenium (Dissolved)	µg/L		<100
Selenium (Total)	µg/L		<100
Silica	mg/L		14.3
Silver (Total)	µg/L		<10
Silver (dissolved)	µg/L		<10
Sulfur	mg/L		130
Tin (Total)	µg/L		<10
Titanium (Total)	µg/L		<100
Vanadium (Dissolved)	µg/L		<100
Vanadium (Total)	µg/L		<100
Zinc (Dissolved)	µg/L		<50
Zinc (Total)	µg/L		<50

Water – Volume

April 2015		
EPL	191	
Licensee	LakeCoal Pty Ltd	
Premises	Mannering Colliery	
Date Sampled	Daily	
Date Reported	Refer report date	
Discharge volume limit	4000 kilolitres per day	
Sampling Point	LDPO01 (EPA ID # 1)	
Date (24 hour period)	Unit	Volume
01/04/2015	kL	1216
02/04/2015	kL	1192
03/04/2015	kL	0
04/04/2015	kL	3461
05/04/2015	kL	1154
06/04/2015	kL	0
07/04/2015	kL	0
08/04/2015	kL	936
09/04/2015	kL	2094
10/04/2015	kL	1216
11/04/2015	kL	0
12/04/2015	kL	0
13/04/2015	kL	1173
14/04/2015	kL	3062
15/04/2015	kL	3054
16/04/2015	kL	1815
17/04/2015	kL	631
18/04/2015	kL	0
19/04/2015	kL	0
20/04/2015	kL	1290
21/04/2015	kL	5913
22/04/2015	kL	5558
23/04/2015	kL	2814
24/04/2015	kL	1693
25/04/2015	kL	0
26/04/2015	kL	0
27/04/2015	kL	1048
28/04/2015	kL	2160
29/04/2015	kL	2149
30/04/2015	kL	2120

Note that on the 21 April and 22 April volumes discharged exceeded the 4000 kL limit prescribed in Condition L3.1 of EPL 191, however, Condition L3.2 stipulates that:

“Exceedance of the volume limit for Point 1 is permitted only if the discharge from Point 1 occurs solely as a result of rainfall at the premises exceeding 10mm during the 24 hours immediately prior to the commencement of discharge”

In both these cases, rainfall levels significantly exceeded 10mm in the prior 24 hours, with over 70mm recorded on 20 April and over 150mm recorded on 21 April.

Air Quality

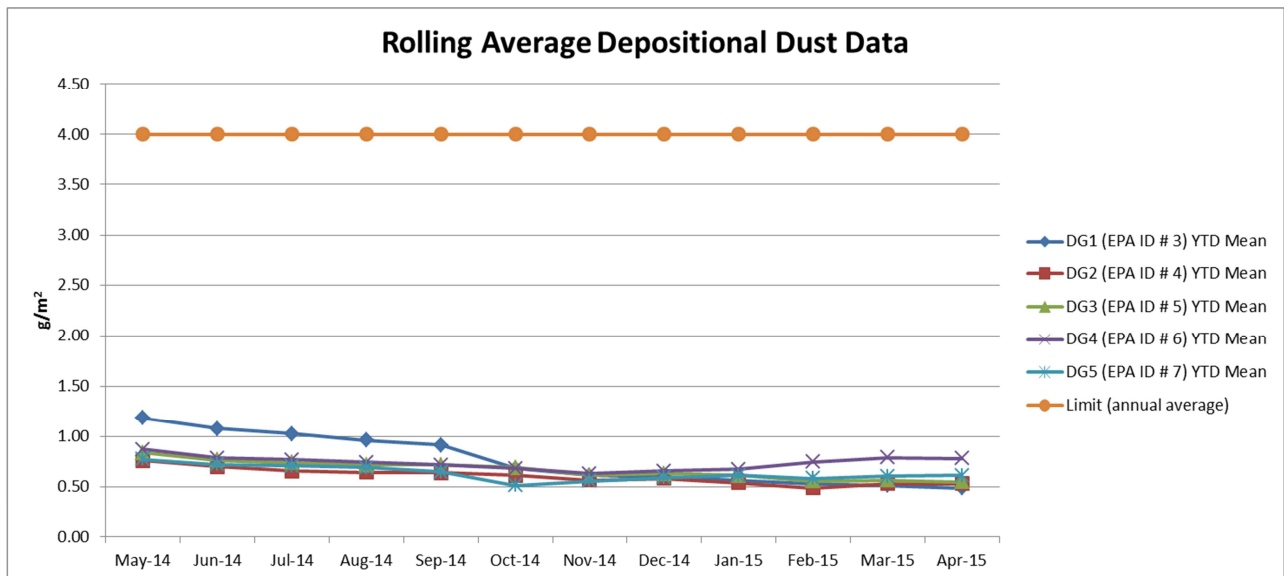
Monthly depositional dust results

Monthly Depositional Dust Data			
April 2015			
EPL	191		
Licensee	LakeCoal Pty Ltd		
Premises	Mannering Colliery		
Date Sampled	20-Mar-15	to	17-Apr-15
Date Obtained	30-Jan-15		
Date Reported	Refer report date		
Sampling Point	As per site below		

Site	Insoluble Matter (g/m ² /month)
DG1 (EPA ID # 3)	0.5
DG2 (EPA ID # 4)	0.4
DG3 (EPA ID # 5)	0.5
DG4 (EPA ID # 6)	0.6
DG5 (EPA ID # 7)	0.5

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

Rolling annual average depositional dust results



Operational Noise

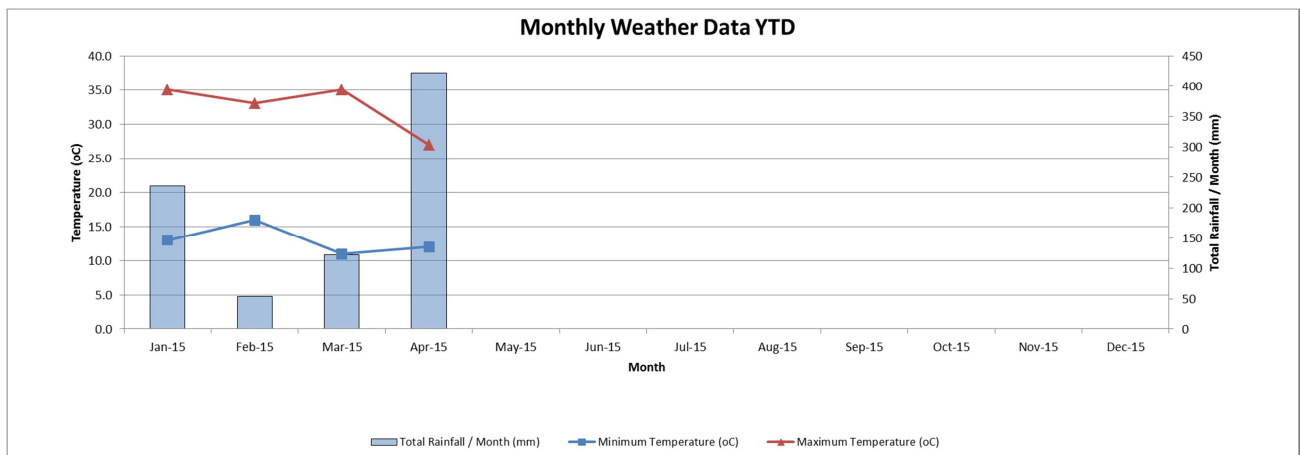
Quarter 2 2015 attended noise monitoring has not yet been completed.

Results will be provided once the monitoring results become available from the noise monitoring consultants.

Weather

A summary of weather data recorded by an on-site meteorological monitoring station at the Colliery is presented below for the year to date.

Monthly Weather Data			
Mar-15			
EPL	191		
Licensee	Lake Coal Pty Ltd		
Premises	Mannering Colliery		
Location	W1 (on-site weather station)		
Date published	Refer report date		
Date sampled:	Daily		
Date obtained:	12/05/2015		
Month	Total Rainfall / Month (mm)	Minimum Temperature (°C)	Maximum Temperature (°C)
Jan-15	235.4	13	35
Feb-15	54.2	16	33
Mar-15	122.4	11	35
Apr-15	422.2	12	27



Note: Temperature results do not include data from the 8/4/15 to 16/4/15 due to lost data.

Daily Rainfall Data - April 2015

